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COMMAND AND CONTROL

U.S. AIR FORCE

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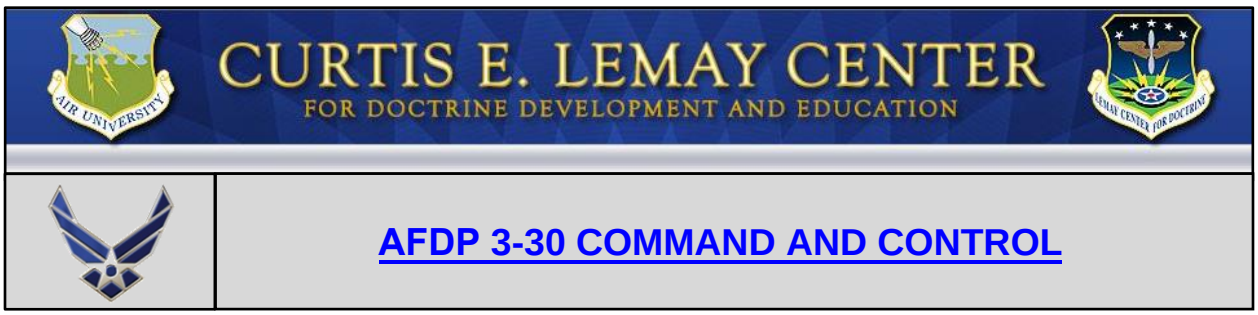

CATALOG OF DOCTRINE TOPICS

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AFDP 3-30 COMMAND AND CONTROL

INTRODUCTION TO COMMAND AND CONTROL

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THE AIR COMPONENT COMMANDER

Successful command and control (C2) of Air Force operations begins with the commander. Joint forces are made up of a mixture of Service component commanders assigned or allocated to the joint force commander (JFC) (e.g., the commander, Air Force forces [COMAFFOR]) and functional component commanders designated by the JFC (e.g., joint force air component commander [JFACC]).

Functional component commanders are designated by the JFC when forces of two or more Military Departments must operate within the same mission area or physical domain. The JFC designates a JFACC to establish unity of command and unity of effort for joint air operations. The Service component commander with the preponderance of forces and the ability to C2 joint air forces should be designated as the JFACC. The JFACC is normally designated as the area air defense commander (AADC) and the airspace control authority (ACA) because these three roles (JFACC, AADC and ACA) are integral to each other.

The COMAFFOR has responsibilities and authorities derived from his or her roles in fulfilling the Service's

> *It is a given in future conflicts that the joint force will be conducting operations in a contested environment. We must be prepared to execute in a degraded C2 environment where clearly delineated and forward thinking commander's intent will be a requirement. It is imperative senior leaders provide our commanders with conditions-based authorities delegated to the lowest capable and competent level, and empower command by negation to accept the appropriate level of risk, all while working toward moments of clear C2.*[1]
>
> **- General Charles Q. Brown, Jr., Commander, Pacific Air Forces**

[1] Conditions-based authorities are procedures for predetermining delegation of authority to subordinate commanders in anticipation of degraded or lost communication with higher headquarters. Command by negation allows subordinate commanders to conduct operations as they see fit unless denied by their superior. Details for these procedures are provided in documents such as the air operations directive, area air defense plan, airspace control plan, special instructions, and other amplifying guidance.

administrative control (ADCON) function. ADCON is the authority necessary to fulfill Military Department Title 10[2] responsibilities for administration, support, and organizing, training and equipping Air Force forces and is normally the senior Airman in theater.

The JFC in almost all cases designates the COMAFFOR as the JFACC. In accordance with joint doctrine, the dual-designated air component commander will exercise operational control (OPCON) and ADCON over Air Force forces as the COMAFFOR, and tactical control (TACON) over Air Force forces and other Services' forces made available for tasking as the JFACC.

Since the COMAFFOR and JFACC are nearly always the same individual, this annex makes use of the term, "air component commander" when referring to duties or functions that could be carried out by either or both, clearly delineating COMAFFOR or JFACC (or their respective staffs) only when discussing functions that are unique to one or the other.

Control of Airpower in Contested Environments

Air operations against a peer adversary in a contested environment are C2 intensive, with a joint or combined air operations center orchestrating a multitude of simultaneous missions in support of the JFC. Using air, space, cyberspace and electromagnetic warfare assets, the mission commanders (TACON to the air component commander) plan different types of "packages" to defeat integrated air defense systems, interdict C2 and fielded forces, and gain control of the air. During these operations, forward based airpower can conduct air operations based on a standing "integrated tasking order" (ITO). In this air equivalent of mission command, forward based air expeditionary wings or task forces receive conditions based authorities with standing orders and commander's intent on the ITO. This empowers subordinate commanders with the flexibility to provide coverage of key defensive counterair combat air patrols (CAPs); air interdiction kill boxes; suppression of enemy air defense CAPs; close air support; or intelligence, surveillance, and reconnaissance in support of surface forces. This decentralized execution model enables local commanders to maintain pressure on the enemy even when disconnected from communications with higher headquarters due to a contested environment against a peer or near-peer adversary.

[2] See United States Code, Title 10, *Armed Forces*, Subtitle D – Air Force.

KEY CONSIDERATIONS OF COMMAND AND CONTROL

Commanders should be cognizant of the authorities they are given and their relationships under that authority with superior, subordinate, and lateral force commanders. Command relationships should be clearly defined to avoid confusion. The command of airpower requires intricate knowledge of the capabilities and interdependencies of forces employed, and an understanding of the JFC's intent.

ORGANIZING FOR COMMAND AND CONTROL

Modern military operations must execute across the competition continuum in a complex global security environment. This requires the right mix of forces with clearly defined command relationships and appropriate command and control mechanisms.

C2 and organization are inextricably linked. Forces should be organized around the principle of unity of command. Clear lines of authority, with clearly identified commanders at appropriate echelons, exercising appropriate control, are essential to achieving unity of effort, reducing confusion, and maintaining priorities. Commanders should be clearly identified and empowered with appropriate operational and administrative command authorities, and appropriate joint command arrangements should be clearly specified to integrate effects across Service lines. Air Force expeditionary organization and preferred command arrangements are designed to address unity of command.

When Air Force forces are assigned or attached as part of a joint force at any level (i.e., combatant command, subordinate unified command or joint task force), they become the Air Force Service component to that JFC. All Air Force Service components have three common features: Air Force forces tailored to the needs of the JFC and the tasks to be performed, a single designated air component commander, and the appropriate mechanisms and authorities to command the Air Force forces.

The manner in which attached Air Force expeditionary forces are organized will depend upon whether or not there is an existing Air Force C2 structure in place. Combatant commands (e.g., US Indo-Pacific Command) and subordinate unified commands (e.g., United States Forces Korea) have Air Force Service components with an established Air Force C2 structure. Depending upon the combatant commander, the Air Force Service component may be either a component major command (e.g., Pacific Air Forces) or a component numbered air force (e.g., First Air Force [Air Forces Northern])

Additional Air Force expeditionary forces attached to a combatant commander should normally organize within the existing Air Force Service component. For instance, an F-16 squadron deployed from Shaw Air Force Base (AFB) for operations at Misawa Airbase, Japan, should normally be designated as an expeditionary fighter squadron (EFS), (e.g., 55 EFS) and should be organized under the in-place 35th Fighter Wing at Misawa. However, if the combatant commander elects to establish a joint task force (JTF) to include attached Air Force forces, there is no in-place Air Force command structure for the JTF. In this case, a temporary air expeditionary task force (AETF)

would be formed as the Air Force Service component to the JTF. The commander of the AETF would either be the COMAFFOR directly responsible to the JTF commander, or established in a supporting role to the JTF under the authority of the theater air component commander.

Some capabilities may not be organic to the component and may be made available through a supported / supporting command relationship, or be made available through reachback or distributed C2 arrangements.

COMMANDING AIRPOWER

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OPERATIONAL AND ADMINISTRATIVE BRANCHES OF THE CHAIN OF COMMAND

The President and the Secretary of Defense (SecDef) exercise authority and control of the armed forces through two distinct branches of the chain of command and control (C2). One branch runs from the President, through the SecDef to the combatant commanders (CCDRs) for missions and forces assigned to their commands. This is commonly referred to as the "operational branch" of the chain of command. The "administrative branch" of the chain of command, runs from the President, through the SecDef, to the Secretaries of the Military Departments, and as prescribed by the Secretaries, to the commanders of military Service forces.

The Secretaries of the Military Departments exercise administrative control (ADCON) over Service forces through their respective Service chiefs and Service commanders. The Service chiefs, except as otherwise prescribed by law, perform their duties under the authority, direction, and control of the Secretaries of the respective military Departments to whom they are directly responsible.

The two branches of the chain of command merge at the air component commander. Within the administrative branch, the commander, Air Force forces (COMAFFOR) is delegated ADCON over assigned and attached Air Force forces from the Air Force chain of command. Simultaneously, within the operational branch, the COMAFFOR is delegated OPCON over assigned and attached Air Force forces, and ensures forces are properly organized, trained, and equipped to be employed in support of the joint force commander's (JFC's) operational requirements.

In summary, the air component commander normally holds both administrative (ADCON) and operational control (OPCON) authority over Air Force forces and tactical control (TACON) over other assigned or attached joint air forces.

THE JOINT FORCE AIR COMPONENT COMMANDER (JFACC)

The JFACC should be the Service component commander with the preponderance of forces to be tasked and the ability to plan, task, and control joint air operations. If working with allies in a coalition or alliance operation, the JFACC may be designated as the combined force air component commander (CFACC).

The JFACC recommends the proper employment of air component forces. The JFACC also plans, coordinates, allocates, tasks, executes, and assesses joint air operations to accomplish assigned operational missions. **Because of the wide scope of joint air operations, the JFACC typically maintains a similar theater-wide or joint operations area (JOA)-wide perspective as the JFC.**

Some of the JFACC tasks are listed below:

- ✪ Make recommendations to the JFC on proper employment of forces in air, space, and cyberspace.
- ✪ Accomplish assigned tasks for operational missions.
- ✪ Develop and recommend courses of action (COAs) to the JFC.
- ✪ Develop a strategy and operation plan that incorporates multi-domain solutions to fully exploit air, space, and cyberspace capabilities to support the JFC's objectives.
- ✪ Develop a joint air operations plan (JAOP) and air, space and cyberspace operations directive(s) to support the JFC's objectives.
- ✪ Recommend and implement, when passed down by the JFC, theater rules of engagement.
- ✪ Make air apportionment recommendations to the JFC.
- ✪ Normally serve as the supported commander for the following operations as directed by the JFC. As the supported commander, the JFACC has the authority to designate the target priority, effects, and timing of these operations. The JFACC also has authority to attack targets across the entire JOA in accordance with JFC guidance, to include coordinated targets within land and maritime areas of operations (AOs).
  - ✪✪ Defensive counterair and offensive counterair.
  - ✪✪ Close air support (CAS).
  - ✪✪ Airborne intelligence, surveillance, and reconnaissance and incident awareness and assessment.
  - ✪✪ Air mobility operations.

- ✪✪ Strategic attack.

- ✪✪ Air interdiction.

- ✪ Normally serve as supporting commander, as directed by the JFC, for operations such as CAS, air interdiction within other components' AOs, and maritime support.

- ✪ If so designated, act as airspace control authority (ACA), area air defense commander (AADC), space coordinating authority (SCA), and develop plans and products associated with these responsibilities.

  - ✪✪ Conduct, control, coordinate, and integrate such aspects of space, cyberspace, and information operations as are delegated to the JFACC by the JFC.

- ✪ As required, perform the duties of the personnel recovery coordinator, including combat search and rescue (CSAR).

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

- ✪ Coordinate support for special operations requirements with the joint force special operations component commander or the joint special operations task force commander.

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

- ✪ Provide lateral liaisons with Army, Navy, Marines, and special operations components; as well as multinational and coalition partners; and integrate joint and partner liaisons into JFACC processes.

Refer to JP 3-30, *Joint Air Operations*, for more discussion of the JFACC.

THE COMMANDER, AIR FORCE FORCES

The COMAFFOR is the Air Force commander of an Air Force Service component command assigned or attached to a JFC at the unified combatant command, subordinate unified command, or joint task force (JTF) level. At the unified combatant command level, the CCDR's Air Force Service component is specified in the Secretary of Defense's (SecDef's) *Forces for Unified Commands* memorandum. The SecDef or CCDR may elect to permanently establish a subordinate unified command or temporarily establish a subordinate JTF as part of his or her organizational structure. **Thus, in a theater without a dedicated air operations center or numerous air expeditionary task forces exist, the position of COMAFFOR may exist simultaneously at different levels within a given theater as long as each COMAFFOR is separately assigned or attached to a different JFC.**

Command authorities are explained in more detail in Appendix A.

The COMAFFOR should normally be designated at a command level above the operating forces and should not be dual-hatted as commander of one of the subordinate operating units. This allows the COMAFFOR to focus at the operational level of war, while subordinate commanders lead their units at the tactical level of war.

Operational Responsibilities of the COMAFFOR

When Air Force forces are assigned or attached to a JFC, the JFC normally receives OPCON of these forces. This authority is best exercised through subordinate JFCs and Service component commanders and thus is normally delegated accordingly. **If not delegated OPCON, or if the stated command authorities are not clear, the COMAFFOR should request delegation of OPCON.**

Administrative Responsibilities of the COMAFFOR

Commanders of Air Force Service components have responsibilities and authorities that derive from their roles in fulfilling the Service's ADCON function. ADCON is the authority necessary to fulfill Military Department Title 10 responsibilities for administration and support. Among these responsibilities are:

- Organization of Service forces
- Control of resources and equipment
- Personnel management
- Logistics
- Individual and unit training
- Readiness
- Mobilization & demobilization
- Discipline

[General MacArthur] had finished his talk, when one of the correspondents said, "General, what is the Air Force doing today?" General MacArthur said, "Oh, I don't know. Go ask General Kenney." The newspaperman said, "General, do you mean to say you don't know where the bombs are falling?" MacArthur turned to him, grinned, and said, "Of course I know where they are falling. They are falling in the right place. Go ask General Kenney where it is."

— George C. Kenney,
General Kenney Reports: A Personal History of the Pacific War

- ✪ Other matters not included in the operational missions of the subordinate or other organizations.

The COMAFFOR should be focused on and have authority for those administrative branch tasks that are necessary to carry out the operational branch tasks as assigned by the JFC. Within the administrative branch, the COMAFFOR has ADCON of all assigned Air Force Service component forces. However, for non-assigned Air Force forces attached to the Air Force Service component, the forward COMAFFOR should normally have ADCON over those specific elements of administrative branch responsibilities necessary to carry out the JFC's operational missions. Which specific elements of ADCON are delegated to the forward COMAFFOR and which are retained by the home unit chain of command may require negotiation between the COMAFFOR and the force provider and should be delineated in the appropriate deployment orders.

As the Service component commander to a JFC at any level, the COMAFFOR has the following responsibilities commensurate with all attached forces, regardless of MAJCOM or Air Force component (Regular, Guard, or Reserve):

- ✪ Organize, train, and sustain assigned and attached Air Force forces for CCDR-assigned missions.
    - ✪✪ Prescribe the chain of command within the Air Force Service component.
    - ✪✪ Maintain reachback between the Air Force component and other supporting Air Force elements. Delineate responsibilities between forward and rear elements.
    - ✪✪ Provide training in Service-unique doctrine, tactical methods, and techniques.
    - ✪✪ Provide for logistics and mission support functions normal to the command.
- ✪ Provide the JFC timely information on changes in logistics support that will affect operations.
- ✪ Maintain internal administration and ensure good order and discipline in accordance with the Uniform Code of Military Justice.
- ✪ Establish force protection and other local defense requirements.
- ✪ Provide Service intelligence matters and oversight of intelligence activities to ensure compliance with laws, executive orders, policies, and directives.
- ✪ Oversee the morale, welfare, safety, and security of assigned and attached forces.

