

**Headquarters First Air Force  
Air Forces Northern (1 AF (AFNORTH))**

**Defense Support to Civil  
Authorities (DSCA) Handbook**



**AIR SUPPORT  
HANDBOOK**

**2007**

**1 August 2007**



AFNORTH AIR SUPPORT HANDBOOK  
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# Chapter 1.

## Purpose and Mission

### *Purpose*

This handbook represents command level operational planning, mission description and mission execution guidance that provides a common understanding, organizational focus and unity of effort among all organizations assigned, attached and aligned to the Continental United States NORAD region and First Air Force (Air Forces Northern). These organizations function as part of the United States Theater Air Control System (USTACS) supporting North American Aerospace Defense Command (NORAD) and United States Northern Command (USNORTHCOM) operational missions.

This guidance applies to the AFNORTH component headquarters (AFFOR) and Air Operations Center (AOC) staffs, sectors, wings and other subordinate organizations assigned, attached and aligned to AFNORTH in support of DSCA missions.

For purposes of brevity throughout this document, 1 AF (AFNORTH) will be referred to as AFNORTH.





AFNORTH is an active USAF Numbered Air Force assigned to Air Combat Command located at Tyndall Air Force Base, Florida, AFNORTH executes an active federal mission round-the-clock every day of the year. AFNORTH is assigned by the JCS *Forces For*

2006 document as the USAF air component to support NORAD and USNORTHCOM homeland defense and civil support missions. AFNORTH is a Total Force organization, manned by full and part-time Air National Guardsmen, Air Force Reservists, Air Force Active Duty Members, Civil Service and contractor personnel.

AFNORTH's success is dependent on a common understanding of the importance of these missions and a well-developed sense of urgency by all USAF organizations in the face of real and present dangers, both natural and man-made.



## ***1AF (AFNORTH) Mission***

**1 AF (AFNORTH) Mission Statement: AFNORTH conducts sustained air and space operations within its assigned area of operations (AO) to deter, prevent, and if necessary defeat hostile air attacks on CONUS, its citizens, and designated critical infrastructure. When directed by CDRUSNORTHCOM, provide full spectrum USAF air and space capabilities and conduct Defense Support of Civil Authorities (DSCA) to assist civil authorities during emergencies, natural or man-made disasters, and other approved activities.**

# America's



# Air Component and AOC

## ***1 AF (AFNORTH) Vision***

***AFNORTH Vision: Total Force, Joint, Alliance and Civilian professionals working around-the-clock in “America’s” Air Operations Center (AOC) to provide World-Class Air & Space Power and Security to NORAD-USNORTHCOM and the citizens of North America through consolidation of all USAF missions flown in the 1 AF (AFNORTH) area of operations in support of Federal agencies, regardless of status, under the umbrella of USNORTHCOM - 1 AF (AFNORTH).***

## **Commander's Intent**

Homeland defense is the highest priority for NORAD-USNORTHCOM and AFNORTH. Both Commands are integral parts of an active, layered defense in which we seek to confront, early and at safe distance, those who threaten us. NORAD-USNORTHCOM and AFNORTH will act in a timely, and when appropriate, coordinated fashion in concert with our mission partners to detect, deter,



prevent and defeat threats to our homelands. When directed by USNORTHCOM AFNORTH will provide military support to civil authorities quickly, efficiently and effectively.

***My AFNORTH intent is to apply the full spectrum of USAF air, space and information operations capabilities in support of the NORAD-USNORTHCOM missions within my area of operations to ensure the safety and security of our citizens.***

NORAD and USNORTHCOM Strategic Goals and Objectives will serve as the basis for the Combatant Commander's (COCOM) priorities.

***1 AF (AFNORTH) and subordinate unit goals and objectives will directly support COCOM Strategic Goals and Objectives through application of defined USAF capabilities.***



## ***The Threat Environment***

**Symmetric Threats.** A number of nation-states and emerging transnational organizations possess a wide range of conventional and nuclear weapons and the capacity for employing them at global ranges via delivery platforms such as

strategic and fighter aircraft, cruise missiles (CM), submarine launched ballistic missiles (SLBM), theater ballistic missiles (TBM) and sophisticated

unmanned/uninhabited aerial vehicles

(UAV). These more traditional military threats are typically detectable, predictable, homogenous, hierarchical, and slow to change. There is no anticipated mal-intent within the timeframe of this Flight Plan but the capabilities exist.



**Asymmetric Threats.** Asymmetric threats from today's terrorist organizations are unpredictable, diverse, increasingly networked, and dynamic. In many cases organizations do not represent nation-states but carry the banners and pursue the causes of many ethnic, religious, and tribal groups. Many of the technologies and materials they seek - such as disruptive systems or the ingredients required to fabricate weapons of mass destruction (WMD)—are readily accessible on world markets. The availability of WMD to these groups is of vital concern to the United States and NORAD-USNORTHCOM. Terrorists

do not operate on conventional battlefields. They thrive in the “gray area” where traditional criminal laws and the law of armed conflict overlap. These organizations will attempt surprise as they adopt an array of disruptive and destructive capabilities. Time is a proven asymmetric weapon; relying on us to slowly let down our guard due to increasingly reduced expectations of attack. Asymmetric threats are hard to deter, especially if founded on religious beliefs. Organizations with such beliefs are highly motivated, flexible and are willing to operate over the long term to achieve success. Their focus is economic, psychological (social/symbolic), critical infrastructure and political.



**Natural and Man-made Disasters.** AFNORTH also operates in an environment that includes natural and manmade disasters. Natural disasters such as massive wildland fires, hurricanes, earthquakes, or pandemics can overwhelm local responders and may require allocation of military resources to assist civil authorities to mitigate the effects of a disaster and provide for recovery and relief efforts. The same applies to man-made disasters resulting from accidental or intentional behavior such as the aftermath of a successful terrorist WMD attack



which could cause mass panic or catastrophic loss of life and requiring substantial military support to civil authorities. The nation will continue to posture its homeland defense resources to defend critical infrastructure and national centers of gravity with responsive air defense forces. While no one can predict the future, current trends indicate a security and natural environment with the following characteristics that are of particular interest to NORAD and USNORTHCOM.

- Some nation-states will continue to pose symmetric challenges on the global scene with increasing capabilities including aircraft, kinetic weapons, ballistic and cruise missiles.
- Terrorism will remain a focus because it will continue to be unpredictable, credible, well organized, and well financed.
- Both symmetric and asymmetric threats will continually evolve with new capabilities such as kinetic and non-kinetic attacks on national information and space systems. All threats have potential chemical, biological, nuclear, radiological and high explosive (CBRNE) capabilities. In addition, they all execute highly effective information operations across the entire spectrum of conflict.
- Globalization will continue, creating opportunities for economic growth, and providing an impetus for political freedoms and accelerating the spread of disease, weapons of mass destruction, extremist ideologies, and terrorism.
- Some disasters will recur on a seasonable basis (fire, flood, and hurricane) but their precise location and

severity are unknown. Other disasters are completely unpredictable (earthquake, catastrophic explosive events, etc) in location and severity. We must be prepared to respond to both.

Regardless of the type of threat, AFNORTH and its subordinate units must be prepared to accomplish the homeland defense and DSCA missions individually or simultaneously.

## ***Political-Military Environment***

The U.S. homeland represents a complex political-military environment that is different from any other Combatant Commander's (COCOM) area of operations (AOR). Instead of a homogeneous military joint operations area (JOA) under a single air commander and free of other air components, the AFNORTH JOA is home to a number of COCOM air force component headquarters (AFCHQ) and USAF major commands. Unity of command is achieved by ensuring there are a clear division of geography and labor and a spirit of mutual support and cooperation among these commands



AFNORTH operates successfully within and embraces a unique United States military environment and culture of "Total Force Integration" between active duty forces and the National Guard status, normally under the direct supervision of the Governor and The Adjutant General (TAG) of each state to which they are assigned. AFNORTH uses an approved legal model based on

Memoranda of Understanding (MOU) with the Governors to receive the services of Air National Guard (ANG) volunteers on short notice to execute federal missions. In the prelude to and aftermath of disasters such as hurricanes, AFNORTH strives to partner with the national guard leadership to achieve unity of effort with the ANG by providing air component planning, deconfliction and coordinating capabilities to state ANG organizations – serving as America’s Air Operations center (AOC). This coordination also provides CDRUSNORTHCOM and the Joint Force Air Component Commander (JFACC) situational awareness of the affected air, space and information domain even before Title 10 forces are requested. AFNORTH works within a civilian interagency environment (Federal Aviation Administration (FAA), Federal Emergency Management Agency (FEMA), U.S. Secret Service (USSS), etc) with government and civilian organizations that apply air and space effects prior to (crisis management) and after (consequence management) a disaster. This continuous interaction achieves unity of effort for planning, deconfliction and coordination.

Unity of command is a prime principle of war and is critical to focused operations. Stitching the seam between Title 10 and Title 32 forces can be problematic. When Title 10 forces are called to assist in a disaster, State governors and TAGs are generally reluctant to relinquish control of state forces to another military organization thereby losing control of the priority, timing and effects they seek to achieve in the area of operations. Likewise, parallel operations within a JOA by uncoordinated forces may cause unsafe and inefficient operations and in some cases, results in operations with opposing objectives and activity. AFNORTH seeks “unity of effort” with state and interagency air capabilities by providing a trained USAF air

component headquarters (AFCHQ) staff and associated capabilities to state joint force headquarters even before Title 10 forces are introduced into the JOA. It is in NORTHCOM's interest to have AFNORTH heavily involved in the planning and execution of air and space efforts to provide safety, deconfliction and efficiency of operations.



## ***USNORTHCOM Mission and Vision***



**USNORTHCOM Mission Statement:** Conduct operations to deter, prevent, and defeat threats and aggression aimed at the United States, its territories, and interests within the assigned area of responsibility; and as directed by the President or Secretary of Defense, provide defense support of civil authorities including consequence management operations.

**USNORTHCOM Vision:** United States Northern Command defends America's homeland—protecting our people, national power, and freedom of action.

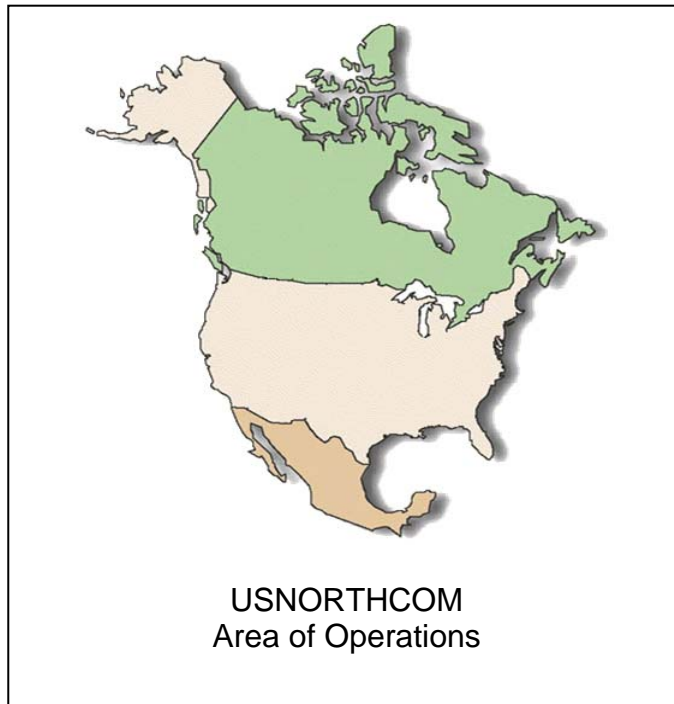
The USNORTHCOM Strategic Guidance document outlines how they will meet the challenges and take advantage of the opportunities that lay ahead. This directly relates to AFNORTH Missions and Visions and will guide our decisions and actions to support accomplishing COCOM's mission directives.

**USNORTHCOM Strategic Goals and Objectives**

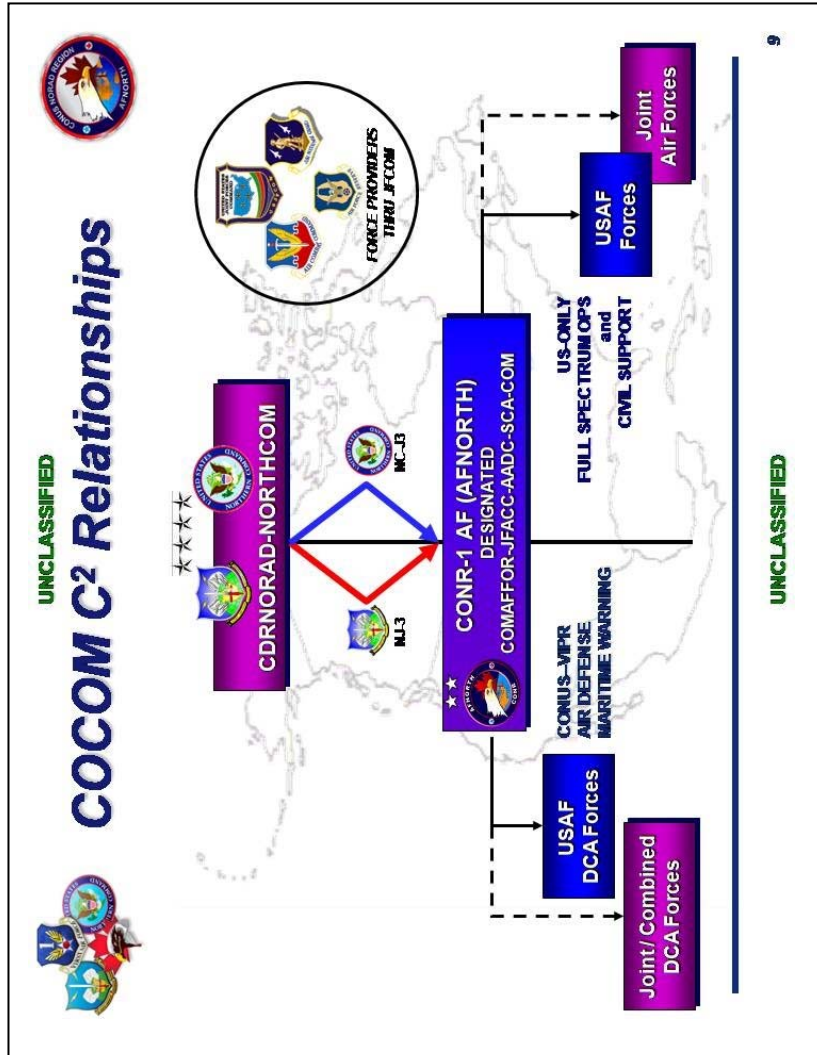
Goal 1: Detect, deter, prevent, and defeat external threats and aggression

Goal 2: Provide timely and effective defense support of civil authorities

Goal 3: Improve unity of effort with our interagency and international partners







## 1 AF (AFNORTH) Organization

AFNORTH is a USAF component headquarters/ Numbered Air Force consisting of a Command Element, Air Staff, Personal Staff and Air Operations Center (AOC).

**Command Element.** The Command Element consists of a USAF Commander (CDRAFNORTH), a USAF Vice Commander (CV), a civilian Chief of Staff (CS) and a USAF Command Chief (CCM). A Canadian Forces senior officer serves in the Command Element fulfilling the NORAD CONUS Region Deputy Command position (CD).

**Special Designations.** Additional authorities may be delegated by the Commander, USNORTHCOM (CDRUSNORTHCOM) to the CDRAFNORTH to fulfill special responsibilities in air domain operations:

- JFACC     Joint Force Air Component Commander responsible for planning, tasking and directing air and space capabilities from multiple services and coordinating activity with interagency air capabilities.
  
- ACA        Airspace Control Authority responsible for coordinating and deconflicting air traffic. This responsibility is almost always retained by the Federal Aviation Administration (FAA). All airspace planning must ultimately be coordinated with and ultimately approved by the FAA as the ACA. AFNORTH collaborates directly with FAA on military airspace planning.
  
- SCA        Space Coordinating Authority responsible for collecting and linking space requirements (imagery, communications, GPS, etc) and

ensuring space products are effectively and efficiently disseminated.

COM Collections Operations Manager for imagery analysis and assessment (IAA) responsible for collecting and linking Federal, State and military imagery requirements to specific imagery platforms and ensuring imagery products are effectively and efficiently disseminated.

**Air Staff.** The AFNORTH air staff consists of nine numbered and one specially designated staff directorate divided into the following disciplines.

A-1. Personnel  
A-2 Intelligence  
A-3 Air and Space Operations  
A-4 Logistics and Maintenance  
A-5/8 Plans and Requirements (Combined)  
A-6 Communications  
A-7 Installations and Mission Support  
A-9 Lessons Learned/Assessments/Exercises  
NSEP National Security Emergency Preparedness

**Personal Staff.** The personal staff consists of the following specialties:

SG Surgeon  
JA Staff Judge Advocate  
HC Chaplain  
PA Public Affairs  
HO Historian  
CCP Protocol  
SE Safety

**Combined Air Operations Center (CAOC).** The air operations center executes combined NORAD mission in accordance with the bi-lateral Canada-US NORAD Agreements. The CAOC has five standards and one special division supporting its mission of air, space and cyber domain execution:

SD Strategy Division  
CPD Combat Plans Division  
COD Combat Operations Division  
ISR Division (ISR)  
AMD Air Mobility Division  
MSD Mission Support Division

CAOC information operations (IO) activities are supported by the Utah ANG 101<sup>st</sup> Information Operations Flight.

AFRCC The Air Force Rescue Coordination Center (AFRCC) execute CONUS inland search and rescue (SAR) as part of the operations division. The CAOC activates a Joint Personnel Recovery Center (JPRC) when required for military and mass rescue events.





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# MISSION

## Task Organization



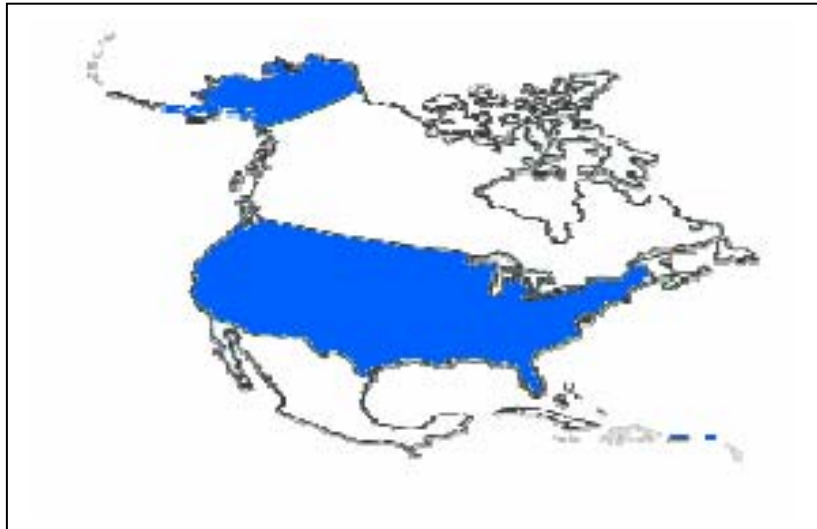
CONR-1AF (AFNORTH) conducts sustained *air and space operations* within its assigned area of operations to deter, prevent, and if necessary *defeat hostile air attacks* on CONUS, its citizens, and designated critical infrastructure. When directed by CDRUSNORTHCOM provide *full spectrum USAF air and space capabilities* and conduct *DSCA* to assist *civil authorities* during emergencies, natural or man-made disasters and other approved activities.



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The Mission Support Division sustains the CAOC operating infrastructure and ensures continuity of operations in the event of power and communications outages.

The AFNORTH area of interest is the entire USNORTHCOM AOR. The specific AFNORTH assigned area of operations is the Continental United States (CONUS), US Virgin Islands and Puerto Rico (CONUS-VIPR). Alaska is supported by 11 Air Force.



USAF DSCA is not just about air and space power missions. AFNORTH meets its DSCA responsibilities using both air domain and non-air domain capabilities. The following chart presents examples of the mission types and capabilities planned, executed and supported by AFNORTH.



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# MISSIONS DSCA Responsibilities



- AIR TASKING ORDERS (ROTARY - FIXED)
  - TASK / ALERT / SCRAMBLE / MONITOR
- AIRSPACE SURVEILLANCE
- AERIAL SEARCH AND RESCUE
- AIRLIFT
- SPACE SUPPORT
- AERIAL FIRE FIGHTING
- AERIAL SPRAY
- AIRSPACE RESTRICTIONS
  - CORDON SAITARE AIR OPS
- RECONNAISSANCE & IMAGERY (ISR)
- AIRSPACE CONTROL / DECONFLICTION
- OPEN AIRFIELDS
- EOD / EDD TEAMS
- MEDICAL SUPPORT
- CIVIL ENGINEERING
- SECURITY / FORCE PROTECTION
- GROUND SEARCH AND RESCUE
- AEROMEDICAL EVAC
- WEATHER
- RADAR EVALUATION
- INTERAGENCY CONNECTIVITY
- SUPPORT FOR USAF FIELD UNITS



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## Chapter 2.

