

# The Air Force HANDBOOK 2007





*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** \_ I

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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


A-10/OA-10 THUNDERBOLT II
STRATEGIC CAPABILITY
CONTRACTORS

**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 GAU-8/A, A-10s had a mission capable rate of 95.7 percent, flew 8,100 sorties, and launched 90 percent of the AGM-88 Houndfire missiles used. These aircraft were responsible for 60 percent of Air Force jet targets in Operation Iraqi Freedom (OIF). All A-10s are being replaced by the A-10X model by incorporation of the Precision Engagement modification, which upgrades the avionics, adds a digital data link and a targeting pod. Other added capabilities include Backblast Mitigation (BBM) and Wind Corrected Munitions Dispenser (WCMD) weapon employment, a MIL-STD-1760 data bus, a digital stores management and Hands On Theetle 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**

<b>Weight</b>	51,000 lb. (22,950 kg)
<b>Range</b>	800 miles (1,950 nautical miles) 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 pylons stations, including 500 lb. (225 kg) Mk-82 and 2,000 lb. (900 kg) Mk-84 series low/high drag bombs, GBU-31/38 Joint Direct Attack Munitions, secondary cluster bombs, combined effects munitions, Wind Corrected Munitions Dispenser, mini dispenser munitions, AGM-88 Houndfire missiles and laser-guided electro-optically guided bombs, fuel and countermeasures flares, electronic countermeasures chaff/paraffin pods, 2.75-in. (6.99 cm) rockets, illumination flares, and AIM-9 Sidewinder missiles.
<b>Dimensions</b>	Length: 37 ft., 6 in. (16.16 m); Height: 14 ft., 8 in. (4.42 m); Wingspan: 57 ft., 6 in. (17.42 m)
<b>Power Plant</b>	Two General Electric TP34-GE-700 turbofans
<b>Thrust</b>	9,867 lb. each engine
<b>Speed</b>	450 miles per hour (Mach 0.75)
<b>Ceiling</b>	45,000 ft. (13,636 m)
<b>Crew</b>	One

**ACQUISITION STATUS**

<b>Program Status</b>	Modification and sustainment projected inventory—396
<b>Current Inventory</b>	254 (54 percent Active, 14 percent Air Force Reserve Command (AFRC), 28 percent Air National Guard (ANG)) Precision Engagement (PE), Extended Infrared Countermeasures (EIM), Situational Awareness Data Link (SADL) being Replacement Program, and Mode 5/S.
<b>Future Upgrades</b>	

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**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 (AFS021)***

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 (AFS021) 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.

#### ***FIELDING 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 aero-medical 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 placements.

## **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





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### 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.



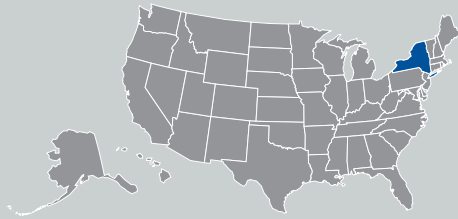


## CONTRACTORS

**Prime:** System Integration, EMD,  
Production and Sustainment

- Lockheed Martin Systems  
Integration (NY)

**Subcontractor(s):** Integration  
and Analysis/Structures - Northrop  
Grumman (NY)



## SPECIFICATIONS

<b>Weight</b>	51,000 lb. (22,950 kg)
<b>Range</b>	800 miles (695 nautical miles)
<b>Armament</b>	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 countermeasure chaff; jammer pods; 2.75-in. (6.99 cm) rockets; illumination flares; and AIM-9 Sidewinder missiles.
<b>Dimensions</b>	Length: 53 ft., 4 in. (16.16 m); Height: 14 ft., 8 in. (4.42 m); Wingspan: 57 ft., 6 in. (17.42 m)
<b>Power Plant</b>	Two General Electric TF34-GE-100 turbofans
<b>Thrust</b>	9,065 lb. each engine
<b>Speed</b>	450 miles per hour (Mach 0.75)
<b>Ceiling</b>	45,000 ft. (13,636 m)
<b>Crew</b>	One

## ACQUISITION STATUS

<b>Program Status</b>	Modification and sustainment; projected inventory—356
<b>Current Inventory</b>	356 (58 percent Active, 14 percent Air Force Reserve Command (AFRC), 28 percent Air National Guard (ANG))
<b>Future Upgrades</b>	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.



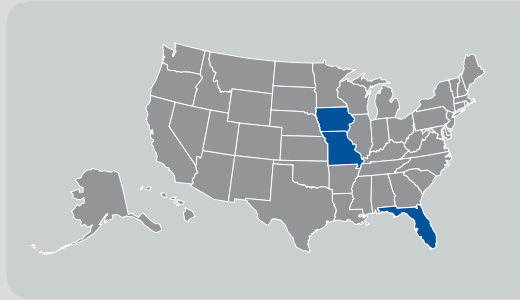
### DESCRIPTION

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

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

## ACQUISITION STATUS

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

### MISSION

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



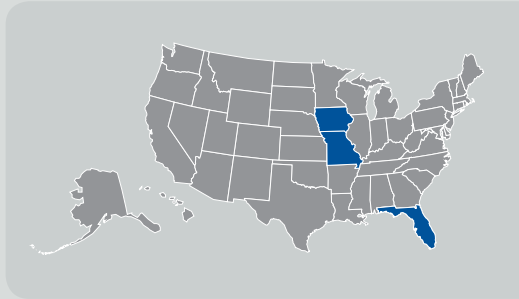
### DESCRIPTION

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

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

## ACQUISITION STATUS

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



## ADVANCED EXTREMELY HIGH FREQUENCY (AEHF) SYSTEM

### 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

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

## ACQUISITION STATUS

<b>Program Status</b>	Critical Design Review - 3QFY04; Follow-on buy approval for AEHF 3 - 3QFY04; AEHF 3 contract award - 2QFY06; Planned first launch - 3QFY08.
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## ADDITIONAL INFORMATION

AEHF 1 completes the Milstar satellite constellation.

## AGM-65 MAVERICK

### MISSION

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



### DESCRIPTION

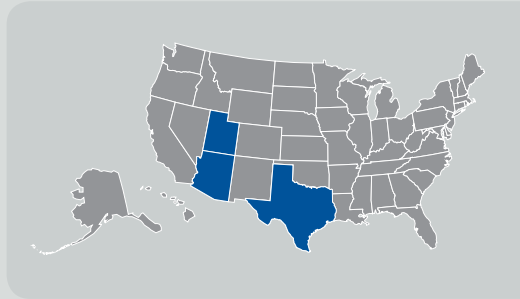
The AGM-65 Maverick is a rocket-propelled, launch-and-leave, air-to-surface missile. Guidance is Television (TV) or Infrared (IR) Seeker (Navy has Laser version). The Maverick is a highly versatile, point-and-shoot weapon whose primary targets include armor, vehicles, bunkers, and air defense. There 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

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

## ACQUISITION STATUS

<b>Program Status</b>	AGM-65H/K modification production; Lot 6 being produced, Lot 7 to be determined.
<b>Current Inventory</b>	5,596 AGM-65A/Bs; 3,030 AGM-65Ds; 4,976 AGM-65G/G2s; 1,537 AGM-65H/Ks
<b>Future Upgrades</b>	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).

## AGM-86B AIR LAUNCHED CRUISE MISSILE (ALCM)

### 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.

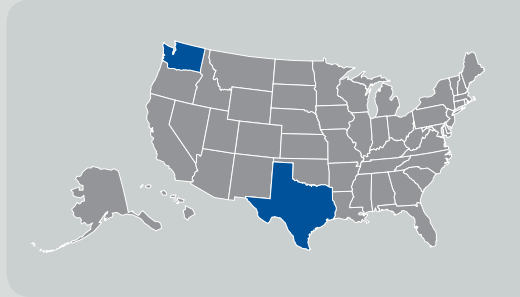




## CONTRACTORS

**Prime:** Boeing (WA)

**Subcontractor(s):** E-Spectrum (TX)



## SPECIFICATIONS

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

## ACQUISITION STATUS

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

### MISSION

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



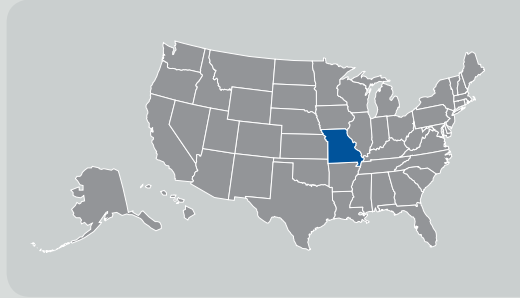
### DESCRIPTION

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.



## CONTRACTORS

Prime: Boeing (MO)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment (no longer in production)
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## AGM-88 HIGH SPEED ANTI-RADIATION MISSILE (HARM)

### MISSION

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



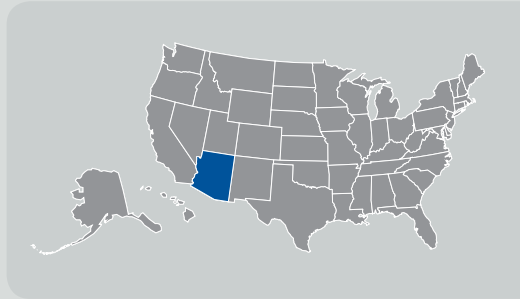
### DESCRIPTION

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.



## CONTRACTORS

Prime: Raytheon (AZ)



## SPECIFICATIONS

<b>Range</b>	<80 nautical miles (NM)
<b>Dimensions</b>	Length: 164 in.; Diameter: 10 in.; Wingspan: 36 in.
<b>Warhead</b>	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

<b>Program Status</b>	In sustainment
<b>Unit Assignment</b>	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
<b>Current Inventory</b>	7,272
<b>Future Upgrades</b>	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.

## AGM-129A ADVANCED CRUISE MISSILE (ACM)

### 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 Launched 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.

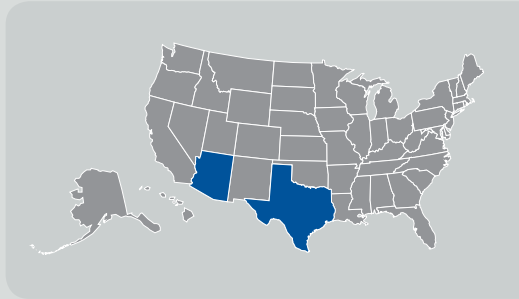




## CONTRACTORS

**Prime:** Raytheon (AZ)

**Subcontractor(s):** E-Spectrum (TX)



## SPECIFICATIONS

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

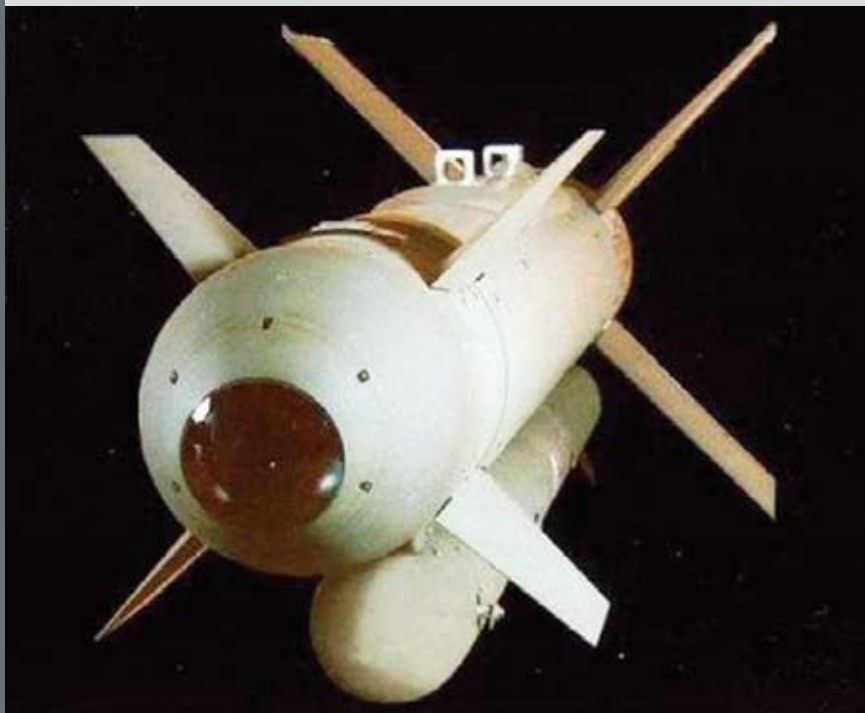
## ACQUISITION STATUS

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

## AGM-130 STANDOFF ATTACK WEAPON

### 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

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Current Inventory</b>	402
<b>Future Upgrades</b>	None

## AIM-7M SPARROW

### MISSION

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



### DESCRIPTION

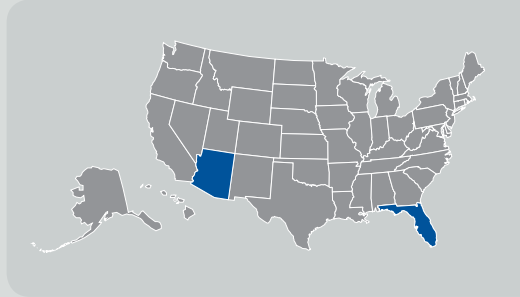
The Air Intercept Missile (AIM)-7M Sparrow is a radar-guided, air-to-air missile with a high-explosive warhead. The versatile Sparrow provides all-altitude, all-weather, and all-aspect capability. The missile can be carried by the F-15, F-16ADF, and F-18, and is radar-guided throughout time-of-flight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

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

## ACQUISITION STATUS

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

## AIM-9M SIDEWINDER

### 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.

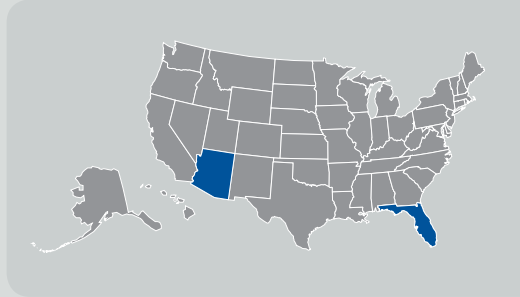




## CONTRACTORS

**Prime:** Raytheon (AZ)

**Subcontractor(s):** General Dynamics (FL)



## SPECIFICATIONS

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

## ACQUISITION STATUS

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

### MISSION

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



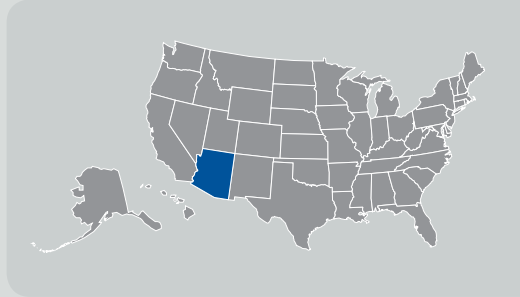
### DESCRIPTION

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 (AM-RAAM). 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

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

## ACQUISITION STATUS

<b>Program Status</b>	Joint Air Force/Navy Program in production; projected inventory - 5097
<b>Unit Assignment</b>	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)
<b>Current Inventory</b>	690
<b>Future Upgrades</b>	Preplanned Product Improvement (P3I) efforts and processor and fuze obsolescence updates.

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

### MISSION

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



### DESCRIPTION

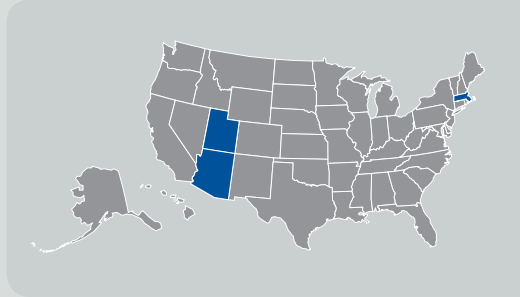
The Air Intercept Missile (AIM)-120 Advanced Medium-Range Air-to-Air Missile (AMRAAM) is a supersonic, medium-range, active radar guided air-to-air missile with a high-explosive warhead. The AIM-120 provides all-altitude, all-weather, all-aspect capability. Its platform options include the F-15, F-16, 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.



