



# NORTH CAROLINA

THE STATE OF MINDS



## WHERE POWERED FLIGHT BEGAN

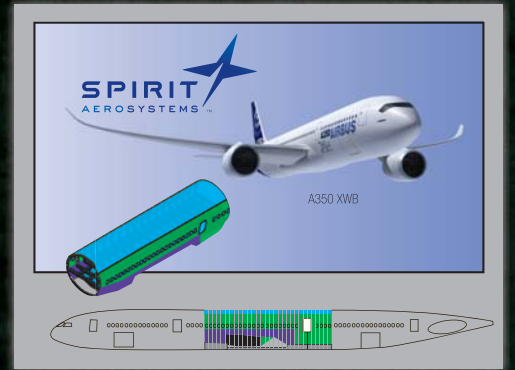
Kitty Hawk, North Carolina - December 17, 1903



GE 90 Engine , Durham, North Carolina



Greensboro and Burlington, North Carolina



Global TransPark in North Carolina



## OUR VALUE PROPOSITION

Since the first flight by Orville and Wilbur Wright in Kitty Hawk in 1903 to Spirit AeroSystems' announcement that it will produce the composite fuselage structure for the Airbus A350 in Kinston, North Carolina has demonstrated a strong commitment to the strategically important and sustainable aerospace and aviation industry. North Carolina is able to attract and grow aerospace companies throughout all geographical areas of the state – largely because the industry is a good fit with the state's manufacturing tradition, existing workforce, growing population, training programs and university-based research. The state has also demonstrated its commitment to aviation companies by investing in next generation technologies and developing infrastructure to support the growth of these companies.

## WE ARE AN ESTABLISHED, INNOVATIVE AND GROWING CENTER

### *Focus on Aerospace*

- More than 180 aerospace companies engaged in manufacturing that employ more than 9,500 skilled workers
- North Carolina has a solid supply chain in aerospace, with the greatest strengths in aircraft manufacturing; aircraft engine and engine parts manufacturing; and search, detection and navigation instrument manufacturing
- Employment in aircraft engine and engine part manufacturing has increased by 68 percent in North Carolina, while employment in the US has declined by 25 percent

### *Focus on Aviation*

- 74 publicly-owned airports – 4 of which are international – and more than 300 privately-owned airports located throughout the state
- More than 135 companies engage in aviation and service throughout the state, employing more than 4,500 skilled workers
- North Carolina is the first state in the nation to have statewide Automatic Dependent Surveillance Broadcast (ADS-B) coverage
- More than 7,000 registered aircraft based in the state and 15,000 licensed pilots
- More than 47 million passengers fly to and from North Carolina and more than 800 million pounds of air freight originate annually in the state

## WE HAVE THE RESOURCES TO PROVIDE AN ENVIRONMENT THAT SUPPORTS FUTURE GROWTH

- **North Carolina Aerospace Alliance** develops capabilities to manufacture critical aviation parts in Eastern North Carolina to support the Fleet Readiness Center East, other military facilities in the state, and defense sub-contractors
- The **Aerospace Industry Sector Development Partnership** is comprised of organizations in the state with an emphasis on supporting existing companies, continuing to develop the state's supply chain by recruiting new companies and ensuring a qualified workforce and favorable business climate for aerospace companies
- **North Carolina Aerospace Initiative** is a joint venture of the NC State College of Engineering; the NC State Department of Mechanical and Aerospace Engineering; the Kenan Institute of Engineering, Technology and Science; the NC State Office of Research and Graduate Studies; the NC State Office of Extension, Engagement, and Economic Development; and the NC State Industrial Extension Service with a goal to improve and expand the aerospace industry in the state by focusing on three areas: applied research, aerospace education, and industry promotion

## WE HAVE COMPREHENSIVE EDUCATION AND TRAINING PROGRAMS

Eight of North Carolina's universities have programs and centers that support and enhance the ability of North Carolina's aviation and aerospace firms to innovate and grow with specializations that include:

- Advanced research in aviation safety
- Advanced materials
- Accelerated stress testing of aircraft parts
- Agile manufacturing for low volume production
- Applied research in vertical lift aircraft
- Aircraft parts manufacturer certification
- Logistics
- Supply chain research
- Maintenance and flight sciences
- Rapid prototyping
- Reverse engineering

North Carolina Community Colleges offer numerous relevant programs including:

- Specialized training in aviation maintenance and preparation for the FAA's written, oral and practical power plant and air frame examinations
- Associates degrees in aviation business management as well as certificates and associates degrees in career pilot, aviation management and aviation systems
- Course work in fundamentals of flight, aerodynamics, aircraft performance, meteorology, navigation, federal regulations, aviation management, and instrument and commercial ground training
- Dedicated centers including the **Advanced Machining Center** which offers training in machining, metal forming and CAD-aided design; and the **T.H. Davis Aviation Center** with specialized shops for engines, welding, electrical and sheet metal, as well as faculty with expertise in composite construction and repairs, manufacturing and quality control

Guilford County Schools' **Andrews Aviation Academy** offers high school students the opportunity to jump start a career in aviation by preparing them for the technical training needed and certification by the FAA

- Possible career pathways include: Flight Dispatcher, Aerospace Engineer, Avionics Technician, Aircraft Technician and Aircraft Production

## WE OFFER A HIGHLY SKILLED WORKFORCE

### **Focus on Engineering**

- There are more than 26,000 individuals employed in engineering fields in North Carolina and the number of engineers throughout the state is projected to grow 12.78 percent over the next five years
- Every year North Carolina institutions graduate almost 3,400 in engineering fields