### Air Component Coordination Element (ACCE)

**General.** The JFACC may establish one or more ACCE teams with other State, JTF and sister component headquarters to better integrate USNORTHCOM air and space operations with their own operations and within the joint force.

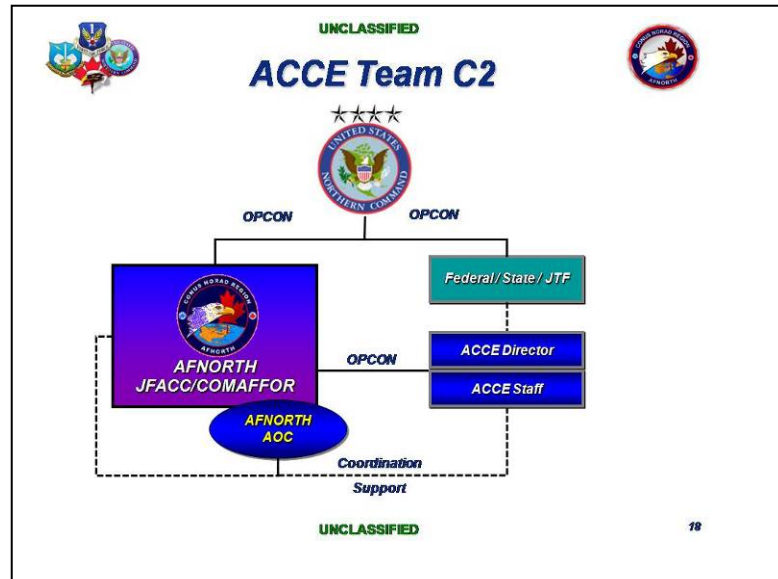
*When established, ACCE teams serve as the JFACC's primary representatives to the respective organizational leaders/commanders and facilitate interaction among the respective staffs. As liaison elements, ACCE teams remain OPCON to the JFACC. State/JTF organizations may already have existing USAF joint staff billets within their organizations. Those USAF members remain under OPCON of the JTF Commander and his/her staff.*

**ACCE Mission.** The ACCE is a liaison element and does not direct or employ air and space forces. The ACCE exchanges current intelligence, operational data, and support requirements, and coordinates the integration of JFACC requirements for airspace coordinating measures, air mobility, imagery and space requirements. Using the 'reachback' concept, the ACCE facilitates the

**ACCE Composition.** An ACCE team may be as small as a single individual (liaison officer) or a large presence (team) depending on the scope of the operation and the size of the staff they will liaise with. Usually the ACCE Director will be a USAF senior officer in the rank of O-6 or higher. ACCE expertise can include plans, operations, imagery, airspace management, logistics, space, air mobility and search and



rescue, as needed. The ACCE does not replace, replicate, or circumvent normal theater request mechanisms already in place nor supplant normal planning performed by the AFNORTH CAOC and AFFOR staff.



ACCE teams will provide the following to Federal, State and JTF leadership:

- JFACC capabilities and limitations (constraints, restraints, and restrictions).
- JFACC plan to support Federal, State and JTF requirements
- Facilitate reachback to JFACC staff processes.
- Ensure information flows properly between the AFNORTH CAOC and AFFOR staff, sister components and Federal, State, JTF leadership.

**How to Request / Access an  
AFNORTH ACCE Team or Liaison**

TOLL FREE: 800-896-8806  
(Tyndall Base Operator)

CDRAFNORTH  
850-283-4272, DSN 523

AFNORTH Chief of Staff  
850-283-9158, DSN 523

AFFOR Contingency Action Team (CAT)  
850-283-5248/5781

Non-contingency / After Hours (24/7/365)  
CAOC Senior Operations Duty Officer (SODO)  
850-283-5573, DSN 523  
Direct Call to Chief of Staff

# Chapter 3.

## National Security Emergency Preparedness Directorate (NSEP)

The Air Forces Northern National Security Emergency Preparedness Directorate, commonly known to civil authorities as “AFNSEP” interfaces with civil and military authorities on all facets of AF support to civil authorities.



**NSEP Mission.** AFNSEP’s DSCA mission is to facilitate AF support to civil authorities responding for natural/man-made disasters or providing support during National Special Security Events (NSSE). This support includes:

- Briefing senior leaders on NSEP/DSCA programs and related issues.
- Liaising with military/civil authorities on domestic support plans and policies.
- Managing the Emergency Preparedness Liaison Officer (EPLO) Program.
- Monitoring USAF-specific response to NSEP/DSCA events.
- When requested, deploying EPLOs to liaise and facilitate USAF support to civil authorities.

- Provide DSCA training advice and assistance to all USAF MAJCOMs and Installations.
- Manage/conduct the USAF-mandated annual installation visitation program.
- Provide situational awareness (SA) from the field to include the need for AF capabilities.
- Determine requirements for additional USAF forces or capabilities.
- supplement AFNORTH (1 AF) contingency action team (CAT) staff.

### **National Security Emergency Preparedness Directorate Composition.**

**NSEP Directors of Operation (DOs).** DOs are active duty officers and civilians assigned with specific oversight of certain geographical areas (FEMA Regions). They serve as day-to-day Subject Matter Experts on their AOR, interact directly with their assigned FEMA Region and Defense Coordinating Officers (DCOs) and orchestrate the activities of the AF Reservist (EPLOs) in their region. DOs should be the initial contact during non-disaster events to alert AFNSEP. DOs will coordinate assistance (briefings, visits, training and exercises); acquire information/situational awareness about their AOR: and engage with EPLOs.

**Emergency Preparedness Liaison Officers (EPLO).** EPLOs are AF Individual Mobilization Augmentees (IMA) reservists geographically

dispersed throughout the 54 state equivalents and territories, ten FEMA Regions and higher federal/military headquarters to establish/maintain seamless relationships – especially with all AF bases, State EOCs, FEMA Regions, CAP Wings and AFNORTH. During a disaster or disaster response requirements, EPLOs analyze AF capabilities, recommend Courses of Action (COAs). They also coordinate all Requests for Assistance from civil authorities and Mission Assignments (MAs). They also make recommendations about AF installations that may serve as Base Support Installations, Logistic Staging Areas or Mobility Centers.

**DSCA Cell.** The DSCA Cell is an NSEP “Back Shop”, established during emergency responses to support the AFNORTH CAT. The DSCA Cell is responsible for EPLO field deployments, facilitating information flow between 1AF and all levels of civil authorities, proposing COAs, and reporting.

**NSEP Command Relationships.** The NSEP Director is the CDRAFNORTH’s principal advisor and staff integrator for NSEP/DSCA matters. NSEP staff and EPLOs remain OPCON to AFNORTH with one exception – when assigned to the DCO as part of a Defense Coordinating Element (DCE). Due to the short reaction times required for NSEP EPLO response, the NSEP Director may issue VOCO orders. EXORDS/OPORDS will take precedence over VOCO.

## **How to Request / Access NSEP Support.**

### Emergencies/events requiring immediate attention:

AFNORTH AOC CCO (24/7/365)  
COMM 850-283-5242/5218, DSN 523  
E-Mail: NIPR [afnorthsado@tyndall.af.mil](mailto:afnorthsado@tyndall.af.mil)  
E-Mail: NIPR [afnorthaoccomb@tyndall.af.mil](mailto:afnorthaoccomb@tyndall.af.mil)  
(Please send email to both addresses)

### Normal Duty Hours:

COMM: 850-283-5218/5573, DSN 523  
E-Mail: NIPR [cco@tyndall.af.mil](mailto:cco@tyndall.af.mil)  
E-Mail: NIPR [afnorth/sodo@tyndall.af.mil](mailto:afnorth/sodo@tyndall.af.mil)  
E-Mail: NIPR [afnorthaoccomb@tyndall.af.mil](mailto:afnorthaoccomb@tyndall.af.mil)  
(Please copy to this email address)

### During Contingency Operations 24/7:

AFNORTH CAT Director/AFNSEP EPLO  
COMM: 850-283-5309/5892, DSN 523  
E-Mail: [afnorth.cat.director@tyndall.af.mil](mailto:afnorth.cat.director@tyndall.af.mil)  
E-Mail: [afnorth.afnseprep.omb@tyndall.af.mil](mailto:afnorth.afnseprep.omb@tyndall.af.mil)  
(Please send email to both addresses)

### Non-Emergency Operations

AFNSEP 1283 Anderson Way SE  
Ft McPherson, GA 30330  
COMM: 404-464-4342, DSN 367, FAX 4282  
E-Mail: Routine: [afnsep@afnsep.af.mil](mailto:afnsep@afnsep.af.mil)  
E-Mail: Routine: DSCA Cell: [eoc@afnsep.af.mil](mailto:eoc@afnsep.af.mil)

## Chapter 4.

### Air Mobility Operations

#### **Director Mobility Forces – Air (DIRMOBFOR-Air).**

AFNORTH has a continuing relationship with attached Deputy DIRMOBFOR-Air officers that coordinate the overall mobility effort for the CFACC, and act as the primary liaison between AFNORTH and United States Transportation Command (USSTRANSCOM), Air Mobility Command (AMC) and the Tanker Airlift Control Center (TACC) during contingency operations. The DIRMOBFOR and staff work closely with the AMD to orchestrate the mobility operation between AMC, NORTHCOM, AFNORTH and potentially multiple JTF's. The AMD works closely with the DIRMOBFOR staff to coordinate and monitor airlift and mobility missions within the AOR. This data collection takes many forms, to include IT systems such as GDSS, SMS, and TBMCS, and the establishment of relationships with the NORTHCOM DDOC, AMC and the TRANSCOM DDOC.

**CAOC Air Mobility Division (AMD).** In coordination with the DIRMOBFOR-Air, the AMD plans, coordinates, tasks, and executes the theater air mobility mission. This mission includes air refueling and airlift support to Operation NOBLE EAGLE and unique civil support missions such as Hurricane Hunters, Modular Aerial Spray System, and the Modular Airborne Firefighting System.

**Air Mobility Division Chief.** Responsible to the AOC Director for the direction and supervision of the AMD, and is the point of contact for all air mobility operations in the AOR

**Airlift Control Team (ALCT).** ALCT is the source of intratheater airlift expertise within the AMD. The ALCT

brings intratheater airlift functional expertise to plan, task, and coordinate intratheater airlift operations for the COMAFFOR. The ALCT has three responsibilities: planning, tactics development, and long-range requirement determination. In AFNORTH AOR, virtually all airlift missions are planned by AMC/TACC at Scott AFB

**Air Refueling Control Team (ARCT).**

The ARCT is the source of air refueling expertise within the AMD. The ARCT coordinates air refueling planning, tasking, and scheduling to support all intratheater air refueling for combat airpower to satisfy COMAFFOR or JFACC requirements. These missions range from Operation NOBLE EAGLE to contingency operations in support of civil authorities, such as disaster relief efforts.



**Air Mobility Control Team (AMCT).** The AMCT serves as the centralized source for air mobility command, control, and communications during execution of air mobility operations. The chief of the AMD uses the AMCT to direct or redirect, as required, air mobility forces in concert with other air forces to respond to requirement changes, higher priorities, or immediate execution limitations.

**Tanker/Airlift Duty Officer (TALDO).** The TALDO is positioned with the Combat Operations Division in the CAOC and coordinates changing requirements for the Chief of Combat Operations (CCO). The TALDO also



works closely with TACC to effectively utilize AMC resources to support the AFNORTH mission.

### **Specialized AMD Missions.**

**Modular Aerial Firefighting System (MAFFS).** MAFFS is a modular unit designed for insertion into modified C130 aircraft to disperse up to 3,000 gallons (27,000 pounds) of fire retardant or an equivalent amount of water. The MAFFS equipment is owned and maintained by the United States Forest Service (USFS), and is housed at each of the air reserve component flying units to assist in the suppression of forest, range and wild land fires on a regional basis.



**Modular Aerial Spray System (MASS).** A C-130 large-area, fixed-wing aerial application capability to control disease, vegetation, and pests of vegetation in combat areas, DOD installations, non-DOD property, or in response to declared emergencies. The MASS unit also provides aircraft, equipment and personnel for the application of oil dispersants during oil spill cleanup and removal operations, in coordination with JDOMS and the US Coast Guard.



**Hurricane Hunters.** The DoD, through the AFRC's 53rd Weather Reconnaissance Squadron (53 WRS), operates specially equipped WC130J aircraft to conduct hurricane/tropical cyclone reconnaissance, synoptic surveillance, and research missions.

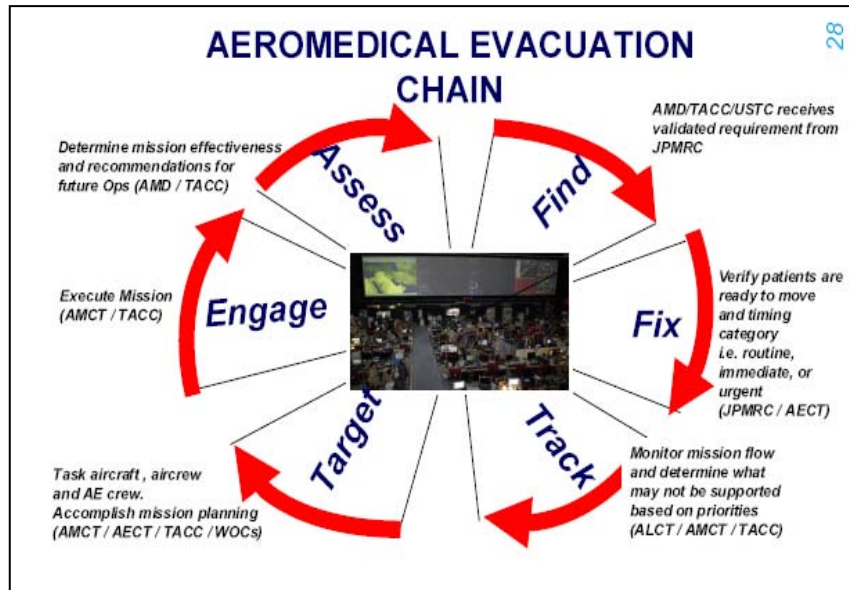
**ANG Airlift (Title 32) In-Transit Visibility (ITV).** During a contingency the CAOC AMD works directly with the ANG Crisis Action Team (ANG CAT) and the National Guard Bureau (NGB) Joint Operations Center (NGB JOC) to ensure AFNORTH has a complete air picture of National Guard (Title 32) and Active Duty (Title 10) assets participating in the operation. This facilitates deconfliction, enhances safety and promotes efficiency in the air mobility operation.

**Distinguished Visitor (DV) Travel Monitoring** The AMD TALDO monitors the travel movements of NORAD, and USNORTHCOM leadership to include the CDRNORAD/NORTHCOM, JFACC and principal deputies.

### **Aeromedical Evacuation Control Team (AECT)**

The AECT is responsible for aeromedical evacuation (AE) operational planning, scheduling, tasking, and assisting the AMCT with operations execution and monitoring. The AECT coordinates airlift support and evaluates available air mobility airframes assigned to or transiting the theater to meet theater AE requirements. The AFNORTH CAOC/AMD does not have an AECT. In a contingency requiring those types of operations, the AMD facilitates between AFNORTH/SG and the Global Patient Movement Requirements Center (GPMRC) at Scott AFB, IL to coordinate for resources and track the operation for the JFACC. AMC may augment the AMD by providing AECT planners to the AOC





**Airfield Opening – Contingency Response Group/Element (CRG/CRE).** USTRANSCOM assigned CRG/((CRE will immediately deploy in a direct support relationship to a COCOM and do not require a formal request to facilitate rapid response. CRG/CRE remain under USTRANSCOM operational control but may CHOP to CDRUSNORTHCOM after initial deployment when a formal supported/supporting relationship is mandated by JCS. Once deployed CRG/CRE should be relieved by follow-on forces no later than 45 days from the CRG/CRE arrival date regardless of status. Early planning and submission of an RFF for follow-on AEF forces are key.

**How to Access/Request AFNORTH air mobility support.**

Support may be requested through the deployed ACCE team or by contacting the DIRMOBFOR-Air or AMD Chief by phone or email.

**How to Request / Access**  
**AFNORTH Air Mobility Support**

TOLL FREE: 800-896-8806  
(Tyndall Base Operator)

CAOC DIRMOBFOR-Air  
850-283-5350, DSN 523-5350

CAOC Chief, Air Mobility Division  
850-283-5098/5858, DSN 523-5098/5858

CAOC TALDO (24/7/365)  
850-283-5549/5741, DSN 523-5549/5741

## Chapter 5. Search and Rescue (SAR)

**Air Force Search and Rescue Center (AFRCC).** The United States Air Force is designated by the National Search and Rescue Plan (NSP) as the Search and Rescue (SAR) Coordinator for the U.S. aeronautical Search and Rescue Region (SRR) corresponding to the continental U.S. other than Alaska and has delegated this responsibility through HQ ACC/CC to 1 AF/CC. The NSP describes the U.S. SAR organization, key authorities and their responsibilities, and primary principles and policies within the SAR system. AFRCC operates the national SAR network ensuring timely and effective lifesaving operations. It is responsible for the execution of the NSP. AFRCC personnel mobilize to provide SAR C2 in support of wartime combat search and rescue (CSAR) taskings, disaster response, and mass rescue operations (MRO). The AFRCC provides advanced SAR planning instruction through the National SAR School to federal, state, and local agencies as well as volunteer SAR organizations and controllers. The AFRCC acts as the proponent for worldwide rescue coordination operations and can be contacted using the following numbers: 1-800-851-3051, DSN 523-5955, and commercial 850-523-5955.



The AFRCC operates in the CAOC 24 hours a day, every day of the year facilitating CONUS inland search and rescue as well as coordinating with the USCG for offshore rescue.

The AFRCC is responsible for coordinating all federal inland commercial, military, and interstate aeronautical SAR in the

contiguous U.S, and assist Mexico and Canada, if requested. This mission is conducted by the AFRCC (SAR Mission Coordinator) on behalf of the CDRAFNORTH (US Inland SAR Coordinator).

- Initiates/responds to searches for missing/overdue aircraft (e.g. interstate aircraft or intrastate aircraft, upon state request).
- Assist with non-aircraft missions (e.g. missing persons, medevacs, organ transports, search and rescue unit transports).
- Manages all inland emergency beacon searches and brokering federal assets to support state and local SAR responders during non-aircraft missions.
- Manages inland emergency beacon searches (121.5, 243.0 and 406 Emergency Locator Transmitters (ELTS) on aircraft, Emergency Position-Indicating Radio Beacons (EBIRBs) for maritime environment, Personal Locator Beacons (PLBs) for use inland and multiple environments (e.g hikers, mountain climbers, anyone who has the capability of getting lost could use a PLB).

**National Search and Rescue Plan (NSP) Policy.** It is the policy of the signatory federal agencies to provide a *National Search and Rescue Plan* (referred to as the “Plan”) for the United States for coordinating search and rescue (SAR) services to meet domestic needs and international commitments. Implementing guidance for this Plan is provided in the *International Aeronautical and Maritime Search and Rescue Manual* (IAMSAR Manual discussed below), the *National Search and Rescue Supplement* (NSS), and other relevant directives of the Participants to this Plan.

The NSRP continues, by interagency agreement, the effective use of all available resources in all types of civil SAR missions to enable the United States to satisfy its humanitarian, and national and international legal obligations.

NSRP objectives underscore cooperation in providing expeditious and effective SAR services, the Participants to this Plan desire to:

- Provide a national plan for coordinating SAR services to meet domestic needs and international commitments, and to document related basic national policies;
- Support lifesaving provisions of the International Convention on Maritime Search and Rescue of IMO, the Convention on International Civil Aviation of ICAO, certain international agreements to which the U.S. is Party, and similar international instruments;
- Provide an overall Plan for coordination of SAR operations, effective use of all available resources, mutual assistance, and efforts to improve such cooperation and services; and
- Integrate available resources which can be used for SAR into a cooperative network for greater protection of life and property and to ensure greater efficiency and economy.
- Help the U.S. satisfy its humanitarian, national, and international SAR-related obligations;
- Provide national guidance for development of SAR-related systems;
- Describe its Participants and their roles in a pro-lifesaving context;
- Recognize lead federal agencies, respectively, for the types of operations covered by this Plan, and describe geographic regions of SAR responsibility, as appropriate;
- Account for saving property, but on a secondary basis to saving lives;
- Account for all operations up to and including providing initial assistance (food, clothing, medical, etc.) to survivors and delivering them to a place of safety; and



- Have, as a primary concept, cooperation for overall and continual development, coordination and improvement of SAR services

It is intended that the NSRP not conflict in any way with SAR responsibilities agreed to by contracting States of the Convention on International Civil Aviation, the International Convention on Maritime Search and Rescue, or other appropriate international instruments to which the U.S. is or may become a Party.