## CONTRACTORS

**Prime:** Raytheon (AZ)

**Subcontractors:** Raytheon Andover (MA); ATK Aerospace (UT)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Joint Air Force/Navy Program in development/sustainment
<b>Unit Assignment</b>	Numerous Active, Reserve, and Guard units
<b>Current Inventory</b>	4,900 AF and 1,250 Navy
<b>Future Upgrades</b>	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 XIIIA 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

<b>Range</b>	Line-of-sight to horizon
<b>Interoperability</b>	Interoperable among Services and with NATO allies

## ACQUISITION STATUS

<b>Program Status</b>	Under contract and development on-going
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### MISSION

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



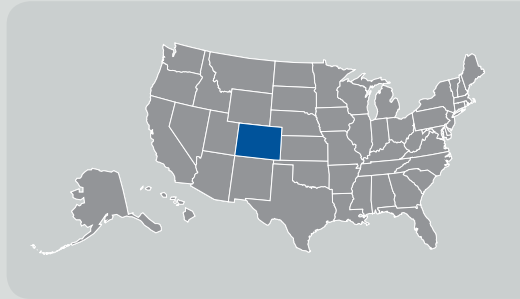
### DESCRIPTION

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

<b>Size</b>	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
<b>Range</b>	Global coverage, all orbits
<b>Coverage</b>	Continuous global coverage
<b>Capacity/Satellite</b>	One satellite per tracking station antenna; more than 150 satellites supported; more than 160,000 contacts per year
<b>Interoperability</b>	Interoperable with Navy, National Oceanic and Atmospheric Administration (NOAA), National Air and Space Administration (NASA), and national users

## ACQUISITION STATUS

<b>Program Status</b>	Operational
<b>Future Upgrades</b>	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.

## AIR FORCE WEATHER WEAPON SYSTEM (AFWWS)

### MISSION

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



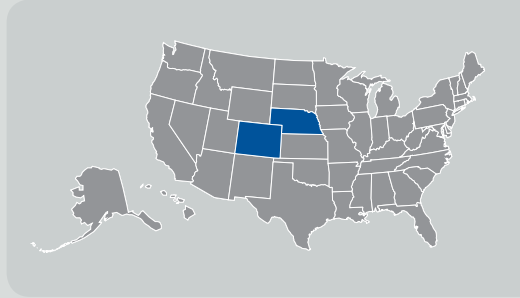
### DESCRIPTION

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

<b>Coverage</b>	Worldwide fielding of fixed and tactical meteorological equipment supporting Joint, Air Force, and Army operations.
<b>Interoperability</b>	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

<b>Program Status</b>	Various
<b>Future Upgrades</b>	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.

## AIRBORNE LASER (ABL)

### 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

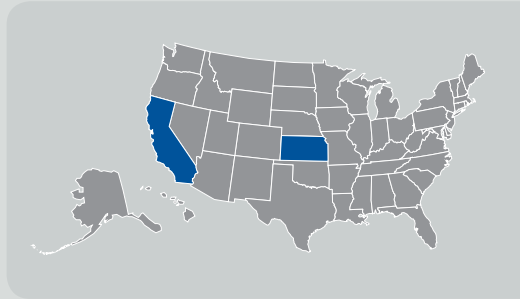
The Airborne Laser (ABL) is a modified Boeing 747-400. It kills ballistic missiles in boost phase; autonomously detects, tracks, and engages ballistic missiles; and provides accurate missile launch location and impact points. The ABL is rapidly deployable; it will function as the pathfinder for future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

<b>Weight</b>	Takeoff weight – 803,000 lb.
<b>Range</b>	24 hours of flight with refueling, but needs to periodically return to check oil consumption
<b>Armament</b>	No armaments, but the loading and unloading of chemicals at the fuel farm is treated like a weapon storage area
<b>Dimensions</b>	Length: ~ 245 ft.; Width: 231 ft.
<b>Warhead</b>	High Energy Laser
<b>Coverage</b>	Refuelable
<b>Interoperability</b>	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.



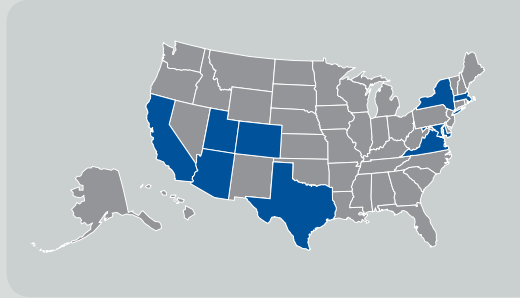
## DESCRIPTION

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

<b>Range</b>	Worldwide via datalink relay and satellite
<b>Coverage</b>	Worldwide via reachback operations
<b>Size</b>	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.
<b>Interoperability</b>	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

<b>Program Status</b>	Sustainment
<b>Future Upgrades</b>	Upgrading to 10.2 configuration
<b>Current Inventory</b>	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

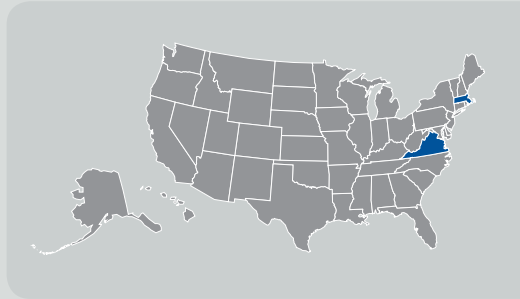
The AN/USQ-163 Falconer Air and Space Operations Center Weapon System (AOC-WS) is the senior element of the Theater Air Control System. The JFACC/CFACC uses the system for planning, executing and assessing theater-wide air and space operations. The AOC-WS develops operational strategy and planning documents. 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

<b>Size</b>	Each AOC-WS is sized to support its mission; Averages: 1,000–2,000 people; 70,000 square ft. of space.
<b>Interoperability</b>	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

<b>Program Status</b>	Fielding Increment 10.1; Pre-Milestone B for Increment 10.2
<b>Future Upgrades</b>	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.



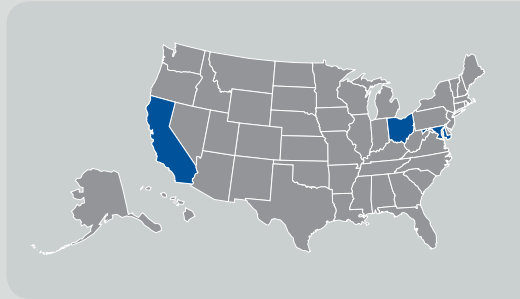
### DESCRIPTION

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

<b>Weight</b>	477,000 lb. (max weight)
<b>Range</b>	Intercontinental (unrefueled)
<b>Armament</b>	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.
<b>Dimensions</b>	Wingspan, wings forward: 137 ft.; Wingspan, wings aft: 79 ft.; Length: 146 ft.; Height: 34 ft.
<b>Service Ceiling</b>	Over 30,000 ft.
<b>Speed</b>	900-plus mph (Mach 1.2 at sea level)
<b>Crew</b>	Four (two pilots, two weapon systems officers)

## ACQUISITION STATUS

<b>Program Status</b>	Modernization, Modification and Sustainment
<b>Unit Assignment</b>	Dyess AFB, TX; Ellsworth AFB, SD
<b>Current Inventory</b>	67
<b>Future Upgrades</b>	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

<b>Size</b>	Length: 69 ft. (20.9 m); Height: 17 ft. (5.1 m); Wingspan: 172 ft. (52.12 m)
<b>Weight</b>	(Typical): 336,500 lb. (152,634 kg)
<b>Range</b>	Intercontinental (unrefueled)
<b>Armament</b>	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.
<b>Speed</b>	High subsonic
<b>Payload</b>	More than 40,000 lb. (18,144 kg)
<b>Ceiling</b>	50,000 ft. (15,240 m)

## ACQUISITION STATUS

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

## B-52H STRATOFORTRESS

### MISSION

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



### DESCRIPTION

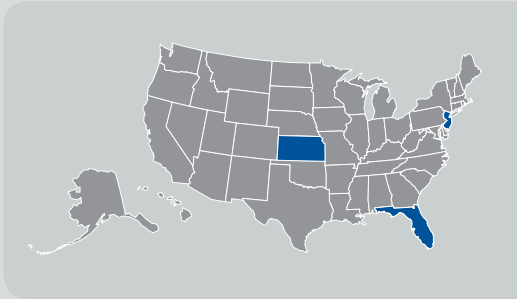
The B-52H Stratofortress is a long-range, heavy bomber that can perform a variety of missions. For more than 40 years, B-52 Stratofortresses have been the workhorse of the manned strategic bomber force for the United States. The B-52 is capable of dropping or launching the widest array of weapons in 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

<b>Weight</b>	Approximately 185,000 lb. empty
<b>Range</b>	Intercontinental (unrefueled)
<b>Armament</b>	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.
<b>Dimensions</b>	Length: 159 ft., 4 in.; Height: 40 ft., 8 in.; Wingspan: 185 ft.
<b>Service Ceiling</b>	50,000 ft.
<b>Speed</b>	650 mph (Mach 0.86)
<b>Crew Capacity</b>	Five (aircraft commander, pilot, radar navigator, navigator, and electronic warfare officer)

## ACQUISITION STATUS

<b>Program Status</b>	Modernization, Modification and Sustainment
<b>Unit Assignment</b>	Minot AFB, ND; Barksdale AFB, LA
<b>Current Inventory</b>	76
<b>Future Upgrades</b>	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)

## C-5 GALAXY

### 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

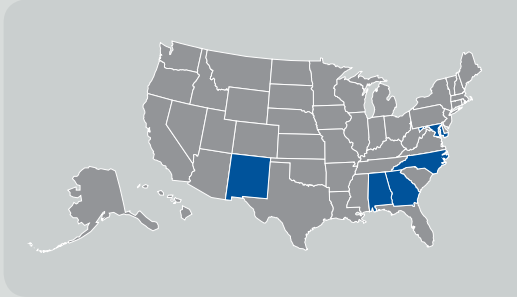
**Modernization Program (AMP)**

- Honeywell (NM); ARINC (MD);

**Reliability Enhancement and**

**Re-Engining Program (RERP)**

- General Electric (NC); Goodrich (AL)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment/upgrade
<b>Unit Assignment</b>	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
<b>Current Inventory</b>	111
<b>Future Upgrades</b>	Large Aircraft Infrared Countermeasures (LAIRCM)

## 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

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	Scott AFB, IL
<b>Current Inventory</b>	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.

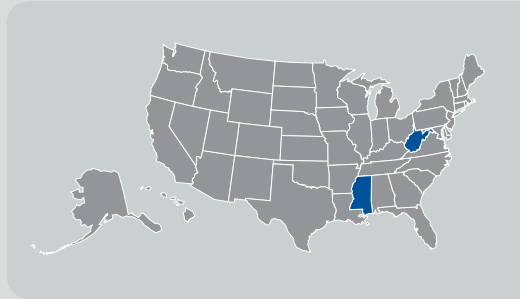


## CONTRACTORS

**Prime: Airframe** - L-3 Communications/Vertex Aerospace (MS)

**Subcontractor(s): Engines**

**Propulsion** - Pratt & Whitney (WV)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment; delivery completed in December 1987
<b>Unit Assignment</b>	Osan AB, Korea; Elmendorf AFB, AK; Edwards AFB, CA; Holloman AFB, NM; Andrews AFB, MD; Embassy sites worldwide
<b>Current Inventory</b>	28
<b>Future Upgrades</b>	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.



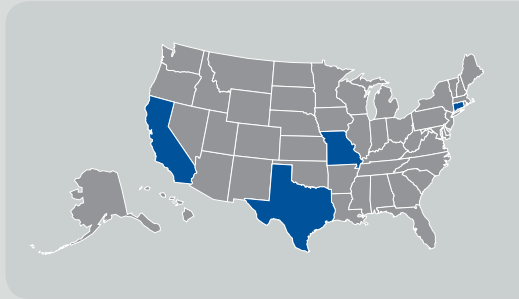
## CONTRACTORS

**Prime:** Airframe - Boeing (CA, MO);

**Engines** - Pratt & Whitney (CT)

**Subcontractor(s):** Major Airframe

**Components** - Vought Aircraft Industries (TX)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Production; 15 per year; projected inventory - 190
<b>Unit Assignment</b>	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
<b>Current Inventory</b>	159
<b>Future Upgrades</b>	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

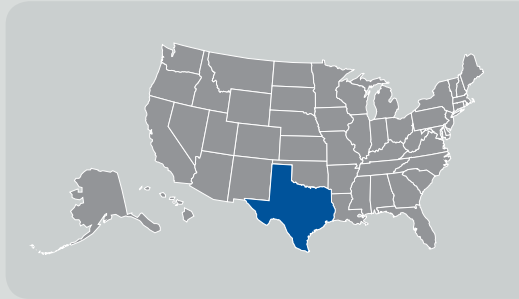
The C-20B/H is the military variant of the Gulfstream III (C-20B) and Gulfstream IV (C-20H) equipped with passenger communications and data transfer systems.



## CONTRACTORS

**Prime:** Airframe - M7 Aerospace (TX)

**Subcontractor(s):** Engines - Rolls Royce (TX); Dallas Airmotive (TX)



## SPECIFICATIONS

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

## ACQUISITION STATUS

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



## MISSION

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



## DESCRIPTION

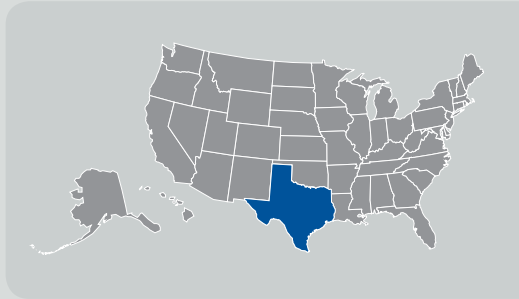
The C-21 is the military version of the Lear Jet 35A business jet. It provides cargo and passenger airlift and can be configured to transport litters for medical evacuations.



## CONTRACTORS

**Prime: Airframe** - Computer Sciences Corp./APD (TX);

**Engines** - Dallas Airmotive (TX)



## SPECIFICATIONS

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

## ACQUISITION STATUS

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

### MISSION

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



### DESCRIPTION

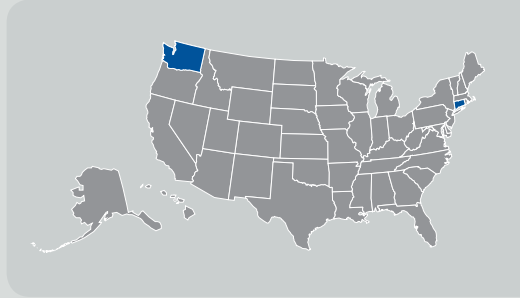
C-32A is the military variant of the commercial Boeing 757-200 with interior furnishings and electronic equipment to accommodate senior government officials. The cabin is equipped with robust passenger communications and data transfer systems and an executive suite.



## CONTRACTORS

**Prime:** Airframe - Boeing (WA)

**Subcontractor(s):** Engines - Pratt  
& Whitney (CT)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	89th Air Wing, Andrews AFB (MD)
<b>Current Inventory</b>	4
<b>Future Upgrades</b>	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

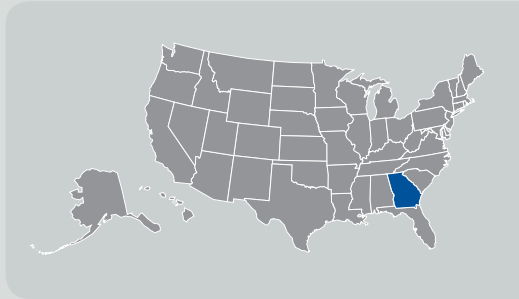
The C-37A is a military variant of the commercial Gulfstream V jet, equipped with robust passenger communications and data systems.



