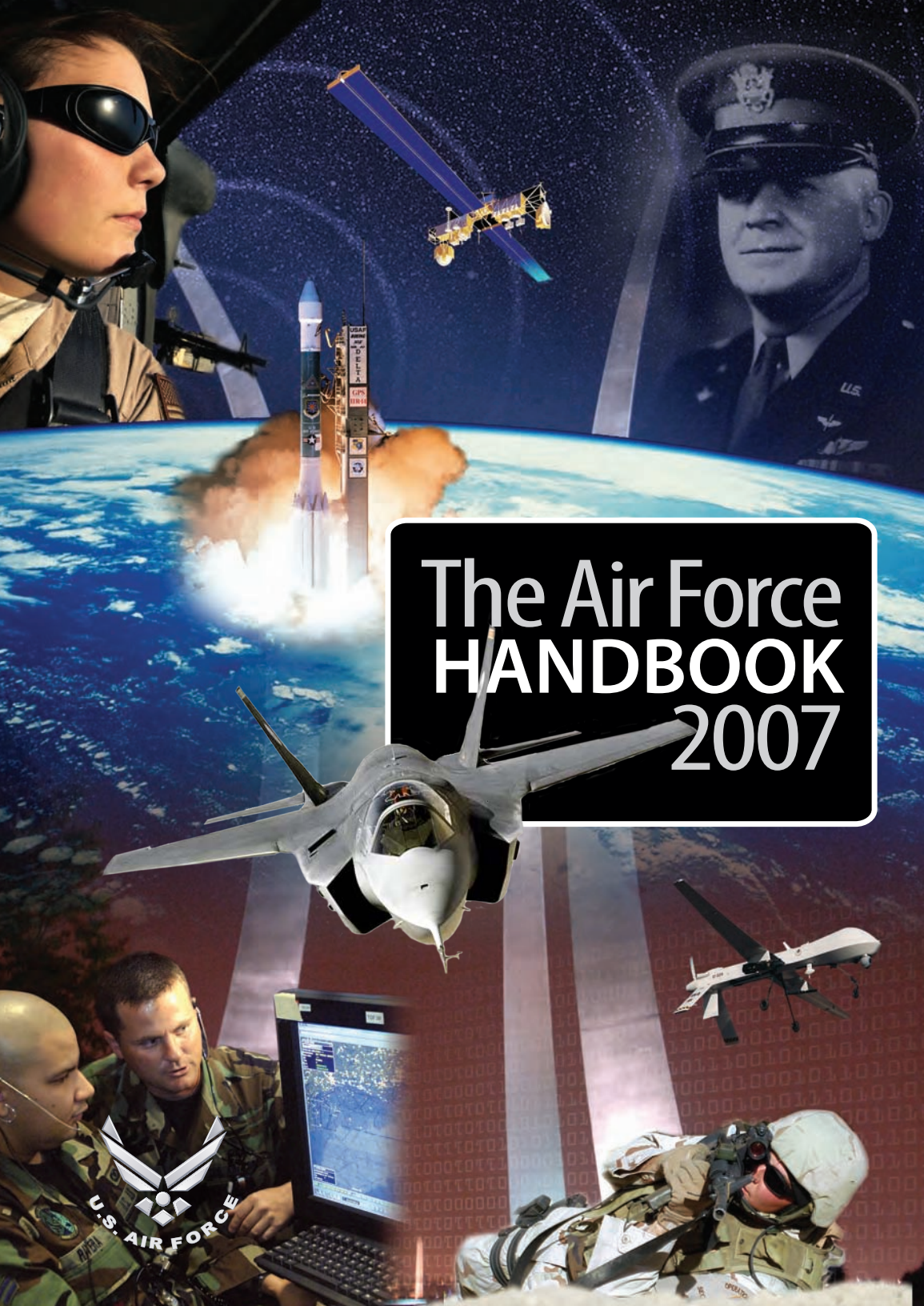

The Air Force
HANDBOOK
2007
U.S. AIR FORCE

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
2007		**00-00-2007 to 00-00-2007**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
The Air Force Handbook 2007	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **U.S. Air Force,1670 Air Force Pentagon,Washington,DC,20330**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**326**	

This year, as we commemorate 60 years as America's Air Force, we must look to history to guide us through the many diverse challenges that lie ahead as we transform and streamline to meet future challenges.

Today, we are a force unmatched by anyone in the world, seasoned by over 16 years of continuous combat operations. We are the leaders in Global Vigilance, Global Reach, Global Power, and most importantly, highly skilled and motivated Airmen.

Our Airmen are the most important piece to execute our Air, Space, and Cyberspace power and the key to the success of the Total Force. From the front lines of the Global War on Terror to Homeland Defense and humanitarian missions, our Total Force accomplish amazing tasks everyday amidst the stressful situations in which they are deployed—everyday, everywhere.

This handbook highlights the tools and capabilities that empower our Airmen, both on the ground and in the air to be successful in their warfighting endeavors and the defense of the nation.

The systems and equipment highlighted in the following pages showcase the technological lengths to which we will go to ensure that we will now and in the future continue to be the world's most capable Air Force as we fly and fight in Air, Space, and Cyberspace.

This handbook is a tool just like the equipment listed within its pages. Use it as the resource for which it was intended and together we will continue to focus on winning the Global War on Terror and ensuring the safety and security of our great nation and its citizens.

T. Michael Moseley
General, USAF
Chief of Staff

A MESSAGE FROM THE CHIEF OF STAFF, UNITED STATES AIR FORCE

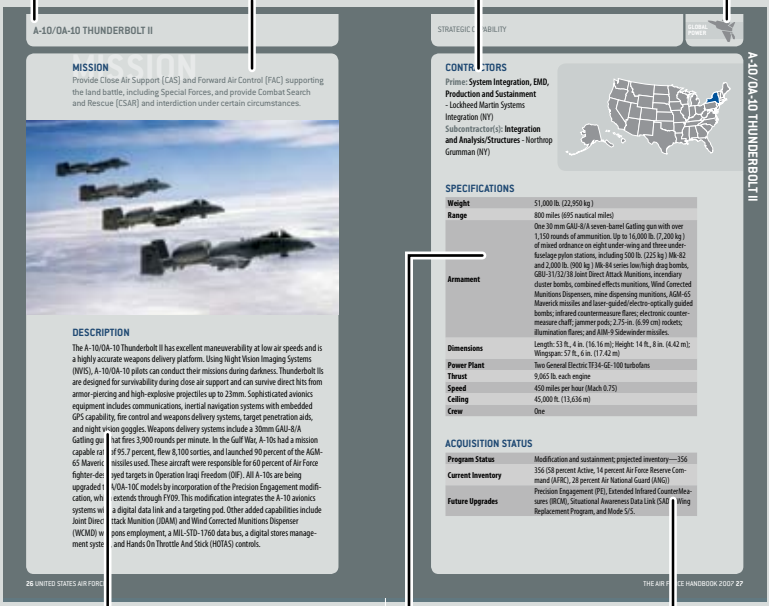
This book is designed for clear and easy reference to critical information about Air Force systems.

TITLE: All systems are in alphabetical order.

MISSION: How the system benefits Airmen, combatant commanders, support personnel, and the overall achievement of Air Force strategies

OPERATIONAL ROLES: See detailed explanation below.

CONTRACTORS: A listing of prime and subcontractors



DESCRIPTION: A general explanation of the system and its key capabilities

SPECIFICATIONS: A listing of technical and functional parameters

ACQUISITION STATUS: The status of the system program, including the locations assigned, the current inventory, and a listing of key future upgrades to the system

OPERATIONAL ROLES (EXPLANATION OF ICONS)

The Air Force is leveraging its core strategic capabilities—Global Power, Global Reach, Global Vigilance, and Agile Combat Support—to ensure joint air, space, and cyberspace dominance; strengthen joint warfighting capabilities; and implement Total Force Integration.

Global Power

Global Power is the Air Force's ability to control air and space—exploiting the medium to deliver a precise, tailored effect anywhere on the planet. Stealthy platforms and the precision-guided munitions they deliver provide a capability that is persistent, precise, survivable, and able to produce tactical, operational, and strategic effects.

Global Reach
Global challenges demand global responses. Whether they are humanitarian, military, or a mix of both, the Air Force meets these demands with an airlift and tanker fleet that has global reach. Global Reach provides the capability to move people and equipment across the world quickly, ensuring the right force—anywhere, anytime.

Global Vigilance
An accurate picture of the battlespace is critical to understanding and confronting challenges to our national security. Roughly 33 percent of the Air Force budget is dedicated to the sensors that collect imagery, de-conflict air and space assets, listen to adversary communications, enable precise navigation, and develop actionable intelligence. Global Vigilance provides the "network" that binds together joint and interagency players, ensuring our Nation's ability to see first, think first, and act first.

Agile Combat Support
Agile Combat Support refers to systems that enable the Air Force to provide the key strategic capabilities (Global Power, Global Reach, Global Vigilance) to the Joint Team.

United States Air Force
The Chief's Priorities

We are at a critical juncture in the history of the United States Air Force. We find our service, our department, and our Nation in a transition period that will shape the nation's security for years to come. Tomorrow's expeditionary Air Force will be even greater than today's—more agile, more compact, and more effective than ever—ensuring global Air, Space, and Cyberspace dominance for the United States in the 21st Century.

America's Air Force, as a total force of Active Duty, Air National Guard, Reserve, and Civilian, continues to prosecute the Global War on Terror while remaining ready to engage whatever enemy chooses to confront the world's preeminent Air, Space, and Cyberspace force.

In order to continue our legacy as the world's best Air Force, we have developed and instituted a set of priorities that are central to our Joint warfighting success. By focusing on these priorities—Winning the Global War on Terror, Developing Airmen, and Recapitalizing and Modernizing the Total Force—we are prepared to face the challenges of today and the uncertainties of tomorrow.

WINNING THE GLOBAL WAR ON TERROR

The Global War on Terror (GWOT) constitutes a U.S.-led response to global terrorism. Our mission within this war is to defeat terrorists whose tactics and global vision encompass extremism, tyranny, and oppression. Our enemies in this conflict are constantly evolving. To fight them, we must remain vigilant in our pursuit of ensuring the continued safety and security of our nation and her citizens. The Air Force is

committed to this mission and will continue to project its many unique capabilities to defeat our enemies anywhere in the world. Maintaining combat readiness is a key factor in supporting the GWOT. We must sustain our critical mission areas of Global Vigilance, Global Reach, and Global Power, while continually maintaining an agile, adaptable, persistent, lethal, and surge-ready air, space, and cyber force.

For more than 16 consecutive years, the Air Force has taken the fight to hostile forces around the world while maintaining a constant combat posture. We continue our combat contributions through ongoing actions in Operation Noble Eagle (ONE), Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and the GWOT.

This "Long War," with its ongoing support to the Combatant Commander is changing the way we operate. While continuing to support the nation's efforts at home and abroad, we must continue to learn through Joint lessons how to further fight and defeat terrorism globally. The character and capabilities of our enemies are increasingly uncertain, veiled, growing, and constantly changing. Air, Space, and Cyberspace must wield the capabilities necessary to dissuade potential adversaries and rapidly overcome them if needed. The Air Force maintains and continues to reinforce these global capabilities to secure America's future security.

DEVELOPING AIRMEN

Today's challenging global environment necessitates capable leaders at all levels to ensure the success of our force. Our Airmen are engaged in a dizzying array of missions today, ranging from operating satellites in deep space, applying air power to the battlefields of Afghanistan and Iraq, maintaining air defense of the skies over the United States, launching Air Mobility Command aircraft approximately every 90 seconds, 24/7, 365 days a year, to directly supporting humanitarian missions around the globe. The methodical steps to develop these well-rounded Airmen begin the moment they take the oath of office, accepting the Core Values—Integrity First, Service Before Self, and Excellence in All We Do. These core values are what defines us as Airmen and empowers us to learn from our forefathers and accept the responsibilities and challenges of the future.

In place or deployed, our Airmen and their families are our most important priority and the key to our continued success. Maintaining peak combat capability begins and ends with smart, healthy, motivated, trained, and well-equipped Airmen. To this end, we have a continued need to recruit, retain, equip, and train our entire force. These challenges are great and the stakes are incredibly high. While we give Airmen leaders the tools they need to overcome even the greatest odds, we must continue to look for new and innovative ways to maintain and improve our training, personal and professional education, and quality of life to meet today's commitments while preparing for the challenges of tomorrow.

We are a seamlessly integrated and expeditionary Total Force transparently composed of Active Duty, Air National Guard, Air Force Reserve, and Civilians. Our Total Force is what makes the Air Force unique. Flying high over our cities are fighter, refueling, and airlift aircraft providing everything from Presidential support, Homeland Defense, Humanitarian relief, GWOT support, to training missions; all fly the same aircraft and all aircrew wear the same uniform. There are subtle differences. These Airmen can be active duty Airmen, airline pilots, teachers, doctors, or your neighbors performing part-time duty as Air Force Reservists or Air National Guard Airmen.

To continue our expeditionary success, we deliberately develop Airmen with international insight, foreign language proficiency, and cultural understanding to enhance our effectiveness in a dynamic international environment. All Airmen must have the right skill sets to understand the specific regional context in which Air,Space, and Cyberspace power may be applied.

Knowledge is power and empowering our Airmen is what sustains the United States Air Force as the world's premier Air Force.

RECAPITALIZATION AND MODERNIZATION

Since the drawdown shortly after the Cold War, the size and shape of the Air Force has changed considerably. This new force demands high-tech, highly reliable weapon systems and equipment to meet the requirements of the Combatant Commanders. Due to continuing wartime engagement and new requirements in the Global War on Terror, the Air Force has been forced to make tough fiscal decisions. Since the early 1990s, the Air Force has been forced to contend with aging, less capable, more resource-intensive equipment which reduces the available resources with which more modern, maintainable, deployable, survivable, and lethal systems can be procured. This cycle continues to strain the most effective Air Force in the world, and we struggle to find the optimal balance between providing capability to fight today while transforming and modernizing our force to meet the challenges of tomorrow.

Within the Department of Defense (DoD), it is the Air Force's unique responsibility to provide the nation true Global Vigilance, Global Reach, and Global Power. The Air Force supplies to the nation a global expeditionary force that is persistent, focused, and predictive. That force retains its reliable, rapid, and agile reach and power through precisely directed stealthy and decisive tactics. Our job as Airmen is to fight the ongoing GWOT while being able to reach anywhere on the planet, dramatically dislocating an enemy's tactical options, strategic posture, and decision-making. To continue to make this happen for the 21st Century, we need modern, 21st Century equipment in the hands of our 21st Century Airmen.

Our enemies and potential adversaries do not stand idle. They are working day and night to devise new ways to confront American air, space, and cyberspace power. Yet, we operate the oldest air and space inventories in the history of the United States Air Force. Therefore, it is absolutely imperative that we recapitalize and replace our aging

aircraft and spacecraft to ensure our dominance across the warfighting domains. We must acquire and modernize systems that will secure America's freedom to maneuver, operate, and command and control expeditionary Joint forces in the face of emerging, highly sophisticated threats.

Systems such as: the aerial refueling tanker—the KC-X; the combat search and rescue replacement vehicle—the HH-47H (formerly called CSAR-X); modern space-based early warning and communications capabilities; the F-35 Lightning II Joint Strike Fighter; Long Range Strike; the MQ-1 Predator, MQ-9A Reaper, and RQ-4A/B Global Hawk unmanned aerial systems (UASs); the CV-22 Osprey and other modernized special operations forces (SOF) platforms; the right number of C-130J Hercules; and F-22A Raptors to strengthen our air dominance.

We'll do this all while looking at options to develop Joint Cargo Aircraft to augment our intra-theater airlift requirements and expanding our global Intelligence, Surveillance, and Reconnaissance (ISR) capabilities in air, space, and cyberspace.

We will aggressively recapitalize and modernize our inventories of aircraft, satellites, and equipment, as well as our operational infrastructure, to meet the needs of our nation at war while providing a future Air Force that is the world's undisputed best, whether the challenge be a protracted urban counterinsurgency or an intense conventional conflict with a high-tech competitor.

Fiscal responsibility is a critical element of our plan and we will progressively shed less capable legacy systems while reinvesting in a smaller, more capable, more expeditionary force with powerful global cyberspace capabilities. In essence, our recapitalization and modernization plan maintains our momentum in transforming the agility, speed, range, precision, and lethality of the entire Joint team.

SUMMARY

As global threats continue to increase, the Air Force is poised to face the challenge. To accomplish our mission, we have designated our priorities: maintaining a razor-sharp focus on fighting the GWOT, developing our Airmen into capable leaders at all levels, and recapitalizing and modernizing our Total Force.

Meeting these challenges will require bold new initiatives. Our Airmen understand these intuitively, and will ensure our nation's asymmetric advantages through an agile, adaptable, persistent, lethal, and surge-ready air, space, and cyberspace force. We remain steadfast in our commitment to fly, fight, and win our nation's wars.

The mission of the U.S. Air Force is clear. As threats change and America's interests evolve, the Air Force will continue to adapt and evolve. It will remain the world's premier air and space force. Together with its fellow Services, it stands resolute, committed to defending the United States and defeating America's enemies.

Meeting the Global Security Challenge

MAINTAINING AMERICA'S EDGE

As we maintain our focus on our mission and top priorities, America's Air Force faces significant challenges. Over the past 16 years, the Air Force has become a smaller, leaner, and more capable force—while simultaneously engaged in combat operations around the world. We continue transforming our force to guarantee that we will dominate air, space, and cyberspace now and into the future. Fiscal constraints, in addition to other challenges, translate into risks we must continue to manage and mitigate in order to provide the air, space, and cyberspace capabilities America needs.

Modern warfare is changing—this is nothing new to America's Airmen, whose heritage spans and embraces change and whose service culture embodies courage and innovation for America. We will ensure a lean, lethal, and agile force, structured to meet future emerging threats on a dynamic world stage, and to meet our obligations as a Joint, interdependent force.

THE CHANGING SECURITY ENVIRONMENT

America's adversaries continue to find new and creative means with which to challenge U.S. primacy in the air, space, and cyberspace domains. While we have successfully leveraged technology in our favor to maintain our position at the leading edge in the development of both offensive and defensive capabilities, we can ill-afford to drop our guard now.

Integrated air defense systems (IADs) and surface-to-air missile systems (SAMs) continue to evolve. IADs are incorporating more sources of data and increasing the speeds at which information is passed. Proliferation of these more capable systems is increasing.

One of the greatest rising threats is the man-portable air defense system (MANPADS). The proliferation of MANPADS increases the likelihood they may end up in the hands of non-state actors, thereby endangering U.S. civil and military aircraft.

Access to Weapons of Mass Destruction (WMDs) by countries with advanced military capabilities remains a significant challenge to U.S. interests. Easier and less costly to make than nuclear weapons, chemical and biological weapons and technology may proliferate more easily and their manufacture can be hidden in civilian industry.

As technology proliferates and access to space becomes available to more countries, organizations, and individuals, the threats to air, space, and cyberspace capabilities will become more prevalent and effective in the battlespace.

ADAPTING TO NON-TRADITIONAL ROLES

Airmen increasingly engage in non-traditional roles requiring ingenuity and the use of Joint warfighting technology. Our missions and taskings range from typical ones like close air support and armed reconnaissance to non-traditional taskings such as infrastructure protection and election support.

Due to the demands of the Global War on Terror (GWOT), Airmen have increasingly augmented ground forces to provide security and stability in Iraq and Afghanistan. We are working hand-in-hand with ground and naval forces in training both Iraqi and Afghan security forces, rebuilding critical infrastructure, and providing medi-

cal services to these war-torn countries. Additionally, our Airmen provide detainee operations, convoy operations and protection, Explosive Ordnance Disposal, Police Training Teams, Military Transition Teams, civil engineering, security, interrogators, communications, fuels, medical, logistics, intelligence, and base operating support.

Lessons learned during OEF and OIF jumpstarted Air Force development and optimization of a family of specialties, known as Battlefield Airmen, encompassing the Terminal Attack Control, Combat Control, Pararescue, and Special Operations Weather functional areas. Through ingenuity and technology, these Airmen designate targets, control aircraft, rescue and recover personnel, and gather vital combat-meteorological data. They facilitate the fullest possible extent of air and space power exploitation for Joint and coalition ground forces.

We must continue to train and equip our Battlefield Airmen with the most technologically advanced systems and equipment and look for opportunities to standardize equipment for all Expeditionary Airmen. Ultimately, these efforts will expand the Joint Force Commander's (JFC) ability to employ battlefield air and space professionals who bring unequaled accuracy, responsiveness, flexibility, and persistence to the Joint warfight.

LOSS OF BUYING POWER

Although faced with tightening fiscal realities and other substantial challenges, we continue to balance our priorities of winning the GWOT, taking care of our Airmen and their families, and recapitalizing and modernizing our force.

We face demands on our resources that were unforeseeable. These demands require some very tough internal choices. Our current challenging fiscal environment includes the cost of a long war, reduced Air Force total obligation authority (TOA), absorbing inflation factors in key areas (fuel, utilities, manpower, aircraft ownership) that reduce overall buying power and lost savings due to Congressional restrictions on retirement of aging aircraft.

In 2006, the Air Force TOA for FY08–13 was reduced by approximately $12.4 billion. This loss of buying power reduced Air Force Program content by an additional $10 billion per year. Base Realignment and Closure (BRAC) in 2005 produced a "must-pay" bill to the Air Force on the order of $1.8 billion. Over the past decade personnel costs increased by 51 percent, while fleet Operations and Maintenance (O&M) costs rose by 87 percent.

RESPONDING TO THE CHALLENGE

While we remain continuously and globally engaged, we recognize the imperative of investing in the future through recapitalization and modernization programs to maintain our momentum in transforming the agility, speed, range, precision, and lethality of the entire Joint team. We are committed to long-term transformation

of Total Force Integration, including reorganization and fielded Joint capabilities, to ensure a force structure with expanded capability to combat conventional threats while continuing to wage the GWOT.

RECAPITALIZATION AND MODERNIZATION

The Air Force has over 6,000 aircraft in its inventory; however, a significant number operate under flight restrictions. Many transport aircraft and aerial refueling tankers are more than 40 years old, the average age of the bomber force exceeds 30 years, and the fighter force is the oldest it has ever been, at more than 18 years average age. The Air Force is experiencing multiple effects of use and aging across its force structure, including engine and structural fatigue, deterioration, and corrosion. The increased tempo of current operations delays routine maintenance and we find our systems becoming progressively less effective even as they become more costly to maintain and operate.

To solve this critical problem, we have adopted several targeted recapitalization, acquisition, and modernization strategies. We will transform to a smaller, more capable force by retiring our oldest, most costly, and least capable legacy aircraft. We will leverage technology to increase our capabilities while also seeking to reduce support costs to mitigate aging aircraft issues. We will continue to challenge the aerospace industry to shift its focus to recapitalization and produce more cost effective and supportable aerospace systems.

Together, these strategies will sustain selected legacy systems for the Long War and beyond. Simultaneously, they will allow effective, efficient modernization and replacement of our air superiority, strike, space, mobility, special operations, and combat support systems, enabling the Air Force to conduct modern, networked, 21st Century warfare.

America's Airmen execute a broad spectrum of missions across three warfighting domains. We are pursuing a large number of acquisition and modernization programs, designed to enhance Joint capabilities across the spectrum of global missions. These programs include the aerial refueling tanker–the KC-X; the combat search and rescue replacement vehicle–the HH-47H (formerly called CSAR-X); modern space-based early warning and communications capabilities; the F-35 Lightning II Joint Strike Fighter; and Long Range Strike modernization. While diverse in function and execution, all Air Force capability efforts share common elements. All are global. All are expeditionary. All are transformational, and all are vital to current and future Joint success.

AIR FORCE SMART OPERATIONS FOR THE 21ST CENTURY (AFSO21)

To meet the process challenges of the road ahead, we have embarked on an Air Force-wide journey embracing Continuous Process Improvement. Air Force Smart Operations for the 21st Century (AFSO21) embraces many concepts developed and proven in industry—Lean, Business Process Re-engineering, Six Sigma, and Theory

of Constraints methodologies—and strives to improve daily processes by identifying and eliminating activities, actions, and policies that do not contribute to the efficient and effective operation of the Air Force.

These process changes have occurred at every level of the Air Force resulting in resource savings. We have more work to do, but we believe that institutionalizing Continuous Process Improvement into our daily operations will allow us to meet the enormous challenges of the next decade and ultimately sustain and modernize the world's best air, space, and cyber force.

TOTAL FORCE INTEGRATION (TFI)

One of the Air Force's more significant commitments to long-term transformation is Total Force Integration (TFI). Our Total Force partners in the Active Duty Air Force, Air National Guard, and Air Force Reserve are working together to maximize the Air Force's overall Joint combat capability.

Total Force initiatives integrate Air Force components into missions critical to future warfighting: ISR, Unmanned Aerial System (UAS) operations, and space operations. These missions are ideally suited for the Guard and Reserve. The reserve component also provides support to the Joint warfighter from U.S. locations. Using this Total Force approach improves our operational effectiveness, decreases our overseas footprint, reduces reliance on involuntary mobilization, and provides more stability for our Airmen, their families, and their civilian employers.

REORGANIZING FOR INCREASED INTERDEPENDENCE

In our ongoing effort to provide the JFC greater ability to integrate air, space, and cyber capabilities in support of National Security objectives we continue to transform our command and control structures.

By establishing component Numbered Air Forces (NAFs), we provide an integrated and technologically advanced command and control capability for each Combatant Commander (COCOM). Over the next several years, we will continue to mature this command and control structure through development of centralized "reach back" capabilities, Total Force augmentation, and more advanced command and control systems.

The Air Force also organizes its combat forces into ten Air & Space Expeditionary Force (AEF) elements that allow us to fill COCOM requirements, provide trained and ready forces for emerging threats/contingencies, and manage our people by providing them as much stability and predictability as possible while executing the Long War against terror.

As we reduce garrisoned overseas bases, the Air Force will increasingly operate from expeditionary air bases. Having transformed over the past 16 years to an AEF construct and culture, we continue to innovate and evolve with new expeditionary concepts.

FIELDED JOINT CAPABILITIES

Fifth Generation Fighters—To meet the nation's air power requirement to gain and maintain air dominance, as well as enable surface and sub-surface operations, the Air Force is fielding the Fifth Generation Fighters. These fighters combine stealth, maneuverability, and integrated avionics to ensure multi-role, full spectrum Joint air dominance, especially for Homeland Defense, the GWOT, and Major Combat Operations (MCOs). The F-22A Raptor and the F-35 Lightning II reap the benefits of decades of advanced research and development and field experience and deliver improved survivability, lethality, supportability, and sustainability. The F-22A is in full-rate production, participates in Homeland Defense missions and Joint training exercises, and is scheduled to deploy this year as part of the Air Force's AEF.

Air Operations Centers (AOCs)—The information superiority of our Air Operations Center (AOC) Weapon Systems enable decision-makers to focus and synchronize our air and space superiority, global attack, precision engagement, and rapid global mobility capabilities across the full range of military operations in multiple, geographically separated arenas. The Air Force is leading the way in delivering sovereign options to defend the homeland and our global interests by providing a global command and control (C2) capability to JFCs, enabling them to orchestrate Air, Space, and Cyberspace effects in pursuit of national military objectives. Our AOCs are the central operational nodes in this capability, and the Combined AOC at Al Udeid exemplifies the most advanced and robust AOC system in the Air Force today.

FOSTERING INTERDEPENDENCE

The Air Force is committed to our nation's Joint Force construct and works daily with our sister services to provide Air, Space, and Cyberspace to COCOMs around the world. While the other services rely on the Air Force for Global Vigilance, Global Reach, and Global Power, we also rely on the other services to support our combat capabilities.

On a daily basis, Air Force mobility forces support all branches of the Department of Defense (DoD) as well as other government operations around the world. Increased demand and decreased availability map a future that demands further recapitalization and investment to ensure the viability of this national capability. Without it, our national defense, global presence, and global power are at increased risk.

Interdependence is needed to leverage sensor information on current and next generation aircraft and to expand and advance the airborne network. Extended machine-to-machine interfaces between aircraft, C2 nodes, and ground forces will enhance the Air Force's ability to provide and improve situational awareness across the Joint team.

SPACE CAPABILITIES FOR JOINT OPERATIONS

The U.S. depends upon the Air Force to supply critical space capabilities to meet not only the needs of Joint operations worldwide, but also national missions using the instruments of diplomatic, informational, military, and economic power.

Operations in Iraq and Afghanistan highlight the importance of space-based C4ISR capabilities to U.S. and coalition forces. Commanders are operating in the most challenging electronic environment ever encountered in combat. The deployment of the Satellite Interference Response System (SIRS), a defensive counterspace prototype, has aided in the identification, geolocation and reduction of interference sources on critical satellite communications. Joint Blue Force Tracking has fundamentally changed ground warfare in the fight against terrorists by providing unprecedented real-time knowledge of friendly force locations. Night and urban operations are less dangerous and more effective when utilizing the tracking systems, which rely on GPS

and satellite communications. Additionally, GPS-aided munitions allow precision strike and reduce collateral damage. All space capabilities are key to maintaining U.S. asymmetric advantages in the GWOT.

The Joint Warfighting Space (JWS) concept is a critical element within the broader Air Force Operationally Responsive Spacelift (ORS) effort to develop the ability to rapidly deploy and employ communication, ISR, and other space capabilities. JWS will emphasize agility, decisiveness, and integration and will continue to explore ways of achieving new, more effective ways of providing space capabilities and effects to the Joint warfighter.

The Space AOC, under the auspices of 14th Air Force at Vandenberg AFB California, serves as the core of U.S. Strategic Command's (USSTRATCOM) Joint Space Operations Center (JSpOC). The Space AOC/JSpOC is the primary command and control node for military space operations and Joint space operations in theater contingencies. The Space AOC/JSpOC consists of personnel, facilities, and resources providing long-term strategy development, short-term crisis and contingency planning, and real-time execution, reallocation, and assessment of space forces in order to provide tailored space effects to Joint forces worldwide. One of the main focus areas of the JSpOC is to maintain space situational awareness (SSA) through the fusion of intelligence, space-based and ground-based sensor readings, and operational indications in order to allow U.S. and allied forces unfettered access to space capabilities.

CYBERSPACE

As Airmen, we are the nation's premier multi-dimension maneuver force, with the agility, reach, speed, stealth, payload, precision, and persistence to deliver global effects at the speed of sound and the speed of light. Control of the Air, Space, and Cyber domains provides the essential bedrock for effective Joint operations—securing freedom from attack while ensuring freedom to attack.

In 2005 we revised the Air Force mission statement to include cyberspace. This explicit mention of cyberspace reflects the recognition of cross-domain interdependence and emphasizes our non-negotiable commitment to deliver sovereign options for the U.S. through dominance of Air, Space, and Cyberspace.

Cyber dominance goes beyond communications and information technology. It requires superiority across the entire electromagnetic spectrum—radio waves, microwaves, infrared, x-rays, directed energy, and applications we have yet to discover and exploit. A new Cyberspace Command will stand along side Air Force Space Command and Air Combat Command as the providers of forces that the President, COCOMs, and the American people can rely on for preserving the freedom of access and commerce in Air, Space, and now Cyberspace.

ACQUISITION REFORM

The Air Force continues to streamline the acquisition process to provide more efficient and responsive services to the warfighter. A number of completed and ongoing projects have contributed to the improvement of acquisition. We've revitalized the Acquisition Strategy Panel (ASP) to provide a systematic approach to develop an effective acquisition program roadmap and established the Air Force Review Board (AFRB) to fulfill the recognized need for a structured, consistent, and repeatable AF process that ensures milestone decisions and documentation. Additionally, we're evaluating Defense Acquisition Performance Assessment (DAPA) recommendations for improving the acquisition system, and prototyping the Probability of Program Success (PoPS) model to better analyze risk in the initiation and execution of a program. Initiatives like these, combined with the overarching philosophy of AFSO21, are designed to improve the efficiency of an acquisition system that produces the best weapon systems in the world.

SUMMARY

September 18, 2007 will mark the 60th Anniversary of the creation of our United States Air Force. This year, we commemorate this anniversary of our proud service—born of revolutionary ideas, forged in combat, and proven through decades of progress and achievement. The mission of the Air Force remains to fly and fight—in the Air, Space, and Cyberspace. Our legacy inspires us. Our mission propels us. Our Core Values guide us. We have received and will continue to build upon a proud heritage shaped through the ingenuity, courage, and resolve of the Airmen who preceded us.

2006 AIR FORCE
Crisis Response and Combat Actions

The Air Force is deployed around the world in support of the Global War on Terrorism and other critical operations. In Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF), the Air Force has flown more than 430,000 sorties, or approximately 80 percent of the total coalition air effort. Aviation missions ranged from airlift and aeromedical evacuation, to close air support, interdiction, and intelligence, surveillance, and reconnaissance. During combat missions in 2006, Air Force fighters and bombers delivered approximately 1,500 munitions (bombs), approximately 90 percent of which were precision-guided, such as the Joint Direct Attack Munition (JDAM). The percentage of guided munitions used remained approximately the same as 2005. The Airmen of the Air Force have also provided nearly all of the in-flight refueling for the Joint and Coalition Forces.

Reconnaissance and Imagery. Leading the way in reconnaissance and imagery, the Air Force is currently flying Predator UAV missions 24 hours a day, 7 days a week. The capacity of Predator UAVs will increase from 10 orbits in FY06 to 21 orbits by FY10 to meet growing requirements. Predator aircraft are able to transmit live video pictures to ground-based targeting teams equipped with the Remote Operations Video Enhanced Receiver (ROVER) system. Linking Global Power and Global Vigilance capabilities to forces on the ground, ROVER has been used repeatedly to detect, target, and destroy improvised explosive devices (IEDs) and disrupt other insurgent activities across the region. Additionally, the Air Force continually adapts the employment of ISR sensors and analysis methods to optimize force protection and identify suspected terrorist activities. This includes using non-traditional ISR missions and applying change detection methodologies to detect possible IED emplacements.

OPERATION ENDURING FREEDOM (OEF)

Overview

- OEF began on October 7, 2001. Since then, the Air Force team—Active Duty, Guard, Reserve—has flown more than 157,000 sorties.
- Air Force bombers, fighters, airlifters, tankers, and ISR assets remain in action daily.

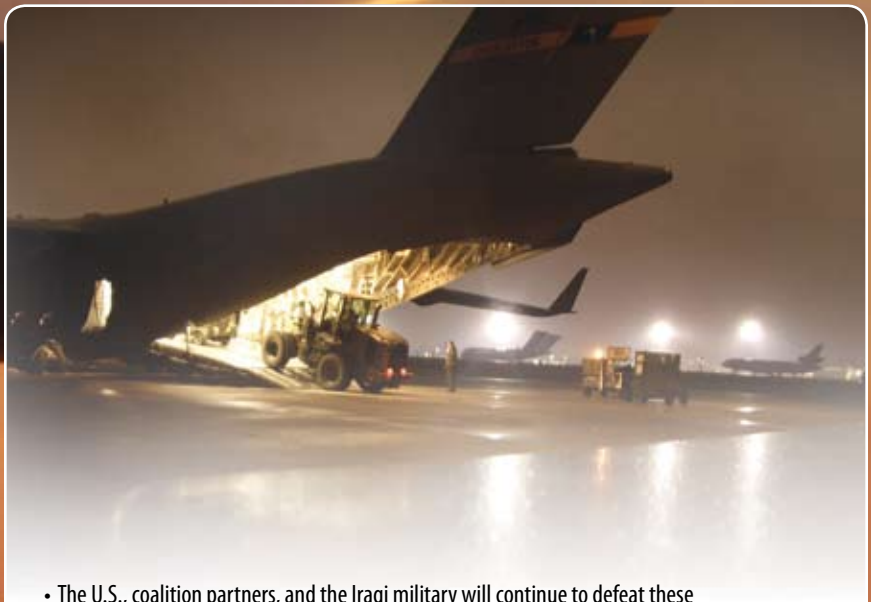
U.S. Air Force Operations

- USAF B-1s, B-2s, B-52s, F-15Es, F-16s, A-10s, and AC-130s have flown more than 75 percent of all OEF combat missions in Afghanistan, dropping more than 31,700 munitions –10,200 tons.
- Throughout combat operations in Afghanistan, the Air Force has flown more than 24,295 airlift missions (101,815 sorties). These missions have moved more than 930,383 passengers and more than 615,096 tons of cargo in support of Afghan theater operations.
- The Air Force continues to provide full spectrum air and space support. In Afghanistan and Iraq, tankers have flown more than 11,000 refueling missions supporting aircraft from all services.
- Aircraft providing ISR data, such as JSTARS, UAVs, Rivet Joint, U-2, AWACS, and Commando SOLO, have flown more than 30,000 sorties since the beginning of the operation.

OPERATION IRAQI FREEDOM (OIF)

Overview

- OIF remains an essential part of the Global War on Terrorism (GWOT).
- The United States continues to assist the developing Iraqi Army to battle occasional insurgent attacks that aim to undermine the fledgling Iraqi democracy.



- The U.S., coalition partners, and the Iraqi military will continue to defeat these insurgents and help Iraq secure its democracy.

U.S. Air Force Operations

- Combined operations have been the hallmark of operations in both Afghanistan and Iraq. High levels of cooperation and coordination of air power assets have enabled the Air Force to provide rapid response times to commanders in the theater.
- The coalition air campaign has been the most deliberate, disciplined, and precise air Campaign in history. Since March 2003, the Air Force has flown over 270,000 sorties.
- Since the September 11, 2001 terrorist attack on America, Air Mobility Command completed nearly 74,151 missions (309,193 sorties) sorties in support of Operations Enduring Freedom and Iraqi Freedom. As of December 31, 2006, organic aircraft and contracted commercial aircraft operating in the AMC system have moved 4,916,140 troops and 2,171,120.9 short tons of cargo. The command's KC 10 and KC 135 tankers flew 18,370 sorties to air refuel 41,950 receiver aircraft. By the end of 2006, the airlift operation in support of the wars in Iraq and Afghanistan remained history's second largest airlift, second only to the Berlin Airlift of 1948–1949. In 2005, Enduring Freedom and Iraq Freedom surpassed the Persian Gulf War airlift of 1990–1991 (Desert Shield/Storm) as the second largest airlift of all time.
- ISR assets, including JSTARS, UAVs, Rivet Joint, U-2, AWACS, and Commando SOLO, have flown more than 7,000 missions to provide persistent battlefield awareness.
- Throughout combat operations in Iraq, the Air Force has flown more than 37,196 airlift missions (159,125 sorties). These missions have moved more than 2,463,585 passengers and more than 1,137,492 tons of cargo in support of Iraqi theater operations.
- America's unparalleled space-based capabilities have given the Joint Team the winning edge in position navigation and timing, missile warnings, intelligence, surveillance, reconnaissance, and global communication in OIF and the GWOT.

OPERATION JOINT GUARDIAN

Overview

- Since June 11, 1999, the United States European Command has provided U.S. forces and logistical support to Operation Joint Guardian, the NATO-led peacekeeping operation in Kosovo.
- The NATO-led Kosovo Force (KFOR) currently includes forces from the United States, Great Britain, France, Germany, Italy, the Czech Republic, the Netherlands, Spain, Poland, Greece, Turkey, Russia, Canada, and Ukraine.
- The United States is committed to supporting peace and stability in Kosovo by implementing the Military Technical Agreement and participating in the NATO-led military force.

U.S. Forces

- The United States agreed to provide a force of approximately 7,000 U.S. personnel as part of the NATO KFOR, providing the headquarters and troops for one of the five NATO sectors.
- The United States also provides personnel, units and equipment to other components of the KFOR organization. The U.S. sector (Multinational Brigade East) is in southeast Kosovo. Headquarters for U.S. forces is located at Camp Bondsteel, near Urosevic.

OPERATION JOINT FORCE

Overview

- Since December 1995, the United States European Command has provided forces in support of NATO-led operations in Bosnia-Herzegovina.
- The United States remains committed to supporting peace in Bosnia-Herzegovina by implementing the Dayton Peace Accords and participating in the NATO-led military force.

U.S. Forces

- From a total of almost 20,000 troops at the height of NATO's Bosnia operations in 1996, U.S. troop levels have steadily decreased as progress continues under the Dayton Peace Accords.
- The United States agreed to provide a force of approximately 6,900 U.S. personnel to help maintain a capable military force in Bosnia-Herzegovina.
- The United States supports the NATO Stabilization Force (SFOR) by providing the headquarters and most of the troops for one of the three NATO-led multinational divisions.
- The United States also provides personnel, units, and equipment to various parts of the SFOR organization.
- The majority of the U.S. forces are in northeast Bosnia, in the Multinational Division North (MND-N) sector, with sector headquarters at Tuzla, Bosnia.

LEBANON NONCOMBATANT EVACUATION OPERATION (NEO)

Overview

On July 12, 2006, Israeli tanks and troops invaded southern Lebanon after Hezbollah operatives killed several Israeli soldiers and captured two others. On July 14, Israeli air strikes targeted Hezbollah strongholds in Beirut, Lebanon's capital city. That same day, Hezbollah fired more than 100 rockets into Israel. Israel responded with rockets and an invasion of southern Lebanon. An unrelenting, daily exchange of rockets continued until a United Nations ceasefire agreement took effect on August 14, 2006. Due to the intense fighting in southern Lebanon between the Israel military and Hezbollah, American citizens were ordered to evacuate by the United States Department of State. Air Mobility Command C-17s and commercial aircraft contracted by the Department of State transported 12,703 U.S. citizens from Cyprus and Turkey to the United States in the largest noncombatant evacuation operation (NEO) since Vietnam.

U.S. Forces

- 495 American citizens evacuated from Lebanon by USAF
- 1,833 American citizens evacuated to CONUS from Lebanon via military airlift
- 6,930 American citizens evacuated to CONUS from Lebanon via commercial airlift
- ~500 non-U.S. citizens evacuated from Lebanon by DoD
- 41 USAF aircraft and 500+airmen in direct support
- 80 x MH-53 sorties
- 31 x MC-130P sorties
- 3 x KC-10/135 sorties
- 157 x C-5/17/130 sorties
- 71 x AMC contract air sorties
- USAF MH-53s directly evacuated 366 passengers from Lebanon
- USAF Expeditionary Medical Support (EMEDS) treated 1,070+ patients
- Ramstein and Incirlik Air Bases processed 3,560+ passengers and fed more than 21,000 evacuees

2006 AIR FORCE CRISIS RESPONSE AND COMBAT ACTIONS

THE HONORABLE MICHAEL W. WYNNE

Secretary of the Air Force
Room 4E540
(703) 697-7376

GENERAL T. MICHAEL MOSELEY

Chief of Staff
Room 4E562
(703) 697-9225

MAJOR GENERAL DANIEL J. DARNELL

Director, Legislative Liaison
Room 4C654
(703) 697-4142

Senate Liaison Office (202) 685-2573
House Liaison Office (202) 685-4531
Congressional Action Division (703) 695-1292
Weapon Systems Division (703) 697-6711
Programs and Legislation Division (703) 697-7950
Congressional Inquiries Division (703) 695-7364

MAJOR GENERAL FRANK R. FAYKES

Deputy Assistant Secretary, Budget
Room 4D131
(703) 695-1875

Budget and Appropriations Liaison (703) 614-8110

MISSION

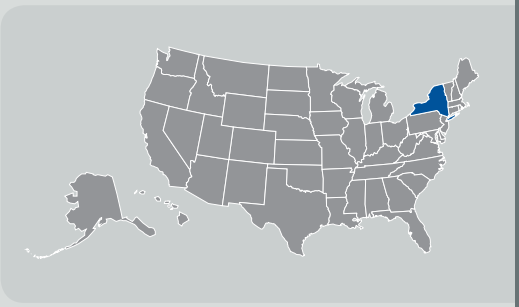
Provide Close Air Support (CAS) and Forward Air Control (FAC) supporting the land battle, including Special Forces, and provide Combat Search and Rescue (CSAR) and interdiction under certain circumstances.

DESCRIPTION

The A-10/OA-10 Thunderbolt II has excellent maneuverability at low air speeds and is a highly accurate weapons delivery platform. Using Night Vision Imaging Systems (NVIS), A-10/OA-10 pilots can conduct their missions during darkness. Thunderbolt IIs are designed for survivability during close air support and can survive direct hits from armor-piercing and high-explosive projectiles up to 23mm. Sophisticated avionics equipment includes communications, inertial navigation systems with embedded GPS capability, fire control and weapons delivery systems, target penetration aids, and night vision goggles. Weapons delivery systems include a 30mm GAU-8/A Gatling gun that fires 3,900 rounds per minute. In the Gulf War, A-10s had a mission capable rate of 95.7 percent, flew 8,100 sorties, and launched 90 percent of the AGM-65 Maverick missiles used. These aircraft were responsible for 60 percent of Air Force fighter-destroyed targets in Operation Iraqi Freedom (OIF). All A-10s are being upgraded to A/OA-10C models by incorporation of the Precision Engagement modification, which extends through FY09. This modification integrates the A-10 avionics systems with a digital data link and a targeting pod. Other added capabilities include Joint Direct Attack Munition (JDAM) and Wind Corrected Munitions Dispenser (WCMD) weapons employment, a MIL-STD-1760 data bus, a digital stores management system, and Hands On Throttle And Stick (HOTAS) controls.

CONTRACTORS

Prime: System Integration, EMD, Production and Sustainment - Lockheed Martin Systems Integration (NY)
Subcontractor(s): Integration and Analysis/Structures - Northrop Grumman (NY)



SPECIFICATIONS

Weight	51,000 lb. (22,950 kg)
Range	800 miles (695 nautical miles)
Armament	One 30 mm GAU-8/A seven-barrel Gatling gun with over 1,150 rounds of ammunition. Up to 16,000 lb. (7,200 kg) of mixed ordnance on eight under-wing and three under-fuselage pylon stations, including 500 lb. (225 kg) Mk-82 and 2,000 lb. (900 kg) Mk-84 series low/high drag bombs, GBU-31/32/38 Joint Direct Attack Munitions, incendiary cluster bombs, combined effects munitions, Wind Corrected Munitions Dispensers, mine dispensing munitions, AGM-65 Maverick missiles and laser-guided/electro-optically guided bombs; infrared countermeasure flares; electronic counter-measure chaff; jammer pods; 2.75-in. (6.99 cm) rockets; illumination flares; and AIM-9 Sidewinder missiles.
Dimensions	Length: 53 ft., 4 in. (16.16 m); Height: 14 ft., 8 in. (4.42 m); Wingspan: 57 ft., 6 in. (17.42 m)
Power Plant	Two General Electric TF34-GE-100 turbofans
Thrust	9,065 lb. each engine
Speed	450 miles per hour (Mach 0.75)
Ceiling	45,000 ft. (13,636 m)
Crew	One

ACQUISITION STATUS

Program Status	Modification and sustainment; projected inventory—356
Current Inventory	356 (58 percent Active, 14 percent Air Force Reserve Command (AFRC), 28 percent Air National Guard (ANG))
Future Upgrades	Precision Engagement (PE), Extended Infrared CounterMeasures (IRCM), Situational Awareness Data Link (SADL),Wing Replacement Program, and Mode S/5.

MISSION

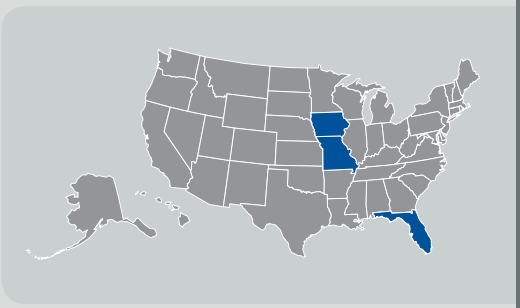
Provide close air support, air interdiction, and armed reconnaissance.

DESCRIPTION

The AC-130H Spectre provides close air support, air interdiction, and armed reconnaissance. Other missions include perimeter and point defense, escort, landing, drop and extraction zone support, forward air control, limited command and control, and combat search and rescue. The AC-130H model is the second generation of the C-130 gunships. It incorporates side-firing weapons integrated with sophisticated sensor, navigation, and fire control systems to provide surgical firepower or area saturation during extended loiter periods at night. The sensor suite consists of a television sensor and infrared sensor. These sensors allow the gunship to visually or electronically identify friendly ground forces and targets any place, any time. The gunship's navigational devices include the inertial navigation systems and GPS.

CONTRACTORS

Prime: Airframe - Lockheed Martin (FL); **Weapon System Support** - Boeing (FL); **Radar** - SEI (MO); **Communications/Navigations** - Rockwell Collins (IA)



SPECIFICATIONS

Weight	155,000 lb. (gross weight)
Range	1,300 nautical miles (NM); unlimited with in-flight refueling
Armament	40 mm Bofors Cannon; 105 mm Howitzer
Dimensions	Wingspan: 132 ft.; Length: 99 ft.; Height: 38 ft.

ACQUISITION STATUS

Program Status	Modifications only
Unit Assignment	16th Special Operations Squadron (SOS)
Current Inventory	8
Future Upgrades	Multiple Modifications

MISSION

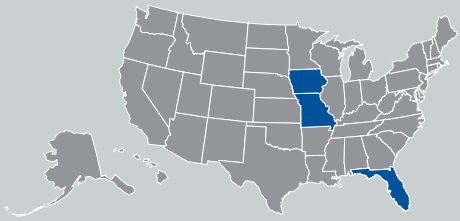
Provide close air support, air interdiction, and armed reconnaissance.