No provisions of the NSRP or any supporting plan are to be construed in such a way as to contravene responsibilities and authorities of any Participant as defined by statutes, executive orders or international agreements, or of established responsibilities of other agencies and organizations which regularly assist persons and property in distress resulting from incidents of a local nature.

The NSRP is solely intended to provide internal guidance to all signatory federal agencies. State organizations may wish to retain established SAR responsibilities within their boundaries for incidents primarily local or intrastate in character. In such cases, appropriate agreements are generally made between SAR coordinator(s) and relevant State organizations.

**Joint Personnel Recovery Center (JPRC).** The JPRC is activated by the JFACC for joint military operations and for mass casualty scenarios that exceed the capabilities of the AFRCC. The JPRC plans, coordinates, and recommends tasking of components to support joint personnel rescue (PR) missions, coordinates PR procedures published in the air tasking order special instructions (SPINS), reviews theater plans, and coordinates joint training and exercises. The JPRC will be appropriately staffed by participating components to coordinate joint PR requirements.

The primary responsibilities of JPRC personnel are to coordinate PR operations between the component PRCCs, prevent

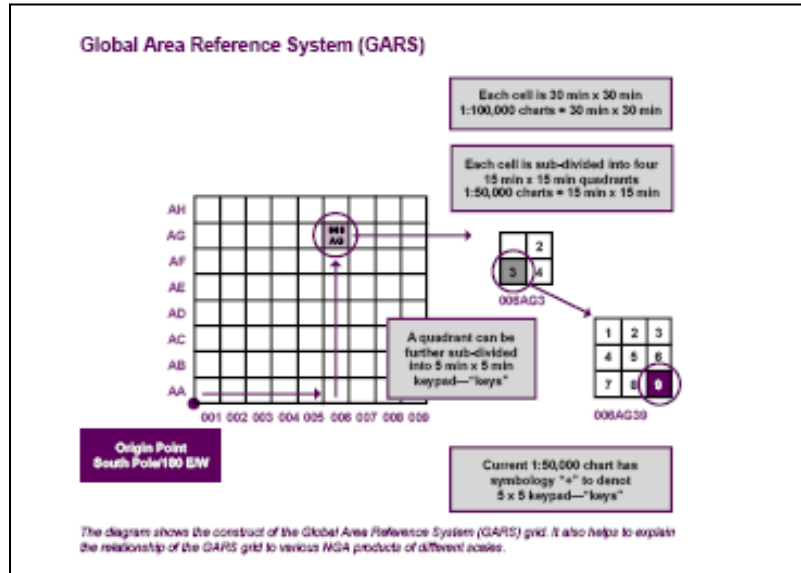
duplication of PR efforts, and facilitate the efficient exchange of information. PR support is based on real-time operations and requires extensive coordination with other joint air assets and support functions. The JPRC should be fully integrated into the JFACC JAOC or CFACC CAOC



**Global Area Reference System (GARS).** GARS is a standardized area reference system used across DoD which will impact the entire spectrum of battlespace deconfliction (not just SAR). It is based on the standard longitude (LONG) and latitude (LAT) system to provide an integrated common frame of reference for joint force situational awareness to facilitate air-to-ground coordination, deconfliction, integration, and synchronization. This area reference system provides a common language between the components and simplifies communications. It is important to note that GARS is primarily designed as a battlespace management tool and not to be used for navigation or targeting.

**GARS Design.** GARS divides the surface of the earth into 30-minute by 30-minute cells. Each cell is identified by a five-character designation, e.g. 006AG.

The first three characters designate a 30-minute wide longitudinal band. Beginning with the 180-degree meridian and proceeding eastward, the bands are numbered from 001 to 720, so that 180 E to 179 30'W is band 001; 179 30'W to 179 00'W is band 002; and so on.



The fourth and fifth characters designate a 30-minute wide latitudinal band. Beginning at the south pole and proceeding northward, the bands are lettered from AA to QZ (omitting I and O) so that 90 00'S to 89 30'S is band AA; 89 30'S to 89 00'S is band AB; and so on. The 30-minute cell is further divided into four 15-minute by 15-minute quadrants. Quadrants are numbered sequentially, from west to east, starting with the northernmost band. Specifically, the northwest quadrant is "1"; the northeast quadrant is "2"; the southwest quadrant is "3"; the southeast quadrant is "4". Each quadrant is identified by a six-character designation, e.g. 006AG3. The first five characters comprise the 30-minute cell designation. The sixth character is the quadrant

number. Each 15-minute quadrant is divided into nine 5-minute by 5-minute areas.

The areas are numbered sequentially, from west to east, starting with the northernmost band. The graphical representation of a 15-minute quadrant with numbered 5-minute by 5-minute areas resembles a telephone keypad.

Each 5-minute by 5-minute area, or keypad “key” is identified by a seven-character designation. The first six characters comprise the 15-minute quadrant designation. The seventh character is the keypad “key” number, e.g. 006AG39.

**National Search and Rescue Index.** {extension of Global Area Reference System (GARS)}. The National Search and Rescue Index is a standardized Search and Rescue (SAR) area reference system for first responders, local governments, States, National Guard, DoD, FEMA, and other inter-agencies, which will impact the entire spectrum for SAR deconfliction. It is based on lines of longitude (LONG) and latitude (LAT), to provide an integrated common frame of reference for total force situational awareness to facilitate air-to-ground coordination, deconfliction, integration, synchronization, and unity of effort. This area reference system provides a common language between all parties and simplifies communications. It is important to note that the National Search and Rescue Index (extension of GARS) is primarily designed as a Emergency Operation Center (EOC), Incident Command Center (ICS), Air Operations Center (AOC) and SAR management tool and not to be used for navigation or targeting.

Additional information and GARS grids can be downloaded from the National Geospatial Intelligence Agency (NGIA) WEB link at <http://earth-info.nga.mil/GandG/coordsys/grids/gars.html>.











The AFNORTH AOC AFRCC/JPRC are available for SAR planning support advice and assistance.



# Baseline SAR Airspace Plan



## VFR Flight Rules (See & Avoid)

	<b>Predator Operations</b> 1000' up to but not including 12000'	
	<b>Fixed Wing (High Speed) Imagery</b> 4000' up to but not including 5000'	
	<b>Fixed/Rotor Wing Refueling Ops</b> 2000' up to but not including 4000'	
	<b>NON-SAR Aircraft (VIP, Media, Slow Speed Imagery)</b> 1000' -1500' (500' separation)	
	<b>Rotor Wing Egress</b> Egress Altitude: 400' - 500'	
	<b>Rotor Wing Ingress</b> Ingress Altitude: 200' - 300'	
	<b>Active SAR/Sling Load Ops</b> SFC up to and including 150'	

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**How to Request / Access**  
**AFNORTH SAR Support**  
**(24/7/365)**

TOLL FREE: 1-800-851-3051  
COMMERCIAL: 850-523-5955, DSN 523

## Chapter 6. Civil Air Patrol – Air Force Auxiliary (CAP – AFAUX)

When tasked by the Air Force, Civil Air Patrol (CAP), in its Air Force Auxiliary (AFAUX) role, can support federal state and local authorities perform various Reconnaissance, Emergency Services, Homeland Security and Disaster Relief missions. CAP has over 55,000 volunteers and a fleet of 550 aircraft nationwide (including Puerto Rico and Virgin Islands) available for tasking, generally with a 4-hour response time.



USAF assigned missions are those missions flown under a Federal Mission Number and performed as the AFAUX. While performing USAF-assigned missions the USAF maintains control over AFAUX assets directly through CDRAFNORTH or through the requesting Air Force organization, as determined by USAF. With advanced coordination, CAP/AFAUX forces can be postured to a responsive alert status with a capability to launch within minutes. For non-immediate response incidents, it is imperative to

plan ahead and make requests early enough to ensure timely approval of requests through the normal AFNORTH ATO process.

### **CAP / AFAUX Capabilities**

**Aerial Imaging.** Ability to image, transmit and download high resolution digital photos from airborne platforms within minutes via e-mail. Can provide short notice in-flight disaster and damage assessment as well as ongoing visual reconnaissance.

**Airborne Visual Reconnaissance.** Ability to conduct visual airborne reconnaissance of isolated locations, border and coastal areas, ports and harbors and critical infrastructure (Nuclear power plants, gas pipelines, and reservoirs) to help identify suspicious activity.

**Satellite Link Airborne Dynamic Retasking.** Ability to contact aircraft via satellite link to re-task or request different photo orientation or mission change.

**Light Air Transport / Air Taxi.** Capability for human blood or organs, equipment, passengers, or search dog teams to austere or remote airfields.

**Air and Ground Fleet Availability.** Fleet of over 550 aircraft, 940 ground vehicles and trained crews available for search and rescue.

**Communications Support.** VHF and HF capability and aerial communications relay platforms. Extensive communications network includes over 5,000 fixed land VHF radio stations and 10,000 mobile radios, as well as nationwide HF network.

**Personnel.** Cadre of 650+ Chaplains available for weekly religious services or general support. Trained ground crews to

provide damage assessment and mitigation, disaster recovery and limited security to augment civil and military authorities

**Law Enforcement Support.** Ability to take law enforcement or VIP personnel aloft for visual reconnaissance of areas of interest when legal requirements are met.

**Sensor Adaptability.** Capable (with sufficient advanced coordination) of carrying various customer-supplied sensor packages aloft.

### **CAP / AFAUX Assets**

**Aircraft.** 550 light civil aircraft, including Cessna C172, C182 and C-206 models, as well 16 Gippsland GA-8 eight seat aircraft, strategically placed throughout the nation.

**Satellite Digital Imaging Systems (SDIS) Equipped Aircraft.** 100 C182 aircraft equipped with SDIS used to transmit still-frame digital pictures in near real time as well as direct voice communications from some aircraft.

**Aircraft Equipped HyperSpectral System.** 16 Gippsland GA-8 equipped with airborne HyperSpectral Imaging systems for complex or sophisticated target detection.

**Ground Equipment.** Over 850 7, 12, & 15 passenger vans, 4X4s, and long-bed pickups. 90 dedicated communications vehicles with limited all-band capability.



**Nationwide Radio Communications System.** Comprised of over 15,000 CAP-owned base, mobile, and portable two-way radios. National & regional HF radio networks providing survivable, infrastructure-independent command and control communications (not dependent on satellite/cellular telephone systems). Over 500 VHF radio repeater stations located strategically throughout the country. 1,400 airborne, mobile, and hand-held DF units.



**CAP Asset Locations**

**CAP/AFAUX Aircraft Platforms**



*Gippsland GA-8 (18)*



*Cessna 206 (22)*



*Cessna 182 (262)*



*Cessna 172 (262)*

## **Sensor Descriptions.**

**Direction Finder (DF).** Designed to locate Emergency Locator Beacons (ELT) on downed aircraft or Emergency Position Indicating Radio Beacons (EPIRB) from ships in distress. Can receive emergency signals on 121.5 Mhz (old civil frequency), 243 Mhz (old military frequency), and 406 Mhz (new universal frequency).

**Satellite Digital Imaging System (SDIS).** Point-to-multi-point transmission of aerial digital photography delivered in-flight via satellite communications. An SDIS functional unit is comprised of an aircraft equipped with a photo window, a digital camera, laptop computer, aircraft satellite telephone equipment and a trained three-person crew. Since images are sent directly to customer's computer, no specialized ground equipment is needed. Photo is attached to standard MS Outlook e-mail, allowing for text information to accompany photo -e.g. latitude /longitude coordinates, time stamp, site identification, conditions, and other descriptive text. The near real-time nature of SDIS images has proven effective in SAR; disaster response and damage assessment; environmental impact damage, destruction appraisal, and tracking; and facility security reconnaissance, among many other tasks.

**Airborne Real-Time Cueing Hyperspectral Enhanced Reconnaissance (ARCHER).** The most sophisticated unclassified HyperSpectral imaging system available. Has direct applications for Search and Rescue; Counterdrug; Disaster Relief and Impact Assessment; and Homeland Security. ARCHER is a non-invasive reflected light technology that uses three separate methods for target identification: Spectral signature matching: Evaluates reflected light against a library of spectral signatures to identify Specifically-targeted objects. Anomaly detection: Compares reflected light against a continuously calculated background spectrum. Anomalies are

flagged as potential targets for further evaluation. Change detection: Executes a pixel-by-pixel comparison of current image against ground conditions that were obtained in a previous mission over the same area. Scene changes are identified, and new, moved or departed targets are highlighted for evaluation.

**Command and Control / Legal Status.** The same legal authorities that govern the use of Air Force assets generally apply to the use of CAP when acting in its capacity as the Air Force Auxiliary. All USAF-assigned mission will be flown under military command and control, generally at the operational (JFACC) level.

Posse Comitatus Act. Unless otherwise authorized by law, the Air Force Auxiliary may not directly participate in civilian law enforcement activities, including, but not limited to: arrest or detention procedures; interdiction of a vehicle, vessel, or aircraft; surveillance or pursuit of individuals or search or seizure.

**How to Request / Access**  
**CAP / AFAUX capabilities.**

**Search and Rescue (SAR) / Life-Saving Missions**

Includes emergency blood, organ & tissue transport.

AFRCC (24/7/365)

TOLL FREE: 800-851-3051, DSN 523

COMMERCIAL: 850-523-5955

**All Other Mission Requests**

Includes immediate response missions to prevent human suffering or to mitigate great property damage.

CAP-NOC (24/7/365)

On call duty officer available.

TOLL FREE: 888-211-1812, Ext 300

AFNORTH CAP Liaison Officer (CAPLNO)

Normal Duty Hours Only

TOLL FREE: 800-896-8806 (Tyndall Operator)

COMMERCIAL: 850-283-5880, DSN 523

CAOC Senior Operations Duty Officer (SODO)

(24/7/365)

TOLL FREE: 800-896-8806 (Tyndall Operator)

COMMERCIAL: 850-283-5573, DSN 523

# Chapter 7.

## Incident Awareness and Assessment (IAA)

**Legal Restrictions.** Certain legal restrictions apply to DoD imaging missions inside the United States and its territories. All imagery mission requests will be subject to CAOC/JA approval prior to AFNORTH execution.

### IAA Responsibilities

**USNORTHCOM is the Collection Management Authority (CMA).** The CMA is the centralized point for collection requests USNORTHCOM, JTF, CFACC, Interagency, State and runs the daily Joint Collection Management Board (JCMB) State JOC's, FEMA, JTF, CFACC, etc The CMA produces an approved prioritized collection list (JIPCL) for JFACC tasking. The JFACC ISRD is the single stop shopping for requirements input and product dissemination.

**AFNORTH is designated the Collection Operations Manager (COM).** As COM, AFNORTH links and tasks specific imagery platforms to the JIPCL through its ATO process.

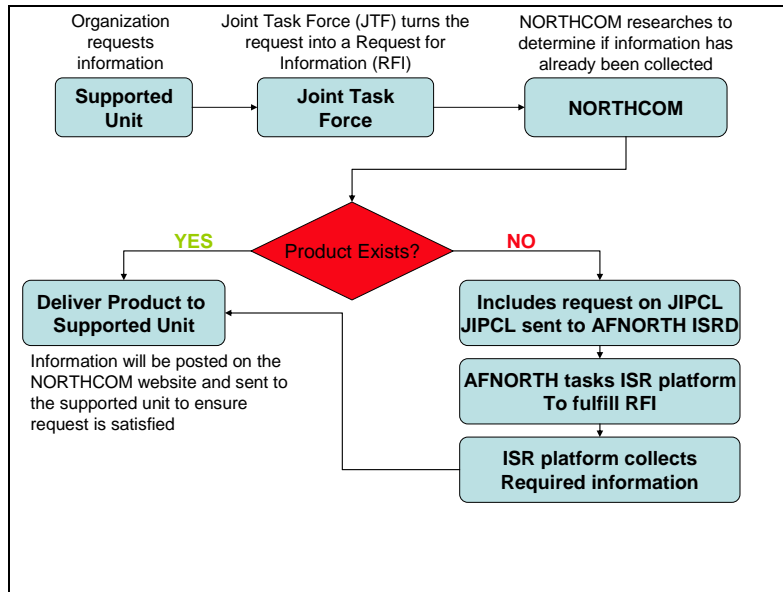
### **ISR Units/Platforms execute missions.**

- Execute in accordance with the ATO
- “Pre-event” imagery for critical infrastructure for baseline analysis
- “Post event” rapid reaction (includes dynamic re-tasking of airborne assets) for USNORTHCOM, JTF and State situational awareness.

**AFNORTH ISR Operations.** The Combined Air Operations Center (CAOC) Intelligence, Surveillance, and Reconnaissance (ISR) Operations Team is comprised of three Cells

- Collection Management Cell
- RFI Management Cell
- Processing, Exploitation and Dissemination (PED) Management Cell

**IAA Process**



**Imagery Collection Decks.** AFNORTH develops prioritized imagery collection decks which are Excel spreadsheets built to provide specific ISR platform sensors a list of targets designated for collection. The collection decks are based on targets listed in the prioritized JIPCL, the type of imagery required to fulfill the





- **Reporting Requirements:** Picture, video, or written report.
- **Remarks:** Extra information that may be helpful.
- **CFACC PIR#:** Commander's Priority Intelligence Requirement (CPIR).
- **JTF PIR#:** Joint Task Force – CPIR

\* AFNORTH use only

### **PED (Processing, Exploitation, Dissemination)**

The PED portion is the critical node of IAA. Imagery is non-effective if it unable to get processed, exploited, and most importantly, disseminated. The AFNORTH ISRD is the PED manager for the IAA DSCA mission, but maintains limited to no organic PED capability. PED organizations must be identified and tasked to support any of the ISR platforms listed below.

### **IAA Capabilities**

**Civil Air Patrol.** See previous section for CAP IAA capabilities.

### **Title 10 ISR Assets**

The primary resource for DoD ISR platforms will be the Title 10 platforms. Contracted ISR assets may be utilized if available. The National Guard have organic ISR resources that will likely be utilized in a state role in coordination with AFNORTH.

### **OC-135 Open Skies**

**Brief:** A modified C-135 aircraft that flies unarmed observation and verification flights over nations that are parties to the 1992 Open Skies Treaty.

**Function:**

Reconnaissance aircraft.

**Operator:** ACC.

**First Flight:** 1993.

**Delivered:** 1993-96.

**IOC:** October 1993.

**Production:** three.

**Inventory:** two.

**Unit Location:**

Offutt AFB, Neb.

**Contractor:** Boeing.

**Power Plant:** four Pratt & Whitney TF33-P-5 turbofans, each 16,050 lb thrust.

**Accommodation:** seating for 35, incl cockpit crew, aircraft maintenance crew, foreign representatives, and crew members from the Defense Threat Reduction Agency.

**Dimensions:** span 131 ft, length 135 ft, height 42 ft.

**Weight:** gross 297,000 lb.

**Ceiling:** 50,000 ft (basic C-135).

**Performance:** speed: 500+ mph, unrefueled range 3,900 miles.





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# OC-135 OPEN SKIES

### TCPED Architecture

- Transit from home station ~ 2 hrs
- Time on Station ~ 8 hrs
- Return to base ~ 2 hrs
- Download wet film ~ 1.5 hrs
- Transit film from Offutt AFB to NASIC or NGA ~ 6-24 hrs
- Process / Exploit / Digitize film ~ 3 days
- Disseminate ~ minutes (web, e-mail) or 24 hrs + (hardcopy)



### OC-135 Capabilities

- On-Station Time: 8 hrs
- OPS Alt: 35k ft
- Max Speed: 460 kts
- Based: Offutt AFB, NB
- CFACC controlled

### Sensor Package (VIDEO, EO, SAR, IR)

- KS-87 framing cameras used for low-altitude Photography (3,000 ft)
- KA-91 pan camera, which pans from side to side to provide a wide sweep for each picture, used for high-altitude (approximately 35k ft)
  - 8NM swath @ 23k ft
  - Approx 1ft resolution



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# OC-135 Images



## COMMENTARY

A modified version of the WC-135, used for specialized arms control treaty observation and imagery collection missions with vertical-looking and panoramic optical cameras installed in the rear of the aircraft. OC-135B modifications include one vertical and two oblique KS-87E framing cameras, used for photography approximately 5,000 ft above the ground, and one KA-91C panoramic camera, which pans from side to side to provide a wide sweep for each picture, used for high-altitude photography up to approximately 35,000 ft. Data is processed and recorded by a recording and annotation system.

