

That's The Spirit

A recent investment by Spirit AeroSystems at the North Carolina Global TransPark in Kinston is paving the way for a local aerospace cluster that could soon number in the thousands of workers. No other location had GTP's blend of logistics and work-force attributes, says a Spirit executive central to the location decision.

by **MARK AREND**
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Six years after it began the process of selecting a U.S. site for expansion beyond its home base of Wichita, Kan., Spirit AeroSystems is on track to be one of North Carolina's leading aerospace employers — and certainly one of the Kinston area's most significant corporate drivers of economic growth. It can be that influential a player thanks to its location at the North Carolina Global TransPark, a multimodal transportation park in Lenoir County, about 75 miles southeast of Raleigh-Durham. A Foreign Trade Zone since 1996, the park until recently has lacked a major industrial tenant with the ability to attract related suppliers and investors to the 2,500-acre site. That's changing.

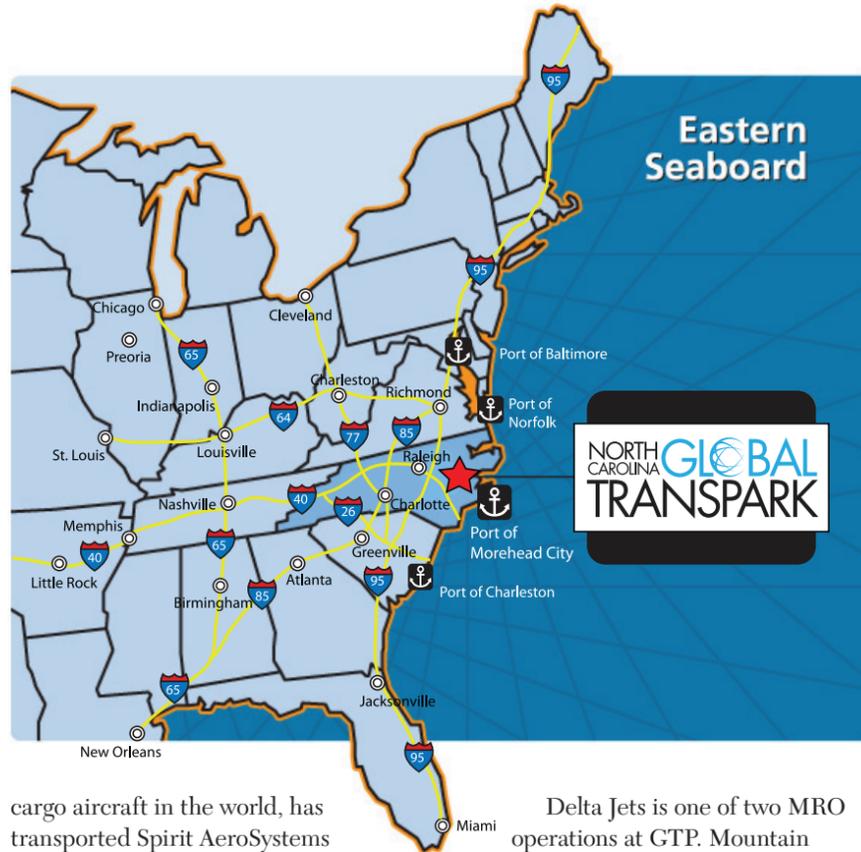
A spin-off of Boeing, Spirit broke ground in September 2008 for a facility in which to manufacture the central fuselage section and leading edge wing spars for Airbus A350 widebody airliners being assembled in Toulouse, France. In July 2011, the company announced it would also produce wings for the Gulfstream G280 aircraft. When fully built out in several years, Spirit AeroSystems will employ more than 1,000 people; it employs about 260 today.

Logistics was the leading consideration when selecting the site for the U.S. plant, says Don Blake, Spirit's director, quality and site services for the North Carolina

Business Unit, who played a key role in the decision-making process. "Skill availability also weighed heavily. If you move an industry like ours into a new location, do you have the engineers and technicians or the capability to train available workers in new processes and technologies they may not be totally familiar with?" The A350 program — the launch program for the TransPark site — involves carbon fiber composite materials and new processes and technologies, complicating the location selection from the labor perspective.