DESCRIPTION

The AC-130U Spooky gunship provides close air support, air interdiction, and armed reconnaissance. Other missions include perimeter and point defense, escort, landing, drop and extraction zone support, forward air control, limited command and control and combat search and rescue. The AC-130U model is the third-generation of C-130 gunships. It incorporates side-firing weapons integrated with sophisticated sensor, navigation, and fire control systems to provide surgical firepower or area saturation during extended loiter periods, at night and in adverse weather. The sensor suite consists of a television sensor, infrared sensor and radar. These sensors allow the gunship to visually or electronically identify friendly ground forces and targets any place, any time. The AC-130U employs synthetic aperture strike radar for long-range target detection and identification. The gunship's navigational devices include the inertial navigation systems and GPS. The AC-130U employs the latest technologies and can attack two targets simultaneously.

CONTRACTORS

Prime: Airframe - Boeing (FL); **Integrated Weapon System Support** - Boeing (FL); **Radar** - SEI (MO); **Communications/Navigation** - Rockwell Collins (IA)



SPECIFICATIONS

Weight	155,000 lb. (gross weight)
Range	1,300 nautical miles (NM); unlimited with in-flight refueling
Armament	25 mm Gatling gun; 40 mm Bofors cannon; 105 mm Howitzer
Dimensions	Wingspan: 132 ft.; Length: 99 ft.; Height: 38 ft.

ACQUISITION STATUS

Program Status	One additional aircraft scheduled for delivery in CY06
Unit Assignment	4th Special Operations Squadron (SOS)
Current Inventory	16
Future Upgrades	Multiple modifications

MISSION

Provide secure, survivable communications to U.S. warfighting forces during all levels of conflict.

DESCRIPTION

The Advanced Extremely High Frequency (AEHF) communications system provides secure, survivable, anti-jam and anti-scintillation communications for strategic and tactical users with interoperability across services and agencies. It offers assured mission-critical strategic networks and low probability of detection and interception.

CONTRACTORS

Prime: Lockheed Martin (CA)
Subcontractor(s): Northrop Grumman (CA)

SPECIFICATIONS

Size	Three-satellite constellation
Weight	13,421 lb.
Coverage	Global Coverage: 65° N–65° S
Capacity/Satellite	Protected EHF: 8.2 Mbps maximum data rate; 250 Mbps loaded throughput; 60 Mbps RF crosslinks
Compatibility	Backwards compatible to Milstar Low Data Rate (LDR) and Medium Data Rate (MDR) terminals; RF crosslinked to Milstar satellites.

ACQUISITION STATUS

Program Status	Critical Design Review - 3QFY04; Follow-on buy approval for AEHF 3 - 3QFY04; AEHF 3 contract award - 2QFY06; Planned first launch - 3QFY08.

ADDITIONAL INFORMATION

AEHF 1 completes the Milstar satellite constellation.

MISSION

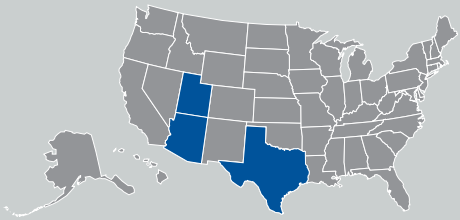
Destroy armored land combat vehicles, bunkers, structures, and ships with minimum collateral damage.

DESCRIPTION

The AGM-65 Maverick is a rocket-propelled, launch-and-leave, air-to-surface missile. Guidance is Television (TV) or Infrared (IR) Seeker (Navy has Laser version). The Maverick is a highly versatile, point-and-shoot weapon whose primary targets include armor, vehicles, bunkers, and air defense. There are currently eight versions of the Maverick. The Air Force is currently modifying existing Mavericks (B, A/G) into AGM-65H/K TV versions.

CONTRACTORS

Prime: Raytheon (AZ)
Subcontractor(s): Marvin Engineering (TX); Moog Inc. (UT); Alliant Tech Systems (UT)



SPECIFICATIONS

Weight	500 lb.
Range	10 nautical miles (NM) (H/K version)
Dimensions	Length: 97 in.; Diameter: 12 in.
Warhead	300 lb. Blast/Fragmention—AGM-65G/G2/K; 125 lb. Shaped—AGM-65A/B/D/H
Compatability	Aircraft: A-10, F-16, F-15E

ACQUISITION STATUS

Program Status	AGM-65H/K modification production; Lot 6 being produced, Lot 7 to be determined.
Current Inventory	5,596 AGM-65A/Bs; 3,030 AGM-65Ds; 4,976 AGM-65G/G2s; 1,537 AGM-65H/Ks
Future Upgrades	1,500–2,000 AGM-65Gs (IR seeker) and AGM-65Bs (EO seeker) will be converted to AGM-65-H/Ks respectively. The goal is a 70/30 mix of IR (D/G/G2) and EO (H/K).

MISSION

Provide a highly accurate, long-range, air-to-surface strategic nuclear missile that can evade air and ground-based defenses to strike targets anywhere in the enemy's territory.

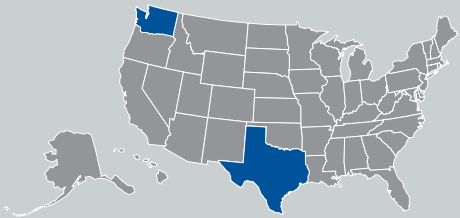
DESCRIPTION

The AGM-86B Air Launched Cruise Missile (ALCM) is a highly accurate, long-range, air-to-surface strategic nuclear missile. It carries a single W80 nuclear warhead. The small, winged AGM-86B missile is powered by a turbofan jet engine that propels it at sustained subsonic speeds. After launch, the missile's folded wings, tail surfaces, and engine inlet deploy. The AGM-86B is then able to fly complicated routes to a target through use of a terrain contour-matching guidance system. AGM-86B missiles can be air-launched in large numbers by B-52 bombers. An enemy force would have to counterattack each of the missiles, making defense against them costly and complicated. The missiles' small size and low-altitude flight capability make them difficult to detect on radar.

AGM-86B AIR LAUNCHED CRUISE MISSILE (ALCM)

CONTRACTORS

Prime: Boeing (WA)
Subcontractor(s): E-Spectrum (TX)



SPECIFICATIONS

Weight	3,150 lb.
Range	1,500+ miles
Armament	W80-1 warhead
Dimensions	Length: 20.75 ft.; Diameter: 2 ft.; Wingspan: 12 ft.
Warhead	W80-1 warhead
Coverage	Global
Compatability	B-52

ACQUISITION STATUS

Program Status	Fielded
Unit Assignment	Barksdale AFB, LA; Minot AFB, ND
Future Upgrades	Undergoing life extension programs

MISSION

Provide an adverse weather, day/night, air-to-surface, accurate, stand-off, and outside-of-theater-defenses strike capability.

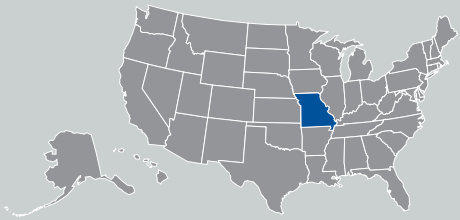
DESCRIPTION

The AGM-86C/D Conventional Air Launched Cruise Missile (CALCM) provides an adverse weather, day/night, air-to-surface, accurate, stand-off, and outside of theater defenses strike capability. It is equally effective for stand-alone, clandestine/punitive strikes and fully-integrated theater warfare. AGM-86C uses onboard GPS coupled with its Inertial Navigation System (INS) to fly. This allows the missile to guide itself to the target with pinpoint accuracy. The AGM-86C CALCM differs from the AGM-86B air-launched cruise missile in that it carries a conventional blast/fragmentation payload rather than a nuclear payload and employs a GPS aided INS. The AGM-86D incorporates avionics upgrades as well as a new penetrating warhead. The AGM-86D penetrator is capable against a wide range of hardened, deeply buried targets.

AGM-86C/D CONVENTIONAL AIR LAUNCHED CRUISE MISSILE (CALCM)

CONTRACTORS

Prime: Boeing (MO)



SPECIFICATIONS

Weight	3,250 lb. C-model/3,280 lb. for D-model
Range	>500 nautical miles (NM)
Dimensions	Length: 249 in.; Diameter: 24.5 in.
Warhead	3,000 lb. class, blast fragmentation warhead for C-model; 1,000 lb. class, Advanced Unitary Penetrator (AUP-3M) for D-model
Compatibility	B-52H

ACQUISITION STATUS

Program Status	Sustainment (no longer in production)

MISSION

Target, suppress and destroy enemy radar and surface-to-air missile sites at standoff range utilizing high speed.

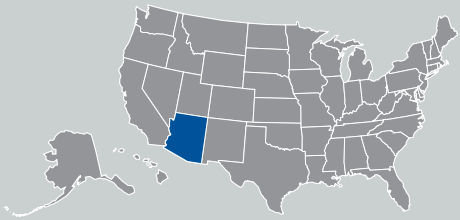
DESCRIPTION

The AGM-88 High Speed Anti-Radiation Missile (HARM) supports the Air Force's and Navy's Suppression of Enemy Air Defenses (SEAD) mission. Currently, HARM is the Air Force's and Navy's primary reactive anti-radiation weapon capable of destroying or suppressing enemy radars. The missile uses anti-radiation homing to attack Surface-to-Air Missile (SAM) sites. HARM has a radar-sensing seeker, control section, warhead, and rocket motor. It is highly accurate and is an all-weather weapon. The Air Force platform for the missile is the F-16C/CJ; the Navy platforms are the F/A-18 and EA-6B with growth planned for the F-18G (Growler) which will replace the EA-6B. The Block IIIA/V missile upgrade adds limited geo-specificity and provides a significant step in countering rapidly improving threats and limiting collateral damage. Future development includes the addition of a very accurate INS/GPS to increase accuracy and an improved point-to-point capability to allow destruction of non-radiating targets at extended ranges with minimized time-to-target. Other upgrades will include seeker improvements to expand the target set.

AGM-88 HIGH SPEED ANTI-RADIATION MISSILE (HARM)

CONTRACTORS

Prime: Raytheon (AZ)



SPECIFICATIONS

Range	<80 nautical miles (NM)
Dimensions	Length: 164 in.; Diameter: 10 in.; Wingspan: 36 in.
Warhead	145 lb. fragmentation warhead (New 45.2 lb.); Block III/IIIA - 25,000 steel fragments (12.6 grain); Block IV/V - 14,000 tungsten cubes (30 grain)

ACQUISITION STATUS

Program Status	In sustainment
Unit Assignment	Shaw Air Force Base (AFB), SC; McEntire Air National Guard Station (ANGS), SC; Mountain Home AFB, ID; Misawa Air Base (AB), Japan; and Spangdahlem AB, Germany
Current Inventory	7,272
Future Upgrades	Under a Cooperative Research and Development (CRAD) agreement, Raytheon is upgrading the F-16 Aircraft Launcher Interface Computer and developing a HARM control section modification to incorporate GPS quality accuracy, increasing probability of kill and allowing precise geo-specificity. The Air Force is considering modifying some AGM-88Cs in the FY08 timeframe.

MISSION

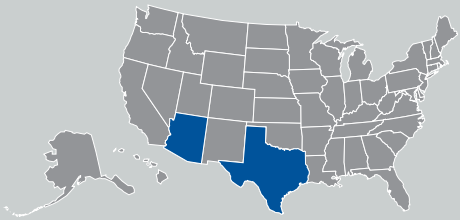
Provide a subsonic, low-observable, air-to-surface strategic nuclear missile that can evade air and ground-based defenses to strike heavily defended, hardened targets.

DESCRIPTION

The AGM-129A Advanced Cruise Missile (ACM) provides a subsonic, low-observable air-to-surface strategic nuclear missile with significant range, accuracy, and survivability improvements over the Air Luanched Cruise Missile (ALCM). The ACM is designed to evade air and ground-based defenses in order to strike heavily defended, hardened targets at any location within an enemy's territory. The ACM carries a single W80 nuclear warhead. The ACM uses laser sensor updates to give it high navigation accuracy and "stealth" technology to give it a low radar cross section and an increased chance to penetrate enemy defenses. Up to 12 ACMs can be carried by a B-52 bomber, allowing the bomber to attack multiple targets without penetrating enemy airspace.

CONTRACTORS

Prime: Raytheon (AZ)
Subcontractor(s): E-Spectrum (TX)



SPECIFICATIONS

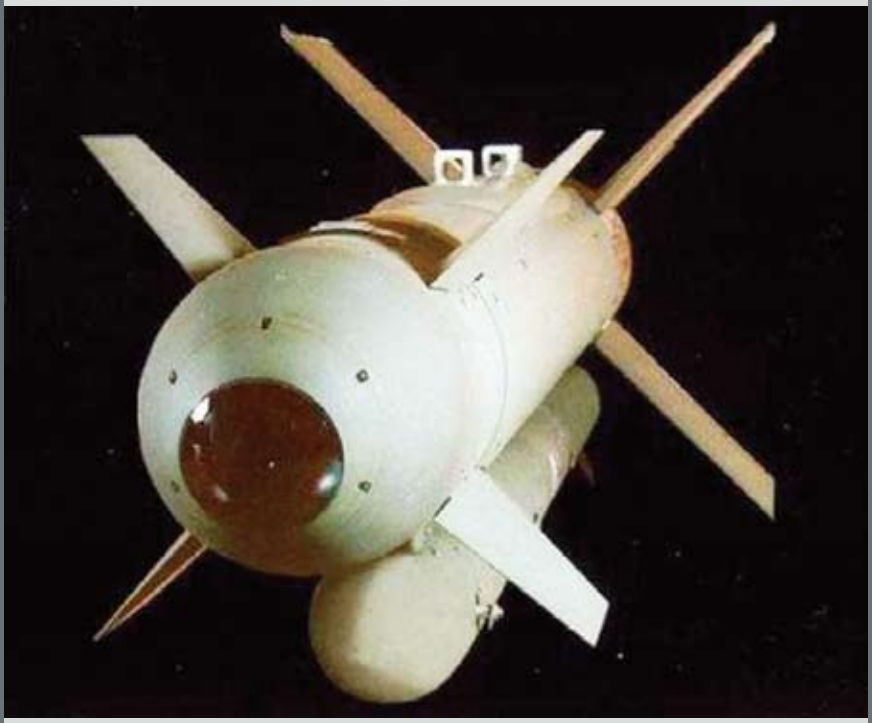
Weight	3,700 lb.
Range	2,000+ nautical miles (NM)
Armament	W80-1 warhead
Dimensions	Length: 20.8 ft.; Diameter: 2.4 ft.; Wingspan: 10 ft.
Coverage	Global
Compatability	B-52

ACQUISITION STATUS

Program Status	Fielded
Unit Assignment	Barksdale AFB, LA, and Minot AFB, ND
Future Upgrades	Undergoing life extension programs

MISSION

Attack fixed high-value targets, day or night, from outside point defenses.



DESCRIPTION

The AGM-130 Standoff Attack Weapon is a solid rocket-powered Guided Bomb Unit (GBU)-15. The AGM-130's Inertial Navigation System/Global Positioning System (INS/GPS) Midcourse Guidance (MCG) upgrade provides the operator with the existing basic weapon capabilities along with a significantly reduced aircrew workload, an increased capability for target acquisition, and various options for cruise altitudes and impact angles. As a backup in the event of data link subsystem non-availability, the missile may be released in a direct attack mode (the missile may be released from low or high altitudes, but must be locked on to target prior to release).

CONTRACTORS

Prime: Boeing (CA)

SPECIFICATIONS

Weight	3,000 lb.
Range	>30 nautical miles (NM)
Dimensions	Length: 158 in.; Diameter: 18 in.
Warhead	Warhead: Blast/Fragmentation - Mk-84 vertical and horizontal targets; Penetrator: BLU-109; Fuze: FMU-124A/B (Mk-84), FMU-143 (BLU-109)
Interoperability	Platform: F-15E
Guidance	TV or IR Seeker; INS/GPS navigation/aim point update/terminal automatic tracking or manual steering via data link; <3 meter accuracy.
Propulsion	Solid Rocket Motor

ACQUISITION STATUS

Program Status	Sustainment
Current Inventory	402
Future Upgrades	None

MISSION

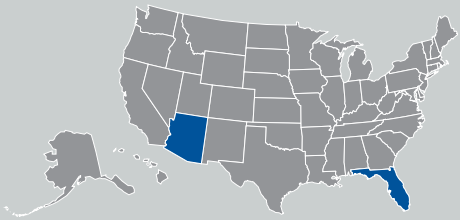
Provide all-weather, all-altitude, medium-range capability to attack high-performance aircraft and missiles from any direction.

DESCRIPTION

The Air Intercept Missile (AIM)-7M Sparrow is a radar-guided, air-to-air missile with a high-explosive warhead. The versatile Sparrow provides all-altitude, all-weather, and all-aspect capability. The missile can be carried by the F-15, F-16ADF, and F-18, and is radar-guided throughout time-of-flight (TOF). The AIM-7M H-build incorporates guidance improvements such as Home-On-Jam capability.

CONTRACTORS

Prime: Raytheon (AZ)
Subcontractor(s): General Dynamics (FL)



SPECIFICATIONS

Weight	500 lb.
Range	More than 30 nautical miles (NM)
Dimensions	Length: 12 ft.; Diameter: 8 in.
Warhead	Blast/Fragmentation: WAU-17; Continuous Rod: WAU-10
Interoperability	Aircraft dependent
Compatability	Aircraft dependent
Service Ceiling	Aircraft dependent
Speed	More than 2,660 mph

ACQUISITION STATUS

Program Status	Navy program in sustainment
Unit Assignment	Numerous (system approved for demilitarization)
Current Inventory	2,500

MISSION

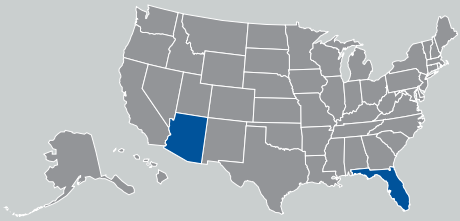
Provide all-weather, all-altitude, short-range, air-to-air capability to attack high-performance aircraft and missiles from any direction.

DESCRIPTION

The Air Intercept Missile (AIM)-9M Sidewinder is a supersonic, short-range, passive infrared-guided, air-to-air missile with a high explosive warhead. The Sparrow has all-altitude, all-weather, and all-aspect capabilities. The missile can be carried by the A-10, F-15, F-16, F-16 ADF, and F-18. The missile's main components are an infrared homing guidance section, an active optical target detector, a high-explosive warhead, and a rocket motor. The AIM-9M features improved defense against infrared countermeasures, enhanced background discrimination capability, and a reduced-smoke rocket motor. These modifications increase its ability to locate and lock-on a target and decrease the missile's chances for detection.

CONTRACTORS

Prime: Raytheon (AZ)
Subcontractor(s): General Dynamics (FL)



SPECIFICATIONS

Weight	191 lb.
Range	More than 8 nautical miles (NM)
Dimensions	Length: 113 in.; Diameter: 5 in.
Warhead	Annular Blast/Fragmentation
Interoperability	Aircraft dependent
Compatability	Aircraft dependent
Service Ceiling	Aircraft dependent
Speed	Supersonic

ACQUISITION STATUS

Program Status	Navy program in sustainment
Unit Assignment	Numerous Active, Reserve, and National Guard squadrons
Current Inventory	2,500

MISSION

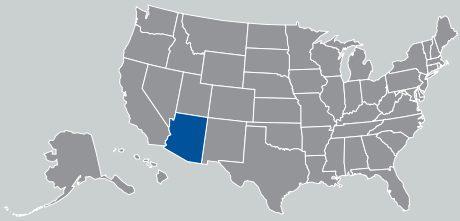
Provide a launch-and-leave air combat munition that uses passive infrared (IR) energy for acquisition and tracking of enemy aircraft.

DESCRIPTION

The Air Intercept Missile (AIM)-9X Sidewinder is the newest variant of the Sidewinder missile. It is a supersonic, heat-seeking, short-range, air-to-air missile carried by fighter aircraft. It is used in both offensive and defensive counter-air operations. Offensively, the weapon ensures that U.S. and combined air forces can project the necessary power to ensure dominant maneuver. In the defensive counter-air role, the missile system provides force protection. The AIM-9X complements longer-range radar-guided missiles such as the Advanced Medium Range Air-to-Air Missile (AMRAAM). The AIM-9X development program provides a number of improved capabilities, including: Improved IR Countermeasure Performance; Improved Probability of Kill (Pk); Highly Maneuverable Airframe; High Off-Boresight (HOBS) Acquisition and Track; Day/Night Capability. The 9X is also compatible with the Joint Helmet-Mounted Cueing System (JHMCS), which is designed for ease of target acquisition and decreased aircrew workload. Current platforms for the AIM-9X include the F-15C, F/A-18C/D, F/A-18E/F, and F-16. Follow-on platforms will include the F-22, F-35, and FMS aircraft.

CONTRACTORS

Prime: Raytheon (AZ)



SPECIFICATIONS

Weight	187 lb.
Dimensions	Length: 119 in.; Diameter: 5 in.
Warhead	Annular Blast/Fragmentation
Interoperability	Aircraft dependent
Compatability	Aircraft dependent
Service Ceiling	Aircraft dependent
Speed	Supersonic

ACQUISITION STATUS

Program Status	Joint Air Force/Navy Program in production; projected inventory - 5097
Unit Assignment	Elmendorf AFB (AK), Lakenheath AFB (UK), Mountain Home AFB (ID), Kadena AB (Japan), Luke AFB (AZ), Cannon AFB (NM), and Missouri Air National Guard (ANG)
Current Inventory	690
Future Upgrades	Preplanned Product Improvement (P3I) efforts and processor and fuze obsolescense updates.

MISSION

Provide all-weather, all-altitude, medium-range, air-to-air capability to attack high-performance aircraft and missiles from any direction.

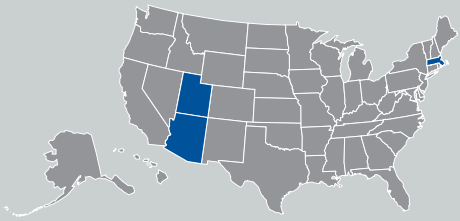
DESCRIPTION

The Air Intercept Missile (AIM)-120 Advanced Medium-Range Air-to-Air Missile (AMRAAM) is a supersonic, medium-range, active radar guided air-to-air missile with a high-explosive warhead. The AIM-120 provides all-altitude, all-weather, all-aspect capability. Its platform options include the F-15, F-16, F/A-18, and F-22A. The Preplanned Product Improvements (P3I) program will provide the AIM-120 with enhanced electronic protection (EP) capabilities; improved warhead, fuzing, and guidance; and increased kinematics via a new five-inch stretched rocket motor.

AIM-120 ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM)

CONTRACTORS

Prime: Raytheon (AZ)
Subcontractors: Raytheon Andover (MA); ATK Aerospace (UT)



SPECIFICATIONS

Weight	356 lb.
Range	20+ nautical miles (NM)
Dimensions	Length: 144 in.; Diameter: 7.15 in.
Warhead	45 lb. Blast/Fragmentation
Interoperability	Aircraft dependent
Compatability	Aircraft dependent
Service Ceiling	Aircraft dependent
Speed	Supersonic

ACQUISITION STATUS

Program Status	Joint Air Force/Navy Program in development/sustainment
Unit Assignment	Numerous Active, Reserve, and Guard units
Current Inventory	4,900 AF and 1,250 Navy
Future Upgrades	Preplanned Product Improvement (P3I) efforts

MISSION

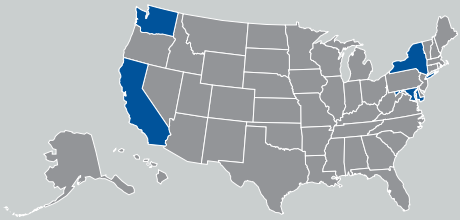
Prevent fratricide and enhance mission effectiveness.

DESCRIPTION

Air Force Combat Identification (AFCID) is a family of radar, laser, and beacon systems designed to positively identify friend and foe on the battlefield. The goal of the effort is to accelerate the transition of advanced Combat Identification (CID) technologies into tactical weapons systems (fighter, bomber, Command, Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) platforms). Technologies include cooperative systems—where the target voluntarily identifies itself as a friend—and noncooperative systems, where the target has to be identified. A cooperative system under development is the Mark XIIA Mode 5 secure Identification Friend or Foe (IFF) interrogator/transponder system. In the non-cooperative area, several efforts are pursuing air-to-ground, air-to-air, and ground-to-air identification systems that match radar or laser signatures of suspected enemy equipment with a signature database of known equipment to positively identify targets as friend or foe.

CONTRACTORS

Prime: Raytheon (NY); BAE (CA); Northrop Grumman (MD); Boeing (WA)



SPECIFICATIONS

Range	Line-of-sight to horizon
Interoperability	Interoperable among Services and with NATO allies

ACQUISITION STATUS

Program Status	Under contract and development on-going

MISSION

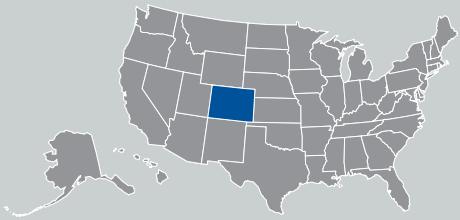
Enable deployment, checkout, and flight of operational Air Force, national, allied, and research and development satellites.

DESCRIPTION

The Air Force Satellite Control Network (AFSCN) is the Nation's only high-power, 24/7 global network operating Department of Defense (DoD), national, civil, and allied satellites in any orbit. Capability is provided through a global system of control centers, remote tracking stations, and communications links. The network enables satellite telemetry, tracking and commanding, and provides high-power uplink capability for anomaly resolution and satellite emergencies. The AFSCN is required for all DoD launch and early orbit operations.

CONTRACTORS

Prime: Honeywell Technical Services, Inc. (CO)



SPECIFICATIONS

Size	Eight remote tracking stations, 15 antennas, three data link terminals, one checkout facility, and two transportable tracking station antennas, as well as two operations control centers, and centralized scheduling and control of the network assets
Range	Global coverage, all orbits
Coverage	Continuous global coverage
Capacity/Satellite	One satellite per tracking station antenna; more than 150 satellites supported; more than 160,000 contacts per year
Interoperability	Interoperable with Navy, National Oceanic and Atmospheric Administration (NOAA), National Air and Space Administration (NASA), and national users

ACQUISITION STATUS

Program Status	Operational
Future Upgrades	An ongoing program of upgrades is designed to replace unsustainable, aging antennas and 1960s-era electronics, as well as improve scheduling and orbit analysis systems and improve interoperability with civil networks.

MISSION

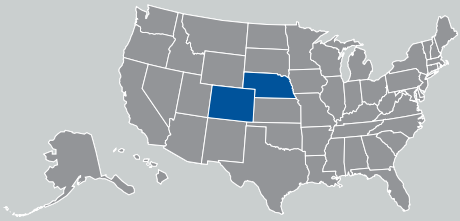
Provide our Nation's forces with essential air and space environmental intelligence to ensure battlespace awareness and decision superiority.

DESCRIPTION

The Air Force Weather Weapon System (AFWWS) provides capabilities for the five core processes of AF weather operations: ground-based terrestrial and ground-based space observing capabilities (Collect), analysis and forecasting tools for terrestrial and space weather phenomena (Analyze and Predict), the capability to prepare tailored weather and weather effects information for the warfighter (Tailor), and the capability to integrate weather into planning and execution decision-making processes to enhance all aspects of readiness, deployment, employment, sustainment and redeployment/reconstitution (Integrate). The AFWWS, which consists of both software and hardware, is a system-of-systems which principally supports the Joint Functional Concepts of Battlespace Awareness and Joint Command and Control.

CONTRACTORS

Prime: Northrop Grumman (NE)
Subcontractors: Raytheon (NE); National Center for Atmospheric Research (CO)



SPECIFICATIONS

Coverage	Worldwide fielding of fixed and tactical meteorological equipment supporting Joint, Air Force, and Army operations.
Interoperability	Machine-to-human (M2H) interoperability via Uniform Resource Locator-based web services at various classification levels, and limited machine-to-machine (M2M) interoperability with warfighter systems via legacy interfaces and through use of new Joint Meteorological and Oceanographic Broker Language (JMBL) standards.

ACQUISITION STATUS

Program Status	Various
Future Upgrades	Use of the Joint Environmental Toolkit (JET) and standard Joint METOC Broker Language (JMBL) will enable common network-centric interfaces to C4I systems for direct M2M, M2H and human-to-human integration and exploitation of weather information by warfighters and decision makers at all levels of operations.

MISSION

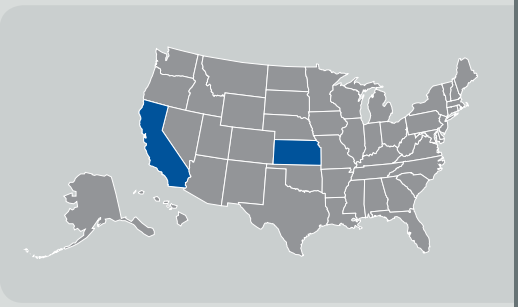
Provide the capability to acquire, track, and kill ballistic missiles in their boost phase, thus protecting U.S. deployed forces, U.S. allies, and areas of vital interest from ballistic missile attack.

DESCRIPTION

The Airborne Laser (ABL) is a modified Boeing 747-400. It kills ballistic missiles in boost phase; autonomously detects, tracks, and engages ballistic missiles; and provides accurate missile launch location and impact points. The ABL is rapidly deployable; it will function as the pathfinder for future Directed Energy (DE) weapons and has the potential for other adjunct missions.

CONTRACTORS

Prime: Battle Management and Air Vehicle Integration & Test, Aircraft - Boeing Company (KS, CA); **Beam Control/Fire Control System** - Lockheed Martin (CA); **Laser** - Northrop Grumman (CA)



SPECIFICATIONS

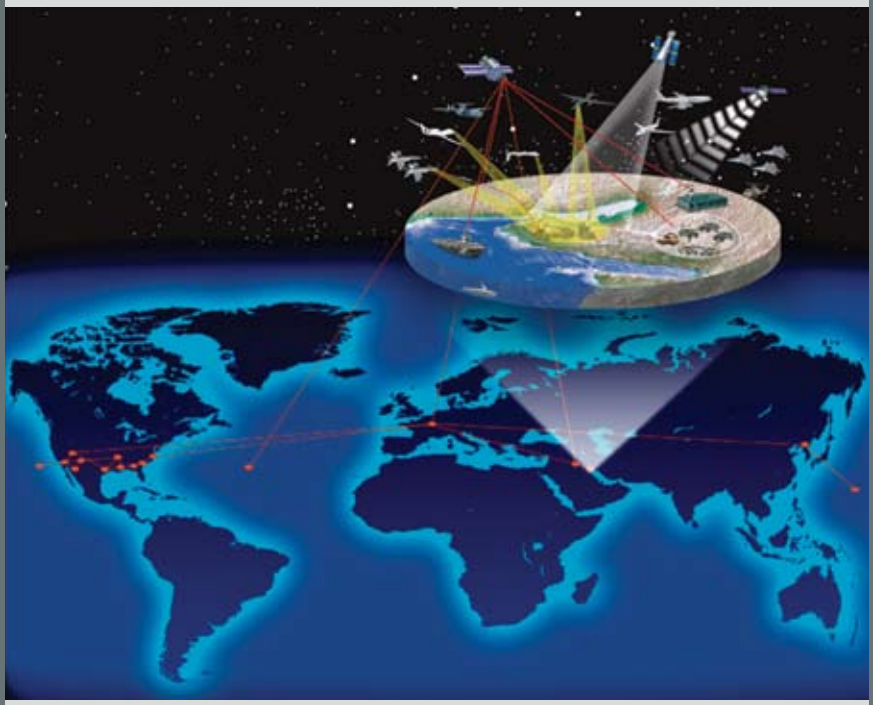
Weight	Takeoff weight - 803,000 lb.
Range	24 hours of flight with refueling, but needs to periodically return to check oil consumption
Armament	No armaments, but the loading and unloading of chemicals at the fuel farm is treated like a weapon storage area
Dimensions	Length: ~ 245 ft.; Width: 231 ft.
Warhead	High Energy Laser
Coverage	Refuelable
Interoperability	Functions as an element of the Ballistic Missile Defense System (BMDS); Link 16

ACQUISITION STATUS

Program Status	Completed eight months of flight testing at Edwards AFB in July 2005 – very successful tests of the integrated Beam Control/Fire Control (optics) and Battle Management systems. Laser System Integration Lab (SIL) testing at Edwards AFB is complete. Multiple full-duration lasings at lethal power and duration were completed in December 2005. Over 70 lasing events since November 2004 have demonstrated reliable operation of the high-energy laser segment. The aircraft has completed modifications at Wichita, KS, to augment its floor to accommodate laser installation and to install solid-state lasers for missile tracking and atmospheric compensation. System is in the process of ground and flight testing of the solid state lasers, leading to a lethal demonstration in FY09.

MISSION

Collect, process, exploit, and disseminate data, information, and intelligence from Intelligence, Surveillance and Reconnaissance (ISR) sensors such as the U-2, Global Hawk, Predator, and others.

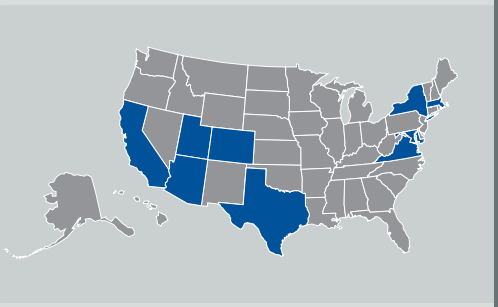


DESCRIPTION

The AN/GSQ-272 Air Force Distributed Common Ground System (AF DCGS) is a network-centric weapon system capable of tasking ISR sensors and receiving, processing, exploiting, and disseminating data and information from airborne, national, and commercial platforms and sensors. This weapon system consists of numerous Active Duty, Air National Guard, and mission-partner sites, interconnected by a robust communications structure that enables collaborative reachback ISR operations. AF DCGS operators correlate collected imagery intelligence, signals intelligence, and measurement and signatures intelligence data to provide decision-quality information directly to the Joint Task Force and below, including significant support to time-critical targeting operations.

CONTRACTORS

Prime: Raytheon (TX, CA, VA); Lockheed Martin (AZ, CO); L-3 Communications (UT); Goodrich (MA); Northrop Grumman (MD); General Dynamics (VA); BEA (NY); BAE (CA); Kodak (NY)



SPECIFICATIONS

Range	Worldwide via datalink relay and satellite
Coverage	Worldwide via reachback operations
Size	Active Duty core locations: Langley AFB, VA; Beale AFB, CA; Hickam AFB, HI; Ramstein AB, Germany; Pacific Air Forces. Air National Guard (ANG) locations: Wichita, KS; Birmingham, AL; Little Rock, AR; Reno, NV. Other worldwide locations.
Interoperability	U-2, Global Hawk, Predator, and other ISR platforms/sensors; DoD DCGS architecture; intelligence community systems; national intelligence databases; theater communications systems and datalinks; DCGS Integration Backbone; Common Imagery Processor

ACQUISITION STATUS

Program Status	Sustainment
Future Upgrades	Upgrading to 10.2 configuration
Current Inventory	One

AN/USQ-163 FALCONER AIR AND SPACE OPERATIONS CENTER WEAPON SYSTEM (AOC-WS)

MISSION

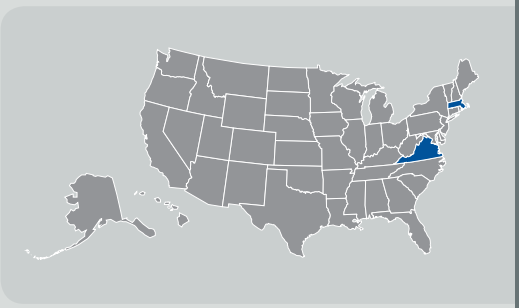
Provide Joint/Combined Force Air Component Commander's (JFACC/CFACC's) primary tool for commanding air and space power.

DESCRIPTION

The AN/USQ-163 Falconer Air and Space Operations Center Weapon System (AOC-WS) is the senior element of the Theater Air Control System. The JFACC/CFACC uses the system for planning, executing and assessing theater-wide air and space operations. The AOC-WS develops operational strategy and planning documents. It also disseminates tasking orders, executes day-to-day peacetime and combat air and space operations, and provides rapid reaction to immediate situations by exercising positive control of friendly forces.

CONTRACTORS

Prime: Lockheed Martin Integrated Systems & Solutions (VA, MA)
Subcontractors: IBM (VA, MA); L3 (VA, MA); SAIC (VA); DRC (VA, MA); ISS (VA, MA)



SPECIFICATIONS

Size	Each AOC-WS is sized to support its mission; Averages: 1,000–2,000 people; 70,000 square ft. of space.
Interoperability	Interoperates using Internet Protocol (IP) and tactical data networks with Joint and Coalition Command and Control (C2) units at various command levels. Receives ISR data from various sources at various classification levels. Air Tasking Orders and Airspace Control Orders are disseminated to air bases throughout the theater. AOC receives and processes situation awareness data from tactical units to enable the prosecution of time-sensitive targets.

ACQUISITION STATUS

Program Status	Fielding Increment 10.1; Pre-Milestone B for Increment 10.2
Future Upgrades	Increment 10.2: Net Ready Compliance, Improved Collaboration, Joint Air Operations Plan and Joint Air Execution Plan linked to assessment; Reduction of decision support process cycle times; Decision quality information; Automate capability to support integrated air and space effects-based dynamic strategy development and assessment ; Effectively deconflict airspace in Air Tasking Order planning and execution ; C2 Constellation Net capabilities to manage, protect, and exchange information with joint, allied, and coalition military and civil nodes; Standard common data model and IM strategy to enable data association and information persistence and sharing within and beyond the AOC WS; Integrated system and management of network resources; Integrated automated support for IPB for air and space operations planning; Improved coalition interoperability; Information and functionality sharing

MISSION

Rapidly deliver massive quantities of precision and non-precision weapons, anywhere in the world, at any time.

DESCRIPTION

The multi-mission B-1B Lancer is a highly versatile, supersonic aircraft that carries the largest payload of both guided and unguided weapons in the Air Force inventory. It has three internal weapons bays and the ability to mix weapons loads between bays and within a bay for J-Series weapons. The B-1B's offensive avionics system includes high-resolution synthetic aperture radar, capable of tracking, targeting, and engaging moving vehicles as well as self-targeting and terrain-following modes. In addition, the B-1B's equipment enables aircrews to navigate globally without the aid of ground-based navigation aids, as well as engage targets with a high level of precision. The B-1B features an integrated, robust onboard defense and countermeasures system. The aircraft can carry up to 30 cluster munitions (CBU-87, -89, -97, -103, -104, -105) or up to 24 Joint Direct Attack Munitions (JDAM) guided weapons. The B-1B is flexible enough to be employed from inside or outside the theater of operations and is capable of conducting all-weather, deep strike, and night air-to-surface attacks. The B-1B's speed, superior handling characteristics, substantial payload, excellent radar targeting system, long loiter time and survivability enable the B-1B to create a multitude of far-reaching effects across the battlefield as a key element of any joint/composite strike force.

CONTRACTORS

Prime: Airframe - Boeing (CA);
Propulsion - General Electric (OH);
Radar - Northrop Grumman (MD)

SPECIFICATIONS

Weight	477,000 lb. (max weight)
Range	Intercontinental (unrefueled)
Armament	Three weapons bays, capable of mixing weapons loads between bays and within a bay; 84 Mk-82 (500-lb.) or 24 Mk84 (2,000-lb.) general- purpose bombs; Mk-62 and Mk 65 mines; 30 CBU-87/89/97 cluster munitions and CBU-103/104/105 wind corrected equivalents; 24 GBU-31 (2,000-lb.) JDAMs. Initial capability for 12 AGM-154 Joint Standoff Weapons (JSOW) and/or 24 AGM-158 Joint Air-to-Surface Standoff Missiles (JASSM) in October 2004. Initial capability for 15 GBU-38 (500-lb.) JDAM in March 2005. Largest ordnance load-out of any U.S. aircraft.
Dimensions	Wingspan, wings forward: 137 ft.; Wingspan, wings aft: 79 ft.; Length: 146 ft.; Height: 34 ft.
Service Ceiling	Over 30,000 ft.
Speed	900-plus mph (Mach 1.2 at sea level)
Crew	Four (two pilots, two weapon systems officers)

ACQUISITION STATUS

Program Status	Modernization, Modification and Sustainment
Unit Assignment	Dyess AFB, TX; Ellsworth AFB, SD
Current Inventory	67
Future Upgrades	JASSM-Extended Range (ER), Defensive Upgrade, Radar, Situational Awareness, Datalink, on-board diagnostics, inertial navigation upgrade, Target Pod

MISSION

Deliver massive firepower in a short time, anywhere in the world, through high-threat defenses using both conventional and nuclear munitions.

DESCRIPTION

Along with the B-52 and B-1B, the B-2 provides the strategic effectiveness inherent in manned multi-role bombers. With its low-observable, or "stealth," characteristics, it can penetrate an enemy's most sophisticated defenses and threaten its most valued and heavily defended targets. Its capability to penetrate air defenses and threaten effective retaliation with relative impunity provides a strong, effective deterrent and combat force well into the 21st century. The revolutionary blending of low-observable technologies with high aerodynamic efficiency and large payload gives the B-2 important advantages over other platforms. Its low-observability provides greater freedom of maneuver while high altitude flight increases its range and provides a better field of view for the aircraft's sensors. The B-2's low observability is derived from a combination of reduced infrared, acoustic, electromagnetic, visual, and radar signatures. The dramatically reduced sum of these signatures makes it difficult for today's sophisticated defensive systems to detect, track, and engage the B-2. The B-2 has a crew of two: a pilot in the left seat and mission commander in the right, compared to the B-1B's crew of four and the B-52's crew of five.

CONTRACTORS

Prime: Northrop Grumman (CA)

SPECIFICATIONS

Size	Length: 69 ft. (20.9 m); Height: 17 ft. (5.1 m); Wingspan: 172 ft. (52.12 m)
Weight	(Typical): 336,500 lb. (152,634 kg)
Range	Intercontinental (unrefueled)
Armament	Two weapons bays, capable of employing conventional and nuclear weapons. Unguided weapons include 80 Mk-82 (500-lb.), 36 M117 (750-lb.), or 16 Mk-84 (2,000-lb.) general-purpose bombs; 80 Mk-62 series sea mines or 34 CBU-87/89/97 cluster munitions. Precision weapons include 16 GBU-31 (2,000-lb.) JDAMs or 80 GBU-38 (500-lb.) JDAMs or 8 GBU-28 (5,000-lb) or 8 GBU-37/B (5,000-lb) or 16 AGM-154 Joint Standoff Weapons (JSOW) or 16 AGM-158 Joint Air-to-Surface Standoff Missiles (JASSM). Nuclear weapons include 16 B-61 or 16 B-83 nuclear gravity bombs.
Speed	High subsonic
Payload	More than 40,000 lb. (18,144 kg)
Ceiling	50,000 ft. (15,240 m)

ACQUISITION STATUS

Program Status	Modernization, Modification and Sustainment
Unit Assignment	Whiteman AFB, MO
Current Inventory	21
Future Upgrades	Link-16, Alternate High Frequency Material, Radar Modernization Program; Extremely High Frequency (EHF) Satellite Communications (SATCOM); and Computers

MISSION

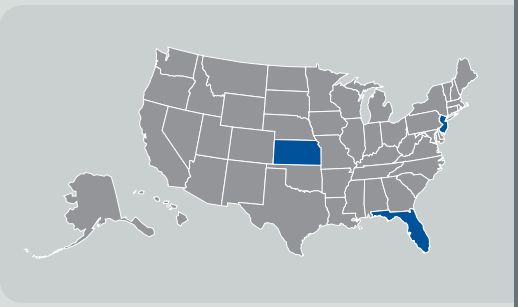
Deliver massive quantities of precision and non-precision conventional and nuclear weapons anywhere in the world at any time.

DESCRIPTION

The B-52H Stratofortress is a long-range, heavy bomber that can perform a variety of missions. For more than 40 years, B-52 Stratofortresses have been the workhorse of the manned strategic bomber force for the United States. The B-52 is capable of dropping or launching the widest array of weapons in the U.S. inventory. This includes gravity bombs, cluster bombs, precision guided missiles, and Joint Direct Attack Munition (JDAM). Updated with modern technology, the B-52 will be capable of delivering the full complement of joint developed weapons and continues into the 21st century as an important element of our nation's defenses.

CONTRACTORS

Prime: Airframe - Boeing Aircraft (KS); **Engines** - Pratt & Whitney (KS)
Subcontractor(s): Electronic Counter Measures Improvement (ECMI) - ITT Industries (NJ); **Avionics Midlife Improvement (AMI)** - Honeywell (FL)



SPECIFICATIONS

Weight	Approximately 185,000 lb. empty
Range	Intercontintental (unrefueled)
Armament	One weapons bay and two external pylons, capable of employing conventional and nuclear weapons from the bay and pylons (J-series from pylons only). Unguided weapons include 45 Mk-82 (500-lb.) or 12 Mk-84 (2,000-lb.) general-purpose bombs; Mk-62, Mk-63, and Mk 65 mines; 24 CBU-87/89 cluster munitions or 16 CBU-103/104/105 wind corrected equivalents. Precision weapons include 12 GBU-31 (2,000-lb.) JDAMs or 12 AGM-154 Joint Standoff Weapons (JSOW) or 20 AGM-86 C/D Conventional Air Launched Cruise Missiles (ALCM) or 12 AGM-158 Joint Air-to-Surface Standoff Missiles (JASSM) or 10 GBU-10 (2000-lb.) laser guided bombs (LGB) or 13 GBU-12 (500-lb.) LGBs. Initial capability for 12 GBU-38 (500-lb) JDAM in March 2005. Nuclear weapons include 20 AGM-86B ALCM or 12 AGM-129 Advanced Cruise Missiles or 8 B-61/B-83 nuclear gravity bombs.
Dimensions	Length: 159 ft., 4 in.; Height: 40 ft., 8 in.; Wingspan: 185 ft.
Service Ceiling	50,000 ft.
Speed	650 mph (Mach 0.86)
Crew Capacity	Five (aircraft commander, pilot, radar navigator, navigator, and electronic warfare officer)

ACQUISITION STATUS

Program Status	Modernization, Modification and Sustainment
Unit Assignment	Minot AFB, ND; Barksdale AFB, LA
Current Inventory	76
Future Upgrades	Conventional Modifications; Combat Network Communications Technology (CoNECT)—Satellite and secure wideband high data rate communication datalink; Advanced Targeting Pods—Litening AT pod capability; Avionics Midlife Improvement—inertial navigation, aircraft computer and data transfer unit upgrades; Miniature Air Launched Decoy (MALD)

MISSION

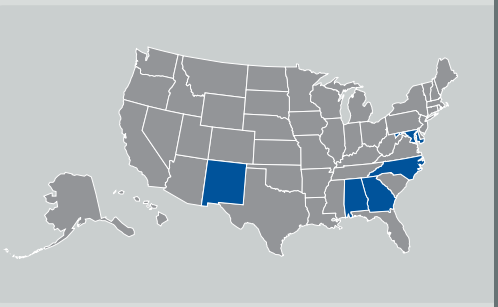
Provide strategic inter-theater airlift in support of U.S. national defense.

DESCRIPTION

The C-5 Galaxy provides the Air Mobility Command (AMC) with inter-theater airlift in support of U.S. national defense. The C-5 Galaxy and the C-17 Globemaster are partners in AMC's strategic airlift concept. The C-5 Galaxy is one of the largest aircraft in the world. It can carry outsize and oversize cargo over intercontinental ranges and can take off or land within relatively short distances.

CONTRACTORS

Prime: Lockheed Martin (GA)
Subcontractor(s): **Avionics Modernization Program (AMP)**
- Honeywell (NM); ARINC (MD);
Reliability Enhancement and Re-Engining Program (RERP)
- General Electric (NC); Goodrich (AL)



SPECIFICATIONS

Weight	769,000 lb. peacetime; 840,000 lb. wartime
Range	Unlimited with in-flight refueling
Dimensions	Wingspan: 222.9 ft.; Height: 65.1 ft.; Length: 247.1 ft.
Service Ceiling	45,000 ft.
Payload	Up to 36 pallets (270,000 lb.)
Speed	518 mph (450 knots)
Passenger Capacity	73

ACQUISITION STATUS

Program Status	Sustainment/upgrade
Unit Assignment	Active: 8 C-5A, 36 C-5B, 2 C-5C and 3 C-5M; Travis AFB CA; Altus AFB, OK; Dover AFB, DE; Air Force Reserve (AFRES): 32 C-5A, 11 C-5B; Lackland AFB, TX; Westover ARB, MA; Wright-Patterson AFB, OH Air National Guard (ANG): 19 C-5A; Memphis, TN; Stewart ANG Base, NY; Martinsburg, WV scheduled for C-5 activation in FY08
Current Inventory	111
Future Upgrades	Large Aircraft Infrared Countermeasures (LAIRCM)

C-9C

MISSION

Provide operational support airlift for high priority passengers and cargo.

DESCRIPTION

The C-9C is the military variant of the DC-9-32, equipped with robust passenger communications and data transfer capabilities. The plane features an executive suite and first-class style seating for up to 42 passengers.

CONTRACTORS

Prime: **Airframe Depot** - Lockheed Martin (SC); **Engine Depot** - Aero-Thrust (FL)

SPECIFICATIONS

Weight	110,000 lb.
Range	2,100 nautical miles (NM)
Dimensions	Wingspan: 93 ft.; Length: 119 ft.; Height: 27 ft.
Service Ceiling	37,000 ft.
Speed	520 mph (Mach 0.80)
Passenger Capacity	42 passengers

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Scott AFB, IL
Current Inventory	3

MISSION

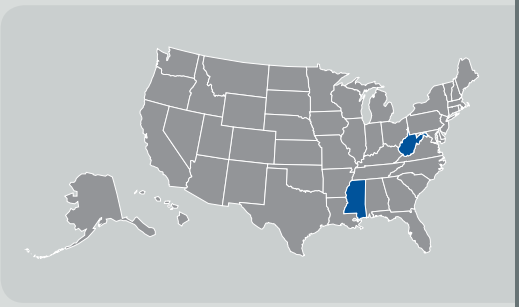
Provide cargo and passenger airlift for operational support airlift and embassy support missions; support test operations at Edwards and Holloman Air Force Bases.