### **US Navy P-3C AIP Orion**



#### **P-3 Capabilities**

On-Station Time: 11-12 hrs  
OPS Alt: 34k ft or less  
Max Speed: 330 kts  
Basing: NAS Jacksonville, Whidbey IS, Brunswick

#### **Sensors**


AIP Sensor Package (FMV)  
FMV and day/night IMINT sensors  
NRT downlink-capable via ROVER or datalink to

MOCC  
Limited SATCOM datalink capability

### **TCPED Architecture**


Transit from FOB ~ 1.5 hrs  
 Time on Station ~ 8 hrs  
 Transit to FOB ~ 1.5 hrs  
 If within downlink range, NRT exploitation / dissemination  
 (on-board)  
 If no downlink, process / exploit data at home station ~ 1-2  
 days

Disseminate ~ minutes (web or e-mail)



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## P-3C AIP Orion




TCPED Architecture

- Transit from FOB ~ 1.5 hrs
- Time on Station ~ 8 hrs
- Transit to FOB ~ 1.5 hrs
- If w/in downlink range, NRT exploitation / dissemination (on-board)
- If no downlink, process / exploit data at home station ~ 1-2 days
- Disseminate ~ minutes (web or e-mail)

P-3 Capabilities

- On-Station Time: 11-12 hrs
- OPS Alt: 34k ft or less
- Max Speed: 330 kts
- Based: NAS Jacksonville, Whidbey IS, Brunswick



AIP Sensor Package (FMV)

- FMV and day/night IMINT sensors
- NRT downlink-capable via ROVER or datalink to MOCC
- Limited SATCOM datalink capability

### U-2 Dragon Lady

**Brief:** Single-seat, single-engine, high-altitude endurance reconnaissance aircraft carrying a wide variety of sensors and



AFNORTH

cameras, providing continuous day or night, high-altitude, all-weather area surveillance in direct support of US forces.

**Function:** High-altitude reconnaissance.

**Operator:** ACC.

**First Flight:** Aug. 4, 1955 (U-2); 1967 (U-2R); October 1994 (U-2S).

**Delivered:** 1955-October 1989.

**IOC:** circa 1956.

**Production:** 35 (U-2S/ST).

**Inventory:** 34.

**Unit Location:** Beale AFB, Calif.

**Contractor:** Lockheed Martin.

**Power Plant:** F118-GE-101 turbojet.

**Accommodation:** one (two for trainer).

**Dimensions:** span 103 ft, length 63 ft, height 16 ft.


**Weight:** gross 40,000 lb.

**Ceiling:** above 70,000 ft.

**Performance:** speed 475 mph; range more than 4,500 miles; max endurance 10+ hr.

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U-2



**TCPED Architecture**

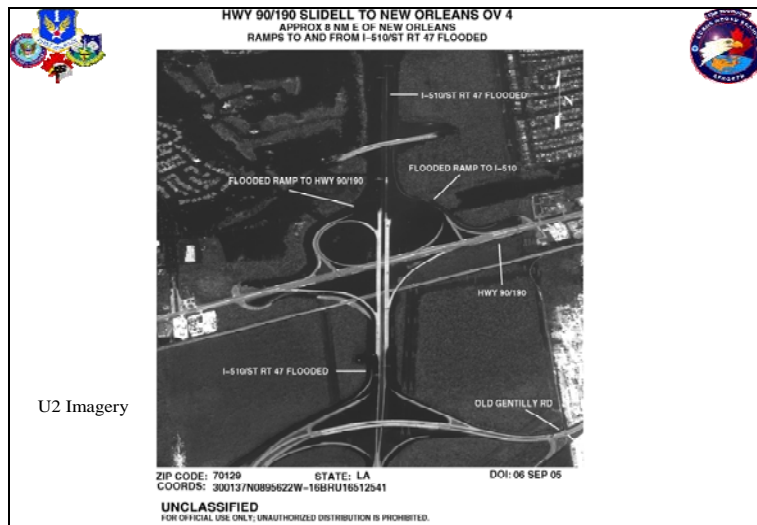
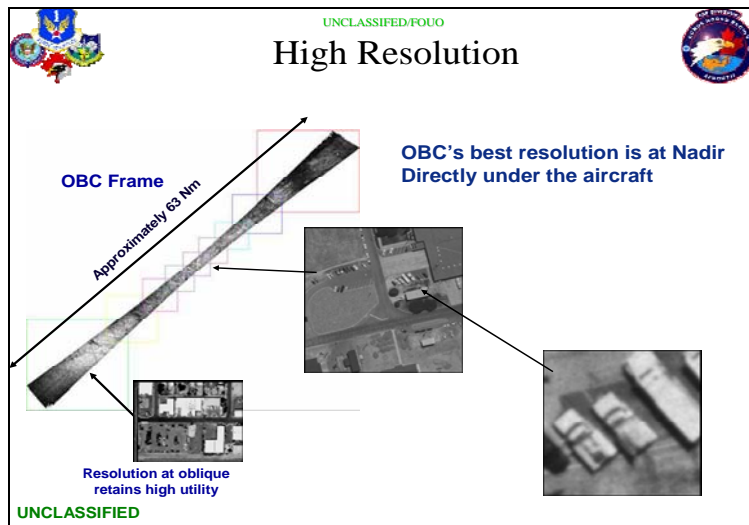
- Transit from FOB ~2 hrs
- Time on Station ~4-5 hrs
- Transit to FOB ~2 hrs
- Download Film ~2-4 hrs
- Transit Film to Beale AFB / 9 IS or NGA ~ 7-24 hrs
- Process / Exploit Film ~3 days
- Disseminate ~minutes (website or email), 24hrs+ for hardcopy

**U2 / Sensor Capabilities (Optical)**

- On-Station Time: 9-11 Hours
- OPS Alt: 60-72k FT
- Cruise Speed: .715 Mach
- Optical Wet Film
- Based: Beale AFB, CA or FOB: Warner-Robbins AFB, GA
- Tasked by N/NC

**Sensor Capabilities: OBC (EO)**

- Daylight Only, Broad Area, EO
  - 70NM Swath (middle 3NM is Nadir)
  - 90k+ sq NM of NIIRs 5-6+ in a single mission
  - Could image the entire state of Calif
- Images can be set for UNCLASS resolution



## COMMENTARY

The U-2 is the Air Force's premier high-altitude reconnaissance platform, capable of carrying multi-int sensors simultaneously, making it USAF's only truly operational multi-intelligence platform and a key performer in combat operations. Although the U-2 was designed initially in the 1950s, current aircraft were produced primarily in the 1980s, when the production line was reopened to produce the TR-1, a significantly larger and more capable version than the earlier aircraft. Deliveries ended in October 1989.

**U-2R** (single-seat) and U-2RT (two-seat) aircraft. In 1992, all existing U-2s and tactical TR-1s were consolidated under the designation U-2R.

**U-2S** (single-seat) and TU-2ST (two-seat). The current designations of all aircraft in the inventory. Conversion to S model configuration began in October 1994. Included in the ongoing \$1.5 billion improvement program are new F118-GE-101 engines, a complete electrical system replacement, a new glass cockpit using multifunction displays (MFDs), a digital autopilot, an electro-optical view sight, and a new electronic warfare system. Sensor upgrades include the ASARS-2A SAR sensor, which provides enhanced imaging modes and improves geo-location accuracy; the SYERS-2 EO imagery system providing DOD's only multispectral and IR capability; enhanced RF-intelligence capability; and new data links enabling the U-2 to connect in near real time with network-centric hubs as well as line-of-sight ground stations, airborne data relays, and beyond-line-of-sight satellite data relays simultaneously. NASA has two ER-2 versions of the U-2 used for highaltitude scientific experiments and atmospheric research, including investigation of global ozone depletion.



### **MQ-1 Predator**

**Brief:** A medium-altitude, long-endurance unmanned aerial vehicle (UAV), flown remotely. Joint force commander multimission asset, Primary FMV imagery sensor.



**Function:** Reconnaissance

**Operator:** ACC; AFSOC; ANG.

**First Flight:** July 1994.

**Delivered:** July 1994 (USAF from 1996)-present.

**IOC:** 2003.

**Production:** 170 air vehicles—ongoing.

**Inventory:** five.

**Unit Location:** Creech AFB, Nev., Nellis AFB, Nev.

**Contractor:** General Atomics Aeronautical Systems.

**Power Plant:** one Rotax 914 turbocharged engine.

**Accommodation:** unmanned system.

**Dimensions:** length 27 ft, height 7.2 ft, span 48.7 ft.

**Weight:** empty 950 lb, gross 2,250 lb.

**Ceiling:** 25,000 ft.

**Performance:** cruise speed 80 mph, up to 138 mph, endurance 24 hr (460 miles with 16 hr on station).

### **COMMENTARY**

Operated currently by ACC's 11th, 15th, and 17th RSs, AFSOC's 3rd SOS, and ANG's 163rd RW, the Predator UAV has evolved into a vital component of USAF's warfighting inventory. A Predator system includes four air vehicles, a ground control station, satellite link, and about 55 personnel for 24-hour operations. The Predator crew comprises a pilot and two sensor operators. DOD first used the advanced concept technology demonstration (ACTD)

Predator in 1995 to support Provide Promise. In 1997, USAF took over the Predator program, and in 1999, while the UAV was still in development, the service deployed the system operationally for surveillance missions over Bosnia and Iraq. USAF changed the designation for Predator A to MQ-1 to denote its multimission capability for both reconnaissance and strike. All RQ-1 aircraft have been or will be retrofitted for MQ-1 configuration. MQ-1 designates the multimission weaponized Predator A. It carries an MTS sensor ball supplied by Raytheon in place of the Wescam sensor ball. The MTS provides a laser target designator with EO/IR sensors in a single package. The SAR must be removed to make room for some of the laser designator equipment. The MQ-1 can be controlled via direct line of sight or via satellite from a remote location. Currently, most Predator missions are controlled remotely from the US.

RQ-1A. The ACTD version of Predator A.

RQ-1B. The reconnaissance-only version of Predator A, with an internal 450-lb surveillance payload that includes two EO and one IR video cameras carried in a ball-shaped turret under the nose and produced by Wescam. The internal sensor payload also includes a SAR still imagery camera for a day/night, all-weather reconnaissance capability. USAF is retrofitting RQ-1Bs to MQ-1 configuration.

### **MQ-9 Reaper**

**Brief:** A medium-to-high altitude, long-endurance remotely piloted UAV.

Operator: ACC.

First Flight: February 2001.

Delivered: November 2003.

IOC: FY09.

Production: 60 (planned).

Inventory: eight.

Unit Location: Creech AFB, Nev.

Contractor: General Atomics Aeronautical Systems.  
Power Plant: one Honeywell TPE-331-10GDT turboprop engine.  
Accommodation: unmanned system.  
Dimensions: length 36.2 ft, span 66 ft.  
Weight: empty 4,680 lb, gross 10,500 lb.  
Ceiling: 30,000+ ft.  
Performance: cruise speed 172 mph, up to 230 mph, endurance 14+ hours.

#### **COMMENTARY**

The typical MQ-9 system consists of several aircraft, a ground control station, communications equipment/links, spares, and active duty and /or contractor personnel. The crew is one pilot and one sensor operator. The aircraft is flown from within the ground control station using either a C-band line-of-sight data link or a Kuband beyond-line-of-sight data link. The sensor is capable of very fine resolution in both spotlight and strip modes. The SAR also has ground moving target indicator capability.

#### **RQ-4 Global Hawk**

**Brief:** A high-altitude, long-range, long-endurance UAV.

**Function:** Unmanned reconnaissance aircraft.

**Operator:** ACC.

**First Flight:** Feb. 28, 1998.

**Delivered:** seven advanced concept technology demonstrators; five production vehicles.

**IOC:** used operationally in Afghanistan and Iraq while still in development phase. Operational status achieved October 2004.

**Production:** 51 (planned).

**Inventory:** 11.

**Unit Location:** Beale AFB, Calif., Eglin AFB, Fla., (planned) Andersen AFB, Guam, by 2009.

**Contractor:** Northrop Grumman (prime); Raytheon.  
**Power Plant:** one Rolls Royce-North American AE 3007H turbofan, 7,600 lb thrust.

**Accommodation:** unmanned system.

**Dimensions:** RQ-4A:  
length 44.4 ft, height  
15.2 ft, span 116.2 ft.;  
RQ-4B: length 47.6 ft,  
span 130.9 ft.

**Weight:** gross (RQ-4A)  
25,600 lb; (RQ-4B)  
32,250 lb.

**Ceiling:** 65,000+ ft.

**Performance:** objective endurance up to 40 hr (RQ-4B 33 hr) at a cruise speed of 400 mph and at an altitude of 65,000 ft allowing loiter on station 1,380 miles from base for 24 hr. Combat range 15,525 miles.

**Armament:** none.



#### **COMMENTARY**

The RQ-4A is high-altitude endurance UAV carrying a 1,900-lb payload, incorporating EO/IR and SAR sensors that permit switching among radar, IR, and visible wavelengths as required. The Global Hawk system operates in conjunction with its ground launch recovery element and mission control element for command and control. The RQ-4B system increases payload capacity to 3,000 lb for future sensors/capabilities, including signals collection and electronics intelligence. Navigation is by GPS/INS. Global Hawk flies autonomously from takeoff to landing, providing near-real-time imagery products for tactical and theater commanders. Vehicle ground track and mission plan can be updated in real time to respond to changing air traffic control needs and/or mission collection needs. Global Hawk began as an advanced concept technology demonstrator in 1995. Engineering and

manufacturing development (EMD) was approved in March 2001. While still a development system, Global Hawk deployed operationally to support Enduring Freedom in Afghanistan in November 2001, flying more than 50 missions and 1,000 combat hours. The RQ-4 program has been accelerated to meet the continuing heavy demand for its capabilities. Global Hawk provides continuous, all-weather, day/night, wide area surveillance. It will operate in low-to-moderate air defense threat environments with the ability to fly above or stand off from enemy defenses.

### **E-3 Sentry**

**Brief:** Heavily modified Boeing 707-320B aircraft, fitted with an extensive complement of mission avionics providing all-weather air surveillance and command, control, and



communications for tactical and air defense forces.

**Function:** Airborne early warning, tactical battle management, and C2 of theater air forces.

**Operator:** ACC, PACAF, AFRC (assoc.).

**First Flight:** Oct. 31, 1975 (full avionics).

**Delivered:** March 1977-84.

**IOC:** 1977.

**Production:** 34.

**Inventory:** 32.

**Unit Location:** Elmendorf AFB, Alaska, Kadena AB, Japan, Tinker AFB, Okla. AFRC: (assoc.) Tinker AFB, Okla.

**Contractor:** Boeing; Northrop Grumman (radar); Lockheed Martin (computer).

**Power Plant:** four Pratt & Whitney TF33-PW-100/100A turbofans, each 21,000 lb thrust.

**Accommodation:** flight crew of four; 13-19 mission specialists.

**Dimensions:** span 145.8 ft, length 152.9 ft, height 41.5 ft.

**Weight:** gross 347,000 lb.

**Ceiling:** 38,000 ft.

**Performance:** optimum cruise Mach 0.78, endurance eight hr unrefueled.

### **COMMENTARY**

A critical component of the USAF inventory, the E-3 Airborne Warning and Control System (AWACS) aircraft is capable of surveillance from Earth's surface up to the stratosphere, over land or water, at more than 200 miles. During conflict it will coordinate the actions of hundreds of strike, support, and cargo aircraft. As an integrated Air Force command control battle management (C2BM) surveillance, target detection, and tracking platform, AWACS is directly subordinate to the joint air operations center. Its extensive range of mission avionics enables it to provide an accurate real-time battlespace picture of friendly, neutral, and hostile activity; command and control of an area of responsibility; battle management of theater forces; all-altitude/all-weather surveillance of the battlespace; and early warning of enemy actions. AWACS may be employed alone or horizontally integrated with other C2BM and ISR elements. It provides the theater with the ability to find, fix, track, and target airborne or maritime threats and to locate and identify emitters. It can operate beyond the coverage of groundbased C2 and can exchange data with other C2 platforms and weapon systems.

E-3A. Of the 24 built for USAF in standard production configuration, 22 were later upgraded.

An improved US/NATO Standard E-3A configuration was initiated with the 25th USAF Sentry, delivered in December 1981, with a larger-memory computer and a maritime detection capability. Nine were built new for USAF, and one of the original E-3As was upgraded.

E-3B is the upgraded earliest version E-3A. Twenty-two product prototypes were produced. Improvements include much-enhanced computer capabilities, jam-resistant communications, austere maritime surveillance capability, additional radio communications, and five additional display consoles.

E-3C is an upgrade to the original 10 US/NATO Standard E-3A aircraft, with additional radio, console, and radar capabilities. Redelivered 1984. A series of major sustainability, reliability, and availability upgrades for USAF E-3s has been undertaken to support the continuing demands on the system. Upgrades include new passive detection systems, known as electronic support measures (ESM), that complement the active beaming radar, enabling the aircraft to detect signals emitted by both hostile and friendly targets, improved Joint Tactical Information Distribution System (JTIDS), jam-resistant communications, increased computer capacity, and GPS capability. Radar system improvements permit AWACS aircraft operating in the pulse-Doppler mode to detect smaller, stealthier targets. Installation begun in 2005 of new air traffic management systems and advanced satellite communications permits use of optimum altitudes and flight routes. A single, long-term contract awarded in 2001 provides for further improvement and management support.

## Additional IAA/ISR Resources





### Shadow Harvest

Shadow Harvest is a DIA operated program utilizing contracted assets. Currently, DIA operates the sensor packages utilizing a DC-3 asset with plans to migrate to a modern C-130 airframe.

Commentary: The primary mission of the Shadow Harvest program is primarily EO/IR, HIS and MASINT.

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## SHADOW HARVEST (DIA)



TCPED Architecture

- Transit from FWD location ~2 hrs
- Time on Station ~6 hrs
- Return to base ~2 hrs
- Download data ~1 hr
- Transit to DIA ~ 6-24 hrs
- Process / Exploit / Digitize at DIA ~3 days
- Disseminate ~minutes (web, email)
- No data link
- All exploitation post mission

DC-3 Performance

- On-Station Time: 6 Hours
- OPS Alt: 24k FT
- Max Speed: 143 KTS
- Based at Greenville TX, can be FWD deployed
- DEVELOPMENTAL...not operational fielded at this time

Sensor Package (EO, IR, HSI, MASINT)

- Day Only Sensors
- EO Hi Resolution (RES) Camera, .5m Res
- Skyball with laser radar, midwave IR camera, & visible camera (FMV)
- Multi Spectral (MSI) Sensor, 6m res
- High resolution imaging/mapping camera (visible & near IR)
- Hyperspectral Imaging sensor (visible through short-wave IR) 1m resolution
- Standard Area Targets less than 4km





### Contracted ISR Capability

Additional ISR asset may be contracted out to government contractors. Initial planning considerations include a government contracted platform capable of Full Motion Video, EO, IR and SAR imagery in one single platform.

### **Title 32 ISR Capabilities**

Title 32 ISR assets are operationally controlled by each state. States will utilize organic assets or request assets from other states via EMAC or through the NGB. AFNORTH does not have direct tasking authority, but maintains close coordination and visibility of National Guard ISR assets.

