



AVIATION

With Boeing's recent decision to build a final assembly facility for the 787 in Charleston, South Carolina continues to prove that it is a leader for global aviation. Greenville has long been an advanced manufacturing center and for aviation specifically, our companies include Lockheed Martin, Honeywell, GE, Michelin Aircraft Tires and Cytec Carbon Fibers. Our areas of specialization include the aircraft turbine business as well as the area of Maintenance, Repair and Overhaul (MRO) also known as Aircraft Inspection, Maintenance and Safety (AIMS). Given this and the fact that we have 3 airports within 20 miles of each other (general aviation - GMU, commercial & cargo - GSP, and industrial & air park - GYH), we are well positioned for future growth.

GE AVIATION

Recently expanded, GE Aviation Greenville produces high pressure turbine (HPT) blades for commercial aircraft engines used to power many Boeing and Airbus aircraft. Technological advancements in the new facility allow for a reduction in turbine blade production time by 50 percent. This increase in efficiency will help the Greenville facility prepare for an expected 40 percent growth in volume this year. This is largely contributed to the integration of GE's GEnx engines with Boeing's upcoming 787 Dreamliner.



GE Aviation is proud to be a part of economic development in the state of South Carolina. The facility continues to ramp up production and will produce 350,000 high pressure turbine blades this year.

– Brad Brougner
 Greenville Plant Leader
 GE Aviation



CASE STUDY

Workforce Development Solution

With a national shortage of sheet metal workers, Greenville Technical College, in cooperation with the Greenville County Workforce Investment Board, developed a unique program to train workers to meet Lockheed Martin's need that included:

- State-of-the-art sheet metal lab for training and aircraft-related electricity courses
- Curriculum:
 - » Install, inspect, and remove rivets; dexterity with sheet metal tools; cutting and layout procedures; countersinking, micro-shaving, counter-boring; crew removal; measurement readings.



UNIQUE PROPERTY

SCTAC (South Carolina Technology & Aviation Center)

sc-tac.com

Formerly Donaldson Center, U.S. Air Force Base

Park

SCTAC is Upstate South Carolina's premiere Air and Industrial Park. Located seven miles south from Downtown Greenville, SC, along the I-85 corridor, the park encompasses 2,600 acres and features an 8,000 foot primary runway. This substantial environment benefits more than 80 on-site businesses such as 3M, Cytec Carbon Fibers, Lockheed Martin, Michelin and Stevens Aviation.

- FAA Part 139 Airfield Certification
- Fire Department ISO Class 4-certified

Site, Parcel A (Aviation District)

- Approx. 275 acres
- Access to 8,000 foot primary runway
- I-1 Zoning
- Sub-dividable
- Topography is flat with a gentle slope
- Entire site is exempt from the 100 year flood plain (FEMA Flood Insurance Rate Map)
- All utilities on-site

Specialized Project Financing Options

- Build-to-suit financing
- Independent bonding capabilities
- Leveraging with federal programs to diminish project costs
 - » New Market Tax Credits
 - » EB-5

Greenville Downtown Airport (GMU)

greenvilledowntownairport.com

Greenville Downtown Airport is South Carolina's busiest general aviation airport, providing a corporate gateway into the Upstate region. Services at GMU include:

- Aircraft Management Services
- Air Charter and Air Taxi Services
- Sales, Maintenance, Interiors and Detailing
- Aircraft Rental and Flight Instruction
- Helicopter Services and Flight Instruction



COMPANY SUPPORT

The aviation/aerospace cluster consists of 15 Greenville County companies. The cluster is focused on utilizing the combined resources and strengths of the participating companies in combination with local and state agency resources to address workforce development, supply chain, and public policy needs.

COMPANIES

Engineering & Manufacturing

GE Aviation: Jet Engine Turbine Blades

D3 Engineering: Aviation Engineering

Avenger Aircraft: Engineering Design, Reverse Engineering, F/DT Analysis, Life Limit Extensions, FAA Certification Approvals

BMI Corporation: Aerodynamics (Computational Fluid Dynamics, Wind Tunnel Testing, Straight Line Testing), Design and Manufacturing

Honeywell: Turbine Engines

Maintenance, Repair & Overhaul

Lockheed Martin: Commercial and Military Aircraft Maintenance and Modification

Stevens Aviation (GSP and GYH Locations): Phase Inspections, Special Inspections, Overhauls, Heavy Maintenance and Warranty, Dallas Airmotive Warranty, Heavy Structural Repairs, Engine Modifications, Winglet Modifications

Honeywell: Aircraft Engine Parts and Helicopter Engines

Applied Tech Services, Inc.: FAA Repair Station for Engine Components

H&L Accessories: FAA Repair Station for Engine Components

Paint

Lockheed Martin

Stevens Aviation (GYH Location): Paint Refurbishment, Complete Strip and Repaint, Flight Control Removal and Balance, Registration Number Changes, Restripe Fuselage, Corrosion Inhibitor, Coating Application, Aircraft Detailing

Broadhead Aviation Maintenance, Inc.: Aircraft Painting Service / Repair

Carbon Fiber

Cytec: Carbon Fiber / Aircraft Components

SAATI Americas: Carbon Fiber / Aircraft Components

Other

Michelin: Aircraft Tires

Action Research Corporation (ARC) / ARC Products, Inc.: Aircraft Fuel Injector Design and Manufacturing

Professional Interiors, Inc.: Aircraft Interiors and Upholstery

Woven Electronics: Electronic Cabling

Woodward Industrial Control: Fuel Nozzles



EDUCATION

Greenville Technical College

Associates in Aircraft Maintenance Technology

Certificate in Aviation Powerplant Theory/Systems

- Coursework includes: Inspection, Overhaul, System Dynamics for Turbine and Reciprocating Engines

Certificate in Aviation Airframe Structure/Systems

- Wood Structures, Coverings, and Finishes
- Sheet Metal Layout and Repair
- Bonded Structures and Welding
- Assembly and Rigging
- Aircraft Environmental Systems
- Hydraulic and Pneumatic Systems
- Landing Gear Systems
- Aircraft Electrical Systems
- Utility and Warning Systems
- Aircraft Fuel Systems
- Airframe Inspection

Certificate in Aviation Fundamentals

- The largest part 147 FAA Airframe and Powerplant Program in SC, that includes: a laser grade testing facility, on staff maintenance examiners, dual credit programs and a collaboration with Embry Riddle

Other Educational Resources

- Embry Riddle Aeronautical University
- Bob Jones University
- Carolina Aeronautical Testing and Certification Center