### **Focus on Production**

- North Carolina ranks ninth nationally in total manufacturing employment and first in the Southeast US
- North Carolina's average worker is about 10 percent more productive than the national worker, and that level of productivity is increasing

### **Focus on the Military**

- North Carolina is home to five military installations, more than 100,000 active duty military personnel and over 17,000 civilian employees
- Over 10,000 individuals, with training in fields such as aviation and avionics; communications; electronics; engineering; heavy and specialized equipment operation; information technology; and transportation and logistics, are available to join North Carolina's labor force annually as they complete their military service

The **North Carolina Global TransPark (GTP)** is a multi-modal transportation park which offers environmentally permitted prime commercial real estate along with excellent shipping capabilities via air, truck, rail or sea. The GTP owns more than 2,400 acres, including a 300+ acre state Certified Site that has many advantages, including:

- access to an 11,500 foot runway, with an Instrument Landing System (ILS) being upgraded to Category III
- cargo facility/ warehouses with runway access
- building/hangar sites offering airfield and highway access
- special construction financing options available for qualifying buildings
- FTZ #214 provides exemptions or reductions in customs duties
- access to a 33,000 square foot training/ conference center

Visit [www.ncGTP.com](http://www.ncGTP.com) for more information.



North Carolina  
Global TransPark®

## WE ARE HOME TO A STRONG EXISTING AEROSPACE AND AVIATION INDUSTRY

- **AAR** manufactures specialized cargo systems designed for military aircraft in Goldsboro
- **Antilles Seaplane LLC** is developing the tooling and infrastructure needed to manufacture a completely new G-21 series "Goose" seaplane – the only commercially viable, multi-engine amphibian available anywhere in the world – in Gibsonville
- **ATI Allvac** supplies specialty metals and alloys – titanium and nickel - used in the aerospace and defense, chemical processing, oil and gas, and electrical energy industries at its facilities in Monroe
- **B/E Aerospace, Inc.**, the world's leading manufacturer of cabin interior products for commercial passenger aircraft and business jets, has a manufacturing facility in Winston-Salem
- **Cyril Bath** manufactures metal stretch forming machine tools for the aerospace industry as well as others in Monroe
- **Cessna** operates a Citation Service Center at the Piedmont Triad International Airport in Greensboro – one of only 10 in the world – and offers airframe and engine maintenance, inspection and repair capabilities
- **Commerce Overseas Corporation** manufactures and supplies aerospace parts for US military aircraft from its Kinston facility
- **Curtiss-Wright Controls** headquartered in Charlotte, manufactures aircraft parts including gears, transmissions and electrical triggering devices at its Flight Controls facility in Shelby and has an Engineered Systems center in Gastonia
- **DRS Technologies**, a worldwide supplier of integrated products, services and support to military forces, intelligence agencies and prime contractors, manufacturers and supports a broad range of systems for mission critical and military sustainment requirements in its Elizabeth City facility
- **FedEx** will open a mid-Atlantic hub at the Piedmont Triad International Airport in Greensboro in June 2009, which will be served by 20-25 aircraft each day
- **Firstmark Aerospace Corporation** manufactures space vehicle guidance systems and equipment in Creedmoor
- **Fleet Readiness Center East** has a sizeable civilian workforce providing maintenance, repair and overhaul on military jets and helicopters
- **General Electric** assembles jet engines in Durham and manufactures rotating engine parts in West Jefferson and Wilmington
- **Goodrich**, a Fortune 500 company headquartered in Charlotte, operates a major repair and remanufacturing operation in Monroe
- **Honda Aero Inc.**, a wholly-owned subsidiary of Honda Motor Co. Ltd., will establish its headquarters and jet engine manufacturing operations at the Burlington-Alamance Regional Airport
- **Honda Aircraft Company** will build its new HondaJet in Greensboro
- **Honeywell** manufactures mechanical aircraft parts and equipment in Rocky Mount
- **Kearfott Guidance & Navigation** operates a Motion Systems Division that manufactures sophisticated precision rotary components, actuators, electronics and stabilized sights in Black Mountain
- **Kidde Aerospace and Defense** makes aircraft and vehicle fire protection and suppression systems in its Wilson facility
- **Leistritz Advanced Turbine Components, Inc.** manufactures turbines and turbine generators in its facility in Rural Hall
- **Liquip International** manufactures refueling equipment in Reidsville
- **Moog Components Group**, manufactures electronics and communications equipment, for industries including aerospace, in Murphy
- **Mountain Air Cargo** operates a maintenance facility at the Global TransPark
- **Northrop Grumman Synoptics**, located in Charlotte, is an industry leader in the manufacture of solid-state laser materials and components
- **Spirit AeroSystems Inc.**, the world's largest independent supplier of aircraft assemblies and components, will open their first manufacturing plant at the Global TransPark in 2010
- **TCOM** operates the only Lighter-Than-Air (LTA) company in the world with a facility devoted to aerostat and airship manufacture, assembly, flight test and training operations in Elizabeth City
- **TIMCO Aviation Services, Inc.**, the largest independent commercial jet maintenance, repair, modification and overhaul service provider in North America, is headquartered in Greensboro
- **Triumph Actuation Systems** makes hydraulics and pumps for jets at its engineering and technology center in Clemmons
- **Turbomeca**, a French company that manufactures helicopter engine parts, has its first US manufacturing facility in Monroe
- **Unison Engine Components** manufactures turbine engine components in Asheville
- **US Airways** operates its largest hub at the Charlotte Douglas International Airport along with a large Maintenance, Repair and Overhaul operation
- **VX Aerospace** creates composite components for aircraft at its manufacturing facility in Morganton

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