### **ANG RC-130 (Scathe View)**



#### **RC130 Scathe View Characteristics**

Operational Altitude: 33,000 feet

Max Speed: 318 kts

Basing: Reno Intl Airport (ANG)

8 aircraft, 5 modular systems)

Forward Operating Base: Warner-Robbins AFB, multiple others

#### **Sensors**

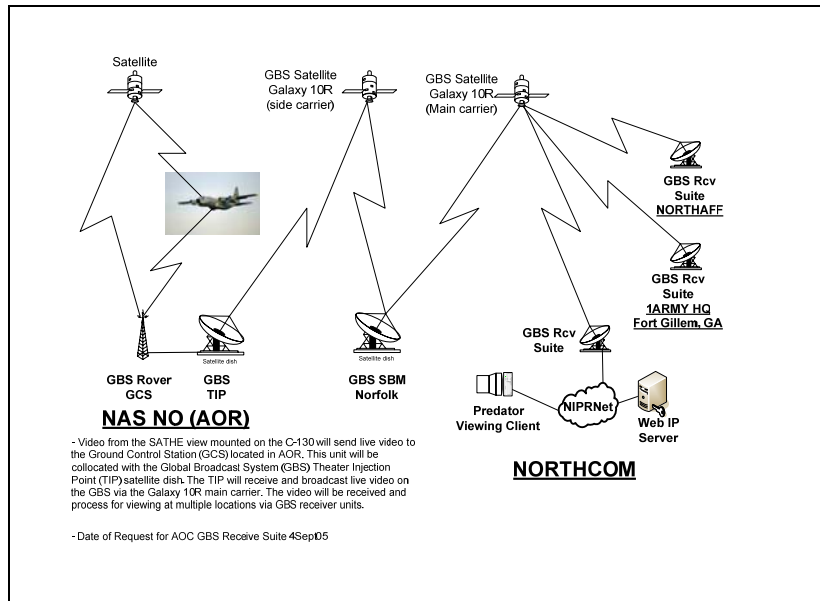
Sensor Capabilities (EO, IR, FMV)

6.7.1.2.3. TCPED Architecture

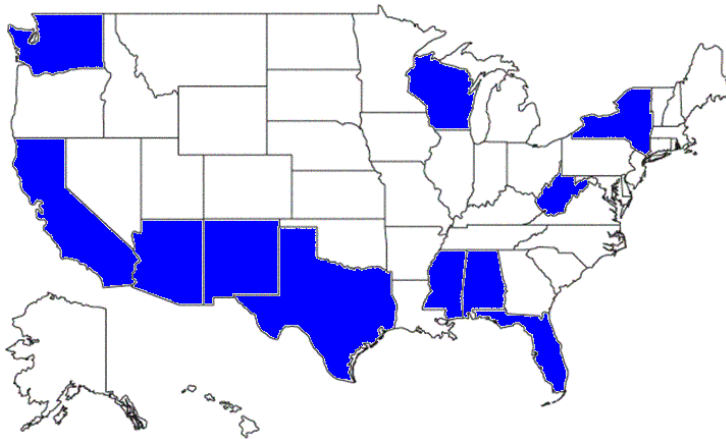
Transit from FOB ~ 1.5 hrs

Time on Station ~ 8 hrs

Transit to FOB ~ 1.5 hrs  
 NRT downlink to 152 IS or forward deployed analysts  
 Process / Exploit FMV and stills w/in 1 day (tgt set dependent)  
 Disseminate ~ minutes (web, e-mail), upload to GBS  
 Rover Data Link Capable  
 Sensor/Link Comms: 60-80 nm



## **RC-26 (ANG)**



### **RC-26 Basing**

#### **Capabilities**

- (U) Max speed 248 KTAS
- (U) Operating alt 25k-30k feet AGL
- (U) Total flight time 5-6 hrs
- Multiple Basing Location, ANG (11 Airframes)

**Sensor Capabilities (EO, IR, FMV)**

(U) Color Daylight TV zoom to approx. 50x

(U) Color Daylight Spotter Scope 960mm lens allows Daylight TV magnification to approx 100x

(U) Thermal Imager 3-5 micron range (no thermal crossover), magnification similar to 50x Daylight TV

KS-87 framing cameras used for low-altitude images (3,000 ft)

Sensor Resolution NIIRs 4-5

NIIRs 6 @4500Ft AGL

**TCPED Architecture**

Transit from FOB ~1-2 hrs

Time on Station ~3 hrs

Return to base ~1-2 hrs

Download data tapes ~1.5 hrs

Process / Exploit / Digitize

- At FOB (if avail) ~3 days or transit to home station ~6-24 hrs

- At home station ~3 days

Disseminate ~minutes (web, email)

Avg # of targets per mission: 25-50

Rover Data Link Capable

LEA Capable Comm Suite

## **ANG Theater Airborne Recon System (TARS)**



### **Fighter Capabilities**

On-Station Time: 3-4 hrs (un-refueled)  
OPS Alt: 20-25k FT  
Max Speed: 350-500 KTS  
Based: 127th FW Selfridge ANGB, MI  
TARS Pods may be deployed to overseas locations.

### **Sensor Capabilities (EO)**

Medium Altitude (EO)  
NIIRs 5 @ 30k slant range (2NM Footprint@30K)  
Capable of NIIRs 7  
Sweet Spot: 15k + low speed  
Foward Framing Sensor (EO)  
Optimized for <15K  
Footprint varies based on focal length  
Fair WX/ Daylight Sensor

### **TCPED Architecture**

Transit from MOB to FOB ~1-2 hrs  
Time on Station ~3 hrs

Return to base ~1-2 hrs  
Radio relay NRT visual observations  
Dissemination: On site exploitation; First image 30 min after engine shutdown (high priority taskings); Finished products emailed, uploaded or printed  
All images are UNCLASS

SCHOLES INTERNATIONAL OV  
4NM SW OF GALVESTON  
NO APPARENT DAMAGE



ZIP CODE: 77554 STATE: TX  
COORDS: 291555N0945645W-15RUN19043881

DOI: 25 SEP 05

## **E-8 Joint STARS**

**Brief:** A modified Boeing 707 equipped with a large, canoe-shaped radome mounted under the forward part of the fuselage, housing long-range, air-to-ground radar capable of locating, classifying, and tracking vehicles



moving on Earth's surface out to distances in excess of 124 miles. Such data are then transmitted via data link to ground stations or other aircraft.

**Function:** Ground surveillance, battle management (BM), C2 aircraft.

**Operator:** ACC and ANG, as the blended 116th Air Control Wing. Organized as an ANG asset.

**First Flight:** December 1988.

**Delivered:** May 1996-present

**IOC:** Dec. 18, 1997.

**Production:** 18.

**Inventory:** 18.

**Unit Location:** Robins AFB, Ga.

**Contractor:** Northrop Grumman; Motorola; Cubic; Raytheon.

**Power Plant:** four Pratt & Whitney TF33-102C turbojets, each 19,200 lb thrust.

**AIR FORCE 142 Magazine / May 2007**

**MQ-9 Reaper (SrA. Larry E. Reid Jr.)**

**Accommodation:** mission crew of 21 Air Force/Army operators (can be augmented to 34).

**Dimensions:** span 145.8 ft, length 152.9 ft, height 42.5 ft.



**Weight:** gross 336,000 lb.

**Ceiling:** 42,000 ft.

**Performance:** max operating speed Mach 0.84, endurance with one in-flight refueling 20 hr.



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## E-8 JSTARS

TCPED Architecture

- Transit from home station ~ 1-2 hrs
- Time on Station ~ 10 hrs un-refueled / 16-18 refueled
- Return to base ~ 1-2 hrs
- Process / Exploit / on-board MTI
- Disseminate ~ minutes (voice reporting)

JSTARS Capabilities



- On-Station Time: 8-10 hrs (un refueled)
  - Approx 20 hrs refueled
- OPS Alt: 32-42k FT
- Max Speed: 450 KTS
- Based: Robbins AFB, GA
- CFACC controlled
- Limited availability due to op commitments to CENTCOM



Sensor Package (MTI, SAR)

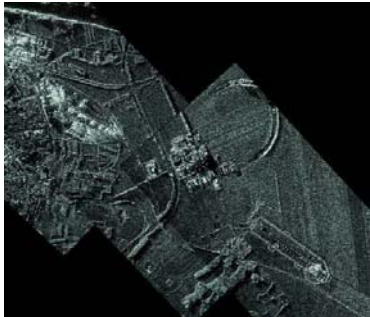
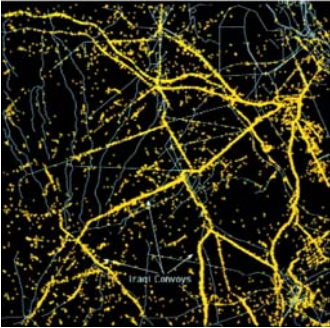
- Moving Target Indicator Radar: provides cueing of movements
  - 45,000+ km of coverage
  - Detect Veh, low/ slow flyers, helos
  - Velocity 5- 230 mph
  - No organic ID capability
- Synthetic Aperture Radar (SAR): provides still imagery
  - Shows radar ground picture
  - Terrain Analysis

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## E-8 JSTARS

**UK countryside overlaid MTI/SAR modes with GIS**

**1991 Iraqi retreat from Kuwait in SAR mode**

### COMMENTARY

Joint STARS (Surveillance Target Attack Radar System) is a battle management (BM) platform capable of providing commanders with transformational C2 and near-real time wide

area surveillance ultimately passing targeting information to air and ground commanders. Joint STARS battle managers use the sensor and a robust communications suite to engage enemy forces in day, night, and adverse weather conditions. The radar subsystem features a multimode, side-looking, phased-array radar that provides interleaved moving target indicator (MTI) information, synthetic aperture radar (SAR) imagery, and fixed target indicator imagery. Joint STARS downlinks via a secure, jam-resistant digital data link and beyond-line-of-sight satellite radio communications. Multiple receivers are in use, predominantly the US Army's Common Ground Station and Joint Services Work Station. As part of their operational test and evaluation, Joint STARS aircraft flew more than 150 operational missions during Desert Storm (with two E-8A development aircraft) and Joint Endeavor (with one E-8A and one test bed E-8C). During Iraqi Freedom, E-8C Joint STARS aircraft were airborne 24 hours a day to help coalition forces maintain battlefield awareness. The E-8C's unique, long-dwell MTI capability is being used in increasingly creative ways, keeping it relevant to the joint force commander.

**E-8A.** Prototype version, with specialized equipment installed aboard two specially modified 707-300 airframes. One was converted to an in-flight pilot trainer in 1997, and the second was scrapped.

**E-8C.** Production version, based on former commercial 707-300 airframes. Equipped with 18 operations and control consoles, two of which double as communications stations, all the aircraft have been modified to the more capable Block 20 aircraft, featuring more powerful computers and an Internet protocol local area network. The first E-8C became operational in 1996, and these aircraft are expected to remain airworthy until at least 2034. System improvements under way include Link 16 upgrade for improved control and battle management; enhanced radar modes; new satellite communications radios; upgrades to allow Joint STARS to assume the Airborne Battlefield Command and Control Center (ABCCC) mission of attack support to ground force commanders; installation of the

Force XXI Battle Command Brigade and Below (FBCB2) terminal, greatly enhancing situational awareness to friendly forces; IP connectivity; and communications navigation surveillance air traffic management upgrades to permit use of optimum altitudes and flight routes in increasingly congested commercial airspace in response to new stringent international navigation standards. USAF will seek to re-engine the E-8C to improve operational performance following cancellation of the E-10 program.

**How to request / access  
AFNORTH ISR/IAA capabilities.**

CAOC ISR Operations Collection Managers

TOLL FREE: 800-896-8806 (Tyndall Base Operator)

Primary

COMMERCIAL: 850-283-5556, DSN 523

Secondary

COMMERCIAL: 850-283-5440, DSN 523

Tertiary

COMMERCIAL: 850-283-5103, DSN 523

AFFOR A2

AFFOR CAT A2 Duty Officer

COMMERCIAL: 850-283-5877, DSN 523

# Chapter 8.

## Airspace Planning and Control (CAOC/CPD)

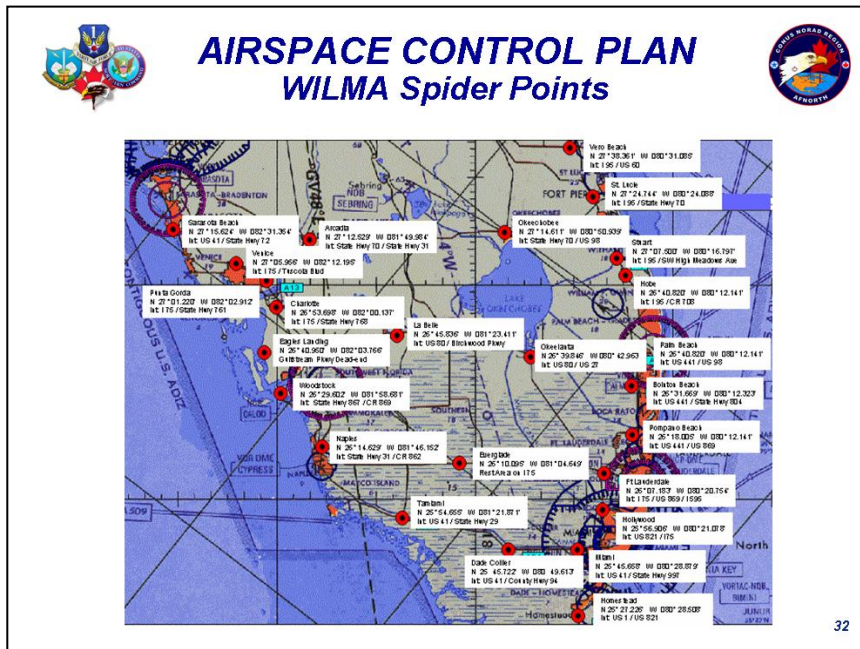
**Combat Plans Division (CPD).** The CPD Airspace Management Team is directly related to the Combined Forces Air Component Commander's role as the Airspace Control Authority (ACA). The Federal Aviation Administration as the Host Nation's (HN) air traffic service provider is granted statutory authority over managing airspace by Title 49 of the United States Code.

**Airspace Control Authority (FAA/ACA).** The ACA is the designated military commander assuming overall responsibility for military operations of the airspace control system in the designated airspace control area. The airspace control system is defined as those organizations, personnel, policies, procedures, and facilities performing airspace control functions. The ACA coordinates with the FAA for approval of all issues involving the National Airspace System in the defined airspace control area. This cooperative partnership ensures dynamic innovative solutions are immediately implemented to maximize mission accomplishment with minimal degradation to the National Airspace System.

**CAOC Airspace Management Team.** Within a typical CAOC, the airspace management team is a component of the C2 planning team. Due to the complexity of integrating military operations with civilian operations in the NAS, an existing airspace control system, and constant DoD FAA coordination, the airspace management team is separate from the C2 team within the Combat Plans Division. The Airspace Management Team consists of military and civilian air traffic controllers responsible for coordinating and integrating the airspace control system with the FAA. In recognition of the FAA's statutory

responsibility, military air operations are designed to coexist with civilian operations and have as little impact on the NAS as possible. Each volume of airspace supporting the military operation is deconflicted and coordinated with the FAA by the CAOC and approved. The Airspace Management Team consists of two main elements: Combat Plans and Combat Operations.

**Airspace Control Plan.** The plans airspace team develops and coordinates the Airspace Control Plan (ACP) with the FAA--the document approved by the joint force commander that provides specific planning guidance and procedures for the airspace control system for the airspace control area. The plans team coordinates airspace request and matters affecting military aircraft control with the FAA, the International Civil Aviation Organization (ICAO), military units, foreign agencies, and other applicable federal and state agencies. This team receives, process, and deconflicts Airspace Control Measure Request (ACMREQ) to develop the Airspace Control Order--the order implementing the airspace control plan that provides the specific details of the approved request for airspace coordinating measures.



**Air Traffic Control.** Airspace control increases mission effectiveness by promoting the safe, efficient, and flexible use of airspace with a high volume of aircraft operations placing minimal restraint upon the airspace users. Regardless of AFNORTH's airspace control measures, all flights are conducted under standard Federal Air Regulations. The FAA uses Temporary Flight Restrictions (TFR) to regulate entry into the airspace. These TFRs defines the restricted airspace and outline the requirements for operating within it.

The CAOC utilizes and incorporates the positive control elements of the National Airspace System (NAS) and procedural control capabilities of Theatre Battle Management Core Systems (TBMCS) computers to maximize flying safety in the airspace control area. The ACP and ACO are no way intended to supersede air traffic control procedures/instructions. Aircraft operating within Class B, C, D, and TRSA airspaces will operate in accordance with ATC airspace class requirements. The ACP and ACO are additional guidance and procedures ratified by the airspace control authority regulating participating DoD aircraft.

**Operations Airspace Team.** The operations airspace team is responsible for coordinating and managing all current airspace management activities. The team monitors flying activities to ensure that ACMs are compatible with mission requirements. They coordinate with internal and external C2 agencies on airspace control issues, request, and problems. This team is the focal point for disseminating ACO changes. They monitor and disseminate airfield, navigational aids (NAVAIDS), and air traffic control facility status and information in the consistent with FAA reporting. They facilitate immediate coordination with the host nation (normally the FAA) on airspace control issues, requests, and problems within the airspace control area

**Airspace Coordination Measures (ACM).** ACM are measures employed to facilitate the efficient use of airspace to accomplish missions and simultaneously provide safeguards for friendly forces.

**How to Request / Access  
AFNORTH Airspace Planning Capabilities**

**AFNORTH Air Space Planning**

**COMM (850) 283-8654  
DSN 523-8654**

**601AOC/Combat Plans  
Air Space Division**

**COMM (850) 283-5837/5860  
DSN 523-5837/5860**

## Chapter 9. Federal Emergency Management Agency (FEMA)

FEMA is part of the Department of Homeland Security's Emergency Preparedness and Response Directorate. FEMA has more than 2,600 full time employees. They work at FEMA headquarters in Washington D.C., at regional and area offices across the country, the Mount Weather Emergency Operations Center, and the National Emergency Training Center in Emmitsburg, Maryland. FEMA also has nearly 4,000 standby disaster assistance employees who are available for deployment after disasters. Often FEMA works in partnership with other organizations that are part of the nation's emergency management system. These partners include state and local emergency management agencies, 27 federal agencies and American Red Cross.



Past DIRMOBFORs have indicated the importance of understanding the role the Federal Emergency Management Agency (FEMA) plays in a stateside contingency or disaster. Since FEMA is an independent agency outside the DOD's command, it is important to recognize that their actions in dealing with the disaster or emergency may significantly affect and, at times, inhibit our operations. Therefore, close coordination with on-scene FEMA representatives is highly recommended in order to deconflict their operations with air mobility operations. A discussion of the responsibilities of this agency follows.



FEMA was established in the executive branch as an independent agency pursuant to Reorganization Plan No. 3 of 1978 (5 U.S.C.app.) and Executive Orders 12127 of March 31, 1979 (effective April 1, 1979), and 12148 of July 20, 1979 (effective July 15, 1979).

The National Preparedness Directorate develops and coordinates the national policy and facilities necessary for attaining and maintaining the Federal Government's capability to deliver effective emergency management during all phases of national security emergencies.

This directorate coordinates national security emergency management and preparedness responsibilities with federal departments and agencies. To allow the civil government to respond to national security and/or catastrophic domestic emergencies, it is responsible for:

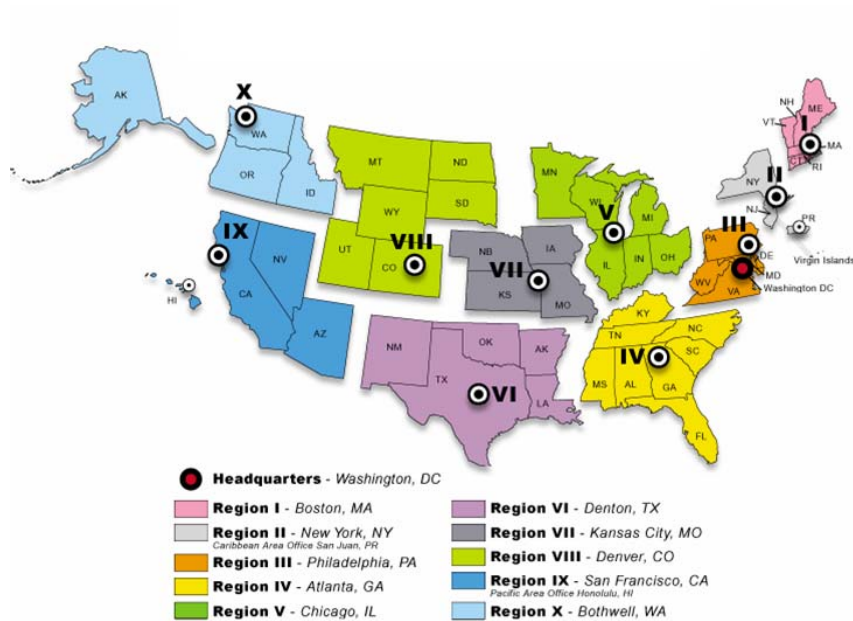
- Developing, coordinating, and evaluating procedures that provide for effective operation of the Government;
- Creating and coordinating concepts and systems to improve the mobilization of industrial and Federal sectors;
- Formulating concepts and systems to assure the availability of resources required to fulfill defense and critical civilian needs.
- Developing Presidential emergency action documents;
- Serving as the civil/military interface; and
- Managing the 24-hour National Emergency Coordination Center for the collection of emergency information and notification of key emergency management officials.

The directorate also provides for planning, operation and management of NATO civil communications for departments and agencies and is responsible for coordinating the design, development, operation, and maintenance of fixed and transportable facilities; maintaining capabilities and resources for day-to-day and emergency telecommunications, information processing, and warning systems requirements;

and administering the National Defense Executive Reserve Program.

The State and Local Programs and Support Directorate administers support programs to State and local governments which are designed to improve emergency planning, preparedness, mitigation, response, and recovery capabilities at the State and local levels in an all-hazards context—natural, technological, and attack-related.

Ten regional offices carry out FEMA's programs at the State and local levels. The Regional Directors are the Agency Director's principal representatives in contacts and relationships with Federal, State, regional, and local agencies; industry; and other public and private groups. The Regional Directors are responsible for accomplishing within their regions the national program objectives established by FEMA. They also work in conjunction with the Director in developing national policy.