DESCRIPTION

The C-12C/D/F/J is a military variant of the Beech Super King Air 200 (C/D/F) and 1900 (J) with specialized mission equipment.

CONTRACTORS

Prime: Airframe - L-3 Communications/Vertex Aerospace (MS)
Subcontractor(s): Engines Propulsion - Pratt & Whitney (WV)



SPECIFICATIONS

Weight	12,500 lb. (J-model = 16,600 lb.)
Range	1,700 nautical miles (NM) (J-model = 1,500 NM)
Dimensions	Wingspan: 55 ft.; Length: 44 ft. (J-model = 58 ft.); Height: 15 ft.
Service Ceiling	31,000 ft. (J-model = 25,000 ft.)
Speed	300 to 340 mph depending on model
Passenger Capacity	Eight passengers (J-model = 19 passengers)

ACQUISITION STATUS

Program Status	Sustainment; delivery completed in December 1987
Unit Assignment	Osan AB, Korea; Elmendorf AFB, AK; Edwards AFB, CA; Holloman AFB, NM; Andrews AFB, MD; Embassy sites worldwide
Current Inventory	28
Future Upgrades	Electronic Flight Information System (Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) and Navigation Safety)

MISSION

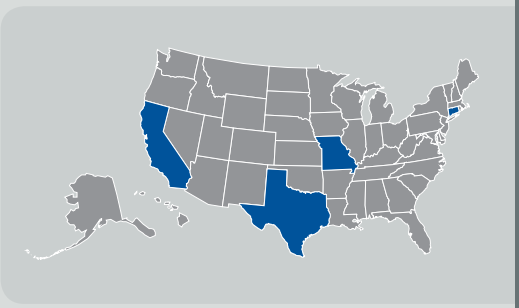
Provide rapid strategic delivery of troops and all types of cargo to main operating bases or directly to forward bases in the deployment area.

DESCRIPTION

The C-17 Globemaster III is the newest, most flexible cargo aircraft to enter the airlift force. It is capable of performing tactical airlift and airdrop missions when required. The inherent flexibility and performance of the C-17 force improve the ability of the total airlift system to fulfill the worldwide air mobility requirements of the United States.

CONTRACTORS

Prime: Airframe - Boeing (CA, MO); **Engines** - Pratt & Whitney (CT)
Subcontractor(s): Major Airframe Components - Vought Aircraft Industries (TX)



SPECIFICATIONS

Weight	585,000 lb.
Range	Unlimited with in-flight refueling
Dimensions	Wingspan: 169 ft. 10 in.; Height: 55 ft. 1 in.; Length: 174 ft.
Service Ceiling	45,000 ft.; 450 knots at 28,000 ft. (Mach .74)
Speed	Mach 0.74
Payload	164,900 lb. (18 pallets)
Passenger Capacity	102 troops/paratroops or 48 litters and 54 ambulatory attendants

ACQUISITION STATUS

Program Status	Production; 15 per year; projected inventory - 190
Unit Assignment	Air Force Reserve (AFRES): March AFB , CA; Air National Guard (ANG): Jackson, MS; Active: McChord AFB,WA; Travis AFB, CA; Edwards AFB, CA; Elmendorf AFB,AK; Hickam AFB, HI; Altus AFB, OK; Charleston AFB, SC; Dover AFB, DE; McGuire AFB, NJ
Current Inventory	159
Future Upgrades	Modifications

MISSION

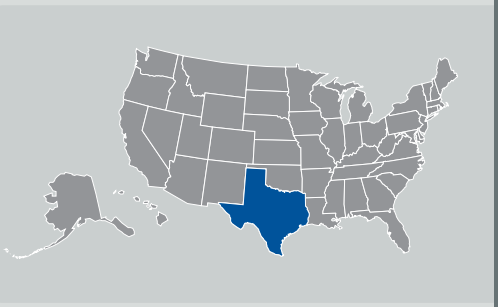
Provide worldwide air transportation for the vice president, cabinet, and congressional members, and other high-ranking U.S. and foreign officials; provide air transportation supporting U.S. European Command (USEUCOM) operational requirements.

DESCRIPTION

The C-20B/H is the military variant of the Gulfstream III (C-20B) and Gulfstream IV (C-20H) equipped with passenger communications and data transfer systems.

CONTRACTORS

Prime: Airframe - M7 Aerospace (TX)
Subcontractor(s): Engines - Rolls Royce (TX); Dallas Airmotive (TX)



SPECIFICATIONS

Weight	C-20B: 69,700 lb.; C-20H: 74,600 lb.
Range	C-20B: 2,700 nautical miles (NM); C-20H: 3,375 NM
Dimensions	Wingspan (B,H): 78 ft./78 ft.; Length (B,H): 83 ft./88 ft.; Height (B,H): 25 ft./25 ft.
Service Ceiling	45,000 ft.
Speed	530 mph (Mach 0.80)
Passenger Capacity	12 passengers

ACQUISITION STATUS

Program Status	Sustainment; delivery completed in 1987 (C-20B) and 1996 (C-20H)
Unit Assignment	Andrews AFB, MD; Ramstein AB, Germany
Current Inventory	Five (5) C-20B; two (2) C-20H
Future Upgrades	Mission Communication/Data Systems

MISSION

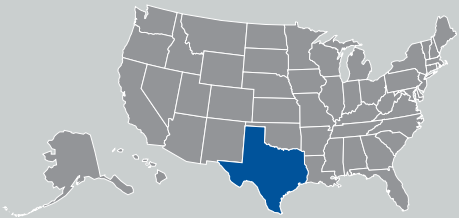
Provide high-priority cargo and passenger airlift in support of Combatant Commander operational requirements; enable medical evacuations.

DESCRIPTION

The C-21 is the military version of the Lear Jet 35A business jet. It provides cargo and passenger airlift and can be configured to transport litters for medical evacuations.

CONTRACTORS

Prime: Airframe - Computer Sciences Corp./APD (TX);
Engines - Dallas Airmotive (TX)



SPECIFICATIONS

Weight	18,300 lb.
Range	2,300 nautical miles (NM)
Dimensions	Wingspan: 39 ft.; Length: 48 ft.; Height: 12 ft.
Service Ceiling	45,000 ft.
Speed	530 mph (Mach 0.81)
Passenger Capacity	8 passengers and 42 cubic feet of cargo

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Andrews AFB, MD; Wright-Patterson AFB, OH; Scott AFB, IL; Peterson AFB, CO; Keesler AFB, MS; Ramstein AB, Germany; Yokota AB, Japan
Current Inventory	76
Future Upgrades	None

MISSION

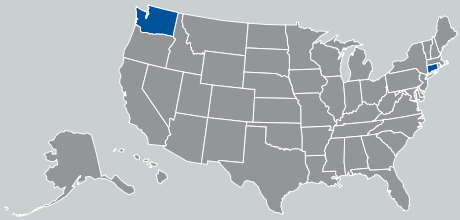
Provides worldwide air transportation for the president, vice president, cabinet members, congressional delegations, and other senior U.S. and foreign officials.

DESCRIPTION

C-32A is the military variant of the commercial Boeing 757-200 with interior furnishings and electronic equipment to accommodate senior government officials. The cabin is equipped with robust passenger communications and data transfer systems and an executive suite.

CONTRACTORS

Prime: Airframe - Boeing (WA)
Subcontractor(s): Engines - Pratt & Whitney (CT)



SPECIFICATIONS

Weight	255,000 lb.
Range	3,800 nautical miles (NM)
Dimensions	Wingspan: 125 ft.; Length: 155 ft.; Height: 44.5 ft.
Service Ceiling	41,000 ft.
Speed	530 mph (Mach 0.8)
Passenger Capacity	46 passengers

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	89th Air Wing, Andrews AFB (MD)
Current Inventory	4
Future Upgrades	Mission Communication/Data System; Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM)

MISSION

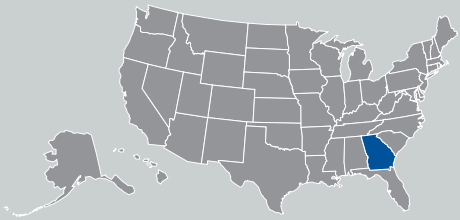
Provide worldwide air transportation for the vice president, White House staff, cabinet members, members of Congress, Combatant Commanders (COCOM) and other senior U.S. and foreign officials.

DESCRIPTION

The C-37A is a military variant of the commercial Gulfstream V jet, equipped with robust passenger communications and data systems.

CONTRACTORS

Prime: Airframe - Gulfstream (GA)
Subcontractor(s): Engines - Rolls Royce (GA)



SPECIFICATIONS

Weight	90,500 lb.
Range	5,300 nautical miles (NM)
Dimensions	Wingspan: 93.5 ft.; Length: 96.5 ft.; Height: 26 ft.
Service Ceiling	51,000 ft.
Speed	530 mph (Mach 0.8)
Passenger Capacity	14

ACQUISITION STATUS

Program Status	Sustainment; delivery completed 1QFY03
Unit Assignment	Andrews AFB, MD (VIP Special Airlift Mission); MacDill AFB, FL (COCOM); Hickam AFB, HI (COCOM); Chievres Air Base, Belgium (COCOM)
Current Inventory	Nine
Future Upgrades	Communication Systems

MISSION

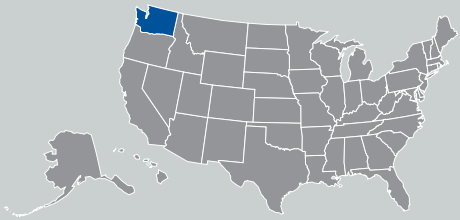
Provide worldwide air transportation for U.S. leaders and Combatant Commanders (COCOM).

DESCRIPTION

The C-40B/C is a military variant of the commercial Boeing 737 business jet, equipped with robust communications and data transfer systems (C-40B only). It provides air transportation for U.S. leaders, including COCOMs. Customers include the vice president, the first lady, cabinet members, and members of Congress. The C-40C is also capable of variable configurations for accommodating from 34 to 68 passengers, depending on mission requirements.

CONTRACTORS

Prime: **Airframe** - Boeing (WA)
Subcontractor(s) - **Engines** - CFM International (WA)



SPECIFICATIONS

Weight	171,000 lb.
Range	C-40B: 4750 nautical miles (NM); C-40C: 4,628 NM
Dimensions	Wingspan: 112 ft.; Length: 117 ft.; Height: 41 ft.
Service Ceiling	41,000 ft.
Speed	530 mph (Mach 0.8)
Passenger Capacity	C-40B: 26 passengers and 11 crew; C-40C: up to 68 passengers and 11 crew

ACQUISITION STATUS

Program Status	Procurement; three additional C-40Cs have been purchased for delivery to Scott AFB, IL during FY07/08; AF expects to complete delivery in FY08
Unit Assignment	89th Air Wing, Andrews AFB, MD; 15th Air Base Wing, Hickam AFB, HI; 86th Air Wing, Ramstein AB, Germany; 201st Airlift Squadron, DC Air National Guard, Andrews AFB, MD; 932nd Air Wing, Scott AFB, IL
Current Inventory	7 (10 projected)
Future Upgrades	Self Defense Systems for COCOM aircraft

MISSION

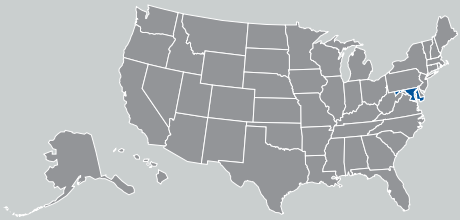
Provide airlift and transport for air-dropping troops and equipment into hostile areas.

DESCRIPTION

The C-130 Hercules operates throughout the U.S. Air Force, serving with Air Mobility Command (stateside based), Air Force Special Operations Command, theater commands, the Air National Guard, and the Air Force Reserve Command, fulfilling a wide range of operational missions in both peace and wartime situations. Basic and specialized versions of the aircraft perform a diverse number of roles, including airlift support, Antarctic resupply, aeromedical missions, weather reconnaissance, aerial spray missions, fire-fighting duties for the U.S. Forest Service, and natural disaster relief missions.

CONTRACTORS

Prime: Lockheed Martin Aeronautics Company (MD)



SPECIFICATIONS

Weight	C-130E/H: 155,000 lb. (69,750 kg)
Range	Range at Maximum Normal Payload - C-130H: 1,208 mi. (1,050 nautical miles (NM)); C-130E: 1,150 mi. (1,000 NM) Range with 35,000 lb. of payload - C-130H: 1,496 mi. (1,300 NM); C-130E: 1,438 mi. (1,250 NM)
Dimensions	Length: 97 ft., 9 in. (29.3 m); Height: 38 ft., 10 in. (11.9 m); Wingspan: 132 ft., 7 in. (39.7 m)
Service Ceiling	C-130H: 23,000 ft. (7,077 m) with 42,000 lb. (19,090 kg) payload; C-130E: 19,000 ft. (5,846 m) with 42,000 lb. (19,090 kg) payload
Payload	C-130E, 42,000 lb. (19,090 kg); C-130H, 42,000 lb. (19,090 kg)
Speed	C-130E: 345 mph/300 ktas (Mach 0.49) at 20,000 ft. (6,060 m); C-130H: 366 mph/318 ktas (Mach 0.52) at 20,000 ft. (6,060 m)
Passenger Capacity	92 combat troops or 64 paratroopers

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Air Force Reserve (AFRES): Peterson AFB, CO; Minn-St Paul, MN; Youngstown, OH; Niagara, NY; Pope AFB, NC; Dobbins AFB, GA; Maxwell AFB, AL Air National Guard (ANG): Cheyenne, WY; Rosencrans, MO; Peoria, IL; Minn-St Paul, MN; Selfridge, MI; Schenectady, NY; New Castle, DE; Yaeger, WV; Charlotte, NC; Luis Munoz Marin IAP, PR; Savannah, GA; Louisville, KY; Nashville, TN; Little Rock AFB, AR; Carswell, TX; Will Rogers, OK; Elmendorf AFB, AK; Reno, NV; Boise, ID Active: Pope AFB, NC; Little Rock AFB, AR; Dyess AFB, TX; Elmendorf AFB, AK
Current Inventory	Active force, 186; Air National Guard, 222; Air Force Reserve, 106
Future Upgrades	Avionics Modernization Program (AMP), Large Aircraft Infrared Countermeasures (LAIRCM), Center Wing Box (CWB) Replacement, Enhanced Terrain Collision Avoidance System (ETCAS), APN-241 Weather Radar

MISSION

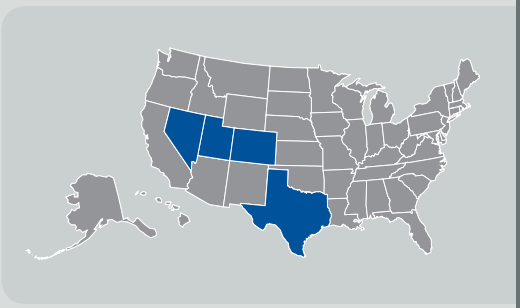
Deliver near-real-time Intelligence, Surveillance, and Reconnaissance (ISR) information to locate and track enemy forces.

DESCRIPTION

The SENIOR SCOUT is a radio signal monitoring sensor package carried by a C-130H. The SENIOR SCOUT offers a low-cost, small-footprint, quick-reaction collection capability to theater commanders and can also satisfy national-level information requirements. It is contained in a shelter mounted on pallets and configured for installation on any C-130H/H1/H2 aircraft. The crew complement includes several Signals Intelligence (SIGINT) operators to locate and track targets. The SENIOR SCOUT was recently cited for ISR excellence for operations in direct support of the 22nd Marine Expeditionary Unit (USMC) in Operation Enduring Freedom in June 2004.

CONTRACTORS

Prime: Lockheed Martin Integrated Systems and Solutions (CO)
Subcontractor(s): Sierra Nevada Corporation (Plano Microwave, Inc.) (NV, TX, UT); L-3 Communications (TX)



SPECIFICATIONS

Size	Pallet Size: Three pallet sizes or approximately equal to an 18-ft. semi bed
Weight	Gross max takeoff weight 155,000 lb. Each SENIOR SCOUT shelter weighs approximately 24,500 lb.
Range	Collection range between 250–400 miles, dependent upon target, terrain, and altitude. Mission length: 7 (un-refueled)–13 (refueled) hours
Dimensions	Wingspan: 132 ft.; Length: 100 ft.; Height: 38 ft.
Interoperability	NABRE, LINK 16, JTIDS, TADIL-A, TIBS, SENSOR PACER
Compatibility	Any C-130 H/H1/H2 (all services)

ACQUISITION STATUS

Program Status	Modification and sustainment
Unit Assignment	169th Intelligence Squadron (ACC); Utah Air National Guard, Salt Lake City
Current Inventory	Three systems (capsules)

C-130H SCATHE VIEW

MISSION

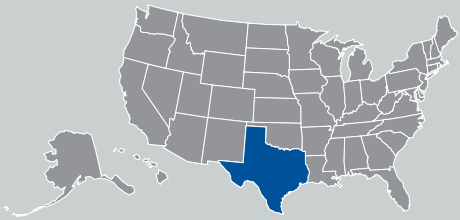
Provide unobtrusive, long-range, long-loiter collection capability in a permissive environment.

DESCRIPTION

Scathe View is composed of a high-endurance, adverse weather-operable, specially modified C-130H aircraft; a roll-on/roll-off sensor control and communications pallet operated by two on-board airborne imagery analysts; and the Wescam MX-15 "pentasensor," a day or night capable imagery sensor with a laser range finder and a laser illuminator. The Scathe View disseminates intelligence data and information directly to ground forces in real time via on-board voice and data communications suites. Employed with the Remote Operations Video Enhanced Receiver (ROVER) system, it can provide still-frame and full-motion video imagery downlink to receiver equipped ground units, complemented by real-time voice communications to the ground. Programmed Tactical Common Data Link and beyond line of sight data communication upgrades will allow for high-quality imagery transmission to ground exploitation units in theater and for worldwide dissemination, respectively. Scathe View and its National Guard crews have been an essential component of search and rescue, aerial mapping and Humanitarian Relief Operations (HUMRO) during post-Hurricane Katrina operations.

CONTRACTORS

Prime: ATK Mission Research Integrated Systems (TX)



SPECIFICATIONS

Weight	920 lb.
Range	Range is same as C-130H: Maximum Normal Payload - 1,208 mi. (1,050 nautical miles (NM)) With 35,000 lb. of payload - C-130H: 1,496 mi. (1,300 NM)
Coverage	Full Motion Video

ACQUISITION STATUS

Program Status	Modification and sustainment
Current Inventory	8 modified ANG C-130H aircraft, 152nd Airlift Wing (AMC); Scathe View system, 152nd intelligence Squadron (ACC), Reno ANG Base (NV)
Unit Assignment	C-130H aircraft, 152nd Airlift Wing (AMC); Scathe View system, 152nd intelligence Squadron (ACC), Reno ANG Base (NV)
Future Upgrades	Upgrading sensors to latest generation full motion video sensor (MX-15); Beyond Line of Sight Capability, allowing passing of data to intermediate higher headquarters and world-wide users.

MISSION

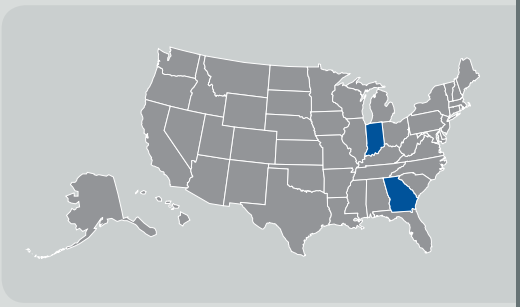
Provide immediate movement of combat troops and supplies within theaters of operation, as well as weather reconnaissance and psychological operations capabilities.

DESCRIPTION

The C-130 operates throughout the U.S. Air Force, serving with Air Education and Training Command, Air Force Special Operations Command, Air National Guard, and the Air Force Reserve Command, fulfilling a wide range of operational missions in both peace and war situations. Basic and specialized versions of the aircraft airframe perform a diverse number of roles, including airlift support, aeromedical missions, weather reconnaissance, and natural disaster relief missions. The WC-130J version provides weather reconnaissance and the EC-130J version provides psychological operations capabilities.

CONTRACTORS

Prime: Lockheed Martin (GA)
Subcontractor(s): **Engine** - Rolls Royce (IN); **Engine Subsystem** - GKN Aerospace (UK); **Propellers and Avionics** - Smith Aerospace (U.S. and UK)



SPECIFICATIONS

Weight	164,000 lb.		
Range	3,600 nautical miles (NM), Global with in-flight refueling (EC-130J)		
Dimensions	C-130J (Short): Wingspan - 132.6 ft.; Length - 97.8 ft.; Height - 38.8 ft. C-130J: Wingspan -132.6 ft.; Length - 112.8 ft.; Height - 38.8 ft.		
Service Ceiling	33,000 ft.		
Speed	342 knots		
Payload/Passenger Capacity	**Load Comparisons**	**C-130E/H/J (Short)**	**C-130J**
	Payload	42,000 lb.	47,000 lb.
	Cargo Floor Length	40 ft.	55 ft.
	463L Pallets	6	8
	Medical Litters	74	97
	CDS Bundles	16	24
	Combat Troops	92	128
	Paratroopers	64	92

ACQUISITION STATUS

Program Status	Full Rate Production through 2008; Projected inventory - 82; FY03 multi-year contract will deliver 42 C-130Js, FY05–FY09. FY06 GWOT Supplemental added 3 C-130Js AMC will receive its first C-130J in FY07 while USAFE receives its first C-130J in FY09
Unit Assignment	Keesler AFB, MS; Baltimore, MD; Harrisburg, PA; Quonset, RI; Channel Islands, CA; Little Rock, AR
Current Inventory	53 fielded (26 C-130J, 10 C-130J (Short), 10 WC-130J, and 7 EC-130J)
Future Upgrades	Communication, Navigation & Safety/Air Traffic Management (CNS/ATM) requirements will be achieved through Block Upgrade Program

MISSION

Provide penetration, fragmentation, and incendiary effects for dispersed light armor and personnel targets.

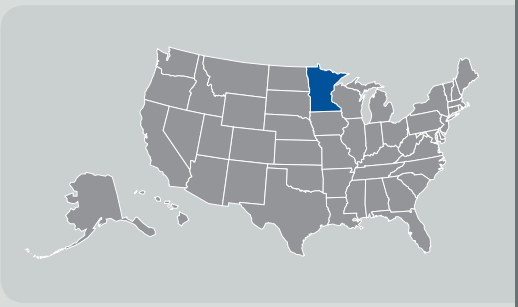
DESCRIPTION

The Cluster Bomb Unit (CBU)-87 Combined Effects Munition (CEM) is a multi-purpose cluster weapon (penetration, fragmentation, incendiary effects) for dispersed light armor and personnel targets. After release from the aircraft, and at pre-determined flight parameters, the CBU-87 dispenses 202 BLU-97 bomblets (3-lb. multi-purpose submunitions) over the target area in a circular pattern (pattern characteristics are determined by dispense conditions and winds). The CBU-87 improves combat efficiency. Using the CBU-87 (and area attack weapons in general) decreases the time required to destroy necessary targets in a campaign, decreases the number of sorties required, keeps aircrews out of harm's way, and decreases the number of weapons required to accomplish the mission. The CBU-103 combines the CBU-87 and the Wind Corrected Munitions Dispenser (WCMD) tail kit which inertially steers the munition from a known release point to precise target coordinates while compensating for launch transients, winds aloft, surface winds, and adverse weather.

CBU-87/103 COMBINED EFFECTS MUNITION (CEM)

CONTRACTORS

Prime: Aero General/Honeywell (MN); Alliant Tech (MN)



SPECIFICATIONS

Weight	~950 lb.
Range	Two CEM configurations: CBU-87 (static tail): ballistic trajectory; CBU-103 (Wind Corrected Munition Dispenser (WCMD) tail): 10 nautical miles (NM)
Armament	Contains 202 BLU-97 (3-lb.) combined effects bomblets (shaped charge/fragmentation/incendiary)
Dimensions	Length: 92 in.; Diameter: 15.6 in.
Coverage	Coverage area (submunition pattern size) depends on many factors, but the pattern is typically circular with a diameter of about 200 ft.
Compatability	The following aircraft can employ the CEM: CBU-87; F-16, F-15E, F-117A, A-10, B-52, B-1B, B-2; CBU-103; F-16, F-15E, B-52, B-1B

ACQUISITION STATUS

Program Status	No longer in production
Current Inventory	CBU-87 approximately 87,000; CBU-103 approx 19,800
Future Upgrades	None

MISSION

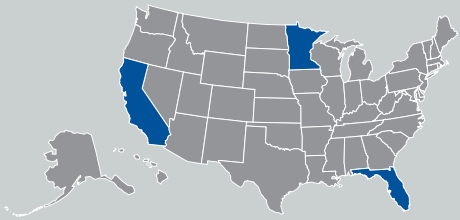
Provide a cluster bomb weapon containing anti-personnel and anti-armor bomblets for area denial missions.

DESCRIPTION

The Cluster Bomb Unit (CBU)-89 GATOR is a cluster weapon that contains anti-personnel and anti-armor bomblets. It is designed for area denial missions. The CBU-89 GATOR dispenses 72 BLU-91 anti-tank bomblets and 22 BLU-92 anti-personnel bomblets over the target area in a circular pattern (pattern characteristics are determined by dispense conditions and winds). The CBU-89 improves combat efficiency. Using CBU-89 (and area attack weapons in general) decreases the time required to destroy necessary targets in a campaign, reduces the number of sorties required, keeps aircrews out of harm's way, and decreases the number of weapons required to accomplish the mission. The CBU-89 contains a self destruct mechanism which can be set for three different time delays. The CBU-104 combines the CBU-89 and the Wind Corrected Munitions Dispenser (WCMD) tail kit which inertially steers the munition from a known release point to precise target coordinates while compensating for launch transients, winds aloft, surface winds, and adverse weather.

CONTRACTORS

Prime: Honeywell (MN); Aerojet (CA); General Dynamics (FL); Alliant Tech (MN)



SPECIFICATIONS

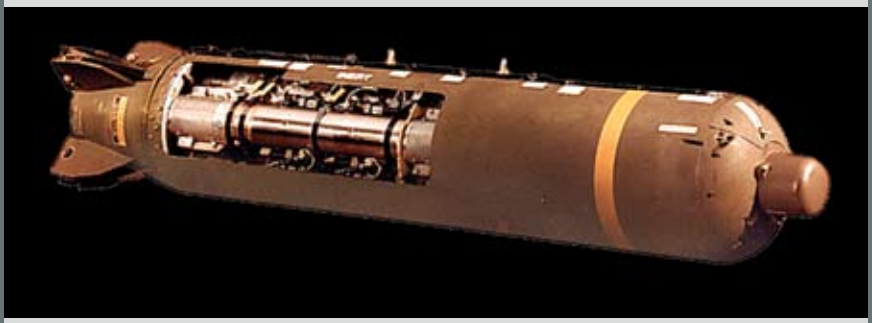
Weight	Approximately 705 lb.
Range	Gator configurations: CBU-89 (static tail): ballistic trajectory; CBU-104 (Wind Corrected Munition Dispenser (WCMD) tail): 10 nautical miles (NM)
Armament	Contains 72 BLU-91 anti-armor bomblets (4.31 lb. each) and 22 BLU-92 anti-personnel bomblets (3.75 lb. each)
Dimensions	Length: 92 in.; Diameter: 15.6 in.
Coverage	Coverage area (submunition pattern size) depends on many factors, but the pattern is typically circular with a diameter of about 200 feet.
Compatability	The following aircraft can employ the Gator: CBU-89: F-16, F-15E, F-117A, A-10, B-52, B-1B, B-2; CBU-104: F-16, F-15E, B-52, B-1B

ACQUISITION STATUS

Program Status	No longer in production
Current Inventory	CBU-89 Approx 9,900; CBU-104 Approx 100
Future Upgrades	None

MISSION

Conduct persistent surface attacks and destroy moving and fixed land combat vehicles, including main battle tanks, providing multiple kills per weapon.

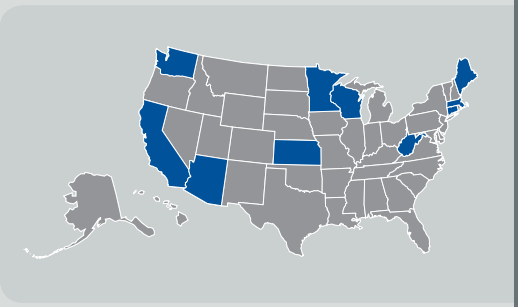


DESCRIPTION

The Cluster Bomb Unit (CBU)-97 Sensor Fused Weapon (SFW) contains 10 BLU-108 submunitions, each with four projectiles, for a total of 40 independently targeted warheads. The warheads have an active laser and passive infrared (IR) sensors. The 40 warheads search a target area up to 30 acres and fire an Explosively Formed Projectile (EFP) into the target designated by correlating the active and passive sensor signatures. The kill mechanism is an EFP copper liner formed with 2.2 lb. of PBXN-11 explosive. The explosive force forms the copper into an armor penetrating projectile accelerated to hypervelocity. The CBU-105 combines the CBU-97 and the Wind Corrected Munitions Dispenser (WCMD) tail kit which inertially steers the munition from a known release point to precise target coordinates while compensating for launch transients, winds aloft, surface winds and adverse weather.

CONTRACTORS

Prime: Textron (MA)
Subcontractor(s): Day & Zimmerman Inc (KS); Alliant Techsystems (WV, WI); General Dynamics (WA); Hi Shear (CA); Kurt Manufacturing (MN); Pacific Scientific (AZ); Pioneer Aerospace (CT); Reynard Corp (CA); Tundra Semiconductor (ME)



SPECIFICATIONS

Weight	920 lb.
Range	Two SFW configurations: CBU-97 (static tail): ballistic trajectory; CBU-105 (WCMD tail): 10 nautical miles (NM)
Armament	10 BLU-108 submunitions
Dimensions	Length: 91 in.; Diameter: 15.6 in.
Coverage	The 40 warheads scan a target area up to 30 acres (1,600 ft. x 700 ft.).
Compatability	The following aircraft can employ the SFW: CBU-97: F-16, F-15E, A-10, B-52, B-1B, B-2; CBU-105: F-16, F-15E, B-52, B-1B

ACQUISITION STATUS

Program Status	Production ends FY07
Current Inventory	CBU-97: approximately 90; CBU-105: 3,100
Future Upgrades	None

COMBATANT COMMANDERS INTEGRATED COMMAND AND CONTROL SYSTEM (CCIC2S)

MISSION

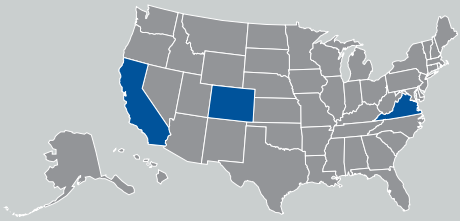
Provide fixed command and control (C2) capabilities to support NORAD'S commander in executing aerospace warning and control missions; support the USSTRATCOM commander in executing space operations, and coordinate global missile defense missions, including support to other combatant commanders.

DESCRIPTION

The Combatant Commanders Integrated Command and Control System (CCIC2S) is the operational-level C2 system for Air Force space systems. For NORAD, CCIC2S provides the capabilities to command and control NORAD regions and sectors; for USSTRATCOM, CCIC2S provides the capabilities to command and control service components. These components include: Air Force component to USSTRATCOM [JSpOC]; Naval Networks and Space Operations Command [NNSOC]; U.S. Army Space and Missile Defense Command/Army Strategic Command [SMDC/ARSTRAT]; and space wings and units in support of the space operations mission. In addition, CCIC2S capabilities support the Integrated Tactical Warning and Attack Assessment (ITW/AA) air defense and space operations situational requirements of the government of Canada, combatant commanders, governmental agencies, and international and commercial partners. The system will incorporate a standards-based approach, including Network Centric Enterprise Services. The system can be leveraged for space use. The Single Integrated Space Picture (SISP) is a project under CCIC2S and will provide command and control of space forces.

CONTRACTORS

Prime: Lockheed Martin (CO)
Subcontractor(s): Digital Net (BAE-IT) (CO); Northrop Grumman (Aerojet ATESC) (CA); Northrop Grumman-Electronic Systems (CA); Boeing (VA); Computer Science Corp. (VA)



SPECIFICATIONS

Interoperability	The system will incorporate a standards-based approach, including Network Centric Enterprise Services, consistent with the DoD Information Technology Standards Registry.
Standards Compliance	The system adheres to the Chairman Joint Chiefs of Staff (CJCS) ITW/AA standards. The space command and control section of CCIC2S is not ITW/AA required.

ACQUISITION STATUS

Program Status	Air & Missile capabilities are in sustainment and space capabilities development is being migrated to a different program.
Future Upgrades	Air & Missile capabilities are in sustainment and all space capabilities development is being migrated to a different program.

MISSION

Provide enhanced, 24-hour, assured, two-way, secure combat search and rescue satellite communication and location capabilities.

DESCRIPTION

The Combat Survivor Evader Locator (CSEL) is an Air Force-led joint program that uses precise GPS positioning and advanced anti-spoofing technologies to provide a reliable and accurate survivor location, an optimized waveform to reduce detectability, and increased probability of collection by national assets. CSEL replaces the antiquated PRC-90/-112 survivor radios with a new over-the-horizon (OTH), end-to-end system that provides assured 24-hour, two-way, secure satellite communications along with military GPS that includes anti-jamming and anti-spoofing. CSEL utilizes the international search and rescue satellite system (SARSAT) for polar-area over-the-horizon (OTH) data communications. With these new capabilities, CSEL will increase rescue force success rates in ongoing contingency operations, providing rapid and accurate location and authentication of survivor/evaders in minutes, compared to what can take days today. CSEL includes three segments: hand-held radio, OTH satellite communications, and search and rescue center computer application.

COMBAT SURVIVOR EVADER LOCATOR (CSEL)

CONTRACTORS

Prime: Boeing (CA);
Subcontractor(s): Thales Communications (MD) ; Interstate Electronics Corp. (CA); Senior Systems Technology (CA)

SPECIFICATIONS

Size	Width: 3 1/4 in.; Length: 8 in.; Depth: 1 3/4 in.
Weight	30.7 oz. with non-rechargable batteries; 33.4 oz. with rechargable batteries
Range	Global coverage
Coverage	Global
Capacity/Satellite	CSEL operates with Ultra High Frequency (UHF) satellites, UHF Follow-On (UFO) and Search and Rescue Satellite (SARSAT), and national assets.
Interoperability	Interoperable with joint radios and satellites per military and commercial standards
Compatibility	Compatible with radios, satellites, and user input/output devices per military and commercial standards

ACQUISITION STATUS

Program Status	1QFY07: Full rate production approved; CSEL fielded with Army, Navy, and Air Force
Current Inventory	CSEL has delivered 11,000 radios as of December 2006
Future Upgrades	Terminal Area Communication – Early CY08; Terminal Area Guidance – Early CY09

MISSION

Provide the Joint Forces Air Component Commander (JFACC) with the capability to conduct theater air operations including joint, U.S., and combined operations.

DESCRIPTION

The Control and Reporting Center (CRC) is the Air Force's only 24/7 persistent deployable ground battle management command and control (BMC2) platform employed at the tactical level of war. The CRC is the most forward-based link in the Joint Battle Management Command and Control (JBMC2) family of systems. It is interoperable with other JBMC2 systems and provides real-time shared situational awareness at the tactical level and common shared situational awareness at the operational level. The CRC conducts detailed air space management, air surveillance, aircraft identification, data link management, and theater air defense. The CRC provides the decision superiority that enables more agile, more lethal, and survivable joint operations. It may be employed by itself or in combination with other ground-based and airborne tactical C2 assets and supports a broad range of military operations.

CONTROL AND REPORTING CENTER (CRC)

CONTRACTORS

Prime: Thales Raytheon (CA)
Subcontracors: Sensis Group (NY); Technology Services Corp (MD)

SPECIFICATIONS

Size	Numerous configurations of trucks, tents, and computer equipment

ACQUISITION STATUS

Program Status	CRC is fielded. Replacement system, the Battle Control System – Mobile, is Post Milestone (MS) B for Spiral 3
Unit Assignment	Active: Eglin AFB, FL; Hill AFB, UT; Mountain Home AFB, ID; Spangdahlem AB, GE; Aviano AB, IT Air National Guard: Orange, CT; Savannah, GA; Gulfport, MS
Current Inventory	96 Operations Modules (OM), 41 RADARs

MISSION

Protect friendly space-related capabilities from enemy attack or interference and prevent adversaries from using their space capabilities against us.

DESCRIPTION

The Counterspace Systems program is designed to meet current and future military space control needs. It supports acquisition of both the Offensive Counterspace and Defensive Counterspace systems. A current project within this program is the Counter Communications System (CCS). This is an offensive electronic warfare system designed to disrupt adversary satellite-based communications using reversible, nondestructive means. Other projects include the Rapid Attack Identification Detection and Reporting System (RAIDRS) and Command and Control elements that are required to execute counterspace missions. RAIDRS is a defensive counterspace system designed to detect, report, identify, locate, and classify attacks against U.S. military space assets.

CONTRACTORS

Prime: CCS - Harris Corp. (FL);
Rapid Attack Identification Detection and Reporting System, first phase (Block 10) - Integral Systems, Inc. (MD)

SPECIFICATIONS

Coverage	CCS and Deployable RAIDRS elements are transportable via C-130. RAIDRS will have worldwide coverage. CCS will provide coverage within the Joint Operating Area where it is deployed.
Interoperability	Interoperable with all space control assets

ACQUISITION STATUS

Program Status	Three additional Block 10 CCS systems being procured in FY06/07. Block 20 system in pre-acquisition risk reduction. RAIDRS: Block 10 system in development. Critical Design Review (CDR) completed for 1QFY07.
Unit Assignment	CCS is assigned to the 76th Space Control Squadron, Peterson AFB, CO and the 4th Space Control Squadron, Holloman AFB, NM. RAIDRS will be assigned to the 21st Space Wing, Peterson, AFB, CO.
Current Inventory	CCS: Three Block 10 systems delivered, currently undergoing capability upgrades

MISSION

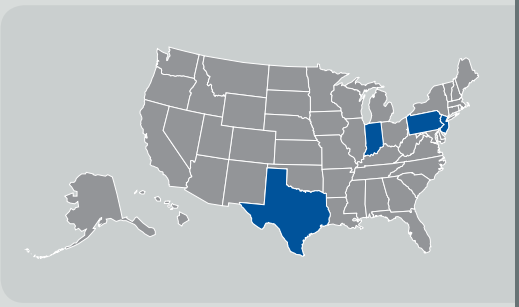
Conduct long-range, adverse weather, clandestine penetration of medium-to-high threat environments in politically or militarily denied areas to infiltrate, exfiltrate, and resupply Special Operations Forces (SOFs).

DESCRIPTION

The CV-22B is designed to insert and extract SOF units deep into denied areas during one period of darkness. The state-of-the-art, tilt-rotor platform combines the vertical takeoff and landing capability of a helicopter with the long-range, high-speed performance of a fixed-wing aircraft. The CV-22B variant of the V-22 will feature a multimode terrain-following/terrain-avoidance radar, radar and infrared warning and countermeasure systems, additional fuel tanks, and upgraded communications and navigation systems.

CONTRACTORS

Prime: Bell/Boeing (joint venture between Bell/Textron, TX, and Boeing ADS, PA)
Subcontractor(s): **Propulsion** - Rolls Royce (IN); **TF/TA Radar** - Raytheon (TX); **Electronic Warfare Suite** - ITT Avionics (NJ)



SPECIFICATIONS

Weight	Empty: 35,800 lb.; Max Vertical Takeoff: 52,600 lb.; Short Takeoff: 57,000 lb.; Self-Deploy Weight: 60,500 lb.
Range	500 nautical miles (NM) combat radius (unlimited with aerial refueling)
Dimensions	Wingspan: 45.8 ft.; Length: 57.3 ft.; Height: 22.1 ft.; Rotors tip-to-tip: 84.6 ft.
Service Ceiling	25,000 ft.
Speed	230 knots cruise
Payload	20,000 lb. internal or 10,000 lb. external with minimum fuel
Passenger Capacity	18 Special Operations Forces troops

ACQUISITION STATUS

Program Status	In September 2005, the V-22 program was approved to start full-rate production. CV-22B is undergoing Block 10 developmental testing at Edwards AFB. An Operational Utility Evaluation was completed July 2006 certifying readiness for training operations at Kirtland AFB. Block 10 Initial Operational Testing & Evaluation (IOT&E) is planned for October 2007 to certify operational readiness. The projected inventory will be 50. The Initial Operational Capability phase is planned for 2009.
Unit Assignment	71st Special Operations Squadron, Kirtland AFB, NM
Current Inventory	4
Future Upgrades	Block 20 planned for FY08 start. Upgrades will include: Emergency/Reserve Power, tactical air data link, communications upgrades, high-altitude conversion operations, Terrain Following/Terrain Avoidance (TF/TA) radar enhancement

MISSION

Provide global visible and infrared cloud cover imagery and other atmospheric, oceanographic, land surface, and space environment data to support multi-service requirements and battlespace characterization everywhere that U.S. forces operate.

DESCRIPTION

The Defense Meteorological Satellite Program (DMSP) designs, builds, launches, and maintains satellites monitoring the meteorological, oceanographic,terrestrial and solar environments. Using the DMSP data, military weather forecasters can detect developing patterns of weather and track existing weather systems over remote areas, including the presence of severe thunderstorms, dust storms, hurricanes, and typhoons. This data is vital to the effective employment of forces and weapon systems worldwide. The program includes five satellites flying in two sun-synchronous orbits. The primary weather sensor on DMSP is the Operational Linescan System, which provides continuous visual and infrared imagery of cloud cover over an area 1,600 nautical miles wide. Additional satellite sensors measure atmospheric vertical profiles of moisture and temperature, sea surface winds, and the presence of soil moisture. The DMSP satellites also measure space environment charged particles and electromagnetic fields to assess the impact of the ionosphere on ballistic-missile early warning radar systems, electrical grids, satellite operations, and long-range communications.

CONTRACTORS

Prime: **Spacecraft** - Lockheed Martin (CA); **Sensors** - Northrop Grumman (MD)
Subcontractors: **Sensor** - Northrop Grumman (CA); **Flight Software Independent Verification and Validation (IV&V)** - Integral Systems, Inc. (MD)

SPECIFICATIONS

Weight	2720.1 lb.
Range	Polar-orbiting at 450 nautical miles (NM)
Dimensions	14.1 ft. long (4.29 m) without solar panels deployed
Coverage	Full global coverage every 12 hours
Capacity/Satellite	Launched on a medium Evolved Expendable Launch Vehicle
Interoperability	Air Force Weather Agency ensures DMSP data is interoperable with a broad range of user platforms.
Compatability	Air Force Weather Agency ensures DMSP data is compatible with a broad range of user platforms.

ACQUISITION STATUS

Program Status	All DMSP satellites have been delivered , but not all DMSP satellites have launched
Unit Assignment	Operated by National Oceanic and Atmospheric Administration
Current Inventory	5 satellites
Future Upgrades	All DMSP satellites have been delivered

MISSION

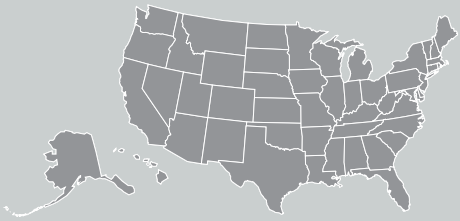
Provide super-high freqency satellite communications to troops in the field as well as commanders at multiple locations worldwide.

DESCRIPTION

The Defense Satellite Communications Systems (DSCS) is the workhorse of military satellite communications. The system provides uninterrupted secure voice and high rate data communications to DoD users for monitoring events and deploying and sustaining forces anywhere in the world. It is used for high-priority command and control communication such as the exchange of wartime information between defense officials and battlefield commanders. The military also uses DSCS to transmit space operations and early warning data to various systems and users. The system consists of nine Phase III DSCS satellites that orbit the earth at an altitude of more than 22,000 miles. Each satellite uses six super high frequency transponder channels capable of providing secure voice and high data rate communications. The system also features a single-channel transponder for disseminating emergency action and force direction messages to nuclear-capable forces. The single steerable dish antenna provides an increased power spot beam which can be tailored to suit the needs of different size user terminals. DSCS satellites can resist jamming and consistently exceed their 10-year design life. DSCS users operate on the ground, at sea, or in the air. Members of the 50th Space Wing's 3rd Space Operations Squadron at Schriever Air Force Base, CO, provide satellite command and control support for all DSCS satellites.

CONTRACTORS

Prime: Lockheed Martin Missiles and Space (global)



SPECIFICATIONS

Weight	2,716 lb. (1,232 kg)
Range	Capability to orbit the earth at an altitude of more than 22,000 miles
Dimensions	Length: 6 ft. (1.8 m); Height: 6 ft. (1.8 m); Width: 7 ft. (2.1 m); 38-ft. span (11.5 m) with solar arrays deployed
Coverage	65° N to 65° S
Capacity/Satellite	Five satellite (primary) constellation in geosynchronous orbit, with four residual satellites

ACQUISITION STATUS

Program Status	Complete
Unit Assignment	3 Space Operations Squadrons (SOPS)
Current Inventory	5 Primary Satellites, 4 Residual Satellites
Future Upgrades	None

MISSION

Provide early detection and warning of missile launches and nuclear explosions to National Command Authorities and operational commands. The satellite constellation has been the cornerstone of North America's early warning system for more than 30 years.

DESCRIPTION

DSP satellites orbit the earth about 35,780 kilometers over the equator in geosynchronous orbits. They use infrared sensors to detect heat from missile and booster plumes against the earth's background.

Typically, DSP satellites were launched into geosynchronous earth orbit on a Titan IV booster and inertial upper stage combination. However, one DSP satellite was launched using the space shuttle on mission STS-44 (Nov. 24, 1991). The next and final DSP satellite is scheduled for launch on the new Evolved Expendable Launch Vehicle Delta IV, Heavy in FY07.

CONTRACTORS

Prime: Northrop Grumman (CA)

SPECIFICATIONS

Weight	5,250 lb. (2,386 kg)
Dimensions	Height: 32.8 ft. (10 m) on orbit; Diameter: 22 ft. (6.7 m) on orbit
Coverage	Continuous global coverage
Interoperability	Interoperable with Cheyenne Mountain Operations Center and other strategic users

ACQUISITION STATUS

Program Status	The Defense Support Program (DSP) has completed production. One satellite, DSP-23, is awaiting launch.
Unit Assignment	The 460th Space Wing, with headquarters at Buckley Air Force Base, CO, has units that operate DSP satellites and report warning information, via communications links, to the North American Aerospace Defense Command/U.S. Northern Command and U.S. Strategic Command early warning centers within Cheyenne Mountain, located near Colorado Springs, CO. These centers immediately forward data to various agencies and areas of operations around the world.

MISSION

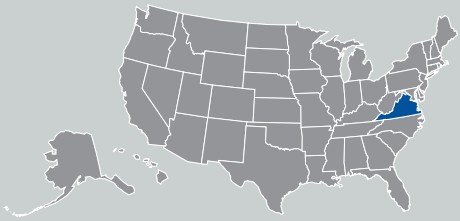
Present, plan, source, mobilize, deploy, account for, sustain, redeploy, and reconstitute forces for contingency and crisis operations. Annually deploys over 69,000 Airmen to 64 countries. Real-time collaborative tool/environment providing accurate deliberate and crisis action planning.

DESCRIPTION

Deliberate Crisis and Action Planning and Execution Segments (DCAPES) is being developed as the next-generation Air Force interface to the Joint Operational Planning and Execution System (JOPES). It is intended to tightly synchronize data across a range of Air Force and Joint planning support systems to provide a more effective crisis action planning capability for a wider range of operational scenarios and will fully support the force provider function of the Air Forces (AFFOR) Commander. DCAPES provides a real time, two-way interchange of personnel, manpower, logistics, and operational data between the Air Force and the warfighting Combatant Commanders. It matches people, cargo, and airframes/weapon systems to the Combatant Commander's warfighting requirements.

CONTRACTORS

Prime: Computer Sciences Corp Federal Sector Defense Group (VA)
Subcontracor: **Tier II Helpdesk Support** – SAIC (VA)

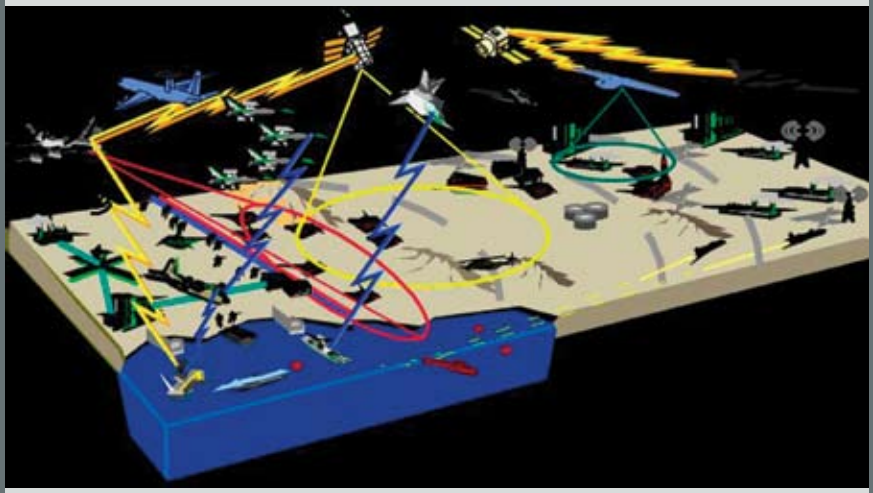


ACQUISITION STATUS

Program Status	Evolutionary acquisition strategy; incremental spiral development with multiple software releases to accommodate refinement and prioritization of user requirements, and improve adaptability with commercial technology. Increment 2a - ACAT III – Post Milestone C; v4.0.2.0 fielded: October 2006
Unit Assignment	Increment 2 a: v4.0.3.0 – Air Force Manpower/Personnel System (base level) Deployed—legacy system retired; War and Mobilization Planning System, Unit Type Code Management Increment 2b – ACAT IAC – Milestone B/Contract Award – 1QFY09

MISSION

Provide a networked combat training and mission rehearsal capability that will develop the warfighter's individual and team skills to accomplish the complex operations and functions necessary for today's ground, air, and space operations.