Overlapping and interconnecting areas of ADCON shared among the various commanders make it essential that appropriate written orders clearly state which elements of ADCON authority and responsibility are executed by which commander.

The COMAFFOR also has some ADCON responsibilities for Air Force elements and personnel assigned to other joint force components (such as liaisons). For reserve component forces, the Air National Guard and Air Force Reserve Command retain all other ADCON responsibilities, such as Reserve Component activation, inactivation, partial mobilization, and length of tour. Additionally, antitheater forces, such as intertheater airlift and forces transiting another COMAFFOR's area of interest, are subject to the ADCON authority of the respective COMAFFOR while transiting that COMAFFOR's area for administrative reporting and for TACON for force protection requirements derived from the geographic CCDR.

COMAFFOR Authority to Declare Air Force Forces as "Organic"

Historically the Air Force has made all Air Force Service component forces available for tasking by the JFC. However, it may be necessary to designate some Air Force forces as "organic" to the Air Force Service component. These organic Air Force forces would be those that are necessary for the COMAFFOR to properly organize, train, equip, and employ Air Force forces to accomplish JFC objectives. Organic forces may be those Air Force forces that are necessary and essential for the COMAFFOR to carry out his or her responsibilities in either the administrative or the operational branch. **In simple terms, the Air Force Service component cannot function as designed without organic forces**.

Designation of a force as organic does not usurp the JFC's authority to direct how that force will be used or to whom it may be further attached. However, such decisions for internal Service reorganization or transfer of organic forces should only be done in consultation with the Service component commander. It is the Service component commander who has the necessary expertise to understand the immediate impact and long term mission cost of reorganizing Service forces. If an organic force is removed from its parent command then the JFC must accept the risk that the Air Force Service component can no longer perform the functions for which it was provided in the manner for which it was designed. Ultimately it is the decision of the JFC to accept the risk but it is the duty of the COMAFFOR to fully inform the JFC of the risk of transferring organic forces.

COMAFFOR Use of Commercial Support to Operations

Commercial support to operations[3] (CSO) includes commercially procured Host-Nation Support acquired through Acquisition and Cross-Serving Agreements or Mutual Logistics and Services Agreements and Operational Contract Support. CSO augments Air Force forces, as necessary, to accomplish JFC objectives. As the use of CSO increases, successful employment relies on proper planning, execution, and management.

[3] Also known as "contractor support to operations" (Joint Publication 1-02, *DOD Dictionary of Military and Associated Terms*).

The COMAFFOR has responsibility for CSO personnel operating under the jurisdiction of his or her command. The COMAFFOR can receive CSO from another Service, combat support agency, or a joint contracting organization. Identifying and evaluating risks when using CSO is critical to establishing the proper force employment strategy. Ultimately, it is the decision of the COMAFFOR whether to use CSO or where and when in the operation to utilize the capability.

COMAFFOR Responsibilities Specific to Commercial Support Operations

When the COMAFFOR employs CSO, he or she has the following responsibilities:

- ✪ Determine the most appropriate source of commercial support to the operation.
- ✪ Perform risk assessment and vendor threat mitigation of contracted support to the operation, partner nations, and/or other host nation.
- ✪ Provide logistics support and base life support to contracted personnel accompanying the force on the land, sea, or air
- ✪ Develop appropriate supporting plans and implement information management tools to:
  - ✪✪ Monitor and prioritize contract support requirements.
  - ✪✪ Track contractor personnel with base access and logistics support.
  - ✪✪ Report contractor accountability.
  - ✪✪ Determine arming authorizations for contracted personnel.
  - ✪✪ Evaluate contractor performance.

COMAFFOR Responsibilities Specific to a Combatant Commander

When the COMAFFOR is the CCDR's Air Force Service component commander, he or she also has the following additional operational and administrative responsibilities:

- ✪ Develop program and budget requests that comply with CCDR guidance on war-fighting requirements and priorities.
- ✪ Inform the CCDR (and any intermediate JFCs) of program and budget decisions that may affect joint operation planning.
- ✪ Support the CCDR's theater campaign plans through development of appropriate supporting Service plans.

- ✪✪ Develop steady-state strategy to support the CCDR's strategy.

- ✪✪ Contribute to the development of CCDR steady-state campaign plans and security cooperation country plans.

- ✪✪ Develop campaign support plans in support of CCDR campaign plans.

- ✪✪ Develop security cooperation country support plans in support of CCDR security cooperation country plans.

- ✪✪ Recommend and implement policy and rules of engagement for the conduct of steady-state operations, including planning, execution, and assessment.

- ✪✪ Provide commander's intent to inform tactical-level planning, execution, and assessment.

✪ Execute and assess steady-state operations.

COMMAND AUTHORITIES AND RELATIONSHIPS

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Clear command relationships are central to effective operations and organizations. Joint doctrine establishes four command relationships within the operational branch of the chain of command: combatant command (command authority) (COCOM), operational control (OPCON), tactical control (TACON), and support. These authorities flow through joint channels, from the Secretary of Defense (SecDef) to the combatant commanders (CCDRs), to subordinate joint force commanders (JFCs) if established by the CCDR, and to Service or functional component commanders as delegated by the JFC. The JFC normally delegates appropriate authorities to the various subordinate functional and Service component commanders. The air component commander (usually the functional joint force air component commander [JFACC]) is normally delegated OPCON over own Service forces and TACON over other joint air forces.

Administrative control (ADCON) delegated from the Secretary of the Air Force's statutory authorities through the Air Force Service chain, provides the COMAFFOR the necessary authority to ensure that Air Force Service component forces are properly organized, trained and equipped to accomplish those functions and tasks assigned by the JFC. In accordance with Title 10, US Code, *Armed Forces*, the COMAFFOR's ADCON authority is subject to the operational authority of the combatant commander to whom Air Force forces are assigned or attached.

Two other relationships, coordinating authority and direct liaison authorized (DIRLAUTH), are useful for establishing collaborative relationships between organizations.

These authorities are more completely described in Appendix A.

ASSIGNMENT AND ATTACHMENT OF FORCES

Assignment of Forces

Forces are assigned to combatant commands (CCMDs) by the SecDef's *Forces for Unified Commands* memorandum. Assignment of forces is relatively permanent. A force assigned to a CCMD may be transferred from that command only as directed by the

SecDef and under procedures prescribed by the SecDef and approved by the President. A CCDR may subsequently organize assigned forces as necessary, to include the establishment of subordinate unified commands and joint task forces (JTFs). Establishing authorities for subordinate unified commands and JTFs may direct the assignment or attachment of their forces to those subordinate commands as appropriate.

Allocation and Attachment of Forces

When a CCDR requires more forces or capabilities than those already assigned, he or she may request additional forces be allocated and attached to that gaining command. Attachment of forces, unlike assignment of forces, is temporary. These forces may be sourced from other CCDRs or Service-retained forces and attached for continuing presence or operations on an annual rotational basis or may be attached for emerging contingencies. Forces allocated and attached for either annual or emergent requirements are identified and transferred in accordance with procedures in the SecDef's *Global Force Management Implementation Guidance* (GFMIG) and Chairman of the Joint Chiefs of Staff Manual series 3130.06, *Global Force Management Allocation Policies and Procedures*. Annual rotational forces are normally listed in a SecDef deployment order called the *Global Force Management Allocation Plan* (GFMAP). Forces identified for emergent contingencies are detailed in a modification to the GFMAP. The command relationship the gaining commander will exercise over such attached forces (and the losing commander will relinquish) should be specified by the SecDef in an establishing directive. The SecDef will normally attach forces with specification of operational control (OPCON) to the gaining CCDR.

COMMAND RELATIONSHIP MODELS FOR AIR FORCE FORCES

The deployment order (DEPORD) is the primary instrument for transferring forces and establishing supported and supporting relationships between CCDRs. Forces may also be transferred by an execute order which executes an approved operation plan. Other orders created during the planning process, such as warning orders, planning orders, alert order, or fragmentary orders, may also specify or shape command relationships, but they do not transfer forces. The SecDef, as the only authority for transferring forces between CCDRs, normally approves DEPORDs. This DEPORD should specify to which CCDR the deployed forces are assigned or attached and the command relationship (OPCON or TACON) to be exercised by the gaining commander. While the JFC ultimately has the authority to determine the delegation of command among subordinates, Air Force commanders should make consistent recommendations and present forces in a consistent manner to the JFC.

For Air Force forces, there are four general models for command relationships. Considerations for these relationships should include the ability of gaining commands to receive the forces and to command and control them appropriately, the characteristics and support requirements of the forces involved, and the operating locations of the forces.

In-Theater Forces

In general, when Air Force forces deploy into a theater to conduct operations, OPCON of those forces should normally go forward to the CCDR to whom the President or SecDef has assigned responsibility for accomplishing the mission. Since not all elements of ADCON authorities and responsibilities are transferred to the forward-based gaining commander, ADCON can and does run concurrently between the gaining COMAFFOR and the parent organizations of the deployed forces. Which elements of ADCON are specified to the forward COMAFFOR and which are retained by the parent organization should be clearly specified.

Out-of-Theater Forces

There are two general cases in which Air Force forces may execute missions inside a theater of operations while based outside the theater. These cases involve forces based in the continental US (CONUS), and forward-based forces operating outside the CONUS (OCONUS) and outside the geographic CCDR's area of responsibility (AOR).

- ***CONUS-Based Forces*** that launch from their CONUS home station, conduct operations in another theater, and recover in CONUS should normally be transferred with the appropriate command relationship (OPCON or TACON) to the supported CCDR at a designated date/time group or geographic point. ADCON should remain with the original Air Force command. CONUS-based forces that do not deploy, but provide support to forward-based operations, normally remain under the OPCON and ADCON authority of their owning command chain and establish support relationships with their forward customers. (Note: see related discussion on reachback and distributed operations in this section.)

- ***OCONUS Forces outside the AOR*** should be OPCON to the CCDR executing the mission, while ADCON is best specified to the COMAFFOR of the AOR in which they bed down. An example of this situation would be bombers stationed at Diego Garcia in the US Indo-Pacific Command AOR, but conducting operations under the command of US Central Command (USCENTCOM). The Commander, USCENTCOM would exercise OPCON and TACON of the bombers through the air component commander to US Air Forces Central. The Commander, Pacific Air Forces (PACAF), would exercise specified elements of ADCON through the established PACAF organizational structure but would have no operational responsibility or authority over the forces attached to Commander, USCENTCOM.

Transient Forces

Per Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, geographic or local commanders do not normally exercise OPCON of transient forces. However, such forces are subject to local force protection, general orders, dining, lodging, and administrative reporting requirements.

Forces in Exercises

Forces participating in joint exercises under the orders of a CCDR should normally be under the OPCON of the sponsoring CCDR. With the exception of the USNORTHCOM AOR, a geographic CCDR has TACON for exercise purposes for forces conducting exercises within his/her AOR. In this context, TACON provides directive authority over exercising forces for purposes relating to that exercise only; it does not authorize operational employment of those forces.

FUNCTIONAL FORCES

Functional forces satisfy mission requirements across multiple AORs and are thus best centrally controlled by their functional CCDR. For such forces, the functional CCDR frequently retains OPCON of assigned forces and executes as supporting commander to the supported geographic CCDR. In those cases where functional forces bed down in a geographic CCDRs AOR, the Air Force host base commander (or senior Air Force officer present on the installation, if the Air Force is a tenant) normally exercises TACON for force protection and a minimum degree of ADCON for Uniform Code of Military Justice enforcement, dining and lodging, and some limited force reporting. (See the discussion on ADCON responsibilities of host installation commanders in this annex).

Transfer of Functional Forces to a Geographic Command

In some situations, a geographic commander may request additional functional forces beyond those apportioned or allocated during contingency planning. The decision to transfer functional forces, with specification of OPCON to a geographic CCDR, should be balanced against competing needs across multiple AORs. In some cases, the requirement for OPCON over specific forces to accomplish the geographic CCDR's missions may be of higher priority than the competing worldwide mission requirements of the functional CCDR. Therefore, after coordination with the owning functional commander and upon SecDef approval, functional forces may be transferred to the geographic command and organized accordingly.

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

- ✪ The geographic CCDR will use the forces at or near their full capability with little or no residual capability for other global missions.
- ✪ The forces will be used regularly and frequently over a period of time, not just for a single mission employment.
- ✪ The geographic commander has the ability to effectively command and control (C2) the forces.

If the answer to all three conditions above is "yes," then the functional forces should be attached to the geographic CCMD. If any of the above conditions are answered "no," then the functional forces should remain under the OPCON of the functional CCDR's air component commander and be tasked in support.

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

- **Specification of OPCON:** OPCON "provides authority to organize and employ commands and forces as the commander considers necessary to accomplish assigned missions. It does not include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training" (JP 1).

- **Specification of TACON:** TACON is "the authority over forces that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned." JP 1 states "[w]hen transfer of forces to a joint force will be temporary, the forces will be attached to the gaining command, and JFCs, normally through the Service component commander, will exercise OPCON over the attached forces." While it is possible for the SecDef to attach forces across CCMD lines with the specification of TACON rather than OPCON, this would deviate from joint doctrine and would result in a chain of command with OPCON and TACON split between two different CCDRs.

REACHBACK AND DISTRIBUTED OPERATIONS

Reachback

Reachback is defined as "**the process of obtaining products, services, and applications, or forces, or equipment, or material from organizations that are not forward deployed**" (JP 3-30, *Joint Air Operations*). Reachback may be provided from a supporting or supported relationship or by Service-retained forces. This relationship gives the air component commander the support necessary to conduct operations while maintaining a smaller deployed footprint.

Distributed Operations

Distributed operations are defined as **operations when independent or interdependent forces, some of which may be outside the joint operations area, participate in the operational planning and/or operational decision-making process to accomplish missions and objectives for commanders.** Forces conducting distributed operations should be assigned or attached to a combatant command. The design of a distributed operation should enable a more survivable C2 network through distribution of tasks, information, and responsibilities. In some instances, the commander may establish a formal supported or supporting relationship

between distributed nodes. In other instances, distributed nodes may have a horizontal relationship. Technology enables more participants from greater distances to create and manage complex networks for distributed operations.

Split Operations

Split operations are **distributed operations conducted by a single C2 entity that is separated between two or more geographic locations**. A single commander should have oversight of all aspects of a split C2 operation. For example, sections of the air tasking order may be developed from a rear area or backup operation center to reduce the deployed air operations center (AOC) footprint.

Although distributed and split operations are similar to reachback, there is one major difference. **Reachback provides ongoing combat support such as products, services, or equipment to the operation from the rear, while a distributed or split operation indicates actual involvement in operational planning or decision-making.**

Remotely Piloted Aircraft and Remote Split Operations

Current remotely piloted aircraft (RPA) technology provides effective employment capabilities as well as unique C2 challenges. One solution is a concept called remote split operations (RSO).

RSO refers to the geographical separation of the RPA from its launch and recovery crew, typically bedded down in a geographic combatant commander's (CCDR) operational area, and from the mission crew, which generally remain in the continental US. This enables the extension of RPA capabilities to almost anywhere in the world through a distributed secure network.

For RSO, the in-theater RPA and launch crew are typically assigned or attached to the CCDR, similar to other in-theater forces. However, the CONUS mission crew and control center may be formally attached to the CCDR based on Secretary of Defense-established global priorities and requirements, and can "swing" to support other CCDRs as those priorities and requirements change. This allows significant flexibility in RPA tasking and support, while allowing these high-demand assets to best meet warfighter needs.

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

- The fewer personnel or forces deployed forward, the less support is required to be pushed across great distances; however, face-to-face interaction between forward and rear decision makers may be limited, and decision making timelines may stretch.