## DCO CONTACT LIST

### **FEMA I:**

REGION I/BOSTON  
FEMA REGION I Headquarters  
99 High Street, 6th Floor  
BOSTON, MA 02110  
(617)956-7501

### **FEMA II:**

REGION II/New York  
Bldg 2700  
Fort Monmouth, NJ 07703  
(732) 427-1512

### **FEMA III:**

REGION II/PHILADELPHIA  
Headquarters  
625 Chesnut Street  
Philadelphia, PA 19106  
(215) 931-5765

### **FEMA IV:**

REGION IV/ATLANTA  
3003 Chamblee-Tucker Rd  
Atlanta, GA 30341  
(678) 530-5823

### **FEMA V:**

REGION V/CHICAGO  
FEMA REGION V Headquarters  
536 SOUTH CLARK Street  
CHIGACO, IL 60605

**FEMA VI:**

REGION VI/DENTON  
Federal Regional Center  
800 N.LOOP 288  
DENTON, TX 76209  
(940) 898-5399

**FEMA VII:**

REGION VII/Kansas City  
Bannister Fed Complex  
Kansas City, MO 64131  
(816) 926-7333

**FEMA VIII:**

REGION VIII/DENVER  
Denver Federal Complex  
Denver, CO 80225-0267  
(303) 235-4770

**FEMA IX:**

REGION IX/OAKLAND  
Bldg 370, 10th St.  
Camp Parks, CA 94568  
(925)875-4465

**FEMA X:**

REGION X/Seattle  
18939 120th Ave NE  
Bothell, WA 98101  
(425) 487-4757

## Chapter 10. Radar Sensors

**The Joint Surveillance Site (JSS).** The JSS is a network of ground-base, fixed long range surveillance radars, primarily operated and maintained by the Federal Aviation Administration (FAA), but providing communication and radar data to both FAA and USAF control centers. The newest long-range search radar in the Joint Surveillance System (JSS) that has recently been fielded is the Air Route Surveillance Radar Model 4 (ARSR-4). Providing air defense and air traffic control for the continental United States, Guam, and Hawaii, forty joint radar sites were installed during the 1992-1995 period. The ARSR-4 was fielded through a \$1 billion Congressionally mandated joint FAA and Air Force program, and each station costs over \$12 million.

**JSS Site Locations.**\_\_JSS sites are located along the perimeter of the US looking outward.

AJO AZ, Bootlegger Ridge MT, Bucks Harbor ME, Canton MI, Caribou ME, Citronelle AL, Cross City FL, Dansville NY, Deming NM, Eagle Peak TX, Empire MI, Finley ND, Ft. Fisher NC, Ft. Green FL, Gibbsboro NJ, Jetburg SC, Keno OR, Key West FL, King Mountain TX, King Mountain, Lake Charles, Lake Charles LA, Lakeside MT, Makah WA, Melbourne FL, Mica Peak WA, Mill Valley CA, Morales TX, Mount Laguna CA, Nashwauk MN, North Truro MA, Oceana VA, Oilton TX, Paso Robles CA, Plains VA, Rainbow Ridge CA, Riverhead NY, Rock Springs TX, Salem OR, San Clemente CA, Slidell LA, Tamiami FL, Tyndall FL, Utica NY, Watford City ND, and Whitehouse FL.



**ARSR-4 (AN/FPS130).** The Air Route Surveillance Radar (ARSR)-4 System is three-dimensional long range radar that is the centerpiece of the FAA/Air Force Radar Replacement (FARR) program. The system replaces the earlier FPS-20 series two-dimensional long range air route surveillance systems. The ARSR-4 system provides 360 degree azimuth coverage for ranges out to 250 nautical miles, at heights up to 100,000 feet, and for elevation angles of -7 to +30 degrees (stacked beam). Unlike the FPS-20's which had two separate and independent channels providing full transmitter and receiver redundancy, the ARSR-4 uses two separate but dependent air-cooled solid state transmitter to generate the two transmit pulses (60 and 90 microsecond wide). The radar echoes (returns) are received by the antenna and processed by a seven-channel RF receiver and signal processor. The primitive target detections from the seven signal processor channels are further processed in a data processor (Common Digitizer) that provides scan-to-scan correlation (search and beacon alignment) and radar/beacon target merging (reinforcement). The data processor formats the target data into user acceptable message formats (13 bit) and transmits the target data to end users via a system of serial data links (serial in/out, radar cable junction box, modems).



**ARSR-3.** ARSR-3 is a long-range 2-dimensional (Range/Azimuth) Radar System. Operates as a “smart radar”, can optimize itself based on its current environment. Optimizations are not as graceful as the ARSR-4, but are sufficient to meet most operational environments. System is solid state and dual-channeled; 2 separate transmitters and receivers. Can operate on either channel independently of the other. The range is ~5-220 nautical miles.

**ARSR1 and 2.** Air Route Surveillance Radar #1 and 2; are long-Range 2-dimensional (Range/Azimuth) Radar System. Requires operator interface to make corrections/optimization to compensate for the environment. System has a solid state receiver with a analog "tube" transmitter it is also dual-channelled; 2 separate transmitters and receivers. Can operate on either channel independently of the other. The range is ~5-220 nautical miles.

**USAF Airborne Early Warning (AEW) Platforms.** E-3 Sentry. See Chapter 7.

### **USAF Ground Radar Capabilities**

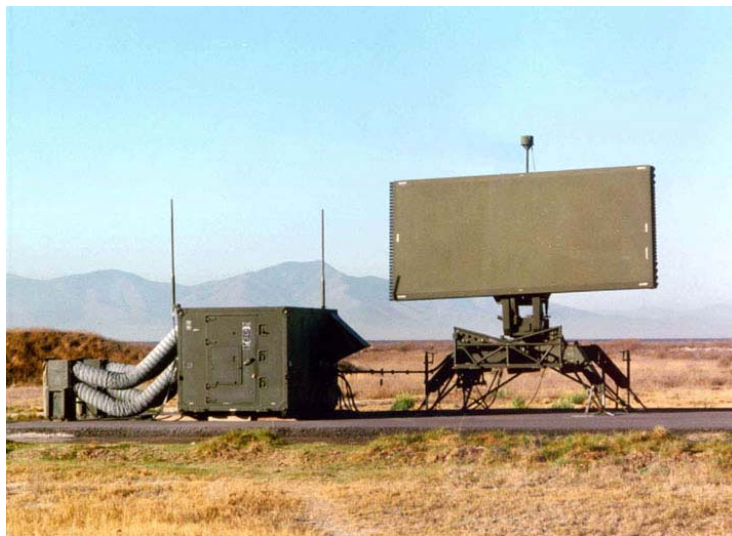
**AN/GPN-20 Radar Set .** AN/GPN-20(V) is a transportable dual-channel radar system with tower-mounted antenna and remote site operator controls. The mission of the AN/GPN-20(V) is to detect aircraft within 60 nautical miles of the radar site and to process radar information for display on a plan-position indicator (PPI). Typically, the AN/GPN-20(V) is compatible for use with beacon radar, radio microwave link (RML) equipment or landlines, video mapping equipment, and a radar terminal display system. The antenna group is located adjacent to the building and can use either AB1245/G or ASR-4 type tower. The remote site group is located in operations (OPS) site location. The solid-state AN/GPN-20(V) system is equipped with frequency diversity capability so that it may operate with both channels simultaneously or, as an alternative, with either channel independently.

**AN/TPS-75 Radar System.** The AN/TPS-75 Radar System [ "Topsy 75"] is a mobile, tactical radar system capable of providing radar azimuth, range, height, and Identification Friend or Foe (IFF) information for a 240-nautical-mile area. This deployable/transportable radar system is capable of providing long range radar data to support operations and control of tactical aircraft. The TPS-75 today forms the backbone of the US Air Force Air Defense system. The AN/TPS-75 Radar system provides a "real-time" radar airspace picture and data in support of the battle commander and the Ground Theater Air Control System



(GTACS) via radio, telephone, microwave relay, or satellite communications link.

**AN/TPS-70 Radar System.** The Westinghouse (now Northrop-Grumman) AN/TPS-70 3-Dimensional phased array radar is a single-channel, search and secondary mobile system that provides the operator with the capability to track 500 targets, displaying target range, height, azimuth, Identification Friend/Foe (IFF) information from an altitude of 0 to 100,000 feet to a maximum range of 240 nautical miles. The TPS-70 radar can provide both raw (plots) and processed (tracks) data. Radar data processing involves the acquisition of raw and processed data from the radars, clutter filtering, track filtering, and sensor data fusion for a multi-radar version. The TPS-70 tactical radar provides reliability, sensitivity, and accuracy, even in the face of jamming and high-clutter conditions.



**Joint Based Expeditionary Connectivity Center (JBECC).** The JBECC was developed in early 2001 as part of the Deputy Undersecretary of Defense for Advanced Systems and Concepts (DUSD (AS&C)) Advanced Concept Technology Demonstration (ACTD) program. Since September 11, 2001,

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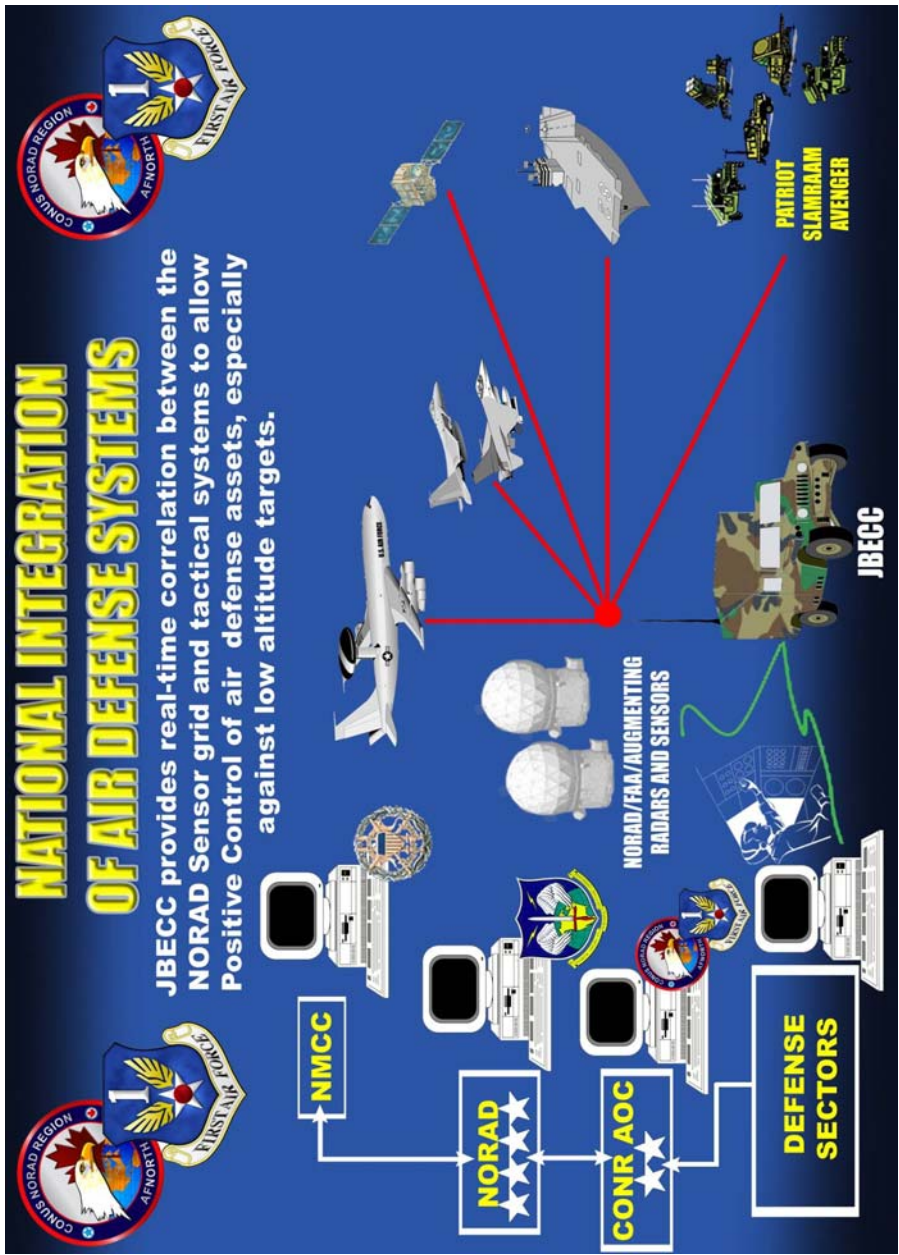
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the JBECC has participated in over a dozen operational missions, to protect the President of the United States, the National Capital Region, the 2004 Group of Eight (G8) Summit, United Nations General Assembly, Space Shuttle Launches, and Super Bowl XLI.



Once deployed, the JBECC performs 24-hour operations as a communication fusion center by integrating multi-service radars and weapon systems and providing an improved air picture. It enables NORAD to better detect, track, identify, and prosecute any airborne aircraft, cruise missile, unmanned aerial vehicle, or remotely piloted vehicle. The JBECC is the keystone in NORAD's Deployable-Homeland Air and Cruise Missile Defense (D-HACMD) mission.

The JBECC Systems stand ready to provide protection of future National Special Security Events and to support hurricane or disaster relief efforts.



# Chapter 11.

## Contingency Response Air Support Schedule (CRASS)

**Purpose.** As demonstrated during the Hurricane Rita/Katrina conducting traditional command and control of DoD forces during contingency ops may be problematic due to limited availability of secure communications. In addition, the large number of non-DoD forces operating in support of the contingency will make the air picture more complex. To assist with collaboration and coordination, the CAOC CPD has implemented the following procedures for Air Tasking Order (ATO) and Contingency Response Air Support Schedule (CRASS) processes.

**CRASS Philosophy.** The CRASS is not a “tasking” document. It serves as a visibility document intended to maximize visibility of air operations in the disaster area or JOA among all participants.

Communication Formats.

CLASSIFIED means will be used to disseminate taskings for aircraft assigned, attached or operating in support of the JFC as determined through consultation with component commanders. JFACC normally exercises OPCON of Air Force forces and TACON of any Navy, Army, and Marine aviation assets made available to the JFACC. All taskings will be coordinated by the JFACC and published in /AFNORTH ATO. IAW JP 3-30, inclusion of component air assets in the ATO does not imply any command or tasking authority over them. The responsibility for planning, coordinating, and developing

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airspace control procedures (ACP/ACO) and operating an airspace control system also rests with the JFACC. Classified /AFNORTH ATO, as well as amplifying information (ACP/ACO/SPINS) will be developed and published by 601 CPD. All information available on via TBMCS/Web Browsers on RELCAN & SIPR networks through 601 CPD website and updated IAW ATO cycle.

UNCLASSIFIED means will be utilized to disseminate Contingency Response Air Support Schedule (CRASS) and Amplifying information (ACP/ACO/SPINS). CRASS will enable increased SA of all aircraft (including non-DoD) operating in the JOA.

The CRASS will include all UNCLAS DoD/Interagency missions, as well as planned flying by other agencies (e.g. LEA, Title 32 ANG, etc). The fidelity of this product is highly dependant on the information provided by non-DoD agencies/organizations. It will be published using common application (Excel) ensuring ability to manipulate data and requires increased coordination with State EOCs/LEA/other agencies to ensure accuracy. Amplifying information (ACP/ACO/SPINS) will also be available via UNCLAS.

While compliance with ACO/ACP/SPINS not mandatory, it will be sought from control agency of Non DoD assets. All information will be updated in accordance with the CLASSIFIED ATO cycle. CAOC CPD will coordinate with State EOC and other agencies to ensure fullest dissemination of required documentation and increased support of JFACC mission.



## Chapter 12.

### Mission Support

#### **Force Accountability.**

**ACCE/A1.** ACCE/A1 will ensure Force Accountability, Force Reporting and Force Management of all Air Force personnel and the related services requirements needed to successfully accomplish the mission. This applies to Active Duty (AD), Air National Guard (ANG), Air Force Reserve (AFR), DAF Civilians, and contractors.

Force Accountability. Force Accountability responsibilities of the ACCE/A1 depend on whether the ACCE Commander is dual-hatted as a COMAFFOR.

**ACCE Commander is not a COMAFFOR.** Personnel accountability is accomplished by the deployed ACCE commander through the ACCE/A1 personnel unless a PERSCO team is attached to the ACCE. Each employment location has an employment requirements manning document (ERMD) which identifies force requirements for all deployed units and personnel assigned against force requirements for the operation.

**ACCE Commander is dual-hatted as COMAFFOR.** When dual-hatted as COMAFFOR, the deployed ACCE Director is responsible for accountability over all personnel on the ground, including transients, at their deployed and designated geographically separated locations, regardless of status. When the ACCE Commander is assigned as a COMAFFOR, a PERSCO Team will be attached to the ACCE Team. Accountability includes knowing where assigned personnel are at any given time, where they live and where they work. This includes individuals who become hospitalized, injured, killed,

missing or who are not performing their jobs (i.e., not present for duty).

### **Accountability Responsibilities.**

**Force Reporting.** The deployed commander or ACCE/A1 is responsible for submitting an Accountability Worksheet daily to 1 AF (AFNORTH)/A1R. The timing of the reporting and where the reports will be sent will be determined at the time of the operation. The report will be in spreadsheet format. Below is an example of the worksheet.

**Force Management.** If a PERSCO Team is not present, the ACCE/A1 is responsible for Force Management for forces assigned/attached to the ACCE Team. AFNORTH/A1R will provide reach-back support to the ACCE/A1. The specific responsibilities are:

- Casualty Reporting and Accountability
- Replacement of Assigned/Attached Forces
- Forward Deployment of Assigned/Attached Forces

**Reach-Back Support.** AFNORTH/A1 will provide reach-back support to the ACCE/A1 and (if applicable) the attached PERSCO Team. Reach-back support includes but is not limited to:

- Casualty Reporting and Accountability
- Replacement of Assigned/Attached Forces
- Provide Deployment/Employment Reports
- Act as Deployed PERSCO or PERSCO Central Site
- Deployment member Extensions



## Chapter 13.

### Internet Access / Web Tools

**WEB Tools.** Key Exercise/Contingency information to include briefings, messages, and reference documents will be posted on the AFNORTH “military domain” Webpages. Users should make every effort to access and post documents to NIPRNET, SIPRNET, and RELCAN Webpages. Canadian Exchange officers in the AFFOR will post appropriate documents to the Canadian Forces Titan and UNCLASS Command View pages.

The AFNORTH Exercise Webpage locations:

NIPRNet:

<https://operations.noradnorthcom.mil/sites/AFNORTH/Exercises/AS07/default.aspx>

SIPRNet:

<http://conr.tyndall.af.smil.mil>

RELCAN:

<http://www.conr>

A “Public Domain” AFNORTH Contingency Webpage is used to share information with organizations not granted access to military networks.

The public contingency webpage may be accessed using

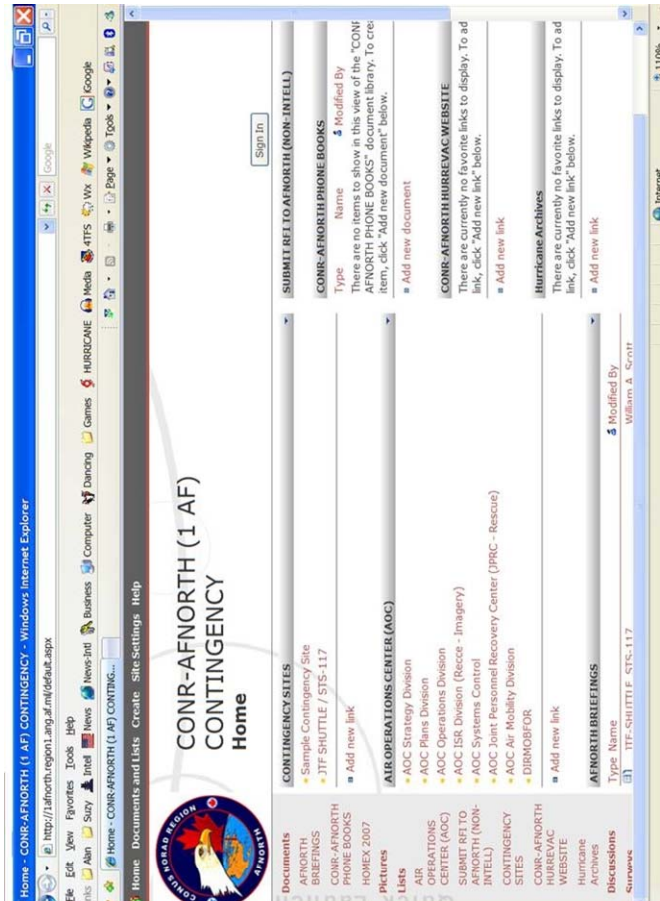
<http://www.afnorth.us>

or

<http://1afnorth.region1.ang.af.mil/default.aspx>

Action Officers coordinate with their web authors to post documents to the AFNORTH web pages. Web page content managers should post their contact information to each web page.