DESCRIPTION

An Air Force readiness capability, interconnecting high-fidelity aircrew training devices, C2, and ISR simulators in a realistic, immersive training environment via telecommunications networks. It provides high-fidelity on-demand training at warfighter locations worldwide. DMO focuses on warfighter individual and team skills. It is based on scalable packages from operational to strategic level of war. DMO allows warfighters to train as teams while remaining at home stations, reducing Ops Tempo and travel costs. DMO will provide a fully integrated Air and Space component of the Joint National Training Capability (JNTC). It will enable joint, inter-service/agency, and Air Force exercises, experiments, wargames, RDT&E and mission rehearsal as the supporting networks and systems evolve.

CONTRACTORS

Prime: DMO Operations & Integration - Northrop Grumman (FL)

SPECIFICATIONS

Interoperability	Capable of integration with Joint and Coalition Training/Mission Rehearsal systems

ACQUISITION STATUS

Program Status	Operational
Unit Assignment	F-15C: 33rd Fighter Wing, Eglin AFB, FL; 1st Fighter Wing Langley AFB, VA; 3rd Wing, Elmendorf AFB, AK; 18th Wing, Kadena AB, Japan; 48th Fighter Wing, Lakenheath AB, England; 20th Fighter Wing, Shaw AFB, SC; 366th Fighter Wing, Mt Home AFB, ID; 35th Fighter Wing, Misawa AB, Japan; 52nd Fighter Wing Spangdahlem AB, Germany AWACS: 552nd Air Control Wing Tinker AFB, OK; 3rd Wing, Elmendorf AFB, AK; 18th Wing, Kadena AB, Japan JSTARS: 116th Air Control wing Robbins AFB, GA Rivet Joint: 55th Wing, Offutt AFB, NE Distributed Mission Operations Center (DMOC): 505th Distributed Warfare Group, Kirtland AFM, NM Distributed Training Operations Center (DTOC) ANG: 132nd Fighter Wing, Des Moines International Airport
Current Inventory	F-15C: 5 Mission Training Centers (MTCs)/18 cockpits F-16 Blk 50: 4 MTCs/14 Cockpits AWACS: 5 sites/ 70 positions JSTARS: 1 MTC /18 positions Rivet Joint: 1 MTC/17 positions Distributed Mission Operations Center Distributed Training Operations Center
Future Upgrades	F-15E, A-10, B-1, B-2, B-52, F-16 Blk 40, F-22, F-35, Air Operations Centers (AOC), Control and Reporting Centers (CRC)

MISSION

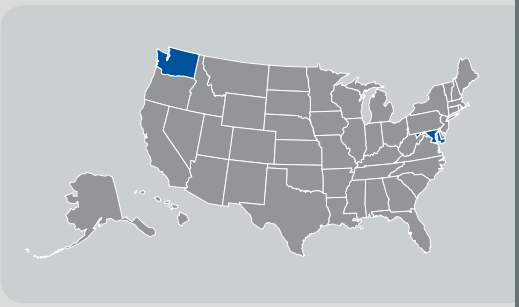
Provide all-weather surveillance, command, control, and communications needed by commanders of U.S., NATO, and other allied air defense forces.

DESCRIPTION

The E-3 Sentry Airborne Warning and Control System (AWACS) aircraft provides responsive and flexible real-time command and control/battle management in support of worldwide operational employment of U.S. and coalition forces. AWACS provides persistent and survivable surveillance, battle management, weapons control, threat warning, and combat ID information in support of commander taskings. It gives commanders a self-contained and worldwide, around-the-clock capability to prosecute air and ground campaigns. The E-3 Sentry is a modified Boeing 707/320 commercial airframe with a rotating radar dome. The radar combined with an identification friend or foe subsystem can look down to detect, identify, and track enemy and friendly low-flying aircraft by eliminating ground clutter returns that confuse other radar systems. Other major subsystems in the E-3 include navigation, communications, computers (data processing), and displays.

CONTRACTORS

Prime: Boeing Aerospace Co. (WA)
Subcontractor(s): Northrop Grumman (MD)



SPECIFICATIONS

Size	Length: 145 ft., 8 in. (44 m); Wingspan: 130 ft., 10 in. (39.7 m); Height: 41 ft., 4 in. (12.5 m)
Weight	347,000 lb. (156,150 kg)
Range	More than eight hours (unrefueled)
Coverage	The radar has a range of more than 250 miles (375.5 km) for low-flying targets and farther for aerospace vehicles flying at medium to high altitudes

ACQUISITION STATUS

Program Status	The AWACS Block 40/45 Upgrade is in the middle of System Development and Demonstration (SDD). It includes several projects aimed at reducing operator workload, providing a fused air picture to the warfighter, and transmitting that air picture off-board in a more timely manner Integrated Demand Assigned Multiple Access (DAMA) Global Air Traffic Management (GATM) (IDG) expands user availability of severely limited DoD UHF SATCOM channels through the use of DAMA and meets mandate for International Civil Aviation compliance on near-term air traffic control navigation requirements. The AWACS fleet is currently being modified with IDG
Unit Assignment	552 Air Control Wing, Tinker AFB, OK
Current Inventory	32 operational aircraft and 1 test aircraft

MISSION

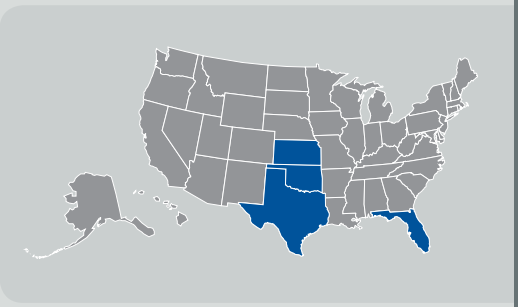
Provide a highly survivable command, control, and communications center to direct U.S. forces, execute emergency war orders, and coordinate actions by civil authorities in case of national emergency or distruction of ground command and control centers.

DESCRIPTION

The E-4B National Airborne Operation Center (NAOC) serves as the National Airborne Operation Center for the President and the Secretary of Defense. The E-4B, a militarized version of the Boeing 747-200, is a four-engine, swept-wing, long-range, high-altitude airplane capable of being refueled in flight. The main deck is divided into six functional areas; a command work area, conference room, briefing room, an operations team work area, a communications area, and rest area. An E-4B crew may include up to 114 people, including a joint-service operations team, an ACC flight crew, a maintenance and security component, a comminications team, and selected augmentees.The E-4B has electromagnetic pulse protection, nuclear and thermal shielding, and an advanced, secure, radio and satelite communications system with connectivity to strategic and tactical command and control systems.

CONTRACTORS

Prime: Boeing Wichita Development and Modernization Center (KS)
Subcontractors: Raytheon (FL); Rockwell Automation (TX); L-3 Communications (TX); Boeing Aerospace Operations (OK)



SPECIFICATIONS

Weight	Maximum Gross Taxi Weight: 803,000 lb.; Maximum Takeoff Weight: 800,000 lb.; Dry Weight: 526,500 lb.
Range	72 hours with mid-air refueling
Armament	None
Dimensions	Height: 63 ft., 5 in.; Length: 231 ft., 4 in.; Width: 195 ft., 8 in.
Coverage	Global
Capacity/Satellite	Satellite Connectivity: Defense Satellite Communications System; Milstar; MILSATCOMs; Connexions by Boeing broadband internet access; INMARSAT satellite network; AT&T SATSTAR Other Unique Connectivity: Northstar Ground Entry Point UHF Comms
Interoperability	Enables worldwide communication among strategic and tactical satellite systems and the Airborne Operations Center
Compatability	Yes

ACQUISITION STATUS

Program Status	Fielded
Unit Assignment	1st AACS, 55th Wing, Offutt AFB
Current Inventory	4 aircraft
Future Upgrades	None

MISSION

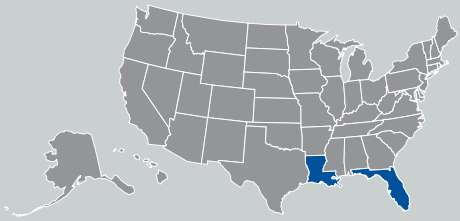
Provide surveillance of fixed and moving ground targets to assess the enemy situation and to support location, tracking, targeting, and attack operations. These functions support the primary mission of Joint STARS—to provide dedicated support to ground and air theater commanders.

DESCRIPTION

The E-8C Joint Surveillance Target Attack Radar System (Joint STARS) is an airborne battle management and command and control (C2) platform that provides long-endurance, all weather surveillance and targeting information on moving and stationary targets via Ground Moving Target Indicator (GMTI) and Synthetic Aperture Radar (SAR) technologies. It sends GMTI and SAR data to shooters and Common Ground Stations to enhance combatant commanders' battle management and situational awareness.

CONTRACTORS

Prime: Northrop Grumman (FL, LA)



SPECIFICATIONS

Weight	336,000 lb. (gross weight)
Range	8 hours, 20 hours with in-flight refueling
Dimensions	Wingspan: 130 ft., 10 in.; Height: 42 ft., 6 in.; Length: 152 ft., 11 in.
Coverage	For Official Use Only-(not releasable)
Capacity/Satellite	Three Demand Assigned Multiple Access (DAMA) SATCOM radios
Interoperability	Enables communications and datalink information sharing with various U.S., UK, and coalition assets

ACQUISITION STATUS

Program Status	Post Milestone C; Modification and sustainment
Unit Assignment	116th Air Control Wing, Robins AFB, GA
Current Inventory	17 operations aircraft, 1 test aircraft, 1 pilot trainer aircraft
Future Upgrades	Re-engining, Affordable Moving Surface Target Engagement (AMSTE), and Joint Tactical Radio System (JTRS) Phase I.

MISSION

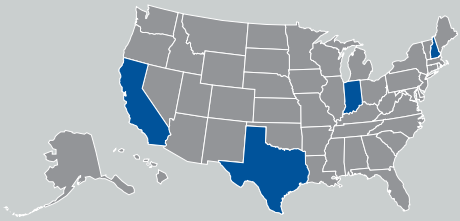
Conduct electronic attack and offensive information warfare from a stand-off jamming platform.

DESCRIPTION

The EC-130H COMPASS CALL is the DoD's premier Electronic Attack and Information Warfare weapon system COMPASS CALL's mission is to counter advanced command, control, and communication (C3) systems and conduct medium range stand-off jamming of air defense radars. Its primary role is to increase the survivability of combat aircraft and aircrews by denying effective command and control of the enemy Integrated Air Defense System (IADS), and disrupting air defense surface-to-air missile (SAM) and anti-aircraft artillery (AAA) threats. COMPASS CALL also supports ground and special operations forces by denying hostile forces and terrorists the communications and situational awareness needed to coordinate operations against U.S. and allied troops. COMPASS CALL is a core component of the Joint Airborne Electronic Attack system of systems. With the ability to be quickly modified to counter new threats and targets, this versatile platform is able to bring essential capabilities to virtually any combat operation.

CONTRACTORS

Prime: L-3 Communications (TX); BAE Systems (NH)
Subcontractor(s): Raytheon Systems Corporation (IN); General Dynamics (CA)



SPECIFICATIONS

Size	Length: 100 ft.; Wingspan: 132 ft. 7 in.; Height: 38 ft. 3 in.
Weight	Maximum takeoff weight: 155,000 lb.
Range	Unlimited (air refuelable)
Coverage	Line-of-sight

ACQUISITION STATUS

Program Status	Modification and sustainment
Unit Assignment	55th Electronic Combat Group (ACC), Davis Monthan AFB, AZ
Current Inventory	15 Total Aircraft Inventory (PAI) = 14 Primary Mission Aircraft (PMAI) and 1 flight deck trainer (PTAI)

MISSION

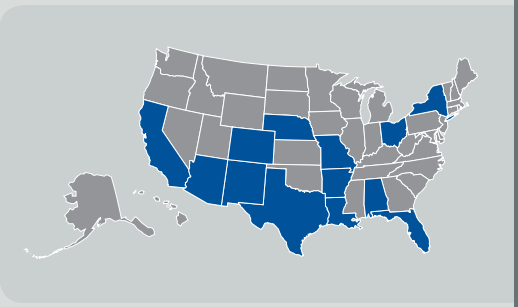
Provide military, civilian, and commercial users a significantly more flexible, less costly, medium- to heavy-lift launch capability for placing large payloads into orbit.

DESCRIPTION

The Evolved Expendable Launch Vehicle (EELV) is composed of two families of launch vehicles—the Atlas V and the Delta IV—with the capability to accommodate light, medium, and heavy payloads for all users. The EELV system includes all equipment, facilities, and launch base infrastructure necessary to launch a payload, place it in the required delivery orbit, provide specified environments, provide EELV system maintenance, and perform any necessary recovery/refurbishment operations.

EVOLVED EXPENDABLE LAUNCH VEHICLE (EELV)

CONTRACTORS



Prime: United Launch Alliance (CO, CA, AL, TX, FL)
Subcontractor(s): Pratt & Whitney (FL); Alliant Techsystems; Mitsubishi Heavy Industries (Japan); B.F.Goodrich (NM); Aerospace (CA); Allied Signal Aerospace (AZ); KAMAG (Germany); Aerojet (CA); Keystone Engineering (LA); GDE Systems (CA); Arrowhead Products (CA); La Barge (AR); Honeywell (FL); Contraves (Switzerland); NPO Enerogomash (Russia); Moog Inc. (NY); Cincinnati Electronics (OH); United Engineering Co (MO); Lincoln Composites (NE)

SPECIFICATIONS

Size	Medium, intermediate, and heavy lift vehicles
Range	All required satellite orbits
Coverage	All required space orbits
Capacity/Satellite	Pounds-to-orbit range: 2,500 lb.–48,260 lb. Range will vary depending on orbit, vehicle, and vehicle configuration.
Interoperability	Capability to launch from both coasts
Compatibility	Standard interface allows all DoD, NASA, and commercial payloads to launch on EELV.

ACQUISITION STATUS

Program Status	Program currently in full-rate production

MISSION

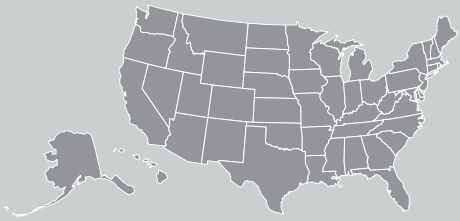
Provide better, more efficient and less expensive logistics support to warfighters.

DESCRIPTION

The Expeditionary Combat Support System (ECSS) will provide superior combat support information to Air Force and Joint users by 2012. The program will reduce the need for over 400 legacy systems while improving logistics processes within the Air Force Enterprise. The transformation will involve the use of a preferred commercial-off-the-shelf (COTS) Enterprise Resources Planning (ERP) suite and selected "bolt-on" systems, plus a Systems Integrator; overseeing the blueprinting, configuration, implementation, and roll-out of acquisition phases; and ensuring that world class technical/integration, change management, training, and program management processes and concepts are incorporated into the acquisition. ECSS will enable the Air Force to standardize processes across logistics (Transportation, Supply, and Maintenance & Repair) and other key business functions directly related to logistics (Engineering, Personnel, Acquisition and Finance), while reducing legacy systems within the Air Force Enterprise, with the goal of creating efficiencies. The Air Force logistics community is the major implementer of the ECSS ERP.

CONTRACTORS

To be determined



ACQUISITION STATUS

Program Status	Milestone A
Future Upgrades	To be determined

MISSION

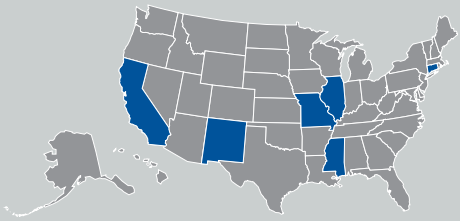
Provide all-weather, extremely maneuverable, air-to-air fighter capability designed to gain and maintain air supremacy over the battlefield and defend the homeland.

DESCRIPTION

The F-15A-D Eagle is designed to perform air-to-air missions with uncompromising performance. The Eagle's air superiority is achieved through a mixture of unprecedented maneuverability, acceleration, range, weapons, and avionics. It can outperform and outfight enemy defense, outperform and outfight any current enemy aircraft at all altitudes, day or night, and in all types of weather. The Eagle has electronic systems and weaponry to detect, acquire, track and attack enemy aircraft while operating in friendly or enemy-controlled airspace. The weapons and flight control systems are designed so one person can safely and effectively perform air-to-air combat. The F-15A-D augments the F-22A as a proven air superiority aircraft employing all of the Air Force's air-to-air missiles. F-15Cs were deployed to the Persian Gulf in 1991 in support of Operation Desert Storm where they proved their superior combat capability with a confirmed 36:0 kill ratio. F-15C fighters accounted for 36 of the 39 Air Force air-to-air victories. They have since been deployed to support Operations Southern/Northern Watch (the patrolling of the UN-sanctioned no-fly zones in Iraq), Operation Provide Comfort in Turkey (in support of NATO operations in Bosnia), Operation Enduring Freedom in Afghanistan, and Operation Iraqi Freedom. The USAF plans to keep 178 F-15C/Ds in the inventory through 2025. Modernization efforts include AESA radars, helmet mounted cueing systems, and GPS.

CONTRACTORS

Prime: Boeing Aircraft (MO)
Subcontractor(s): **Engine** - Pratt & Whitney (CT); **Radar** - Raytheon (MS, CA); **Avionics** - Honeywell (NM), Northrop Grumman (IL)



SPECIFICATIONS

Weight	68,000 lb. (C/D maximum takeoff weight)
Range	3,450 mile ferry range with conformal fuel tanks and three external fuel tanks
Armament	One 20mm multi-barrel gun mounted internally with 940 rounds of ammunition; Normal missile load is two AIM-9Xs and six AIM-120s.
Dimensions	Wingspan: 42.8 ft.; Length: 63.8 ft.; Height: 18.5 ft.
Speed	Mach 2.5 plus
Service Ceiling	50,000 ft.
Power Plant	Two Pratt & Whitney F100-PW-100 or 220 turbofan engines with afterburners
Thrust	23,450-25,000 lb. each engine
Crew	F-15A/C: one; F-15B/D: two

ACQUISITION STATUS

Program Status	Modernization and sustainment
Current Inventory	Active force, 359; Air National Guard, 140
Future Upgrades	Upgrades to the F-15A-D will maintain the aircraft's operational effectiveness through 2025+, and will include active electronically scanned array radar, a digital electronic warfare suite, and a helmet mounted cueing system.

MISSION

Provide unique night/all-weather/all-altitude deep-penetration precision strike capability and air superiority. The F-15E also performs Close Air Support (CAS), Time Sensitive Targeting (TST), Dynamic Targeting, Destruction of Enemy Air Defenses (DEAD), Offensive and Defensive Counter Air, Homeland Defense, Global Persistent Attack, Non-Traditional Intelligence Surveillance and Reconnaissance, Strike, and Air Interdiction.

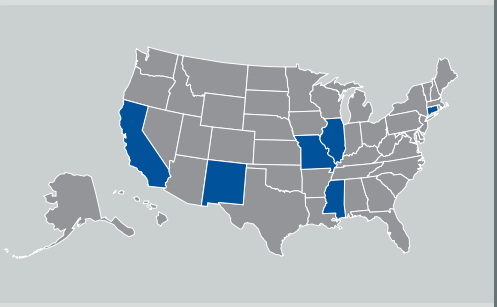
DESCRIPTION

The F-15E Strike Eagle is a dual-role fighter designed to perform nearly all air-to-air and air-to-ground missions. It is a twin-engine, two-tail, two-seat, supersonic fighter capable of employing nearly all USAF air-to-ground and air-to-air munitions. The F-15E has an array of modern avionics and electronics systems that enable the pilot and weapons system officer to fight at all altitudes, day or night, and in all types of weather. Combining the highest fuel and weapons capacity of any fighter with systems such as Fighter Data Link, Night Vision Goggles, Low Altitude Navigation and Targeting Infrared for Night (LANTIRN) and infrared targeting pods, the F-15E has the capability to fight its way deep into enemy territory, destroy enemy ground positions with precision weapons, and then fight its way out.

The F-15E has participated in nearly every combat operation since the First Gulf War (1991). It has flown combat operations over the former Yugoslavia (Deny Flight and Allied Force), Iraq (Northern Watch, Southern Watch, Provide Comfort and Iraqi Freedom), and Afghanistan (Enduring Freedom). In Operation Iraqi Freedom, the F-15Es penetrated deep into the Iraqi defenses to destroy key targets and are credited with destroying 65 MiGs on the ground as well 60% of the Iraqi Medina Republican Guard. The F-15E is going to be the basis of the legacy fighter force through 2030 and beyond.

CONTRACTORS

Prime: Boeing Aircraft (MO)
Subcontractor(s): **Engine** - Pratt & Whitney (CT); **Radar** - Raytheon (MS, CA); **Avionics** - Honeywell (NM); **Avionics** - Northrop Grumman (IL)



SPECIFICATIONS

Weight	81,000 lb. (maximum takeoff weight)
Range	2,400 mi. ferry range with conformal fuel tanks and three external fuel tanks
Armament	One 20mm multi-barrel gun mounted internally with 500 rounds of ammunition; four AIM-120 Advanced Medium Range Air-to-Air (AMRAAM) missiles and four AIM-9 Sidewinder missiles, or eight AIM-120 AMRAAM missiles; virtually all of the air-to-surface weapons in the Air Force inventory (nuclear and conventional), including GBU-28 Bunker Buster, GBU-15, AGM-130, AGM-65 Maverick, GPS guided Joint Direct Attack Munition (JDAM), Laser Guide Bombs (LGB), and Small Diameter Bombs (SDB)
Dimensions	Wingspan: 42.8 ft.; Length: 63.8 ft.; Height: 18.5 ft.
Speed	Mach 2.5 plus
Service Ceiling	50,000 ft.
Power Plant	Two Pratt & Whitney F100-PW-220 or 229 turbofan engines with afterburners
Thrust	25,000–29,000 lb. each engine
Crew	Pilot and weapon systems officer

ACQUISITION STATUS

Program Status	Modernization and sustainment
Current Inventory	Active force, 224; Air National Guard, 0; Reserve, 0
Future Upgrades	Upgrades to the F-15E will maintain the aircraft's operational effectiveness through 2030 and are planned to include an active electronically scanned array radar, a digital electronic warfare suite, and a helmet mounted cueing system.

MISSION

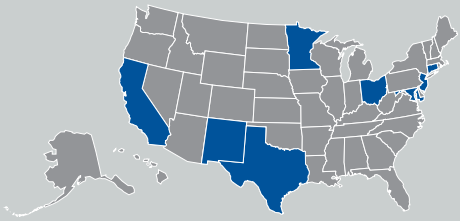
Provide low-cost, high-performance, air-to-air combat and air-to-surface attack capability.

DESCRIPTION

The F-16 Fighting Falcon is a compact, maneuverable, multi-role fighter aircraft that is proven in air-to-air combat and air-to-surface attack. The F-16's maneuverability and combat radius (distance it can fly to enter air combat, stay, fight and return) exceed that of potential threat fighter aircraft. It can locate targets in all weather conditions and detect low flying aircraft in radar ground clutter. In an air-to-surface role, the F-16 can fly more than 500 miles (860 km), deliver its weapons with superior accuracy, defend itself against enemy aircraft, and return to its starting point. In designing the F-16, advanced aerospace science and proven reliable systems from other aircraft such as the F-15 and F-111 were selected and combined to simplify the airplane and reduce its size, purchase price, maintenance costs and weight. Fully fueled, the F-16 can withstand up to nine G's—nine times the force of gravity. Avionics systems include a highly accurate inertial navigation system coupled with a GPS by which a computer provides steering information to the pilot. The plane has UHF and VHF radios, instrument landing system, a warning system, and modular countermeasure pods to be used against airborne or surface electronic threats. During Operation Iraqi Freedom (OIF) the F-16 continued its superior performance in precision strike missions using a variety of GPS and laser guided weapons. Currently, the F-16 comprises 53 percent of the Air Force fighter force structure and provides 67 percent of the precision guided munitions capability in our Air Expeditionary Forces.

CONTRACTORS

Prime: **Airframe** - Lockheed Martin (TX); **Engines** - Pratt & Whitney (CT); General Electric (OH)
Subcontractors: Northrop Grumman (MD); Raytheon (TX); Israel Aircraft Industries (Israel); Honeywell International (CA, NJ, NM, MN)



SPECIFICATIONS

Weight	37,500 lb. (16,875 kg)
Range	More than 2,000 mi. ferry range (1,740 nautical miles)
Armament	One M-61A1 20mm multibarrel cannon with 500 rounds; external stations can carry up to six air-to-air missiles, conventional air-to-air and air-to-surface munitions and electronic countermeasure pods.
Dimensions	Length: 49 ft., 5 in. (14.8 m); Height: 16 ft. (4.8 m); Wingspan: 32 ft., 8 in. (9.8 m)
Service Ceiling	Above 50,000 ft. (15 km)
Power Plant	F-16C/D: one Pratt & Whitney F100-PW-200/220/229 or General Electric F110-GE-100/129
Thrust	F-16C/D, 28,500 lb.
Crew	F-16C, one; F-16D, one or two

ACQUISITION STATUS

Program Status	Sustainment, no new aircraft procurement planned at this time
Unit Assignment	Active Air Force, Reserves, and Air National Guard
Current Inventory	Active Force, F-16C/D, 714; Reserve, F-16 C/D, 69; and Air National Guard, F-16 C/D, 472
Future Upgrades	Major structural integrity modifications to the airframe and engines to extend the service life, and avionics modifications for performance improvements and weapons compatibility

MISSION

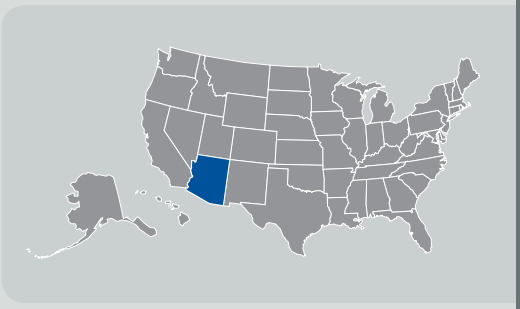
Provides F-16 aircraft with the capability of real-time targeting of enemy air defense system threats.

DESCRIPTION

The F-16 High-Speed Anti-Radiation Missile (HARM) targeting system detects and provides targeting information on enemy air defense radar outside the lethal range of their associated surface-to-air missiles (SAM). The system supports the F-16's Suppression/Destruction of Enemy Air Defenses (SEAD/DEAD) mission. The HARM Targeting System (HTS) enables employment of the AGM-88 HARM in the "range known" mode—the missile's most lethal mode. HTS targeting information increases HARM lethal range by 25 percent and increases the probability of hitting the target radar. The HTS Release 7 version will provide a precision targeting capability needed for accurate employment of GPS-aided munitions as well as HARM, with increased situational awareness and detection range.

CONTRACTORS

Prime: Raytheon Missile Systems (AZ)



SPECIFICATIONS

Weight	R6 - 90 lb.; R7 - 114 lb. maximum
Dimensions	Length: 56 in.; Diameter: 8 in.

ACQUISITION STATUS

Program Status	F-16 HTS is operational at six locations (nine active duty and one guard squadron); all are currently equipped with HTS Release 6 (R6) hardware and software. HTS R7 began fielding in September 2006 to provide current R6 capability until the next F-16 software update in May 2007, which will allow full precision targeting capability.
Unit Assignment	Shaw AFB, SC; Mountain Home AFB, ID; Cannon AFB, NM; Misawa AB, Japan; Spangdahlem AB, Germany; and McEntire Air National Guard Base (ANGB), SC
Current Inventory	205 pods (includes 11 non-operational test units)
Future Upgrades	HTS Release 7 (R7) modification adds Precision Geolocation Targeting and dual carriage of HTS with Advanced Targeting Pods (SNIPER) in FY07. The initial delivery of modified HTS pods (to R7 configuration) were delivered in September 2006, two months ahead of contract requirements Future pod and modification requirements include the following: Retrofit kit (modification) contracts awarded in FY05 and FY06 to purchase kits to modify 200 HTS R6 pods to HTS R7 configuration. In FY06 and FY07, contracts are awarded/ planned for install of the 200 kits purchased in FY05 and FY06 and to buy 22 production pods, increasing the inventory of HTS R7 pods to ease Combat Air Forces availability. In FY07, another lot of 9 production pods is planned.

MISSION

Provide warfighting theaters with organic, survivable, and responsive penetrating tactical reconnaissance that gathers timely, high-quality imagery intelligence data for use by commanders in the air-land battle.

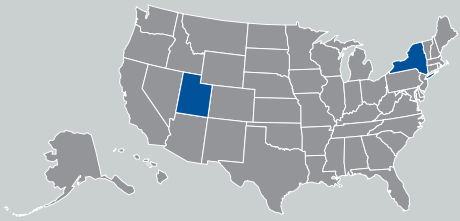
DESCRIPTION

The F16-TARS (Theater Airborne Reconnaissance System) consists of a removable pod uploaded to F-16C Block 25/30/32 aircraft. TARS is the Air Force's only high-speed, penetrating, under-the-weather, theater-controlled, reconnaissance capability. In the span of a single engagement, it provides unique rapid strike and reconnaissance in a high-threat environment. Per the 2004 operational requirements document and as requested by CENTAF, TARS must provide near-real-time imagery transmission to forces on the ground, allowing immediate response to threats and battle damage assessment (BDA). Continuously deployed in Iraq since May 2005, TARS has significantly increased imagery available in Operation Iraqi Freedom (OIF) by producing over 6,000 images for CENTCOM in support of infantry and special operations personnel engaged in counter-insurgent pre-raid planning, time-sensitive targeting, BDA, and counter-IED support. Data link capability will begin limited fielding in FY07

F16-TARS (THEATER AIRBORNE RECONNAISSANCE SYSTEM)

CONTRACTORS

Prime: BAE (NY); L-3 Communications (UT)



SPECIFICATIONS

Size	162 in. x 29 in. x 28.5 in.
Weight	1,200 lb.
Coverage	Digital Electro-Optical Sensor
Capacity/Satellite	20 Pods - 10 Forward Framing Sensor (FFS); 10 with Medium Altitude Electro-Optical and FFS;

ACQUISITION STATUS

Program Status	Sustainment
Future Upgrades	Datalink for near-real-time data transmission

MISSION

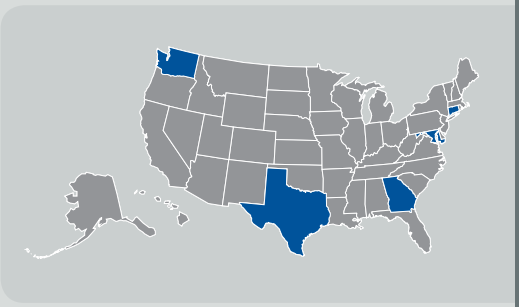
Perform both air-to-air and air-to-ground missions enabling full realization of operational concepts vital to the 21st century Air Force.

DESCRIPTION

The F-22A Raptor is the Air Force's newest fighter aircraft. Its combination of stealth, supercruise, maneuverability, and integrated avionics, coupled with improved supportability, represents an exponential leap in warfighting capabilities. The F-22A is a critical component of the Global Strike Task Force. It is designed to project air dominance rapidly at great distances and to defeat threats attempting to deny access to our nation's Joint Forces.

CONTRACTORS

Prime: Center Fuselage, Final Assembly, and overall System Integration - Lockheed Martin-Aero (GA); **Mid Fuselage** - Lockheed Martin-Aero (TX); **Aft Fuselage and Wings** - Boeing (WA); **Propulsion** - Pratt & Whitney (CT)
Subcontractor(s): Radar - Northrop Grumman (MD)



SPECIFICATIONS

Weight	63,634 lb.
Range	Primary Air Superiority Mission: 260 Nautical Miles (NM) subsonic + 100 NM supersonic radius; Secondary Subsonic Long Range Air Superiority Mission: 570 NM radius
Armament	One M61A2 20-millimeter cannon; Payload: 480 20mm rounds for the gun; side weapon bays can carry two AIM-9 infrared (heat seeking) air-to-air missiles; main weapon bays can carry (air-to-air loadout) six AIM-120 radar-guided air-to-air missiles or (air-to-ground loadout) two 1,000-lb GBU-32 JDAMs and two AIM-120 radar-guided air-to-air missiles.
Dimensions	Length: 62 ft., 1 in. (18.9 m); Height: 16 ft., 8 in. (5.1 m); Wingspan: 44 ft., 6 in. (13.6 m)
Service Ceiling	Above 60,000 ft. (approximately 18 km)
Speed	Mach 2 class

ACQUISITION STATUS

Program Status	Full Rate Production, 24 in production to be delivered to Langley through 2006; last delivery in 2011; projected inventory - 183
Unit Assignment	Edwards AFB, CA; Nellis AFB, NV; Tyndall AFB, FL; Langley AFB, VA; Holloman AFB; Hickam AFB; Future Unit Assignment: Elmendorf AFB, AK
Current Inventory	75 Aircraft (as of 17 October 2006); approximately 2 aircraft per month delivery rate
Future Upgrades	Integration of Small Diameter Bomb (SDB), Enhanced Air-to-Ground Radar, Non-traditional Intelligence, Surveillance, and Reconnaissance (NTISR) capabilities

MISSION

Provide all-weather, precision, stealthy, air-to-ground strike capability, including direct attack on the most lethal surface-to-air missiles (SAMs) and air defenses; meet the requirements of the three U.S. Services, the UK, and other allies.

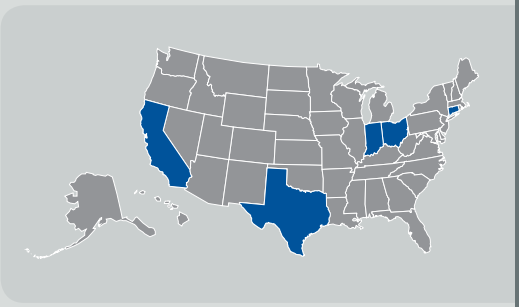
DESCRIPTION

The F-35 Lightning II, Joint Strike Fighter (JSF) program will develop and deploy an affordable, fifth-generation, stealthy, multi-role strike fighter aircraft. The Conventional Takeoff and Landing (CTOL) F-35 will be used to support the Air Force core competencies of Air and Space Superiority, Global Attack, Precision Engagement, and Agile Combat Support. The F-35 will complement a force structure that includes fighter, bomber, and support assets operating in an environment with F-22A and within the projected Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) architecture. The F-35 capitalizes on system commonality and modularity among variants, maximizing affordability and logistical support for 21st century AEF employment. The service versions of the F-35 include the following:

- USAF: F-35A CTOL, stealthy, multi-role aircraft (primary air-to-ground) to replace the F-16 and A-10 and complement the F-22A
- USMC: F-35B (Short Takeoff and Vertical Landing (STOVL)), stealthy, multi-role strike fighter to replace the AV-8B and F/A-18
- USN: F-35C (Carrier Version (CV)), stealthy, multi-role strike fighter to complement the F/A-18E/F
- UK: F-35B STOVL aircraft to replace the Sea Harrier and GR-7

CONTRACTORS

Prime: **Airframe** - Lockheed Martin (TX); **F135 Engine** - Pratt & Whitney (CT); **F136 Engine** - General Electric/Rolls-Royce Fighter Engine Team (OH, IN)
Subcontractors: **Center Fuselage** - Northrop Grumman (CA); **Aft Fuselage and Tails** - BAE (UK); **Lift System Components** - Rolls-Royce (UK, IN)



SPECIFICATIONS

Weight	28,900 lb.
Combat Radius	Threshold: 590 NM (CTOL); 450 NM (STOVL); 600 NM (CV)
Armament	Payload - Internal: Two AIM-120C Advanced Medium Range Air-to-Air Missiles (AMRAAM); Two 2,000 lb class Joint Direct Attack Munition (JDAM), Wind Corrected Munition Dispenser (WCMD), Guided Bomb Unit (GBU), Cluster Bomb Unit (CBU), Joint Stand-off Weapon (JSOW); Small Diameter Bomb; GAU-12 25mm gun; External: AIM-9X; Mk-82, 83, 84 family of JDAM and Laser Guided Bombs; AGM-158 Joint Air-to-Surface Standoff Missile (JASSM)
Dimensions	Wingspan: 35 ft.; Length: 51.1 ft.; Wing Area: 460 square ft.
"G"	+9.0/-3.0 (CTOL); +7.0/-2.0 (STOVL); +7.5/-3.0 (CV)
Speed	Level Flight - 1.5 Mach > 30,000 ft.; Design Max - 700 KCAS/1.6 Mach

ACQUISITION STATUS

Program Status	System Development and Demonstration (SDD); Production begins in 2007 with deliveries in 2009 - 2028; Projected inventories - 1763 CTOL variants for USAF; 680 STOVL/CV variants for the Navy and Marine Corps
Unit Assignment	Planned testing at Edwards AFB, CA; Nellis AFB, NV; Planned training at Eglin AFB, FL
Current Inventory	0

MISSION

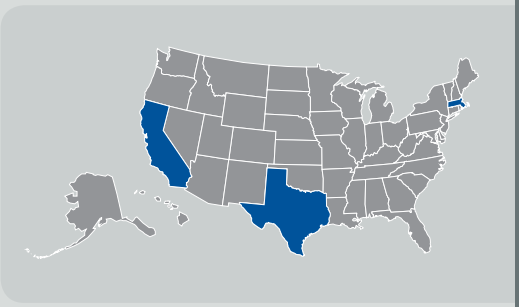
Penetrate high-threat air space, using low-observable stealth technology, and conduct precision strikes against critical, robustly defended targets.

DESCRIPTION

The F-117 Nighthawk is the world's first operational aircraft designed to exploit low-observable stealth technology and use laser-guided and GPS-guided weapons against critical targets. The unique design of the single-seat F-117 provides exceptional combat capabilities. About the size of an F-15 Eagle, the twin-engine F-117 aircraft is powered by two General Electric F404 turbofan engines and has quadruple redundant fly-by-wire flight controls. Air-refuelable, the F-117 supports worldwide commitments and adds to the deterrent strength of U.S. military forces.

CONTRACTORS

Prime: Airframe/Contractor Logistics Support - Lockheed Martin (CA)
Subcontractor(s): Engines - General Electric (MA); **IRADS** - Raytheon-Texas Instruments (TX); **Weapon System Trainer** - L-3 Communications (TX)



SPECIFICATIONS

Weight	52,500 lb. (23,625 kg)
Range	Unlimited with air refueling
Armament	Internal weapons carriage: GBU-27; EGBU-27; Laser GBU-10/12; Various cluster bomb munitions (CBUs)
Dimensions	Length: 63 ft., 9 in. (19.4 m); Height: 12 ft., 9.5 in. (3.9 m); Wingspan: 43 ft., 4 in. (13.2 m)
Interoperability	Participates as key member of integrated strike packages
Service Ceiling	35,000 ft.
Power Plant	Two GE-404, non-augmented engines, each with 9,040 lb. of thrust
Speed	Sub-sonic (0.9 Mach)

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	49th Flight Wing, Holloman AFB, NM
Current Inventory	42 F-117; two YF-117

MISSION

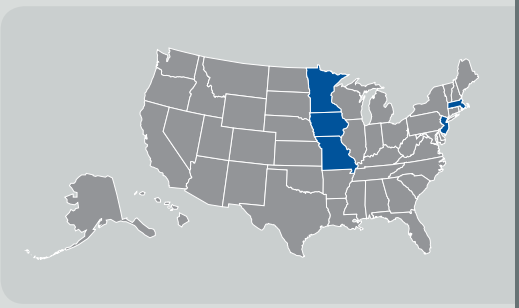
Provide the warfighter with accurate weapons delivery in adverse weather from medium to high altitudes.

DESCRIPTION

The GBU-31, GBU-32, and GBU-38 Joint Direct Attack Munition (JDAM) series of precison guided munitions consists of existing inventory general purpose bombs integrated with "JDAM tailkits." The JDAM tailkit includes a new tail section and aero surfaces combined with a Global Positioning System aided Inertial Navigational System (GPS/INS) for precision all-weather delivery. JDAM can be launched from all altitudes in dive, toss, and loft manuvers as well as straight and level flight with an on-axis or off-axis delivery. JDAM enables multiple weapons to be directed against single or multiple targets on a single pass. The warfighters have declared JDAM the "weapon of choice" after thousands of engagements in the Kosovo, Afghanistan, and Iraq air-to-ground campaigns.

CONTRACTORS

Prime: Boeing (MO)
Subcontractors: **Tail Actuator System** - Textron (MA); **Inertial Measurement Unit** - Honeywell (MN); **GPS Receiver** - Rockwell-Collins (IA); **Mission Computer** - Lockheed Martin (NJ)



SPECIFICATIONS

Weight	GBU-31 – Mk-84, BLU-109 2,000 lb. bomb series; GBU-32 – Mk-83/BLU-110 1000 lb. bomb series ; GBU-38 – Mk-82/ BLU-111 500 lb. bomb series
Range	<15 nautical miles (NM)
Dimensions	GBU-31 (MK-84) 152.7 inches, (BLU-109) 148.6 inches; GBU-32 (MK-83) 119.6 inches; GBU-38 (MK-82) 96.2 inches
Warhead	Blast/Fragmentation: MK-82/BLU-111, MK-83/BLU-110, MK-84; Penetrator: BLU-109
Compatibility	Operational on: B-1B, B-2A, B-52H, F-15E, F-16 Block 30, 40 & 50, F/A-18A+/C/D/E/F, F-22A, F-117, AV-8B
Guidance	Global Positioning System aided Inertial Navigation System (GPS/INS)

ACQUISITION STATUS

Program Status	Full rate production of JDAM GBU-31, GBU-32 and GBU-38 tailkits.
Current Inventory	Over 126,000 tail kits in Air Force, Navy and Marine inventory
Future Upgrades	An Integrated GPS Anti-jam System (IGAS) will be incorporated into all JDAM tailkits beginning with Lot 11 which will start delivery in 2 QTR FY 08

MISSION

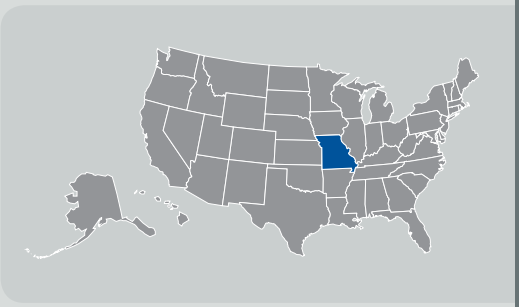
Provide fighter and bomber aircraft with a tactically significant stand-off attack capability from outside of point defenses against fixed targets, while increasing loadout and minimizing collateral damage.

DESCRIPTION

The GBU-39/B Small Diameter Bomb (SDB) weapon system consists of the weapon (GBU-39/B), a four-place miniature munitions carriage system (BRU-61/A), mission planning system, accuracy support infrastructure, and logistics. The SDB is a 250 lb.-class weapon designed as a small autonomous, conventional, air-to-surface, near-precision weapon that is interoperable with established/projected Command, Control, Computers, Communications, Intelligence, Surveillance, and Reconnaissance (C4ISR) architectures and is compatible with current and future Air Force platforms.

CONTRACTORS

Prime: Boeing (MO)



SPECIFICATIONS

Weight	285 lb.
Range	>= 40 nautical miles (NM) down-range from 0.8 mach at 40K Mean Sea Level (MSL); >= 35 NM cross-range from 0.8 mach at 40K Mean Sea Level (MSL)
Dimensions	Length: 71 in.; Width: 7.5 in.; Height: 7.8 in.
Warhead	Penetration/Blast/Fragmentation Warhead
Compatibility	Aircraft: Threshold - F-15E; Objective - F-22, F-16, F-35, F-117, B-52, B-1, B-2, A-10, and MQ-9
Guidance	Inertial Navigation System/Global Positioning System (INS/GPS) Guidance

ACQUISITION STATUS

Program Status	Low Rate Initial Production; Full Rate Production 1QFY07; projected inventory - 24,000; Required Assets Available (RAA)on F-15E met 28 August 2006; Initial Operational Capability (IOC) on F-15E declared 2 October 2006.
Current Inventory	162 GBU-39/Bs, 20 BRU-61/As
Future Upgrades	Increment II to provide initial capability against moving targets in adverse weather. Focused Lethality Munition Joint Capability Technology Demonstration (JCTD) will integrate new warhead, potentially providing the ability to prosecute targets requiring minimized collateral damage (previously off-limits targets).

MISSION

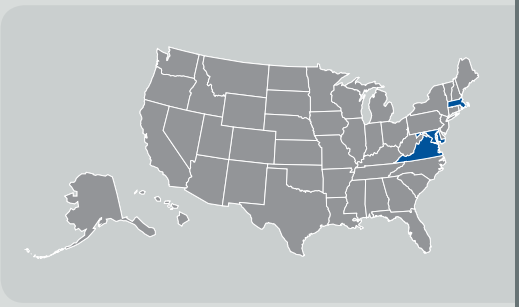
Provide global broadcast of high-volume, high-speed information to deployed forces.

DESCRIPTION

The Global Broadcast Service (GBS) is a communications broadcast service that simultaneously broadcasts imagery, video, and data information to multiple dispersed users using small receive terminals. The GBS uses payloads on two DoD satellites plus commercial leases over the continental United States (mandatory) and Europe (augmentation). Three fixed primary injection points and two mobile injection points uplink broadcasts to satellites.

CONTRACTORS

Prime: Raytheon Intelligence & Information Systems (VA)
Subcontractors: Raytheon Technology Services (VA); Chelton Microwave (MA); GTSI (VA); Viasat (MD)



SPECIFICATIONS

Size	Number existing: two military payloads augmented by commercial leases Future: operations over five Wideband Global SATCOM (WGS) system satellites
Coverage	Global Coverage: 65° N–65° S
Capacity/Satelite	Maximum data rate: 24 Mbps

ACQUISITION STATUS

Program Status	Milestone II - 1QFY98; Initial Operational Capability 1 - 1QFY04; Beyond Low-Rate Initial Production (BLRIP) - 2QFY07. GBS is transferring to Wideband Global SATCOM (WGS) satellites once available for use; transition begins in FY07.

MISSION

Provide highly accurate positioning, navigation, and timing data (globally, 24 hours a day, and in any type of weather) to an unlimited number of civil users and authorized military users.

DESCRIPTION

The Global Positioning System (GPS) is comprised of three segments: space segment, control segment, and user segment. The space segment consists of 24 or more satellites in six orbital planes, traveling in semi-synchronous (12-hour) orbits around the earth. The control segment, sometimes referred to as the ground segment, consists of a Master Control Station (MCS), a Back-Up MCS (BMCS), six dedicated monitor stations, five ground antennas (four dedicated and one shared), and eight National Geospatial-Intelligence Agency (NGA) monitor stations. The user segment includes the myriad of civil and military GPS receivers used for air, land, sea, and space applications. The GPS is commanded and controlled by Air Force Space Command, 2nd Space Operations Squadron at Schriever AFB, CO.

CONTRACTORS

Prime: **Block II/IIA** - Boeing (CA); **Block IIR/IIRM** - Lockheed Martin (PA); **Block IIF** - Boeing (CA); **Block III** - TBD
Subcontractors: Lockheed Martin (PA); Harris (FL)

SPECIFICATIONS

Size	Block II/IIA - 28 launched/17 on orbit; Block IIR - 13 launched/12 on orbit; IIR-M - Three launched, three on orbit; IIF - TBD; GPS III - TBD
Weight	II - 3,670 lb.; IIA - 4,150 lb.; IIR - 4,485 lb.; IIR-M - 4,525 lb.; IIF - 3,566 lb.; GPS III - TBD
Coverage	Continuous global coverage

ACQUISITION STATUS

Program Status	Operational - IIRM-1 launched September 25, 2005; first IIF launch, FY08; first GPS III launch, FY13

MISSION

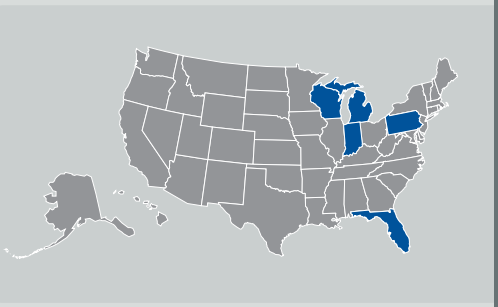
Provide “high reach” cargo off-load and up-load.

DESCRIPTION

The Halvorsen loader is Air Mobility Command’s newest Material Handling Equipment (MHE) acquisition. It is a self-propelled, diesel-powered, air- and surface-transportable, 25,000-pound capacity, loading/off-loading vehicle. It will augment and ultimately replace existing 25,000-pound loaders and the remaining Wide Body Elevator Loaders (WBELs) through attrition, and will be part of the 463L pallet material handling system. The Halvorsen loader is C-130 deployable and able to function in austere operating locations. It will transport cargo (463L pallets, airdrop platforms, rolling stock, and containers) and interface with the full spectrum of military and civilian cargo aircraft. It is a Non-Developmental Item (NDI) procurement – modified version of the Australian Truck Aircraft Side Loading Unit (TASLU).