- ✪ Having fewer personnel or forces forward reduces security requirements; however, their expertise is no longer immediately at hand for ad hoc problem solving.

- ✪ Reachback requires more bandwidth for communications. These links may then become critical vulnerabilities. However, a distributed operation may arguably be more survivable and less prone to single-point failure.

MULTINATIONAL OPERATIONS

Multinational operations are operations conducted by forces of two or more nations, and are usually undertaken within the structure of a coalition or alliance.

- ✪ **An alliance is "the relationship that results from a formal agreement [e.g., a treaty] between two or more nations** for broad, long-term objectives that further the common interests of the members" (JP 3-0, *Joint Operations*).

- ✪ **A coalition is an arrangement between two or more nations for common action.** Coalitions are formed by different nations with different objectives, usually for a single occasion or for longer cooperation in a narrow sector of common interest.

Commanders may not have the same defined degree of control over coalition forces as a US-only force; degrees of control may have to be negotiated. Sometimes, existing non-US controls may be used, as may be encountered in North Atlantic Treaty Organization (NATO) operations by the use of NATO operational command, OPCON, NATO tactical command, and TACON; commanders and staff should be aware of the different nuances. Finally, each nation may retain its own chain of command over its forces and its own rules of engagement; thereby further complicating unity of command. Thus, the challenge in multinational operations is the effective integration and synchronization of available capabilities toward the achievement of common objectives through unity of effort despite disparate C2 structures, capabilities, equipment, and procedures.

For additional details and considerations refer to JP 3-16, *Multinational Operations*

Multinational and Interagency Coordination

Many operations involve military forces of allies, and many operations also involve intergovernmental organizations (IGOs), nongovernmental organizations (NGOs), and regional organizations. Direct command over these various entities is frequently not possible, and unity of effort rather than unity of command becomes the goal.

Interagency coordination is "the coordination that occurs between elements of the Department of Defense [DOD], and participating United States Government agencies and departments for the purpose of achieving an objective" (JP 3-0). Attaining national objectives requires the efficient and effective use of the diplomatic, informational,

economic, and military instruments of national power supported by and coordinated with those of our allies and various IGOs, NGOs, and regional organizations.

- *"**Interagency coordination** is conducted between elements of DOD and relevant USG departments and agencies to achieve unity of effort. Interagency coordination links the US military and the other instruments of national power.*

- ***Interorganizational coordination** refers to broader interaction among elements of the DOD; relevant USG departments and agencies; state, territorial, local, and tribal agencies; foreign military forces and government agencies; international organizations; NGOs; the private sector; and other mission partners."* (JP 3-08, *Interorganizational Cooperation*)

As with multinational operations, C2 is not as straightforward as within a US-only joint force, and unity of effort is the goal.

COMMAND AND CONTROL MECHANISMS

Last Updated: 7 January 2020

AIR COMPONENT STAFF

The air component commander requires an appropriately sized and configured C2 capability to effectively command and control the Air Force Service component and joint air forces made available for tasking. This C2 capability includes an air component staff and an AOC. When the JFC follows normal doctrinal recommendation and practice and designates the COMAFFOR to be the JFACC then the COMAFFOR's C2 structure, with joint augmentation, forms the basis for the JFACC's C2 structure.

The staff of the air component (both Service and joint functional) is the mechanism through which the commander exercises responsibilities across the continuum of conflict.[4] These responsibilities include the deployment, basing, sustainment, and redeployment of Air Force forces. The staff supports the commander in both operational and administrative responsibilities. The operational responsibilities include the planning, execution, and assessment of steady-state operations in support of the combatant commander's (CCDR's) theater campaign plan. The administrative responsibilities include those activities for organizing, training, and equipping Air Force forces.

An air component staff should be ready to fill one or more roles: that of a theater-wide Air Force Service component, an Air Force warfighting component within a joint task force (JTF), or the core within a JTF headquarters. In the latter case, the air component staff would require augmentation from outside the theater and by other Service personnel to meet manning requirements. Regardless, the air component staff should be trained and ready to transition from steady state to contingency operations. When able, commanders should avoid dual- or triple-hatting their staff.[5]

The staff's function is to support and assist the air component commander in preparing to carry out the functions and tasks assigned by the joint force commander (JFC). The

[4] The "conflict continuum" described in Joint Publication (JP) 3-0, *Joint Operations*, is expanded by Joint Doctrine Note 1-19, *Competition Continuum*, 3 Jun 19. "Competition continuum" is expected to be the accepted phrase in the next iteration of JP 3-0, but "conflict continuum" remains in joint doctrine at present.

[5] Workload distribution and recommendations on augmentation derived from lessons learned during Exercise AUSTERE CHALLENGE 2010.

staff's responsibilities will vary depending on the level of the JFC to which the air component is assigned or attached.

See Appendix B, which outlines C2 structures and the basic air operations center (AOC). Appendix C provides a summary of baseline Air Force forces (AFFOR) and air component staff organization.

AIR OPERATIONS CENTER

With joint augmentation, the AOC becomes the joint AOC (JAOC). With joint, coalition, or other multinational augmentation, the AOC becomes the combined AOC (CAOC).

AOCs do not work in isolation; they require connectivity to operations centers of higher headquarters, to lateral headquarters (e.g., other joint force components), to subordinate assigned and attached Air Force units, and to other functional and geographic AOCs.

Both the air component staff and the AOC perform warfighting functions and should work together to fulfill air component responsibilities to the JFC. An AOC, along with subordinate C2 elements, should be tailored to the requirements of the mission. An AOC should be capable of performing the following tasks:

- ✪ Develop the component strategy and requisite planning products.
- ✪ Task, execute, and assess day-to-day component operations.
- ✪ Plan and execute intelligence, surveillance, and reconnaissance (ISR) tasks appropriate to assigned missions.
- ✪ Conduct operation assessment.

AOC tasks may include integrating intertheater air mobility support; developing and issuing airspace control procedures; and providing direction for theater air and missile defense. Defensive cyberspace operations and defensive counterspace activities are coordinated with responsible operations centers and headquarters through the DIRSPACEFOR and DIRCYBERFOR.

AOCs and their subordinate C2 elements may be geographically oriented or functionally oriented. To bring all the Air Force's capabilities together for a given operation or activity, the AOCs normally work together in a mutually supporting command arrangement, with one of them designated as the supported center.
For more detailed guidance on internal structure and procedures, refer to Air Force Instruction 13-1AOC, Volume 3, *Operational Procedures-Air Operations Center.*

Liaisons in the AOC

The air component commander may have a number of liaison teams and liaison officers (LNOs) within the AOC to facilitate planning and execution among the other components in the joint force.

Component Liaisons. Component liaisons work for their component commanders and with the air component commander and staff. Each component provides liaison elements that work within the AOC and AFFOR staff. These liaison elements consist of specialists who provide component planning and tasking expertise and coordination capabilities. They integrate, coordinate, and deconflict their component's participation in joint air component operations. The air component may require other liaison augmentation to support AOC functions such as security, intelligence and other aviation elements.

Battlefield Coordination Detachment (BCD). The BCD supports integration of air component operations with Army operations. BCD personnel are integrated into AOC divisions to support planning, operations, air defense, ISR, airlift, logistics, airspace control, and communications. The BCD coordinates ground force priorities, requests, and items of interest. One of the BCD's most important functions is to coordinate boundary line and fire support coordination measures changes and timing. The BCD provides ground order of battle situational awareness and expertise to the AOC.

Naval and Amphibious Liaison Element (NALE). The NALE personnel from the maritime components support the AOC in integrating maritime air, fires, amphibious operations, and other activities into theater air operations, and monitor and interpret the maritime battle situation for the AOC. When required, the NALE brings maritime order of battle (both friendly and enemy) situational awareness, and provides update and intelligence briefings.

Marine Liaison Element (MARLE). MARLEs are representatives of the commander, Marine Forces and the associated aviation combat element commander. The MARLEs support the air component commander in integrating Marine air-ground task force (MAGTF) fires, maneuver, and Marine air into the theater campaign and supporting joint air operations plan. This team should be well versed in the MAGTF commander's guidance, intentions, schemes of maneuver, and direct support aviation plan.

Special Operations Liaison Element (SOLE). The joint force special operations component commander (JFSOCC) provides a SOLE to the air component commander. The SOLE coordinates, synchronizes, and deconflicts special operations forces' air, surface, and subsurface operations within the operational area through the air tasking order and airspace control order. The SOLE chief, serving as the JFSOCC's representative to the air component commander, places LNOs throughout the AOC staff.

Coalition and Allied LNOs. LNOs representing coalition and allied forces may improve AOC situational awareness regarding the disposition of friendly forces, especially when

those forces do not have a mature theater air control system. They are essential for unity of effort for coalition or allied air defense operations and airspace deconfliction. AOC directors should anticipate the need for LNOs in an immature theater and seek them out via the JFC's staff, in-country military group, staff country team, or direct contact with coalition forces.

JOINT AIR COMPONENT COORDINATION ELEMENT

The air component commander may establish one or more joint air component coordination elements (JACCEs) with other component commanders' headquarters, and the supported JTF headquarters, to better integrate operations. These elements act as the air component commander's primary representatives to the respective commanders and facilitate interaction with their staffs.

It is recommended that a JACCE be provided to any sub-theater JFC below the 3-star level of command. This enables the theater air component commander to provide Air Force forces in a supporting role as required, while maintaining the proper level of required command and control be retained at the theater commander level for JOA-wide operations.

The JACCE facilitates integration by exchanging intelligence, operational data, and support requirements. The JACCE coordinates the integration of airspace coordinating measures, fire support coordination measures, close air support, and air mobility. The JACCE is a liaison element, not a command and control node, and has no authority to direct or employ forces. However, a joint force air component commander, and other Service components, may delegate certain authorities to a JFC assigned JACCE, based on operational requirements and to enhance overall C2 and integration and employment. Element expertise may include plans, operations, intelligence, airspace management, logistics, space, cyberspace, and air mobility. The JACCE communicates the supported JTFs or component commander's decisions and interests to the theater air component commander. The JACCE director is the air component commander's personal and official representative and should have sufficient rank to effectively work with the component or JTF commander to which he or she is attached. Finally, the JACCE director should not be dual-hatted as the commander of a tactical unit.

The JACCE should:

- ✪ Ensure the air component commander is aware of each commander's priorities and plans.
- ✪ Ensure the air component commander staff coordinates with components or JTF headquarters counterparts.
- ✪ Ensure appropriate commanders are aware of the air component commander's capabilities and limitations.

- ✪ Ensure appropriate commanders are aware of the air component commander's plan to support the JFC's intent and objectives.

- ✪ Facilitate air component commander processes with component and JTF commanders.

- ✪ Provide oversight of other air component commander liaisons to component and JTF headquarters staffs.

- ✪ Ensure information flows properly between the AOC, sister components, and JFC.

For further readings on recent JACCE operations in Afghanistan, see the article "NATO Air Command–Afghanistan: The Continuing Evolution of Airpower Command and Control" in Volume 28, No. 1 of *Air and Space Power Journal*.

ORGANIZING AIR FORCE FORCES

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Organization is critically important to effective and efficient operations. It is essential that Airmen understand the fundamentals of Air Force and joint organization, command relationships, and responsibilities of the senior Air Force commander.

The Air Force Service component command is the organizational structure for Air Force forces assigned or attached to a joint force commander (JFC). Combatant commands and subordinate unified commands typically have assigned Air Force Service component commands (component major command [C-MAJCOM] or component numbered Air Force [C-NAF]) to which additional expeditionary forces may be attached as required for operations. Joint task forces (JTF) normally do not have standing Air Force structures and require the Air Force establish an Air Expeditionary Task Force (AETF) as a temporary Air Force Service component command. The commander of the AETF would either be the commander, Air Force forces (COMAFFOR) directly responsible to the JTF commander, or established in a supporting role to the JTF under the authority of the theater air component commander. If appropriate, the commander of the AETF may also be designated as a JACCE to the supported JTF commander.

REGIONAL ORGANIZATION AND CONTROL

All military missions are ultimately under the authority of a JFC at the appropriate level. If the entire theater is engaged, the combatant commander (CCDR) may be the JFC. If the situation is less than theater-wide, the CCDR may establish a subordinate JTF commanded by a subordinate JFC.

- Within a joint force, the JFC may organize forces in a mix of Service and functional components. **All joint forces contain Service components**, because administrative and logistics support are provided through Service components.

- The JFC may also establish functional component commands when forces from two or more military Services operate in the same dimension or domain, or there is a need to accomplish a distinct aspect of the assigned mission.

FUNCTIONAL ORGANIZATION AND CONTROL

Many types of airpower are capable of serving more than one geographic CCDR at a time. Such forces are organized under functional CCDRs to facilitate cross-area of responsibility (AOR) optimization. When such forces are deployed in a geographic CCDR's AOR, they may remain under the operational control (OPCON) of their respective functional CCDR and operate in support of the geographic CCDR, or with Secretary of Defense (SecDef) approval, they may be transferred to a geographic commander and attached with specification of OPCON or tactical control (TACON).

THE AIR EXPEDITIONARY FORCE

To address growth in diverse regional commitments, the Air Force established the air expeditionary force (AEF) concept as a means to provide Air Force forces and associated support on a rotational, and more predictable, basis. AEFs provide a source of readily trained operational and support forces. They do not provide a commander (specifically, a COMAFFOR) or the necessary command and control (C2) mechanisms. Thus, AEFs by themselves are not discrete, employable entities. Forces sourced from AEFs should be integrated with in-theater command structures, and link up with in-theater Air Force forces (which may be in the form of an AETF).

Refer to Air Force Instruction (AFI) 10-401, *Air Force Operations Planning and Execution*, for further details.

THE AIR EXPEDITIONARY TASK FORCE

The AETF is the organizational structure for Air Force forces to execute operational tasking when there is not an existing Air Force structure prepared to accept expeditionary forces. The AETF provides a task-organized, integrated package with the appropriate balance of force, sustainment, control, and force protection.

The AETF presents a scalable, tailorable organization with three elements: **a single, clearly designated commander, appropriate C2 mechanisms, and tailored and fully supported forces**.

"Single Commander…"

In the context of joint organization, a single commander presents one Air Force position to the JFC and results in clear lines of authority. The AETF commander is the senior Air Force warfighter and exercises the appropriate degree of control over the forces assigned, attached, or in support of the AETF. Within the joint force, these degrees of control are formally expressed as OPCON, TACON, or support. Within Service lines, the AETF commander exercises administrative control (ADCON).

"Appropriate Command and Control Mechanisms…"

The AETF commander requires command mechanisms to exercise appropriate operational and Service administrative control. An AETF attached with specification of OPCON to a JTF, will include a COMAFFOR under the OPCON of that JTF commander. However, due to resource constraints in both manning and equipment, the theater air component normally will not have sufficient resources to provide the AETF with a C2 capability adequate for being designated as a JTF level joint force air component commander (JFACC). The CCDR should direct the theater air component commander to retain TACON over joint air forces and be established in support to the JTF commander. This support relationship may be enabled through a JACCE appointed by the theater air component commander. The AETF commander will provide C2 through clearly delineated commander's intent that is forward thinking. It is imperative these commanders have conditions-based authorities, empowered command by negation while accepting the appropriate level of risk, all while working towards moments of clear C2 back to the theater level air component commander.

Within the authorities and responsibilities of ADCON, the COMAFFOR oversees the deployment and sustainment of Air Force forces, normally through the Air Component staff and subordinate Service organizations (e.g., wings, groups, squadrons, etc.). Sustainment activities are critical to the successful accomplishment of operational functions, and should be fully integrated with and complementary to the air operations center's (AOC's) operational activities.

"Tailored and Fully Supported Forces…"

The AETF should be tailored to the mission; this includes not only forces, but also the ability to command and control those forces for the missions assigned. It should draw first from in-theater resources, if available. If needed the AETF will likely draw from the AEF currently on rotation. These forces, whether in-theater or deployed from out of theater, should be fully supported with maintenance, logistical, health services, and administrative elements.