The site-search team narrowed down a global list of options to two each in Asia, Europe and the Americas, says Blake. Thirteen states made the short list for the U.S. site. Sites in North and South Carolina, Georgia and Florida made the final cut. The Kinston site offers access to two ports — at Morehead City and Wilmington, N.C., from which to transport finished aircraft sections to Airbus sites in Scotland and France. Spirit ships wing spars and fuselage panels by sea to take advantage of the ports' favorable freight rates.

"We needed rail to get to the port, given the size of the products we produce," notes Blake. "The large systems integration now used in the construction of airplanes requires either flight on a very large aircraft or rail to a port for shipment by sea. Multimodal was very important, as was the future access the state had planned in terms of connecting to I-95 and rail linkages in the region. And then there's the 11,500-foot runway, which we can use if a customer requires delivery by air on a heavy cargo transport." The Russian Antonov An-124, one of the largest



cargo aircraft in the world, has transported Spirit AeroSystems components on occasion.

Work will be completed on a new, 5.8-mile rail spur this spring linking Spirit and other tenants to the east-west line served by Norfolk Southern.

Construction on a new, 100,000-square-foot shell building is nearing completion on a 35-acre site adjacent to the new rail spur. The building is designed for light manufacturing, warehousing and distribution and will be sub-dividable and feature a 32-foot clear height and tilt-up construction. The new facility will bring total space under roof at GTP to over 1.1 million square feet.

“The rail link and the road improvements will make a significant difference to this location,” says Paul Busick, chief operating officer of Delta Private Jets, which runs its on-demand charter jet company with about 50 jets from the North Carolina Global TransPark and operates a maintenance, repair and overhaul facility at the site. “Getting people to pay attention to us because there wasn’t an Interstate to the front door was always a challenge. As they’re building this Interstate-quality connector to U.S. 70 and parts of 70 that are Interstate-like, we’re much better off.

“Spirit’s locating here has been a significant enhancement to the park,” adds Busick, which has benefited Delta Private Jets’ fixed based operation as well.

Delta Jets is one of two MRO operations at GTP. Mountain Air Cargo, an early tenant of the TransPark, maintains part of the Fed Ex fleet in its 74,000-square-foot facility.

Deal Breakers

Spirit AeroSystems required not just a multimodal site near a seaport, but more importantly a partner with which to (1) face the capital intensive commitment a major aerospace project represents and (2) share the risk associated with establishing a new operation. A U.S. location mitigates the financial and political stability risk inherent in offshore locations.

“We knew our overall investment would be substantial, so the partnership of the North Carolina Global TransPark, the state and the Golden Leaf Foundation [that funds economic development initiatives in rural, tobacco-dependent and economically challenged parts of the state] was key to choosing Kinston. North Carolina came to the table ready to partner. With the Global TransPark, their intention was to create something special in this region.”

As for the work force, Blake was already convinced of the state’s and the local community colleges’ ability to bring the labor pool to the right temperature. “They had proven themselves able to partner with business to deliver the training required by different industries, and we felt that could be done

with aerospace, too.” Blake says Spirit studied the work force, particularly the capabilities of those employed at such nearby military maintenance operations as Cherry Point Marine Corps Air Station in Havelock.

“It proved to us that they had the ability to draw top talent from around the region — if it wasn’t already here, they could bring it in. At some of these locations, they work on composite structures and metal modification and maintenance which very much are crossover skills that we need.”

Meanwhile, Lenoir Community College in Kinston came to the table with a new Aerospace Manufacturing Readiness program tailored to Spirit’s work-force requirements. It’s based on a program originally developed at Craven Community College in nearby New Bern for military aerospace workers. Blake says the program serves as a screening process inasmuch as those who do well in the program qualify for additional training. “We get to pick from the cream of the crop,” he notes. “We can hire very quickly rather than dragging the process out.”

