



## Aerospace in Alabama

By a stunning 2-to-1 margin, the aerospace industry eclipsed overall job growth in Alabama from 2002-2008, according to a June 2010 study by the University of Alabama in Huntsville. Meanwhile, the payroll impact of aerospace grew 37 percent during the same period.

Alabama enjoys a who's who list of marquee aerospace giants: EADS North America, Sikorsky, Lockheed Martin, Boeing, Northrop Grumman, General Dynamics, Teledyne Brown, Pratt and Whitney and Raytheon.

For decades the north Alabama city of Huntsville has been a juggernaut, with 44,000 currently employed in aerospace/defense. Huntsville's Redstone Arsenal, a major missile defense center in its own right, is home to NASA's Marshall Space Flight Center, developer of propulsion systems for the Saturn moon program, the Space Shuttle and the next generation of Orion manned spacecraft.

Since the Wright brothers started the nation's first civilian flying school in Montgomery in 1910, Alabama has continued to blossom as an international aerospace/defense/aviation hub.

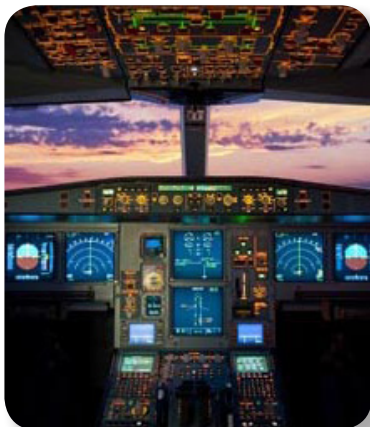


### Fast Facts

- 280 aerospace and defense-related industries called Alabama home in 2008, providing 157,000 direct and indirect jobs.
- The aerospace industry accounted for 8 percent of the state's non-farm payroll to the tune of \$8 billion in 2008.
- Exports of aerospace equipment and parts passed the \$530 million mark in 2009.
- Alabama had more than \$9 billion in Defense Department prime contracts in 2008.
- Marshall Space Flight Center's 2008 budget was \$2.6 billion, generating a statewide economic impact of \$1 billion.

### Space

This sector revolves around Huntsville, providing supply and ancillary services to Redstone Arsenal and the Marshall Space Flight Center. In nearby Decatur, the joint United Launch Alliance of Boeing and Lockheed Martin builds the Atlas V, Delta II and Delta IV rocket launch vehicles.



The Center for Biophysical Sciences and Engineering at the University of Alabama in Birmingham is one of the nation's leaders in cold storage hardware and specialized flight hardware for use in microgravity environments and exploration. The Center also provides services in systems engineer, g, safety and verification documentation/closeout, crew training, launch-site support, mission operations and recovery.

The engineering Division of The Center has performed more than 60 different experiments on more than 50 different Space Shuttle flights, and has integrated payloads through Spacelab, Mir, Soyuz and the International Space Station.



## Aviation

Alabama – with Mobile’s Brookley Aeroplex leading the way – is fast becoming a hub for all sectors of commercial and military aviation. Tenants include ST Aerospace and Airbus Americas.

Brookley Aeroplex is a 1,700-acre industrial complex with two runways (9,600 feet and 7,800 feet); 3 miles from the deep-water port of Mobile; adjacent to Interstate 10; and a five-minute drive from downtown Mobile. It is here EADS North America, pending Air Force approval, will build the KC-45 mid-air refueling tanker.

With some 1,500 employees producing 2 million man-hours annually, ST Aerospace is an aviation maintenance, repair and overhaul (MRO) provider servicing narrow and wide-body aircraft for small and large aircraft operators, including the largest airlines in the world.

The Mobile operations specializes in heavy aircraft such as the Airbus A340, Boeing 747, 767, and 777; and DC10; MD10; and MD11.

Airbus Americas, a unit of EADS North America, employs more than 200 engineers working on escape systems, cabin interiors and other aspects of Airbus jetliners.

Airbus Military, also a unit of EADS North America, has a presence at the Mobile Regional Airport with an MRO facility and technical assistance, customer training and engineering services all supporting three turboprop transports: C-212, CN-235 and C-295. Some 29 employees work at a 29,500-square-foot hangar facility.

In the southeast Alabama town of Troy in Pike County, Lockheed Martin manufactures, assembles and tests many of its missile programs on a 3,800-acre facility. The plant has 340,000 square feet of manufacturing capability and employs 224, supporting multiple production and engineering development for the Hellfire II Missile, Javelin, Joint Air-to-Surface Standoff Missile (JASSM), and the Terminal High Altitude Area Defense (THAAD) interceptor missile. The facility previously assembled the Longbow, PAC-2, AGM-142, Predator, and Short Range Assault Weapon (SRAW) missiles.



## Major Government Facilities

### Redstone Arsenal

Built during World War II to make chemical ammunition – has been the epicenter of the Army’s rocket and missile programs. Dr. Werner von Braun and his German rocket experts developed the first ballistic missile at Redstone, setting the stage for creation of NASA’s Marshall Space Flight Center. Today, Redstone’s 37,000 acres is home to the U.S. Army Aviation and Missile Command (AMCOM), the Space and Missile Defense Command, numerous Program Executive Offices (PEO), and major components of the Defense Intelligence Agency and the Missile Defense Agency. Numerous tenant and satellite organizations populate the Arsenal.

### NASA’s Marshall Space Flight Center

Headquartered on 1,800 acres at Redstone Arsenal, Marshall employs 8,600 (2,600 civil service and 6,000 contract) with an annual budget of \$2.6 billion. Marshall houses: the Space Shuttle Propulsion Office; Payload Operations Center for the International Space Station; Propulsion Research Laboratory; Space Optics Manufacturing Technology Center; Chandra X-Ray Observatory; and the Engineering Directorate, overseeing R&D for all Marshall engineering functions. The U.S. Space and Rocket Center, drawing more than 300,000 visitors annually, is also located at Marshall.

## **Fort Rucker**

The world's largest helicopter training installation can be found in southeast Alabama between the towns of Ozark and Daleville at Fort Rucker, home of Army Aviation.

Known properly as the United States Army Aviation Center of Excellence, the 63,000-acre facility has, since 1955, trained military, civilian and international personnel in aviation-related and leadership skills.

Fort Rucker is comprised of the Garrison Command and the following U.S. Army functions:

- Aviation Center and School
- Safety Center
- Warrant Officer Career Center
- Aviation Technical Test Center
- Air Traffic Services Command
- Aeromedical Research Laboratory
- Aeromedical Center
- Numerous other resident organizations primarily focused on Army Aviation

## **Maxwell Air Force Base**

Located in Montgomery, Maxwell Air Force Base and its Gunter Annex employ more than 11,500 military and civilian personnel with an estimated economic impact of more than \$1.5 billion. Maxwell is home to Air University, the intellectual and leadership center of the Air Force. Gunter houses support for Air Force computer systems.

## **National Space Science and Technology Center (NSSTC)**

The Huntsville-based NSSTC is a partnership between the Marshall Space Flight Center, the Alabama Space Science and Technology Alliance, a consortium of Alabama research universities. The laboratory is for cutting-edge research in Earth and space science, optic, IT, and advanced propulsion technologies.