

Executive summary



Opportunity awaits region

There's no doubt about it. The most important aerospace news for the Gulf Coast region was the announcement in July that Airbus will build a \$600 million A320 assembly facility in Mobile, Ala. It will mean thousands of jobs and gives the plane maker visibility in the United States. That will help it compete for a larger share of the U.S. commercial market, and for defense contracts as well. It's likely to be the spark that will ignite a Gulf Coast region that already has a wide range of aerospace activities.

Last fall during the inaugural Aerospace Alliance Summit in Sandestin, Fla., Richard Aboulafia, vice president of analysis at the Teal Group, was asked what portions of the aerospace industry the Gulf Coast should pursue.

"This is one of the most varied aerospace cluster regions I've ever seen," said Aboulafia. "What you're good at now is what you should

U.S. aerospace industry	
Sales (est. 2012)	\$217.65 billion
Work force (2011)	624,400
<i>Source: Aerospace Industries Association</i>	

accentuate." He also said a regional approach is "absolutely essential."

Two other speakers, both from major aerospace companies with operations in the region, advised leaders to focus on getting young people interested in science, technology, engineering and math. They said the aerospace field is growing, and the region would do well to prepare future workers for the jobs that will come.

That the Gulf Coast Interstate 10 region is interested in expanding its aerospace footprint is a given. Aerospace is a \$217 billion industry that uses a range of highly paid talent, from those who design aircraft and those who as-

Executive summary



semble them to those who fly or maintain them. It's an appealing industry and many areas in the country have targeted aerospace.

But it's an industry where nothing can be taken for granted. Just ask Wichita, Kan., Boeing workers whose celebration over winning the tanker project turned to anger when they learned their plant will close. Another Wichita fixture, Hawker Beechcraft, filed bankruptcy.

As this study found, Alabama, Florida, Louisiana and Mississippi leaders are actively pursuing more aerospace activities, notably foreign investments. And that may be particularly important at a time when Pentagon belt-tightening brings uncertainty to one of the pillars of this region's economy.

With competition so intense, Alabama, Florida, Louisiana and Mississippi joined together in 2009 to form the Aerospace Alliance. The four states are packed with aerospace clusters, including Huntsville and Decatur, Ala., part of a large science and technology region called the Tennessee Valley Corridor; east central Mississippi's Golden Triangle, which includes Columbus, Starkville and West Point; Florida's Space

Coast; and the I-10 region along the Gulf Coast, just to name a few.

The focus of this book is the I-10 corridor, which includes a piece of all four states. It's an urbanized area with multiple contiguous metropolitan areas that includes the largest city in Louisiana, second largest in Mississippi and third largest in Alabama. It's a microcosm of the aerospace activities found in all four states, including space activities, military aviation, aircraft assembly and more.

The idea behind this book wasn't just to catalogue what's in the 12-county/parish corridor, but to put it in context and see how it all fits together. Among other things, the reporting team found:

- Aircraft manufacturing, space, propulsion systems, military aviation, unmanned aerial vehicles and robotics, aerial weaponry, high-performance materials, advanced manufacturing and RDT&E are the region's strongest aerospace activities and the ones with the most potential for growth.
- The decision of Europe's Airbus to estab-

Executive summary

lish an aircraft assembly plant at Brookley Aeroplex in Mobile, Ala., is likely to lead to suppliers and vendors opting to move to the region to be closer to the massive plant.

- Moss Point, Miss., builds portions of the Global Hawk and Fire Scout unmanned aerial systems at the Jackson Aviation Technology Center. It also has been chosen by Northrop Grumman to build the new, larger version of the Fire Scout.
- The combination of Brookley Aeroplex in Mobile and the Jackson County Aviation Technology Center in Moss Point, 35 miles away, forms a hub of aircraft manufacturing in the central portion of the Gulf Coast aerospace corridor.
- The I-10 region is in good position to attract commercial space flight activities by leveraging excess capabilities at SSC and Michoud, as well as in-house technical expertise found at both locations.
- Stennis Space Center, Miss., and Michoud Assembly Facility, New Orleans, each plays a role in NASA's Space Launch System. SSC tests two engine types that will be used in the launch vehicle, and Michoud builds the Orion crew vehicle and will build the core stage and other items.
- The Department of Defense owns more than 700,000 acres and 47 "sites" in the I-10 region with a combined plant replacement value of \$20.3 billion. Three of the bases, all with aviation activities, are listed as among the most valuable in the nation.
- The region's military activities include the Navy Department of Defense Supercomputing Resource Center at Stennis Space Center, Miss. It will add three supercomputers in 2012, more than tripling its computing power and placing it in the top 100 of the world's supercomputers.
- Military activities bring billions each year into the region through payroll, contracting and other activities. Between 2000 and 2011, some 3,500 companies in 12 Gulf