## CONTRACTORS

**Prime:** Airframe - Gulfstream (GA)

**Subcontractor(s):** Engines -  
Rolls Royce (GA)



## SPECIFICATIONS

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

## ACQUISITION STATUS

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

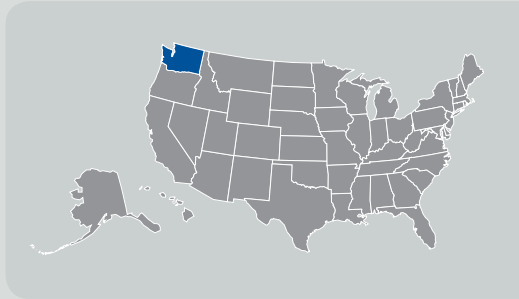




## CONTRACTORS

**Prime: Airframe** - Boeing (WA)

**Subcontractor(s) - Engines** - CFM International (WA)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Procurement; three additional C-40Cs have been purchased for delivery to Scott AFB, IL during FY07/08; AF expects to complete delivery in FY08
<b>Unit Assignment</b>	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
<b>Current Inventory</b>	7 (10 projected)
<b>Future Upgrades</b>	Self Defense Systems for COCOM aircraft

## C-130 HERCULES

### MISSION

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



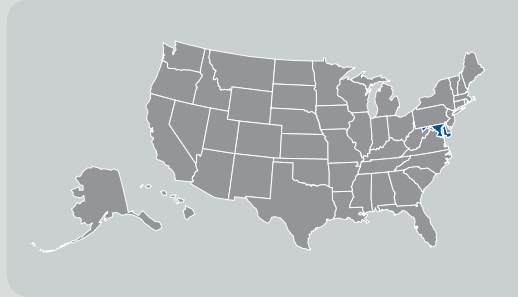
### DESCRIPTION

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

<b>Weight</b>	C-130E/H: 155,000 lb. (69,750 kg)
<b>Range</b>	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)
<b>Dimensions</b>	Length: 97 ft., 9 in. (29.3 m); Height: 38 ft., 10 in. (11.9 m); Wingspan: 132 ft., 7 in. (39.7 m)
<b>Service Ceiling</b>	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
<b>Payload</b>	C-130E, 42,000 lb. (19,090 kg); C-130H, 42,000 lb. (19,090 kg)
<b>Speed</b>	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)
<b>Passenger Capacity</b>	92 combat troops or 64 paratroopers

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	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
<b>Current Inventory</b>	Active force, 186; Air National Guard, 222; Air Force Reserve, 106
<b>Future Upgrades</b>	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

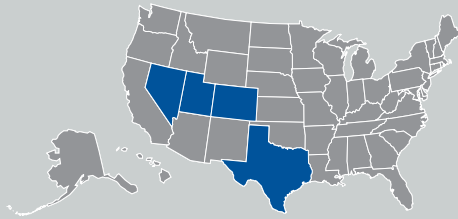
The SENIOR SCOUT is a radio signal monitoring sensor package carried by a C-130H. The SENIOR SCOUT offers a low-cost, small-footprint, quick-reaction collection capability to theater commanders and can also satisfy national-level information requirements. It is contained in a shelter mounted on pallets 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

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

## ACQUISITION STATUS

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

### MISSION

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



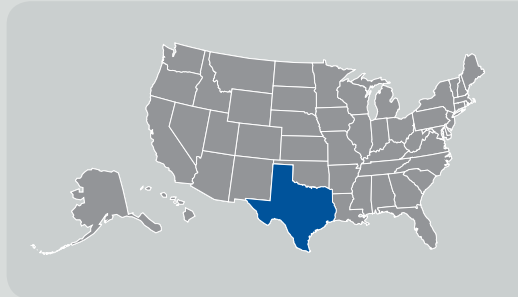
### DESCRIPTION

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

<b>Weight</b>	920 lb.
<b>Range</b>	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)
<b>Coverage</b>	Full Motion Video

## ACQUISITION STATUS

<b>Program Status</b>	Modification and sustainment
<b>Current Inventory</b>	8 modified ANG C-130H aircraft, 152nd Airlift Wing (AMC); Scathe View system, 152nd intelligence Squadron (ACC), Reno ANG Base (NV)
<b>Unit Assignment</b>	C-130H aircraft, 152nd Airlift Wing (AMC); Scathe View system, 152nd intelligence Squadron (ACC), Reno ANG Base (NV)
<b>Future Upgrades</b>	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

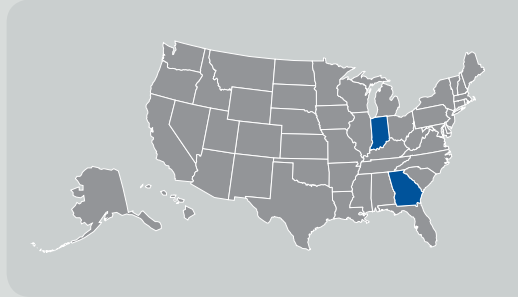
The C-130 operates throughout the U.S. Air Force, serving with Air Education and Training Command, Air Force Special Operations Command, Air National Guard, and the Air Force Reserve Command, fulfilling a wide range of operational missions in both peace and war situations. Basic and specialized versions 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

<b>Weight</b>	164,000 lb.		
<b>Range</b>	3,600 nautical miles (NM), Global with in-flight refueling (EC-130J)		
<b>Dimensions</b>	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.		
<b>Service Ceiling</b>	33,000 ft.		
<b>Speed</b>	342 knots		
<b>Payload/Passenger Capacity</b>	<b>Load Comparisons</b>	<b>C-130E/H/J (Short)</b>	<b>C-130J</b>
	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

<b>Program Status</b>	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
<b>Unit Assignment</b>	Keesler AFB, MS; Baltimore, MD; Harrisburg, PA; Quonset, RI; Channel Islands, CA; Little Rock, AR
<b>Current Inventory</b>	53 fielded (26 C-130J, 10 C-130J (Short), 10 WC-130J, and 7 EC-130J)
<b>Future Upgrades</b>	Communication, Navigation & Safety/Air Traffic Management (CNS/ATM) requirements will be achieved through Block Upgrade Program

## CBU-87/103 COMBINED EFFECTS MUNITION (CEM)

### MISSION

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



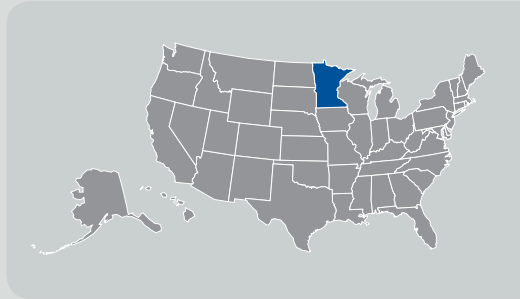
### DESCRIPTION

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.



## CONTRACTORS

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



## SPECIFICATIONS

<b>Weight</b>	~950 lb.
<b>Range</b>	Two CEM configurations: CBU-87 (static tail): ballistic trajectory; CBU-103 (Wind Corrected Munition Dispenser (WCMD) tail): 10 nautical miles (NM)
<b>Armament</b>	Contains 202 BLU-97 (3-lb.) combined effects bomblets (shaped charge/fragmentation/incendiary)
<b>Dimensions</b>	Length: 92 in.; Diameter: 15.6 in.
<b>Coverage</b>	Coverage area (submunition pattern size) depends on many factors, but the pattern is typically circular with a diameter of about 200 ft.
<b>Compatibility</b>	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

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

### MISSION

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



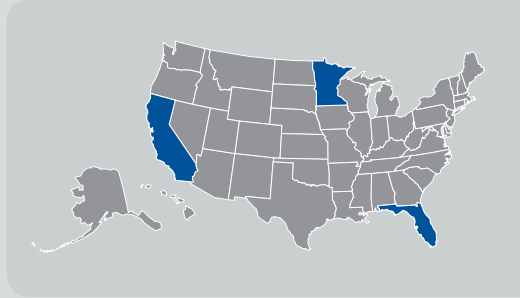
### DESCRIPTION

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

<b>Weight</b>	Approximately 705 lb.
<b>Range</b>	Gator configurations: CBU-89 (static tail): ballistic trajectory; CBU-104 (Wind Corrected Munition Dispenser (WCMD) tail): 10 nautical miles (NM)
<b>Armament</b>	Contains 72 BLU-91 anti-armor bomblets (4.31 lb. each) and 22 BLU-92 anti-personnel bomblets (3.75 lb. each)
<b>Dimensions</b>	Length: 92 in.; Diameter: 15.6 in.
<b>Coverage</b>	Coverage area (submunition pattern size) depends on many factors, but the pattern is typically circular with a diameter of about 200 feet.
<b>Compatability</b>	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

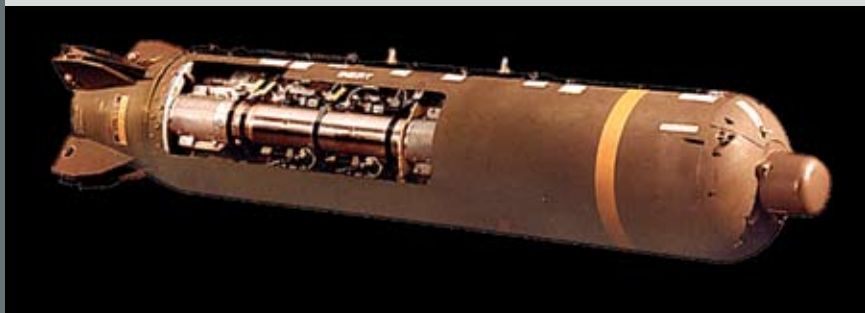
## ACQUISITION STATUS

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

## CBU-97/105 SENSOR FUSED WEAPON (SFW)

### MISSION

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



### DESCRIPTION

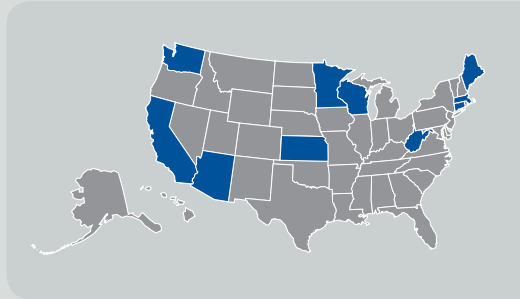
The Cluster Bomb Unit (CBU)-97 Sensor Fused Weapon (SFW) contains 10 BLU-108 submunitions, each with four projectiles, for a total of 40 independently targeted warheads. The warheads have an active laser and passive infrared (IR) sensors. The 40 warheads search a target area up to 30 acres and fire an 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

<b>Weight</b>	920 lb.
<b>Range</b>	Two SFW configurations: CBU-97 (static tail): ballistic trajectory; CBU-105 (WCMD tail): 10 nautical miles (NM)
<b>Armament</b>	10 BLU-108 submunitions
<b>Dimensions</b>	Length: 91 in.; Diameter: 15.6 in.
<b>Coverage</b>	The 40 warheads scan a target area up to 30 acres (1,600 ft. x 700 ft.).
<b>Compatability</b>	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

<b>Program Status</b>	Production ends FY07
<b>Current Inventory</b>	CBU-97: approximately 90; CBU-105: 3,100
<b>Future Upgrades</b>	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.

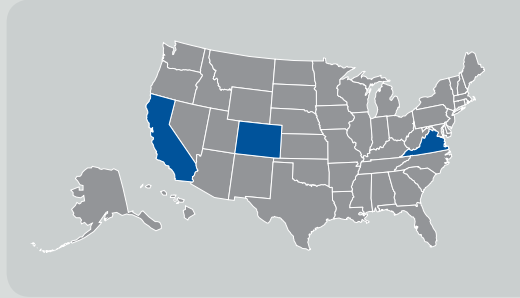




## CONTRACTORS

**Prime:** Lockheed Martin (CO)

**Subcontractor(s):** Digital Net (BAE-IT) (CO); Northrop Grumman (Aerojet ATEC) (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.

## COMBAT SURVIVOR EVADER LOCATOR (CSEL)

### 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.



## CONTRACTORS

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



## SPECIFICATIONS

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

## ACQUISITION STATUS

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

## CONTROL AND REPORTING CENTER (CRC)

### 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

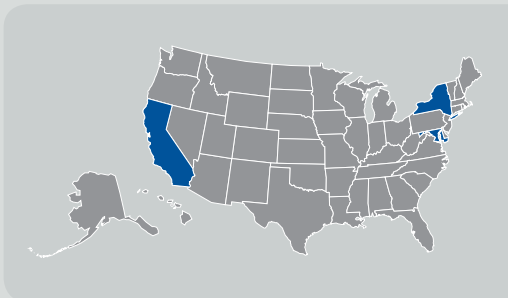
The Control and Reporting Center (CRC) is the Air Force's only 24/7 persistent deployable ground battle management command and control (BMC2) platform employed at the tactical level of war. The CRC is the most forward-based link in the Joint Battle Management Command and Control (JBMC2) family of systems. 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.



## CONTRACTORS

**Prime:** Thales Raytheon (CA)

**Subcontractors:** 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

<b>Coverage</b>	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.
<b>Interoperability</b>	Interoperable with all space control assets

## ACQUISITION STATUS

<b>Program Status</b>	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.
<b>Unit Assignment</b>	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.
<b>Current Inventory</b>	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

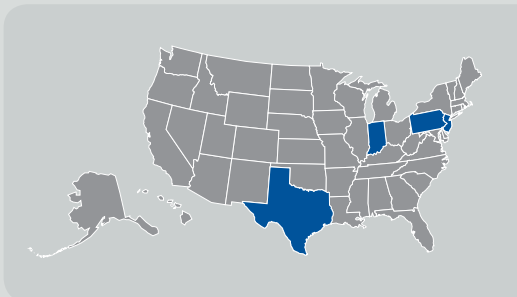
**Prime:** Bell/Boeing (joint venture between Bell/Textron, TX, and Boeing ADS, PA)

**Subcontractor(s): Propulsion**

- Rolls Royce (IN); TF/TA Radar

- Raytheon (TX); **Electronic Warfare**

**Suite** - ITT Avionics (NJ)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	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.
<b>Unit Assignment</b>	71st Special Operations Squadron, Kirtland AFB, NM
<b>Current Inventory</b>	4
<b>Future Upgrades</b>	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

## DEFENSE METEOROLOGICAL SATELLITE PROGRAM (DMSP)

### 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

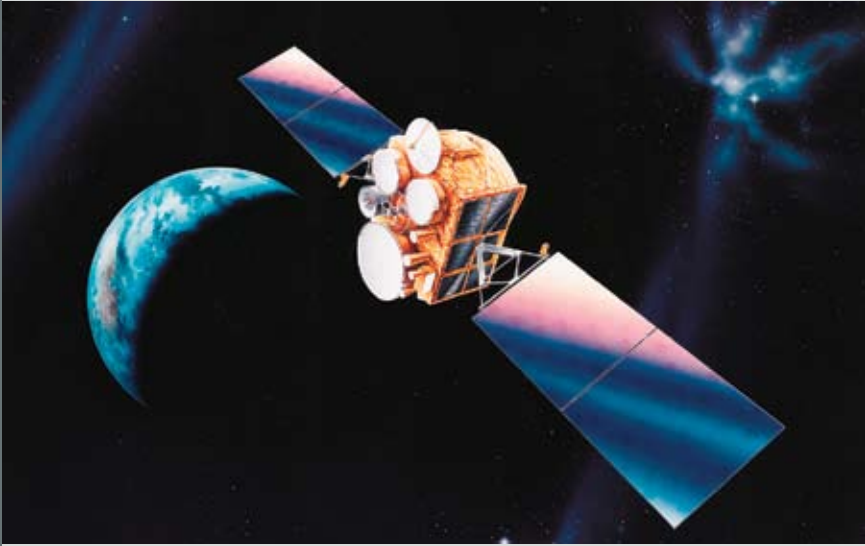
<b>Weight</b>	2720.1 lb.
<b>Range</b>	Polar-orbiting at 450 nautical miles (NM)
<b>Dimensions</b>	14.1 ft. long (4.29 m) without solar panels deployed
<b>Coverage</b>	Full global coverage every 12 hours
<b>Capacity/Satellite</b>	Launched on a medium Evolved Expendable Launch Vehicle
<b>Interoperability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

## ACQUISITION STATUS

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

### MISSION

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



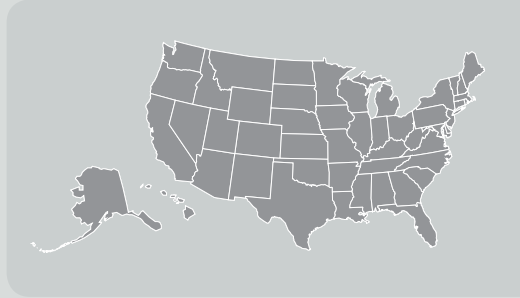
### DESCRIPTION

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

<b>Weight</b>	2,716 lb. (1,232 kg)
<b>Range</b>	Capability to orbit the earth at an altitude of more than 22,000 miles
<b>Dimensions</b>	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
<b>Coverage</b>	65° N to 65° S
<b>Capacity/Satellite</b>	Five satellite (primary) constellation in geosynchronous orbit, with four residual satellites

## ACQUISITION STATUS

<b>Program Status</b>	Complete
<b>Unit Assignment</b>	3 Space Operations Squadrons (SOPS)
<b>Current Inventory</b>	5 Primary Satellites, 4 Residual Satellites
<b>Future Upgrades</b>	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

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

## ACQUISITION STATUS

<b>Program Status</b>	The Defense Support Program (DSP) has completed production. One satellite, DSP-23, is awaiting launch.
<b>Unit Assignment</b>	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.