AETF Organization

The AETF commander organizes forces as necessary into wings, groups, squadrons, flights, detachments, or elements to provide reasonable internal spans of control, command elements at appropriate levels, and to retain unit identity.

Numbered Expeditionary Air Force

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

Air Expeditionary Task Force-X

“Air Expeditionary Task Force-X” (AETF-X) is the generic title used when a provisional Air Force command echelon is needed between a component numbered Air Force (C-NAF) or NEAF and an air expeditionary wing (AEW). AETF-X is used when a C-NAF or NEAF-level AETF establishes a subordinate provisional command echelon consisting of two or more AEWs. An example of this usage is when the Commander, US Air Forces Central (USAFCENT) established two subordinate AETFs, 9 AETF-Iraq (AETF-I) and 9 AETF-Afghanistan (AETF-A), to provide command over multiple AEWs in their respective joint operations areas.

Depending on why this echelon is established, and its relationship within Service and joint force organizations, the AETF-X commander may or may not be a COMAFFOR. See “Air Force Component Presentation Considerations” for further discussion.

Air Expeditionary Wing

AEW is the generic title for a deployed wing within an AETF. An AEW normally is composed of the wing command element and subordinate groups and squadrons. AEWs normally carry the numerical designation of the wing providing the command element. An AEW may be composed of units from different wings, but where possible, the AEW is formed from units of a single wing.

Air Expeditionary Group

Air expeditionary group (AEG) is the generic title for a deployed group assigned to an AEW or a deployed independent group assigned to an AETF. Expeditionary groups that deploy independent of a wing structure should contain elements of all the functions needed to conduct semi-autonomous operations. An AEG is comprised of a command element and some squadrons.

If deployed as an independent group, the AEG commander normally reports to the air component commander. If deployed as a group subordinate to an expeditionary wing, the AEG commander reports to the AEW commander. The AEG is normally the smallest independently deployable AETF.

Air Expeditionary Squadron

Air expeditionary squadron is the generic title for a deployed squadron within an AETF. Deployed squadrons (assigned or attached) retain their numerical designation and acquire the “expeditionary” designation. An individual squadron is not designed to conduct independent operations; it normally requires support from other units to obtain the synergy needed for sustainable, effective operations. If a single operational squadron or squadron element is all that is needed to provide the desired operational effect (e.g., an element of C-130s performing humanitarian operations), it should

deploy with provision for support and C2 elements as well as ability for reachback support.

Expeditionary Elements below Squadron Level

The Air Force may deploy elements below the squadron level for specific, limited functions, often as individuals or specialty teams. For ADCON purposes, these elements should normally be attached to the commander of a larger Air Force entity in the region.

Exercising ADCON over small, remotely located Air Force elements has posed challenges for the Air Force component headquarters.

Designation of Expeditionary Units

An AETF is named based on the unit providing the senior-echelon command function, its size, and the operation name.

Units operating from their normally assigned, in-place location, such as permanently assigned units in Korea under US Indo-Pacific Command need not adopt expeditionary nomenclature. The overall operation, however, should still be modeled as an AETF to delineate clear chains of operational and administrative authority. Other deployed wings, groups, and squadrons that are not assigned or attached to the AETF, but provide significant support (such as airlift and air refueling units in the intertheater air bridge), may be designated “expeditionary” at the discretion of their owning major command or Service component commander.

Provisional Units

In some instances, expeditionary forces may not form around active numbered units, when there are insufficient active numbered units in the AEF rotation to satisfy a very large operation or a single major force provider cannot be identified. In such cases, provisional units may be created using predesignated inactive units. A unit under a single provisional unit designation should also be considered to provide continuity of operations for extended contingency operations in which units are frequently rotated in and out (e.g., Operations SOUTHERN WATCH and IRAQI FREEDOM).

Examples of AETFs

Component AETF

When directed, an AETF may be formally attached to a joint force at the JTF level, usually with specification of OPCON, forming a Service component command. In these cases, the AETF commander is a COMAFFOR, and a separate C2 capability (possibly less than a full AOC and Air Force forces (AFFOR) staff are normally required to employ and support the AETF.

AETF in Support

During some operations, especially when there may be multiple joint operations areas (JOAs) with multiple JTFs, it may not be feasible to attach AETFs to each JTF due to C2 resource constraints. In such cases, subordinate AETFs may be established and placed in support of JTFs. Examples of this structure occurred in the later phases of Operations ENDURING FREEDOM and IRAQI FREEDOM, US Air Forces Central (USAFCENT) established subordinate task forces to directly support sub-theater-level JTFs operating in separate JOAs within US Central Command (USCENTCOM).

AETF for ADCON Only

On occasion, AETFs may be established to address a specific but purely internal Service challenge and may have no direct relation to a joint force. Examples can be found during the initial phase of Operation IRAQI FREEDOM, when the Air Force formed two task forces for ADCON purposes only, one in Pacific Air Forces, under 13th Air Force on Guam, and one in US Air Forces in Europe, under 16th Air Force in Turkey. These AETFs were formed to provide more direct oversight of Air Force support activities of those forces bedded down in (at the time) US Pacific Command (now US Indo-Pacific Command) and US European Command AORs, supporting USCENTCOM's main effort. In this case, these task forces' commanders only exercised ADCON; they were not delegated any operational authorities.

INTEGRATING REGIONAL AND FUNCTIONAL AIR FORCE FORCES

Functional and geographic capabilities most likely to be integrated in a supported or supporting role are air mobility operations, space operations, special operations, cyberspace operations, and nuclear operations.

Integrating Air Mobility Operations

Command relationships can allow an interlocking arrangement to manage intratheater and intertheater air mobility operations. Normally, intratheater air mobility forces are attached to the JFC, with OPCON delegated to the air component commander. Intertheater air mobility forces normally remain under the control of US Transportation Command (USTRANSCOM), delegated downward within Air Mobility Command (AMC). Within a regional operation, the director of mobility forces (DIRMOBFOR), along with the air mobility division (AMD) in the AOC, provides a coordination function between the intertheater and intratheater air mobility operations.

The Director of Mobility Forces

The DIRMOBFOR is the air component commander's designated coordinating authority for air mobility operations, and coordinates on behalf of the air component commander with the AMD in the AOC. To ensure close coordination with the overall theater effort, the DIRMOBFOR is normally assigned to the air component

commander's special staff. In those instances when no JFACC is designated, or the JFACC is from another Service, the DIRMOBFOR should normally report to the COMAFFOR.

For specific authorities and responsibilities, refer to Annex 3-17, *Air Mobility Operations*.

Integrating Space Operations

Space capabilities may be used to fulfill single theater, multiple theater, or global objectives. Thus, the C2 structure established for integrating assets and forces must be robust enough to account for these various operating areas. Employing assets to meet global or multiple theater requirements normally requires a structure that bridges more than one theater and is capable of incorporating non-Department of Defense agencies. The CDRUSSPACECOM may act as either the supporting or supported commander in a conflict, depending on the scenario. Space capabilities within a regional operation are normally focused by the designation of a single authority for space operations.

Space Coordinating Authority

Within a regional operation, the JFC has space coordinating authority (SCA) to plan, integrate, and coordinate space operations involving forces of two or more military departments, functional components, or two or more forces of the same Service. Although JFCs may retain authority at the JFC level, they should normally delegate SCA to the component commander who provides the preponderance of military space capabilities, the requisite ability to command and control them, and the resident space expertise. The air component commander provides these capabilities through the Air Force's organic space C2 infrastructure.

The Director of Space Forces

The director of space forces (DIRSPACEFOR) serves as the senior space advisor to the air component commander. The DIRSPACEFOR advises and facilitates coordination, planning, execution, and assessment of space operations and courses of action for the air component commander. In addition, when the air component commander is delegated SCA, the DIRSPACEFOR works the day-to-day SCA activities on their behalf. The DIRSPACEFOR is part of the air component commander's special staff. In those instances when no JFACC is designated, or the JFACC is from another Service, the DIRSPACEFOR reports to the COMAFFOR. Whether a permanent member of the theater major command staff or provided to the theater by Air Force Space Command (AFSPC), the DIRSPACEFOR should be pre-identified to allow that officer time to become familiar with that theater's space requirements.

For specific responsibilities of SCA and DIRSPACEFOR, see Annex 3-14, *Counterspace Operations*.

Integrating Special Operations

Commander, US Special Operations Command (USSOCOM) exercises combatant command (command authority) (COCOM) of worldwide special operations forces, while the geographic CCDR exercises OPCON of assigned or attached Air Force special operations forces (AFSOF) through the commander of the theater special operations command. For conventional missions, the COMAFFOR may receive OPCON or TACON of AFSOF assets when directed by the JFC. However, in most cases, AFSOF will be in a direct support relationship with conventional assets. When SOF operate in concert with "conventional" JTFs, they normally take the form of a separate joint special operations task force (JSOTF) within the JTF. The Joint Special Operations Air Component is the SOF functional air component.

Whether operating under control of the joint special operations component commander (JFSOCC) or in support of the air component commander, SOF aviation missions are synchronized with other air activities supporting the theater campaign To ensure SOF aviation and surface assets are closely synchronized in all joint air operations, from planning through assessment, the JFSOCC provides the air component commander a special operations liaison element (SOLE) to coordinate, deconflict, and synchronize SOF operations, strategy, and plans with other air operations. In return, the air component commander should provide a joint air component coordination element (JACCE) to the JFSOCC.

The Special Operations Liaison Element

Whether operating autonomously or in conjunction with conventional forces, SOF aviation and surface assets should be closely synchronized with all joint air operations—from planning through execution—to provide coordination and deconfliction, prevent fratricide, and exploit synergistic effects.

The SOLE is a liaison team that represents the JFSOCC to the air component commander. The SOLE synchronizes all SOF air and surface operations with joint air operations via the tasking process. Additionally, the SOLE deconflicts SOF operations with other component liaisons in the AOC. Specific functions include synchronization of SOF requirements into air tasking order (ATO) and airspace control order generation, real time mission support within the AOC, operations and intelligence support for targeting, combat airspace control for prevention of fratricide, coordination with special plans functions, and coordination with the joint personnel recovery center. The SOLE also assists in the deconfliction of joint special operations areas and unconventional warfare operating areas with the air component commander.

For specific responsibilities of the SOLE, see Annex 3-05, *Special Operations.*

Integrating Cyberspace Operations

Global cyberspace capabilities may be presented to a combatant command through a supporting relationship, with United States Cyber Command (USCYBERCOM; also

USCC). USCC is a unified combatant command responsible for providing offensive and defensive cyberspace capabilities to other CCDRs. USCC presents cyberspace capabilities to CCDRs through Service-led, regionally aligned, Joint Force Headquarters Cyber (JFHQ-C) staffs and assigned teams.

For further discussion, see Annex 3-12, *Cyberspace Operations*

The Director of Cyberspace Forces

Within an Air Force component, the director of cyberspace forces (DIRCYBERFOR) serves as the senior cyberspace advisor to the air component commander. The DIRCYBERFOR facilitates the coordination, integration, and synchronization of cyberspace operations with air and space operations. The DIRCYBERFOR provides senior leader perspective and guidance on the planning, development, integration, and employment of cyberspace capabilities for Air Force component operations and facilitates synchronization of cyberspace capabilities and effects. The DIRCYBERFOR is part of the air component commander's special staff. In those instances when no JFACC is designated, or the JFACC is from another Service, the DIRCYBERFOR should report to the COMAFFOR.

For specific responsibilities of the DIRCYBERFOR, see Annex 3-12, *Cyberspace Operations*.

Integrating the Air Reserve Components

The Air Reserve Components (ARC) are the Air Force Reserve (AFR) and the Air National Guard (ANG). The ARC provides operational capabilities and strategic depth to meet US defense requirements across the competition continuum. ARC forces are normally employed to take advantage of military opportunities, cover shortfalls in regular component critical skills, and to support short duration national priorities. The importance of this factor—the part-time nature of the force—should be fully considered. When evaluating which ongoing operational missions are best suited for ARC participation, factors such as predictability, tour length, and duty location should all be considered.

The AFR consists of the Ready Reserve, the Standby Reserve, and the Retired Reserve, which includes retirees from both the ARC and regular component. The Ready Reserve consists of the Selected Reserve and the Individual Ready Reserve. ADCON for AFR forces is maintained by the commander of Air Force Reserve Command (AFRC).

The ANG consists of members of the Air National Guard (ANG) who are on active duty under Title 10, United States Code (USC), *Armed Forces*. The ANG consist of the federally recognized organized militia of the States and Territories, Puerto Rico, and the District of Columbia. ADCON for Guardsmen not in federal status flows to their respective adjutant general and governor. When activated under Title 10 USC, ADCON is maintained through the ANG Readiness Center.

The ARC provides sustainable, rotational support across numerous operational missions, such as airlift, air refueling, North American Aerospace Defense Command air sovereignty mission, and combat support. ARC forces may be mobilized to support rotational capability for steady state operations, during a surge operation, and for activities requiring critical skills.

ARC Organization

The majority of the ARC is organized into two types of units: unit-equipped or associates. Stand-alone unit-equipped organizations have their own organic equipment; associate organizations can be either unit-equipped (active associations) or share the weapon systems of an equipped host organization (classic association) and train to perform the same mission.

These unit associations allow for consistent training, leveraging of resources, and familiarization between the regular component and ARC. The associate models are:

- **Classic Associate:** A Regular Air Force organization retains principal responsibility for a weapon system that it shares with one or more associate ARC organizations. Each component exercises ADCON of its respective members.

- **Active Associate:** A sponsoring ARC organization has principal responsibility for a weapon system which it shares with one or more associate regular organizations. Reserve and regular units retain separate organizational structures and chains of command.

The Air Force is responsible for organizing, training, and equipping Air Force forces to provide combat ready resources to combatant commanders. Air Force commanders are responsible for ensuring regular and ARC forces are leveraged to achieve that purpose. This is done through the Total Force Integration (TFI) concept. TFI management is a collaborative process of planning, organizing, and aligning AF units from different Air Force components; each with its own command chain and ADCON responsibilities.

When operating together in garrison (not deployed and activated to active status) unity of effort for TFI is achieved through the concept of operational direction (OPDIR). As detailed in Air Force Instruction 90-1001, *Planning Total Force Associations (TFAS)*, OPDIR is an agreed-upon understanding (codified in memoranda of record, understanding, or agreement) between commanders of total force associations to allow functional leaders from any component, whether from the sponsor or the associated organization, to lead and guide personnel in their in garrison mission and daily tasks.

Air Force Reserve

The AFR also provides individual reservists through the individual mobilization augmentee (IMA) program and the participating individual ready reserve program

(PIRR). IMAs are trained reservists who augment regular units to support mobilization requirements, contingency operations, or other specialized requirements. Their experience helps the regular component accomplish its mission by augmenting (or rounding out) the regular unit, backfilling positions that have been vacated by deploying regular component members, or performing missions at the normal duty station. IMAs perform the full range of Air Force missions. The ARC retains ADCON of IMAs and PIRR personnel.

Air National Guard

National Guard Airmen can be called to long-term active duty under five different statutes, as authorized in Title 10 USC. They range from full mobilization, which requires a declaration of war or national emergency by the Congress, to reserve component volunteers, which requires consent of the individual reserve component member and consent from the governor to activate individuals in the National Guard. The various mobilization statutes determine how many guardsmen can be called up, to whom the call up applies, and the duration of the call up.

Accessing ARC Forces

ARC forces can be activated both voluntarily and involuntarily to support national requirements. Once activated, there are different degrees of OPCON and ADCON applicable to ARC members. The ARC structure normally retains full ADCON; the gaining COMAFFOR normally exercises specified elements of ADCON, which should be articulated in appropriate orders. OPCON transfers in accordance with Secretary of Defense (SecDef) orders.