POC for exercise and contingency Webpage Permissions (NIPR, SIPR, RELCAN): AFNORTH Webmaster at 3-5873.



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# Chapter 14.

## References

### IMPORTANT WEBPAGES

AF Weather Agency

[https://afweather.afwa.af.mil/met/met\\_home.html](https://afweather.afwa.af.mil/met/met_home.html)

AIR MOBILITY OPERATIONS CENTER:

<https://www.amwc.af.mil/>

ANG <http://c2www.af.pentagon.smil.mil.ang>

CIA <http://www.cia.sgov.gov>

DISA <http://www.disa.smil.mil>

FBI <http://fbihq.adnet.sgov.gov>

HQ AF GCCS <http://c2www.af.pentagon.smil.mil>

NMCC <http://nmcc.smil.mil>

USCENTCON CAT <http://recluse.centcom.smil.mil/crisis/>

CENTAF <http://www.shaw.af.smil.mil>

USEUCOM <http://www.eucom.smil.mil/etcc/>

USAF AFEUR <http://usafe.af.smil.mil/cat/index.htm>

USJFCOM CAT <http://www.noradnorthcom.smil.mil>

PACAF <http://pacaf.hickam.af.smil.mil>

USSOCOM <http://www.socom.smil.mil>

USSTRACOM <http://www.stratcom.smil.mil>

USTRANSCOM <http://customer.transcom.smil.mil>

AMC <http://www.amc.scott.af.smil.mil>

AMD CoP (Community of Practice)

<https://afkm.wpafb.af.mil/ASPs/CoP/EntryCoP.asp?Filter=O-O-OP-AM-10>

601 AOC Home Page:

<https://operations.noradnorthcom.mil/sites/AFNORTH/601AOC/default.aspx>

AFRC Command Center:

<https://wwwmil.a2a3.afrc.af.mil/doc/docc/>

ARMS Home Page: <https://campsweb.scott.af.mil/ARMS/>  
GDSS 2 Web: <https://gdss2ams.c2.amc.af.mil/gdss2web/>  
G2 RIDL Reports: <https://g2ridl.c2.amc.af.mil/RIDL2/>  
GTN Home Page: <https://www.gtn.transcom.mil/>  
JOSAC Home Page: <https://josac.transcom.mil/>  
NDDOC Home Page:  
<https://operations.noradnorthcom.mil/sites/NNCJ4/NDDOC/default.aspx>  
NHC Aircraft Recon: <http://www.nhc.noaa.gov/reconlist.shtml>  
SMS Home Page:  
<https://sms.transcom.mil/smsperl/smswebstart.pl>

## **DOCTRINE URLs**

Air Force Doctrine Center: <https://www.doctrine.af.mil>

AFDCH 10-01 JFACC Handbook  
<https://www.doctrine.af.mil/Library/document.asp?doc=AFDCH 10-01>

AFDCH 10-02 COMAFOR Handbook  
<https://www.doctrine.af.mil/Library/document.asp?doc=AFDCH 10-02>

AFDCH 10-03 ACCE Handbook  
<https://www.doctrine.af.mil/Library/document.asp?doc=AFDCH 10-03>

Joint Doctrine Center: [http://www.dtic.mil/doctrine/s\\_index.html](http://www.dtic.mil/doctrine/s_index.html)

## **AIR FORCE DOCTRINE:**

<https://www.doctrine.af.mil/Library/hierarchy.asp>

- 1 AIR FORCE BASIC DOCTRINE
- 1-3 AIR FORCE LEADERSHIP
- 2 ORGANIZATION AND EMPLOYMENT OF AEROSPACE POWER

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21.6 COMBAT SEARCH AND RESCUE  
21.7 AIRSPACE CONTROL IN THE COMBAT ZONE  
21.8 COUNTER NBC OPERATIONS  
2-4 COMBAT SUPPORT  
2-4.1 FORCE PROTECTION  
2-5 INFORMATION OPERATIONS  
2-6 AIR MOBILITY OPERATIONS  
2-8 COMMAND AND CONTROL  
2-9 ISR OPERATIONS 210 HOMELAND OPERATIONS

ACH-COMAFFOR AIR AND SPACE COMMANDER'S  
HANDBOOK

THE COMAFFOR ACH-JFACC AIR AND SPACE  
COMMANDER'S HANDBOOK (ACH): THE JFACC

50Q 50 QUESTIONS EVERY AIRMAN CAN ANSWER  
50MQ 50 MORE QUESTIONS EVERY AIRMAN CAN ANSWER

**JOINT DOCTRINE:** <http://www.dtic.mil/doctrine/>

**JP 3-0**, Doctrine for Joint Operations

**JP 3-07**, Joint Doctrine for Military Operations Other Than War

**JP 310**, Joint Doctrine for Rear Area Operations

**JP 317**, Joint Doctrine and Joint Tactics, Techniques and  
Procedures for Air Mobility Operations

**JP 3-30**, Command and Control for Joint Air Operations

**JP 3-35**, Joint Deployment and Redeployment Operations

**JP 3-52**, Doctrine for Joint Airspace Control in a Combat Zone

**JP 4-0**, Doctrine for Logistic Support of Joint Operations

**JP 4-01**, Joint Doctrine for the Defense Transportation System

**JP 4-01.3**, Joint Tactics, Techniques, and Procedures for  
Movement Control

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**JP 4-01.4**, Joint Tactics, Techniques, and Procedures for Joint Theater Distribution

**JP 4-01.5**, Joint Tactics, Techniques, and Procedures for Transportation Terminal Operations

**JP 4-01.8**, Joint Tactics, Techniques, and Procedures for Joint Reception, Staging, Onward Movement, and Integration

**JP 4-02.2**, Joint Tactics, Techniques, and Procedures for Patient Movement in Joint Operations

## **COMMAND AND CONTROL RELATIONSHIPS**

It is important to understand the distinct but related responsibilities in the two channels of authority to forces assigned to unified combatant commands. The operational chain of command runs from the President to the Secretary of Defense to the Commanders of the Unified Combatant Commands. The Chairman, JCS, transmits to the Commanders of the Unified Combatant Commands the orders of the President or the Secretary of Defense. The chain of command for Service authority runs from the President to the Secretary of Defense to the Secretaries of the Military Departments to the commanders of Military Service forces. The Military Departments and Services recruit, organize, train, equip, and provide forces for assignment to combatant commands and administer and support these forces. This authority is, by law, subject to the provisions of title 10, United States Code, chapter 6, which is the section that details the authority of combatant commanders. Commanders of the unified commands exercise combatant command (command authority) over their assigned forces. Service component commanders are subject to the combatant commanders operational orders, direction and responsible to the Military Departments and Services for their administrative and support responsibilities.

Unity of the joint force is enhanced through the application of a flexible range of command relationships identified in Joint Pub 0-2, "Unified Action Armed Forces." These relationships are identified as combatant command (COCOM), operational control (OPCON), and tactical control (TACON).

**Combatant Command (COCOM)** is the command authority over assigned forces vested in the CC by Title 10, United States Code, section 164, and is not transferable. COCOM is exercised only by commanders of unified combatant commands and is a warfighting authority. COCOM is the authority of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training and logistics necessary to accomplish the missions assigned to the command. COCOM should be exercised through the commanders of subordinate organizations. Normally, this authority is exercised through the service component commander. **COCOM provides the full authority** to organize and employ commands and forces as the CINC consider necessary to accomplish assigned mission.

**Operational Control (OPCON)** of assigned forces is inherent in COCOM and is transferable within a combatant command by the unified CC or between unified commands by the Secretary of Defense. OPCON may be exercised by commanders at or below any echelon below the level of unified CC and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. OPCON includes authoritative direction over all aspects of military operations and joint training necessary to accomplish the mission assigned to the command. OPCON should be exercised through the commanders of subordinate organizations. Normally, this authority is exercised through service component commanders. OPCON does not, in and of itself, include

authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

**Tactical Control (TACON)** may be exercised by commanders at any echelon at or below the level of unified/specified CC. TACON is the detailed and usually local direction and control of movements or maneuvers necessary to accomplish assigned missions or tasks.

**Support is a command authority.** A support relationship is established by a superior commander between subordinate commanders when one organization should aid, protect, complement, or sustain another force. Support may be exercised by commanders at any echelon at or below the level of combatant command. Several categories of support have been defined for use within a combatant command as appropriate to better characterize the support that should be given. Support relationships may be categorized as general, mutual, direct, and close.

**ADCON is the direction or exercise of authority over subordinate or other organizations with respect to administration and support** including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. This is the authority necessary to fulfill Military Department statutory responsibilities for administration and support.

**Coordinating Authority.** The authority granted to a commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more countries or commands, or two or more services or two or more forces of the same service. He has the authority to require consultation between the agencies involved or their representatives, but does not have the authority to compel agreement. In case of



disagreement between the agencies involved, he should attempt to obtain essential agreement by discussion. In the event he is unable to obtain essential agreement he shall refer the matter to the appropriate authority. (Note: This can be used as a cooperative relationship between Title 32 and Title 10 forces.)

## Chapter 15. Acronyms and Abbreviations

The following lists acronyms frequently used in joint/combined operation planning. Acronyms and abbreviations should be avoided if practical. However, if a long title or term must be used repeatedly, the acronym or abbreviation may be employed provided the first time it is used the long title is spelled out fully along with its related acronym.

**AAFCE** Allied Air Forces, Central Europe (NATO) **ACC** Air Combat Command / Air Component Command  
**ACCE** Air Component Coordination Element  
**ACCHAN** Allied Command Channel (NATO) **ACE** Allied Command Europe  
**ACL** allowable cabin load  
**ACLANT** Allied Command Atlantic (NATO) **ACR** Armored Cavalry Regiment  
**AD** advanced deployability posture  
**ADCON** Administrative Control **ADP** automatic data processing  
**AEC** Atomic Energy Commission  
**AECT** Aeromedical Evacuation Control Team  
**AFCC** Air Force Component Commander  
**AFCENT** Allied Forces Central Europe (NATO)  
**AFFOR** Air Force Forces  
**AFM** Air Force Manual  
**AFNORTHWEST** Allied Forces Northwestern Europe (NATO)  
**AFSOUTH** Allied Forces Southern Europe (NATO)  
**AHQ** ad hoc query  
**AIASA** Annual Integrated Assessment of Security Assistance  
**ALCON** all concerned  
**ALCT** Airlift Control Team  
**ALD** available-to-load date at POE  
**AMC** Air Mobility Command/Army Materiel Command  
**AMCT** Air Mobility Control Team **AMD** Air Mobility Division  
**AMH** automated message handling system  
**AMHS** Automated Message Handling Service

**ANMCC** Alternate National Military Command Center  
**AO** area of operations  
**AOC** Air Operations Center  
**AOR** area of responsibility  
**APA** Army Pre-positioned Afloat  
**APCC** Aerial Port Control Center

**APF** afloat pre-positioning force (NTPF + MPS)  
**APOD** aerial port of debarkation  
**APOE** aerial port of embarkation  
**APORTS** Aerial Ports and Air Operating Bases File  
**ARCENT** U.S. Army Forces, U.S. Central Command  
**ARCT** Air Refueling Control Team  
**ARFOR** Army Forces  
**ARRDATE** arrival date  
**ARRS** Aerospace Rescue & Recovery Service  
**ASAP** as soon as possible  
**ASSETS** Transportation Assets File  
**ASW** antisubmarine warfare  
**ATAF** Allied Tactical Air Force (NATO)  
**ATO** Air Tasking Order  
**AWRPS** Army War Reserve Pre-positioned Sets  
**BBLs/CBBLs** barrels/hundreds of barrels  
**BES** Budget Estimate Submission  
**BY** Budget Year in FYDP  
**C2IPS** Command and Control Information Processing System  
**C2S** command and control systems  
**C2W** command and control warfare  
**C3S** command, control, and communications systems  
**C3I** command, control, communications, and intelligence  
**C3MP** Command, Control, and Communications Master Plan  
**C3SYS DIR** Command, Control, & Comm Systems Directorate  
**C4** command, control, communications, and computers C4I  
command, control, communications, computers, and  
intelligence  
**CA** civil affairs  
**CAMPS** Consolidated Air Mobility Planning System  
**CAP** Crisis Action Planning  
**CAT** crisis action team  
**CB** chemical, biological

**CBO** Congressional Budget Office  
**CDDOC** CENTCOM Deployment Distribution Operations Center  
**CC** Combatant Commander  
**CEF** Civil Engineering File  
**CENTAF** U.S. Air Forces, U.S. Central Command  
**CENTAG** Central Army Group, Central Europe (NATO)  
**CEP** circular error probable

**CESP** Civil Engineering Support Plan  
**CESPG** Civil Engineering Support Plan Generator  
**CFC** Combined Forces Command (Korea-U.S.)  
**CG** Chairman's Guidance  
**CHOP** change of operational control  
**CHSTR** Characteristics of Transportation Resource  
**CIA** Central Intelligence Agency CIN cargo increment number  
**CIR** continuing intelligence requirement  
**CIO** Central Imagery Office  
**CJCS** Chairman of the Joint Chiefs of Staff  
**CJCSI** Chairman of the Joint Chiefs of Staff Instruction  
**CJCSM** Chairman of the Joint Chiefs of Staff Manual  
**CJTF** Commander, Joint Task Force  
**CMOC** Civil-Military Operations Center  
**CNO** Chief of Naval Operations  
**COA** course of action  
**COCOM** Combatant Command  
**COI** communications operating instructions  
**COMINT** communications intelligence  
**COMSEC** communications security  
**CONOPS** concept of operations  
**CONPLAN** operation plan in concept format  
**CONUS** Continental United States  
**COP** Common Operational Picture  
**COS** Critical Occupational Specialties/Chief of Staff  
**CPA** Chairman's Program Assessment  
**CPG** Contingency Planning Guidance  
**CPR** Chairman's Program Recommendations  
**CRAF** Civil Reserve Air Fleet  
**CRD** CINC's Required Date  
**CRE** Contingency Response Element

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**CRG / CRW** Contingency Response Group / Wing  
**CRS** Chairman's Readiness System  
**CRITIC** Critical Intelligence Report  
**CS** combat support  
**CSA** Combat Support Agency  
**CSPACC's** Strategic Priorities Assessment  
**CSPARCC's** Preparedness Assessment Report  
**CSS** combat service support

**CY** Current Year in FYDP  
**CW** chemical warfare  
**DAB** Defense Acquisition Board  
**DART** Dynamic Analysis and Replanning Tool / Disaster Assistance Response Team  
**DCS** Defense Communications System  
**DDN** Defense Data Network  
**DDOC** Deployment Distribution Operations Center  
**DEFCON** Defense Readiness Condition  
**DEST** destination  
**DESC** Defense Energy Supply Center  
**DIA** Defense Intelligence Agency  
**DIRNSA** Director, National Security Agency  
**DISA** Defense Information Systems Agency  
**DLA** Defense Logistics Agency  
**DMA** Defense Mapping Agency  
**DNA** Defense Nuclear Agency  
**DOD** Department of Defense  
**DODI** Department of Defense Instruction  
**DODIC** DOD Identification Code  
**DODIIS** Department of Defense Intelligence Information System  
**DOS** Department of State or days of supply  
**DOT** Department of Transportation  
**DPC** Defense Planning Committee (NATO)  
**DPG** Defense Planning Guidance  
**DPP** deliberate planning process  
**DPRB** Defense Planning Resources Board  
**DSARC** Defense Systems Acquisition Review Council  
**DSSCS** Defense Special Security Communications Systems  
**DSSO** Defense Systems Support Organization

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**DTG** date-time group  
**DUSD(R)** Deputy Undersecretary of Defense for Readiness  
**E&E** escape and evasion  
**EAD** earliest arrival date at POD  
**ECCM** electronic counter-countermeasures  
**ECM** electronic countermeasures  
**EDC** estimated date of completion of loading (at POE)  
**EDD** estimated departure date or earliest delivery date  
**EDP** emergency defense plan

**EEFI** essential elements of friendly information  
**E EI** essential elements of information  
**EIC** Equipment Identification Code  
**ELINT** electronic intelligence  
**EMCON** emission control  
**EPW** enemy prisoner of war  
**ETA** estimated time of arrival  
**EUSC** effective U.S. control  
**EVAC** Evacuation System  
**EW** electronic warfare  
**FAD** feasible arrival date or force activity designator  
**FAPES** Force Augmentation Planning and Execution System  
**FAO** Foreign Area Officer  
**FDO** flexible deterrent options  
**FEMA** Federal Emergency Management Agency  
**FIC** Force Indicator Code FIDP Foreign Internal Defense Plan  
**FM** Field Manual or Force Module  
**FMFM** Fleet Marine Force Manual  
**FMI** force module identifier  
**FML** Force Module Library  
**FMS** Force Module Subsystem or Foreign Military Sales  
**FORSCOM** Forces Command  
**FRAC** Force Readiness Assessment to Congress  
**FRAG/FRAGO** Fragmentary Order or Fragmentation Code  
**FRAS** Fuel Resource Accounting System  
**FREF** Force Record Extract File  
**GRIS** GCCS Reconnaissance Information System  
**FRG** Force Requirements Generator  
**FRN** force requirement number  
**FTP** File Transfer Protocol

**FTS** File Transfer Service  
**FY** Fiscal Year  
**FYDP** Future Years Defense Plan  
**GAMSS** Global Air Mobility Support System  
**GAO** General Accounting Office  
**GCCS** Global Command and Control System  
**GDP** Gross Domestic Product  
**GDSS** Global Decision Support System Standard Specific  
**GEOLOC** Geolocation Code

**GENSER** general service (message) Standard Specified  
**GEOFILE** Geographic Location File  
**GEOREF** Geographic Reference System Report  
**GSA** General Services Administration  
**GSORTS** Global Status of Resources and Training  
**HAC** House Appropriations Committee  
**HASC** House Armed Services Committee  
**HNS** host-nation support  
**HQ** headquarters  
**HUMINT** human intelligence  
**IA** Intelligence Assessment  
**ID** increased deployability posture  
**IDAD** Internal Development and Defense  
**ILS** Integrated Logistics Support  
**IMET** International Military Education & Training  
**IMINT** imagery intelligence  
**IMRAS** Individual Manpower Requirements and Availability System  
**INCNR** increment number  
**IOC** Initial Operational Capability  
**IPL** Integrated Priority List  
**IPS** Integrated Program Summary or Illustrative Planning Scenario  
**IPSS** Initial Pre-planned Supply Support  
**IRC** Internet Relay Chatter  
**IRM** Information Resource Manager  
**ISR** Intelligence/Surveillance/Reconnaissance  
**ITARS** Intra-Theater Airlift Request System  
**ITV** in-transit visibility  
**IW** information warfare

**JAARS** Joint After-Action Reporting System  
**JAO** joint area of operations  
**JCC** Joint Coordination Center  
**JCGRO** Joint Central Graves Registration Office  
**JCLL** Joint Center for Lessons Learned  
**JCS** Joint Chiefs of Staff  
**JCSM** Joint Chiefs of Staff Memorandum  
**JDA** Joint Duty Assignment  
**JDAL** Joint Duty Assignment List  
**JDISS** Joint Deployable Intelligence Support System  
**JDS** Joint Deployment System

**JEL** Joint Electronic Library  
**JEPES** Joint Engineer Planning and Execution System  
**JFACC** joint force air component commander  
**JFAST** Joint Flow and Analysis System for Transportation  
**JFC** joint force commander  
**JFLCC** joint force land component commander  
**JFMCC** joint force maritime component commander  
**JINTACCS** Joint Interoperability of Tactical Command & Control Sys  
**JMC** Joint Movement Center  
**JMCIS** Joint Maritime Command Information System  
**JMNA** Joint Military Net Assessment  
**JMPAB** Joint Materiel Priorities and Allocations Board  
**JMRR** Joint Monthly Readiness Review  
**JMRO** Joint Medical Regulating Office  
**JNOCC** JOPES Network Operations Control Center  
**JOPES** Joint Operation Planning and Execution System  
**JOPESREP** JOPES Reporting System  
**JPAO** Joint Public Affairs Office  
**JPD** Joint Planning Document  
**JPEC** Joint Planning and Execution Community  
**JPME** Joint Professional Military Education  
**JPOC** Joint Psychological Operations Center  
**JPOTF** Joint Psychological Operations Task Force  
**JRC** Joint Reconnaissance Center  
**JROC** Joint Requirements Oversight Council  
**JRS** Joint Reporting Structure  
**JSCP** Joint Strategic Capabilities Plan