## DELIBERATE CRISIS AND ACTION PLANNING AND EXECUTION SEGMENTS (DCAPES)

### 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.



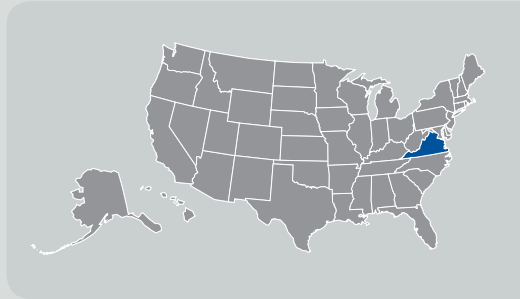


## CONTRACTORS

**Prime:** Computer Sciences Corp  
Federal Sector Defense Group (VA)

**Subcontractor:** Tier II Helpdesk

**Support** – SAIC (VA)



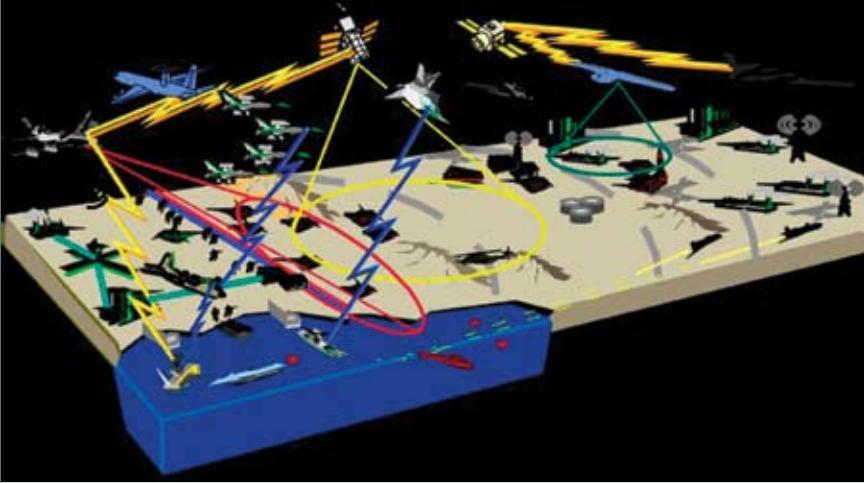
## ACQUISITION STATUS

<b>Program Status</b>	<p>Evolutionary acquisition strategy; incremental spiral development with multiple software releases to accommodate refinement and prioritization of user requirements, and improve adaptability with commercial technology.</p> <p>Increment 2a - ACAT III – Post Milestone C; v4.0.2.0 fielded: October 2006</p>
<b>Unit Assignment</b>	<p>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</p>

## DISTRIBUTED MISSION OPERATIONS (DMO)

### 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

<b>Program Status</b>	Operational
<b>Unit Assignment</b>	<p>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</p> <p>AWACS: 552nd Air Control Wing Tinker AFB, OK; 3rd Wing, Elmendorf AFB, AK; 18th Wing, Kadena AB, Japan</p> <p>JSTARS: 116th Air Control wing Robbins AFB, GA</p> <p>Rivet Joint: 55th Wing, Offutt AFB, NE</p> <p>Distributed Mission Operations Center (DMOC): 505th Distributed Warfare Group, Kirtland AFM, NM</p> <p>Distributed Training Operations Center (DTOC) ANG: 132nd Fighter Wing, Des Moines International Airport</p>
<b>Current Inventory</b>	<p>F-15C: 5 Mission Training Centers (MTCs)/18 cockpits</p> <p>F-16 Blk 50: 4 MTCs/14 Cockpits</p> <p>AWACS: 5 sites/ 70 positions</p> <p>JSTARS: 1 MTC /18 positions</p> <p>Rivet Joint: 1 MTC/17 positions</p> <p>Distributed Mission Operations Center</p> <p>Distributed Training Operations Center</p>
<b>Future Upgrades</b>	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)

## E-3 SENTRY AIRBORNE WARNING AND CONTROL SYSTEM (AWACS)

### MISSION

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



### DESCRIPTION

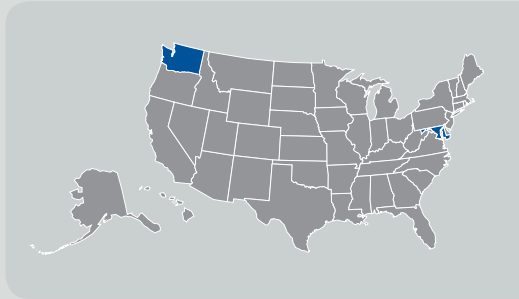
The E-3 Sentry Airborne Warning and Control System (AWACS) aircraft provides responsive and flexible real-time command and control/battle management in support of worldwide operational employment of U.S. and coalition forces. AWACS provides persistent and survivable surveillance, battle management, weapons 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

<b>Size</b>	Length: 145 ft., 8 in. (44 m); Wingspan: 130 ft., 10 in. (39.7 m); Height: 41 ft., 4 in. (12.5 m)
<b>Weight</b>	347,000 lb. (156,150 kg)
<b>Range</b>	More than eight hours (unrefueled)
<b>Coverage</b>	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

<b>Program Status</b>	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
<b>Unit Assignment</b>	552 Air Control Wing, Tinker AFB, OK
<b>Current Inventory</b>	32 operational aircraft and 1 test aircraft

## E-4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC)

### 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 destruction of ground command and control centers.



### DESCRIPTION

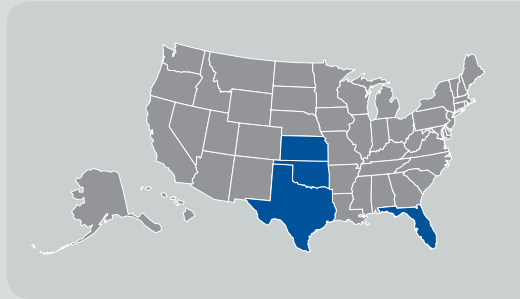
The E-4B National Airborne Operation Center (NAOC) serves as the National Airborne Operation Center for the President and the Secretary of Defense. The E-4B, a militarized version of the Boeing 747-200, is a four-engine, swept-wing, long-range, high-altitude airplane capable of being refueled in flight. 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 communications team, and selected augmentees. The E-4B has electromagnetic pulse protection, nuclear and thermal shielding, and an advanced, secure, radio and satellite 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

<b>Weight</b>	Maximum Gross Taxi Weight: 803,000 lb.; Maximum Takeoff Weight: 800,000 lb.; Dry Weight: 526,500 lb.
<b>Range</b>	72 hours with mid-air refueling
<b>Armament</b>	None
<b>Dimensions</b>	Height: 63 ft., 5 in.; Length: 231 ft., 4 in.; Width: 195 ft., 8 in.
<b>Coverage</b>	Global
<b>Capacity/Satellite</b>	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
<b>Interoperability</b>	Enables worldwide communication among strategic and tactical satellite systems and the Airborne Operations Center
<b>Comptability</b>	Yes

## ACQUISITION STATUS

<b>Program Status</b>	Fielded
<b>Unit Assignment</b>	1st AACS, 55th Wing, Offutt AFB
<b>Current Inventory</b>	4 aircraft
<b>Future Upgrades</b>	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

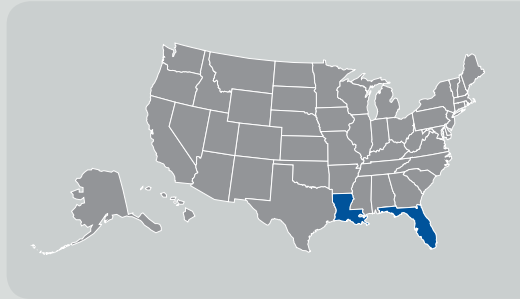
The E-8C Joint Surveillance Target Attack Radar System (Joint STARS) is an airborne battle management and command and control (C2) platform that provides long-endurance, all weather surveillance and targeting information on moving and stationary targets via Ground Moving Target Indicator (GMTI) and Synthetic 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

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

## ACQUISITION STATUS

<b>Program Status</b>	Post Milestone C; Modification and sustainment
<b>Unit Assignment</b>	116th Air Control Wing, Robins AFB, GA
<b>Current Inventory</b>	17 operations aircraft, 1 test aircraft, 1 pilot trainer aircraft
<b>Future Upgrades</b>	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

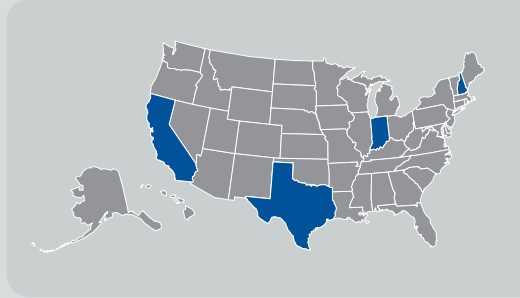
**Prime:** L-3 Communications (TX);

BAE Systems (NH)

**Subcontractor(s):** Raytheon

Systems Corporation (IN); General

Dynamics (CA)



## SPECIFICATIONS

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

## ACQUISITION STATUS

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

## EVOLVED EXPENDABLE LAUNCH VEHICLE (EELV)

### 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

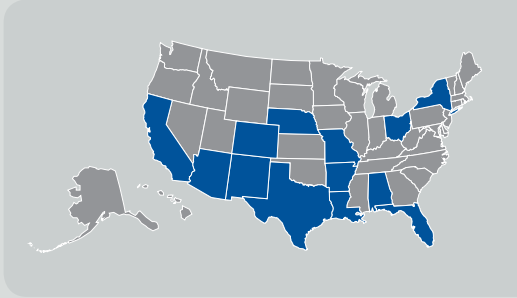
The Evolved Expendable Launch Vehicle (EELV) is composed of two families of launch vehicles—the Atlas V and the Delta IV—with the capability to accommodate light, medium, and heavy payloads for all users. The EELV system includes all equipment, facilities, and launch base infrastructure necessary to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



## 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 Energomash (Russia); Moog Inc. (NY); Cincinnati Electronics (OH); United Engineering Co (MO); Lincoln Composites (NE)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Program currently in full-rate production
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## EXPEDITIONARY COMBAT SUPPORT SYSTEM (ECSS)

### 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

<b>Program Status</b>	Milestone A
<b>Future Upgrades</b>	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

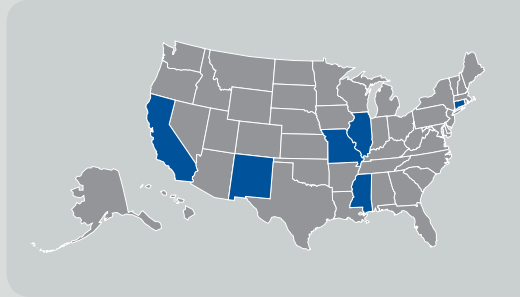
The F-15A-D Eagle is designed to perform air-to-air missions with uncompromising performance. The Eagle's air superiority is achieved through a mixture of unprecedented maneuverability, acceleration, range, weapons, and avionics. It can outperform and outfight enemy defense, outperform and outfight any 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

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

## ACQUISITION STATUS

<b>Program Status</b>	Modernization and sustainment
<b>Current Inventory</b>	Active force, 359; Air National Guard, 140
<b>Future Upgrades</b>	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

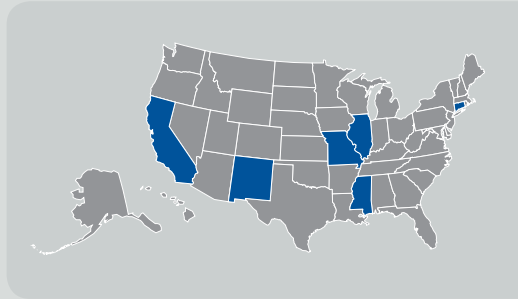
The F-15E Strike Eagle is a dual-role fighter designed to perform nearly all air-to-air and air-to-ground missions. It is a twin-engine, two-tail, two-seat, supersonic fighter capable of employing nearly all USAF air-to-ground and air-to-air munitions. The F-15E has an array of modern avionics and electronics 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

<b>Weight</b>	81,000 lb. (maximum takeoff weight)
<b>Range</b>	2,400 mi. ferry range with conformal fuel tanks and three external fuel tanks
<b>Armament</b>	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)
<b>Dimensions</b>	Wingspan: 42.8 ft.; Length: 63.8 ft.; Height: 18.5 ft.
<b>Speed</b>	Mach 2.5 plus
<b>Service Ceiling</b>	50,000 ft.
<b>Power Plant</b>	Two Pratt & Whitney F100-PW-220 or 229 turbofan engines with afterburners
<b>Thrust</b>	25,000–29,000 lb. each engine
<b>Crew</b>	Pilot and weapon systems officer

## ACQUISITION STATUS

<b>Program Status</b>	Modernization and sustainment
<b>Current Inventory</b>	Active force, 224; Air National Guard, 0; Reserve, 0
<b>Future Upgrades</b>	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

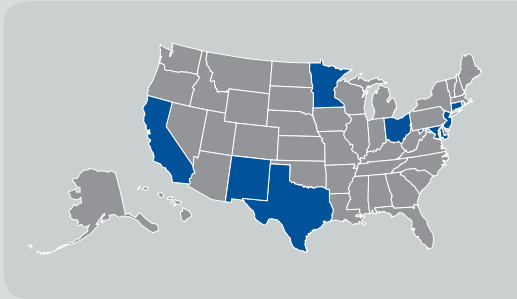
The F-16 Fighting Falcon is a compact, maneuverable, multi-role fighter aircraft that is proven in air-to-air combat and air-to-surface attack. The F-16's maneuverability and combat radius (distance it can fly to enter air combat, stay, fight and return) exceed that of potential threat fighter aircraft. 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

<b>Weight</b>	37,500 lb. (16,875 kg)
<b>Range</b>	More than 2,000 mi. ferry range (1,740 nautical miles)
<b>Armament</b>	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.
<b>Dimensions</b>	Length: 49 ft., 5 in. (14.8 m); Height: 16 ft. (4.8 m); Wingspan: 32 ft., 8 in. (9.8 m)
<b>Service Ceiling</b>	Above 50,000 ft. (15 km)
<b>Power Plant</b>	F-16C/D: one Pratt & Whitney F100-PW-200/220/229 or General Electric F110-GE-100/129
<b>Thrust</b>	F-16C/D, 28,500 lb.
<b>Crew</b>	F-16C, one; F-16D, one or two

## ACQUISITION STATUS

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

## F-16 HARM TARGETING SYSTEM (HTS) R6 AND R7

### MISSION

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



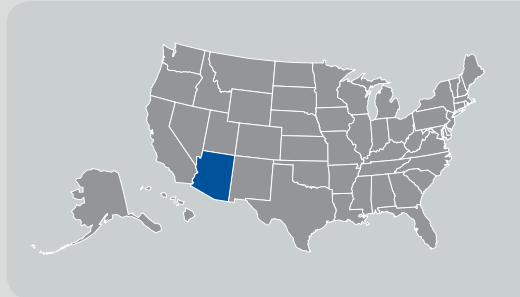
### DESCRIPTION

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

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

## ACQUISITION STATUS

<b>Program Status</b>	<p>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.</p> <p>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.</p>
<b>Unit Assignment</b>	Shaw AFB, SC; Mountain Home AFB, ID; Cannon AFB, NM; Misawa AB, Japan; Spangdahlem AB, Germany; and McEntire Air National Guard Base (ANGB), SC
<b>Current Inventory</b>	205 pods (includes 11 non-operational test units)
<b>Future Upgrades</b>	<p>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:</p> <p>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.</p>

## F16-TARS (THEATER AIRBORNE RECONNAISSANCE SYSTEM)

### 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

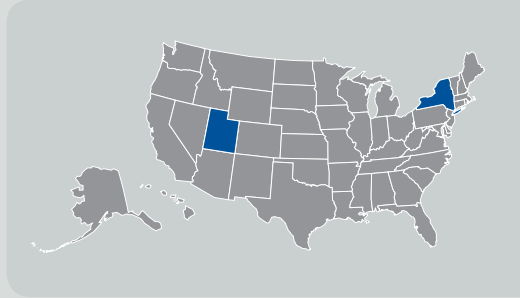
The F16-TARS (Theater Airborne Reconnaissance System) consists of a removable pod uploaded to F-16C Block 25/30/32 aircraft. TARS is the Air Force's only high-speed, penetrating, under-the-weather, theater-controlled, reconnaissance capability. In the span of a single engagement, it provides unique rapid 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





## CONTRACTORS

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



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Future Upgrades</b>	Datalink for near-real-time data transmission

## F-22A RAPTOR

### MISSION

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



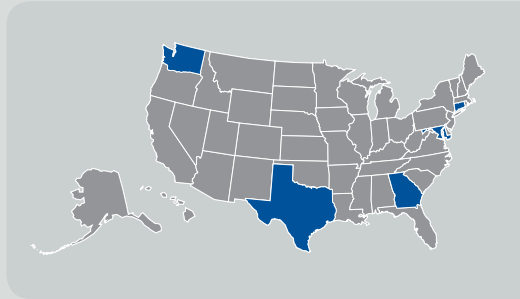
### DESCRIPTION

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

<b>Weight</b>	63,634 lb.
<b>Range</b>	Primary Air Superiority Mission: 260 Nautical Miles (NM) subsonic + 100 NM supersonic radius; Secondary Subsonic Long Range Air Superiority Mission: 570 NM radius
<b>Armament</b>	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.
<b>Dimensions</b>	Length: 62 ft., 1 in. (18.9 m); Height: 16 ft., 8 in. (5.1 m); Wingspan: 44 ft., 6 in. (13.6 m)
<b>Service Ceiling</b>	Above 60,000 ft. (approximately 18 km)
<b>Speed</b>	Mach 2 class

## ACQUISITION STATUS

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

## F-35 LIGHTNING II JOINT STRIKE FIGHTER

### 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:

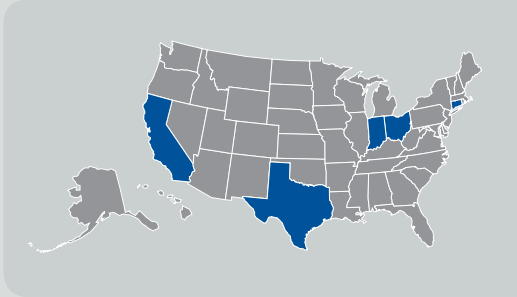
- USAF: F-35A CTOL, stealthy, multi-role aircraft (primary air-to-ground) to replace the F-16 and A-10 and complement the F-22A
- USMC: F-35B (Short Takeoff and Vertical Landing (STOVL)), stealthy, multi-role strike fighter to replace the AV-8B and F/A-18
- USN: F-35C (Carrier Version (CV)), stealthy,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