- **Voluntary.** Volunteers are placed on Federal active duty by the Secretary of the Air Force, as authorized by Title 10, USC.

- **Involuntary.** There are three authorities that outline the limits and requirements for involuntarily activating members of the ARC:

  - **Presidential Reserve Call-up.** This provides the President a means to activate, without a declaration of national emergency, not more than 200,000 members of the Selected Reserve and the Individual Ready Reserve (of whom not more than 30,000 may be members of the Individual Ready Reserve), for not more than 365 days to meet the requirements of any operational mission. Members activated under this provision may not be used for disaster relief or to suppress insurrection. This authority has particular utility when used in circumstances in which the escalatory national or international signals of partial or full mobilization would be undesirable. Forces available under this authority can provide a tailored, limited-scope, deterrent, or operational response, or may be used as a precursor to any subsequent mobilization.

✪✪ **Partial Mobilization.** Expansion of the active Armed Forces resulting from action by Congress (up to full mobilization) or by the President (not more than 1,000,000 for not more than 24 consecutive months) to mobilize Ready Reserve component units, individual reservists, and the resources needed for their support to meet the requirements of a war or other national emergency involving an external threat to the national security.

✪✪ **Full Mobilization.** Expansion of the active Armed Forces resulting from action by Congress and the President to mobilize all Reserve Component units and individuals in the existing approved force structure, as well as all retired military personnel, and the resources needed for their support to meet the requirements of a war or other national emergency involving an external threat to the national security. Reserve personnel can be placed on active duty for the duration of the emergency plus six months. Under full mobilization, ADCON transfers to the gaining COMAFFOR and OPCON transfers in accordance with Sedef orders.

Nuclear Support to Regional Commands

The 2018 National Defense Strategy has characterized a global environment whereby great power competition threatens the nation and the international order. Air Force nuclear capabilities, reliant on a modern and survivable command, control, and communications (NC3) capability require precise integration with conventional command and control operations, to deter our adversaries from strategic nuclear and conventional attack. Air Force nuclear capabilities require robust integration with full spectrum operations to ensure effective employment within a particular region and account for larger political ramifications and allow effective operations in a nuclear environment. When requested by a geographic combatant commander, global nuclear capabilities are normally employed through a support relationship with US Strategic Command as authorized by the SecDef and the President of the United States.

Refer to Annex 3-72, *Nuclear Operations*, for more information.

Homeland Defense Organizational Considerations

Military operations inside the United States and its Territories fall into two mission areas: homeland defense, for which the DOD serves as the lead federal agency and military forces are used to conduct military operations in defense of the homeland; and civil support for which DOD serves in a supporting role to other agencies at the federal, state, tribal, and local levels.

Homeland Defense

For most homeland scenarios, Air Force forces should be presented as an AETF under the OPCON of a COMAFFOR. Air National Guard (ANG) forces whether activated and operating in Title 10 status supporting a Federal mission or operation under Title 32 and attached to a combatant command (CCMD) or remaining under

state control in Title 32 or state active duty status should be organized and presented within an AETF or equivalent structure.

The command relationships between a JFC and a COMAFFOR in a homeland context may have additional legal and interagency considerations. Additionally, when the ANG is operating in Title 32 or state active duty status under the authority of a state governor, a similar command relationship exists between the state Adjutant General or JTF commander and the designated ANG air commander.

The SecDef may request State governors to allow their respective ANG personnel or units to support federal operations or missions such as providing intelligence and cyberspace support to CCDRs or supporting civil authorities pursuant to Title 32. ANG personnel and units would remain in Title 32 status, but be attached to the Service component of a CCMD, and under the operational authority of the CCDR. The nature, extent, and degree of control exercised by the CCDR and his or her subordinate commanders, including dual-status commanders, would be set forth in a command arrangements agreement (CAA) agreed upon by the SecDef and state governors. The CAA would be similar to those negotiated for multinational operations. Administrative authority for ANG personnel and units would remain with the state.

Civil Support

The JFC may elect to allocate combat forces to subordinate functional task force commanders (TF CDRs) with a specification of OPCON to the TF CDRs. For example, a JFC in a major disaster relief operation might organize forces into separate engineering, transportation, and medical task forces. This organizational scheme divides Air Force assets among other component commanders and fractures Service unity of command. This is not the most operationally effective scheme for achieving unity of command and unity of effort under a single Airman. The JFC should delegate OPCON of all assigned and attached Air Force forces to the air component commander. The air component commander then provides direct support to the various functional TF CDRs, as a supporting commander.

Each state has a state joint force headquarters (JFHQ-State) that may provide a contingency C2 capability in support of homeland defense, civil support, and other related operations, and may thus function as a bridge between state and federal forces. Additionally, a governor may stand up a JTF-State to provide direction and control of assigned non-federalized National Guard forces and those attached from other states. ANG forces conducting operations in Title 32 or state active duty status should be organized as an AETF or equivalent within their state force structure to provide unity of command, with a single Airman in command of the ANG forces.

State and federal military forces may adopt a parallel command structure.

A parallel command structure exists when state and federal authorities have separate chains of command, and retain control of their deployed forces. Unity of effort and

decisions of mutual interest are handled through a coordinated liaison effort of the political and senior military leadership of state and federal forces.

- ✪ Federal statute permits a dual status command structure, in which a designated commander subordinate to a combatant commander may simultaneously serve in Federal and State duty statuses while performing the separate and distinct duties of those statuses over forces. Such positions are intended for short-term response situations that require both federal and state involvement, such as a multi-state disaster or national event. The command authority for forces in Title 32 attached to the CCDR is exercised by a dual-status commander pursuant to a CAA. Additionally, the statute requires both presidential authorization and a governor‘s consent to invest a commander with dual status.

For more detailed discussion on homeland operations in general, see Annex 3-27, *Homeland Operations*. For more discussion on dual-status commanders, refer to Joint Publication 3-28, *Defense Support of Civil Authorities*, Appendix C, and “Department of Defense Dual-Status Commander.”

THE SENIOR / HOST AIR FORCE INSTALLATION COMMANDER

An installation commander exercises authority over and responsibility for protection of assigned forces and assets, lodging, dining, and administrative reporting, regardless of Service or the command relations of those forces.

Ultimately, the Air Force Service component commander within a region is responsible for fulfilling ADCON responsibilities and common logistics support for all Air Force forces within his or her region, regardless of organization of assignment of those forces.

For non-Air Force forces operating from an Air Force-owned base, the provision of logistics support is inherently the responsibility of the owning Service. Example, forces belonging to other Service components operating from an Air Force-owned base such as Army special operations forces or Marine aviation units. However, the host base commander has responsibility for providing protection and other base operating support for those forces as directed by the governing operations order or inter-Service agreements. Commercial support may also be required to other operations personnel (host nation, multinational support, and operational contract support) and other US Government agencies.

G-series orders should detail which commanders are responsible for providing specific elements of ADCON to deployed units and what authority that commander may use to carry out these responsibilities. The orders are not required to spell out all support and sustainment responsibilities. The minimum ADCON responsibilities and authorities to go forward should be responsibility for enforcement of the Uniform Code of Military Justice, protection of assigned forces and assets, lodging, dining, and force reporting.

Refer to AFI 38-101, *Air Force Organization*, for more specific policy guidance.

PRESENTING AIR FORCE FORCES

Last Updated: 7 January 2020

Modern operations require flexibility in execution to adapt to a wide variety of scenarios, which drives a need to assemble the right mix of forces from the appropriate Services tailored to the operation. This flexibility drives a corresponding need for adjustable organization, command and control (C2) mechanisms, and appropriate command relationships.

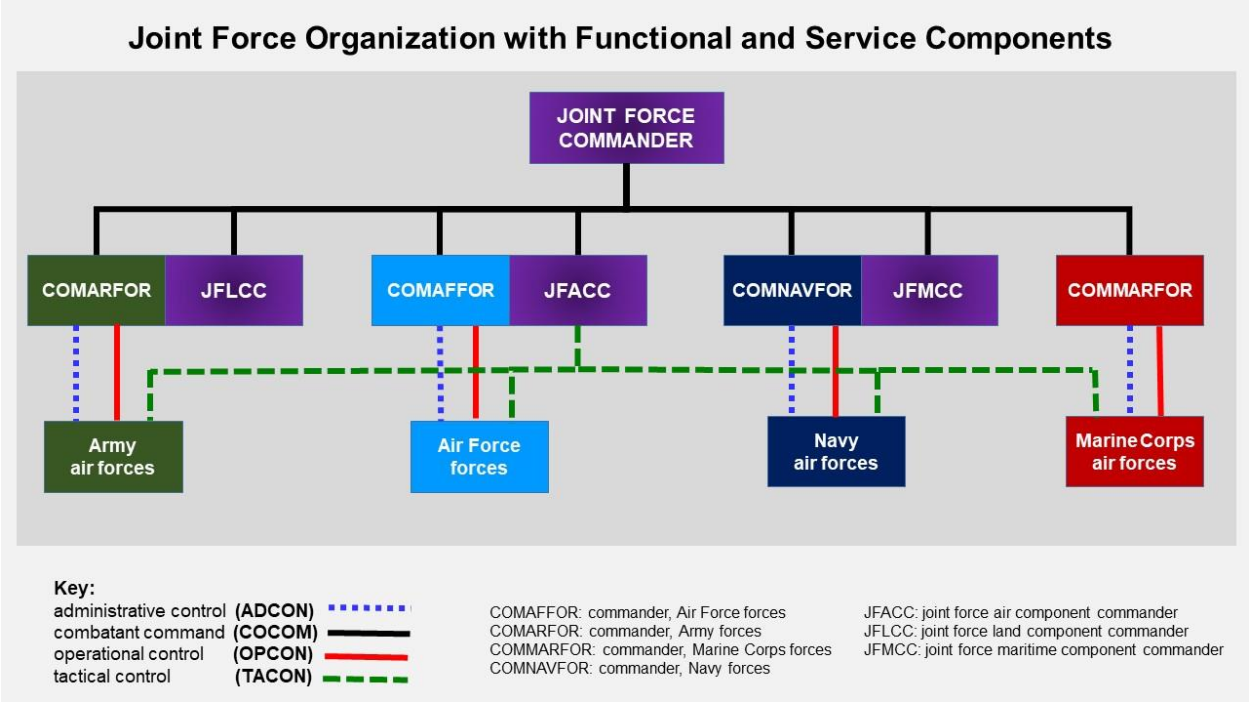
JOINT FORCE ORGANIZATIONAL BASICS

When a crisis requires a military response, the Secretary of Defense, combatant commander (CCDR), a subordinate unified commander, or an existing joint force commander can form a joint task force (JTF) tailored to address the crisis. If Air Force forces are attached to the JTF, they stand up as an air expeditionary task force (AETF). The joint force commander (JFC) at any echelon is responsible for delineating the command relationships between forces under his or her operational control (OPCON) and empowering subordinate commanders appropriately (see Appendix A for more detail). Normally, a subordinate JFC receives OPCON of assigned or attached forces and delegates OPCON to the appropriate Service component commanders.

Surface forces are usually assigned individual areas of operations (AOs) within the JFC's joint operations area (JOA); a less-than-total view of the theater. By comparison, an air component commander typically has an operational-level, JOA-wide perspective similar to the JFC's.

Because all four Services have forces that operate in the air domain, the designation of functional commanders allows greater synergy by integrating similar activities across Service boundaries. The designation of joint force air, land, maritime and special operations component commanders (the joint force air component commander [JFACC], joint force land component commander [JFLCC], joint force maritime component commander [JFMCC], and joint force special operations component commander [JFSOCC] respectively) is at the discretion of the JFC. This functional component model most easily transitions to one that supports combined (or coalition) employment, and the functional component commanders become combined component commanders (e.g. combined force air component commander [CFACC], combined

force maritime component commander [CFMCC], etc.). See figure, “Joint Force Organization with Functional and Service Components.”



Joint Force Organization with Functional and Service Components

In accordance with joint doctrine, designation of a functional component commander (e.g., a JFACC) should not adversely affect the command relationship between the Service component (e.g., the commander, Air Force forces [COMAFFOR]) and the JFC. Normally, the JFC designates the COMAFFOR as the JFACC. The air component commander retains OPCON over Air Force forces and gains tactical control (TACON) over joint air forces made available for tasking. In practice, the JFACC commands and controls the joint air forces, including Air Force forces, through exercising TACON.

AIR COMPONENT RELATIONSHIPS WITHIN A JOINT FORCE

The JFC normally assigns broad missions to the component commanders; with each mission comes a specification of supported commander for that mission. As an example, the JFC may designate the air component commander as the supported commander for counter air, strategic attack, air interdiction, and theater airborne intelligence, surveillance, and reconnaissance (ISR) (among other missions). As such, the air component commander would be responsible to the JFC for planning, coordinating, executing, and assessing these missions, while other component commanders support the air component commander. Subordinate commanders normally work out the support relationships.

The commander responsible for a mission should be given the requisite authority to carry out that mission. For some missions or functions, specification of support alone may be insufficient in order for a functional component commander to fully integrate and employ forces made available. In such instances, the JFC may delegate to a subordinate commander TACON of specific elements of another component's resources (this, in fact, is the usual command authority exercised by functional component commanders over forces made available to them). This provides that commander with a better degree of control. Finally, written establishing directives are extremely useful in clearly outlining the supporting / supported relationship between commanders and providing guidance for staffs.

The air component commander should establish a close working relationship with the JFC to ensure the best representation of airpower's potential. When possible, the air component commander should collocate with, or at least be positioned close to, the JFC, so they may benefit from frequent personal interaction. It also helps keep a greater air component presence in the joint force headquarters, as well as aiding the joint force headquarters staff planning and running air component operations.

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

AIR FORCE COMPONENT PRESENTATION CONSIDERATIONS

There are three general models for presenting Air Force components in support of a JFC: [6]

- **Theater-level component.** This model establishes an Air Force component at the CCDR level, attached with specification of OPCON and commanded by a theater COMAFFOR who the CCDR will normally also designate as a theater JFACC.

- **Sub-theater-level component.** There are two different sub-theater level component possibilities: a subordinate unified command or a joint task force. An Air Force component at the subordinate unified command will normally be attached with specification of OPCON and will include a COMAFFOR prepared to execute as a JFACC over assigned and attached joint forces. An Air Force component at the JTF level will normally be an AETF with a designated COMAFFOR, and will include a JACCE that is the theater level JFACC's liaison to the JTF commander.

[6] There may be additional considerations during homeland operations that impact command arrangements and command relationships. See Annex 3-27, *Homeland Operations*.

- ✪ **Sub-theater-level AETF in support of a JTF.** This model establishes an AETF, in direct support of a subordinate JTF, with OPCON retained by the theater COMAFFOR. In this model, the AETF commander is not a COMAFFOR or JFACC.

LEVELS OF FORCE PRESENTATION

Joint and Service doctrine explicitly describe three levels for organizing joint forces within a geographic CCDR's area of responsibility (AOR): the CCDR level (i.e., the CCDR acts as the JFC), the subordinate unified command, as in Korea; and at the subordinate JTF level. The three force presentation models discussed above are not meant to limit the CCDR's authority to organize forces to best accomplish assigned missions but instead to enable the Air Force to effectively support the CCDR and any subordinate organizations. The following discussion summarizes some of the considerations that may affect the CCDR's organizational construct and force attachment decisions, and require appropriately tailored C2.

Theater-Level Component

This unified command-level model establishes an air component commander (both Service component and JFACC) at the CCDR level. This model optimizes allocation of scarce airpower assets and commander's priorities across the AOR. As the JFC, the CCDR establishes priorities for employment of all assigned and attached forces, and resolves competing demands among the subordinate commands. In this model, the forces form up under the CCDR's Air Force component command.