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**JSEAD** joint suppression of enemy air defense  
**JSO** Joint Specialty Officer  
**JSO NOM** Joint Specialty Officer Nominee  
**JSOTF** Joint Special Operations Task Force  
**JSPS** Joint Strategic Planning System  
**JSR** Joint Strategy Review  
**JSTARS** Joint Surveillance Target Attack Radar System  
**JTB** Joint Transportation Board  
**JTB** Joint Targeting Coordination Board  
**JTF** joint task force  
**JTO** JOPEs Training Organization  
**JTTP** Joint Tactics, Techniques, and Procedures

**JULLS** Joint Universal Lessons Learned System  
**JWCA** Joint Warfighting Capability Assessment  
**LAD** latest arrival date at POD  
**LAN** local area network  
**LAT** latitude  
**LD** loaded deployability posture  
**LFF** Logistic Factors File  
**LOC** line of communications  
**LOGSAFE** Logistics Sustainability Analysis and Feasibility Estimator  
**LOI** letter of instruction  
**LONG** longitude  
**LRC** Lesser Regional Contingency (Conflict)  
**LMRS** Large Medium-speed Roll-on/roll-off Ships  
**MAAG** military assistance advisory group  
**MAGTF** Marine Air-Ground Task Force  
**MAP** Military Assistance Program  
**MAPP** Modern Aids to Planning Program  
**MAPS** Mobility Analysis & Planning System  
**MARFOR** Marine Forces  
**MASINT** measures and signals intelligence  
**MAW** Marine Air Wing  
**MBPO** Military Blood Program Office  
**MC** Military Committee (NATO)  
**MCCP** Marine Corps Capabilities Plan  
**MD** marshaled deployability posture  
**MEB** Marine Expeditionary Brigade

**MEDEVAC** medical evacuation  
**MEF** Major Equipment File or Marine Expeditionary Force  
**MEPES** Medical Planning and Execution System  
**MEU (SOC)** Marine Expeditionary Unit (Special Operations Capable)  
**MHE** materials handling equipment  
**MIA** missing in action  
**MIJI** meaconing, interference, jamming, and intrusion  
**MILCON** military construction  
**MILGP** military group  
**MILSTAMP** Military Standard Transportation and Movement Procedures  
**MNC** Major NATO Command  
**MNS** Mission Need Statement  
**MODE** transportation mode

**MODEM** modulator-demodulator  
**MOE** Measure of Effectiveness  
**MOG** maximum on ground  
**MOOTW** military operations other than war  
**MOP** Memorandum of Policy (CJCS)  
**MPF** Maritime Pre-positioning Force  
**MPM** Medical Planning Module  
**MPS** maritime pre-positioning ships  
**MRC** Major Regional Contingency (Conflict)  
**MRG** Movement Requirements Generator  
**MRS** Mobility Requirements Study  
**MSC** Military Sealift Command; Major Subordinate Command (NATO)  
**MSDDC** Military Surface Deployment & Distribution Command (SDDC)  
**MTON or M/T** measurement ton  
**MWF** Medical Working File  
**NAC** North Atlantic Council (NATO)  
**NAOC** National Airborne Operations Center  
**NATO** North Atlantic Treaty Organization  
**NAVFOR** naval forces  
**NBC** nuclear, biological, and chemical  
**NCA** National Command Authorities  
**NCMP** Navy Capabilities and Mobilization Plan

**ND** normal deployment posture  
**NEO** noncombatant evacuation operation  
**NGO** Non-Governmental Organization  
**NMCC** National Military Command Center  
**NMCS** National Military Command System  
**NMS** National Military Strategy  
**NOAA** National Oceanic and Atmospheric Administration  
**NOFORN** Not Releasable to Foreign Nationals  
**NOP** nuclear operations  
**NOPLAN** no plan available or prepared  
**NORAD** North American Aerospace Defense Command  
**NORTHAG** Northern Army Group, Central Europe (NATO)  
**NPG** Non-unit Personnel Generator  
**NRC** non-unit-related cargo  
**NRP** non-unit-related personnel  
**NS** nonstandard  
**NSA** National Security Agency

**NSC** National Security Council  
**NSDAB** non-self-deployable aircraft and boats  
**NSDD** National Security Decision Directive  
**NSN** national stock number  
**NSP** Navy Support Plan  
**NSS** National Security Strategy  
**NSWTG** Naval Special Warfare Task Group  
**NSWTU** Naval Special Warfare Task Unit  
**NTPF** Near Term Pre-positioned Force  
**NWP** Naval Warfare Publication  
**NWS** National Weather Service  
**O&M** Operations and Maintenance  
**OMB** Office of Management and Budget  
**OMO** other military operations  
**OOTW** operations other than war  
**OPCON** operational control  
**OPLAN** operation plan in complete format  
**OPORD** operation order  
**OPR** Office of Primary Responsibility  
**OPREP** commander's operational report (JRS)  
**OPREP1** message format used for OPORD (JRS)

**OPREP-3** message format used for event/incident report (JRS)  
**OPSEC** operations security  
**OPSG** Operation Plans Steering Group  
**ORG** origin  
**OSD** Office of the Secretary of Defense  
**OUT** outsize cargo  
**OVR** oversize cargo  
**PAO** Public Affairs Office  
**PAX** passengers  
**PB** President's Budget  
**PBD** Program Budget Decision  
**PDD** Presidential Decision Directive  
**PDM** Program Decision Memorandum  
**PFF** Planning Factors File  
**PIC** Parent Indicator Code  
**PID** plan identification number  
**PIN** personnel increment number  
**PKO** peacekeeping operations

**POC** point of contact  
**POD** port of debarkation  
**POE** port of embarkation  
**POL** petroleum, oils, and lubricants  
**POLAD** political adviser  
**POM** Program Objective Memorandum  
**POMCUS** pre-positioning of materiel configured to unit sets  
**PORTS** Port Characteristics File  
**POS** Ports of support or peacetime operating stock  
**POSF** Ports of Support File  
**POW/PW** prisoner of war  
**PPBS** Planning, Programming, and Budgeting System  
**PRI** priority  
**PROVORG** providing organization  
**PSC** Principal Subordinate Command (NATO)  
**PSRC** Presidential Selective Reserve Call-up  
**PSYOP** psychological operations  
**PWF** Personnel Working File  
**PWRMR** pre-positioned war reserve materiel requirement  
**PWRMS** pre-positioned war reserve materiel stocks

**PWRS** pre-positioned war reserve stocks  
**PVO** Private Volunteer Organization  
**QTY** quantity  
**RAMCC** Regional Air Movement Control Center  
**R&D** Research and Development  
**RC** Reserve component  
**RDD** required delivery date (at DEST)  
**RDF** rapid deployment force  
**RDT&E** research, development, test, and evaluation  
**REDCON** readiness condition  
**RLD** ready-to-load date at origin  
**ROE** rules of engagement  
**RO/RO** roll-on/roll-off  
**RRF** Ready Reserve Force  
**S&M** Scheduling and Movement  
**SACEUR** Supreme Allied Commander Europe  
**SAG** Surface Action Group  
**SAR** search and rescue  
**SASC** Senate Armed Services Committee  
**SDDC** Surface Deployment Distribution Center  
**SDDM** Secretary of Defense Decision Memorandum  
**SDF** Standard Distance File  
**SEAL** sea-air-land  
**SECDEF** Secretary of Defense (address element only)  
**SERE** survival, evasion, resistance, and escape  
**SERV** service  
**SHAPE** Supreme Headquarters Allied Powers Europe (NATO)  
**SIGINT** signals intelligence  
**SIOP** Single Integrated Operation Plan  
**SITREP** situation report  
**SITSUM** Situation Summary  
**SLOC** sea line of communications  
**SM** System Monitor  
**SNL** standard nomenclature list  
**SO** special operations  
**SOC** Special Operations Command  
**SOF** special operations forces  
**SOP** standing operating procedure  
**SORTS** Status of Resources and Training System  
**SOUTHAF** U.S. Air Forces, U.S. Southern Command

**SPECAT** special category messages  
**SPIREP** Spot Intelligence Report  
**SPMAGTF** Special Purpose Marine Air-Ground Task Force  
**SPO** sea port of debarkation  
**SPOE** sea port of embarkation  
**SRF** Summary Reference File or Secure Reserve Force  
**SRIG** Surveillance, Reconnaissance and Intelligence Group  
**SROC** Senior Readiness Oversight Council  
**STANAG** Standardization Agreement (NATO)  
**STON** or **S/T** or **ST** short ton  
**SVC** service  
**TACON** Tactical Control  
**TADIL** Tactical Digital Information Link  
**TARGET** Theater Analysis and Replanning Graphical Execution Toolkit  
**TBMCS** Theater Battle Management Core System  
**TC-AIMS** Transportation Coordinator's Automated Information for Movement System  
**TCP** Traditional CINC Programs  
**TELNET** telecommunications network  
**TFE** Transportation Feasibility Estimator  
**TIP** Technology Insertion Project  
**TLCF** teleconference  
**TO** table of organization  
**TOE** table of organization and equipment  
**TPFDD** Time-Phased Force and Deployment Data  
**TPFDL** Time-Phased Force and Deployment List  
**TSP** Time-Sensitive Planning  
**TUCHA** Type Unit Characteristics File  
**TUDET** Type Unit Equipment Detail File  
**UCFF** UTC Consumption Factors File  
**UCP** Unified Command Plan  
**UIC** unit identification code  
**UJTL** Universal Joint Task List  
**ULC** unit level code  
**ULN** unit line number  
**UN** United Nations  
**UNAAF** Unified Action Armed Forces (Joint Pub 0-2)  
**UNC** United Nations Command (Korea)  
**USCENTCOM** United States Central Command

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**USERID** user identification  
**USEUCOM** United States European Command  
**USFJ** United States Forces Japan  
**USFK** United States Forces Korea  
**USIA** U.S. Information Agency  
**USJFCOM** United States Joint Forces Command  
**USNORTHCOM** US Northern Command  
**USPACOM** United States Pacific Command  
**USSOUTHCOM** United States Southern Command  
**USSOCOM** United States Special Operations Command  
**USSTRATCOM** United States Strategic Command  
**USTRANSCOM** United States Transportation Command  
**UTC** unit type code  
**UW** unconventional warfare  
**VEH** vehicular cargo  
**VIP** visual information projection or very important person  
**VTC** video teleconference  
**WIA** wounded in action  
**WMP** War and Mobilization Plan (USAF)  
**WRM** war reserve materiel (USAF)

# Chapter 16.

## Phone / E-mail List

### 601AOC

#### AMD

AMD Chief:	DSN 523-5098 COMM (850) 283-5098
AMD Deputy Chief:	DSN 523-5858 COMM (850) 283-5858
ARCT:	DSN 523-5839 COMM (850) 283-5839
ALCT:	DSN 523-5199 COMM (850) 283-5199
AMCT:	DSN 523-5131 COMM (850) 283-5131
TALDO (Tanker Airlift Duty Officer):	DSN 523-5549 COMM (850) 283-5549

#### ISR

##### Collection Mangers

1LT Wisham	DSN 523-5556 COMM (850)283-5556
SMS Wisser	DSN 523-5440 COMM (850)283-5440
MSgt Sims	DSN 523-5103 COMM (850)283-5103

#### 1AF (AFNORTH)

##### AFFOR A1

**COMM (850) 283-4019**  
**DSN 523-4019**

NIPR E-Mail: [AFNORTH1OMB@tyndall.af.mil](mailto:AFNORTH1OMB@tyndall.af.mil)



### AFFOR A2

CAT A2 Duty Officer  
Director of Intelligence

DSN 523-5877  
COMM (850)283-5877  
DSN 523-3785  
COMM (850)283-3785

### AFFOR A3

COMM (850) 283-4901  
DSN 523-4901

NIPR E-Mail: [AFNORTH.A3.OMB@tyndall.af.mil](mailto:AFNORTH.A3.OMB@tyndall.af.mil)

### AFFOR A4

NIPR E-Mail: [AFNORTH.A4.OMB@tyndall.af.mil](mailto:AFNORTH.A4.OMB@tyndall.af.mil)

### AFFOR A5/8

COMM (850) 282-4130  
DSN 742-4130

NIPR E-Mail: [AFNORTH.A5.OMB@tyndall.af.mil](mailto:AFNORTH.A5.OMB@tyndall.af.mil)  
NIPR E-Mail: [AFNORTH.A8.OMB@tyndall.af.mil](mailto:AFNORTH.A8.OMB@tyndall.af.mil)

### AFFOR A6

COMM (850) 283-3095  
DSN 523-3095

NIPR E-Mail: [AFNORTH.A6.OMB@tyndall.af.mil](mailto:AFNORTH.A6.OMB@tyndall.af.mil)

### AFFOR A7

AFNORTH/A7P - Civil Engineering Programs / Contracting /  
Expeditionary Combat Support / Readiness / Asset Management  
Emergencies or events that require immediate attention:

AFNORTH (1AF) AOC Chief of Combat Operations 24/7

COMM: (850) 283-5242/5218

DSN: 523-5242/5218

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E-Mail: NIPR [afnorthconrsado@tyndall.af.mil](mailto:afnorthconrsado@tyndall.af.mil)  
E-Mail: NIPR [afnorthaocccomb@tyndall.af.mil](mailto:afnorthaocccomb@tyndall.af.mil)

(please send email to both addresses)

During Contingency Operations 24/7: AFNORTH A7 CAT

COMM: (850) 283-5901

DSN: 523-5901

NIPR E-Mail: [afnorth.cat.a7@tyndall.af.mil](mailto:afnorth.cat.a7@tyndall.af.mil)

Normal Duty / Non - Emergency Operations:

AFNORTH/A7P

425 Minnesota Ave, Bldg 920A,

Tyndall AFB, FL 32403

COMM (850) 282-4890/4887

DSN: 742-4890/4887

FAX: X4891

E-Mail: Routine: [afnorth.a7.omb@tyndall.af.mil](mailto:afnorth.a7.omb@tyndall.af.mil)

AFNORTH/A7S - Security Forces Division / Antiterrorism / Force  
Protection Emergencies or events that require immediate attention  
AFNORTH (1AF) AOC Chief Combat Operations 24/7

COMM (850) 283-5242/5218

DSN: 523-5242/5218

E-Mail: NIPR [afnorthconrsado@tyndall.af.mil](mailto:afnorthconrsado@tyndall.af.mil)

E-Mail: NIPR [afnorthaocccomb@tyndall.af.mil](mailto:afnorthaocccomb@tyndall.af.mil)

(please send email to both addresses)

During Contingency Operations 24/7: Contact:

AFNORTH AT Watch Desk Telephone:

COMM (850) 283-5678/5382/5632

DSN 523-5678/5382/5632

NIPR E-Mail: [afnorth.atfp@tyndall.af.mil](mailto:afnorth.atfp@tyndall.af.mil)

NIPR E-Mail [afnorth.cat.a7@tyndall.af.mil](mailto:afnorth.cat.a7@tyndall.af.mil)

(please send e-mail to both addresses)

Normal Duty / Non - Emergency Operations:

AFNORTH/A7S

425 Minnesota Ave, Bldg 920A,

Tyndall AFB, FL 32403

COMM (850) 282-4847

DSN 742-4847 FAX: 4891

NIPR E-Mail: [afnorth.atfp@tyndall.af.mil](mailto:afnorth.atfp@tyndall.af.mil)

NIPR E-Mail: [afnorth.a7.omb@tyndall.af.mil](mailto:afnorth.a7.omb@tyndall.af.mil)

(please send e-mail to both addresses)

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AFRC Command Center DSN: 497-0680  
COMM: (478) 327-0680

**AFRC MASS Unit**

910 AW Command Post DSN: 346-1315  
COMM: (330) 609-1315

**AFRC Hurricane Unit**

403 WG Command Post DSN: 597-4181  
COMM: (228) 377-4181

**AFRC MAFFS Unit**

302 AW Command Post DSN: 834-4416  
COMM: (719) 556-4416

**Air National Guard (ANG)**

ANG Command Post DSN 858-6001  
COMM (301) 981-6001

ANG CAT Airlift Cell DSN 278-7484  
COM (301)836-7484

**ANG MAFFS Units**

145 AW Command Post DSN: 231-4144  
COMM: 704-391-4144

146 AW Command Post DSN 893-7580  
COMM: (805) 896-7580

153 AW Command Post DSN: 388-6470  
COMM: (307) 772-6470

**Air Force HQ Watch Center**

AFDO, HQ Watch Center DSN: 227-6103  
COMM: (703) 697-6103

**USTRANSCOM and AMC**

COMMERCIAL NUMBER AT SCOTT AFB

1-(618)-229-XXXX

**HQ AMC**

COMMANDER	DSN 779-3205
VICE COMMANDER	DSN 779-2209
A1	DSN 779-7884
A2	DSN 779-2237
A3	DSN 779-3315
A4	DSN 779-3300
A5	DSN 779-3311
A6	DSN 779-6251
AMWC CC (McGuire AFB)	DSN 650-7010

**TACC/18 AF (AFTRANS)**

MOBILITY CTR DIRECTOR..	800-AIR-MOBL (247-6625)
TACC/CC	DSN 779-2209
SENIOR CONTROLLER (XOZ)	DSN 779-0399
FLIGHT MANAGERS	DSN 779-0301
CONTINGENCY & AR	DSN 779-0320
CHANNEL	DSN 779-0321
JA/ATT, C-9/C-21 MISSIONS	DSN 779-0322
SAAM & EXERCISE MISSIONS	DSN 779-0323
EMERGENCY ACTION CELL	DSN 779-1706
INTERNATIONAL CLEARANCE	DSN 779-3008
LOGISTICS CONTROL	DSN 779-0363
AERIAL PORT CONTROL CENTER	
	EAST DSN 779-4690
	WEST DSN 779-4027
AEROMEDICAL EVAC/MEDICAL	DSN 779-4734
THREAT WORKING GROUP	DSN 779-2237
MISSION SUPPORT (CRE)	DSN 779-2410/1731
XOP CONTINGENCY OPS	DSN 779-4948
XOP EAST	DSN 779-3194

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XOP WEST	DSN 779-3937
REACHBACK	DSN 779-0336
TANKER OPERATIONS	DSN 779-4032
AIRSPACE MANAGEMENT	DSN 779-2143
WEATHER	DSN 779-3196

## AF

HQ AFDC	DSN493-7442
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## NAF/EMTFs

15 EMTF/CC	DSN 837-1501 COMM: 707-424-1501
21 EMTF/CC	DSN 650-3091 COMM: 609-754-3091
18 AIR FORCE/CC	DSN 779-0626

## USTRANSCOM

Commander	DSN 779-3205
J3	DSN 779-3821
Dep J3	DSN 779-1554
DDOC (24/7)	DSN 779-1747
DDOC Aircell	DSN 779-1771
JOSAC	DSN 779-8211
Mobility Ops Center	DSN 779-1653
J5	DSN 779-3999
SDDC OPERATIONS CENTER	800-526-1465 800-756-6862

## USTRANSCOM LIAISONS

JOINT STAFF	DSN 227-6085 COMM: (703)-697-6085
USNORTHCOM/NORA	DSN 692-7215 COMM: (719) 554-7215
USEUCOM	DSN 314-430-8517/8595 COMM: 011-49-711-680-8517/7243
USSOUTHCOM	DSN 567-1426 COMM: 1-(305)-437-1426
USSOCOM / USCENCOM...	DSN 651-6334/5027 COMM: 1-(813)-827-6334/5027

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(When forward deployed)	DSN 318-432-8235/8087
USPACOM	DSN 315-477-0414
	COMM: (808)-477-0414
USJFCOM	DSN 836-5921
	COMM: (757)-836-5921
US FORCES KOREA	DSN 315-723-5912
	COMM: 011-822-7913/5912

### **U.S. CUSTOMS P3 AIR OPS**

#### **Jacksonville, FL Office**

Primary: Dick Ward	COMM: (904) 509-9672
	E-Mail: <a href="mailto:richard.w.ward@dhs.gov">richard.w.ward@dhs.gov</a>
Secondary: Ken Lanning	COMM: (904) 594-5102
Dave Klucina	COMM: (904) 594-5102
Duty Officer	COMM (904) 594-5000 (ext 0)

#### **Corpus Christi, TX Office**

Primary: Tom Salter	COMM (361) 698-6892
Duty Officer	COMM (361) 698-6730
	STUIII (361) 698-6894

### **NATIONAL INTERAGENCY FIRE CENTER (NIFC)**

#### **Boise, Idaho**

NIFC/NICC	COMM: (298) 387-5400
-----------	----------------------



# CONTINGENCY FILL-IN PHONE LIST

JFC/CC		
JFACC		
ACCE		
AOC DIRECTOR		
AMD CHIEF		
JMC/DDOC		
A/J1-DP		
A/J2-IN		
A/J3-DO		
A/J4-LG		
A/J5-XP		
A/J6-SC		
A/J7-CE		
CRE		
CRE		
CRE		
CRE		
AEW/CC		
AEW/CC		



***Public Domain Contingency Site***  
***[www.afnorth.us](http://www.afnorth.us)***

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