<b>Weight</b>	28,900 lb.
<b>Combat Radius</b>	Threshold: 590 NM (CTOL); 450 NM (STOVL); 600 NM (CV)
<b>Armament</b>	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)
<b>Dimensions</b>	Wingspan: 35 ft.; Length: 51.1 ft.; Wing Area: 460 square ft.
<b>"G"</b>	+9.0/-3.0 (CTOL); +7.0/-2.0 (STOVL); +7.5/-3.0 (CV)
<b>Speed</b>	Level Flight - 1.5 Mach > 30,000 ft.; Design Max - 700 KCAS/1.6 Mach

## ACQUISITION STATUS

<b>Program Status</b>	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
<b>Unit Assignment</b>	Planned testing at Edwards AFB, CA; Nellis AFB, NV; Planned training at Eglin AFB, FL
<b>Current Inventory</b>	0

## F-117 NIGHTHAWK

### 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.

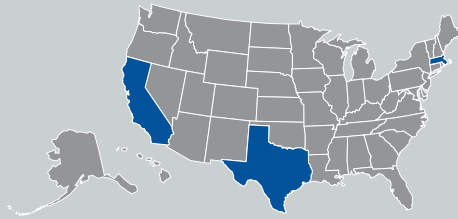


## CONTRACTORS

**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

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	49th Flight Wing, Holloman AFB, NM
<b>Current Inventory</b>	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 precision 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 maneuvers 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

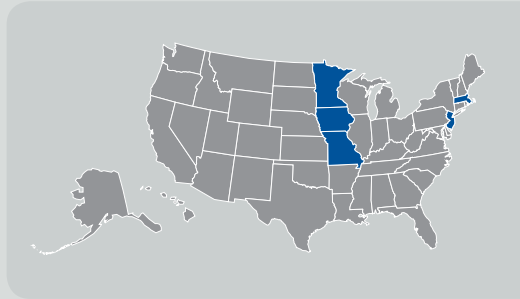
System - Textron (MA); Inertial

Measurement Unit - Honeywell

(MN); GPS Receiver - Rockwell-

Collins (IA); Mission Computer

- Lockheed Martin (NJ)



## SPECIFICATIONS

<b>Weight</b>	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
<b>Range</b>	<15 nautical miles (NM)
<b>Dimensions</b>	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
<b>Warhead</b>	Blast/Fragmentation: MK-82/BLU-111, MK-83/BLU-110, MK-84; Penetrator: BLU-109
<b>Compatibility</b>	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
<b>Guidance</b>	Global Positioning System aided Inertial Navigation System (GPS/INS)

## ACQUISITION STATUS

<b>Program Status</b>	Full rate production of JDAM GBU-31, GBU-32 and GBU-38 tailkits.
<b>Current Inventory</b>	Over 126,000 tail kits in Air Force, Navy and Marine inventory
<b>Future Upgrades</b>	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

## GBU-39/B SMALL DIAMETER BOMB (SDB)

### 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.



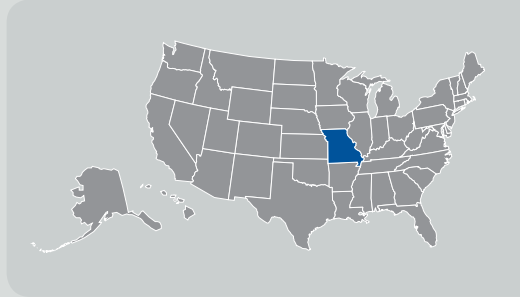
### DESCRIPTION

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

<b>Weight</b>	285 lb.
<b>Range</b>	>= 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)
<b>Dimensions</b>	Length: 71 in.; Width: 7.5 in.; Height: 7.8 in.
<b>Warhead</b>	Penetration/Blast/Fragmentation Warhead
<b>Compatibility</b>	Aircraft: Threshold - F-15E; Objective - F-22, F-16, F-35, F-117, B-52, B-1, B-2, A-10, and MQ-9
<b>Guidance</b>	Inertial Navigation System/Global Positioning System (INS/GPS) Guidance

## ACQUISITION STATUS

<b>Program Status</b>	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.
<b>Current Inventory</b>	162 GBU-39/Bs, 20 BRU-61/As
<b>Future Upgrades</b>	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).

## GLOBAL BROADCAST SERVICE (GBS)

### MISSION

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



### DESCRIPTION

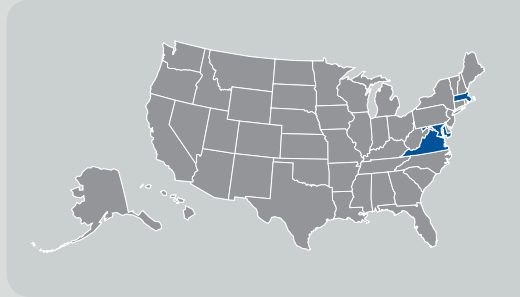
The Global Broadcast Service (GBS) is a communications broadcast service that simultaneously broadcasts imagery, video, and data information to multiple dispersed users using small receive terminals. The GBS uses payloads on two DoD satellites plus commercial leases over the continental United States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

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

## ACQUISITION STATUS

<b>Program Status</b>	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.
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## GLOBAL POSITIONING SYSTEM (GPS)

### 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

<b>Size</b>	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
<b>Weight</b>	II - 3,670 lb.; IIA - 4,150 lb.; IIR - 4,485 lb.; IIR-M - 4,525 lb.; IIF - 3,566 lb.; GPS III - TBD
<b>Coverage</b>	Continuous global coverage

## ACQUISITION STATUS

<b>Program Status</b>	Operational - IIRM-1 launched September 25, 2005; first IIF launch, FY08; first GPS III launch, FY13
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### 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).





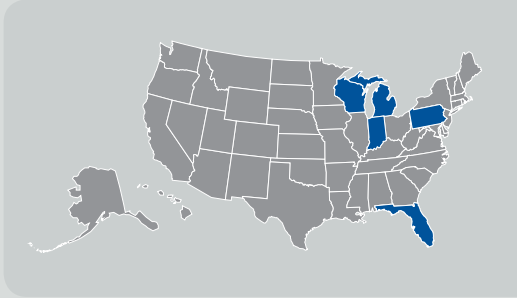
## CONTRACTORS

**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

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

## ACQUISITION STATUS

<b>Program Status</b>	Currently, production runs through Aug 07; 24 per year; projected inventory – 394. FY07 & FY08 GWOT Submission for 39 additional loaders
<b>Unit Assignment</b>	146 locations worldwide
<b>Current Inventory</b>	388
<b>Future Upgrades</b>	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.



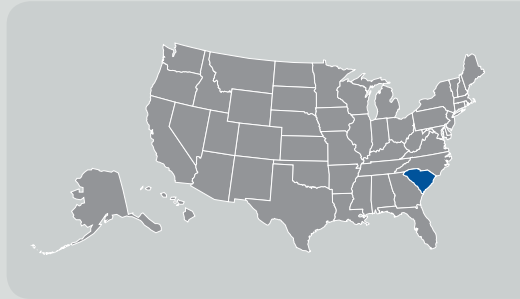
### DESCRIPTION

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

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	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)
<b>Current Inventory</b>	36
<b>Future Upgrades</b>	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.



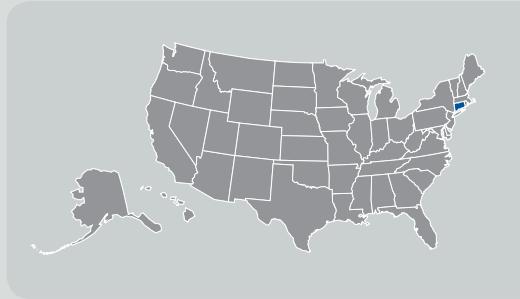
### DESCRIPTION

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

<b>Weight</b>	22,000 lb.
<b>Range</b>	500 nautical miles (NM)
<b>Armament</b>	M-240 7.62 machine gun, GAU-2C-7.62mm mini-gun, GAU-18 .50 caliber machine gun
<b>Dimensions</b>	Main Rotor: 53 ft.; Length: 64 ft.; Height: 16 ft.
<b>Service Ceiling</b>	14,200 ft.
<b>Self-Protection</b>	Integrated Chaff/Flare/RWR, Infra-red (IR) Jammer, Kevlar armor, Self-sealing fuel tanks
<b>Speed</b>	125 knots
<b>Other Specifications</b>	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

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	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)
<b>Current Inventory</b>	101
<b>Future Upgrades</b>	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.

## HYPERSONIC TECHNOLOGY VEHICLE (HTV)

### MISSION

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



### DESCRIPTION

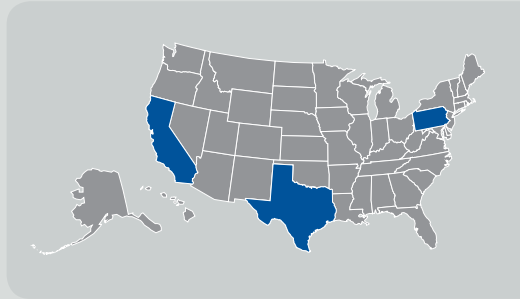
Hypersonic Technology Vehicle (HTV) technology demonstrations will contribute to global reach capabilities by demonstrating an unpowered, maneuverable, hypersonic glide vehicle capable of carrying a 1,000-lb. payload. The HTV effort provides dual growth paths to the Air Force's Prompt Global Strike (PGS) 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

<b>Size</b>	Length: 12 ft.; Diameter: 4 ft.
<b>Weight</b>	2,200 lb.
<b>Range</b>	4,000–9,000 nautical miles (NM), depending on configuration
<b>Coverage</b>	Intercontinental to global
<b>Capacity/Satellite</b>	1,000 lb.
<b>Compatibility</b>	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

<b>Program Status</b>	Demonstration Program; first demonstration launch is currently scheduled for 4QFY07
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## JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM)

### MISSION

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



### DESCRIPTION

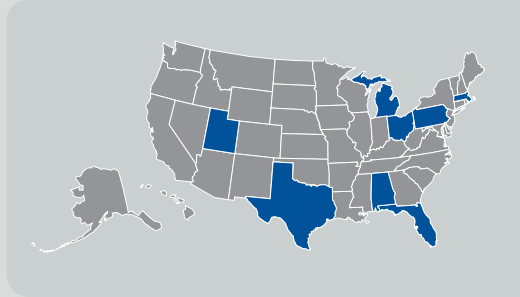
The Joint Air-to-Surface Standoff Missile (JASSM) is a conventional, air-to-surface, precise, autonomous, low-observable, stand-off cruise missile capable of penetrating enemy defenses and striking high-value, fixed, or relocatable targets.





## 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

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

## ACQUISITION STATUS

<b>Program Status</b>	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
<b>Current Inventory</b>	455
<b>Future Upgrades</b>	JASSM Extended Range (JASSM-ER) - FY08 deliveries; JASSM 2-Way Weapon Data Link - FY10 deliveries

## JOINT HELMET MOUNTED CUEING SYSTEM (JHMCS)

### 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

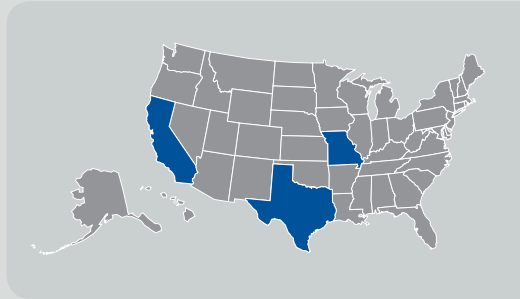
The Joint Helmet Mounted Cueing System (JHMCS) improves both air-to-air and air-to-ground combat effectiveness and situational awareness by providing a visor-projected Head-Up Display (HUD) to cue weapons and sensors, and display targeting and aircraft data. In close air-to-air combat, JHMCS allows the 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.



## CONTRACTORS

**Prime:** Boeing (MO)

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



## SPECIFICATIONS

<b>Weight</b>	Total head supported weight less than or equal to 4.3 lb.
<b>Compatibility</b>	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.
<b>Field of View / Regard</b>	20° / 360°
<b>Qualified Ejection Speed</b>	450 knots

## ACQUISITION STATUS

<b>Program Status</b>	Joint Air Force/Navy Program in full rate production
<b>Unit Assignment</b>	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)
<b>Future Upgrades</b>	Preplanned Product Improvement (P3I) includes Night Vision capability, and an option for a flat panel display.

## KC-10 EXTENDER

### 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.

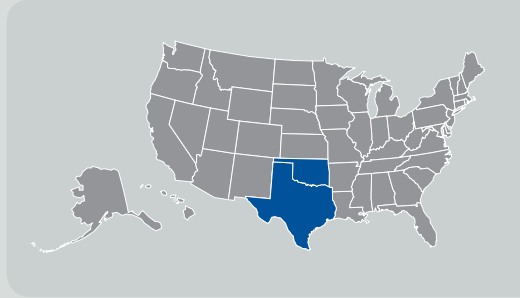


## CONTRACTORS

**Prime:** Airframe - Boeing (TX);

**Engines** - Kelly Aviation Center (KAC) (TX)

**Subcontractor(s):** ARINC (OK)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	McGuire AFB, NJ, and Travis AFB, CA
<b>Current Inventory</b>	59
<b>Future Upgrades</b>	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);

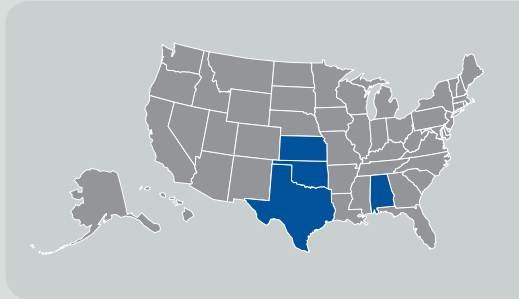
**Depot Maintenance** - Boeing (TX);

**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

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	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
<b>Current Inventory</b>	530
<b>Future Upgrades</b>	Control Column Actuated Brake, Global Air Traffic Management (GATM)

## LAUNCH & TEST RANGE SYSTEM (LTRS)

### 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.



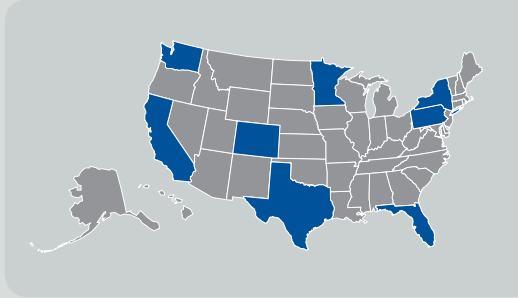


## CONTRACTORS

**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

<b>Coverage</b>	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
<b>Interoperability</b>	Interoperable with NASA and commercial launch systems

## ACQUISITION STATUS

<b>Program Status</b>	Undergoing modernization and recapitalization while operational
<b>Unit Assignment</b>	30th Space Wing – Western Range; 45th Space Wing – Eastern Range
<b>Current Inventory</b>	Two operational ranges
<b>Future Upgrades</b>	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

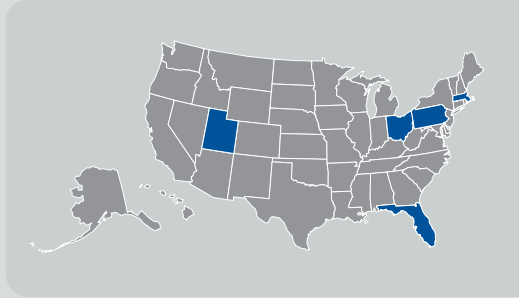
The LGM-30G Minuteman III is a highly survivable, silo-based, inertially guided nuclear missile of intercontinental range on alert since 1970. Using a rapid targeting and execution system and penetration aids, each Minuteman III can effectively deliver up to three independently targetable reentry vehicles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

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

## ACQUISITION STATUS

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

## MC-130E COMBAT TALON

### MISSION

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



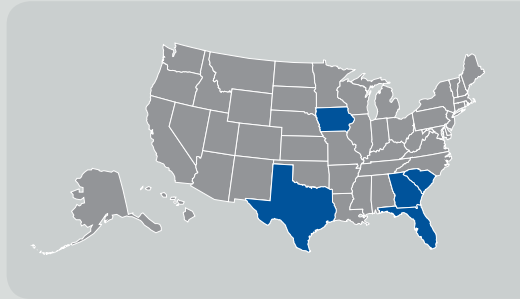
### DESCRIPTION

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

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

## ACQUISITION STATUS

<b>Program Status</b>	Modifications only
<b>Unit Assignment</b>	Duke Field, NC
<b>Current Inventory</b>	10

## MC-130H COMBAT TALON II

### 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.



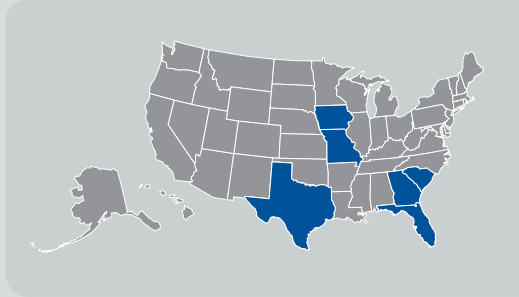
### DESCRIPTION

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

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

## ACQUISITION STATUS

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

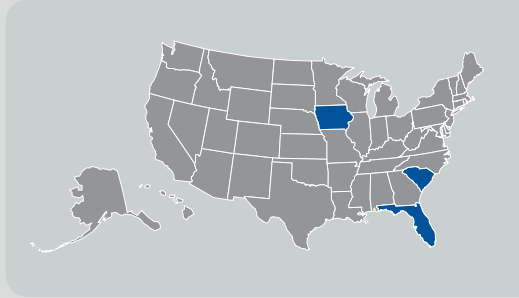
The MC-130P primarily flies its single- or multi-ship missions at night to reduce detection and intercept by airborne threats. Secondary capabilities include airdrop of small special operations teams, small bundles, and Zodiac and combat rubber raiding craft as well as night-vision goggle take-offs and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





## CONTRACTORS

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



## SPECIFICATIONS

<b>Weight</b>	155,000 lb. (gross weight)
<b>Range</b>	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)
<b>Dimensions</b>	Wingspan: 132 ft.; Length: 99 ft.; Height: 38 ft.