For other labor requirements Spirit

Spirit AeroSystems’ Location Checklist

Multimodal Logistics:

- A runway suitable for large air freighters
- Proximity to two Atlantic seaports
- Rail access to the ports
- Interstate-quality roads

Workforce:

- Supply of workers with transferrable skill sets
- Community college training programs tailored to Spirit’s requirements
- Abundant supply of workers exiting military service
- Access to graduating students at science, engineering and management programs at four-year universities

Site:

- Multimodal logistics capability
- Room to add facilities
- Partnership with the state, local community and logistics park
- Proximity to OEMs, suppliers and aerospace composites expertise

Customized Training Supports NC Aerospace Companies

Community colleges in North Carolina, such as Lenoir Community College, work with the state to assemble training programs to meet the needs of new and existing businesses at virtually no cost to the company provided criteria are met.

“Spirit AeroSystems was a significant deal to the State of North Carolina as we strive to be a state for aerospace excellence,” says Bobby Merritt, director of industry training at Lenoir Community College. “We put together a 13-week, 120-hour-per-week class called the Aerospace Manufacturing Readiness [AMR] program,” with schedules appealing to candidates’ circumstances. Fees for qualified applicants are covered by the state, and the program is advertised as being desirable by Spirit and other aerospace concerns in the region. Course content includes composite fabrication methods, composite trim and drill procedures, assembly processes and operations, safety, blueprint reading, measuring — all the skill sets required by Spirit AeroSystems and others.

Students hired from the AMR program are qualified for a variety of production roles, but they gain additional training on Airbus production processes once they are hired at



Bobby Merritt is director of industry training at Lenoir Community College, a key provider of work-force training programs for new and existing businesses in the Kinston, N.C., area at the Spirit AeroSystems Composite Center of Excellence (above).



Composite Center of Excellence to reflect its new purpose. “Spirit has been a great partner with the college, as has been the North Carolina Global TransPark,” says Merritt, “and I know a lot of good things will be happening here in the aerospace sector.”

AeroSystems would seek to meet, East Carolina University is 30 miles north of Kinston, in Greenville, and the Raleigh metro is home to North Carolina State, UNC at Chapel Hill and Duke University, among others.

“The talent and skills issue was very important to us early on,” Blake relates. “The immediate response on the part of the universities and community colleges was key. No other state in the running for this project engaged their higher education resources this way. They may have discussed it, but they didn’t bring those people to the meetings early on the way North Carolina did.”

Spirit is equally committed to its side

of the deal, says Blake.

“Our vision and commitment to the state is to continue to grow programs for this site to the point where we have over 1,000 people by 2017 — we’ll triple the work force we have in place now. Our hope and that of the state is that this project will prompt suppliers and other supporting businesses to come to the area also.”

Blake says Spirit AeroSystems intends to use all 314 acres of the site and to secure work from as many customers as possible. The Global TransPark site can be structured in such a way that work on multiple programs can be done independent of each other, Blake explains. “The

Spirit. Those hired are eligible for additional training at Lenoir Community College, says Merritt, pointing to both continuing education courses and a recently established Aerostructure Manufacturing and Repair two-year degree program as additional pathways

to acquiring the skill sets in demand by Spirit AeroSystems and others.

Like other aspects of recruiting “Project Marco Polo,” preparing the existing 33,000-square-foot training facility for Spirit’s use was a collaborative effort. The customized training program was developed and

is administered by Lenoir Community College, the equipment required for the training program was purchased with funding from the Golden LEAF Foundation, and upfit of the training labs and installation of the equipment was overseen by the Global TransPark. Once complete, the facility was re-named the Spirit AeroSystems

site is large enough that over the years, we can add facilities to handle multiple OEMs without issues of co-locating any [production]. We can partition the site to address completely the sensitivities of the OEMs. That is a huge advantage of our site at the North Carolina Global TransPark.”

One if by Road, Two if by Sea

But Blake says the North Carolina Global TransPark location offers much more than sites large enough to partition. For a business like Spirit AeroSystems to succeed, a logistics park must bring much more to the table.