CONTRACTORS

Prime: FMC Technologies Inc. (FL)
Subcontractors: **Deck Welding** - Johnstown Welding & Fabrication (PA); **Engine -** Detroit Diesel (MI); **Transmission -** Allison Transmissions (IN); **Front Axle -** Dana Corporation (IN); **Hydraulic Cylinders -** Clover Hydraulics (WI)



SPECIFICATIONS

Weight	Approx 32,000 lb. (C-130 deployment limitation)
Range	3,500 nautical miles (NM)
Dimensions	Transport: Length: 355 in.; Width: 109 in.; Height: 94 in. Operation: Length: 355 in.; Width: 170 in.; Height: 94 in.
Speed	17 mph on level surface (fully loaded)
Payload	25,000 lb. (3 pallets)
Other Specifications	Deck Height: 39 in. to 18.5 ft.

ACQUISITION STATUS

Program Status	Currently, production runs through Aug 07; 24 per year; projected inventory – 394. FY07 & FY08 GWOT Submission for 39 additional loaders
Unit Assignment	146 locations worldwide
Current Inventory	388
Future Upgrades	Cab cooling and auto lube on 93 loaders. These modifications already accomplished on the remainder of the fleet, to include loaders on the assembly line.

MISSION

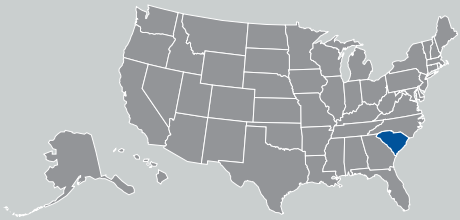
Provide Combat Search and Rescue (CSAR) and Personnel Recovery (PR); airborne command and control for search and rescue operations; extended visual/electronic searches; delivery of survival equipment over land or water; and unimproved airfield operations for survivor medical evacuation.

DESCRIPTION

The HC-130P/N King aircraft provides a range of Combat Search and Rescue (CSAR) and Personnel Recovery (PR) capabilities by increasing the range of helicopters through in-flight refueling, insertion of para-rescue specialists (trained in emergency trauma medicine, harsh environment survival, and assisted evasion) via tactical delivery, and airdrop of supplies and equipment to isolated personnel in permissive or hostile environments. The HC-130 can fly in the day against a reduced threat; however, crews normally fly night, low-level, air refueling and airdrop operations using night vision goggles. The HC-130 can fly low-level NVG tactical flight profiles to avoid detection. To enhance the probability of mission success and survivability near populated areas, crews employ tactics that include incorporating no external lighting or communications and avoiding radar and weapons detection.

CONTRACTORS

Prime: Lockheed Martin (SC)



SPECIFICATIONS

Weight	155,000 lb.
Range	3,500 nautical miles (NM)
Dimensions	Wingspan: 132 ft.; Length: 99 ft.; Height: 38 ft.
Service Ceiling	30,000 ft.
Self-Protection	Radar and missile warning receivers, chaff and flare dispensers, cockpit armor
Speed	289 mph (464 km per hour) at sea level
Other Specifications	Communications: UHF/VHF/SATCOM/Secure/Anit-jam Navigation: Integrated INS/GPS/Dopler, digital low-power color radar

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Moody AFB, GA; Kirtland AFB, NM; Davis-Monthan AFB, AZ; Patrick AFB, FL (AFRC); Moffett FAF, CA (ANG); F.S. Gabreski Airport, NY (ANG); Kulis ANGB, AK (ANG)
Current Inventory	36
Future Upgrades	Integrated SATCOM, NVG compatible lighting (ARC), Forward Looking Infrared (FLIR) (ANG), Enhanced Traffic Alert and Collision Avoidance System (E-TCAS) (partial), personnel locator system (partial), cockpit mods under C-130 Avionics Modernization Program (AMP), in-flight refueling (receiver) capability, tactical data receivers, HC-130 Simulator

MISSION

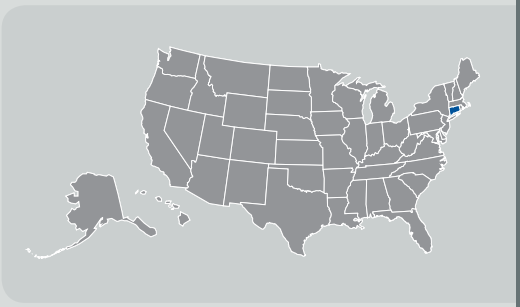
Conduct day/night/marginal weather alert response missions to recover downed aircrew or other isolated personnel in hostile or permissive environments; perform disaster relief, noncombatant evacuation operations, counter-drug operations, civil search and rescue, and Space Shuttle support.

DESCRIPTION

The HH-60G Pave Hawk provides Combat Search and Rescue (CSAR) and Personnel Recovery (PR). It is the most rapidly deployable, long range, combat rescue helicopter in the Air Force inventory. The Pave Hawk is a highly modified version of the Army Black Hawk helicopter. It features an upgraded communications and navigation suite that includes integrated inertial navigation/global positioning/Doppler navigation systems, satellite communications, secure voice, and Have Quick communications. All HH-60Gs have an automatic flight control system, night vision goggles lighting, and forward looking infrared system that greatly enhances night low-level operations. The Pave Hawk has color weather radar and an engine/rotor blade anti-ice system that gives the HH-60G adverse weather capability. Pave Hawk mission equipment includes a retractable in-flight refueling probe, internal auxiliary fuel tanks, and two crew-served 7.62mm/.50cal machine guns. Pave Hawk combat enhancements include a radar warning receiver, infrared jammer, and a flare/chaff countermeasure dispensing system. HH-60G rescue equipment includes a hoist capable of lifting a 600-lb. load (270 kilograms) from a hover height of 200 feet (60.7 meters), and a personnel locating system that is compatible with the PRC-112 survival radio. It provides range and bearing information to a survivor's location. A limited number of Pave Hawks are equipped with an over-the-horizon tactical data receiver that is capable of receiving near real-time mission update information.

CONTRACTORS

Prime: Sikorsky (CT)



SPECIFICATIONS

Weight	22,000 lb.
Range	500 nautical miles (NM)
Armament	M-240 7.62 machine gun, GAU-2C-7.62mm mini-gun, GAU-18 .50 caliber machine gun
Dimensions	Main Rotor: 53 ft.; Length: 64 ft.; Height: 16 ft.
Service Ceiling	14,200 ft.
Self-Protection	Integrated Chaff/Flare/RWR, Infra-red (IR) Jammer, Kevlar armor, Self-sealing fuel tanks
Speed	125 knots
Other Specifications	Communications: UHF Line-of-Sight (LOS), VHF LOS, Secure UHF Satellite Communications (SATCOM)/DAMA, Personal Locator System (PLS), HQ-II; Navigations: Integrated INS/GPS/Doppler Forward Looking Infrared (FLIR), over-the-horizon (OTH) Tactical Receiver, Digital Moving Map/Threat Display, WX Radar, and Hoist

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Moody AFB, GA; Nellis AFB, NV; Kirtland AFB, NM; Kadena Air Base, Japan; Naval Air Station (NAS) Keflavik, Iceland; Patrick AFB, FL (AFRC); Davis-Monthan AFB, AZ (AFRC, AD); Moffett FAF, CA (ANG); F.S. Gabreski Apt, NY (ANG); Kulis ANGB, AK (ANG), Hill AFB, UT (AFMC)
Current Inventory	101
Future Upgrades	Upgraded Comm/Nav/Electronic Warfare Suite, External Gun mount, Flare/Chaff CMDS – Self Protection System; 701C Engine – Improved Durability Gearbox Upgrade, Structural Integrity Program, Dual Engine Contingency Power, Light Airborne Recovery System ARS-6 Ver-12, Forward Looking Infrared System, Improved Night Vision Imaging System compatible External/Internal lighting. The next generation combat search and rescue replacement aircraft, CSAR-X, solves critical deficiencies in both numbers and capability of HH-60G.

MISSION

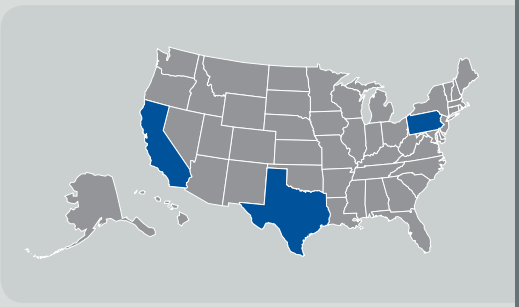
Develop advanced space vehicles to deliver and deploy a variety of conventional payloads worldwide.

DESCRIPTION

Hypersonic Technology Vehicle (HTV) technology demonstrations will contribute to global reach capabilities by demonstrating an unpowered, maneuverable, hypersonic glide vehicle capable of carrying a 1,000-lb. payload. The HTV effort provides dual growth paths to the Air Force's Prompt Global Strike (PGS) system and Defense Advanced Research Projects Agency's (DARPA) hypersonic cruise vehicle. It represents an affordable, low-risk building block approach to validating key hypersonic technologies. HTV will demonstrate a common set of hypersonic technologies by flying three vehicles of progressively greater capabilities. These include step increases in thermal protection, precision, cross range, and communications/command and control capabilities.

CONTRACTORS

Prime: Lockheed Martin (CA)
Subcontractor(s): Lockheed Martin (PA); Carbon Advanced Technologies, Inc. (TX)



SPECIFICATIONS

Size	Length: 12 ft.; Diameter: 4 ft.
Weight	2,200 lb.
Range	4,000–9,000 nautical miles (NM), depending on configuration
Coverage	Intercontinental to global
Capacity/Satelite	1,000 lb.
Compatability	Must be compatible with GPS and the Global Information Grid, as well as standardized Air Force Command and Control and Data Dissemination Systems

ACQUISITION STATUS

Program Status	Demonstration Program; first demonstration launch is currently scheduled for 4QFY07

MISSION

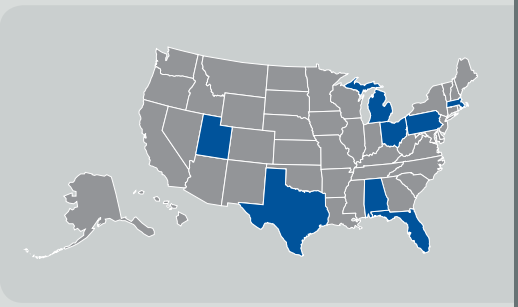
Provide stand-off capability to attack critical hardened and non-hardened, fixed and re-locatable targets defended by next-generation defense systems.

DESCRIPTION

The Joint Air-to-Surface Standoff Missile (JASSM) is a conventional, air-to-surface, precise, autonomous, low-observable, stand-off cruise missile capable of penetrating enemy defenses and striking high-value, fixed, or relocatable targets.

CONTRACTORS

Prime: Lockheed Martin (FL, AL);
Subcontractors: Teledyne Continental Engine (OH, AL); Williams International (MI, UT); Fiber Innovations (MA); Klune (UT); Wyman-Gordon Forgings (TX); L-3 Communications Telemetry (PA)



SPECIFICATIONS

Weight	2,250 lb.
Range	JASSM: Greater than 200 nautical miles (NM); JASSM-Extended Range (ER): Greater than 500 NM
Warhead	1,000 lb. Blast-Fragmentation and Penetration Warhead
Compatability	Aircraft Compatiblity: Threshold - B-52 and F-16; Objective - B-1, B-2, F-15, F-117, and F-35; JASSM-ER Threshold: B-1
Guidance	INS/GPS and an Imagine Infrared (IIR) Terminal Seeker

ACQUISITION STATUS

Program Status	Milestone (MS) I began Program Definition and Risk Reduction (PDRR) June 1996; MS II began engineering and manufacturing development (EMD) 1QFY99; Low rate initial production (LRIP) 1QFY02; MS III 4QFY04; Full rate production 1QFY05; Required Assets Available (RAA) declared on B-52, B-1, B-2, and F-16; Initial Operational Capability (IOC) on B-52 (Barksdale) and B-1 (Dyess) August 2005; on F-16 (Hill) May 2006; on B-2 (Whiteman) September 2006
Current Inventory	455
Future Upgrades	JASSM Extended Range (JASSM-ER) - FY08 deliveries; JASSM 2-Way Weapon Data Link - FY10 deliveries

MISSION

Provide helmet-mounted visual cueing of sensors and weapons; provide display of targeting and aircraft data; enable first-look/first-shot air-to-air visual range advantage, quicker ground target designation, and improved situational awareness.

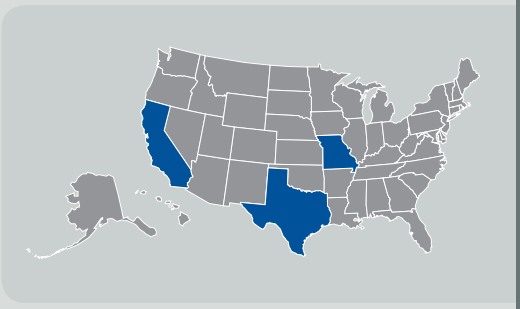
DESCRIPTION

The Joint Helmet Mounted Cueing System (JHMCS) improves both air-to-air and air-to-ground combat effectiveness and situational awareness by providing a visor-projected Head-Up Display (HUD) to cue weapons and sensors, and display targeting and aircraft data. In close air-to-air combat, JHMCS allows the pilot to visually target enemy aircraft utilizing close range weapons, especially at high off-boresight angles with the AIM-9X. For air-to-ground combat, JHMCS greatly reduces the time to designate and acquire ground targets. JHMCS improves situational awareness by displaying visual targeting and aircraft performance information on the helmet's visor, enabling the pilot to monitor this information while looking outside the cockpit. The system uses a magnetic transmitter unit on the left side canopy rail and a magnetic receiver unit in the helmet to determine the pilot's line-of-sight. The JHMCS Electronic Unit interfaces with the aircraft system bus to provide helmet line-of-sight to the mission computer and receive data for the helmet display.

JOINT HELMET MOUNTED CUEING SYSTEM (JHMCS)

CONTRACTORS

Prime: Boeing (MO)
Subcontractor(s): Vision Systems International (CA); Rockwell Collins Display Systems (CA); Elbit Fort Worth (TX); Elbit Systems (Israel)



SPECIFICATIONS

Weight	Total head supported weight less than or equal to 4.3 lb.
Compatability	Operational on USAF F-15C/D, F-16C/D, Navy F/A-18C/D/E/F, and foreign F-15, F-16, F/A-18.
Field of View / Regard	20° / 360°
Qualified Ejection Speed	450 knots

ACQUISITION STATUS

Program Status	Joint Air Force/Navy Program in full rate production
Unit Assignment	Elmendorf AFB (AK), Lakenheath (UK), Mountain Home AFB (ID), Shaw AFB (SC), Hill AFB (UT), Spangdahlem AB (GE), Misawa AB (JP), McEntire ANG (SC), Missouri ANG (MO), NAS Lemoore (CA), NAS Oceana (VA), NAF Atsugi (JP)
Future Upgrades	Preplanned Product Improvement (P3I) includes Night Vision capability, and an option for a flat panel display.

MISSION

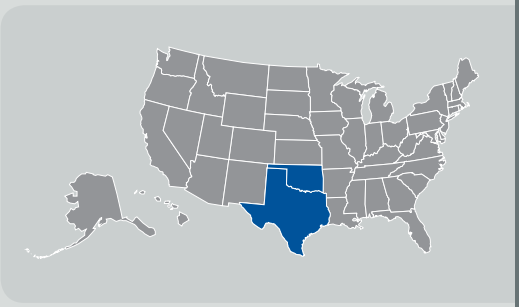
Provide worldwide air refueling for Air Force, Navy, NATO, and allied aircraft, as well as strategic airlift capability; enable global mobility and local and global strike missions.

DESCRIPTION

The KC-10 Extender is an aerial refueling asset built on the commercial DC-10 airframe. The aircraft creates an air bridge to enable global mobility and global strike missions (such as B-2 missions) and local strike missions by enabling longer sorties. It has 88-percent systems commonality with the DC-10, with additional systems and equipment necessary for its Air Force mission. These additions include military avionics; aerial refueling boom and aerial refueling hose and drogue systems; a seated aerial refueling operator station; and aerial refueling receptacle and satellite communications. The maximum fuel transfer rate to receiver aircraft is 1,100 gallons per minute for the boom system and 470 gallons per minute for the drogue system. There are 59 KC-10 aircraft in the USAF tanker fleet (20 aircraft with multi-point fueling capability). There are two active duty units at McGuire AFB, NJ, and Travis AFB, CA.

CONTRACTORS

Prime: **Airframe** - Boeing (TX); **Engines** - Kelly Aviation Center (KAC) (TX)
Subcontractor(s): ARINC (OK)



SPECIFICATIONS

Weight	Maximum gross takeoff weight: 590,000 lb.
Dimensions	Wingspan: 165.3 ft.; Height: 58 ft.; Length: 181.5 ft.
Compatibility	Capable of air refueling Air Force, Navy, Marine, NATO, and allied Aircraft
Service Ceiling	42,000 ft.
Speed	619 mph (Mach 0.825)
Payload	Max total payload 356,000 lb.
Max Cargo	170,000 lb.
Max Fuel Load	186,000–356,000 lb. (depending on cargo load)
Passenger Capacity	75

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	McGuire AFB, NJ, and Travis AFB, CA
Current Inventory	59
Future Upgrades	Aircraft Modernization Program (AMP)

MISSION

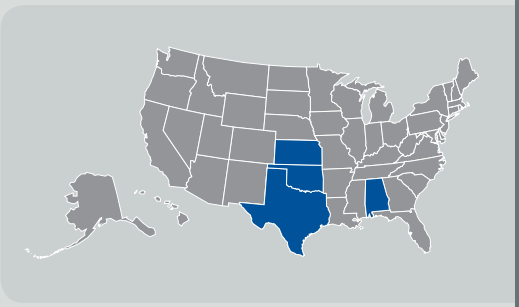
Provide worldwide air refueling and strategic airlift for Air Force, Navy, NATO, and allied aircraft; enable global mobility and local and global strike.

DESCRIPTION

The KC-135 Stratotanker creates an air bridge to enable global mobility and global strike missions (such as B-2 missions) and local strike missions by enabling longer sorties. It is built on a similar airframe to the 707 passenger aircraft. The KC-135 completed an engine upgrade in June 2005 to put F-108 engines (CFM-56 commercial engines) on the 417 KC-135R model aircraft. It is equipped with military avionics, an aerial refueling boom, a prone aerial refueling operator station, and satellite communications. There are currently 530 KC-135 E/D/R/T models in the inventory at 35 bases, 29 states, and two overseas bases: Kadena Air Base (AB), Japan, and RAF Mildenhall, UK. Twenty-nine KC-135 E model aircraft will be retired in FY07 as approved in the FY07 National Defense Authorization Act (NDAA). Twenty aircraft are capable of multi-point refueling using hose and drogue refueling.

CONTRACTORS

Prime: Engineering - Boeing (KS); **Depot Maintenance** - Boeing (TX); **GATM** - Rockwell Collins (TX)
Subcontractor(s): Depot Maintenance - PEMCO (AL); **CFM-56/F108 R model engines** - General Electric (OK); **TF-33 E-model engines** - Pratt & Whitney (OK)



SPECIFICATIONS

Range	With fuel offload of 150,000 lb. throughout flight: 1,500 nautical miles (NM)
Dimensions	Wingspan: 130.9 ft.; Height: 41.7 ft.; Length: 128.9 ft.
Compatibility	Capable of air refueling Air Force, Navy, Marine, NATO, and allied aircraft
Service Ceiling	50,000 ft.
Speed	530 mph at 30,000 ft.
Payload	Max total payload: 200,000 lb.
Max Cargo Load	83,000 lb.
Max Fuel Load	117,000–200,000 lb.
Passenger Capacity	54

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Air Force Reserve (AFRES): Andrews AFB, MD; Beale AFB, CA; March AFB, CA; Grissom, IN; Selfridge, MI; Seymour Johnson AFB, NC; Tinker AFB, OK. Air National Guard (ANG): Bangor, ME; Birmingham, AL; Eielson AFB, AK; Fairchild AFB, WA; Forbes Field, KS; Hickam AFB, HI; Lincoln, NE; March AFB, CA; McConnell AFB, KS; McGhee Tyson, TN; McGuire AFB, NJ; Meridian Key Field, MS; Gen Mitchell, WI; Niagara, NY; Pease, NH; Pittsburgh, PA; Rickenbacker, OH; Salt Lake City, UT; Scott AFB, IL; Sioux City, IA; Sky Harbor Phoenix, AZ. Active: Fairchild AFB, WA; Grand Forks AFB, ND; MacDill AFB, FL; McConnell AFB, KS; Robins AFB, GA; Altus AFB, OK; Edwards AFB, CA
Current Inventory	530
Future Upgrades	Control Column Actuated Brake, Global Air Traffic Management (GATM)

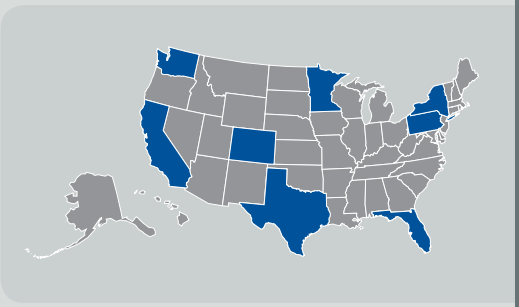
MISSION

Perform command, control, and communications functions while ensuring public safety in support of national (DoD, civil, and commercial) space launches, ballistic missile and missile defense tests, and aeronautical flight tests; and provide sensors to support the space surveillance mission.

DESCRIPTION

The Launch & Test Range System (LTRS) is a key enabler for all Air Force, DoD, and National Aeronautics and Space Administration (NASA) capabilities that employ or depend on space-based or ballistic missile systems. It provides responsive, reliable, and cost-effective launch scheduling, communications, metric tracking, telemetry, flight safety, and emergency termination to an average of 30 DoD, civil, and commercial space launches and ballistic missile tests per year. Both launch and test ranges are national assets, which as two of the 26 members of the Major Range and Test Facility Base are sized, operated, and maintained primarily for DoD Test and Evaluation missions but also may be available to all users that have a valid requirement for their capabilities. It also supports guided weapons and aeronautical tests and space surveillance missions. The LTRS consists of the Eastern Range at Patrick AFB/Cape Canaveral AFS, the Western Range at Vandenberg AFB, and downrange sites and assets associated with both. The ranges include 16 command transmitters, 17 tracking radars, and 14 telemetry antennas, as well as a multitude of associated suites of equipment.

CONTRACTORS



Prime: Lockheed Martin (CA); ITT Industries (FL); InDyne, Inc (CA); Computer Sciences/Raytheon (FL)
Subcontractors: L-3 Communications (CA); KSS (Kelly's Logistics Support Services) Scitor (CA); SRI International (CA); Hughes Space (CO); Boeing (FL); Contraves (PA); TRAK Microwave (FL); RT Logic (CO); ADC (MN); ENSCO (FL); Net Acquire (WA); Freescale Semiconductor Inc (CO); Dolphin (NY); ASR (CA); Excel (CA); Superior (NY); CDI Corp (CA); Volt (CA); Lockheed Martin Tactical Aircraft Systems (CA); Lockheed Martin Technical Operations (CA); Alcatel (TX); DCS Corp (CA); Robinson & Robinson (FL); Smith Electric (CA); ITT Industries (FL)

SPECIFICATIONS

Coverage	Provides trajectory coverage for current and forecasted launches: ER: Launch trajectories from 34° to 112° WR: Launch trajectories from 153.6° to 281° Supports launches with 24 hours between close of first launch window and opening of second launch window
Interoperability	Interoperable with NASA and commercial launch systems

ACQUISITION STATUS

Program Status	Undergoing modernization and recapitalization while operational
Unit Assignment	30th Space Wing – Western Range; 45th Space Wing – Eastern Range
Current Inventory	Two operational ranges
Future Upgrades	Modernization of radar, telemetry, and command destruct instrumentation

MISSION

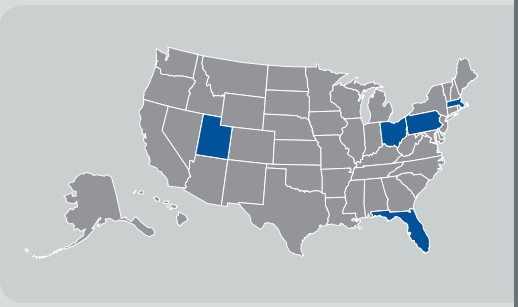
Provide strategic deterrence for the nation through an intercontinental ballistic missile system with prompt global strike capabilities.

DESCRIPTION

The LGM-30G Minuteman III is a highly survivable, silo-based, inertially guided nuclear missile of intercontinental range on alert since 1970. Using a rapid targeting and execution system and penetration aids, each Minuteman III can effectively deliver up to three independently targetable reentry vehicles into denied areas against fixed and fleeting targets.

CONTRACTORS

Prime: Northrop Grumman Mission Systems (UT)
Subcontractor(s): Lockheed Martin (PA); Boeing (OH); Alliant Techsystems (UT); Raytheon (MA); Honeywell (FL); Aerojet (UT)



SPECIFICATIONS

Weight	79,432 lb.
Range	6,000 miles plus
Armament	One to three MK12/12A reentry vehicles (RVs)
Dimensions	Length: 59.9 ft.; Diameter: 5.5 ft.
Warhead	W62/W78
Coverage	Global
Speed	Approximately 15,000 mph at burnout

ACQUISITION STATUS

Program Status	Fielded, undergoing life extension programs
Unit Assigment	500 MMIII missiles deployed at Malmstrom AFB (MT); Minot AFB (ND), and FE Warren AFB (WY)

MISSION

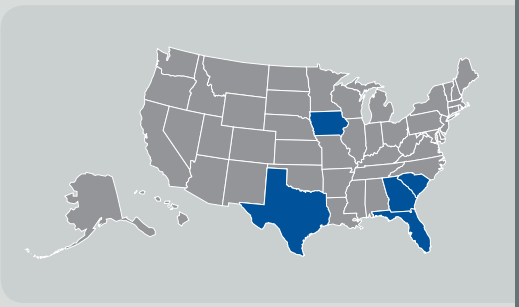
Provide global, day/night, and adverse weather airdrop, air/land, infiltration, and exfiltration of personnel and equipment.

DESCRIPTION

The MC-130E Combat Talon supports U.S. and allied special operations forces with infiltration and exfiltration missions. It also plays a deep-penetrating, helicopter refueling role during special operations missions.

CONTRACTORS

Prime: Airframe - Lockheed Martin (SC); **Integrated Weapon System Support** - Boeing (FL); **Radar** - Raytheon (TX); **General Avionics** - L-3 Communications (GA, TX); **Communications/Navigation** - Rockwell Collins (IA)



SPECIFICATIONS

Weight	155,000 lb. (gross weight)
Range	2,700 nautical miles (NM); unlimited with in-flight refueling
Dimensions	Wingspan: 132 ft.; Length: 99 ft.; Height: 38 ft.

ACQUISITION STATUS

Program Status	Modifications only
Unit Assignment	Duke Field, NC
Current Inventory	10

MISSION

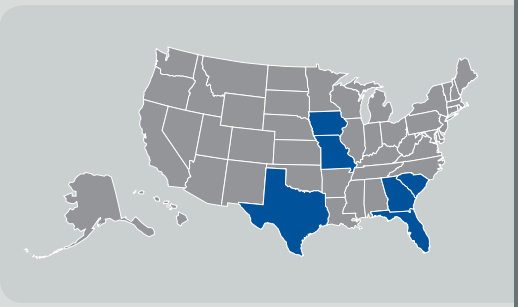
Provide global, day/night, and adverse weather airdrop, air/land, infiltration, and exfiltration of personnel and equipment in support of U.S. and allied special operations forces.

DECSRIPTION

The MC-130H Combat Talon II conducts covert penetration of politically sensitive/hostile airspace to insert, resupply, and extract special operations forces and equipment and to aerially refuel helicopters for extended operations. These missions are conducted in adverse weather and at night at low level and long range.

CONTRACTORS

Prime: Airframe - Lockheed Martin (SC); **Integrated Weapon System Support** - Boeing (FL); **Radar** - SEI (MO); **General Avionics** - L-3 Communication (GA, TX); **Communication/Navigation** - Rockwell Collins (IA)



SPECIFICATIONS

Weight	155,000 lb. (gross weight)
Range	2,700 nautical miles (NM); unlimited with in-flight refueling
Dimensions	Wingspan: 132 ft.; Length: 99 ft.; Height: 38 ft.

ACQUISITION STATUS

Program Status	Twelve interim MC-130W configured aircraft being procured
Unit Assignment	Hurlburt Field, FL; Kirtland AFB, NM; Midenhall AFB, UK; Kadena AFB, Japan
Current Inventory	20
Future Upgrades	Multiple modifications

MISSION

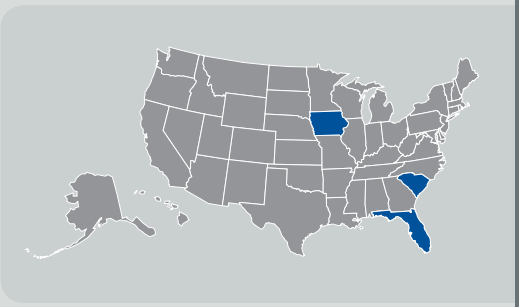
Fly clandestine or low-visibility, low-level missions into politically sensitive or hostile territory to provide air refueling for special operations helicopters.

DESCRIPTION

The MC-130P primarily flies its single- or multi-ship missions at night to reduce detection and intercept by airborne threats. Secondary capabilities include airdrop of small special operations teams, small bundles, and Zodiac and combat rubber raiding craft as well as night-vision goggle take-offs and landings.

CONTRACTORS

Prime: Airframe - Lockheed Martin (SC); **Integrated Weapon System Support** - Boeing (FL); **Communications/Navigation** - Rockwell Collins (IA)



SPECIFICATIONS

Weight	155,000 lb. (gross weight)
Range	2,700 nautical miles (NM) without internal Benson Tanks; 4,000+ NM with internal Benson Tanks; unlimited with In-Flight Refueling (Benson Tanks are fuel tanks placed in the cargo area to hold additional fuel normally used for Helicopter Air Refueling—fuel can be used by the MC-130P)
Dimensions	Wingspan: 132 ft.; Length: 99 ft.; Height: 38 ft.

ACQUISITION STATUS

Program Status	Modifications only
Unit Assignment	Hurlburt Field, FL; Kirtland AFB, NM; Midenhall AFB, UK; Kadena AFB, Japan
Current Inventory	23
Future Upgrades	Multiple modifications

MISSION

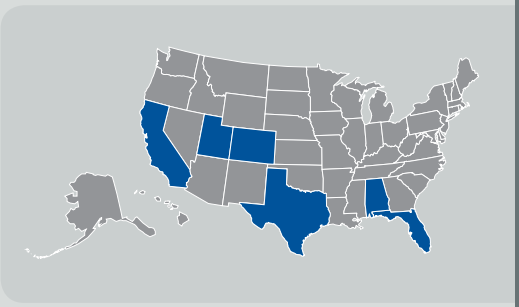
Provide continuing, highly reliable launch of medium-weight national security satellites into low-earth, polar, geosynchronous transfer, and stational orbits.

DESCRIPTION

The Delta II Medium Launch Vehicle (MLV) launches GPS Block IIR Replenishment satellites. The MLV utilizes multiple configurations and is capable of launching a 6,098 kg payload, or satellite, into a 185 km Low Earth Orbit (LEO), or a 2,171 kg payload into Geosynchronous Transfer Orbit (GTO). GTO orbits are required to loft satellites from lower LEO orbits to higher Geosynchronous Earth Orbits (GEO), which allow satellites to rotate with the earth and remain positioned over one region of the earth's surface. Reliability of the Delta II Medium Launch Vehicle (MLV) is over 98 percent, with 122 (out of 124) successful launches since 1989.

CONTRACTORS

Prime: United Launch Alliance (CO, AL, FL, CA, TX)
Subcontractor(s): Alliant (UT); Rocketdyne (CA); Aerojet (CA) Pratt & Whitney (FL); Honeywell (FL); Thiokol (UT)



SPECIFICATIONS

Size	Length: 125 ft. (38.1 m); Diameter: 10 ft. (3.05 m)
Weight	Mass at liftoff: 512,267 lb. (231,900 kg)
Range	6,098 kg payload to LEO - 185 km orbit at 28.5 degrees; 2,171 kg payload to GTO - apogee of 35,786 km
Capacity/Satellite	Pounds to orbit range: 2,050–12,450; Will vary depending on orbit and vehicle configuration
Interoperability	Launches from both Cape Canaveral Air Force Station (CCAFS) and Vandenberg AFB, cooperating with NASA and commercial launch services
Compatibility	Satisfies all payload integration requirements

ACQUISITION STATUS

Program Status	MLVIII (Delta II) Active

MISSION

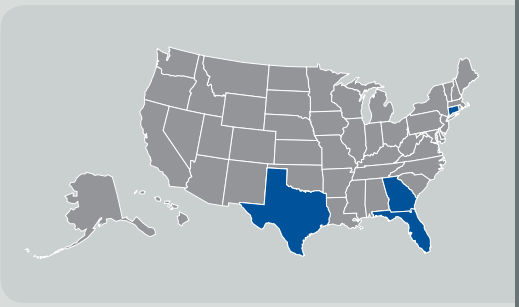
Provide low-level, long-range, undetected penetration into denied areas—day or night, in adverse weather—for infiltration, exfiltration, and resupply of special operations forces.

DESCRIPTION

MH-53J/M Pave Low III/IV missions are almost always conducted under cover of darkness and frequently under adverse weather conditions requiring extended flight operations as low as 50 feet using night vision goggles or Instrument Meteorological Conditions as low as 100 feet above ground level. Missions involve deep penetrations of hostile areas at extreme ranges without escort. The MH-53J/M employs a sophisticated avionics system to enhance crew situational awareness and avoid threats.

CONTRACTORS

Prime: Airframe - Sikorsky (CT); **Engine/Gear Box** - Lockheed Martin (GA); **Radar/Forward Looking Infrared (FLIR)** - Raytheon (TX); **General Mods** - EJM (FL); MTC (GA)



SPECIFICATIONS

Weight	46,000 lb. (gross weight)
Range	600 nautical miles (NM); unlimited with helicopter air refueling
Armament	Two 7.62 mm Mini-Guns; one .50 Caliber Machine Gun
Dimensions	Length: 88 ft.; Height: 25 ft.; Roto Diameter: 72 ft.

ACQUISITION STATUS

Program Status	Modifications only

ADDITIONAL INFORMATION

Drawdown begins in 2009

MISSION

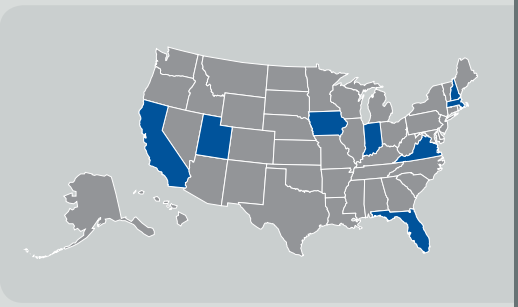
Develop, procure, deploy, and sustain multi-band satellelite communications (SATCOM) terminals used by Air and Space Expeditionary Forces (AEF), the Single Integrated Operations Plan (SIOP), combatant commanders, and other users to communicate over current and emerging transformational military and commercial satellite systems.

DESCRIPTION

Military Satellite Communications (MILSATCOM) Terminals provide the president, combatant commanders, and warfighters in the field with secure, worldwide communications capability. Terminals provide the user segment of the MILSATCOM space system. MILSATCOM Terminals addressed by this warfighting system are the Ground Multi-band Terminal (GMT), Family of Advanced Beyond Line of Sight Terminals (FAB-T), High Data Rate Radio Frequency (HDR-RF), Airborne Integrated Terminal (AIT), Secure Mobile Anti-Jam Reliable Tactical Terminal (SMART-T), Multi-Band Multi-Mode Radio (MBMMR), Global Broadcast System (GBS) Receive Terminals, and Defense Satellite Communication System (DSCS) Terminals.

CONTRACTORS

Prime: Boeing (CA); Raytheon (MA, FL, IN, VA); Rockwell (IA); BAE (NH); Lockheed Martin (CA); Northrop Grumman (CA)
Subcontractor(s): Harris (FL); L-3 Communications (UT); ViaSat (CA)



SPECIFICATIONS

Coverage	Global
Capacity/Satellite	Terminals operate with current systems such as MILSTAR, UHF Follow-On (UFO) satellites, and the Defense Satellite Communications System (DSCS), as well as commercial systems, and will operate with future systems such as Advanced Extremely High Frequency (AEHF), Wideband Global SATCOM (WGS), Transformational Satellites (TSAT), and the Mobile User Objective System (MUOS)
Interoperability	Interoperable with joint and allied SATCOM terminals per military and commercial standards
Compatibility	Compatible with satellites and user input/output devices per military and commercial standards

ACQUISITION STATUS

Program Status	Terminals are in various stages of development, production, fielding, and sustainment

MISSION

Provide secure, jam-resistant, worldwide satellite communications to meet essential wartime requirements for high-priority military users.

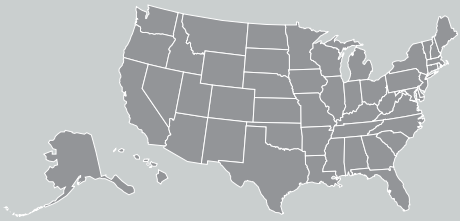
DESCRIPTION

Milstar is a joint-service, multi-satellite constellation that links command authorities with a wide variety of resources, including ships, submarines, aircraft, and ground stations. Each Milstar satellite serves as a smart switchboard in space by directing traffic from terminal to terminal anywhere on the earth. Since the satellite actually processes the communications signal and can link with other Milstar satellites through crosslinks, the requirement for ground-controlled switching is significantly reduced. The satellite establishes, maintains, reconfigures, and disassembles required communications circuits as directed by the users. Milstar terminals provide encrypted voice, data, teletype, or facsimile communications. A key goal of Milstar is to provide interoperable communications among the users of Army, Navy, and Air Force Milstar terminals.

The Milstar system is composed of three segments: space (the satellites), terminal (the users), and mission control. Air Force Space Command's Space and Missile Systems Center at Los Angeles Air Force Base, CA, is responsible for development and acquisition of the Milstar space and mission control segments. The Electronics Systems Center at Hanscom AFB, MA, is responsible for the Air Force portion of the terminal segment development and acquisition. The 4th Space Operations Squadron at Schriever AFB, CO, is the front-line organization providing real-time satellite platform control and communications payload management.

CONTRACTORS

Prime: Lockheed Martin Missiles and Space (Global)



SPECIFICATIONS

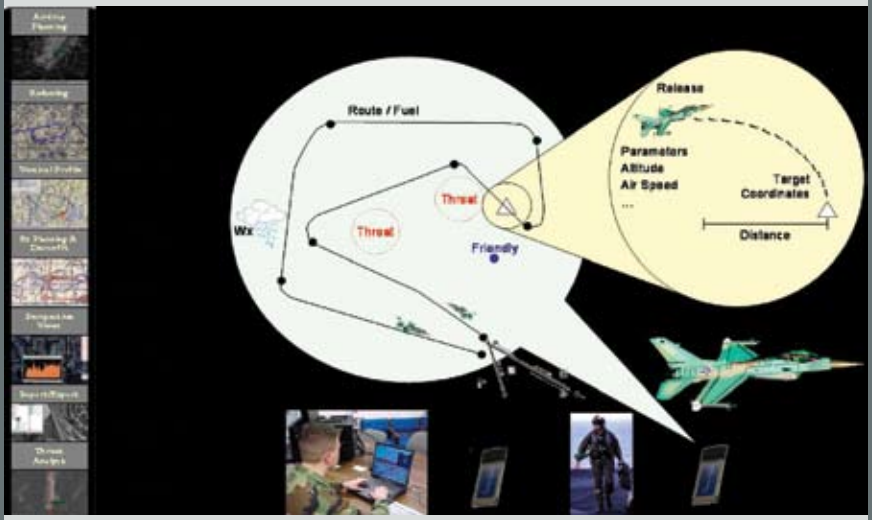
Weight	Approx. 10,262 lb.
Range	Orbit altitude: 22,250 nautical miles (NM) (geosynchronous orbit)
Coverage	65° N to 65° S
Capacity/Satelite	Five satellite (primary) constellation in geosynchronous orbit
Launch Vehicle	Titan IVB/Centaur upper stage

ACQUISITION STATUS

Program Status	Complete
Unit Assignment	4 SOPS
Current Inventory	5 satellites
Future Upgrades	None

MISSION

Enable warfighters to plan missions from training to combat, including weapon delivery and airdrops. The plan is developed alone or in collaboration with planners for other elements of the mission, depending on the specifics of the mission. It ultimately provides the printed or electronic materials needed for the executing platform to accomplish the assigned mission.

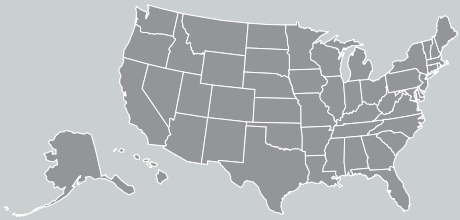


DESCRIPTION

Mission Planning Systems (MPS) use data such as maps, imagery, weather, and platform performance, and works within the mission planning system to develop a specific action plan. MPS provide automated mission-planning tools and support for fixed and rotary wing aircraft and guided munitions. The program consists of common hardware and software components required by every platform, as well as individual platform-specific hardware and software components. It creates a flight plan based on threats, targets, terrain, weather, aircraft performance capability, and configuration. MPS must allow the warfighter to plan deliveries, calculate fuel requirements, and assess routes based on known enemy threat location and type. It also optimizes and de-conflicts flight routes with other aircraft, and writes this information to a Data Transfer Device (DTD) for uploading into the required aircraft.

CONTRACTORS

Prime: Lockheed Martin Missiles and Space (Global)



SPECIFICATIONS

Interoperability	Complies with Army, Air Force, Navy and Special Operations Forces Information Exchange Requirements (IERs). In accordance with CJCSI 6212.01D, MPS meets the network ready key performance parameter

ACQUISITION STATUS

Program Status	Program consists of five increments: Increment I - Concept Exploration; Increment II - Production & Development with a Full Deployment Decision Review scheduled for 2nd Quarter 2007; Increment III - System Development & Demonstration with a Milestone C planned for 1st quarter 2008; Increments IV and V are Pre-Milestone B development activities with Milestone Bs scheduled for 2nd quarter 2007 and 4th quarter 2008 respectively
Unit Assignment	951 Electronic Systems Group, Hanscom AFB, MA
Future Upgrades	To be determined

MISSION

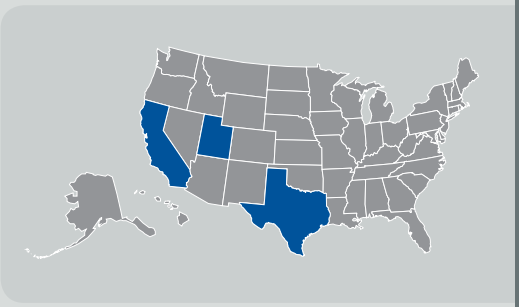
Provide dedicated support to ground troops by directly down-linking real-time full motion video to units equipped with Remotely Operated Video Enhanced Receiver (ROVER) terminals. Predator's primary mission is long-dwell reconnaissance and target acquisition in support of the Joint Forces commander.

DESCRIPTION

The MQ-1 Predator is an Unmanned Aircraft System (UAS) that delivers persistent Intelligence, Surveillance, and Reconnaissance (ISR) with day/night full-motion video (EO/IR), laser target designation/illumination, and direct-strike capabilities using Hellfire laser-guided missiles. The MQ-1 Predator is a medium-altitude, long-endurance remotely piloted aircraft, and has the capability to directly attack critical, perishable targets.

CONTRACTORS

Prime: General Atomics - Aeronautical Systems Incorporated (CA)
Subcontractor(s): L-3 Communications (UT); Raytheon (TX)



SPECIFICATIONS

Size	Wingspan: 55 ft.; Length: 28 ft.
Weight	Maximum takeoff weight: 2,500 lb.
Range	400 nautical miles (NM) (with 16 hours on station)
Armament	Two AGM-114 Hellfire laser-guided missiles
Warhead	Blast/Fragmentation or anti-armor
Coverage	Varies by sensor. Full motion video coverage—electro-optical, infrared, and low-light video cameras; All are Line of Sight (LOS)
Capacity/Satellite	Sensor Data: Beyond Line of Sight (BLOS) SATCOM and Line of Sight (LOS) to ROVER customers. Future datalink improvements will provide more robust LOS Tactical Common Datalink (TCDL) to ROVER III and ground stations and a more robust BLOS datalink.
Interoperability	Sensor data currently provided via proprietary data links. Full Motion Video uses proprietary Motion JPEG format for BLOS and standard H.261 for ROVER. Future data link improvements will provide FMV via standard MPEG-2 format with NGA-standard Key Length Value (KLV) metadata over standard TCDL data links. Data sent to ROVER is used by forces on ground in direct contact with the enemy.
Compatability	Sensor data is compatible with Predator ground stations and ROVER receivers

ACQUISITION STATUS

Program Status	Full rate production
Unit Assignment	11th Reconnaissance Squadron; 15th Reconnaissance Squadron; 17th Reconnaissance Squadron
Current Inventory	88

MISSION

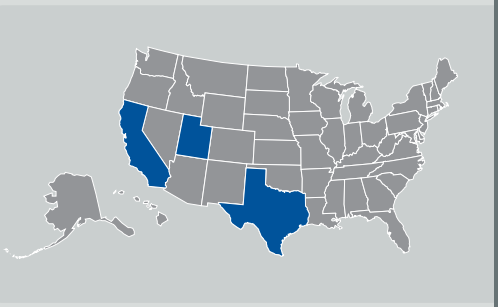
Provide persistent and immediate precision direct-strike capability. In its "Hunter-Killer" role, MQ-9 Reaper automatically finds, fixes and tracks high value targets enabling combatant commanders to rapidly prosecute critical emerging Time Sensitive Targets (TSTs) without having to wait for other strike aircraft.

DESCRIPTION

The MQ-9 Reaper will influence the battle space by providing continuous coverage of the area of interest, independent of time of day or weather obscuration, with the ability to detect, identify, attack and destroy critical emerging targets (both moving and stationary) from endurance altitude within the defined area. The MQ-9 provides persistent full-motion video directly to decision makers and warfighters in direct contact with the enemy. The MQ-9 can conduct direct strikes using Guided Bomb Unit (GBU)-12 laser-guided 500-lb. bombs, GBU-38 Joint Direct Attack Munitions (JDAM), laser target designation/illumination, and AGM-114 Hellfire missiles. MQ-9 also provides persistent Intelligence, Surveillance and Reconnaissance (ISR) with day/night full-motion video (EO/IR) and a synthetic aperture radar with Ground Moving Target Indicator (GMTI).

CONTRACTORS

Prime: General Atomics - Aeronautical Systems Incorporated (CA)
Subcontractor(s): L-3 Communications (UT); Raytheon (TX)



SPECIFICATIONS

Size	Wingspan: 64 ft.; Length: 36 ft.
Weight	Maximum takeoff weight: 10,000 lb.
Range	1,000 nautical miles (NM) (with 16 hours on station)
Armament	Up to 3,000 lb. of GBU-12 laser-guided 500-lb. bombs and/or GBU-38 JDAMs; AGM-114s
Coverage	Varies by sensor. Full motion video coverage—electro-optical, infrared and low-light video cameras; Synthetic aperture radar coverage—strip map that parallels and is offset from aircraft flight path; All are Line of Sight (LOS)
Capacity/Satellite	Sensor Data: Beyond Line of Sight (BLOS) SATCOM and Line of Sight (LOS) to ROVER customers; Future datalink improvements will provide more robust LOS Tactical Common Datalink (TCDL) to ROVER III and ground stations and a more robust BLOS datalink.
Interoperability	Sensor data currently provided via proprietary data links. Full Motion Video uses proprietary Motion JPEG format for BLOS and standard H.261 for ROVER. Future datalink improvements will provide FMV via standard MPEG-2 format with NGA-standard Key Length Value (KLV) metadata over standard TCDL datalinks. Data is sent to ROVER used by forces on ground in direct contact with the enemy
Compatability	Sensor data compatible with Predator ground stations and ROVER receivers

ACQUISITION STATUS

Program Status	System Development and Demonstration (SDD)
Unit Assignment	42nd Attack Squadron (2nd Qtr FY07)
Current Inventory	8

MISSION

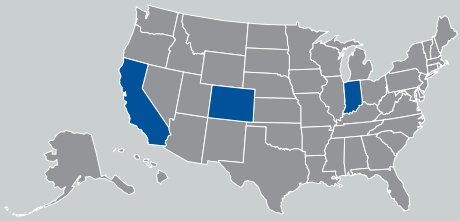
Provide military commanders and civilian leaders with assured, timely, high-quality global weather and environmental information to effectively employ weapon systems and protect national resources.

DESCRIPTION

The National Polar-orbiting Operational Environmental Satellite System (NPOESS) is a tri-agency program (DoD, Department of Commerce, and NASA) that will be the nation's primary source of global weather and environmental data for operational military and civil use for at least 10 years. NPOESS will fly a suite of instruments that will provide visible and infrared cloud-cover imagery and other atmospheric, oceanographic, terrestrial, and space environmental information. In all, NPOESS will measure environmental parameters such as soil moisture, cloud levels, sea ice, ozone, and more.