When the CCDR decides the most effective way to accomplish the

"Deputy Commander—Air" in the Afghanistan Joint Operations Area

Due to the complexity of operations in the US Central Command's AOR, the US Air Forces Central Command commander created two subordinate AETFs (9 AETF-Iraq and 9 AETF-Afghanistan) to better focus airpower support in those two joint operations areas. In Afghanistan, a North Atlantic Treaty Organization operation, the International Security Assistance Force (ISAF) also required a clearly identified command relationship with Air Force forces.

To support US force presentation to ISAF, the commander of 9 AETF-Afghanistan was also designated as the "Deputy Commander-Air" to the commander, US Forces-Afghanistan, the US component to ISAF. This arrangement provided ISAF with an Air Force commander who could exercise command authorities over Air Force forces in support of ISAF.

While a non-standard organization structure, the Deputy Commander-Air leverages basic doctrinal concepts to achieve unity of command within a complex command structure.

mission is by retaining forces at the theater level, the theater-level air component commander will operate in support of the subordinate JTF commander(s) according to the CCDR's theater-wide priorities.

To support planning and operations with subordinate JTFs and other components, the theater-level air component commander may then deploy joint air component coordination elements (JACCEs) to ensure the JTFs receive appropriate support. The JACCE provides on-hand air component expertise and the direct link back to the theater air component commander and the air operations center (AOC).

Sub-Theater-Level Component

This model establishes an Air Force Service component and air component commander within a sub-theater level JFC (i.e., subordinate unified command or JTF commander), responsible for an operational area below the CCDR level. This model may be preferable when the span or scope of operations is less than theater-wide, or when operations are sufficiently fluid to require planning and execution at more tactical levels.

Under this model, the CCDR-level COMAFFOR, as directed by the CCDR, relinquishes OPCON of the forces attached to the sub-theater JFC, and the designated commander of the sub-theater JFC accepts OPCON for the duration of the attachment. In accordance with joint and Air Force doctrine, the sub-theater JFC then normally delegates OPCON of attached Air Force forces to the identified sub-theater COMAFFOR. Administrative control (ADCON) is retained within the Service chain from the CCDR-level COMAFFOR downward to the sub-theater level COMAFFOR. This COMAFFOR is poised to also act as a JFACC, if so designated by the sub-theater JFC.

The key advantage of this model is that it provides fully integrated airpower to a sub-theater JFC, while the theater air component commander maintains control of high-demand, low density capabilities. The key disadvantage is that Air Force forces attached to the sub-theater JFC are not normally available to address demands outside their operational area.

An AETF attached with specification of OPCON to a JTF will include a COMAFFOR under OPCON of that JTF commander. However, the AETF will not have a command and control capability adequate to being designated as a JTF-level JFACC. Under these conditions, the CCDR may direct the theater air component commander to retain TACON over joint air forces and be established in support to the JTF commander, exercised through the JACCE.

Mix of Theater- and Sub-Theater-Level Components

Some theater requirements may drive a mix of the two previous models. This may be desirable when there are competing requirements for low density/high demand Service capabilities (e.g., ISR, remotely piloted aircraft; and air refueling) across the AOR, yet

there is also sufficient demand for dedicated airpower at subordinate levels to drive attachment of Air Force forces to a subordinate JTF.

Sub-Theater-Level AETF In Support of a JTF

When the CCDR establishes one or more sub-theater JFCs but elects to retain all (or most) Air Force forces at the theater level, the size and complexity of the mission would typically drive establishment of subordinate AETFs in direct support of the sub-theater JFCs.

Under this construct, the theater COMAFFOR retains OPCON and delegates appropriate aspects of OPCON, TACON, and ADCON to the AETF commander while maintaining theater-wide perspective and responsibility for recommending apportionment of airpower capabilities across the theater of operations to the CCDR. The AETF commander remains subordinate to the theater COMAFFOR.

The key advantage of this model is that it provides an Airman empowered with command authorities to the sub-theater JFC while allowing the theater COMAFFOR to retain OPCON of forces across the AOR to address the CCDR's priorities. This model normally requires a significantly smaller command and control capability than would an AETF attached with specification of OPCON to a sub-theater JFC.

FORCE ATTACHMENT CONSIDERATIONS

When the operational mission at the JTF level outweighs competing missions at the CCDR's AOR level, the CCDR should consider attaching Air Force forces to the JTF commander. Considerations include:

- Do the operational tempo, intensity, duration, and scope warrant near full-time use of an attached AETF?
- Do the operational tempo, intensity, duration, and scope justify a dedicated AETF that, once attached to the JTF, may not be available to support operations elsewhere?
- Does the priority of the JTF mission, relative to other theater missions, justify a dedicated AETF that, once attached to the JTF, may not be available to support operations elsewhere?
- If the choice is to attach an AETF to a JTF, does the Air Force have the ability to provide the required C2 of Air Force forces?
- Does the provision of forces to a subordinate JTF, either by attachment or direct support, effectively demonstrate and enable the Air Force component's commitment to the joint force effort?

If the decision is to attach forces, the follow-on question is whether the forces should be attached with specification of either OPCON or TACON.

- **Specification of OPCON:** OPCON includes organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission, to include repositioning of forces.

- **Specification of TACON:** TACON is limited to the detailed direction and control of movements or maneuvers. TACON may provide sufficient authority for controlling and directing the application of force or tactical use of combat support assets within the assigned mission or task. Attaching forces with specification of only TACON splits OPCON and TACON between two different commanders, but allows for quick action and decisions at lower levels.

These situations require careful and continuing dialogue between the respective joint and Service component commanders and their common superior commander. Finally, the decisions, including the delineation of operational and administrative authorities to be held among the involved commanders, should be captured in written orders such as operation orders, execute orders, or fragmentary orders; Air Force decisions may also be captured in G-series orders, such as those appointing the COMAFFOR.

ACHIEVING UNITY OF EFFORT

To achieve unity of effort across an AOR, the CCDR should provide the requisite guidance for the interaction between theater-level and subordinate components. This should include clarity of supported and supporting command relationships between the JTFs and theater air component commander, together with clear priorities of effort and support, and apportionment. The theater air component commander should then allocate effort across the AOR using CCDR guidance and priorities.

The CCDR sets the conditions for success by clearly stating and emphasizing the supported command status of subordinate JTFs and the supporting command role of a theater-level air component commander and by providing sufficient guidance for the theater subsequent allocation decision. The CCDR is the ultimate arbiter for prioritization and apportionment decisions among subordinate JTF commanders.

AIR COMPONENT C2 STRUCTURES

The air component commander requires an appropriately sized and configured C2 capability to effectively command and control the Air Force Service component and joint air forces made available for tasking. At the combatant command level this C2 capability includes an AOC and an air component staff to enable the air component commander to command and control air forces in both the operational and administrative branches of the chain of command.

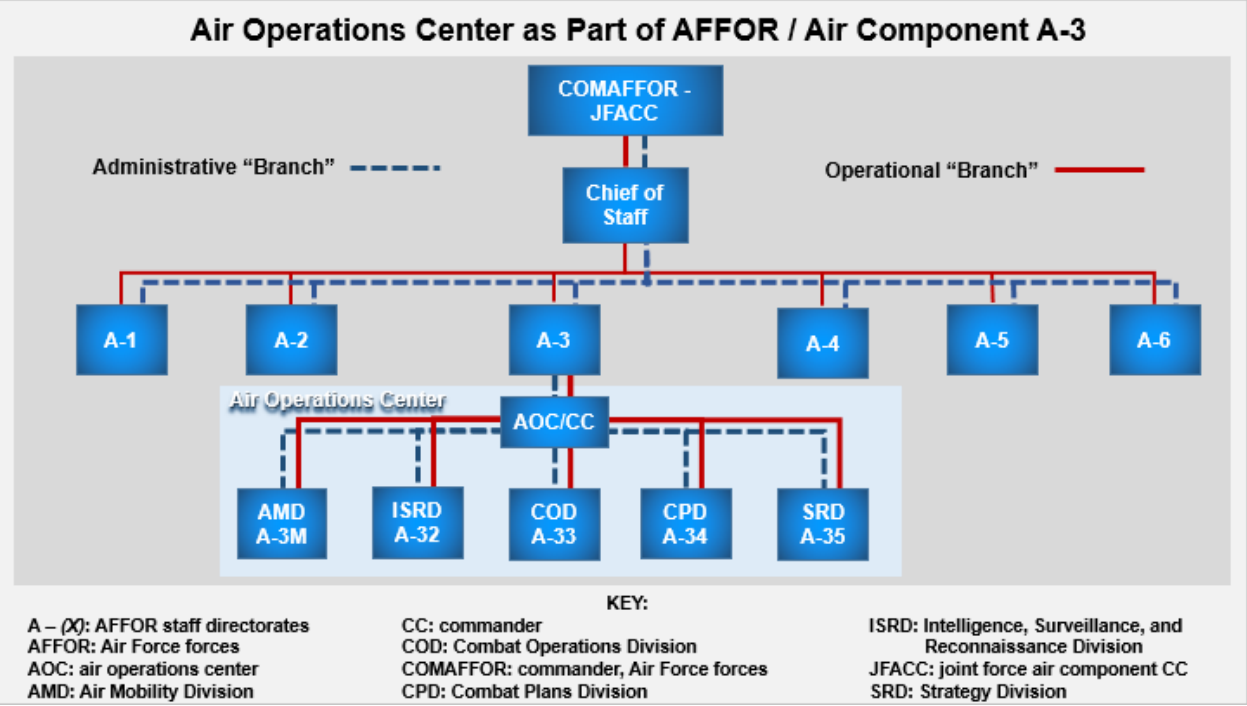
The AOC and air component staff need to be fully integrated to cover the totality of the COMAFFOR's responsibilities as a component major command (C-MAJCOM) or component numbered air force (C-NAF) commander, and to be prepared to assume the duties of a JFACC when designated by the CCDR. Division of workload and responsibilities between the AOC and air component staff depend upon the requirements of the air component commander, mission requirements, and resources available. In general, the AOC normally will plan for and employ the forces provided, while the air component staff is normally focused on long-range theater strategy and Service "organize, train, and equip" (OT&E) responsibilities in order to provide Air Force forces that will be employed under CCDR orders and direction. Synergies of operational mission accomplishment are gained by integrating the staffs in support of the JFACC mission.

Mission requirements, manning, and rank structure differences between the various C-MAJCOMs and C-NAFs do not readily support a "one size fits all" structure for the air component commander's C2 organization. Two structures in current use are: AOC under the AFFOR A-3, and the AOC/CC and AFFOR A-3 separate individuals each reporting directly to the air component commander.

AOC as Part of AFFOR/Air Component A-3

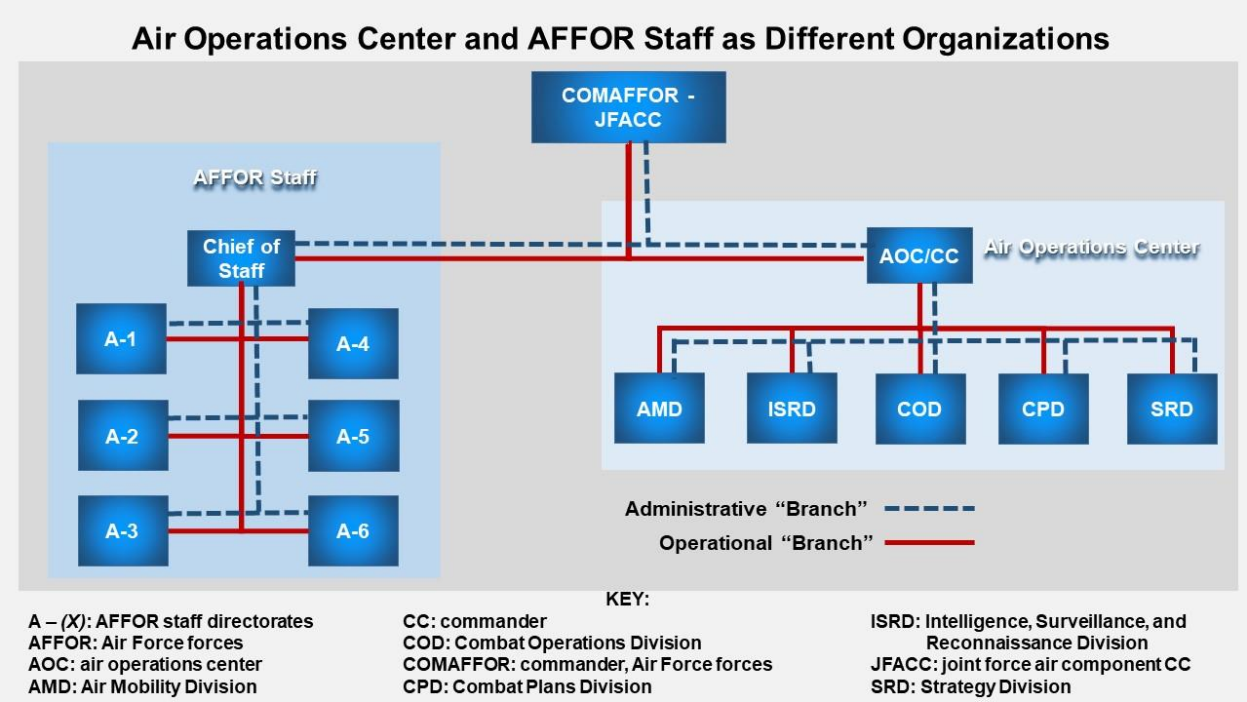
Under this structure the AOC commander works for the AFFOR / Air Component A-3, where the core element of the air component staff is the AFFOR staff. The AOC retains its divisions but the AOC is now a part of the AFFOR A-3 staff. To improve staff-to-staff coordination with the JFC's staff and the other components, the AOC divisions are also identified with an appropriate A-3 staff number (e.g., Combat Operations Division is also designated as A-33). This structure is illustrated in the figure, "AOC as Part of AFFOR/Air Component A-3."

This structure improves integration between Air Component Staff and the AOC and provides easier cross-component staff-to-staff integration. While providing synergies and manpower savings, this structure also requires the AFFOR/Air Component A-3 and joint / combined AOC staffs to have clearly defined roles and responsibilities.



Air Operations Center as Part of AFFOR / Air Component A-3

AOC and AFFOR Staff as Different Organizations



AOC and AFFOR Staff as Different Organizations

In this structure, the AOC and Air Force Service component staff are separate organizations, each reporting directly to the air component commander. This structure is illustrated in the figure, “AOC and AFFOR Staff as Different Organizations.”

This structure provides manpower focused at appropriate levels for the AFFOR staff and the AOC, and provides redundant capability for additional taskings (e.g., sub-theater AETF, JTF headquarters). The structure enables parallel operations between the separate COMAFFOR and AOC staffs, separating responsibilities and simultaneously accomplishing OT&E and combat operations, respectively. While providing more flexibility in the different COMAFFOR and JFACC roles, this structure requires a substantial manpower bill, requires that cross-component staff-to-staff channels have robust interaction, and requires that internal staff integration be clearly defined.

APPENDIX A: COMMAND AUTHORITIES AND RELATIONSHIPS

Last Updated: 7 January 2020

Effective organizations require clear and effective command relationships. A working understanding of command terminology is essential to understanding the relationships among components and the responsibilities inherent in organizations.

COMBATANT COMMAND (COCOM)

Combatant command (command authority) is defined as "**nontransferable command authority, which cannot be delegated, of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces; assigning tasks; designating objectives; and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command**" (Joint Publication [JP] 1, *Doctrine for the Armed Forces of the United States*).

COCOM is exercised by commanders of combatant commands (CCMD) as directed by the President or the Secretary of Defense (SecDef). COCOM should be exercised through the commanders of subordinate organizations such as subordinate joint force commanders (JFCs) and Service or functional component commanders. COCOM provides full authority to organize and employ commands and forces as the combatant commander considers necessary to accomplish assigned missions. (Note that the acronym "COCOM" refers *only* to the command authority, not to an individual or an organization.)