Aerospace activities at a glance

- Rocket and jet engine testing
- Rocket engine, satellite production
- Piston engine assembly
- Unmanned aerial system plant
- Site of future airliner assembly plant
- Areas approved for UAS flights
- Military pilot training
- National Guard aerial combat training
- Aerial weapons RDT&E
- Land and water ranges
- National Guard helicopter repair depot
- Multiple MRO activities
- Applied geospatial technologies
- Air Force electronics training
- Human-machine cognition research
- Advanced manufacturing research
- 43-acre manufacturing plant
- Multiple aerospace parks

Coast counties/parishes were awarded 52,605 DoD contracts valued at \$55 billion. In 2011 alone 6,399 contracts totaling \$7.97 billion were awarded, up from 2010.

- Most of the military activity in the region is aviation-related, and includes pilot and flight officer training, weapons developments, search and rescue, supply and combat missions and unmanned aerial system activities.
- The military's huge complex in this region is a vast schoolhouse that trains tens of thousands of students each year who earn wings or learn technical skills, including cyber security training.
- The U.S. Coast Guard has port activities throughout the region, including the Aviation Training Center in Mobile, Ala., where all Coast Guard aviators train after initial training with the Navy.
- Aerospace is a target industry for Alabama, Mississippi and Florida, and Louisiana has

Executive summary

targeted advanced manufacturing. Local economic development groups have also targeted aerospace, and state and local leaders have joined in regional alliances to pursue the aerospace industry.

- The region is served by six commercial airports and multiple non-commercial, long-runway airports. Many of the commercial airports include military aviation activities, and some of the non-commercial airports play key roles in military and non-military aviation activities.
 - Major U.S. aerospace and defense companies have operations in the Gulf Coast region, including many with multiple sites. Foreign aerospace and defense companies and non-aerospace companies also have a sizeable footprint in the region.
 - There are 16 universities, several with “very high” research activity, that operate or have interests in the I-10 region. Organizations operated by those universities include the National Science Foundation Engineering Research Center, Rasmussen Flight Laboratory, Polymer Research Institute, High-Performance Materials Institute, Center for Advanced Power Systems, National Center for Advanced Manufacturing, and Research and Engineering Education Facility. One community college in the region is among the top associate degree producers in science, technology, engineering and math programs in the United States.
 - There are multiple technology transfer offices and business incubators across the region. The Gulf Coast Patent Association was formed in 2010 to focus on intellectual property issues.
 - Research and development activities in the region involve federal, state and corporate players. One base alone, Eglin Air Force Base, Fla., spends more in R&D each year than many of the nation’s most prestigious universities.
 - Aerospace activities include many in growth sectors, including unmanned aerial systems, advanced materials and geospatial technologies. One university activity focuses on micro air vehicles that use nano-sensors. In addition to unmanned aerial systems, at least three federal operations are involved in some aspect of unmanned underwater vehicles.
 - Two areas in South Mississippi are authorized by the Federal Aviation Administration to fly unmanned aerial vehicles. Unmanned systems are also flown at Eglin Air Force Base, Fla., in military air space, and at Camp Shelby, Miss.
 - Aerospace and technology parks have been established or are developing across the region, including a 3,900-acre park at Stennis Space Center, Miss. In addition, NASA hopes to turn more than 800 acres around New Orleans’ Michoud Assembly Facility into an advanced manufacturing park. Michoud is home to the National Center for Advanced Manufacturing.
 - States and local areas have workforce programs to train blue and white collar workers for the aerospace and related industries. Many of the programs are company specific. Alabama, Louisiana, Mississippi and Florida are right-to-work states.
 - According to a study, the Fort Walton Beach-Crestview-Destin MSA in Florida has the third highest concentration of aerospace engineers in the nation behind Huntsville, Ala., and Melbourne, Fla.
 - High schools in the region have programs targeting aerospace, advanced materials and geospatial career fields. A career academy in Northwest Florida allows students to engage in real-world projects in science and math to achieve high school and college credit and industry-recognized certification. It’s become a national model.
- The region along the Interstate 10 corridor has built its aviation infrastructure over the past

Executive summary

100 years, and owes much of its growth to military and space flight endeavors of the federal government. Those federal activities in turn played a role in the creation of a strong research, development, test and evaluation community in the region.