CONTRACTORS

Prime: Northrop Grumman Space Technology (CA)
Subcontractor(s): Raytheon (CA); Ball Aerospace (CO); **Instruments** - ITT Industries (IN)



SPECIFICATIONS

Size	Four-satellite constellation
Weight	14,498 lb. (max)
Coverage	Global; Low Earth Polar Sun synchronous orbit-two-orbit planes with four-hour revisit capability (with reliance on the European Meteorological Operational (MetOp) satellite in third orbit)

ACQUISITION STATUS

Program Status	Engineering and Manufacturing Development (EMD)

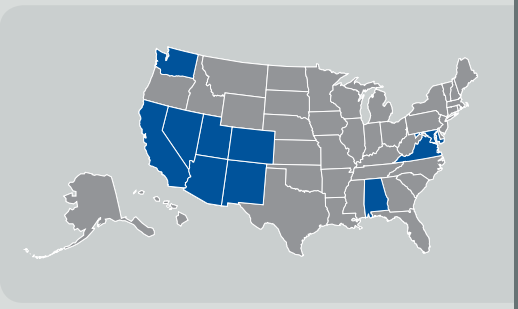
MISSION

Provide assured space power focused on the urgent needs of the Joint Forces Commander.

DESCRIPTION

Operationally Responsive Space (ORS) will provide an affordable capability to promptly, accurately, and decisively position and operate national and military assets in and through space. ORS will be fully integrated and interoperable with current and future architectures, and provide space services and critical capabilities to warfighters and other users. ORS is a vision for transforming future space operations, integrations and acquisition, all at a lower cost.

CONTRACTORS



Prime: The Air Force Research Laboratory (NM); U.S. Naval Research Laboratory (DC); Air Launch (WA); Orbital Sciences Corporation (AZ); Space-X (CA)

Subcontractor(s): Delta Velocity Corporation (VA); HMX (NV); Honeywell (MD); Jackson & Tull (NM); Johns Hopkins APL (MD); L3 Communications (UT); Orion Propulsion (AL); Praxis (VA); Raytheon (CA); SEAKR (CO); Space Vector Corporation (CA); Swales Aerospace (MD); Universal Space Lines LLC (CA)

SPECIFICATIONS

Range	Capable of inserting assigned payloads into orbit
Capacity/Satellite	Goal of Small Launch Vehicle (SLV): 1,000 lb. to 100 nautical miles (NM), 28.5° orbit; TacSat-1 (Air Force supporting launch ops and range ops): 300 lb. small satellite for low resolution tactical imaging and Radio Frequency (RF) emitter identification via Secure Internet Protocol Router Network (SIPRNet) tasking/exploitation. TacSat-2 (AF funded): 800 lb. small satellite for higher resolution tactical imaging and RF emitter identification via SIPRNET tasking/exploitation. TacSat-3 (AF funded): 800 lb. small satellite for HyperSpectral imaging and navy ocean buoy data collection/communications. TacSat-4 (AF providing launch): 836 lb. (planned) small satellite for data exfiltration/collection, Blue Force Situational Awareness (BFSA) and communications on the move for underserved users
Interoperability	Launch from both Cape Canaveral Air Force Station (CCAFS) and Vandenberg Air Force Base (VAFB), cooperating with NASA and commercial launch services
Compatibility	Satisfies all payload integration requirements

ACQUISITION STATUS

Program Status	System Development & Demonstration (SDD)

MISSION

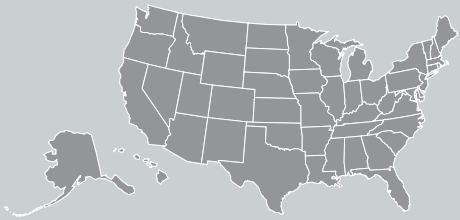
Provides secure, survivable communications connectivity required to support peacetime, contingency, and wartime operations in the polar region.

DESCRIPTION

Polar Military Satellite Communications (MILSATCOM) provides critical tactical users 24-hour/day coverage with two properly phased satellites and assured, low probability of detection satellite communications in the North polar region.

CONTRACTORS

Classified



SPECIFICATIONS

Size	Interim Polar: Three payload packages hosted on classified satellites; Enhanced Polar: Two payload packages hosted on classified satellites
Coverage	Northern latitudes above 65° N
Capacity/Satellite	Interim Polar: Milstar LDR data rates; Enhanced Polar: Advanced Extremely High Frequency (AEHF) XDR Format
Compatibility	Interim: Polar package compatible with Low Data Rate (LDR) terminals; Enhanced: Polar package compatible with Extended Data Rate (XDR) terminals

ACQUISITION STATUS

Program Status	All milestones are classified

MISSION

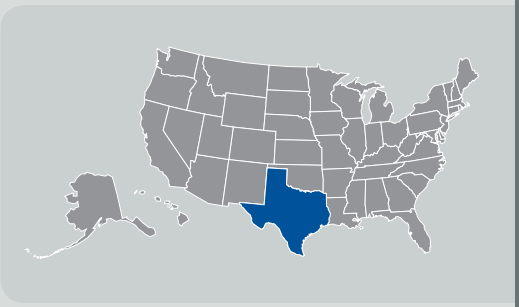
Provide the Air National Guard with a highly mobile aircraft Intelligence, Surveillance, and Reconnaissance (ISR) platform for use in counter-drug and counter-narcoterrorism operations, as well as other mission support areas.

DESCRIPTION

The RC-26B is a highly mobile ISR platform for use in counter-drug and counter narco-terrorism operations. It also provides mission support for SOUTHCOM, NORTHCOM, the Department of Homeland Security, and the United States Secret Service supporting national special security events, crisis/disaster response, maritime patrol, homeland defense, and the Global War on Terrorism. The RC-26B features a small logistics footprint that can rapidly deploy in support of counter-drug and contingency operations. The system consists of an ElectroOptical Forward Looking Infrared Radar (FLIR) camera for video recording, two still cameras (digital and wet film), a robust communication package for first responder, civil, and military communications, and a Line of Sight Streaming video transmitter. The aircraft is operated by two pilots and a missions system operator. Typically there is a law enforcement official or other agency representative on the aircraft to direct the operation and ensure mission requirements are met.

CONTRACTOR

Prime: ATK Mission Research **Integrated Systems** (TX); **Contract maintenance** - M7 Aerospace (TX)



SPECIFICATIONS

Weight	16,500 lb. gross weight
Range	Range: 1,200 nautical miles (NM) ; Service Ceiling: 25,000 ft.; Top Speed: 250 kN.
Dimensions	Wingspan: 57 ft.; Length: 59.35 ft.; Height: 16.66 ft.

ACQUISITION STATUS

Program Status	Operational
Unit Assignment	NY, WV, FL, AL, MS, WI, TX, NM, AZ, CA, WA Air National Guard units
Current Inventory	11
Future Upgrades	High Definition ElectroOptical Forward Looking Infrared Radar (FLIR) and Beyond Line of Sight (BLOS) video transmitters

MISSION

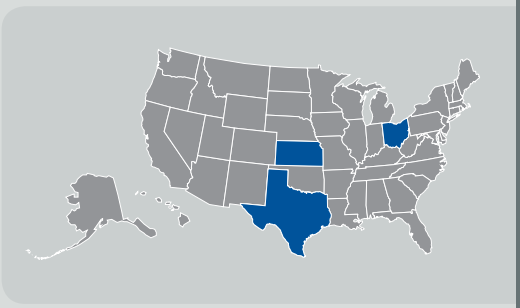
Collect Measurement and Signature (MASINT) intelligence for the scientific and technical assessment of foreign ballistic missiles and treaty verification.

DESCRIPTION

The RC-135S Cobra Ball is a self-contained Measurement and Signature (MASINT) intelligence collection platform that provides scientific and technical assessments of foreign ballistic missiles and treaty verification. Cobra Ball's specialized crew employs sensitive telescopic monitoring devices, advanced optics, and infrared sensors to provide national and theater command authorities with intercontinental ballistic missile treaty verification data and Theater Air Defense warning.

CONTRACTORS

Prime: **Major Subsystems** - L-3 Communications (TX); Textron (OH, TX)
Subcontractor(s): **Propulsion** - General Electric (OH); **Airframe** -Boeing (KS)



SPECIFICATIONS

Weight	322,500 lb. maximum take-off gross weight; 160,000 lb. aircraft basic weight
Range	5,000+ miles unrefueled; inflight refueling capable
Dimensions	Length: 140 ft.; Wingspan: 131 ft.; Height: 42 ft.
Speed	500 mph
Duration	8–10 hours unrefueled, limited only by aircrew duty requirements if aerial refueled

ACQUISITION STATUS

Program Status	Modification and Sustainment
Unit Assignment	55th Wing, Offutt AFB, NE
Current Inventory	Three mission aircraft plus one flight deck trainer aircraft
Future Upgrades	Baseline 2 delivers FY07; Baseline 3 FY07; Baseline 3 delivers FY08; Baseline 4 delivers FY11

MISSION

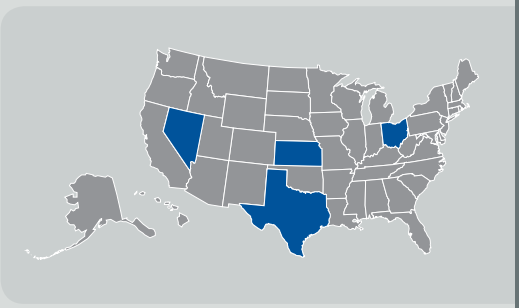
Collect information used in the development of advanced weapon systems and dynamic reprogramming of radar warning gear.

DESCRIPTION

The RC-135U Combat Sent is a scientific and technical Signals Intelligence (SIGINT) collector of information used in the development of advanced weapon systems and the dynamic reprogramming of radar warning gear.

CONTRACTORS

Prime: **Major Subsystems** - L-3 Communications (TX); Sierra Nevada Corporation (NV)
Subcontractor(s): **Propulsion** - General Electric (OH); **Airframe** - Boeing (KS)



SPECIFICATIONS

Weight	322,500 lb. maximum gross take-off weight; 165,000 lb. aircraft basic weight
Range	5,000+ miles unrefueled; inflight refueling capable
Dimensions	Length: 136 ft.; Wingspan: 131 ft.; Height: 42 ft.
Speed	500 mph
Duration	8–10 hours unrefueled, limited only by aircrew duty requirements if aerial refueled

ACQUISITION STATUS

Program Status	Modification and Sustainment
Unit Assignment	55th Wing, Offut AFB, NB
Current Inventory	Two mission aircraft
Future Upgrades	Baseline 3 delivers FY07; Baseline 4 delivers FY10

MISSION

Provide direct tactical Signals Intelligence (SIGINT) support to theater/component commanders.

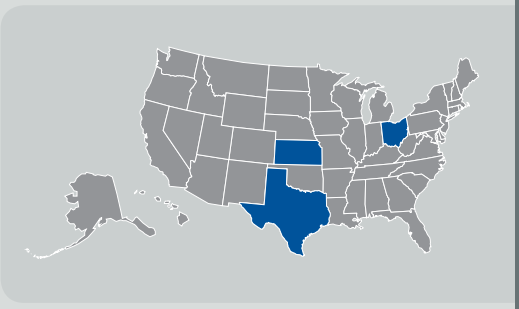
DESCRIPTION

RC-135V/W Rivet Joint is the DoD's premier manned airborne SIGINT platform. It is a self-contained collection, processing, analysis, and dissemination system. Rivet Joint rapidly fields tactical SIGINT capabilities to support the full spectrum of combat operations and national information needs. Rivet Joint flies over 700 airborne reconnaissance missions each year.

CONTRACTORS

Prime: Major Subsystems
- L-3 Communications (TX);

Subcontractor(s): Propulsion
- General Electric (OH); **Airframe**
- Boeing (KS)



SPECIFICATIONS

Weight	322,500 lb. maximum take-off gross weight; 170,000 lb. aircraft basic weight
Range	5,000+ miles unrefueled; inflight refueling capable
Dimensions	Length: 140 ft.; Wingspan: 131 ft.; Height: 42 ft.
Speed	500 mph
Duration	8–10 hours unrefueled, limited only by aircrew duty requirements if aerial refueled

ACQUISITION STATUS

Program Status	Modification and Sustainment
Unit Assignment	55th Wing, Offutt AFB, NE
Current Inventory	17 mission aircraft plus two flight deck trainer aircraft
Future Upgrade	Baseline 9 delivers FY09; Baseline 10 delivers FY11

MISSION

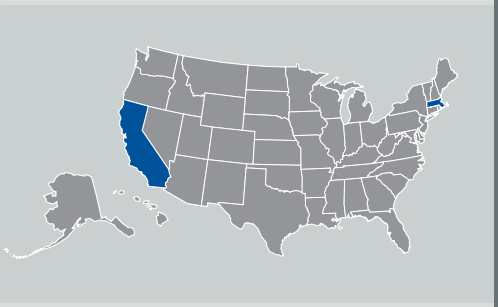
Provide North American Aerospace Defense Command (NORAD) and Pacific Command (PACOM) with a viable, interoperable, open architecture Command and Control (C2) node to support their mission of Air Sovereignty and Air Defense. This C2 node will also support NORTHCOM's Homeland Defense (HLD) and Homeland Security (HLS).

DESCRIPTION

RSAOC—also known as the Battle Control System-Fixed (BCS-F) program—which supports Operation NOBLE EAGLE, will provide a next-generation battle management command and control system with enhanced capability to integrate data from existing and future civil and military defense surveillance systems into a comprehensive recognized air picture. This multi-input integrated air control picture will enhance the North American Aerospace Defense/Combatant Commander's (NORAD/CC's) capability to conduct peacetime air sovereignty, transition, and conventional warfare in the event of aggression toward the North American continent. BCS-F systems serve as the Air Force's Homeland Defense battle management, command, and control hubs and integrate data from radar sensors, data links and supporting communications architecture. They provide the tactical communications and data link capabilities with other military and civil systems responsible for conducting the planning, directing, coordinating, and controlling forces for air surveillance, air defense, and control of sovereign U.S. air space (including the National Capital Region). The BCS-F system is a bi-national cooperative program with Canada, ensuring air defense and surveillance capability for the entire North American continent.

CONTRACTORS

Prime: Thales Raytheon (CA)
Subcontractor(s): Mitre Corp (MA)



SPECIFICATIONS

Size	Different configurations of office and computer equipment (depending on Sector)

ACQUISITION STATUS

Program Status	Spiral 2 IOC declared by ACC Commander on October 31, 2006. Spiral 3 is post Milestone B
Future Upgrades	Future spirals include Human-Machine Interface upgrades, Remote Workstation capability, security upgrades, integration of additional radars, and enhanced interfaces/integration with the National Capital Region.

MISSION

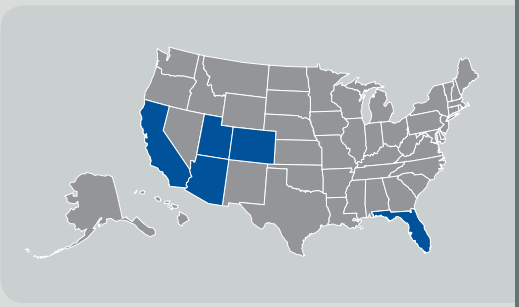
Maintain active control and management of Air Force excess ballistic missile assets and provide cost-reimbursable orbital and sub-orbital launch services for government agencies using refurbished missile motors.

DESCRIPTION

The Rocket Systems Launch Program (RSLP) stores deactivated Intercontinental Ballistic Missile (ICBM) motors, both Minuteman II and Peacekeepers. It performs aging surveillance on stored motors, provides cost-reimbursable launch services including payload integration, refurbishment, and transport of motors and boosters. The program provides launch operations via the Orbital/Sub-orbital contract (Minotaur I, II, III, IV); the Sounding Rocket contract; or the Responsive Small Spacelift contract (Falcon 1, Raptor 1 and Raptor 2). Refurbishment of motors saves government customers ~ $30 million/year versus the cost of new motors and avoids ~$370 million in missile motor destruction costs. The RSLP is designated as a single DoD agency providing launch vehicle support for DoD and other government agency RDT&E launches on a cost-reimbursable basis. It has provided launch support for 650 launches since 1962.

CONTRACTORS

Prime: Aerojet (CA); ATK Aerospace (UT); Space-X (CA); Orbital Sciences (AZ); Coleman Research (FL); Lockheed Martin (CO); Space Vector (CA)



SPECIFICATIONS

Capacity/Satellite	Minotaur I: 1,280 lb. to Low Earth Orbit (LEO); Minotaur IV: 3,800 lb. to LEO; Falcon 1: 1,075 lb. to LEO; Raptor 1: 1,115 lb. to LEO; Raptor 2,559 lb. to LEO (expected performance, have not launched yet)

ACQUISITION STATUS

Program Status	Two orbital launches aboard Minotaur I launch vehicles in FY05 (Space Test Program (STP)-R1 in 4QFY05; XSS-11 in 3QFY05); Supporting MDA's intercept tests by providing targets; total of eight launches and four static firings in FY05 successfully supported Army, Navy, Air Force, and Missile Defense Agency missions; transferred Peacekeeper program responsibility from ICBM System Program Office (SPO) to RSLP on October 1, 2005

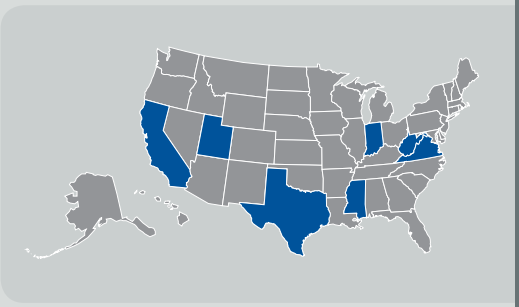
MISSION

Provide persistent, near-real-time intelligence from high-altitude to support operations across the spectrum of conflict.

DESCRIPTION

The RQ-4A/B Global Hawk unmanned aerial weapon system consists of aircraft, sensors, ground stations, data links, and trained personnel. It combines high-altitude, long endurance, and beyond-line-of-sight (BLOS) communications to provide responsive, persistent intelligence support where needed, throughout the world . The RQ-4 provides critical information to U.S. and allied decision makers in all weather, day or night, throughout all phases of conflict, including peacetime indications and warnings, low-intensity conflict, and large-scale hostilities. The RQ-4 is being developed and fielded in capability blocks. Block 10 is currently operational and carries imagery intelligence
(IMINT) sensors. Block 20 will employ a larger aircraft with increased payload capacity and improved IMINT. Block 30 will retain the improved IMINT sensors and integrate signals intelligence (SIGINT) sensors to achieve simultaneous, multi-INT coverage. Block 40 will comprise a separate set of aircraft employing an advanced radar sensor to provide improved IMINT and surface/air moving target information in support of both battle management and intelligence needs. The RQ-4 is an unmanned, single-engine aircraft. Crews fly the aircraft and control missions from ground stations made up of a Launch/Recovery Element (LRE) and a Mission Control Element (MCE). Takeoff and landing is controlled from an LRE at the RQ-4 airfield, using line-of-sight (LOS) or BLOS communications. During missions, aircraft and sensor control are accomplished from an MCE using BLOS links. MCEs may be located in CONUS (normal reachback operations) or at any appropriate location that affords the requisite communications connectivity. As it is collected, RQ-4 sensor data is transmitted BLOS through the MCE to appropriate locations for analysis and dissemination, and may be simultaneously transmitted directly to locations within aircraft LOS. RQ-4 reachback capability enables reduced forward footprint and enhanced crew safety while retaining full mission effectiveness.

CONTRACTORS



Prime: Northrop Grumman (CA); Raytheon (CA); Raytheon (VA); L-3 Communications (UT); Vought (TX); Rolls Royce (IN); Aurora (WV)
Subcontractor(s): **Ground Stations** - Raytheon (VA); **Propulsion** - Rolls-Royce (IN); **Tail Structure** - Aurora Flight Systems (WV); **Wing** - Vought Aircraft (TX); **Aircraft Sub-assembly** - Northrop-Grumman (MS); **Sensors** - Raytheon (CA); **Data links** - L-3 Communications (UT)

SPECIFICATIONS

Size	Block 10 - 26,750 lb. takeoff gross weight, Blocks 20, 30 & 40 - 32,250 lb takeoff gross weight
Range	Block 10 – 9,500 nm; Blocks 20, 30, & 40 – 8,700 nm
Dimensions	Block 10 - Length: 44 ft.; Wingspan: 116 ft.; Height: 14 ft.; Blocks 20, 30, and 40 – Length: 48 ft.; Wingspan: 131 ft.; Height: 15 ft.
Coverage	Wide area coverage due to high altitude and long endurance. Sensor capability varies by block. Block 10 – EO/IR and SAR, Block 20 – Enhanced EO/IR and SAR, Block 30 – Simultaneous enhanced EO/IR and SAR, and SIGINT, Block 40 – MP-RTIP radar only, for improved IMINT and Surface/Air MTI
Interoperability	RQ-4 uses commercial Ku BLOS or X-band LOS data links for combined C2 and sensor data, with INMARSAT and UHF data links as back-up. It is interoperable through the MCE with Distributed Common Ground Station (DCGS) nodes, including compatible Army, Navy and Marine Corps surface terminals.
Compatibility	Sensor data can be sent through satellite for BLOS link to MCE and relayed to DCGS nodes, and via LOS link directly to theater users. IMINT data can be injected by DCGS onto the wide area network (WAN) or other appropriate network sites.
Speed	Block 10 - 340 knots; Blocks 20, 30 and 40 – 310 knots
Payload	Block 10 - 2,000 lb.; IMINT; Block 20 – 3,000 lb.; enhanced IMINT; Block 30 – 3,000 lb.; enhanced IMINT plus SIGINTBlock 40 – 3,000 lb.; MP-RTIP
Other Specifications	Altitude - 60,000 ft; Endurance - 28 hours

ACQUISITION STATUS

Program Status	Low Rate Inititial Production
Unit Assignment	12th Reconnaissance Squadron
Current Inventory	7 Block 10 aircraft and 2 ground stations
Future Upgrades	Block 20 - Larger aircraft with enhanced IMINT (EO/IR) sensors and greater payload capacity; Block 30 - Simultaneous IMINT and SIGINT (ASIP) sensors; Block 40 - Single sensor (MP-RTIP) for improved imagery and surface/air moving target indications

MISSION

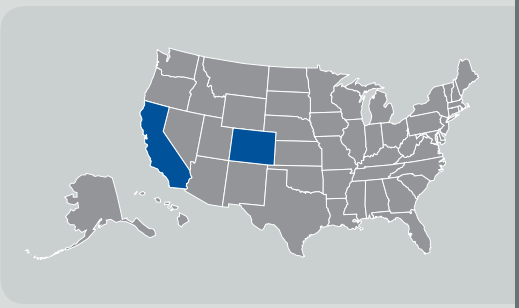
The Space Based Infrared System's (SBIRS) primary mission is to provide initial warning of a ballistic missile attack on the United States, its deployed forces, and allies.

DESCRIPTION

The Space Based Infrared System High (SBIRS High) is an infrared detecting satellite system that is the follow-on to the current Defense Support Program (DSP) missile warning satellites. SBIRS consolidates the national and DoD's infrared detection systems into a single overarching architecture that fulfills the nation's security needs in the areas of missile warning, missile defense, technical intelligence, and battlespace characterization. SBIRS consists of three Geosynchronous Earth Orbit (GEO) satellites, two Highly Elliptical Orbit (HEO) payloads, a Mission Control Station and Backup, Relay Ground Stations in Europe and the Pacific, and nine mobile multi-mission processors. SBIRS enables continuous global surveillance, tracking, and targeting of multiple objects in multiple areas of responsibility, and surveillance of infrared sources of operational, intelligence, and national significance.

CONTRACTORS

Prime: Lockheed Martin Space Systems (CA)
Subcontractor(s):
Northrop Grumman Electronic Systems (CA) ; Lockheed Martin Integrated Systems and Solutions (CO)



SPECIFICATIONS

Weight	10,229 lb. (GEO)
Coverage	Continuous global coverage
Interoperability	Interoperable with Cheyenne Mountain Operations Center and other strategic users via the Survivable Communications Integrated System, with theater missile warning networks via the Integrated Broadcast System in Link 16 format, with ballistic missile defense BMC3 (Battle Management Command, Control and Communications), and with the Space Battle Management Core System

ACQUISITION STATUS

Program Status	SBIRS High is in System Development and Demonstration. Increment 1 ground segments at the Mission Control Station and Interim MCS Backup are operational and process and disseminate current DSP data. The Highly Elliptical Orbit (HEO) - 1 payload is on-orbit and currently conducting nominal operations. HEO-2 payload has been delivered to classified host for integration. GEO satellites 1 and 2 have over 90 percent of their components delivered and are in various stages of assembly, integration, and testing. Relay Ground Station-Europe was outfitted with all mission and communications equipment in 2005. The Mission Control Station Backup-HEO at Schreiver AFB, CO, is in equipment fit-up and check out.

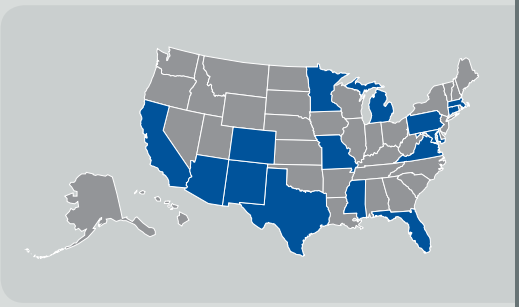
MISSION

Provide worldwide, unobtrusive, deep-look, all-weather, day-and-night surveillance and reconnaissance capabilities required by both national intelligence analysts and by joint warfighters.

DESCRIPTION

Space Radar will be a modern multifunction Active Electronically Steered Array (AESA) radar system that can survey areas of interest anywhere in the world without putting aircrews and assets in harm's way. It will operate with precision providing national and military decision makers the most current information about our adversaries' intent. Space Radar's unique intelligence capabilities and products will reduce enemy sanctuary through routine access and observation of vast, deep, denied and terrain-masked areas. It will help to discover and characterize objects, beginning a chain of custody, then cue aircraft and other spacecraft sensors to keep custody of fleeting targets during peacetime and war. This unprecedented surveillance capability will allow Combatant Commanders to dynamically task the system and fix forces across entire theaters of operation several times per hour. Homeland security and civil applications are also inherent to the capabilities of this continuously deployed system.

CONTRACTORS



Prime: Lockheed Martin (CO, AZ, PA, MD, CA, MN, VA); Northrop Grumman Space Technology (NGST) (CA, CT, FL, MD)
Subcontractor(s): Honeywell (AZ); Spectrum Astro (AZ); Boeing (CA); Raytheon (CA); SAIC (CA); BAE Systems (CA); Cisco (CA); Tecolote (CA); Integrated Data Systems (CA); Ball Aerospace (CO); Partners in Air and Space (CO); SEAKR (CO); Moog (CO); Harris Corp. (FL); Northrop Grumman Electronic Systems (MD); Swales (MD); Adcole (MA); General Dynamics (MI & VA); Eagle Pitcher (MO); Sheldahl (MN); Minco (MN); MEI (TX); Stennis (MS); Design Develop (NM); Integrity Applications Incorporated (VA); SRS Technologies (VA); Booz Allen Hamilton (VA); Diligent (VA)

SPECIFICATIONS

Weight **Range** **Dimensions**	Exact surveillance capabilities and numbers of spacecraft are subject to technical and trade space considerations that are being evaluated as part of the ongoing competitive concept development phase.
Payload	Active Electronically Steered Array Radar Sensor
Coverage	Global
Interoperability	Interoperable with Distributed Common Ground Stations and National Systems infrastructure
Compatibility	Fully network-centric capable
Products	Synthetic Aperture Radar Imagery (SAR); Surface Moving Target Indication (SMTI); Open Ocean Surveillance (OOS); High Resolution Terrain Information (HRTI) (3-D Maps) ; Advanced Geospatial Information (AGI)

ACQUISITION STATUS

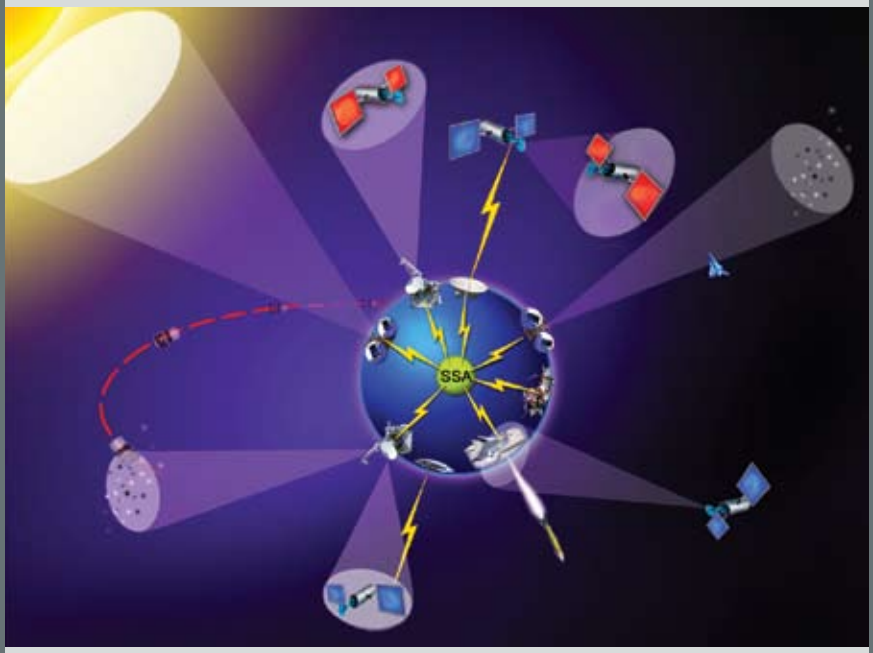
Program Status	Acquisition Phase A (Study Phase), Concept and Architecture Development

ADDITIONAL INFORMATION

The Secretary of Defense and the Director of Central Intelligence signed a 2005 agreement committing to Space Radar as the single space radar capability for the nation. The Space Radar Integrated Program Office is located in Chantilly, VA, and reports directly to the Under Secretary of the Air Force. The Integrated Program Office includes members from Army, Navy, Air Force, the National Geospatial Agency (NGA), the Office of the Director of National Intelligence (ODNI), and the National Reconnaissance Office (NRO) with significant support from Electronic Systems Center (MA), MITRE Corporation (MA), Air Force Research Laboratory (NY & NM), MIT Lincoln Labs (MA), Army Space and Missile Defence Command (AL), and Carnegie Mellon Software Engineering Institute (PA).

MISSION

Develop, integrate, and disseminate knowledge of all ongoing activities related to space operations, including Intelligence, Surveillance, Reconnaissance (ISR), and environmental monitoring activities.

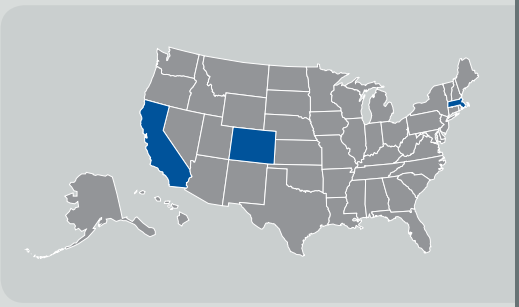


DESCRIPTION

Space Situation Awareness (SSA) is provided via a worldwide network of electro-optical and radar sensor systems with associated Command and Control (C2), data processing, and analysis capabilities. SSA provides data on space events and activities, including space object locations/breakups/decaying orbits, satellite attack warnings, overhead threat warnings, space treaty monitoring, and object identification/mission payload assessment of foreign satellites. SSA systems can find, fix, track, and characterize space objects. Data is gathered, integrated, and disseminated to aid C2 for space and other missions. Ongoing efforts are sustaining today's sensors; upgrading selected sensors for greater capability and longevity (Eglin radar; Haystack radar); developing new sensors (Space Based Space Surveillance system, or SBSS; Space Fence); and improving data integration and dissemination for comprehensive, multi-source SSA (the SSA Initiatives).

CONTRACTORS

Prime: Eglin Upgrade - ITT Industries (CO); **Haystack Upgrade** - MIT Lincoln Laboratory (MA); **SBSS** - Northrop Grumman (CA); **Space Fence** - Contractor TBD; **SSA Initiatives** - Various contractors
Subcontractor(s): SBSS - Boeing (CA); Ball Aerospace (CO)



SPECIFICATIONS

Size	Characteristics vary per sensor
Dimensions	Characteristics vary per sensor
Coverage	Worldwide surveillance of near earth and deep space orbits; Individual sensor coverage areas vary

ACQUISITION STATUS

Program Status	Development underway for Eglin Radar Life Extension, Haystack radar upgrade, Space-Based Space Surveillance (SBSS) optical satellites, Space Fence ground radar, and SSA Command and Control (C2)/integration initiatives
Unit Assignment	Various space control squadrons and detachments of the 21st Space Operations Group in Florida, New Mexico, Hawaii, and Virginia. Also located in Spain, and Diego Garcia
Current Inventory	Eight dedicated, eight collateral, and 13 contributing sensors. Dedicated assets provide full-time support to the SSA mission; collateral sensors provide data for SSA as a secondary mission, and contributing assets are operated by non-U.S. Strategic Command organizations, but provide data under contract
Future Upgrades	To be determined

MISSION

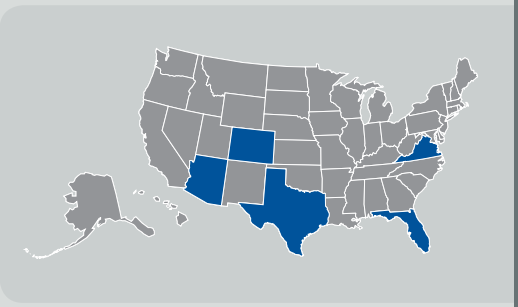
Facilitate the advancement of space systems technology—ultimately enabling space superiority by developing new space capabilities.

DESCRIPTION

The Space Test Program (STP) is DoD's primary program for spaceflight testing. As executive agent, the Air Force provides priority-based, fly before-buy spaceflight testing opportunities for research and development (R&D) experiments and technology demonstrations from the entire DoD space research community (e.g., Air Force, Navy, Army, Missile Defense Agency, National Reconnaissance Office, and others). The types of experiments supported range from basic research to advanced development. The STP acts as the primary interface between NASA's Human Spaceflight programs (including the Space Shuttle and International Space Station) and the DoD. It performs risk reduction through direct flight test of prototype components and is responsible for all auxiliary payload flight opportunities on Air Force launch vehicles. STP flight tests new space system technologies and improves operational spacecraft design by characterizing the space environment, event, or sensor physics proposed for a operational system/system upgrade.

CONTRACTORS

Prime: Communication/Navigation Outage Forecasting System (C/NOFS) - Spectrum Astro (AZ); **STP-1** - AeroAstro (VA); **STP-1** - Boeing (FL) ; **SIV Contractor** - Ball Aerospace (CO)
Subcontractor(s): Shuttle Integrator - Muniz Engineering (TX)



SPECIFICATIONS

Size	Efforts support multiple experiments ranging from 3 to 4,393,710 cubic in.
Weight	Efforts support multiple experiments ranging from 0.33 to 9,193 lb.
Range	Efforts support multiple experiments ranging from 48.6 NM to 19,438 NM
Dimensions	Efforts support multiple experiments ranging from 3 to 4,393,710 cubic in.
Coverage	Dependent upon specific experiment
Capacity/Satellite	Dependent upon specific experiment
Interoperability	Dependent upon specific experiment
Compatibility	Dependent upon specific experiment with emphasis on improving operational spacecraft design by characterizing the space environment, event, or sensor physics proposed for an operational system/system upgrade and provides early operational capabilities to evaluate usefulness or quickly react to new developments

ACQUISITION STATUS

Program Status	Nine successful missions in the last year including CloudSat, a NASA weather experiment. STP is providing on-orbit operations for the mission. STP-1: STP mission utilizing the first Evolved Expendable Launch Vehicle (EELV) Secondary Payload Adapter (ESPA) on an EELV Medium (Atlas V), which will launch six satellites from 11 experimental programs including DARPA's Orbital Express which will demonstrate autonomous satellite servicing including on-orbit refueling. Scheduled to launch in early 2007. The Standard Interface Vehicle Contract was awarded in FY06. C/NOFS mission on Pegasus: Forecast ionospheric scintillations that degrade communication, navigation, and surveillance systems. Launch scheduled for 2QFY08.

MISSION

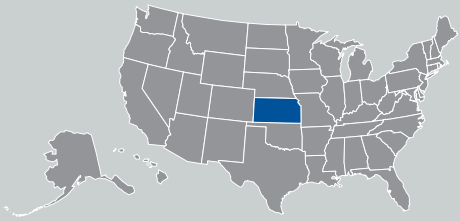
Provide advanced-phase Specialized Undergraduate Pilot Training (SUPT) for students selected to fly airlift or tanker aircraft.

DESCRIPTION

The T-1A Jayhawk is a medium-range, twin-engine jet trainer used in the advanced phase of SUPT. It is also used to support navigator training for the U.S. Air Force, Navy, Marine Corps, and international military services. It features cockpit seating for an instructor and two students and is powered by twin turbofan engines capable of an operating speed of Mach .78.

CONTRACTORS

Prime: Raytheon (KS)



SPECIFICATIONS

Weight	16,100 lb.
Range	2,222 nautical miles (NM)
Dimensions	Length: 48 ft. 5 in.; Height: 13 ft. 11 in.; Wingspan: 43 ft. 6 in.

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Laughlin AFB, TX; Randolph AFB, TX; Vance AFB, OK; Columbus AFB, MS

MISSION

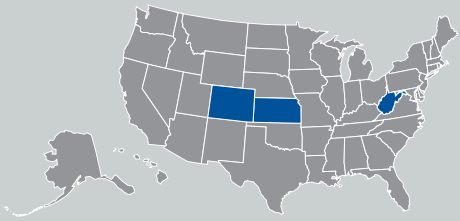
Train entry-level pilots in the fundamentals of flight.

DESCRIPTION

The T-6A Texan II is the Joint Primary Aircraft Training System (JPATS) aircraft. It replaces the USAF T-37B and the USN T-34C. The JPATS improves training, enhances safety, and offers increased aircrew accommodation. It also includes a Ground-Based Training System (GBTS) that includes Aircrew Training Devices (ATD), a Computer Based Training System (CBTS), courseware, and a Training Integration Management System (TIMS).

CONTRACTORS

Prime: Raytheon (KS)
Subcontractor(s): **Engine** - Pratt & Whitney Canada (WV); **Escape System** - Martin Baker Aircraft/ Middlesex (UK); **Avionics** - Honeywell Aerospace Electronic Systems/ Olathe (KS), Smiths Aerospace Electronic Systems/Cheltenham (UK); **Ground-Based Training System (GBTS)** - Flight Safety Services Corp. (CO)



SPECIFICATIONS

Weight	6,500 lb.
Range	800+ nautical miles (NM)
Dimensions	Wingspan: 33.4 ft.; Length: 33.3 ft.; Height 10.6 ft.
Interoperability	Joint US Air Force/US Navy (USAF/USN) primary trainer aircraft
Compatibility	Joint USAF/USN primary trainer aircraft
Service Ceiling	Maximum Operating Altitude - 31,000 ft.
Speed	320 mph

ACQUISITION STATUS

Program Status	Full Rate Production (Fielding and Sustainment); for FY07, acquire 48 USAF and 21 USN aircraft; continue Ground-Based Training System (GBTS) acquisition; production planned through FY08 (USAF) and FY13 (USN); Projected Inventory: 779 total (451 USAF and 328 USN)
Unit Assignment	Laughlin AFB, TX; Randolph AFB, TX; Vance AFB, OK; Columbus AFB, MS; Sheppard AFB, TX; Moody AFB, GA
Future Upgrades	Numerous minor enhancements; Traffic Alert and Collision Avoidance System (TCAS) upgrade

MISSION

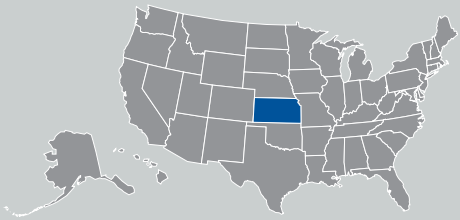
Provide the primary phase—Phase II—of Specialized Undergraduate Pilot Training to fill Air Force requirements for new pilots.

DESCRIPTION

The T-37B Tweet is a twin-engine jet used for training joint specialized undergraduate pilot students in the fundamentals of aircraft handling and instrument, formation, and night flying. The T-37B has been used since the 1950s to train Air Force pilots. Since the mid-1990s, the Air Force has gradually been procuring the T-6A Texan II as a follow-on aircraft to replace the aging T-37. All T-37s will be retired by the end of FY08.

CONTRACTORS

Prime: Cessna (KS)



SPECIFICATIONS

Weight	6,625 lb.
Range	460 nautical miles (NM)
Dimensions	Length: 29 ft. 3 in.; Height: 9 ft. 2 in.; Wingspan: 33 ft. 8 in.

ACQUISITION STATUS

Program Status	All T-37s will be retired by the end of FY08
Unit Assignment	Randolph AFB, TX; Vance AFB, OK; Columbus AFB, MS; Sheppard AFB, TX
Current Inventory	Active Force, 419; Air National Guard (ANG), 0; Reserve, 0

MISSION

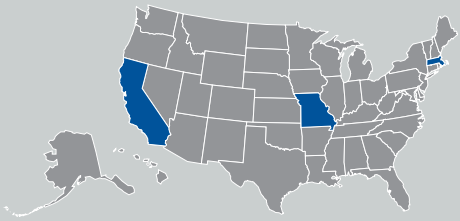
Provide specialized pilot training, meeting pilot requirements of fighter/bomber crews.

DESCRIPTION

The T-38A Talon is a twin-engine, high-altitude, supersonic jet trainer used in a variety of training roles, including Phase III of Specialized Undergraduate Pilot Training (SUPT) and Introduction to Fighter Fundamentals (IFF). The T-38 is also used as a companion trainer for some Air Combat Command aircraft such as the U-2, B-2, and F-117. Several T-38s are used as part of the Air Force Test Pilot School program. The T-38A has swept wings, a streamlined fuselage, and tricycle landing gear with a steerable nose wheel. The T-38B has a gun sight and practice bomb dispenser. The T-38C incorporates a "glass cockpit" with integrated avionics displays, head-up display and an electronic "no drop bomb" scoring system.

CONTRACTORS

Prime: Airframe - Northrop Grumman (CA); **Avionics** - Boeing (MO); **Engines** - GE (MA); **Escape System** - Martin Baker Aircraft/ Middlesex (UK)



SPECIFICATIONS

Weight	12,093 lb.
Range	1,093 nautical miles (NM)
Dimensions	Length: 46 ft., 4 in.; Height: 12 ft., 10 in.; Wingspan: 25 ft., 3 in.

ACQUISITION STATUS

Program Status	By the end of FY07, all Air Education and Training Command T-38s will be upgraded to T-38C status, which installs a "glass" cockpit and Global Positioning System. Current service life for the T-38C is projected to 2020. The T-38A and AT-38B are both going through the Avionics Upgrade Program (AUP) to be converted to the T-38C.
Unit Assignment	Randolph AFB, TX; Vance AFB, TX; Sheppard AFB,TX; Laughlin AFB,TX; Moody AFB, GA; Columbus AFB, MS

MISSION

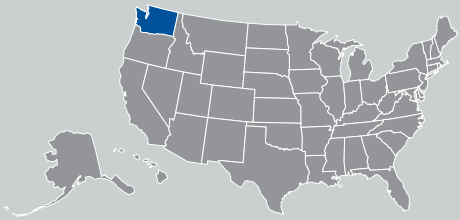
Provide navigator training for Air Force personnel.

DESCRIPTION

The T-43A is the Air Force's primary navigation trainer and provides the pipeline for new navigators. Graduates are awarded the rating of basic navigator. The T-43A crew consists of the flight crew, 12 student navigators, and six instructors. The T-43A will be retired by FY10 and replaced with consolidated navigator training at Pensacola NAS, FL, in accordance with Base Realignment and Closure (BRAC) requirements.

CONTRACTORS

Prime: Boeing (WA)



SPECIFICATIONS

Weight	115,000 lb.
Range	2,995 nautical miles (NM)
Dimensions	Length: 100 ft.; Height: 37 ft.; Wingspan: 93 ft.

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Randolph AFB, TX

MISSION

Advise ground commanders regarding the capabilities and limitations of air power and assist the ground commander in planning, requesting, and coordinating close air support (CAS.)

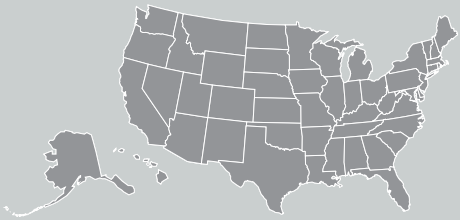
DESCRIPTION

The TACP is a subordinate operational component of the theater air control system designed to provide air liaison to land forces and for the control of aircraft (JP 3-09.3). The TACP is usually co-located with the senior Army operational command post from corps through battalion level and below, if jointly validated. It can also support other organizations (e.g., special operations, coalition forces and police) and other missions requiring long-haul communications or procedural airspace control (e.g., humanitarian). The TACP provides advice and assistance in planning for the employment of air and space power assets including, but not limited to: CAS; air interdiction; and Intelligence, Surveillance and Reconnaissance (ISR). TACPs prepare and submit immediate air support requests to the ASOC using the Joint Air Request Net. It conducts detailed target planning and transmits a mission briefing to aircraft upon check-in. The TACP provides terminal attack control during attack execution and forwards battle damage assessment to C2 organizations.

The ASOC is the principle command and control node for integrating air and space power into counterland operations. A direct subordinate element of the air operations center (AOC), the ASOC is responsible for the direction and control of air operations directly supporting the ground combat element. Normally co-located with the senior Army tactical echelon, ASOCs coordinate operations with their permanently aligned TACP, Army Fire Support Cell (FSC), and AOC. The ASOC may also support units from other organizations (e.g., coalition forces), or augment other missions requiring procedural airspace control (e.g., humanitarian efforts). The ASOC executes the air tasking order in accordance with the ground commander's priorities, provides procedural control of CAS aircraft operating inside the fire support coordination line (FSCL), obtains clearance of fires from the FSC, and integrates, coordinates and synchronizes other air and space operations occurring inside the FSCL.

CONTRACTORS

Prime: To be determined



SPECIFICATIONS

Size	Total Force: Officers - 428, Enlisted - 2,381; Active Duty only: Officers - 261, Enlisted - 1,637. Total Force increasing by 201 officer and 361 enlisted to support Army Transformation FY 08-11.

ACQUISITION STATUS

Program Status	To be determined
Unit Assignment	Worldwide

MISSION

Provide the Joint Forces Air Component Commander (JFACC) the means to plan, direct, and control all theater air operations during peacetime, exercise, and wartime environments.

DESCRIPTION

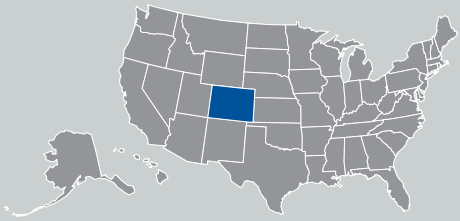
Theater Battle Management Control Systems (TBMCS) is the Combat Air Force information and decision support system supporting combined and joint air operations for the Joint Forces Air Component Commander (JFACC).

TBMCS Force Level (FL) refers to the Headquarters elements of an operating command, Numbered Air Force, Unified Command or Joint Task Force, to create and execute a battle plan conducted at an Air and Space Operations Center-Weapon System (AOC WS). TBMCS is the Joint System of Record for exchanging/facilitating air battle planning and intelligence operations and executions with participating services and allies.

TBMCS Unit Level (UL) refers to the wings and squadrons that take direction from FL to carry out the battle plan. TBMCS UL Operations (OPS) and UL Intel are both wing level command and control (C2) systems. UL OPS is used to control and monitor unit level operations during wartime, contingencies, and exercises. UL Intel is used to analyze the taskings specified in the Air Tasking Order (ATO) and maintain base-level real-time intelligence support to the AOC, as well as the targeting and mission planning communities.

CONTRACTORS

Prime: Lockheed Martin Integrated Systems & Solutions (CO)



SPECIFICATIONS

Interoperability	TBMCS is an integrated command and control (C2) system which provides standardized, secure, automated decision support for Air Force, Joint, and Allied commanders worldwide. The system is specifically designed to interface with C2 systems from the US Army, Navy, Marines, and selected Allied/Coalition Nations. TBMCS provides automated air operations planning, execution management and intelligence capabilities. It supports a full range of functions including: Air Tasking Order (ATO)/Airspace Control Order (ACO) production and re-planning; threat assessment; target selection; mission execution; battle damage assessment; resource management; time critical target identification and prosecution; and defensive planning. It also supports interaction with subordinate/command units for mission execution. It provides a capability to obtain resource information, and to plan and execute the next day's missions. TBMCS has in-garrison and deployable configurations.