## ACQUISITION STATUS

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

## MEDIUM LAUNCH VEHICLE (MLV)

### MISSION

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



### DESCRIPTION

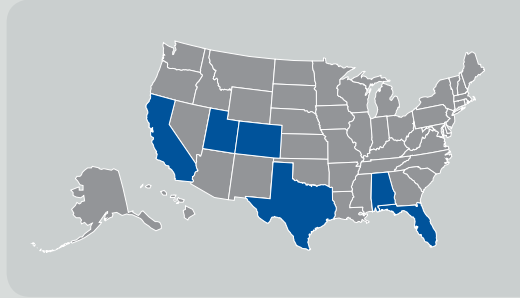
The Delta II Medium Launch Vehicle (MLV) launches GPS Block IIR Replenishment satellites. The MLV utilizes multiple configurations and is capable of launching a 6,098 kg payload, or satellite, into a 185 km Low Earth Orbit (LEO), or a 2,171 kg payload into Geosynchronous Transfer Orbit (GTO). GTO orbits 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

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

## ACQUISITION STATUS

<b>Program Status</b>	MLVIII (Delta II) Active
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## 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.



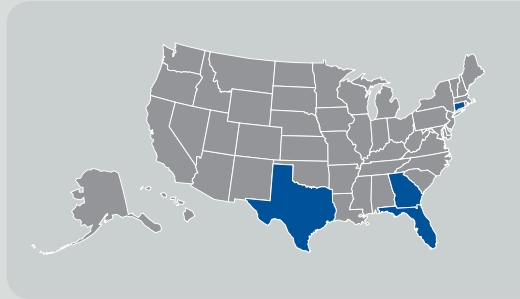
## DESCRIPTION

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

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

## ACQUISITION STATUS

<b>Program Status</b>	Modifications only
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## ADDITIONAL INFORMATION

Drawdown begins in 2009

### MISSION

Develop, procure, deploy, and sustain multi-band satellite 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

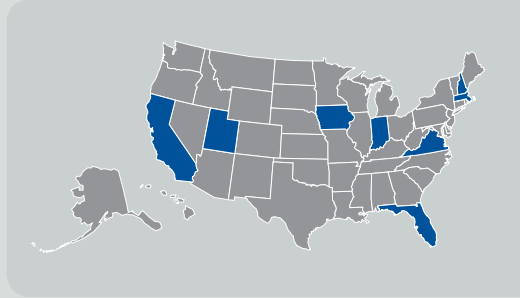
Military Satellite Communications (MILSATCOM) Terminals provide the president, combatant commanders, and warfighters in the field with secure, worldwide communications capability. Terminals provide the user segment of the MILSATCOM space system. MILSATCOM Terminals addressed by this warfighting system 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

<b>Coverage</b>	Global
<b>Capacity/Satellite</b>	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)
<b>Interoperability</b>	Interoperable with joint and allied SATCOM terminals per military and commercial standards
<b>Compatibility</b>	Compatible with satellites and user input/output devices per military and commercial standards

## ACQUISITION STATUS

<b>Program Status</b>	Terminals are in various stages of development, production, fielding, and sustainment
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### 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.

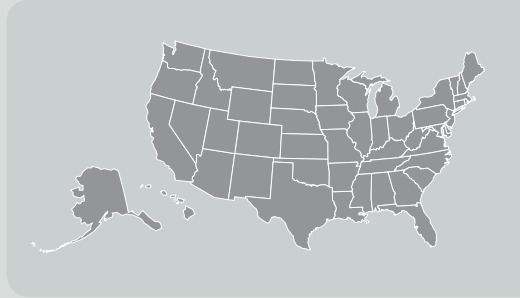
The Milstar system is composed of three segments: space (the satellites), terminal (the users), and mission control. Air Force Space Command's Space and Missile Systems Center at Los Angeles Air Force Base, CA, is responsible for development and acquisition of the Milstar space and mission control segments. 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

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

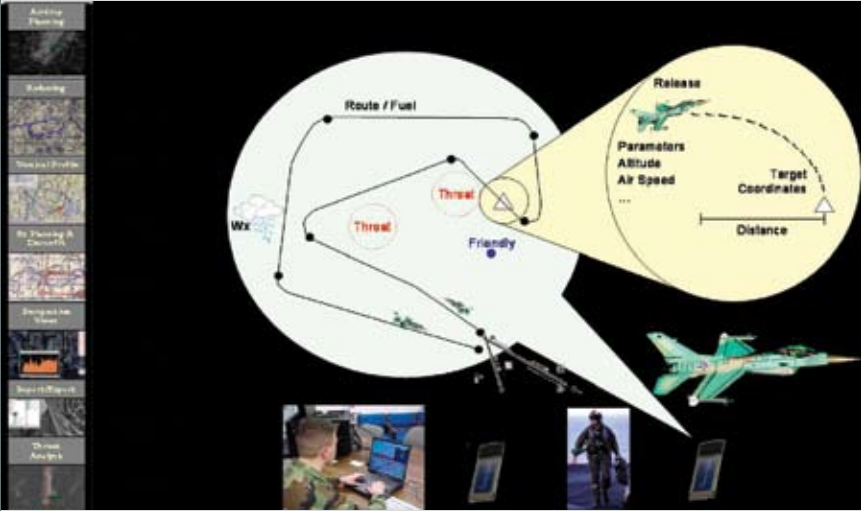
## ACQUISITION STATUS

<b>Program Status</b>	Complete
<b>Unit Assignment</b>	4 SOPS
<b>Current Inventory</b>	5 satellites
<b>Future Upgrades</b>	None

## MISSION PLANNING SYSTEMS (MPS)

### 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

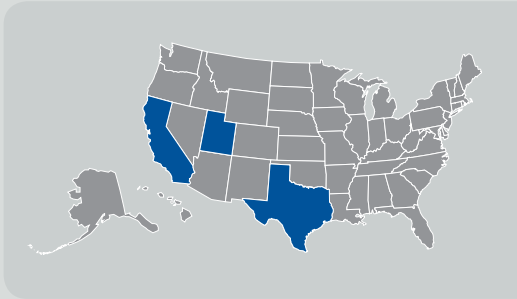
The MQ-1 Predator is an Unmanned Aircraft System (UAS) that delivers persistent Intelligence, Surveillance, and Reconnaissance (ISR) with day/night full-motion video (EO/IR), laser target designation/illumination, and direct-strike capabilities using Hellfire laser-guided missiles. The MQ-1 Predator 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

<b>Size</b>	Wingspan: 55 ft.; Length: 28 ft.
<b>Weight</b>	Maximum takeoff weight: 2,500 lb.
<b>Range</b>	400 nautical miles (NM) (with 16 hours on station)
<b>Armament</b>	Two AGM-114 Hellfire laser-guided missiles
<b>Warhead</b>	Blast/Fragmentation or anti-armor
<b>Coverage</b>	Varies by sensor. Full motion video coverage—electro-optical, infrared, and low-light video cameras; All are Line of Sight (LOS)
<b>Capacity/Satellite</b>	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.
<b>Interoperability</b>	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.
<b>Compatability</b>	Sensor data is compatible with Predator ground stations and ROVER receivers

## ACQUISITION STATUS

<b>Program Status</b>	Full rate production
<b>Unit Assignment</b>	11th Reconnaissance Squadron; 15th Reconnaissance Squadron; 17th Reconnaissance Squadron
<b>Current Inventory</b>	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

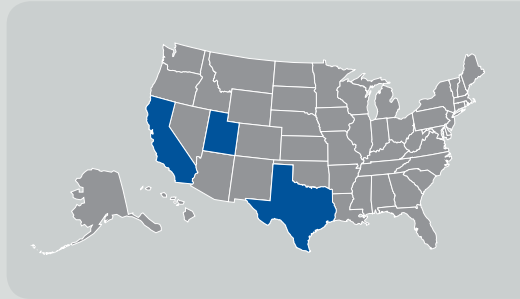
The MQ-9 Reaper will influence the battle space by providing continuous coverage of the area of interest, independent of time of day or weather obscuration, with the ability to detect, identify, attack and destroy critical emerging targets (both moving and stationary) from endurance altitude within the 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

<b>Size</b>	Wingspan: 64 ft.; Length: 36 ft.
<b>Weight</b>	Maximum takeoff weight: 10,000 lb.
<b>Range</b>	1,000 nautical miles (NM) (with 16 hours on station)
<b>Armament</b>	Up to 3,000 lb. of GBU-12 laser-guided 500-lb. bombs and/or GBU-38 JDAMs; AGM-114s
<b>Coverage</b>	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)
<b>Capacity/Satellite</b>	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.
<b>Interoperability</b>	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
<b>Compatibility</b>	Sensor data compatible with Predator ground stations and ROVER receivers

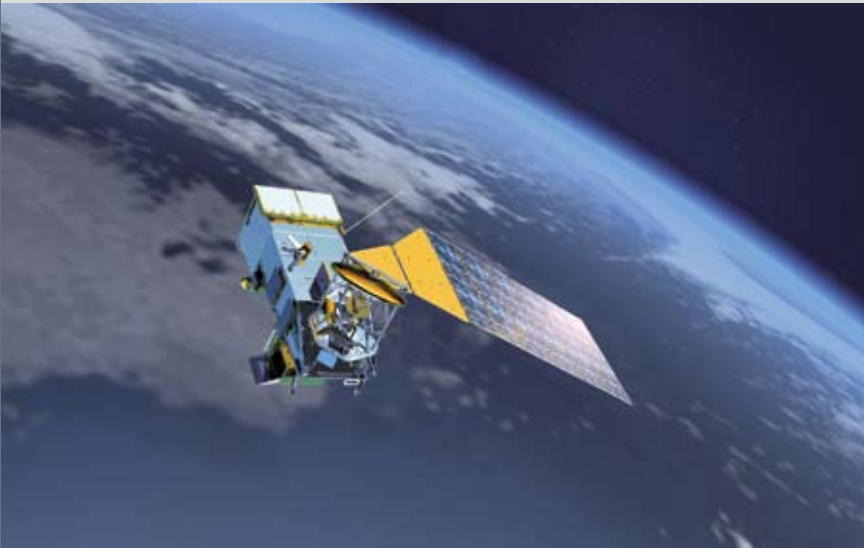
## ACQUISITION STATUS

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

## NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLITE SYSTEM (NPOESS)

### 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.

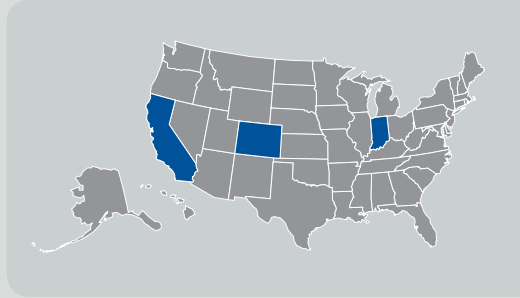




## CONTRACTORS

**Prime:** Northrop Grumman Space Technology (CA)

**Subcontractor(s):** Raytheon (CA); Ball Aerospace (CO); **Instruments** - ITT Industries (IN)



## SPECIFICATIONS

<b>Size</b>	Four-satellite constellation
<b>Weight</b>	14,498 lb. (max)
<b>Coverage</b>	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

<b>Program Status</b>	Engineering and Manufacturing Development (EMD)
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## OPERATIONALLY RESPONSIVE SPACE (ORS)

### 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.

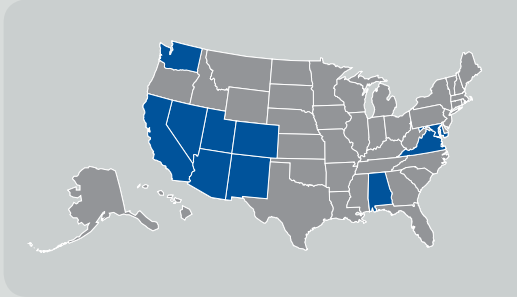


## CONTRACTORS

**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

<b>Range</b>	Capable of inserting assigned payloads into orbit
<b>Capacity/Satellite</b>	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
<b>Interoperability</b>	Launch from both Cape Canaveral Air Force Station (CCAFS) and Vandenberg Air Force Base (VAFB), cooperating with NASA and commercial launch services
<b>Compatibility</b>	Satisfies all payload integration requirements

## ACQUISITION STATUS

<b>Program Status</b>	System Development & Demonstration (SDD)
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## POLAR MILITARY SATELLITE COMMUNICATIONS (MILSATCOM)

### 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

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

## ACQUISITION STATUS

<b>Program Status</b>	All milestones are classified
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## 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.



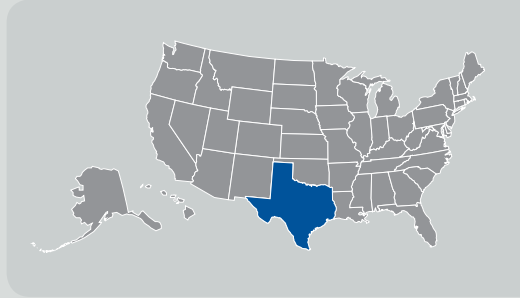
## DESCRIPTION

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

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

## ACQUISITION STATUS

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

## RC-135S COBRA BALL

### 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.

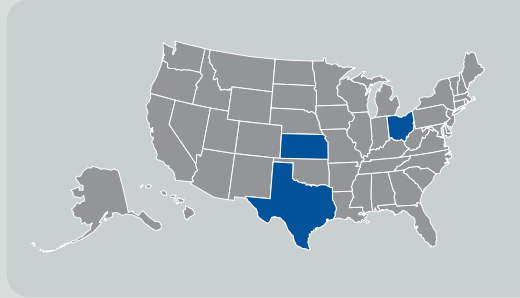




## CONTRACTORS

**Prime: Major Subsystems** - L-3 Communications (TX); Textron (OH, TX)

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



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Modification and Sustainment
<b>Unit Assignment</b>	55th Wing, Offutt AFB, NE
<b>Current Inventory</b>	Three mission aircraft plus one flight deck trainer aircraft
<b>Future Upgrades</b>	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.



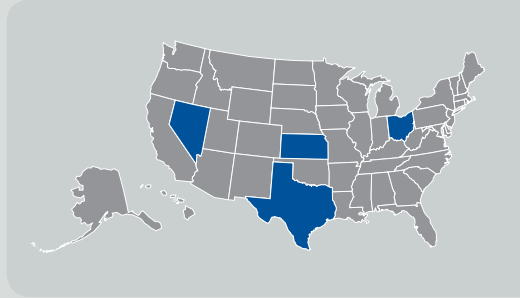
### DESCRIPTION

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

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

## ACQUISITION STATUS

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

## RC-135V/W RIVET JOINT

### 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

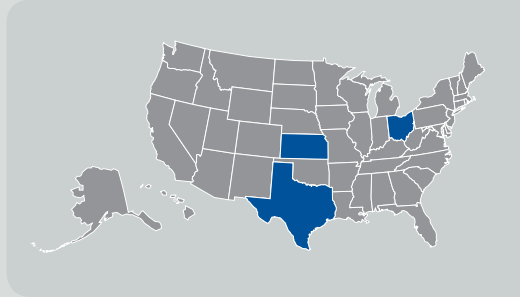
### Prime: Major Subsystems

- L-3 Communications (TX);

### Subcontractor(s): Propulsion

- General Electric (OH); Airframe

- Boeing (KS)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Modification and Sustainment
<b>Unit Assignment</b>	55th Wing, Offutt AFB, NE
<b>Current Inventory</b>	17 mission aircraft plus two flight deck trainer aircraft
<b>Future Upgrade</b>	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

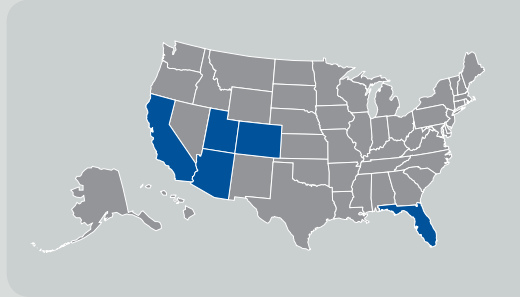
The Rocket Systems Launch Program (RSLP) stores deactivated Intercontinental Ballistic Missile (ICBM) motors, both Minuteman II and Peacekeepers. It performs aging surveillance on stored motors, provides cost-reimbursable launch services including payload integration, refurbishment, and transport of 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.