The diversity of aerospace activities across the corridor provides opportunity for those already skilled in the field and those considering entering the field. While a particular aerospace activity may not be located in one area, it's likely to be done in another. And that's important for the workforce because it affords an opportunity to remain in this region.

To protect the lucrative activities, local officials make it a priority to protect their bases and the NASA facilities from encroachment. While it's clear that one reason is the value of the bases to the economy, another factor may be the pro-military population itself. Counties and parishes in the region have a higher proportion of veterans than the nation as a whole.

The business-friendly region offers tax breaks and other incentives to new and established businesses alike. They promote their generally lower cost of living and lower cost of doing business. While there are unions, Alabama, Florida, Louisiana and Mississippi are all right-to-work states.

Those factors may be partly responsible for the influx of foreign-owned companies, aerospace and otherwise, looking to establish a foothold in the United States. Indeed, the Gulf Coast has been a beneficiary of "insourcing."

The Gulf Coast Aerospace Corridor along the I-10 corridor isn't the largest in the nation or the Southeast. But its broad range of activities, multiple seaports and airports, road and rail systems allow easy access from within the United States and abroad, and may provide it with a competitive advantage.

"The aerospace industry in Okaloosa County and the Northwest Florida area offer the most substantial growth opportunities and the best match to the region's business climate," said

Larry Sassano, president of the Okaloosa County Economic Development Council.

But no area is perfect. There remain issues with insurance as a result of hurricanes, and educational attainment has been a concern for years. But there are plenty of educational bright spots as well.

While the military will continue to be a pillar of the region's economy, at least one public official sees that as both good and bad. Florida State Sen. Don Gaetz, R-Niceville, is concerned that there's too much reliance on tourism and the military in his part of Florida. He and others want to see more diversity, through attracting a range of high-tech and mid-tech industries that can take advantage of the trained workforce.

It's possible this book may provide the public, economic development officials and politicians with a better understanding of the considerable capabilities of this region, not only in aerospace, but in other science, technology, engineering and math fields. The tools are there, and it's just a matter of understanding how to leverage them, and working together in a manner that will benefit the entire region.

Gulf Coast Reporters' League

Original May 2012

Updated July 2012

County/parish snapshots

<i>Counties/parishes and states</i>	<i>Square miles</i>	<i>Population (2010)</i>	<i>People per sq. mile (2010)</i>	<i>% H.S grads (2006-10)</i>	<i>% Bachelors Degree (2006-10)</i>
Orleans, LA	169.42	343,829	2,029.4	83.4	31.6
St. Tammany, LA	845.55	233,740	276.4	88.0	30.1
Hancock, MS	473.75	43,929	92.7	83.2	21.7
Harrison, MS	573.99	187,105	326.0	83.5	20.0
Jackson, MS	722.75	139,668	193.2	84.6	18.4
Mobile, AL	1,229.44	412,992	335.9	82.3	19.8
Baldwin, AL	1,589.78	182,265	114.6	87.6	26.8
Escambia, FL	656.46	297,619	453.4	86.7	23.4
Santa Rosa, FL	1,011.61	151,372	149.6	88.4	24.7
Okaloosa, FL	930.25	180,822	194.4	90.7	26.8
Walton, FL	1,037.63	55,043	53.0	84.3	25.0
Bay, FL	758.46	168,852	222.6	86.3	20.4
<i>Counties/parishes and states</i>	<i>Private non-farm establishments (2009)</i>	<i>Private non-farm employment (2009)</i>	<i>% change private non-farm employment 2000-2009</i>	<i>Manufacturers shipments 2007</i>	
Orleans, LA	8,324	150,820	-27.7	\$3,088,945,000	
St. Tammany, LA	5,856	67,769	30.9	\$436,331,000	
Hancock, MS	714	10,372	3.9	*	
Harrison, MS	4,185	69,999	-12.4	*	
Jackson, MS	2,343	48,842	14.5	*	
Mobile, AL	9,016	150,599	-3.7	\$12,407,151,000	
Baldwin, AL	4,812	52,233	17.4	\$1,410,273,000	
Escambia, FL	6,671	98,136	-7.9	\$2,117,030,000	
Santa Rosa, FL	2,453	20,786	16.7	\$74,894,000	
Okaloosa, FL	5,005	57,415	-1.5	\$656,730,000	
Walton, FL	1,683	15,377	66.4	*	
Bay, FL	4,510	54,350	0.8	\$1,254,295,000	
<i>* Suppressed to avoid disclosure of confidential information</i>					
<i>Source: U.S. Census Bureau, QuickFacts. (Compiled May 2012)</i>					