OPERATIONAL CONTROL (OPCON)

Operational control is defined as "**the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission**" (JP 1).

OPCON can be delegated from a lesser authority than COCOM. OPCON normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned

missions. It does not include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

OPCON should be exercised through the commanders of subordinate organizations, such as subordinate JFCs and Service or functional component commanders. Normally, JFCs exercise OPCON of assigned and attached Air Force forces through the commander, Air Force forces (COMAFFOR).

TACTICAL CONTROL (TACON)

Tactical control is defined as "**the authority over forces that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned**" (JP 1).

TACON may be delegated to and exercised by commanders at any echelon at or below the level of CCMD. TACON provides sufficient authority for controlling and directing the application of force or tactical use of combat support assets within the assigned mission or task. TACON does not provide organizational authority or authoritative direction for administrative and logistic support.

SUPPORT

Support is a command authority that aids, protects, complements, or sustains another force. It is used when neither OPCON nor TACON is appropriate. The SecDef specifies support relationships between CCDRs; the CCDR may establish support relationships between components assigned or attached to the command.

There are four defined categories of support that a CCDR may direct over assigned or attached forces to ensure the appropriate level of support is provided to accomplish mission objectives. These include general support, mutual support, direct support, and close support.

- **General support.** That support which is given to the supported force as a whole rather than to a particular subdivision thereof.

- **Mutual support.** That support which units render each other against an enemy because of their assigned tasks, their position relative to each other and to the enemy, and their inherent capabilities.

- **Direct support.** A mission requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance.

- **Close support.** That action of the supporting force against targets or objectives that are sufficiently near the supported force as to require detailed integration or coordination of the supporting action with the fire, movement, or other actions of the supported force.

ADMINISTRATIVE CONTROL (ADCON)

Administrative control is defined as the "**direction or exercise of authority over subordinate or other organizations with respect to administration and support**" (JP 1). This includes organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations.

ADCON is not a warfighting authority like that found in COCOM, OPCON, TACON, or support relationships. Normally the COMAFFOR exercises ADCON over assigned Air Force personnel, and at least those elements of ADCON that are necessary to ensure mission accomplishment over those Air Force personnel attached to the Air Force component command. It is through ADCON that the COMAFFOR provides properly organized, trained, and equipped Air Force forces to be employed under the OPCON of the JFC.

COORDINATING AUTHORITY

Coordinating authority is defined as "**the commander or individual who has the authority to require consultation between the specific functions or activities involving forces of two or more Services, joint force components, or forces of the same Service or agencies, but does not have the authority to compel agreement**" (JP 1). In the event that essential agreement cannot be obtained, the matter shall be referred to the appointing authority. Coordinating authority is a consultation relationship, not an authority through which command may be exercised.

DIRECT LIAISON AUTHORIZED (DIRLAUTH)

Direct liaison authorized is defined as "**that authority granted by a commander (any level) to a subordinate to directly consult or coordinate an action with a command or agency within or outside of the granting command**." (JP 1).

APPENDIX B: THE AIR OPERATIONS CENTER

Last Updated: 7 January 2020

The following discussion outlines the basic air operations center (AOC).

The Air Force has established a number of AOCs that provide the ability to command and control (C2) air, space, and cyberspace forces. By design and intent, the AOC provides the best C2 capability to command and control the joint air effort and forms the nucleus, with appropriate augmentation from other Services and components, of the joint or combined AOC (JAOC or CAOC) when joint force commander (JFC) designates the commander, Air Force forces (COMAFFOR) as the joint force or combined force air component commander (JFACC or CFACC). The AOC is organic to the Air Force Service component. If the JFC does not designate a JFACC, the AOC does not become the JAOC but provides the COMAFFOR the ability to command and control Air Force forces for employment as the Service component. If the JFC designates some other Service component commander as the JFACC, that Service component C2 structure forms the JAOC and the AOC provides the COMAFFOR the ability to command and control Air Force forces that are made available for tasking under the TACON of the non-Air Force JFACC.

The AOC provides operational-level C2 of air component forces as the focal point for designing, planning, executing, and assessing air component operations. The AOC can be tailored and scaled to a specific or changing mission, and to the associated Service component the air component commander presents to the JFC. The AOC is organic to the air component commander's ability to command and control Air Force forces. Air Force Tactics, Techniques, and Procedures 3-3.AOC, *Air Operations Center* and *Air Force Instruction 13-1AOC, Volume 3, Operational Procedures-Air Operations Center* provide further detail concerning the structure, functions, processes, and personnel within the AOC.

The primary functions of the AOC are to:

- ✪ Develop air component operations strategy and planning documents that integrate air, space, and cyberspace operations to meet air component commander objectives and guidance the JFC designates.

- ✪ Task, execute, and assess day-to-day air component operations; provide rapid reaction, positive airspace control, and coordinate and deconflict weapons employment as well as integrate the total air component effort.

- ✪ Receive, assemble, analyze, filter, and disseminate all-source intelligence and weather information to support air component operations planning, execution, and assessment.

- ✪ Integrate space capabilities and coordinate space activities for the air component commander when designated as space coordinating authority.

- ✪ Issue airspace control procedures and coordinate airspace control activities for the airspace control authority (ACA) when designated.

- ✪ Provide overall direction of air defense, including theater missile defense (TMD), for the area air defense commander (AADC) when designated.

- ✪ Plan, task, and execute the theater air component intelligence, surveillance, and reconnaissance (ISR) mission.

- ✪ Conduct component-level assessment to determine mission and overall air component operations effectiveness as required by the JFC to support the theater assessment effort.

- ✪ Plan and task air mobility operations according to the theater priorities.

AOC ORGANIZATION

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

AOC Commander

The AOC commander is charged with effectively managing air component operations and establishing the AOC battle rhythm. The AOC commander develops and directs processes to design, plan, coordinate, allocate, task, execute, and assess air component operations in the area of operations or joint operations area based on JFC and air component commander guidance. The AOC commander commands the AOC (but not Air Force forces) and should be prepared to direct a joint AOC when designated.

Strategy Division

The strategy division concentrates on long-range design and planning of air component operations to achieve JFC objectives by developing, refining, disseminating, and assessing progress toward achieving the air component commander component strategy. The strategy division is normally task organized into three functionally oriented core teams: the strategy plans team, the strategy guidance team, and the operational assessment team. During less demanding operations, the information operations team, which supports all AOC divisions, is administratively under the strategy division chief. Key products include the joint air operations plan, the air operations directive (AOD), and other air component commander guidance.

Combat Plans Division

The combat plans division applies operational art to develop detailed execution plans for air component operations. The combat plans division is normally task organized into four functionally oriented core teams: the targeting effects team; the master air attack plan (MAAP) team; the air tasking order (ATO) production team, which also produces space and cyberspace tasking orders (STO and CTO), as applicable; and the C2 planning team. The division's key products are an area air defense plan, airspace control plan, area air defense plan, ATO, STO, CTO, airspace control order (ACO), special instructions, and joint integrated prioritized target list.

Combat Operations Division

The combat operations division monitors and executes current operations. The combat operations division is also the focal point for monitoring the execution of joint and combined operations, such as time-sensitive targeting, theater missile defense, joint suppression of enemy air defense supported by theater forces, and the joint air attack team. The combat operations division is normally task-organized into four functionally oriented core teams: offensive operations, defensive operations, senior intelligence duty officer team, and interface control team. The division's main products are daily ATO, STO, CTO, and ACO changes, and changes to other plans and orders, as required.

ISR Division

The ISR division, in conjunction with the other AOC divisions, plans and executes airborne ISR operations and provides combat ISR support to air component planning, execution, and assessment activities. The ISR division has four core teams: the analysis, correlation and fusion team; the targeting and tactical assessment team; the ISR operations team; and the processing, exploitation, and dissemination management team. Major products include: the reconnaissance, surveillance, and target acquisition annex to the ATO (or the ISR collection plan); updated intelligence preparation of the operational environment; air component target nomination list; and intelligence summaries.

Air Mobility Division

The air mobility division (AMD) plans, coordinates, tasks, and executes the theater air mobility mission. Unlike the other AOC divisions that work solely for the AOC commander, the AMD coordinates with the director of mobility forces (DIRMOBFOR) but remains responsive to the tempo and timing of the AOC commander's operation. The DIRMOBFOR is responsible for integrating the total air mobility effort for the air component commander and, in this capacity, coordinates with the AMD to execute the air mobility mission. The AMD coordinates with the theater deployment distribution operations center and the 618 AOC (Tanker/Airlift Control Center). The AMD is comprised of four core teams: the airlift control team, the air refueling control team, the air mobility control team, and the aeromedical evacuation control team. Major products include airlift apportionment plans and air refueling inputs to the MAAP, ATO, ACO, and special instructions.

APPENDIX C: THE AIR FORCE FORCES (AFFOR) STAFF

Last Updated: 7 January 2020

This appendix supports the basic discussion of the AFFOR staff. More specific guidance can be found in Air Force Instruction 13-103, *AFFOR Staff Operations, Readiness and Structures*.

An AFFOR staff (sometimes also called an A-Staff) supports the air component commander at the combatant command (CCMD), subordinate unified command, or joint task force level. The AFFOR staff is the vehicle through which the air component commander fulfills operational and administrative responsibilities for assigned and attached forces across the competition continuum. In the steady state, the AFFOR staff performs administrative responsibilities (organize, train, equip, and sustain), and also plans, executes, and assesses operations in support of the combatant commander's (CCDR's) theater campaign strategies and plans. The AFFOR staff is also responsible for the operational planning that occurs outside the air tasking cycle (e.g., contingency planning). The AFFOR staff consists of functionally oriented directorates, a command section,

Pacific Air Forces (PACAF) Staff: Synchronizing Orders and Execution in Great Power Competition

To facilitate the planning, direction, distribution, and sustainment of air forces in the Indo-Pacific theater against near peer adversaries, the Commander, Pacific Air Forces (COMPACAF) organizes the air operations center (AOC) under the PACAF A-3/6. Subordination of the combined force air component commander's operational-level command and control (C2) center under the Air Force Service component's staff officer responsible for operations and communications allows the COMPACAF's staff to coordinate the functions necessary to deploy, maintain, and maneuver expeditionary Air Force forces in the theater's anti-access / area denial environment. The alignment also facilitates staff-to-staff integration of effort with CCMD/J3 and joint operations center, across components and within the air component, which is necessary to synchronize operations and maintain initiative while achieving redundancy and resiliency forward.

a personal staff, and any required liaisons. The AFFOR staff issues mission-type orders on behalf of the air component commander to direct subordinate units to execute actions outside of the scope of the air, space, or cyberspace tasking orders (ATO, STO, and CTO, respectively). Examples of such orders may include setting a baseline force protection condition, directing the move of a unit to another operating base, and overseeing the execution of steady-state or security cooperation operations.

AFFOR STAFF ORGANIZATION

The following discussion of AFFOR staff duties is not intended to be all-inclusive. The differing mission requirements of any given operation may dictate different task emphasis and staff arrangements. Very large or complex operations, for example, may require all staff directorates. In some cases, senior component liaison elements may not be needed, while some of the required support may be obtained through reachback. For very small or limited operations, a full AFFOR staff may not be required. As a rule of thumb, the size and span of the AFFOR staff should normally be held to the smallest number of divisions necessary to handle the demands of the operation; in some cases, the air component commander may combine some leadership positions (e.g., A-3/5). Other operations may employ an AFFOR staff split into forward and rear elements, using reachback to maintain unity of effort. In each case, based upon regional requirements, the air component commander determines the size, shape, and location of the AFFOR staff, AOC, and liaisons to best support the operation.

Command Section

The command section is normally composed of the air component commander, vice commander, chief of staff, command chief master sergeant, executive assistant, and appropriate administrative support personnel. Within the command section, the chief of staff coordinates and directs the daily activities of the AFFOR staff; approves actions, orders, and plans, as authorized by the air component commander; and ensures air component commander decisions and concepts are implemented by directing and assigning staff responsibilities.

Personal Staff

The air component commander has several staff activities that normally function outside the AFFOR staff directorates. These activities fulfill specific responsibilities usually related to providing close, personal advice or services to the commander, or assist the commander and the component staff with technical, administrative, or tactical matters. These activities may include the commander’s legal advisor; political advisor; public affairs advisor; inspector general; protocol advisor; historian; chaplain; and advisors or directors for counterintelligence and special investigations, financial management, force protection, air mobility operations, space operations, cyberspace operations, medical, knowledge operations management, and safety . Based on the needs of the operation

and the requirements of the AFFOR staff, some of these activities may be located within the AFFOR staff directorates.

Knowledge Management Enabling Decision Superiority

Prior to exercise Austere Challenge 2015, US Air Forces in Europe-Air Forces Africa experienced significant challenges in trying to achieve decision superiority due to a lack of knowledge management (KM) governance. Applying the joint KM operational design approach, the chief of staff created a civilian KM officer position, KM cell, and established a KM working group to plan, operate, and maintain four lines of effort (decision support, process management, KM governance, and a knowledge-sharing culture). The goal was to enable decision superiority through improved shared situational awareness and understanding, and to better support the commander's decision-making process.

Working for the chief of staff, the KM team first analyzed what information the commander and other senior leaders required. They then examined what information the staff needed to improve their shared situational awareness and inform their recommendations to the commander. Next, the KM team analyzed, streamlined, and standardized the information flow processes used to gather, input, and distribute operational knowledge products (e.g., operation plans and orders, courses of action, and staff estimates). They then applied enabling technologies, tools, business rules, and training to achieve the goal.

They created a Secret Internet Protocol Router Network-based "situation room" architecture using SharePoint (IntelShare) with workflows and site-wide metadata to consolidate and automate processes, and to increase search and archive capabilities. This framework facilitated knowledge and information flows across organizational lines within the command structure and with other Department of Defense agencies. The staff became more effective at locating data and information, and was better able to support the commander's decision making. Lessons learned and continuous process improvement methodologies empowered the team to develop, implement, and sustain incremental improvements across many exercises and operations since 2015.

Senior Component Liaisons

The senior liaison officer (LNO) from each component represents his or her respective commander to the air component commander. Subordinate LNOs from each component may perform duties throughout the staff as required, providing weapon system expertise. LNOs should be knowledgeable of the capabilities and limitations of their units and Service.

Manpower, Personnel, and Services (A–1)

The director of manpower, personnel, and services is the principal staff assistant to the air component commander for total force accountability, personnel policy and procedures, the establishment and documentation of manpower requirements, organizational structures, mortuary affairs, food and force beddown operations, the coordination of exchange services, and the provision of quality of life programs to enable and sustain forces assigned and attached.

Intelligence, Surveillance, and Reconnaissance (A–2)

The director of intelligence, surveillance, and reconnaissance (ISR) is the principal staff assistant for policy and guidance for all Air Force ISR operational architectures, personnel, systems, training, and intelligence preparation of the operational environment (IPOE). The A–2 provides intelligence support to forces within the assigned area of operations. The A–2 does not normally direct ISR collection assets when an ISR division is resident in the AOC; this is normally directed by AOC's ISR division chief.

Operations (A–3)

The director of operations serves as the principal staff assistant in the direction and control of all assigned and attached Air Force forces. When operational control of Air Force units is formally transferred to the air component commander, the A-3 ensures they are capable of performing tasked missions. This includes monitoring unit deployments and beddown locations, combat readiness, mission rehearsals, force protection, and training activities. The A-3 is the focal point for executing component operations outside the purview of the AOC.