ACQUISITION STATUS

Program Status	ACAT IAC; Fielding FL Sp 1.1.3, UL Ops Sp 8.5N, UL Intel Sp 10.0
Future Upgrades	Force Level – Spiral 1.1.4: Integration with collaboration tools; Consolidated database for planning/execution; Reduction of decision support process cycle times; Decision quality information; Automate capability to support integrated air and space effects-based dynamic strategy development and assessment; Net ready compliance; Unit Level Ops – Spiral 8.5N, 9: Unit to Force interoperability (unit contract information services); Ops to Intel interoperability (alert, MISREP added to Intel web page); Map Edit capability; Web-based air crew sortie scheduling viewing; Automated Report Generator; Unclassified UL Ops; Web enabled base map with geospatial and Geobase capability; Client Windows XP O/S migration; Unit Level Intel – Spiral 10: Migration to GCCS-I3 Disconnected Operations; Leverage TBMCS FL 1.1.4 web services; Migration to Common Geopositioning Services (CGS) from Raindrop & Raindrop Extension as part of the TAW solution; Windows XP Professional Operating System

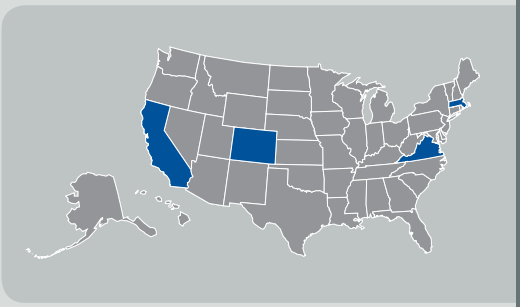
MISSION

Provide wideband tactical, protected tactical, mobile tactical, strategic, and relay type satellite-based communications to DoD, government, and allied forces/international partners.

DESCRIPTION

The Transformational Satellite Communications System (TSAT) is a next-generation communication satellite system that provides strategic and tactical protected communications. TSAT incorporates laser communications and packet routing/switching protocols to provide a high bandwidth environment. It extends the DoD ground-based Global Information Grid network to deployed and mobile users and provides assured command and control to strategic forces. It delivers medium and high-data-rate wideband communications exfiltration from Intelligence, Surveillance, and Reconnaissance (ISR) assets. TSAT increases throughput to tactical users, allowing communications-on-the-move and persistent worldwide connectivity of ISR assets. TSAT interfaces across the satellite communications (SATCOM) systems of other agencies. It consists of a five-satellite space segment with associated command and control, ground gateways, and the TSAT Mission Operations System (TMOS).

CONTRACTORS



Prime: **Space Segment** - Lockheed Martin Space Systems (CA), Boeing Space & Intelligence Systems (CA); **TMOS/Network Segment** - Lockheed Martin Integrated Systems and Solutions (CA); **Systems Engineering and Integration** - Booz Allen Hamilton (VA)

Subcontractor(s): Northrop Grumman (CA); Raytheon (CO, MA); Ball Aerospace (CO); Verizon (VA)

SPECIFICATIONS

Weight	TBD
Coverage	Global Coverage 65° N–65° S
Capacity/Satellite	Protected EHF: 45 Mbps max data rate; 2,340 Mbps loaded throughput; Wideband Ka: 311 Mbps max data rate (uplink only); 1,866 Mbps loaded throughput (uplink only); Laser: 2,440 Mbps data rate; 4.880 Mbps (Block I) 9,760 Mbps (Block II) loaded throughput; 4,880 Mbps loaded throughput (terminal constrained); 10,000 Mbps laser crosslinks
Interoperability	Space-based component of DoD Global Information Grid
Compatability	Backwards compatible to Advanced Extremely High Frequency (AEHF) Extended Data Rate (XDR) terminals

ACQUISITION STATUS

Program Status	System Requirements Review - 1QFY04); TMOS contract award - 2QFY06; System Design Review - 3QFY07; Space Segment contract award - 1QFY08; First launch planned for 1QFY16

MISSION

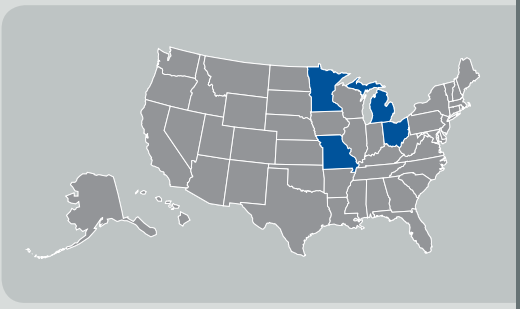
Provide single-system cargo loading, off-loading, and transport between warehouses and aircraft.

DESCRIPTION

The Tunner 60K Loader has a total loading capacity of 60,000 pounds. It will replace older 40,000-pound capacity loaders in the Air Force inventory. The Loader can carry up to six cargo pallets at once, drive on and off C-5 and C-17 aircraft, and load and unload cargo from all military and commercial cargo aircraft. Other advantages of the Loader include an improved turning radius, higher top speed, and mechanized rollers that greatly enhance the loading and unloading process. The Loader is five times more reliable than its predecessors and 150 to 350 percent more capable.

CONTRACTORS

Prime: DRS Technologies, Inc. (MO) (Formerly Systems & Electronics, Inc)
Subcontractor(s): **Hydraulics** - Linde Hydraulics (OH); **Castings** - Carondolet Foundry (MO); **Engine** - Detroit Diesel (MI); **Hydraulic Cylinders** - Commercial Intertech (MN); **Hydraulic fittings, hoses** - Parker Hanifin (OH); **Wheel hubs** - Fairfield Manufacturing (OH)



SPECIFICATIONS

Weight	Approx 65,000 lb.
Dimension	Transport: Length - 591 inches, Width - 111 inches, Height - 94 inches; Operation: Length - 591 inches, Width - 171 inches; Height - 94 inches
Deck Height	39 in. to 18.5 ft.
Speed	23 mph (governed)
Payload	60,000 lb. (6 pallets)

ACQUISITION STATUS

Program Status	Sustainment; delivery completed 31 Mar 05
Unit Assignment	75 locations worldwide
Current Inventory	318
Future Upgrades	None

MISSION

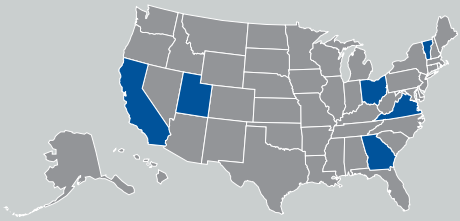
Provide near-real-time intelligence from high-altitude/near space to support operations across the spectrum of conflict.

DESCRIPTION

The U-2 weapon system consists of the aircraft, sensors, and data links, and combines high-altitude/near space, over-flight, and stand-off sensor capabilities. The U-2 provides all-weather surveillance and reconnaissance, day or night, in direct support of U.S. and allied forces. It delivers critical Imagery Intelligence (IMINT), Signals Intelligence (SIGINT), and Measurement and Signature Intelligence (MASINT) to decision makers throughout all phases of conflict, including peacetime indications and warnings, low-intensity conflict, and large-scale hostilities. The U-2S is a single-seat, single-engine aircraft. Long and narrow wings give the U-2 glider-like characteristics and allow it to quickly lift heavy sensor payloads to unmatched altitudes, keeping them there for extended periods of time.

CONTRACTORS

Prime: Airframe - Lockheed Martin (CA)
Subcontractor(s): Sensors - Raytheon (CA); **Major Subsystem** - L-3 Communications (VA); **Propulsion** - General Electric (UT); **Sensors** - B.F. Goodrich (OH); Northrop Grumman (VT); BAE (GA)



SPECIFICATIONS

Size	40,000 lb. takeoff gross weight
Range	7,000+ miles
Dimensions	Length: 63 ft.; Wingspan: 104 ft.; Height: 16 ft.
Coverage	Wide Area coverage due to high altitude. Sensor Data: Varies by aircraft/sensor configurations - Radar and SIGINT, or EO/IR and SIGINT; includes an Optical Bar Camera capability configuration that provides Synoptic Broad Area coverage
Interoperability	Sensor data currently provided via Ku or X-band Line of Sight (LOS) or government Beyond Line of Sight (BLOS) data links, or both simultaneously, and is interoperable with Distributed Common Ground Station (DCGS) systems (including compatible Army, Navy and Marine Corp) surface terminals. IMINT sensor data meets National Imagery Transmission Format.
Compatability	Sensor data can be sent to MOBSTR (ground relay station), direct to satellite for BLOS link, and DCGS ground stations. IMINT data can be injected onto the WAN by DCGS for use by other intelligence network customers.
Altitude	70,000+ ft.
Endurance	>10 hours
Payload	5,000 lb.; Multi-INT (simultaneous)
Speed	410+ knots (475+ mph)

ACQUISITION STATUS

Program Status	Sustainment
Current Inventory	33 aircraft - 28 single seat and five two-seat trainers
Future Upgrades	Aircraft wiring, cockpit, and sensor upgrades; Glass Cockpit (Block-20); Defensive System RWR/JAM; ASARS-2A Radar; Sensor upgrades: SYERS-2A EO/IR; Dual Data Link/Link-16; SIGINT

UH-1N HELICOPTER (VARIANTS: 1H/VM, UV-18B)

MISSION

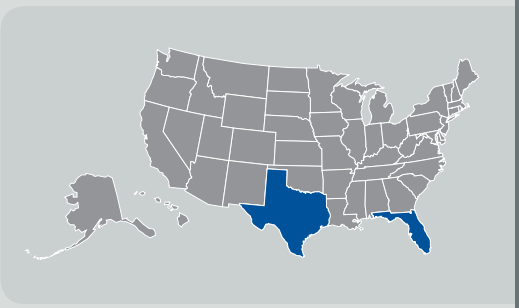
Provide Intercontinental Ballistic Missile (ICBM) and range security, distinguished visitor evacuation and airlift, and test and survival school support.

DESCRIPTION

The UH-1N Huey is a light-lift utility helicopter used at 10 operating locations at six major commands. The UH-1N and its variants, 1H/VM and UV-18B, provide ICBM and range security, distinguished visitor evacuation and airlift, and test and survival school support.

CONTRACTORS

Prime: Bell Helicopter Company (TX)
Subcontractor(s): Aerospace Integration Corporation (FL)



SPECIFICATIONS

Range	300 nautical miles (NM)
Dimensions	Length: 57 ft., 7 in.; Width: 9 ft., 5 in.; Height: 12 ft., 10 in.; Rotor: 48 ft.

ACQUISITION STATUS

Program Status	Fielded
Unit Assignment	Andrews AFB, MD; Malmstrom AFB, MT; Vandenburg AFB, CA; F.E. Warren AFB, WY; Minot AFB, ND; Kirtland AFB, NM; Eglin AFB, FL; Hurlburt AFB, FL; Yakota AFB, Japan
Future Upgrades	Undergoing life extension programs

MISSION

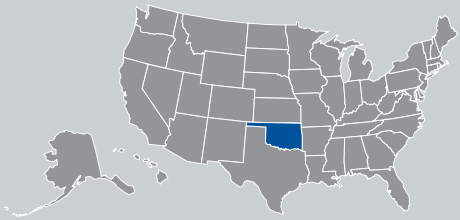
Provide worldwide air transport for the President of the United States.

DESCRIPTION

The VC-25A is a military variant of the commercial Boeing 747-200 equipped with robust communications and data transfer systems that enable the president to implement the constitutional roles of commander-in-chief of the Armed Forces, head of state, and chief executive while travelling. It is known as "Air Force One" when the president is aboard.

CONTRACTORS

Prime: Airframe, Engines - Boeing Integrated Defense System (OK)



SPECIFICATIONS

Weight	833,000 lb.
Range	6,800 nautical miles (NM)
Dimensions	Length: 232 ft.; Height: 63 ft.; Wingspan: 196 ft.
Service Ceiling	45,000 ft.
Speed	570 mph (Mach 0.84)
Passenger Capacity	76 passengers and 26 crew

ACQUISITION STATUS

Program Status	Sustainment
Unit Assignment	Andrews AFB, MD
Current Inventory	2
Future Upgrades	Presidential Data System (PDS), Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM)

MISSION

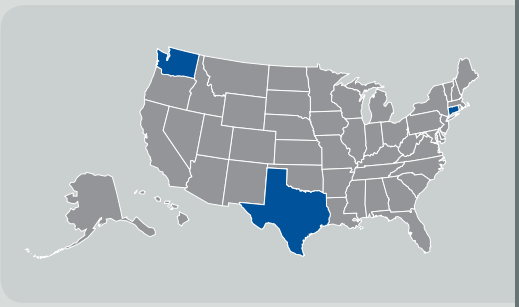
Supports national level consumers by collecting particulate and gaseous effluents and debris from accessible regions of the atmosphere in support of the Limited Nuclear Test Ban Treaty of 1963, which prohibits any nation from above ground nuclear weapons testing.

DESCRIPTION

Constant Phoenix is currently the only aircraft in the inventory conducting air-sampling operations. The aircraft's on-board atmospheric collection suite allows the mission crew to detect radioactive clouds in real-time. The aircraft is equipped with external flow-through devices to collect particulates on filter paper and a compressor system for whole air samples collected in holding spheres.

CONTRACTORS

Prime: Major Subsystems: L-3 Communications, Raytheon, Harris Information Systems (TX)
Subcontractor(s): Propulsion- Pratt & Whitney (CT); **Airframe-** Boeing (WA)



SPECIFICATIONS

Weight	299,000 lb. maximum gross take-off weight; 130,000 lb. aircraft basic weight
Range	5,000 + miles unrefueled; inflight refueling capable
Dimensions	Length: 140 ft.; Wingspan: 131 ft.; Height: 42 ft.
Speed	500 mph
Duration	8–10 hours unrefueled, limited only by aircrew duty requirements if aerial refueled

ACQUISITION STATUS

Program Status	Modification and Sustainment
Unit Assignment	55th Wing, Offutt AFB, NE
Current Inventory	Two mission aircraft

MISSION

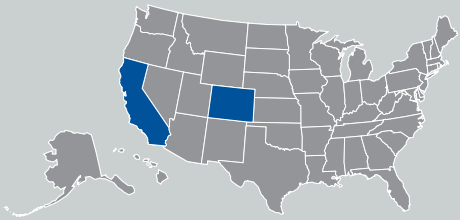
Provide beyond-line-of-sight and long-haul communication relay from geosynchronous orbit 22,000 miles above the earth's surface.

DESCRIPTION

The Wideband Global SATCOM (WGS) system provides unprotected wideband communications for deployed forces and warfighter communications using existing terminals. It is a follow-on to Defense Satellite Communications System (DSCS) satellites and takes on the Global Broadcast Service (GBS) mission. The system consists of five satellites using existing and new wideband terminals.

CONTRACTORS

Prime: Boeing Satellite Systems (CA)
Subcontractor(s): Harris Corporation (CO), ITT Industries (CO), Logicon (CA), SAIC (CA)



SPECIFICATIONS

Size	Five-satellite constellation
Weight	10,262 lb.
Coverage	Global Coverage: 65° N–65° S
Capacity/Satellite	Wideband Ka / X mix: 137 (SV 1-3), 274 (SV 4-5) Mbps max data rate; 2,100 Mbps loaded throughput
Compatibility	Compatible with existing wideband terminals

ACQUISITION STATUS

Program Status	Concept Design Review (CDR) - 4QFY02; WGS 4, 5, and option for 6 Contract Award - 1QFY07; First launch planned for 3QFY07

WIND CORRECTED MUNITIONS DISPENSER (WCMD) AND WCMD-EXTENDED RANGE (WCMD-ER)

MISSION

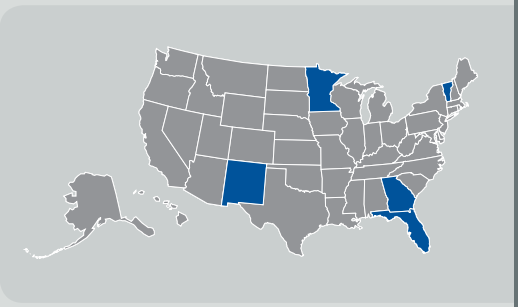
Provide accurate dispenser weapon capability when delivered from medium to high altitudes.

DESCRIPTION

The Wind Corrected Munitions Dispenser (WCMD) is a tail kit for use on inventory cluster weapons such as the Combined Effects Munition (CEM) and the Sensor Fused Weapon (SFW). The CEM is an anti-armor/anti-personnel weapon. The SFW is an anti-armor weapon. Development of the WCMD-Extended Range (ER) began in 2003 to add a wing kit and to integrate GPS into the WCMD-ER wing kit.

CONTRACTORS

Prime: Lockheed Martin (FL, GA)
Subcontractor(s): Honeywell Military Avionics (MN); B.F. Goodrich (VT); General Technology Corporation (NM); Kurt Manufacturing (MN)



SPECIFICATIONS

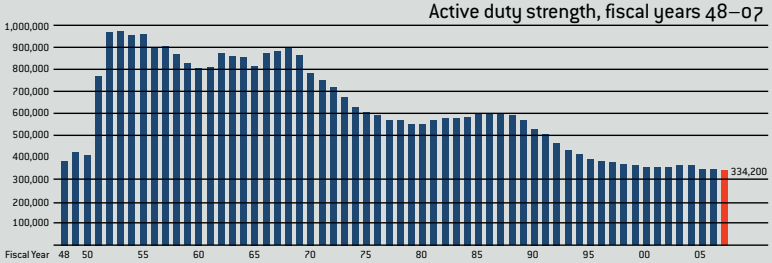
Weight	100 lb.
Dimensions	Length: 1.42 ft.; Width: 1.75 ft.; Height: 1.75 ft.
Compatability	CBU-87, CBU-89, and CBU-97

ACQUISITION STATUS

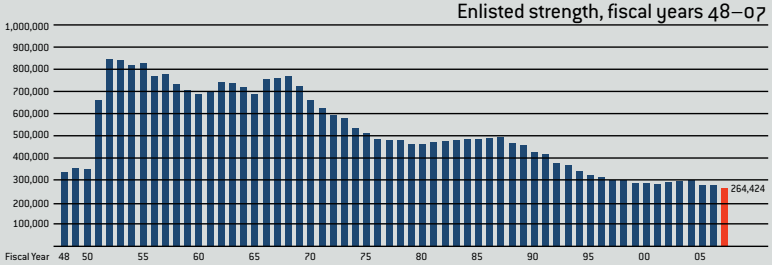
Program Status	WCMD no longer in production; WCMD-ER terminated.
Current Inventory	24,000

STRENGTH FIGURES

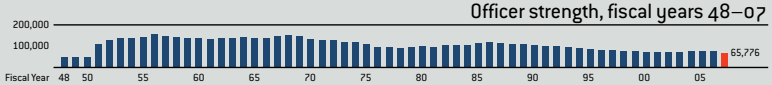
Active duty strength, fiscal years 48–07



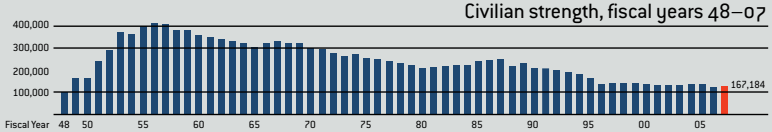
Enlisted strength, fiscal years 48–07



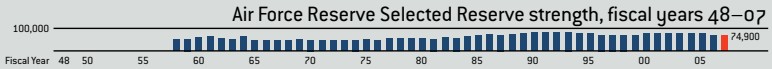
Officer strength, fiscal years 48–07



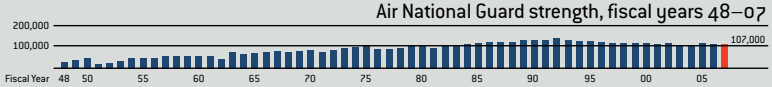
Civilian strength, fiscal years 48–07



Air Force Reserve Selected Reserve strength, fiscal years 48–07



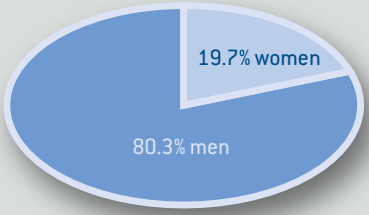
Air National Guard strength, fiscal years 48–07



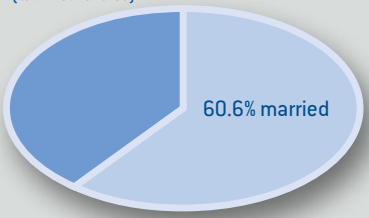
Data shown in red indicates 2007 projections

PERSONNEL FACTS

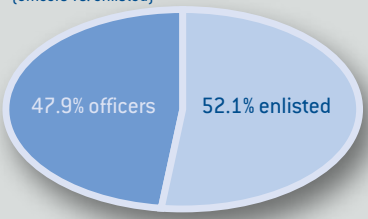
AF Population by Gender
(total active force)



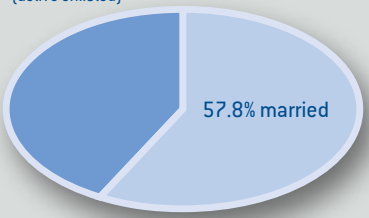
Marital Status
(total active force)



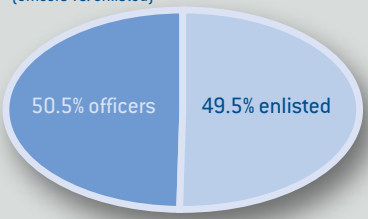
Female Air Force
(officers vs. enlisted)



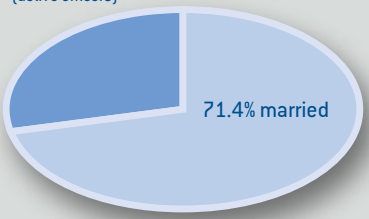
Marital Status
(active enlisted)



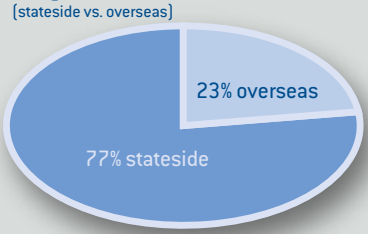
Male Air Force
(officers vs. enlisted)



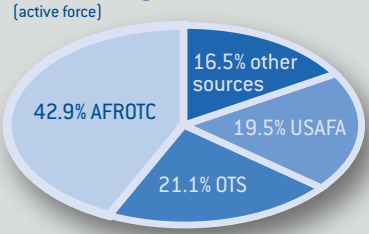
Marital Status
(active officers)



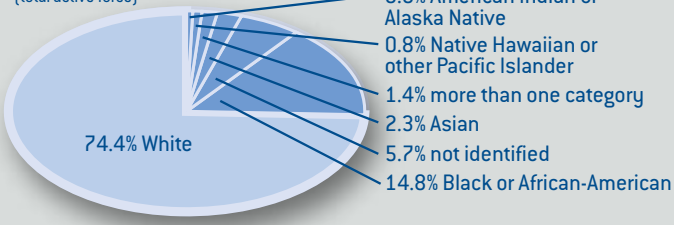
Assignments
(stateside vs. overseas)



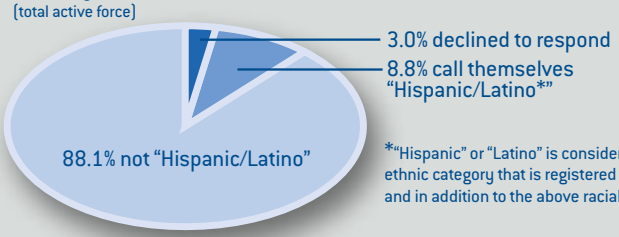
Commissioning Source
(active force)



Racial Breakdown
(total active force)

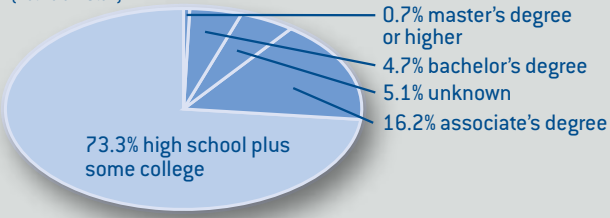


Ethnicity
(total active force)

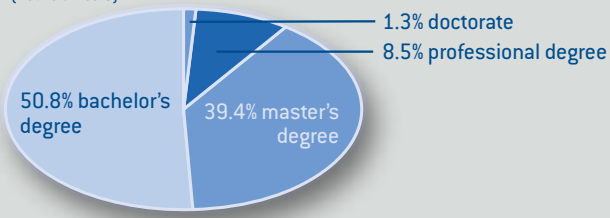


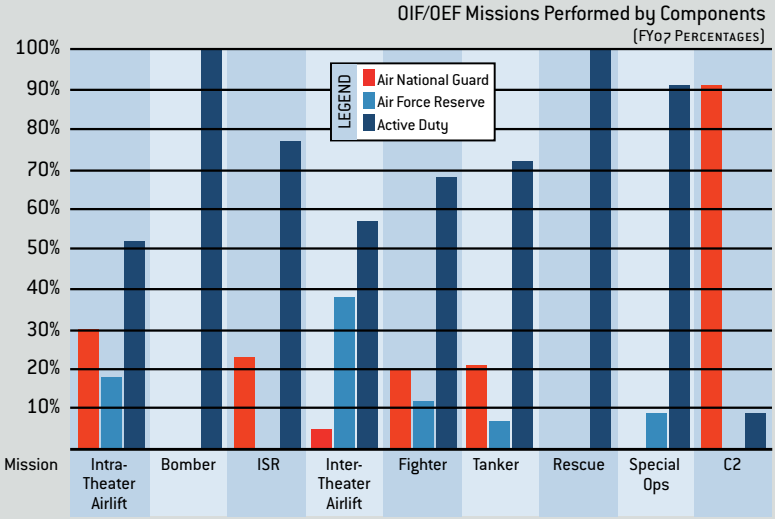
*"Hispanic" or "Latino" is considered an ethnic category that is registered separately and in addition to the above racial categories.

Highest Academic Education Attained
(active enlisted)



Highest Academic Education Attained
(active officers)




OIF/OEF Missions Performed by Components
(FY07 Percentages)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
LEGEND
Air National Guard
Air Force Reserve
Active Duty
Mission
Intra-Theater Airlift
Bomber
ISR
Inter-Theater Airlift
Fighter
Tanker
Rescue
Special Ops
C2

ORGANIZATION OF THE U.S. AIR FORCE

The Department of the Air Force was created with the National Security Act of 1947. It became effective Sept. 18, 1947 and, in 1958, the departments of the Army, Navy, and Air Force were eliminated from the chain of operational command. Commanders of unified and specified commands became responsible to the president and the Secretary of Defense through the Joint Chiefs of Staff.

AIR FORCE MANAGEMENT

The Headquarters of the Air Force incorporates all elements of the U.S. Air Force. It is administered by a civilian Secretary appointed by the President and is supervised by a military Chief of Staff. To ensure unit preparedness and overall effectiveness of the Air Force, the Secretary of the Air Force is responsible for and has the authority to conduct all affairs of the Department of the Air Force.

The Secretary's responsibilities include research and development, and any other activity assigned by the President or the Secretary of Defense. The Secretary of the Air Force exercises authority through civilian assistants and the Chief of Staff, but retains immediate supervision of activities that involve vital relationships with Congress, the Secretary of Defense, other governmental officials, and the public.

THE AIR STAFF

The Chief of Staff, U.S. Air Force, is appointed by the President, with the consent of the Senate, from among Air Force general officers, customarily for a term of four-years. The Chief of Staff serves as a member of the Joint Chiefs of Staff and the Armed Forces Policy Council. In this capacity, the Chief is one of the military advisors to the President, the National Security Council, and the Secretary of Defense. Also, the Chief is the principal advisor to the Secretary of the Air Force on Air Force activities.

The Chief of Staff presides over the Air Staff, transmits Air Staff plans and recommendations to the Secretary of the Air Force, and acts as the Secretary's agent in carrying them out. The Chief is responsible for the efficiency of the Air Force and the preparation of its forces for military operations. The Chief of Staff supervises the administration of Air Force personnel assigned to unified organizations and unified and specified commands. Also, the Chief supervises support of these forces assigned by the Air Force as directed by the Secretary of Defense. In addition, the Chief of Staff has responsibility for activities assigned to the Air Force by the Secretary of Defense.

FIELD ORGANIZATIONS

The Air Force has eleven major commands, 32 field operating agencies, and five direct reporting units with subordinate elements to carry out its mission. In addition, there are two Reserve components: the Air Force Reserve, which is also a major command, and the Air National Guard.

Major commands are organized on a functional basis in the United States and on a geographic basis overseas. They accomplish designated phases of Air Force worldwide activities. Also, they organize, administer, equip, and train their subordinate elements for the accomplishment of assigned missions. Major commands generally are assigned specific responsibilities based on functions. In descending order of command, elements of major commands include numbered air forces, wings, groups, squadrons, and flights.

THE WING

The basic unit for generating and employing combat capability is the wing. Composite wings operate more than one kind of aircraft, and may be configured as self-contained units designated for quick air intervention anywhere in the world. Other wings continue to operate a single aircraft type ready to join air campaigns anywhere they are needed. Air base and specialized mission wings such as training, intelligence, and test also support the Air Force mission.

GROUP

A group is a large Air Force formation usually composed of four or more squadrons and the bases from which they operate.

SQUADRON

A squadron is the basic unit of the Air Force, usually consisting of ten to eighteen aircraft

FLIGHT

The flight is an air force unit that is smaller than a squadron

FIELD OPERATING AGENCIES AND DIRECT REPORTING UNITS

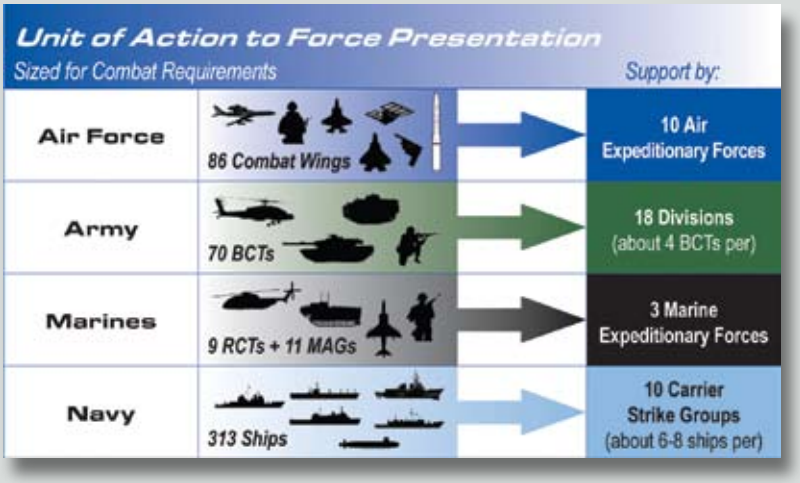
Field operating agencies and direct reporting units are other Air Force subdivisions and report directly to Headquarters U.S. Air Force. They are assigned a specialized mission that is restricted in scope when compared to the mission of a major command. Field operating agencies carry out field activities under the operational control of a Headquarters U.S. Air Force functional manager. Direct reporting units are not under the operational control of a Headquarters U.S. Air Force functional manager because of a unique mission, legal requirements or other factors.

In an effort to accurately capture the breadth, depth, and scope of Combatant Commander requirements, the Air Force set out to define a common measure for all units of action. The simplest way to do this was to group by capabilities and count by assets.

Combat Wings depict aggregate combat power in terms of fighters, bombers, C4ISR, mobility, space, missiles, SOF, Battlefield Airmen, and Air Operations Centers. The Combat Wing is equal to the number of combat assets (aircraft, missiles, etc.) divided by the normal number of assets per squadron divided by the number of squadrons per wing.

NUMBER OF ASSETS ÷ ASSETS PER SQUADRON ÷ SQUADRONS PER WING = COMBAT WING

Combat Wings represent the capability picture. After consulting the National Security Strategy and the National Military Strategy, the Air Force determined that 86 Combat Wings were the essential number needed to fully execute the mission. The Combat Wing delivers a more complete comparison between historical, current, and future demands of collective combat power for commanders by providing the necessary framework to ensure a leaner, more capable force framework, allowing combat forces the effects they need, when they need them. The added utility provided by the Combat Wing will continue to be employed in the Air and Space Expeditionary Forces (AEF) to ensure flexible, cost effective, and tailored expeditionary requirements of the Combatant Commanders.



ALABAMA

Maxwell AFB
Montgomery, AL
- Air University, AETC
- 42nd Air Base Wing, AETC
- 908th Airlift Wing, AFRC
- Air Force Doctrine Center
- Air Force Historical Research Agency
- Civil Air Patrol

Gunter Annex
Montgomery, AL
- Air Force Logistics Management Agency

Fort Rucker
Dale County, AL
- 23rd Flying Training Squadron, AETC

117 Air Refueling Wing, ANG
Birmingham Arpt., AL

187 Fighter Wing, ANG
Montgomery Regional Arpt.

ALASKA

Eielson AFB
Fairbanks, AK
- 354th Fighter Wing, PACAF

Elmendorf AFB
Anchorage, AK
- 3rd Wing, PACAF
- 11th Air Force, PACAF

Clear AFS
Anderson, AK

176 Wing, ANG
Kulis ANGB, AK

ARIZONA

Davis-Monthan AFB
Tucson, AZ
- 12th Air Force, ACC
- 55th Electronic Combat Group, ACC
- 355th Wing, ACC
- 563rd Rescue Group, AFSOC
- 943rd Rescue Group, AFRC
- Aerospace Maintenance & Regeneration Center, AFMC

Luke AFB
Phoenix, AZ
- 56th Fighter Wing, AETC
- 944th Fighter Wing, AFRC

161 Air Refueling Wing, ANG
Sky Harbor Arpt., AZ

162 Fighter Wing, ANG
Tucson Arpt., AZ

ARKANSAS

Little Rock AFB
Little Rock, AR
- 314th Airlift Wing, AETC
- 463rd Airlift Group, AMC

188 Fighter Wing, ANG
Fort Smith Arpt., AR

CALIFORNIA

Beale AFB
Marysville, CA
- 9th Reconnaissance Wing, ACC
- 940th Air Refueling Wing, AFRC

Edwards AFB
Rosamond, CA
- 95th Air Base Wing, AFMC
- 412th Test Wing, AFMC
- Air Force Flight Test Center, AFMC

Los Angeles AFB
El Segundo, CA
- Space and Missile Systems Center, AFSPC

March ARB
Riverside, CA
- 4th Air Force, AFRC
- 452nd Air Mobility Wing, AFRC

McClellan AFB
Sacramento, CA

Travis AFB
San Francisco, CA
- 15th Expeditionary Mobility Task Force, AMC
- 60th Air Mobility Wing, AMC
- 349th Air Mobility Wing, AFRC
- 615th Contingency Response Wing, AMC

Vandenberg AFB
Lompoc, CA
- 14th Air Force, AFSPC
- 30th Space Wing, AFSPC
- 381st Training Group, AETC

Onizuka AFS
Sunnyvale, CA

129 Refueling Wing, ANG
Moffett Field, CA

144 Fighter Wing, ANG
Fresno Yosemite Arpt., CA

146 Airlift Wing, ANG
Channel Islands ANGS, CA

COLORADO

Buckley AFB
Denver, CA
- 460th Space Wing, AFSPC

Peterson AFB, Colorado Springs
- Air Force Space Command
- 21st Space Wing, AFSPC
- 302nd Airlift Wing, AFRC

Schriever AFB
Colorado Springs, CO
- 50th Space Wing, AFSPC
- 310th Space Group, AFRC

United States Air Force Academy
Colorado Springs, CO
- 306th Flying Traing Group, AETC

137th Space Warning Squadron, ANG
Greeley ANGB, CO

Cheyenne Mountain AFS
Cheyenne Mountain, CO

Air Reserve Personnel Center

CONNECTICUT

103th Fighter Wing, ANG
Bradley Arpt., CT

DELAWARE

Dover AFB
Dover, DE
- 436th Airlift Wing, AMC
- 512th Airlift Wing, AFRC

166 Airlift Wing, ANG
New Castle County Arpt., DE

DISTRICT OF COLUMBIA

Bolling AFB
Washington, DC
- Air Force District of Washington
- Air Force Legal Services Agency

Headquarters Air Force
Washington, DC
- Air Force Studies and Analyses Agency
- Air Force Audit Agency
- Air Force Pentagon Communications Agency
- Air Force Personnel Operations Agency
- Air Force Medical Operations Agency
- Air Force Nuclear Weapons and Counter Proliferation Agency
- Air Force Operations Group

FLORIDA

Eglin AFB
Niceville/Valparaiso, FL
- 9th Special Operations Squadron, AFSOC
- 33rd Fighter Wing, ACC
- 53rd Wing, ACC
- 46th Test Wing, AFMC

- 96th Air Base Wing, AFMC
- Air Armament Center, AFMC
- Air-to-Air Missile Systems Wing, AFMC
- Air-to-Ground Munitions Systems Wing, AFMC

Hurlburt Field
Fort Walton Beach, FL
- Air Force Special Operations Command
- 16th Special Operation Wing, AFSOC
- 18th Flight Test Squadron, AFSOC
- 505th Command and Control Wing, ACC
- 720th Special Tactics Group, AFSOC
- USAF Special Operations School, AFSOC

MacDill AFB
Tampa, FL
- 6th Air Mobility Wing, AMC

Patrick AFB, Cocoa Beach
- 45th Space Wing, AFSPC
- 920th Rescue Wing, AFRC
- Air Force Technical Applications Center

Tyndall AFB
Panama City, FL
- 1st Air Force, ANG
- 53rd Weapons Evaluation Group, ACC
- 325th Fighter Wing, AETC
- Air Force Civil Engineer Support Agency

Cape Canaveral AFS
- 45th Space Wing, AFSPC

919th Special Ops Wing, AFRC
Duke Field, FL

482nd Fighter Wing, AFRC
Homestead ARB, FL

125 Fighter Wing, ANG
Jacksonville Arpt., FL

Air Force Agency for Modeling and Simulation

GEORGIA

Dobbins ARB
Atlanta, GA
- 22nd Air Force, AFRC
- 94th Airlift Wing

Moody AFB
Valdosta, GA
- 347th Rescue Wing, AFSOC
- 479th Flying Training Group, AETC

Robins AFB
Warner Robins, GA
- Air Force Reserve Command
- 19th Air Refueling Group, AMC
- 116th Air Control Wing, ACC
- 78th Air Base Wing, AFMC
- 330th Aircraft Sustainment Wing, AFMC
- 402nd Maintenance Wing, AFMC
- 542nd Combat Sustainment Wing, AFMC
- AFRC Recruiting Service
- Warner Robins Air Logistics Center, AFMC

165 Airlift Wing, ANG
Savannah Hilton Head Arpt., GA

GUAM

Andersen AFB
Yigo, Guam
- 36th Wing, PACAF

HAWAII

Hickam AFB
Honolulu, HI
- Pacific Air Forces
- 13th Air Force/Kenney Warfghting Hq., PACAF
- 15th Airlift Wing, PACAF
- 715th Air Mobility Operations Group, AMC

IDAHO

Mountain Home AFB
Boise, ID
- 366th Fighter Wing, ACC

124 Wing, ANG
Boise Air Terminal, ID

ILLINOIS

Scott AFB
Belleville, IL
- Air Mobility Command
- 18th Air Force, AMC
- 375th Airlift Wing, AMC
- 932nd Airlift Wing, AFRC
- Air Force Communications Agency

182 Airlift Wing, ANG
Greater Peoria Arpt., IL

183 Fighter Wing, ANG
Abraham Lincoln Capital Arpt., IL

INDIANA

Grissom ARB
Kokomo, IN
- 434th Air Refueling Wing, AFRC

122 Fighter Wing, ANG
Fort Wayne Arpt., IN

181 Fighter Wing, ANG
Hulman Arpt., IN

IOWA

132 Fighter Wing, ANG
Des Moines Arpt., IA

185 Air Refueling Wing, ANG
Sioux Gateway Arpt./Col. Bud Day Field, IA

KANSAS

McConnell AFB
Wichita, KS
- 22nd Air Refueling Wing, AMC
- 931st Air Refueling Group, AFRC

190 Air Refueling Wing, ANG
Forbes Field, KS

KENTUCKY

123 Airlift Wing, ANG
Louisville Arpt./AGS, KY

LOUISIANA

Barksdale AFB, ACC
Bossier City, LA
- 8th Air Force, ACC
- 2nd Bomb Wing, ACC
- 917th Wing, AFRC

926th Fighter Wing, AFRC
NAS JRB, LA

159 Fighter Wing, ANG
NAS JRB, LA

MAINE

101 Air Refueling Wing, ANG
Bangor Arpt., ME

MARYLAND

Andrews AFB
Andrews AFB, MD
- 89th Airlift Wing, AMC
- 459th Air Refueling Wing, AFRC
- Air Force Flight Standards Agency
- Air Force Office of Special Investigations
- Air Force Review Boards Agency
- Air National Guard Readiness Center

Fort Meade
Laurel, MD
- 70th Intelligence Wing, ACC

175 Wing, ANG
Martin State Arpt., MD

MASSACHUSETTS

Hanscom AFB
Boston, MA
- 66th Air Base Wing, AFMC
- Battle Management Systems Wing, AFMC
- C2ISR Systems Wing, AFMC
- Electronic Systems Center, AFMC
- Network Centric Ops/Integration Systems Wing, AFMC
- Operations Support Systems Wing, AFMC

Cape Cod AFS

439th Airlift Wing, AFRC

Westover ARB, AFRC

102 Fighter Wing, ANG
Otis ANGB, MA

104 Fighter Wing, ANG
Barnes Arpt., MA

MICHIGAN

927th Air Refueling Wing, AFRC
Selfridge ANGB, MI

110 Fighter Wing, ANG
W.K. Kellogg Arpt., MI

127 Wing, ANG
Selfridge ANGB, MI

MINNESOTA

934th Airlift Wing, AFRC
Minneapolis-St. Paul Arpt./ARS, MN

133 Airlift Wing, ANG
Minneapolis-St. Paul Arpt./ARS , MN

148 Fighter Wing, ANG
Duluth Arpt., MN

MISSISSIPPI

Columbus AFB
Columbus, MS
- 14th Flying Training Wing, AETC

Keesler AFB
Biloxi, MS
- 2nd Air Force, AETC
- 45th Airlift Squadron, AETC
- 81st Training Wing, AETC
- 403rd Wing, AFRC

172 Airlift Wing, ANG
Allen C. Thompson Field, MS

186 Air Refueling Wing, ANG
Key Field, MS

MISSOURI

Whiteman AFB
Knob Noster, MO
- 442nd Fighter Wing, AFRC
- 509th Bomb Wing, ACC

131 Fighter Wing, ANG
Lambert-St. Louis Arpt., MO

139 Airlift Wing, ANG
Rosecrans Memorial Arpt., MO

MONTANA

Malmstrom AFB
Great Falls, MT
- 341st Space Wing, AFSPC

120 Fighter Wing, ANG
Great Falls Arpt., MT

NEBRASKA

Offutt AFB
Omaha, NE
- 55th Wing, ACC
- Air Force Weather Agency

155 Air Refueling Wing, ANG
Lincoln Arpt., NE

NEVADA

Creech AFB
Indian Springs, NV

Nellis AFB
Las Vegas, NV
- 57th Wing, ACC
- 58th Range Wing
- 98th Range Wing, ACC
- 99th Air Base Wing, ACC
- USAF Warfare Center, ACC

152 Airlift Wing, ANG
Reno/Tahoe Arpt., NV

NEW HAMPSHIRE

157 Air Refueling Wing, ANG
Pease Intl. Tradeport ANGS, NH

NEW JERSEY

McGuire AFB
Trenton, NJ
- 21st Expeditionary Mobility Task Force, AMC
- 305th Air Mobility Wing, AMC
- 514th Air Mobility Wing, AFRC
- 621st Contingency Response Wing, AMC

Fort Dix
New Hanover Township, NJ
- Air Mobility Warfare Center, AMC

177 Fighter Wing, ANG
Atlantic City Arpt., NJ

NEW MEXICO

Cannon AFB
Clovis, NM
- 27th Fighter Wing, ACC

Holloman AFB
Alamogordo, NM
- 49th Fighter Wing

Kirtland AFB
Albuquerque, NM
- 58th Special Operations Wing, AETC
- 377th Air Base Wing, AFMC
- 498th Air Armament Systems Wing, AFMC
- Air Force Inspection Agency
- Air Force Operational Test and Evaluation Center
- Air Force Safety Center
- Nuclear Weapons Center, AFMC

NEW YORK

914th Airlift Wing, AFRC
Niagara Falls Arpt./ARS, NY

105 Airlift Wing, ANG
Stewart ANGB, NY

106 Rescue Wing, ANG
Francis S. Gabreski Arpt., NY

107 Air Refueling Wing, ANG
Niagara Falls Arpt./ARS, NY

109 Airlift Wing, ANG
Schenectady County Arpt., NY

174 Fighter Wing, ANG
Hancock Field, NY

NORTH CAROLINA

Pope AFB
Fayetteville, NC
- 23rd Fighter Group, ACC
- 43rd Airlift Wing, AMC

Seymour Johnson AFB
Goldsboro, NC
- 4th Fighter Wing, ACC
- 916th Air Refueling Wing, AFRC

145 Airlift Wing, ANG
Charlotte/Douglas Arpt., NC

NORTH DAKOTA

Grand Forks AFB
Grand Forks, ND
- 319th Air Refueling Wing, AMC

Minot AFB
Minot, ND
- 5th Bomb Wing, ACC
- 91st Space Wing, AFSPC

Cavalier AFS

119 Fighter Wing, ANG
Hector Arpt., ND

OHIO

Wright-Patterson AFB
Dayton, OH
- Air Force Materiel Command
- 88th Air Base Wing, AFMC
- 445th Airlift Wing, AFRC
- Aeronautical Systems Center, AFMC
- Agile Combat Support Systems Wing, AFMC
- Air Force Research Laboratory, AFMC
- Air Force Security Assistance Center, AFMC
- Fighter Attack Systems Wing, AFMC
- Long Range Strike Systems Wing, AFMC
- Mobility Systems Wing, AFMC
- National Air and Space Intelligence Center (NASIC)
- National Museum of the US Air Force, AFMC
- Reconnaissance Systems Wing, AFMC

910th Airlift Wing, AFRC
Youngstown-Warren Arpt./ARS, OH

121 Air Refueling Wing, ANG
Rickenbacker ANGB, OH

178 Fighter Wing, ANG
Springfield-Beckley Arpt., OH

179 Airlift Wing, ANG
Mansfield Lahm Arpt., OH

180 Fighter Wing, ANG
Toledo Express Arpt., OH

OKLAHOMA

Altus AFB
Oklahoma City, OK
- 97th Air Mobility Wing, AETC

Tinker AFB
Oklahoma City, OK
- 72nd Air Base Wing, AFMC
- 76th Maintenance Wing, AFMC
- 327th Aircraft Sustainment Wing, AFMC
- 448th Combat Sustainment Wing, AFMC
- 507th Air Refueling Wing, AFRC
- 513th Air Control Group, AFRC
- 552nd Air Control Wing, ACC
- Oklahoma City Air Logistics Center, AFMC

Vance AFB
Enid, OK
- 71st Flying Training Wing, AETC

138 Fighter Wing, ANG
Tulsa Arpt., OK

137 Airlift Wing, ANG
Will Rogers World Arpt., OK

OREGON

939th Air Refueling Wing, AFRC
Portland Arpt., OR

142 Fighter Wing, ANG
Portland Arpt., OR

173 Fighter Wing, ANG
Klamath Falls Arpt., OR

PENNSYLVANIA

911th Airlift Wing, AFRC
Pittsburgh Arpt., PA

913th Airlift Wing, AFRC
Willow Grove ARS, PA

111 Fighter Wing, ANG
Willow Grove ARS, PA

171 Air Refueling Wing, ANG
Pittsburgh Arpt./ARS, PA

193 Special Operations Wing, ANG
Harrisburg Arpt., PA

PUERTO RICO

156th Airlift Wing, ANG
Luis Munoz Marin Arpt., PR

RHODE ISLAND

143 Airlift Wing, ANG
Quonset State Arpt., RI

SOUTH CAROLINA

Charleston AFB
Charleston, SC
- 315th Airlift Wing, AFRC
- 437th Airlift Wing, AMC

Shaw AFB
Sumter, SC
- 9th Air Force, ACC
- 20th Fighter Wing, ACC

169 Fighter Wing, ANG
McEntire ANGS, SC

SOUTH DAKOTA

Ellsworth AFB
Rapid City, SD
- 28th Bomb Wing, ACC

114 Fighter Wing, ANG
Joe Foss Field, SD

TENNESSEE

Arnold AFB
Manchester, TN
- Arnold Engineering Development Center, AFMC

118 Airlift Wing, ANG
Nashville Arpt., TN

134 Air Refueling Wing, ANG
McGhee Tyson Arpt., TN
164 Airlift Wing, ANG, Memphis Arpt.

TEXAS

Brooks City-Base
Brooks City, TN
- 311th Human Systems Wing, AFMC
- Air Force Center for Environmental Excellence
- Air Force Medical Support Agency

Dyess AFB
Abilene, TX
- 7th Bomb Wing, ACC
- 317th Airlift Group, AMC

Goodfellow AFB
San Angelo, TX
- 17th Training Wing, AETC

Kelly Field Annex
San Antonio, TX

Lackland AFB
San Antonio, TX
- 37th Training Wing, AETC
- 59th Medical Wing, AETC
- 67th Information Operations Wing, ACC
- 433rd Airlift Wing, AFRC
- Air Force Security Forces Center
- Air Intelligence Agency, ACC

Laughlin AFB, Del Rio
- 47th Flying Training Wing, AETC

Randolph AFB
San Antonio, TX
- 12th Flying Training Wing, AETC
- 19th Air Force, AETC
- 340th Flying Training Group
- Air Education and Training Command
- Air Force Manpower Agency
- Air Force Personnel Center
- Air Force Recruiting Service, AETC
- Air Force Security Assistance Training Squadron, AETC

Sheppard AFB
Wichita Falls, TX
- 80th Flying Training Wing, AETC
- 82nd Training Wing, AETC

Air Force News Agency

Air Force Services Agency

Naval Air Station, Joint Reserve Base
Fort Worth, TX
- 10th Air Force, AFRC
- 301st Fighter Wing, AFRC

147 Fighter Wing, ANG
Ellington Field, TX

149 Fighter Wing, ANG
Kelly Field, TX

UTAH

Hill AFB
Salt Lake City, UT
- 75th Air Base Wing, AFMC
- 84th Combat Sustainment Wing, AFMC
- 309th Maintenance Wing, AFMC
- 388th Fighter Wing, ACC
- 419th Fighter Wing, AFRC
- 508th Aircraft Sustainment Wing, AFMC
- 526th ICBM Systems Wing, AFMC
- Ogden Air Logistics Center, AFMC

151 Air Refueling Wing, ANG
Salt Lake City Arpt., UT

VERMONT

158 Fighter Wing, ANG
Burlington Arpt., VT

VIRGINIA

Langley AFB, ACC
Hampton, VA
- Air Combat Command
- 1st Fighter Wing, ACC
- 307th Fighter Squadron, AFRC
- 480th Intelligence Wing, ACC
- Air and Space Expeditionary Force Center
- Air Force Command and Control & Intelligence, Surveillance and Reconnaissance Center
- Air Force Rescue Coordination Center, AFSOC

192 Fighter Wing, ANG
Richmond Arpt., VA

Air Force Cost Analysis Agency

Air Force Frequency Management Agency

Air Force National Security Emergency Preparedness Agency

Air Force Real Property Agency

WASHINGTON

Fairchild AFB
Spokane, WA
- 92nd Air Refueling Wing, AMC
- 336th Training Group, AETC

McChord AFB
Tacoma, WA
- 62nd Airlift Wing, AMC
- 446th Airlift Wing, AFRC

WEST VIRGINIA

130 Airlift Wing, ANG
Yeager Arpt., WV

167 Airlift Wing, ANG
Eastern West Virginia Arpt., WV

WISCONSIN

440th Airlift Wing, AFRC
General Mitchell Arpt., WI

115 Fighter Wing, ANG
Truax Field, WI

128 Air Refueling Wing, ANG
General Mitchell Arpt./ARS, WI

WYOMING

F.E. Warren AFB
Cheyenne, WY
- 20th Air Force, AFSPC
- 90th Space Wing, AFSPC

153 Airlift Wing, ANG
Cheyenne Arpt., WY

Air Force Overseas Installations

GERMANY

Ramstein AB
- 16th Air Force, USAFE
- 86th Airlift Wing, USAFE
- 435th Air Base Wing, USAFE
- 721st Air Mobility Operations Group, AMC

Sembach AB
- 38th Combat Support Wing, USAFE

Spangdahlem AB
- 52nd Fighter Wing, USAFE

GREENLAND

Thule AB

ITALY

Aviano AFB
- 31st Fighter Wing, USAFE

JAPAN

Kadena AB
- 18th Wing, PACAF
- 353rd Special Operations Group, AFSOC

Misawa AB
- 35th Fighter Wing, PACAF

Yokota AB
- 5th Air Force, PACAF
- 374th Fighter Wing, PACAF

SINGAPORE

Paya Lebar Airfield
- 497th Fighter Training Squadron, PACAF

SOUTH KOREA

Kunsan AB
- 8th Fighter Wing, PACAF

Osan AB
- 7th Air Force, PACAF
- 51st Fighter Wing, PACAF

THE AZORES

Lajes Field
- 65th Air Base Wing, USAFE

TURKEY

Incirlik AB
- 39th Air Base Wing, USAFE

UNITED KINGDOM

RAF Lakenheath
- 48th Fighter Wing, USAFE

RAF Mildenhall
- 100th Air Refueling Wing, USAFE
- 352nd Special Operations Group, AFSOC
- 501st Combat Support Wing, USAFE

AEF – Air and Space Expeditionary Force

AEFC – Air and Space Expeditionary Force Center

AEHF – Advanced Extremely High Frequency

AETF – Air and Space Expeditionary Task Force

ALCM – Air-Launched Cruise Missile. An air-launched vehicle designed to deliver a nuclear warhead in an air-to-ground mission.