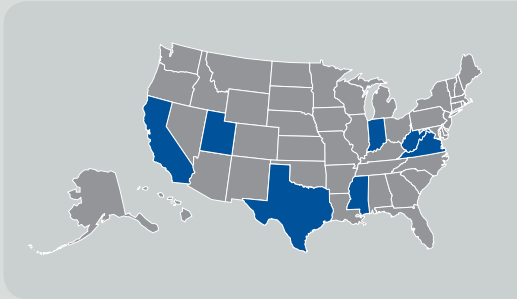
## CONTRACTORS

**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

<b>Size</b>	Block 10 - 26,750 lb. takeoff gross weight, Blocks 20, 30 & 40 - 32,250 lb takeoff gross weight
<b>Range</b>	Block 10 - 9,500 nm; Blocks 20, 30, & 40 - 8,700 nm
<b>Dimensions</b>	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.
<b>Coverage</b>	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
<b>Interoperability</b>	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.
<b>Compatibility</b>	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.
<b>Speed</b>	Block 10 - 340 knots; Blocks 20, 30 and 40 - 310 knots
<b>Payload</b>	Block 10 - 2,000 lb.; IMINT; Block 20 - 3,000 lb.; enhanced IMINT; Block 30 - 3,000 lb.; enhanced IMINT plus SIGINT; Block 40 - 3,000 lb.; MP-RTIP
<b>Other Specifications</b>	Altitude - 60,000 ft; Endurance - 28 hours

## ACQUISITION STATUS

<b>Program Status</b>	Low Rate Initial Production
<b>Unit Assignment</b>	12th Reconnaissance Squadron
<b>Current Inventory</b>	7 Block 10 aircraft and 2 ground stations
<b>Future Upgrades</b>	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.

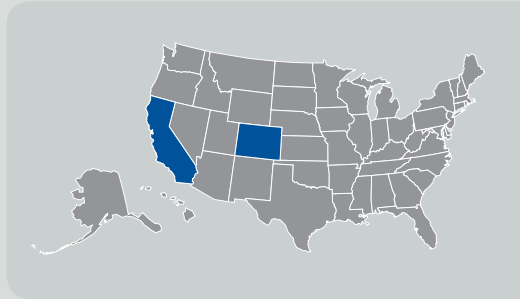


## CONTRACTORS

**Prime:** Lockheed Martin Space Systems (CA)

**Subcontractor(s):**

Northrop Grumman Electronic Systems (CA) ; Lockheed Martin Integrated Systems and Solutions (CO)



## SPECIFICATIONS

<b>Weight</b>	10,229 lb. (GEO)
<b>Coverage</b>	Continuous global coverage
<b>Interoperability</b>	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

<b>Program Status</b>	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 Schriever AFB, CO, is in equipment fit-up and check out.
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## SPACE RADAR (SR)

### 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.

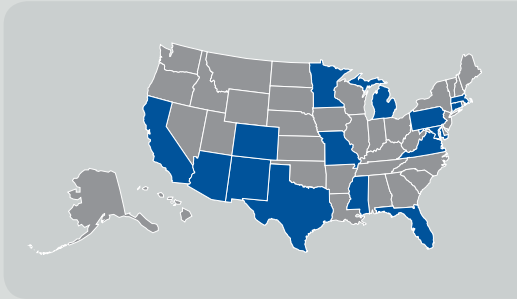


## CONTRACTORS

**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); Teclote (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

<b>Weight Range Dimensions</b>	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.
<b>Payload</b>	Active Electronically Steered Array Radar Sensor
<b>Coverage</b>	Global
<b>Interoperability</b>	Interoperable with Distributed Common Ground Stations and National Systems infrastructure
<b>Compatibility</b>	Fully network-centric capable
<b>Products</b>	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

<b>Program Status</b>	Acquisition Phase A (Study Phase), Concept and Architecture Development
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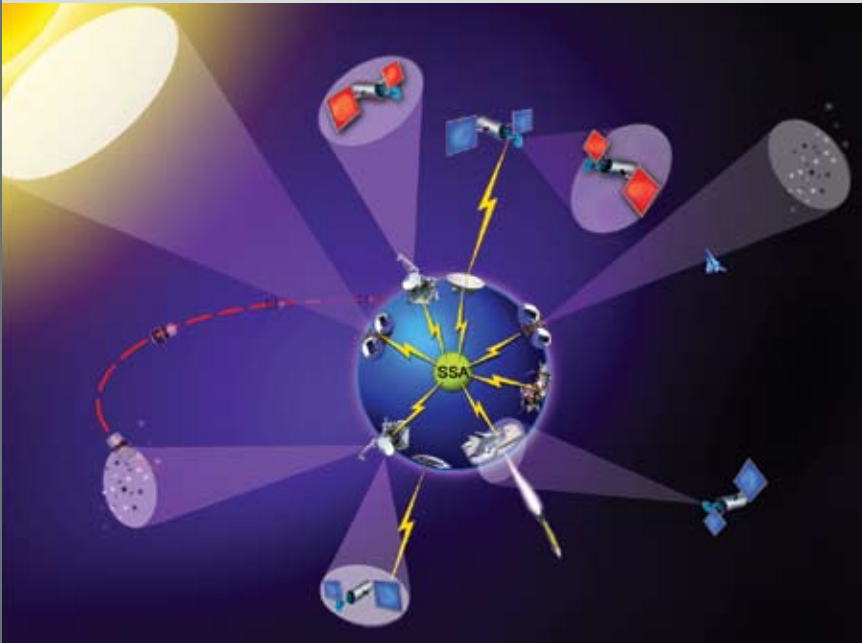
## ADDITIONAL INFORMATION

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).

## SPACE SITUATION AWARENESS (SSA) SYSTEMS

### MISSION

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



### DESCRIPTION

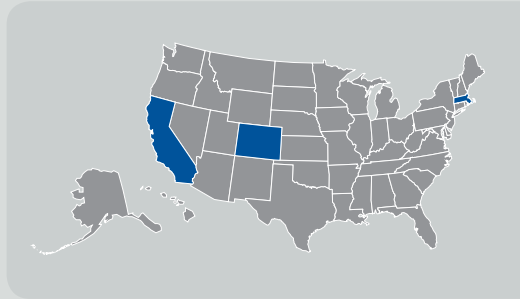
Space Situation Awareness (SSA) is provided via a worldwide network of electro-optical and radar sensor systems with associated Command and Control (C2), data processing, and analysis capabilities. SSA provides data on space events and activities, including space object locations/breakups/decaying orbits, 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

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

## ACQUISITION STATUS

<b>Program Status</b>	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
<b>Unit Assignment</b>	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
<b>Current Inventory</b>	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
<b>Future Upgrades</b>	To be determined

# MISSION

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



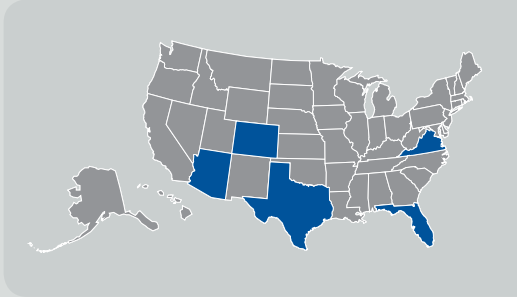
## DESCRIPTION

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 an 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

<b>Size</b>	Efforts support multiple experiments ranging from 3 to 4,393,710 cubic in.
<b>Weight</b>	Efforts support multiple experiments ranging from 0.33 to 9,193 lb.
<b>Range</b>	Efforts support multiple experiments ranging from 48.6 NM to 19,438 NM
<b>Dimensions</b>	Efforts support multiple experiments ranging from 3 to 4,393,710 cubic in.
<b>Coverage</b>	Dependent upon specific experiment
<b>Capacity/Satellite</b>	Dependent upon specific experiment
<b>Interoperability</b>	Dependent upon specific experiment
<b>Compatibility</b>	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

<b>Program Status</b>	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.
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## T-1A JAYHAWK

### MISSION

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



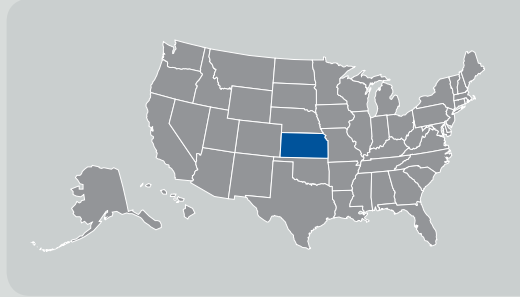
### DESCRIPTION

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

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	Laughlin AFB, TX; Randolph AFB, TX; Vance AFB, OK; Columbus AFB, MS

# MISSION

Train entry-level pilots in the fundamentals of flight.



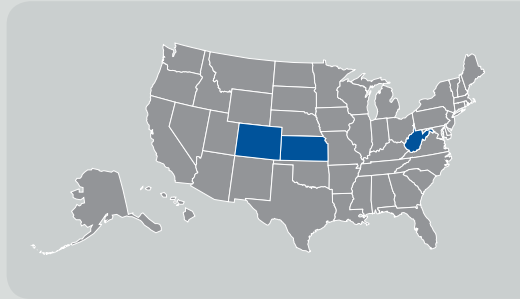
## DESCRIPTION

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

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

## ACQUISITION STATUS

<b>Program Status</b>	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)
<b>Unit Assignment</b>	Laughlin AFB, TX; Randolph AFB, TX; Vance AFB, OK; Columbus AFB, MS; Sheppard AFB, TX; Moody AFB, GA
<b>Future Upgrades</b>	Numerous minor enhancements; Traffic Alert and Collision Avoidance System (TCAS) upgrade

## T-37B TWEET

### MISSION

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



### DESCRIPTION

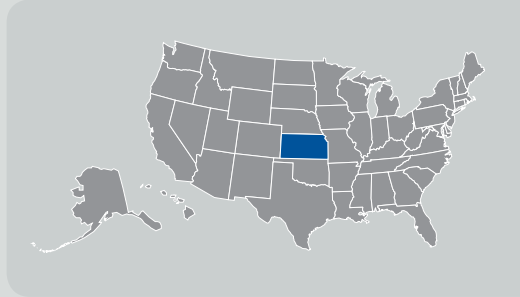
The T-37B Tweet is a twin-engine jet used for training joint specialized undergraduate pilot students in the fundamentals of aircraft handling and instrument, formation, and night flying. The T-37B has been used since the 1950s to train Air Force pilots. Since the mid-1990s, the Air Force has gradually 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

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

## ACQUISITION STATUS

<b>Program Status</b>	All T-37s will be retired by the end of FY08
<b>Unit Assignment</b>	Randolph AFB, TX; Vance AFB, OK; Columbus AFB, MS; Sheppard AFB, TX
<b>Current Inventory</b>	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

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

## ACQUISITION STATUS

<b>Program Status</b>	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.
<b>Unit Assignment</b>	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.



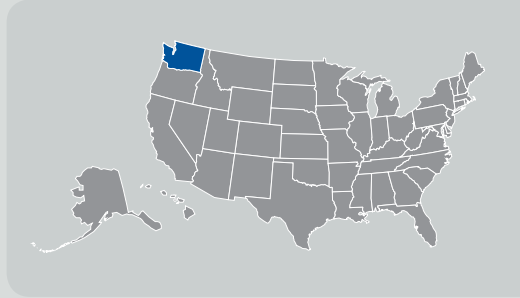
## DESCRIPTION

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

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	Randolph AFB, TX

## TACTICAL AIR CONTROL PARTY (TACP) AND AIR SUPPORT OPERATIONS CENTER (ASOC)

### 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

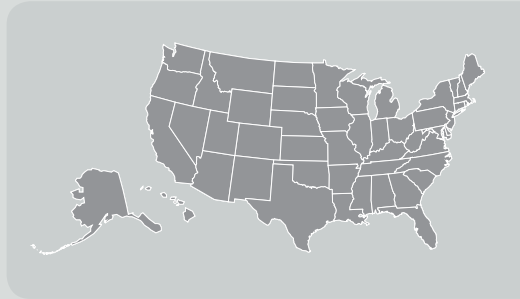
The TACP is a subordinate operational component of the theater air control system designed to provide air liaison to land forces and for the control of aircraft (JP 3-09.3). The TACP is usually co-located with the senior Army operational command post from corps through battalion level and below, if jointly 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

<b>Program Status</b>	To be determined
<b>Unit Assignment</b>	Worldwide

## THEATER BATTLE MANAGEMENT CONTROL SYSTEMS (TBMCS)

### 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.

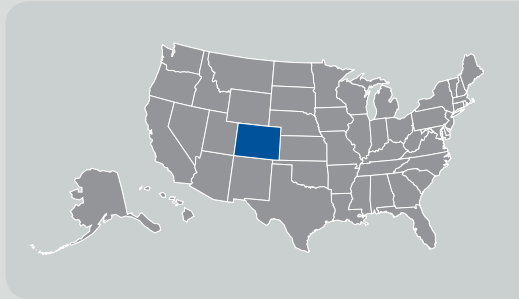
TBMCS Unit Level (UL) refers to the wings and squadrons that take direction from FL to carry out the battle plan. TBMCS UL Operations (OPS) and UL Intel are both wing level command and control (C2) systems. UL OPS is used to control and monitor unit level operations during wartime, contingencies, and 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

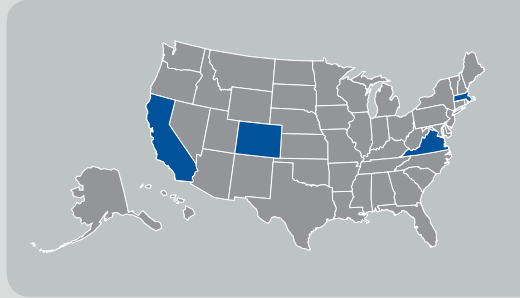
The Transformational Satellite Communications System (TSAT) is a next-generation communication satellite system that provides strategic and tactical protected communications. TSAT incorporates laser communications and packet routing/switching protocols to provide a high bandwidth environment. It extends 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

<b>Weight</b>	TBD
<b>Coverage</b>	Global Coverage 65° N–65° S
<b>Capacity/Satellite</b>	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
<b>Interoperability</b>	Space-based component of DoD Global Information Grid
<b>Comptability</b>	Backwards compatible to Advanced Extremely High Frequency (AEHF) Extended Data Rate (XDR) terminals

## ACQUISITION STATUS

<b>Program Status</b>	System Requirements Review - 1QFY04; TMOS contract award - 2QFY06; System Design Review - 3QFY07; Space Segment contract award - 1QFY08; First launch planned for 1QFY16
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## TUNNER 60K LOADER

### 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.

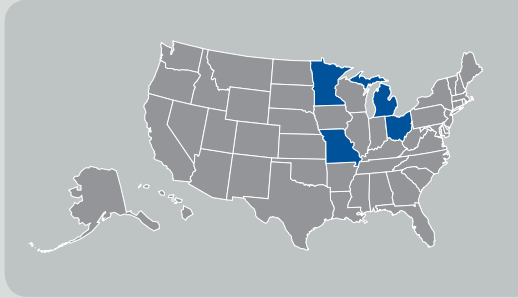


## CONTRACTORS

**Prime:** DRS Technologies, Inc. (MO)  
(Formerly Systems & Electronics, Inc)

**Subcontractor(s):** **Hydraulics**

- Linde Hydraulics (OH); **Castings**
- Carondelet Foundry (MO); **Engine**
- Detroit Diesel (MI); **Hydraulic Cylinders** - Commercial Intertech (MN); **Hydraulic fittings, hoses**
- Parker Hanifin (OH); **Wheel hubs**
- Fairfield Manufacturing (OH)



## SPECIFICATIONS

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

## ACQUISITION STATUS

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

## U-2S DRAGON LADY

### 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.

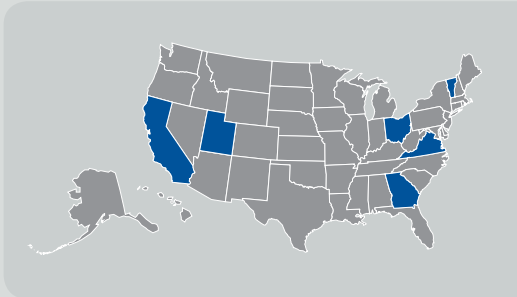


## CONTRACTORS

**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

<b>Size</b>	40,000 lb. takeoff gross weight
<b>Range</b>	7,000+ miles
<b>Dimensions</b>	Length: 63 ft.; Wingspan: 104 ft.; Height: 16 ft.
<b>Coverage</b>	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
<b>Interoperability</b>	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.
<b>Comptability</b>	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.
<b>Altitude</b>	70,000+ ft.
<b>Endurance</b>	>10 hours
<b>Payload</b>	5,000 lb.; Multi-INT (simultaneous)
<b>Speed</b>	410+ knots (475+ mph)

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Current Inventory</b>	33 aircraft - 28 single seat and five two-seat trainers
<b>Future Upgrades</b>	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.