Logistics (A–4)

The director of logistics is the principal staff assistant for logistics and sustainment

PACAF Watch Center: Synergizing Staff Functions for Agile Combat Employment

The deployment, dispersal, and maneuver of operations and support units forward for adaptive basing in the Indo-Pacific Theater is a formidable challenge for the PACAF staff, including the PACAF A-4. The PACAF chief of staff directs an operations center called the Pacific Air Forces Watch Center (PAFWC) to synchronize PACAF A-4 functions with the PACAF staff, the air component's AOC, and Logistics Combat Support Teams in theater. In addition to synergizing PACAF's daily staff functions overall, the PAFWC facilitates the maintenance and sustainment of dispersed forces for agile combat employment and enables the air component commander to distribute commander's intent, direction, and guidance in a dynamic and competitive environment.

support. The A-4 staff is a broad, multi-disciplined organization, generally comprised of logistics plans, munitions, fuels, vehicle management, materiel management, maintenance, host nation support, contracting, distribution and combat logistics support. On some AFFOR staffs, the director of logistics also serves as the advisor for civil engineer installation management, security forces, fire emergency services, explosive ordinance disposal, emergency management, agile combat support, planning for commercial support, integrated defense, weapons system security, antiterrorism, force protection, and the senior maintenance officer.

Plans and Requirements (A–5)

The director of plans and requirements serves as the principal staff assistant for all consolidated planning functions. In coordination with the A–4, the A–5 conducts comprehensive force-level movement and execution planning throughout the campaign. This involves preparation and subsequent refinement of the force flow, beddown, and redeployment in the time-phased force and deployment data. The A–5 is the focal point for planning not under the purview of the AOC, to include the campaign support plan and security cooperation country plans. This planning is normally preceded by the development of a strategy. The A-5 is also the focal point for the operational assessment of such plans. In addition, the A-5 leads in the development of the organizational structure and command relationships for the Air Force component within the framework of the joint operation. The A–5 normally publishes the Air Force component operations order to support the JFC's campaign.

Communications (A–6)

The director of communications is the principal staff assistant for communications-electronics and certain information capabilities. This includes establishing the theater communications and automated systems architecture to support operational and command requirements.

Installations and Mission Support (A-7)

Current AFFOR staffs no longer include the A-7, but have incorporated the duties under the A-4 and Air Force installation and mission support. However, CCMD joint staffs still retain this directorate as the J-7. Should the air component commander create such a directorate, duties include being primary advisor for installations; mission support; force protection; explosive ordnance disposal; civil engineering; firefighting; emergency management; chemical, biological, radiological, and nuclear passive defense and response; contracting; and all cross-functional expeditionary combat support.

Strategic Plans and Programs (A–8)

The director of strategic plans and programs provides comprehensive advice on all aspects of strategic planning and programming. The A–8 also conducts program

assessment and provides coordinated resource inputs to the supporting Air Force major command's program objective memorandum processes.

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

The director of studies, analyses, assessments, and lessons learned, collects, documents, reports, and disseminates critical information necessary to analyze, assess, and document Air Force aspects of campaigns and contingencies, and to document lessons identified. This information provides the primary source documents for both contemporary and future Air Force planning and analysis. Moreover, they serve as a baseline for component mission accomplishment.

Strategic Deterrence and Nuclear Integration (A–10)

The director of strategic deterrence and nuclear integration is the primary advisor for strategic deterrence, conventional/nuclear integration, and Air Force nuclear enterprise matters. This includes nuclear force structure, readiness, sustainability, and vulnerability data, as well as nuclear command, control and communications, and nuclear weapons employment.

APPENDIX D: THE THEATER AIR CONTROL SYSTEM

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The theater air control system (TACS) is the Air Force's mechanism for commanding and controlling theater airpower. It consists of airborne and ground elements to conduct tailored command and control (C2) of airpower operations throughout the competition continuum, including counterair, counterland, countersea, and counterspace operations; airspace control; and coordination of space and cyberspace mission support not resident within theater. The structure and positioning of the TACS elements adapt as needed to effectively control airpower. As an organic Air Force system, the TACS remains under the operational control (OPCON) of the air component commander. In multinational commands, the name and function of certain TACS elements may differ, but multinational air components have similar capabilities.

TACS ORGANIZATION

As the senior C2 element of the TACS, the air operations center (AOC) includes personnel and equipment of the necessary disciplines to ensure the effective conduct of air component operations (e.g., communications, operations, intelligence, and weather). When the commander, Air Force forces (COMAFFOR) is designated as the joint force air component commander (JFACC), airspace control authority, area air defense commander, space coordinating authority, and electronic warfare control authority, these functions are also performed through the AOC. The AOC should have secure and redundant communications with higher and lateral headquarters, as well as subordinate units. The TACS provides the air component commander connectivity from the theater strategic level down through tactical elements such as Airborne Warning and Control System (AWACS), Joint Surveillance Target Attack Radar System (JSTARS), control and reporting centers (CRCs) to tactical air control parties (TACPs) and joint terminal attack controllers (JTACs) organized under expeditionary air support operations groups or expeditionary air support operations squadrons.

When the TACS is combined with other components' C2 elements, such as the Army air-ground system, the Navy tactical air control system, and the Marine Corps air command and control system, they become the theater air-ground system (TAGS), and collectively support the air component commander

Each Service component of a joint force employs its respective element of the TAGS. The air component commander will exercise control of component forces made available for tasking using TACS. If another Service component commander is designated as the JFACC, then he or she would likely employ their own Service component element of TAGS as the primary system for control of air component forces made available for tasking. When some other Service component commander is designated as the JFACC, the COMAFFOR will retain control of the TACS structure to exercise OPCON over Air Force forces and integrate Air Force forces under the tactical control of the JFACC. For a description of each Service's TAGS element see Air Force Tactics, Techniques, and Procedures 3-2.17, *Multi-Service Tactics, Techniques, and Procedures for the Theater Air-Ground System* (common access card required).

The TACS is divided into ground and airborne elements as described below.

Ground TACS Elements

Ground TACS elements include the CRCs, the air support operations center (ASOC), and TACPs.

Control and Reporting Centers

The CRC is subordinate to the AOC and conducts air surveillance and supports strategic attack, counterair, counterland, air refueling operations, and other airpower functions and missions as directed. Responsibility as the region or sector air defense commander may be decentralized to the CRC, which acts as the primary integration point for fighters conducting defensive counterair and air defense artillery (ADA) fire control in its assigned area. It also enhances the joint forces' situational awareness by disseminating the air picture over data-links. The CRC may deploy mobile radars and associated communications equipment to expand radar coverage and communications range within its assigned operating area. These remote radars are capable of providing early warning, surveillance, weapons control, and identification functions.

The AOC is the senior element within the TACS. The TACS includes the AOC plus subordinate ground and airborne elements, and is directly involved in the C2 of most air missions. Collectively, the TACS has the capability to plan, direct, integrate, and control all air, space, and cyberspace forces assigned, attached, or made available for tasking; monitor the actions of both friendly and enemy forces; plan, direct, coordinate, and control air defense and airspace control; and coordinate for required space and cyberspace support.

It is important to remember that **the entire TACS is necessary for the air component commander's effective command of airpower.**

Air Support Operations Centers

The ASOC, which reports to the AOC, receives, coordinates, and processes air support requests from subordinate TACPs, which are transmitted through the joint air request net. ASOCs distribute allocated sorties to satisfy requests for air support and integrate those missions with the supported units' fires and maneuver. An ASOC is normally tasked to support an Army unit but can also support units from other organizations (e.g., special operations, coalition forces). It may also augment other missions requiring C2 of air assets (e.g., humanitarian efforts).

Tactical Air Control Parties

TACPs are aligned with Army maneuver elements, battalion through division level. They are primarily responsible for decentralized execution of close air support (CAS) operations. TACPs request, coordinate, and control CAS missions as required. For more information on TACPs and ASOCs, see Annex 3-03, *Counterland Operations*.

AIRBORNE TACS ELEMENTS

Airborne elements of the TACS include AWACS, JSTARS, and the forward air controller (airborne) (FAC [A]).

Airborne Warning and Control System

AWACS is subordinate to the AOC and conducts air and maritime surveillance and supports strategic attack, counterair, counterland, countersea, air refueling operations, and other airpower functions and missions as directed. Responsibility as the region or sector air defense commander may be decentralized to AWACS, which acts as the primary integration point for air defense fighters and ADA fire control in its assigned area. It also enhances the joint forces' situational awareness by disseminating the air and maritime picture over data-links.

Joint Surveillance Target Attack Radar System

JSTARS conducts ground and maritime surveillance and supports strategic attack, counterair, counterland, countersea, and other airpower functions and missions as directed. It primarily provides dedicated support to ground commanders and attack support functions to friendly offensive and defensive air elements and may be employed as an airborne extension to the ASOC. It also enhances the joint forces' situational awareness by disseminating the ground and maritime picture over data-links.

Forward Air Controller (Airborne)

The FAC (A) is an airborne extension of the TACP and has the authority to direct aircraft delivering ordnance to a specific target cleared by the ground commander. The FAC (A) provides additional flexibility in the operational environment by enabling rapid

coordination and execution of air operations. It also enhances the TACS' situational awareness by disseminating information on the flow of aircraft on target.

APPENDIX E: DEFINITIONS AND EXPLANATIONS OF TERMS

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COMMAND

Command is "the authority that a commander in the Armed Forces lawfully exercises over subordinates by virtue of rank or assignment" (Joint Publication [JP] 1, *Doctrine for the Armed Forces of the United States*). **Although commanders may delegate authority to accomplish the mission, they cannot delegate the responsibility for the attainment of mission objectives.**

CONTROL

Control is "authority that may be less than full command exercised by a commander over part of the activities of subordinate or other organizations" (JP 1). Control is the process, inherent in command, by which commanders plan, guide, and conduct operations. This process requires strong leaders who conduct assessment and evaluation of follow-up actions. Time and distance factors often limit the direct control of subordinates, especially in a contested environment. Commanders should rely on delegation of authorities and promulgation of commander's intent as methods to control forces.

COMMAND AND CONTROL (C2)

> *"C2 functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission."*
>
> **-- JP 1**

Command and control is "the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission" (JP 1). C2 enables mission accomplishment by collaborative planning and synchronizing, integrating forces and operations in time and purpose. Fluid horizontal and vertical information flow enables effective C2 throughout the chain of command. This information flow, and its timely fusion, enables optimum decision-making, operationalizing the tenet of centralized control and decentralized execution. A

robust and redundant C2 system provides commanders the ability to effectively employ their forces despite the fog and friction of war while simultaneously minimizing the enemy's capability to interfere with the same.

COMMANDER

The dual-hatted air component commander (joint force air component commander [JFACC] and commander, Air Force forces [COMAFFOR]) is the most common and historically most successful arrangement for command and control of airpower.

The JFACC should be the Service component commander within a unified combatant command, subordinate unified command, or joint task force (JTF) with the preponderance of air forces to be tasked and the ability to plan, task, and control joint air operations.

The COMAFFOR is the single Air Force commander of an Air Force Service component assigned or attached to a joint force commander (JFC) at the unified combatant command, subordinate unified command, or JTF level.

UNITY OF COMMAND

Unity of command is one of the principles of joint operations. According to Volume 1, *Basic Doctrine*, "unity of command ensures concentration of effort for every objective under one responsible commander. This principle emphasizes that all efforts should be directed and coordinated toward a common objective."

Unity of command is not intended to promote centralized control without delegation of execution authority to subordinate commanders. As the breadth of command expands to include full spectrum of operations, commanders are typically unable to exercise immediate control over all operations in their area of command. Thus, C2 arrangements normally include the assignment of responsibilities and the delegation of authorities between superior and subordinate commanders. Senior commanders should provide the desired end state, desired effects, rules of engagement (ROE), and required feedback on the progress of the operation while subordinate commanders direct tactical operations.

Forces should be organized to assure unity of command with commanders clearly delineated at appropriate echelons. Within a joint force, the JFACC provides a single Airman in command of assigned and attached Air Force forces and joint air forces made available for tasking.

CENTRALIZED CONTROL AND DECENTRALIZED EXECUTION

Centralized control and decentralized execution are a key tenet of C2; providing Airmen the ability to exploit the speed, flexibility, and versatility of airpower. Centralized control

is defined as “in joint air operations, placing within one commander the responsibility and authority for planning, directing, and coordinating a military operation or group/category of operations” (JP 3-30, *Joint Air Operations*). Decentralized execution is defined as “the delegation of execution authority to subordinate commanders” (JP 3-30) and other tactical-level decision makers to achieve effective span of control and to foster disciplined initiative and tactical flexibility. Airpower’s speed, range, and ability to maneuver within three domains depend on centralized control and decentralized execution to achieve the desired effects.

Because of airpower’s potential to directly affect the strategic level of war and operational level of war, it should be controlled by a single Airman at the air component commander level. A single commander, focused on the broader strategic perspective necessary to balance and prioritize use of airpower resources and aspects of an operation, can best mediate competing demands for tactical support against the strategic and operational requirements of the conflict.

Volume 1, *Basic Doctrine*, more fully explains the Air Force’s commitment to the tenet of centralized control and decentralized execution of airpower.

MISSION COMMAND

“Mission command is the conduct of military operations through decentralized execution based upon mission-type orders and is a key component of the C2 function. Commanders delegate decisions to subordinate wherever possible, which minimizes detailed control and empowers subordinates’ initiative to make decisions based on the commander’s guidance rather than constant communications. While philosophically consistent with historical C2 of air operations, modern joint air operations demand a balanced approach to C2” (JP 3-30). See also JP 1 for further discussion.

Its intent is for subordinates to clearly understand the commander’s intent and to foster flexibility and initiative at the tactical level to best accomplish the mission. Decentralization of tactical planning via conditions-based or mission-type orders, combined with command by negation and accepting the appropriate level of risk, allows subordinate commanders to focus on the superior commander’s intent and required effects to accomplish the mission in an efficient manner. Joint education, planning, and training are required to develop and demonstrate professional competence based on doctrine and knowledge. **This approach is best codified in centralized control and decentralized execution.**

COMMANDER’S INTENT

Commander’s intent is “a clear and concise expression of the purpose of the operation and the desired military end state that supports mission command, provides focus to the staff, and helps subordinate and supporting commanders act to achieve the commander’s desired results without further orders, even when the operation does not unfold as planned” (JP 3-0, *Joint Operations*).

Two joint C2 concepts that nurture implicit communications are commander's intent *and* mission-type orders. By expressing intent and direction through mission-type orders, the commander attempts to provide clear objectives and goals to enable subordinates to execute the mission. The commander's intent should specify the goals, priorities, acceptable risks, and limits of the operation. Subordinates should be able to operate independently for some period of time based solely on commander's intent.

Guidance for planning and conducting air component operations is reflected in the commander's intent. Those granted delegated authority must understand the commander's intent, which is disseminated through such products as a JFC's operation plan; a JFACC's joint air operations plan and air operations directive; air, space, or cyber tasking orders produced by appropriate components; and annexes to such plans and orders that provide specific guidance for specialized functions. Unity of effort over complex operations is made possible through decentralized execution of centralized, overarching plans. Roles and responsibilities throughout the chain of command should be clearly spelled out and understood, not only to ensure proper follow-through of the original mission intent and accountability for mission completion, but also to provide continuity of operations in the event of degraded communications between echelons. Communication between commanders and those to whom authority is delegated is essential throughout all phases of the military operation.

Air Force commanders at all echelons are expected to command, to lead their forces to accomplish assigned and implied tasks in furtherance of the superior commanders' objectives. Training and exercises programs should be structured to ensure Air Force commanders are equipped with the skills and knowledge to accomplish assigned or implied tasks in a degraded or contested environment.

BATTLE RHYTHM

Battle rhythm discipline enhances control of forces. Effective operations in a theater require the integration and synchronization of strategic, operational, and tactical processes, to ensure mission planning, preparation, execution, and assessment are coordinated. It is essentially a schedule of important events that should be synchronized with the other Service or functional components and combined forces.