“The park promoted, and we value,

market access, including fast access to I-95 for us and our suppliers and the Morehead City and Wilmington deep water ports,” he says. “The work force in eastern North Carolina at the time we evaluated the park numbered over 400,000 full- and part-time workers. It’s close to several universities and 11 community colleges, and more than 21,000 active-duty military personnel were eligible to be released from active duty each year, coming into the private work force.

Those are the people — former military personnel with aerospace backgrounds — that we’re picking up.”

Widening of US highways 70 and 264 to four-lane interstate-like routes to I-95 are examples of how the park and the state “pushed hard on logistics,” says Blake, citing the Jetport and nearby sea-ports, including the one at Norfolk, Va., at a distance twice that of the Tar Heel State ports. The rail spur to the Spirit site will add to the logistics attributes. “Being close to the runway was important to us, which wouldn’t be the case for everyone.”

“Most of the sites at the Global TransPark were already certified in terms of environmental issues,” he adds. “That work was already done, which was a huge plus because we didn’t have to do it. Another plus was access to different industrial utility companies, which was important to us for secondary and tertiary energy purposes. The site was already wired with fiber for the Internet, too, which was important to us given our communications and data requirements.” Spirit used an existing building at the TransPark while its own facility was under construction, and its suppliers have similar privileges as they locate in the area. Still another factor in GTP’s favor was an on-site training facility partially dedicated to Spirit AeroSystems, saving the company the expense of renting or building one.

“They helped us save a lot of money on the front end as we worked to get this site built,” says Blake. “Other



Spirit AeroSystems builds fuselage sections (shown here) and leading edge wing spars from advanced composite materials at its new site at the North Carolina Global TransPark for Airbus A350 airliners being assembled in France.

sites we looked at only had land and runways. The sites I looked at had to have a runway, which is why some of the inland ports without runways were disqualified.”

Industrial Value System

Blake is among the Spirit AeroSystems managers to relocate to the Kinston area from the Wichita headquarters. The two locations share some important characteristics, he points out, including their rural, agricultural and industrial complexions.

“The Wichita facility location was chosen for the same benefits to be found here. Some of the most industrious, hard-working people are farmers who can take care of their own equipment. I saw those same values here. The community’s leaders were serious about investing in the city and the county in different ways. And even though they didn’t know who I was when the project was still known as Project Marco Polo, they were very hospitable and accommodating.

“All of the team members who came here to do their due diligence agreed that the community was working very hard to bring an economic resurgence back to this region.”

Spirit’s future suppliers will find they are also in close proximity to Boeing in N. Charleston, S.C., Cessna and HondaJet in Greensboro, N.C., and dozens of other aerospace concerns.

Blake is optimistic that once two or three major suppliers learn the benefits

of a North Carolina Global TransPark location and establish new aerospace operations, the area will be well on its way to having the critical mass necessary for a mini aerospace cluster. “It will reach down to Havelock and Cherry Point and north to Greenville and over to Raleigh. Everyone will be no more than an hour away from everyone else in the cluster. We share the vision the Global TransPark and the state have about growing this area into a very capable and very

powerful aerospace cluster.”

In addition to supporting that growing aerospace cluster, GTP president Jim Fain notes that North Carolina plans an expanding presence of logistics operations at GTP by coupling “hundreds of shovel-ready acres with our multimodal capabilities.

“Recent legislation has placed GTP and the state’s ports under the umbrella of the N.C. Department of Transportation to facilitate an integration of the state’s logistics assets, enhancing economic development activities,” he explains.

The final piece of the vision for the Global TransPark is a research and development center focused on composites, advanced materials and other key technologies. The GTP is working with Spirit, other aerospace operations and the state’s research universities to develop a model for collaborative research partnerships.

The combination of North Carolina’s initiative in developing the Global TransPark and the momentum of Spirit’s location at the facility are completing the vision of GTP as a strategic center for advanced manufacturing, logistics and supporting research and development.

SITE

This Investment Profile was prepared under the auspices of the North Carolina Global TransPark Authority. For more information, contact Alanna King at (252) 522-4929 or visit www.ncgtp.com.