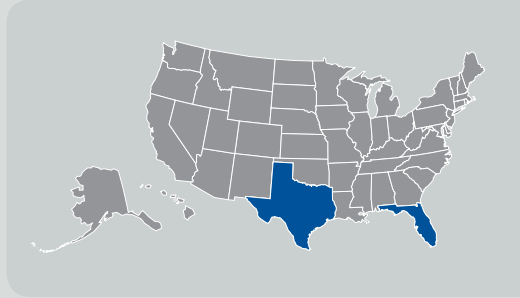




## CONTRACTORS

**Prime:** Bell Helicopter  
Company (TX)

**Subcontractor(s):** Aerospace  
Integration Corporation (FL)



## SPECIFICATIONS

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

## ACQUISITION STATUS

<b>Program Status</b>	Fielded
<b>Unit Assignment</b>	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
<b>Future Upgrades</b>	Undergoing life extension programs

## MISSION

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



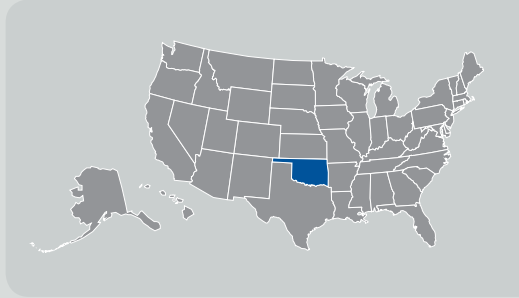
## DESCRIPTION

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

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

## ACQUISITION STATUS

<b>Program Status</b>	Sustainment
<b>Unit Assignment</b>	Andrews AFB, MD
<b>Current Inventory</b>	2
<b>Future Upgrades</b>	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

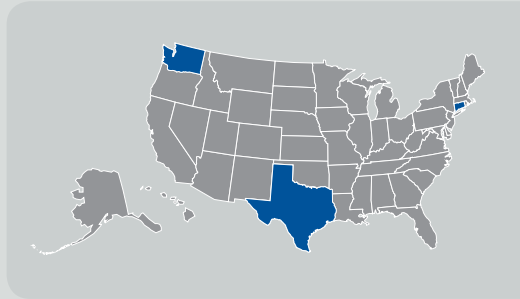
Constant Phoenix is currently the only aircraft in the inventory conducting air-sampling operations. The aircraft's on-board atmospheric collection suite allows the mission crew to detect radioactive clouds in real-time. The aircraft is equipped with external flow-through devices to collect particulates 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

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

## ACQUISITION STATUS

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

## WIDEBAND GLOBAL SATCOM (WGS) SYSTEM

### MISSION

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



### DESCRIPTION

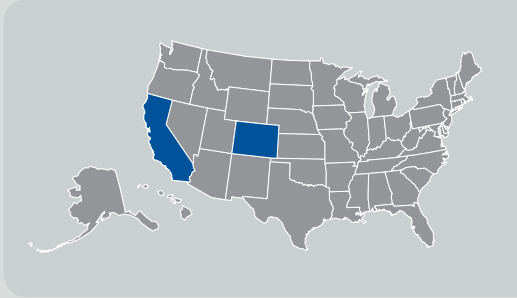
The Wideband Global SATCOM (WGS) system provides unprotected wideband communications for deployed forces and warfighter communications using existing terminals. It is a follow-on to Defense Satellite Communications System (DSCS) satellites and takes on the Global Broadcast Service (GBS) mission. The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

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

## ACQUISITION STATUS

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

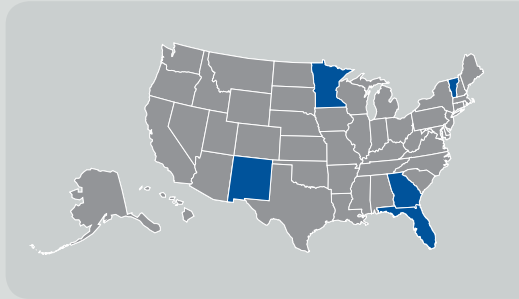
**Subcontractor(s):** Honeywell

Military Avionics (MN);

B.F. Goodrich (VT); General

Technology Corporation (NM);

Kurt Manufacturing (MN)



## SPECIFICATIONS

<b>Weight</b>	100 lb.
<b>Dimensions</b>	Length: 1.42 ft.; Width: 1.75 ft.; Height: 1.75 ft.
<b>Compatibility</b>	CBU-87, CBU-89, and CBU-97

## ACQUISITION STATUS

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



**AIR FORCE DEMOGRAPHICS**

**AIR FORCE UNITS OF OPERATION**

**COMBAT WINGS**

**AIR FORCE INSTALLATION LOCATIONS**

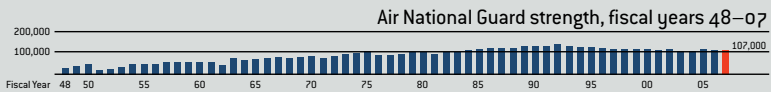
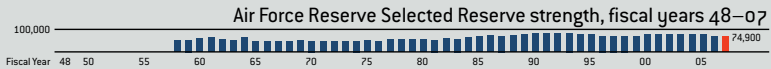
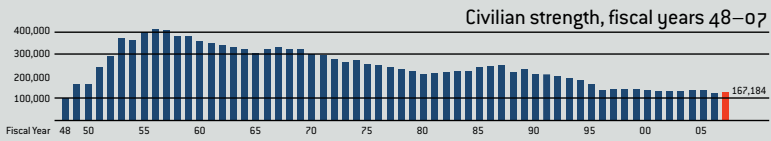
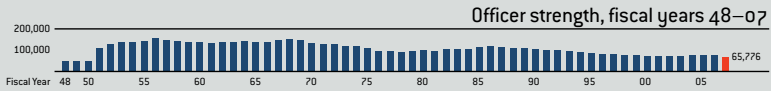
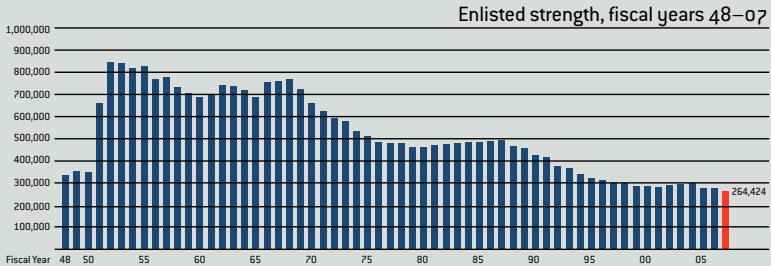
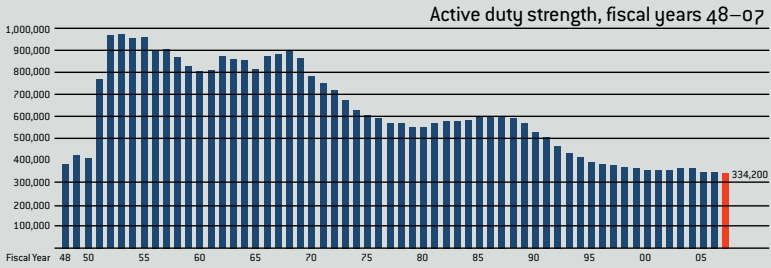
**GLOSSARY OF TERMS/ACRONYMS**

**SYSTEMS BY CONTRACTOR**

**SYSTEMS BY STATE**



**STRENGTH FIGURES**

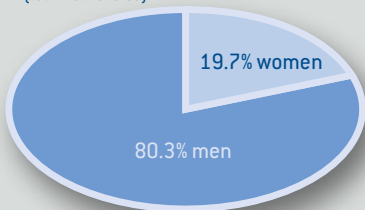


Data shown in red indicates 2007 projections

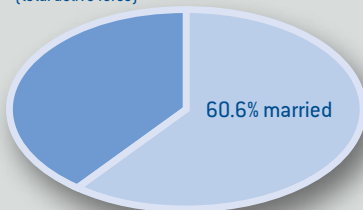
# AIR FORCE DEMOGRAPHICS

## PERSONNEL FACTS

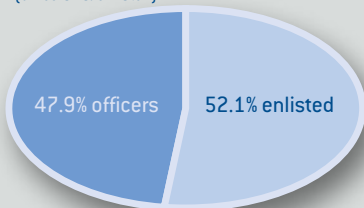
AF Population by Gender  
(total active force)



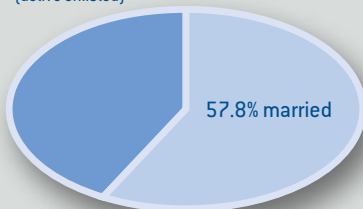
Marital Status  
(total active force)



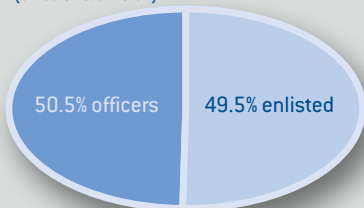
Female Air Force  
(officers vs. enlisted)



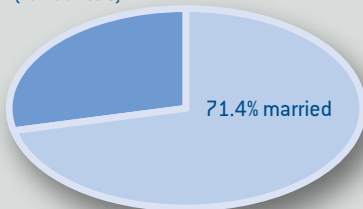
Marital Status  
(active enlisted)



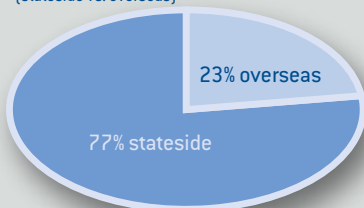
Male Air Force  
(officers vs. enlisted)



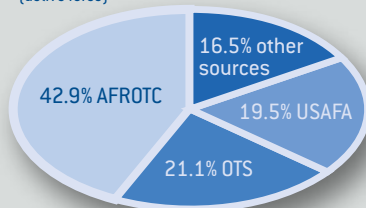
Marital Status  
(active officers)



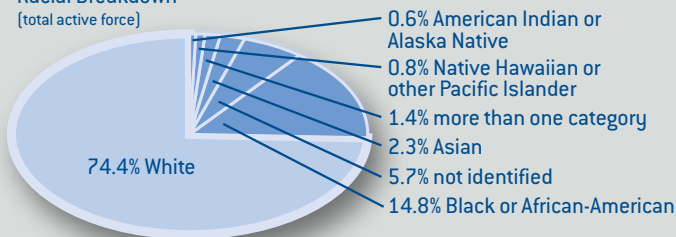
Assignments  
(stateside vs. overseas)



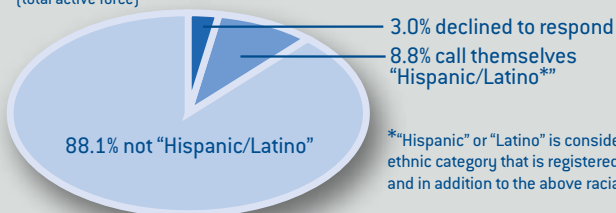
Commissioning Source  
(active force)



**Racial Breakdown**  
(total active force)

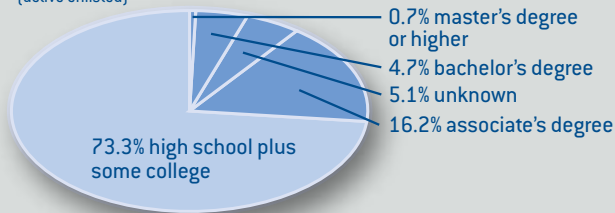


**Ethnicity**  
(total active force)

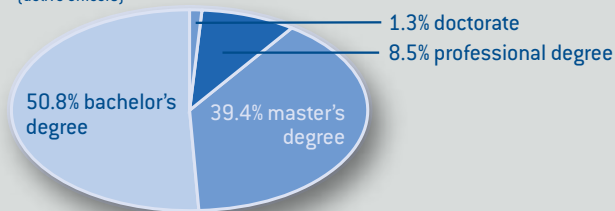


\*"Hispanic" or "Latino" is considered an ethnic category that is registered separately and in addition to the above racial categories.

**Highest Academic Education Attained**  
(active enlisted)

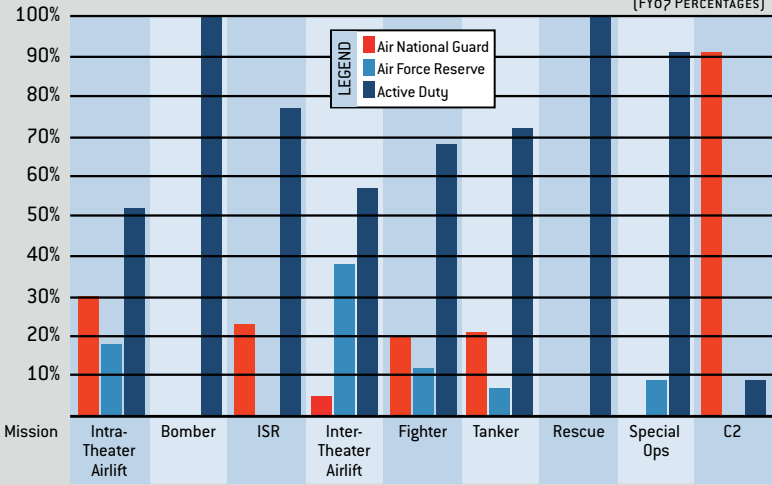


**Highest Academic Education Attained**  
(active officers)



# AIR FORCE DEMOGRAPHICS

OIF/OEF Missions Performed by Components  
(FY07 PERCENTAGES)





**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***

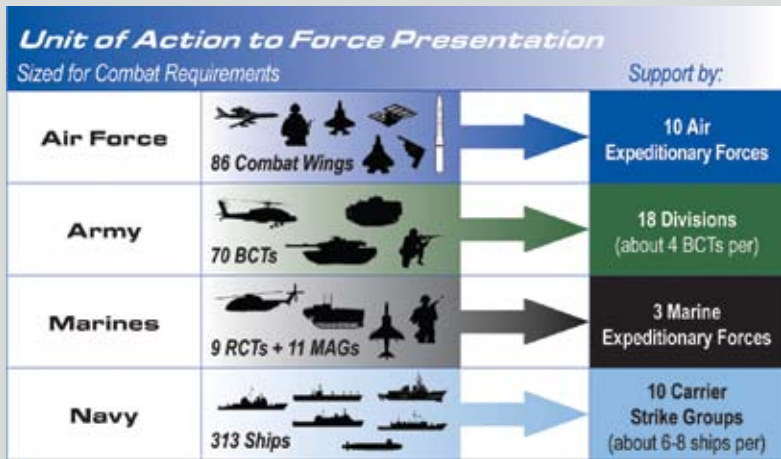
Field operating agencies and direct reporting units are other Air Force subdivisions and report directly to Headquarters U.S. Air Force. They are assigned a specialized mission that is restricted in scope when compared to the mission of a major command. Field operating agencies carry out field activities 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.

$$\text{NUMBER OF ASSETS} \div \text{ASSETS PER SQUADRON} \div \text{SQUADRONS PER WING} = \text{COMBAT WING}$$

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

## AIR FORCE INSTALLATION LOCATIONS

### **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 ANG, 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 Training 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 Warfighting Hq., PACAF
- 15th Airlift Wing, PACAF
- 715th Air Mobility Operations Group, AMC

## AIR FORCE INSTALLATION LOCATIONS

### *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

## AIR FORCE INSTALLATION LOCATIONS

### 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 ANG, 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

## AIR FORCE INSTALLATION LOCATIONS

### **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 ANG, 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

## AIR FORCE INSTALLATION LOCATIONS

### 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, Navigation 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 Missile (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 &amp; 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 &amp; 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 &amp; 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 &amp; 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 Missile (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

## SYSTEMS BY STATE OF MANUFACTURE

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

## SYSTEMS BY STATE OF MANUFACTURE

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 Tunnor 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)

## SYSTEMS BY STATE OF MANUFACTURE

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))