AMRAAM – Advanced Medium Range Air-to-Air Missile

AMTI – Air Moving Target Indicator

ANGB – Air National Guard Base

AOC – Air Operations Center

ARB – Air Reserve Base

ARS – Air Reserve Station

ASOC – Air and Space Operations Center. The senior agency of the Air Force component commander that provides command and control of Air Force air and space operations and coordinates with other components and services. Also called AOC.

BDA – Battle Damage Assessment

BLOS – Beyond Line of Sight

C2 – Command and Control

CAS – Close Air Support

CBU – Cluster Bomb Unit

CDR – Concept Design Review

CEM – Combined Effects Munition

CID – Combat Identification

CNS/ATM – Communication, Nagivation and Safety/Air Traffic Management

COCOM – Combatant Commander

CSAR – Combat Search and Rescue. Combat search and rescue is how the Air Force accomplishes the personnel recovery task. It is the Air Force's preferred mechanism for personnel recovery execution in uncertain or hostile environments and denied areas.

DE – Directed Energy

DSP – Defense Support Program

DT&E – Developmental Test and Evaluation. Any testing used to assist in the development and maturation of products, product elements, or manufacturing or support processes; any engineering-type test used to verify status of technical progress and minimize design risks, substantiate achievement of contract technical performance, and certify readiness for Initial Operational Testing (IOT).

ECM – Electronic Counter Measures

ERP – Enterprise Resource Planning

FAC – Forward Air Control

FFS – Forward Framing Sensor

Force Development – A series of experiences and challenges, combined with education and training opportunities, that is directed at producing Airmen who possess the requisite skills, knowledge, experience, and motivation to lead and execute the full spectrum of Air Force missions.

Force Protection – Actions taken to prevent or mitigate hostile actions against Department of Defense personnel (including family members), resources, facilities, and critical information.

FRP – Full Rate Production. Contracting for economic production quantities following stabilization of the system design and validation of the production process.

FYDP – Future Years Defense Program. A massive DoD database and internal accounting system that summarizes forces and resources associated with programs approved by the Secretary of Defense.

GIG – Global Information Grid. The globally interconnected, end-to-end set of information capabilities, associated processes, and personnel for collecting, processing, storing, disseminating, and managing information on demand to warfighters, policy makers, and support personnel.

Global Mobility – The capability to move people and equipment across the world quickly, ensuring the right force anywhere, at any time.

GMTI – Ground Moving Target Indicator

GWOT – The Global War on Terrorism

HUMRO – Humanitarian Relief Operations

IMINT – Imagery Intelligence

INS/GPS – Inertial Navigation System/Global Positioning System

IOC – Initial Operational Capability

IOT – Initial Operational Testing

ISR – Intelligence, Surveillance, and Reconnaissance. Integrated capabilities to collect, process, exploit and disseminate accurate and timely information that provides the battlespace awareness necessary to successfully plan and conduct operations.

JAOC – Joint Air Operations Center. A jointly staffed facility established for planning, directing, and executing joint air operations in support of the joint force commander's operation or campaign objectives. Also called Combined Air Operations Center (CAOC).

JCOMs – Joint Commands

JDAM – Joint Direct Attack Munition

JFACC – Joint Force Air Component Commander. The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of air forces; planning and coordinating air operations; or accomplishing such operational missions as may be assigned. The joint force air component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander.

JFC – Joint Force Commander

JRB – Joint Reserve Base

LANTIRN – Low-Altitude Navigation and Targeting Infrared for Night

LOS – Line of Sight

LRIP – Low Rate Initial Production. The first effort of the Production and Deployment (P&D) phase. The purpose of this effort is to establish an initial production base for the system, permit an orderly ramp-up sufficient to lead to a smooth transition to Full Rate Production (FRP), and to provide production representative articles for Initial Operational Test and Evaluation (IOT&E) and full-up live fire testing. This effort concludes with a Full Rate Production Decision Review (FRPDR) to authorize the Full Rate Production and Deployment (FRP&D) effort.

MANPADS – Man Portable Air Defense Systems

MASINT – Measurement and Signature Intelligence

MCO – Major Combat Operation

MS – Milestone. The point at which a recommendation is made and approval sought regarding starting or continuing an acquisition program, e.g., proceeding to the next phase. Milestones established by DoDI 5000.2 include the following:

- MS A approves entry into the Technology Development (TD) phase;
- MS B approves entry into the System Development and Demonstration (SDD) phase; and
- MS C approves entry into the Production and Deployment (P&D) phase.

Also of note are the Concept Decision (CD) that approves entry into the Concept Refinement (CR) phase; the Design Readiness Review (DRR) that ends the System Integration (SI) effort and continues the SDD phase into the System Demonstration (SD) effort; and the Full Rate Production Decision Review (FRPDR) at the end of the Low Rate Initial Production (LRIP) effort of the P&D phase that authorizes Full Rate Production (FRP) and approves deployment of the system to the field or fleet.

NAS – Naval Air Station

Operationally Response Space – The ability to rapidly deploy and employ communication, ISR, and other space capabilities.

OT&E – Operational Test and Evaluation. The field test, under realistic conditions, of any item (or key component) of weapons, equipment, or munitions for the purpose of determining the effectiveness and suitability of the weapons, equipment, or munitions for use in combat by typical military users. It includes the evaluation of the results of such tests.

P3I – Preplanned Product Improvement. Planned future improvement of developmental systems for which design considerations are effected during development to enhance future application of projected technology. It includes improvements planned for ongoing systems that go beyond the current performance envelope to achieve a needed operational capability.

PDR – Preliminary Design Review. A multi-disciplined technical review to ensure that a system is ready to proceed into detailed design and can meet stated performance requirements within cost (program budget), schedule (program schedule), risk, and other system constraints.

Persistent C4ISR – The successful use of Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance (C4ISR), to ensure the ability to see first, think first, and act first in the battle space.

PLS – Personnel Locator System

PR – Personnel Recovery

RAIDRS – Rapid Attack Identification Detection and Reporting System

Rapid Strike – The Air Force's ability to control air and space to deliver a precise, tailored effect anywhere, at any time.

RDT&E – Research, Development, Test, and Evaluation. Activities for the development of a new system or to expand the performance of fielded systems.

RPA – Remotely Piloted Aircraft, i.e., Global Hawk

S&T – Science and Technology Program. Consists of projects in basic research, applied research, and Advanced Technology Development (ATD).

SA – Situational Awareness

SAM – Surface-to-Air Missile

SAR – Synthetic Aperture Radar

SATCOM – Satellite Communications

SD – System Demonstration. The second effort of the System Development and Demonstration (SDD) phase. A program enters SD after the Program Manager (PM) has demonstrated the system in prototype articles or Engineering Development Models (EDMs). The effort is intended to demonstrate the ability of the system to operate in a useful way consistent with the approved Key Performance Parameters (KPPs). This effort ends when the system is demonstrated in its intended environment using the selected prototype; meets approved requirements; industrial capabilities are reasonably available; and the system meets or exceeds exit criteria and Milestone C entrance requirements.

SDB – Small Diameter Bomb

SDD – System Development and Demonstration

SEAD/DEAD – Suppression/Destruction of Enemy Air Defenses

SIGINT – Signals Intelligence

SMTI – Surface Moving Target Indication

SOF – Special Operations Force

SSA – Space Situational Awareness

Sustainment – Execute support program to meet operational support performance requirements and sustain systems in the most cost-effective manner over its life cycle. Includes supply, maintenance, transportation, sustaining engineering, data management, Configuration Management (CM), manpower, personnel, training, habitability, survivability, environment, safety (including explosives safety), occupational health, protection of critical program information, anti-tamper provisions, Information Technology (IT) (including National Security Systems (NSSs)), supportability, and interoperability functions.

SDD – System Development and Demonstration. The third phase of a system life cycle. This phase consists of two efforts, System Integration (SI) and System Demonstration (SD), and begins after Milestone B. It also contains a Design Readiness Review (DRR) at the conclusion of the SI effort.

SRR – System Requirements Review. A review conducted to ascertain progress in defining system technical requirements. This review determines the direction and progress of the systems engineering effort and the degree of convergence upon a balanced and complete configuration.

T&E – Test and Evaluation. Process by which a system or components are exercised and results analyzed to provide performance-related information. The information has many uses including risk identification and risk mitigation and empirical data to validate models and simulations. T&E enables an assessment of the attainment of technical performance, specifications, and system maturity to determine whether systems are operationally effective, suitable and survivable for intended use, and/or lethal.

TARS – Theater Airborne Reconnaissance System

Threat – The sum of the potential strengths, capabilities, and strategic objectives of any adversary that can limit or negate U.S. mission accomplishment or reduce force, system, or equipment effectiveness.

TST – Time Sensitive Targeting

UAS – Unmanned Aerial System. Also called UAV.

UCAV – Unmanned Combat Aerial Vehicle

WMD – Weapons of Mass Destruction

ADC
Launch & Test Range System (LTRS)

Adcole
Space Radar (SR)

AeroAstro
Space Test Program (STP)

Aerojet
CBU-89/104 Gator
Evolved Expendable Launch Vehicle (EELV)
LGM-30G Minuteman III
Medium Launch Vehicle (MLV)
Rocket Systems Launch Program (RSLP)

Aerospace Integration Corporation
UH-1N Helicopter (Variants: UH-1N, 1H/Vm UV-18B)

Aero-Thrust
C-9C

Air Force Research Laboratory
Operationally Responsive Space (ORS)

Air Launch
Operationally Responsive Space (ORS)

Alcatel
Launch & Test Range System (LTRS)

Alliant Tech Systems
AGM-65 Maverick
CBU-87/103 Combined Effects Munition (CEM)
CBU-89/104 Gator
CBU-97/105 Sensor Fused Weapon (SFW)
Evolved Expendable Launch Vehicle (EELV)
LGM-30G Minuteman III
Medium Launch Vehicle (MLV)

Allied Signal Aerospace
Evolved Expendable Launch Vehicle (EELV)

Allison Transmissions
Halvorsen (formerly Next Generation Small Loader (NGSL))

ARINC
C-5 Galaxy
KC-10 Extender

Arrowhead Products
Evolved Expendable Launch Vehicle (EELV)

ASR
Launch & Test Range System (LTRS)

ATK Aerospace
Rocket Systems Launch Program (RSLP)

ATK Mission Research , Integrated Systems
C-130H Scathe View
RC-26B

Aurora Flight Systems
RQ-4 Global Hawk

Ball Aerospace
National Polar-orbiting Operational Environmental Satellite System (NPOESS)
Space Radar (SR)
Space Situation Awareness (SSA) Systems
Space Test Program (STP)
Transformational Satellite Communications System (TSAT)

BAE
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)
Air Force Combat Identification (AFCID)
EC-130H COMPASS CALL
F16-TARS (Theater Airborne Reconnaissance System)
F-22A Raptor
F-35 Lightning II, Joint Strike Fighter
Military Satellite Communication (MILSATCOM) Terminals
Mission Planning Systems (MPS)
Space Radar (SR)
U-2S Dragon Lady

Bell Helicopter Company
UH-1N Helicopter (Variants: UH-1N, 1H/Vm UV-18B)

BEA
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)

Bell-Boeing
CV-22B

B.F. Goodrich
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)
C-5 Galaxy
Evolved Expendable Launch Vehicle (EELV)
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

Boeing
AC-130H Spectre
AC-130U Spooky
AGM-86 B Air Launched Cruise Missile (ALCM)
AGM-86 C/D Conventional Air Launched Cruise Missile (CALCM)
AGM-130 Standoff Attack Weapon
Air Force Combat Identification (AFCID)
Airborne Laser (ABL)
B-1B Lancer
C-17 Globemaster III
C-32A
C-40B/C
Combat Survivor Evader Locator (CSEL)
Combatant Commanders Integrated Command and Control System (CCIC2S)
E-8C Joint STARS
F-15A-D Eagle
F-15E Strike Eagle
F-22A Raptor
GBU-31, GBU-32, GBU-38--Joint Direct Attack Munition (JDAM)
GBU-39/B Small Diameter Bomb (SDB)
Global Positioning System (GPS)
Joint Helmet Mounted Cueing System (JHMCS)
KC-10 Extender
KC-135 Stratotanker
Launch & Test Range System (LTRS)
LGM-30G Minuteman III
MC-130E Combat Talon
MC-130H Combat Talon II
MC-130P Combat Shadow
Military Satellite Communication (MILSATCOM) Terminals
Mission Planning Systems (MPS)
RC-135S Cobra Ball
RC-135U Combat Sent
RC-135V/W Rivet Joint
Space Radar (SR)
Space Situation Awareness (SSA) Systems
Space Test Program (STP)
T-38A/AT-38B/T-38C Talon

T-43A
WC-135 Constant Phoenix

Boeing Aerospace Company
E-3 Airborne Warning and Control System (AWACS)

Boeing Aerospace Operations
E-4B National Airborne Operations Center (NAOC)

Boeing Aircraft
B-52H Stratofortress

Boeing Integrated Defense System
VC-25A

Boeing Satellite Systems
National Polar-orbiting Operational Environmental Satellite System (NPOESS)

Boeing Space & Intelligence Systems
Transformational Satellite Communications System (TSAT)

Boeing Wichita Development and Modernization Center (KS)
E-4B National Airborne Operations Center (NAOC)

Booz Allen Hamilton
Space Radar (SR)
Transformational Satellite Communications System (TSAT)

Carbon Advanced Technologies, Inc
Hypersonic Technology Vehicle (HTV)

Carondolet Foundry
Tunner 60K Loader

CDI Corp
Launch & Test Range System (LTRS)

Cessna
T-37B Tweet
CFM International
C-40B/C

Chelton Microwave
Global Broadcast Service (GBS)

Cincinnati Electronics
Evolved Expendable Launch Vehicle (EELV)

Cisco
Space Radar (SR)

Clover Hydraulics
Halvorsen (formerly Next Generation Small Loader (NGSL))

Coleman Research
Rocket Systems Launch Program (RSLP)

Commercial Intertech
Tunner 60K Loader

Computer Science Corp.
Combatant Commanders Integrated Command and Control System (CCIC2S)

Computer Sciences Corp./ADP
C-21A

Computer Sciences Corp Federal Sector Defense Group
Deliberate Crisis and Action Planning and Execution Segments (DCAPES)

Computer Sciences/Raytheon
Launch & Test Range System (LTRS)

Contraves
Evolved Expendable Launch Vehicle (EELV)
Launch & Test Range System (LTRS)

Cubic
E-8C Joint STARS

Dallas Airmotive
C-20B/H
C-21A

Dana Corporation
Halvorsen (formerly Next Generation Small Loader (NGSL))
Day & Zimmerman Inc
CBU-97/105 Sensor Fused Weapon (SFW)

DCS Corp
Launch & Test Range System (LTRS)

Delta Velocity Corporation
Operationally Responsive Space (ORS)

Design Develop
Space Radar (SR)

Detroit Diesel
Tunner 60K Loader
Halvorsen (formerly Next Generation Small Loader (NGSL))

Diligent
Space Radar (SR)

Digital Net (BAE-IT)
Combatant Commanders Integrated Command and Control System (CCIC2S)

Dolphin
Launch & Test Range System (LTRS)

DRC
AN/USQ -163 Falconer Air and Space Operations Center Weapon System (AOC-WS)

DRS Technologies, Inc
Tunner 60K Loader

E-Spectrum
AGM-86 B Air Launched Cruise Missile (ALCM)
AGM-129 A Advanced Cruise Missil e (ACM)

Eagle Pitcher
Space Radar (SR)

EJM
MH-53J/M Pave Low III/IV

Elbit Systems (Israel)
Joint Helmet Mounted Cueing System (JHMCS)

EMD
A-10/OA-10 Thunderbolt II

ENSCO
Launch & Test Range System (LTRS)

Excel
Launch & Test Range System (LTRS)

Fairfield Manufacturing
Tunner 60K Loader

Fiber Innovations
Joint Air-to-Surface Standoff Missile (JASSM)

Flight Safety Services Corp
T-6A Texan II

FMC Technologies Inc.
Halvorsen (formerly Next Generation Small Loader (NGSL))

Ford Aerospace
AIM-9M Sidewinder

Freescale Semiconductor Inc
Launch & Test Range System (LTRS)

GDE Systems
Evolved Expendable Launch Vehicle (EELV)

General Atomics – Aeronautical Systems Incorporated
MQ-1 Predator
MQ-9 Reaper

General Electric
B-1B Lancer
C-5 Galaxy
F-16 Fighting Falcon
F-117 Nighthawk
KC-10 Extender
KC-135 Stratotanker
RC-135S Cobra Ball
RC-135U Combat Sent
RC-135V/W Rivet Joint
T-38A/AT-38B/T-38C Talon
U-2S Dragon Lady

General Electric/Rolls-Royce Fighter Engine Team
F-35 Lightning II, Joint Strike Fighter

General Dynamics
AIM-7M Sparrow
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)
CBU-89/104 Gator
EC-130H COMPASS CALL
CBU-97/105 Sensor Fused Weapon (SFW)
Space Radar (SR)

General Technology Corporation
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

GKN Aerospace
C-130J

GTSI
Global Broadcast Service (GBS)

Gulfstream
C-37A

Harris Corp.
Counterspace Systems
Global Positioning System (GPS)
Space Radar (SR)
WC-135 Constant Phoenix
Wideband Global SATCOM (WGS) System

Hi Shear
CBU-97/105 Sensor Fused Weapon (SFW)

HMX
Operationally Responsive Space (ORS)

Honeywell
B-52H Stratofortress
C-5 Galaxy
CBU-87/103 Combined Effects Munition (CEM)
CBU-89/104 Gator
Evolved Expendable Launch Vehicle (EELV)
F-15A-D Eagle
F-15E Strike Eagle
LGM-30G Minuteman III
Medium Launch Vehicle (MLV)
Operationally Responsive Space (ORS)
Space Radar (SR)

Honeywell Aerospace Electronic Systems/ Olathe
T-6A Texan II

Honeywell International
F-16 Fighting Falcon

Honeywell Military Avionics
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

Honeywell Technical Services, Inc.
Air Force Satellite Control Network (AFSCN)

Hughes Space
Launch & Test Range System (LTRS)

IBM
AN/USQ -163 Falconer Air and Space Operations Center Weapon System (AOC-WS)

InDyne, Inc
Launch & Test Range System (LTRS)

Integral Systems, Inc.
Counterspace Systems
Defense Meteorological Satellite Program (DMSP)

Integrated Data Systems
Space Radar (SR)

Integrity Applications Incorporated
Space Radar (SR)

Interstate Electronics Corp
Combat Survivor Evader Locator (CSEL)

Israel Aircraft Industries
F-16 Fighting Falcon

ISS
AN/USQ -163 Falconer Air and Space Operations Center Weapon System (AOC-WS)
ITT Avionics
CV-22B

ITT Industries
B-52H Stratofortress
Launch & Test Range System (LTRS)
National Polar-orbiting Operational Environmental Satellite System (NPOESS)
Space Situation Awareness (SSA) Systems
Wideband Global SATCOM (WGS) System

Jackson & Tull
Operationally Responsive Space (ORS)

Johns Hopkins APL
Operationally Responsive Space (ORS)

Johnstown Welding & Fabrication
Halvorsen (formerly Next Generation Small Loader (NGSL))

KAMAG
Evolved Expendable Launch Vehicle (EELV)

Keystone Engineering
Evolved Expendable Launch Vehicle (EELV)

Klune
Joint Air-to-Surface Standoff Missile (JASSM)

Kodak
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)

KSS (Kelly's Logistics Support Services) Scitor
Launch & Test Range System (LTRS)

Kurt Manufacturing
CBU-97/105 Sensor Fused Weapon (SFW)
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

L-3 Communications
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)
AN/USQ -163 Falconer Air and Space Operations Center Weapon System (AOC-WS)
C-130 SENIOR SCOUT
E-4B National Airborne Operations Center (NAOC)
EC-130H COMPASS CALL
F16-TARS (Theater Airborne Reconnaissance System)
F-117 Nighthawk
Launch & Test Range System (LTRS)
MC-130E Combat Talon
MC-130H Combat Talon II
MQ-1 Predator
MQ-9 Reaper
Operationally Responsive Space (ORS)
RC-135S Cobra Ball
RC-135U Combat Sent
RC-135V/W Rivet Joint
RQ-4 Global Hawk
U-2S Dragon Lady
WC-135 Constant Phoenix

L-3 Communications Telemetry
Joint Air-to-Surface Standoff Missile (JASSM)

L-3 Communications/Vertex Aerospace
C-12C/D/F/J

La Barge
Evolved Expendable Launch Vehicle (EELV)

Lincoln Composites
Evolved Expendable Launch Vehicle (EELV)

Linde Hydraulics
Tunner 60K Loader

Lockheed Martin
AC-130H Spectre
Advanced Extremely High Frequency (AEHF) System
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)
A-10/OA-10 Thunderbolt II
Airborne Laser (ABL)
C-5 Galaxy
C-130J
C-9C
Combatant Commanders Integrated Command and Control System (CCIC2S)
Defense Meteorological Satellite Program (DMSP)
F-16 Fighting Falcon
F-22A Raptor
F-35 Lightning II, Joint Strike Fighter
F-117 Nighthawk
GBU-31, GBU-32, GBU-38--Joint Direct Attack Munition (JDAM)
Global Positioning System (GPS)
HC-130P/N King
Hypersonic Technology Vehicle (HTV)
Joint Air-to-Surface Standoff Missile (JASSM)
Launch & Test Range System (LTRS)
LGM-30G Minuteman III
MC-130E Combat Talon
MC-130H Combat Talon II
MC-130P Combat Shadow
MH-53J/M Pave Low III/IV
Military Satellite Communication (MILSATCOM) Terminals
Mission Planning Systems (MPS)
Rocket Systems Launch Program (RSLP)
Space Radar (SR)
U-2S Dragon Lady
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

Lockheed Martin Aeronautics Company
C-130 Hercules

Lockheed Martin Integrated Systems & Solutions
AN/USQ -163 Falconer Air and Space Operations Center Weapon System (AOC-WS)
C-130 SENIOR SCOUT
Space Based Infrared System High (SBIRS High)
Theater Battle Management Control Systems (TBMCS)
Transformational Satellite Communications System (TSAT)

Lockheed Martin Missiles and Space
Defense Satellite Communications System (DSCS) III
Military Strategic and Tactical Relay (Milstar)

Lockheed Martin Space Systems
Space Based Infrared System High (SBIRS High)
Transformational Satellite Communications System (TSAT)

Lockheed Martin Tactical Aircraft Systems
Launch & Test Range System (LTRS)

Lockheed Martin Technical Operations
Launch & Test Range System (LTRS)

Logicon
Wideband Global SATCOM (WGS) System

M7 Aerospace
C-20B/H
RC-26B

Martin Baker Aircraft/Middlesex
T-6A Texan II
T-38A/AT-38B/T-38C Talon

Marvin Engineering
AGM-65 Maverick

MEI
Space Radar (SR)

Minco
Space Radar (SR)

MIT Lincoln Laboratory
Space Situation Awareness (SSA) Systems

Mitre Corp (MA)
Regional Sector Air Operations Center (RSAOC)

Mitsubishi Heavy Industries
Evolved Expendable Launch Vehicle (EELV)

Moog Inc.
AGM-65 Maverick
Evolved Expendable Launch Vehicle (EELV)
Space Radar (SR)

MTC
MH-53J/M Pave Low III/IV

Muniz Engineering
Space Test Program (STP)

Net Acquire
Launch & Test Range System (LTRS)

Northrop Grumman
Advanced Extremely High Frequency (AEHF) System
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)
Air Force Combat Identification (AFCID)
A-10/OA-10 Thunderbolt II
Airborne Laser (ABL)
B-1B Lancer
B-2 Spirit
Defense Meteorological Satellite Program (DMSP)
Defense Support Program (DSP)
Distributed Mission Operations (DMO)
E-3 Airborne Warning and Control System (AWACS)
E-8C Joint STARS
F-15A-D Eagle
F-15E Strike Eagle
F-16 Fighting Falcon
F-22A Raptor
F-35 Lightning II, Joint Strike Fighter
Military Satellite Communication (MILSATCOM) Terminals
Mission Planning Systems (MPS)
RQ-4 Global Hawk
Space Situation Awareness (SSA) Systems
Transformational Satellite Communications System (TSAT)
T-38A/AT-38B/T-38C Talon
U-2S Dragon Lady

Northrop Grumman Electronic Systems
Combatant Commanders Integrated Command and Control System (CCIC2S)
Space Based Infrared System High (SBIRS High)
Space Radar (SR)

Northrop Grumman Mission Systems
LGM-30G Minuteman III

Northrop Grumman Space Technology
National Polar-orbiting Operational Environmental Satellite System (NPOESS)
Space Radar (SR)

NPO Energomash
Evolved Expendable Launch Vehicle (EELV)

Orbital Sciences Corporation
Operationally Responsive Space (ORS)
Rocket Systems Launch Program (RSLP)

Orion Propulsion
Operationally Responsive Space (ORS)

Pacific Scientific
CBU-97/105 Sensor Fused Weapon (SFW)
Parker Hanifin
Tunner 60K Loader

Partners in Air and Space
Space Radar (SR)

PEMCO
KC-135 Stratotanker

Pioneer Aerospace
CBU-97/105 Sensor Fused Weapon (SFW)

Pratt & Whitney
B-52H Stratofortress
C-12C/D/F/J
C-17 Globemaster III
C-32A
Evolved Expendable Launch Vehicle (EELV)
F-15A-D Eagle
F-15E Strike Eagle
F-16 Fighting Falcon
F-22A Raptor
F-35 Lightning II, Joint Strike Fighter
KC-135 Stratotanker
Medium Launch Vehicle (MLV)
WC-135 Constant Phoenix

Pratt & Whitney Canada
T-6A Texan II

Praxis
Operationally Responsive Space (ORS)

Raytheon
AN/GSQ -272 AIR FORCE DISTRIBUTED COMMON GROUND SYSTEM (AFDCGS)
AGM-65 Maverick
AGM-129 A Advanced Cruise Missil e (ACM)
AIM-9X Sidewinder
AIM-9M Sidewinder
AGM-88 High Speed Anti-Radiation Missile (HARM)
AIM-120 (AMRAAM) Advanced Medium Range Air-to-Air Missile
AIM-7M Sparrow
Air Force Combat Identification (AFCID)
CV-22B
E-4B National Airborne Operations Center (NAOC)
F-15A-D Eagle
F-15E Strike Eagle
F-16 Fighting Falcon
LGM-30G Minuteman III
MC-130E Combat Talon
MH-53J/M Pave Low III/IV
MQ-1 Predator
MQ-9 Reaper
National Polar-orbiting Operational Environmental Satellite System (NPOESS)
Operationally Responsive Space (ORS)
RQ-4 Global Hawk
Space Radar (SR)
T-1A Jayhawk
T-6A Texan II
Transformational Satellite Communications System (TSAT)
U-2S Dragon Lady
WC-135 Constant Phoenix

Raytheon Intelligence & Information Systems
Global Broadcast Service (GBS)

Raytheon Missile Systems
F-16 HARM Targeting System (HTS) R6 and R7

Raytheon Systems Corporation
EC-130H COMPASS CALL

Raytheon Technology Services
Global Broadcast Service (GBS)

Raytheon-Texas Instruments
F-117 Nighthawk

Reynard Corp
CBU-97/105 Sensor Fused Weapon (SFW)

Robinson & Robinson
Launch & Test Range System (LTRS)

Rocketdyne
Medium Launch Vehicle (MLV)

Rockwell
Military Satellite Communication (MILSATCOM) Terminals

Rockwell Automation
E-4B National Airborne Operations Center (NAOC)

Rockwell Collins
AC-130H Spectre
AC-130U Spooky
E-8C Joint STARS
GBU-31, GBU-32, GBU-38--Joint Direct Attack Munition (JDAM)
Joint Helmet Mounted Cueing System (JHMCS)
KC-135 Stratotanker
MC-130E Combat Talon
MC-130H Combat Talon II
MC-130P Combat Shadow

Rolls Royce
C-130J
C-20B/H
CV-22B
C-37A
F-35 Lightning II, Joint Strike Fighter
RQ-4 Global Hawk

RT Logic
Launch & Test Range System (LTRS)

SAIC
AN/USQ -163 Falconer Air and Space Operations Center Weapon System (AOC-WS)
Deliberate Crisis and Action Planning and Execution Segments (DCAPES)
Mission Planning Systems (MPS)
Space Radar (SR)
Wideband Global SATCOM (WGS) System

SEAKR
Operationally Responsive Space (ORS)
Space Radar (SR)

SEI
AC-130H Spectre
AC-130U Spooky
MC-130H Combat Talon II

Senior Systems Technology
Combat Survivor Evader Locator (CSEL)

Sensis Group
Control and Reporting Center (CRC)

Sheldahl
Space Radar (SR)

Sierra Nevada Corporation
C-130 SENIOR SCOUT
RC-135U Combat Sent

Sikorsky
HH-60G Pave Hawk
MH-53J/M Pave Low III/IV

Smith Aerospace
C-130J

Smith Electric
Launch & Test Range System (LTRS)

Smiths Aerospace Electronic Systems/Cheltenham
T-6A Texan II

Space Vector Corporation
Operationally Responsive Space (ORS)
Rocket Systems Launch Program (RSLP)

Space-X
Operationally Responsive Space (ORS)
Rocket Systems Launch Program (RSLP)

Spectrum Astro
Space Radar (SR)
Space Test Program (STP)

SRI International
Launch & Test Range System (LTRS)

SRS Technologies
Space Radar (SR)

Stennis
Space Radar (SR)

Superior
Launch & Test Range System (LTRS)

Swales Aerospace
Operationally Responsive Space (ORS)
Space Radar (SR)

System Integration
A-10/OA-10 Thunderbolt II

Technology Services Corp.
Control and Reporting Center (CRC)

Tecolote
Space Radar (SR)

Teledyne Continental Engine
Joint Air-to-Surface Standoff Missile (JASSM)

Textron
GBU-31, GBU-32, GBU-38--Joint Direct Attack Munition (JDAM)
CBU-97/105 Sensor Fused Weapon (SFW)
RC-135S Cobra Ball

Thales Raytheon
Control and Reporting Center (CRC)
Regional Sector Air Operations Center (RSAOC)

Thales Communications
Combat Survivor Evader Locator (CSEL)

Thiokol
Medium Launch Vehicle (MLV)

TRAK Microwave
Launch & Test Range System (LTRS)

Tundra Semiconductor
CBU-97/105 Sensor Fused Weapon (SFW)

Tybrin Corp
Mission Planning Systems (MPS)

United Engineering Co
Evolved Expendable Launch Vehicle (EELV)

United Launch Alliance
Evolved Expendable Launch Vehicle (EELV)
Medium Launch Vehicle (MLV)

Universal Space Lines LLC
Operationally Responsive Space (ORS)

U.S. Naval Research Laboratory
Operationally Responsive Space (ORS)

Verizon
Transformational Satellite Communications System (TSAT)

Viasat
Global Broadcast Service (GBS)

Vision Systems International
Joint Helmet Mounted Cueing System (JHMCS)

Volt
Launch & Test Range System (LTRS)

Vought Aircraft
C-17 Globemaster III
RQ-4 Global Hawk

Williams International
Joint Air-to-Surface Standoff Missile (JASSM)

Wyman-Gordon Forgings
Joint Air-to-Surface Standoff Missile (JASSM)

Alabama
C-5 Galaxy
Evolved Expendable Launch Vehicle (EELV)
Joint Air-to-Surface Standoff Missile (JASSM)
KC-135 Stratotanker
Medium Launch Vehicle (MLV)
Operationally Responsive Space (ORS)

Arizona
AGM-65 Maverick
AGM-88 High Speed Anti-Radiation Missile (HARM)
AGM-129 A Advanced Cruise Missile (ACM)
AIM-7M Sparrow
AIM-9M Sidewinder
AIM-9X Sidewinder
AIM-120 Advanced Medium Range Air-to-Air Missile (AMRAAM)
AN/GSQ -272 Air Force Distributed Common Ground System (AF DCGS)
CBU-97/105 Sensor Fused Weapon (SFW)
Evolved Expendable Launch Vehicle (EELV)
F-16 HARM Targeting System (HTS) R6 and R7
Operationally Responsive Space (ORS)
Rocket Systems Launch Program (RSLP)
Space Radar (SR)
Space Test Program (STP)

Arkansas
Evolved Expendable Launch Vehicle (EELV)

California
Advanced Extremely High Frequency (AEHF) System
AGM-130 Standoff Attack Weapon
Air Force Combat Identification (AFCID)
Airborne Laser (ABL)
AN/GSQ-272 Air Force Distributed Common Ground System (AF DCGS)
B-1B Lancer
B-2 Spirit
C-17 Globemaster III
CBU-89/104 Gator
CBU-97/105 Sensor Fused Weapon (SFW)
Combatant Commanders Integrated Command and Control System (CCIC2S)
Combat Survivor Evader Locator (CSEL)
Control and Reporting Center (CRC)
Defense Meteorological Satellite Program (DMSP)
Defense Support Program (DSP)
EC-130H Compass Call
Evolved Expendable Launch Vehicle (EELV)
F-15A-D Eagle
F-15E Strike Eagle
F-16 Fighting Falcon

F-35 Lightning II, Joint Strike Fighter
F-117 Nighthawk
Global Positioning System (GPS)
Hypersonic Technology Vehicle (HTV)
Joint Helmet Mounted Cueing System (JHMCS)
KC-10 Extender
Launch & Test Range System (LTRS)
Medium Launch Vehicle (MLV)
Military Satellite Communication (MILSATCOM) Terminals
MQ-1 Predator
MQ-9 Reaper
National Polar-orbiting Operational Environmental Satellite System (NPOESS)
Operationally Responsive Space (ORS)
Regional Sector Air Operations Center (RSAOC)
Rocket Systems Launch Program (RSLP)
RQ-4 Global Hawk
Space Based Infrared System High (SBIRS High)
Space Radar (SR)
Space Situation Awareness (SSA) Systems
T-38A/AT-38B/T-38C Talon
Transformational Satellite Communications System (TSAT)
U-2S Dragon Lady
Wideband Global SATCOM (WGS) System

Colorado
Air Force Satellite Control Network (AFSCN)
Air Force Weather Weapon System (AFWWS)
AN/GSQ -272 Air Force Distributed Common Ground System (AF DCGS)
C-130 SENIOR SCOUT
Combatant Commanders Integrated Command and Control System (CCIC2S)
Evolved Expendable Launch Vehicle (EELV)
Launch & Test Range System (LTRS)
Medium Launch Vehicle (MLV)
National Polar-orbiting Operational Environmental Satellite System (NPOESS)
Operationally Responsive Space (ORS)
Space Based Infrared System High (SBIRS High)
Space Radar (SR)
Space Situation Awareness (SSA) Systems
Space Test Program (STP)
T-6A Texan II
Theater Battle Management Control Systems (TBMCS)
Transformational Satellite Communications System (TSAT)
Wideband Global SATCOM (WGS) System

Connecticut
C-17 Globemaster III
C-32A
CBU-97/105 Sensor Fused Weapon (SFW)

F-15A-D Eagle
F-15E Strike Eagle
F-16 Fighting Falcon
F-22A Raptor
F-35 Lightning II, Joint Strike Fighter
HH-60G Pave Hawk
MH-53J/M Pave Low III/IV
Space Radar (SR)
WC-135 Constant Phoenix

District of Columbia
Operationally Responsive Space (ORS)

Florida
AC-130H Spectre
AC-130U Spooky
AIM-7M Sparrow
AIM-9M Sidewinder
B-52H Stratofortress
C-9C
CBU-89/104 Gator
Counterspace Systems
Distributed Mission Operations (DMO)
E-4B National Airborne Operations Center (NAOC)
E-8C Joint STARS
Evolved Expendable Launch Vehicle (EELV)
Global Positioning System (GPS)
Halvorsen (formerly Next Generation Small Loader (NGSL))
Joint Air-to-Surface Standoff Missile (JASSM)
Launch & Test Range System (LTRS)
LGM-30G Minuteman III
Military Satellite Communication (MILSATCOM) Terminals
MC-130E Combat Talon
MC-130H Combat Talon II
MC-130P Combat Shadow
Medium Launch Vehicle (MLV)
MH-53J/M Pave Low III/IV
Rocket Systems Launch Program (RSLP)
Space Radar (SR)
Space Test Program (STP)
UH-1N Helicopter (Variants: UH-1N, 1H/Vm UV-18B)
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

Georgia
C-5 Galaxy
C-130J
C-37A
F-22A Raptor

MC-130E Combat Talon
MC-130H Combat Talon II
MH-53J/M Pave Low III/IV
U-2S Dragon Lady
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

Illinois
F-15A-D Eagle
F-15E Strike Eagle

Indiana
C-130J
CV-22B
EC-130H Compass Call
F-35 Lightning II, Joint Strike Fighter
Halvorsen (formerly Next Generation Small Loader (NGSL))
Military Satellite Communication (MILSATCOM) Terminals
National Polar-orbiting Operational Environmental Satellite System (NPOESS)
RQ-4 Global Hawk

Iowa
AC-130H Spectre
AC-130U Spooky
GBU-31/ GBU-32/ GBU-38 Joint Direct Attack Munition (JDAM)
MC-130E Combat Talon
MC-130H Combat Talon II
MC-130P Combat Shadow
Military Satellite Communication (MILSATCOM) Terminals

Kansas
Airborne Laser (ABL)
B-52H Stratofortress
CBU-97/105 Sensor Fused Weapon (SFW)
E-4B National Airborne Operations Center (NAOC)
KC-135 Stratotanker
RC-135S Cobra Ball
RC-135U Combat Sent
RC-135V/W Rivet Joint
T-1A Jayhawk
T-6A Texan II
T-37B Tweet

Louisiana
E-8C Joint STARS
Evolved Expendable Launch Vehicle (EELV)

Maine
CBU-97/105 Sensor Fused Weapon (SFW)

Maryland
Air Force Combat Identification (AFCID)
AN/GSQ -272 Air Force Distributed Common Ground System (AF DCGS)
B-1B Lancer
C-5 Galaxy
C-130 Hercules
Combat Survivor Evader Locator (CSEL)
Control and Reporting Center (CRC)
Counterspace Systems
Defense Meteorological Satellite Program (DMSP)
E-3 Sentry Airborne Warning and Control System (AWACS)
F-16 Fighting Falcon
F-22A Raptor
Global Broadcast Service (GBS)
Operationally Responsive Space (ORS)
Space Radar (SR)

Massachusetts
AIM-120 Advanced Medium Range Air-to-Air Missile (AMRAAM)
AN/GSQ -272 Air Force Distributed Common Ground System (AF DCGS)
AN/USQ -163 Air Force Distributed Common Ground System (AOC-WS)
CBU-97/105 Sensor Fused Weapon (SFW)
F-117 Nighthawk
GBU-31/ GBU-32/ GBU-38 Joint Direct Attack Munition (JDAM)
Global Broadcast Service (GBS)
Joint Air-to-Surface Standoff Missile (JASSM)
LGM-30G Minuteman III
Military Satellite Communication (MILSATCOM) Terminals
Regional Sector Air Operations Center (RSAOC)
Space Radar (SR)
Space Situation Awareness (SSA) Systems
T-38A/AT-38B/T-38C Talon
Transformational Satellite Communications System (TSAT)

Michigan
Halvorsen (formerly Next Generation Small Loader (NGSL))
Joint Air-to-Surface Standoff Missile (JASSM)
Space Radar (SR)
Tunner 60K Loader

Minnesota
CBU-87/103 Combined Effects Munition (CEM)
CBU-89/104 Gator
CBU-97/105 Sensor Fused Weapon (SFW)
F-16 Fighting Falcon
GBU-31/ GBU-32/ GBU-38 Joint Direct Attack Munition (JDAM)
Space Radar (SR)
Tunner 60K Loader
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

Mississippi
C-12C/D/F/J
F-15A-D Eagle
F-15E Strike Eagle
RQ-4 Global Hawk
Space Radar (SR)

Missouri
AC-130H Spectre
AC-130U Spooky
AGM-86 C/D Conventional Air Launched Cruise Missile (CALCM)
C-17 Globemaster III
Evolved Expendable Launch Vehicle (EELV)
F-15A-D Eagle
F-15E Strike Eagle
GBU-31/ GBU-32/ GBU-38 Joint Direct Attack Munition (JDAM)
GBU-39/B Small Diameter Bomb (SDB)
Joint Helmet Mounted Cueing System (JHMCS)
MC-130H Combat Talon II
Space Radar (SR)
T-38A/AT-38B/T-38C Talon
Tunner 60K Loader

Nebraska
Air Force Weather Weapon System (AFWWS)
Evolved Expendable Launch Vehicle (EELV)

New Hampshire
EC-130H COMPASS CALL
F-22A Raptor
Military Satellite Communication (MILSATCOM) Terminals

New Jersey
B-52H Stratofortress
CV-22B
F-16 Fighting Falcon
GBU-31/ GBU-32/ GBU-38 Joint Direct Attack Munition (JDAM)

New Mexico
C-5 Galaxy
Evolved Expendable Launch Vehicle (EELV)
F-15A–D Eagle
F-15E Strike Eagle
F-16 Fighting Falcon
Operationally Responsive Space (ORS)
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

New York
A-10/OA-10 Thunderbolt II
Air Force Combat Identification (AFCID)

AN/GSQ -272 Air Force Distributed Common Ground System (AF DCGS)
Control and Reporting Center (CRC)
Evolved Expendable Launch Vehicle (EELV)
F16-TARS (Theater Airborne Reconnaissance System)
Launch & Test Range System (LTRS)

Nevada
C-130 SENIOR SCOUT
Operationally Responsive Space (ORS)
RC-135U Combat Sent

North Carolina
C-5 Galaxy

Ohio
B-1B Lancer
Evolved Expendable Launch Vehicle (EELV)
F-16 Fighting Falcon
F-35 Lightning II, Joint Strike Fighter
Joint Air-to-Surface Standoff Missile (JASSM)
LGM-30G Minuteman III
RC-135S Cobra Ball
RC-135U Combat Sent Tunner 60K Loader
U-2S Dragon Lady

Oklahoma
E-4B National Airborne Operations Center (NAOC)
KC-10 Extender
KC-135 Stratotanker
VC-25A

Pennsylvania
CV-22B
Global Positioning System (GPS)
Halvorsen (formerly Next Generation Small Loader (NGSL))
Hypersonic Technology Vehicle (HTV)
Joint Air-to-Surface Standoff Missile (JASSM)
LGM-30G Minuteman III
Space Radar (SR)

South Carolina
C-9C
HC-130P/N King
MC-130E Combat Talon
MC-130H Combat Talon II
MC-130P Combat Shadow

Texas
AGM-65 Maverick
AGM-86 B Air Launched Cruise Missile (ALCM)

AGM-129A Advanced Cruise Missile (ACM)
AN/GSQ -272 Air Force Distributed Common Ground System (AF DCGS)
C-17 Globemaster III
C-20B/H
C-21A
C-130 SENIOR SCOUT
C-130H Scathe View
CV-22B
E-4B National Airborne Operations Center (NAOC)
Evolved Expendable Launch Vehicle (EELV)
F-16 Fighting Falcon
F-22A Raptor
F-35 Lightning II, Joint Strike Fighter
F-117 Nighthawk
Hypersonic Technology Vehicle (HTV)EC-130H COMPASS CALL
Joint Air-to-Surface Standoff Missile (JASSM)
Joint Helmet Mounted Cueing System (JHMCS)
KC-10 Extender
KC-135 Stratotanker
Launch & Test Range System (LTRS)
MC-130E Combat Talon
MC-130H Combat Talon II
Medium Launch Vehicle (MLV)
MH-53J/M Pave Low III/IV
MQ-1 Predator
MQ-9 Reaper
RC-26B
RC-135S Cobra Ball
RC-135U Combat Sent
RC-135V/W Rivet Joint
RQ-4 Global Hawk
Space Radar (SR)
Space Test Program (STP)
UH-1N Helicopter (Variants: UH-1N, 1H/Vm UV-18B)
WC-135 Constant Phoenix

Utah
AGM-65 Maverick
AIM-120 Advanced Medium Range Air-to-Air Missile (AMRAAM)
AN/GSQ -272 Air Force Distributed Common Ground System (AF DCGS)
C-130 SENIOR SCOUT
F16-TARS (Theater Airborne Reconnaissance System)
Joint Air-to-Surface Standoff Missile (JASSM)
LGM-30G Minuteman III
Medium Launch Vehicle (MLV)
Military Satellite Communication (MILSATCOM) Terminals
MQ-1 Predator
MQ-9 Reaper

Operationally Responsive Space (ORS)
Rocket Systems Launch Program (RSLP)
RQ-4 Global Hawk
U-2S Dragon Lady

Vermont
U-2S Dragon Lady
Wind Corrected Munitions Dispenser (WCMD) and WCMD-Extended Range (WCMD-ER)

Virginia
AN/GSQ -272 Air Force Distributed Common Ground System (AF DCGS)
AN/USQ -163 Air Force Distributed Common Ground System (AOC-WS)
Combatant Commanders Integrated Command and Control System (CCIC2S)
Deliberate Crisis and Action Planning and Execution Segments (DCAPES)
Global Broadcast Service (GBS)
Military Satellite Communication (MILSATCOM) Terminals
Operationally Responsive Space (ORS)
RQ-4 Global Hawk
Space Radar (SR)
Space Test Program (STP)
Transformational Satellite Communications System (TSAT)
U-2S Dragon Lady

Washington
AGM-86 B Air Launched Cruise Missile (ALCM)
Air Force Combat Identification (AFCID)
C-32A
C-40B/C
CBU-97/105 Sensor Fused Weapon (SFW)
E-3 Sentry Airborne Warning and Control System (AWACS)
F-22A Raptor
Launch & Test Range System (LTRS)
Operationally Responsive Space (ORS)
T-43A
WC-135 Constant Phoenix

West Virginia
C-12C/D/F/J
CBU-97/105 Sensor Fused Weapon (SFW)
RQ-4 Global Hawk
T-6A Texan II

Wisconsin
CBU-97/105 Sensor Fused Weapon (SFW)
Halvorsen (formerly Next Generation Small Loader (NGSL))