Gulf Coast Reporters' League

Louisiana | Mississippi | Alabama | Florida

AEROSPACE NEWSLETTER

Vol. V, Issue V | A bi-monthly update of aerospace activities in the Gulf Coast I-10 region | April 2018

***Editor's note**: This is the fourth of a four-part series focusing on aerospace and defense activities in the states that are members of the Aerospace Alliance.*

VT MAE's new $46 million hangar at Pensacola International Airport, as it appeared April 3, 2018. *Picture by Aero Photo*

Economic development

Florida's aerospace footprint

When it comes to aerospace and aviation, Florida is among the most active in the nation with clusters spread throughout the state, including the military intensive Panhandle...

The new $46 million VT MAE maintenance, repair and overhaul hangar at Pensacola International Airport is finished, save for installation of the equipment and a formal opening.

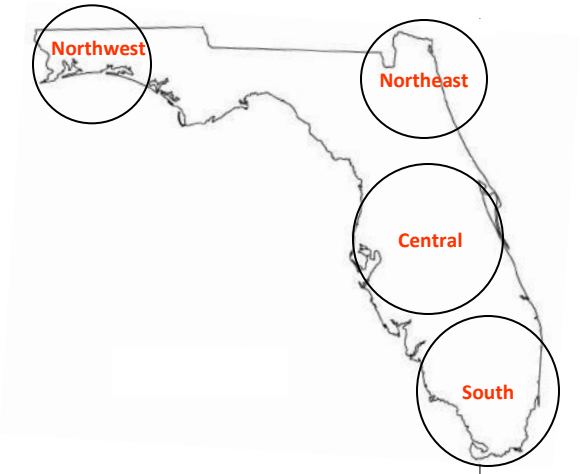
An open house June 9 will give the public a chance to take a look at the 173,000 square-foot hangar, the latest aviation addition in a state that is among the nation's leaders in the hot field of aerospace.

Richard Aboulafia, vice president of analysis at Teal Group, sees many reasons the state is a national leader.

"Florida is business-friendly, has superb weather, good infrastructure, and considerable political clout. The workforce is getting more skilled as aerospace facilities open there, which certainly helps," he wrote in response to an email asking for his assessment of Florida's outlook for the future.

The new Pensacola MRO adds yet another piece to segment of the aviation industry where Florida excels.

"We're the No. 1 state for MROs, we have over 600 establishments statewide," said Tim Vanderhoof, senior vice president of business development for Enterprise



Florida, the state's principal economic development organization.

Besides MROs, Florida has long been a gateway to space, the air traffic hub for the western hemisphere, a center for flight training and home to aircraft and component manufacturing.[1]

The biggest names in aerospace and defense have significant operation in the state. Enterprise Florida says more than 85,000 Floridians work in aviation and aerospace industries with large numbers of rocket scientists, machinists, pilots, engineers, and more.

In the PwC 2017 Aerospace Manufacturing Attractiveness ranking, Florida is tied for sixth with Ohio, down from previous rankings. PwC writes that it's possible that after receiving substantial aerospace investment in recent years, the state is experiencing talent constraints, which is exerting upward pressure on wages.[2]

Florida is a big player in defense, with more than 20 major military installations. In fiscal year 2016, the state had 124,500 Department of Defense personnel, fifth largest in the nation, and $14 billion in defense contracts, fifth largest in the nation. It's also home to the second largest military retiree population, and 1.56 million veterans, third largest in the nation, according to the December 2017 *Florida Defense Factbook*.

According to Enterprise Florida, the state's universities are among the nation's top producers of STEM graduates, including many specializing in aviation and aerospace.

"For the third year in a row, the University of Central Florida has produced more graduates getting hired by aviation/aerospace defense companies than any other university in the nation," said Vanderhoof.

The state is home to two spaceports. It's best known for Kennedy Space Center, which has been the launch site for every U.S. manned space flight since 1968.

Space Florida, the state's aerospace and spaceport economic development organization, was created to strengthen Florida's position as a global leader in aerospace research, investment, exploration, and commerce. The agency consolidated three entities – Florida Space Authority, Florida Space Research Institute, and Florida Aerospace Finance Corporation – through the Space Florida Act of May 2006.

Vanderhoof pointed to Blue Origin's new facility and OneWeb's satellite plant nearing completion as examples. "From a space perspective, we're continuing to see that volume increase."

Vanderhoof said the 85,000 plus aviation and aerospace workforce and the name recognition of aerospace companies in the state "speaks volumes" about the infrastructure and business climate. "We're going to continue to see our trajectory upward."

Northwest Florida

While the 19-acre VT MAE operation at Pensacola International Airport is getting all the publicity right now, Northwest Florida's main claim to aerospace fame is military aviation. It's home to Naval Air Station Pensacola, Naval Air Station Whiting Field in Milton, Hurlburt Field in Mary Esther, Eglin Air Force Base in Valparaiso, and Tyndall Air Force Base near Panama City.

With nearly 44,000 active duty Air Force, Navy and Army personnel and more than 19,000 civilians employed in aerospace and defense, there are scientists, engineers, production workers and more, according to Florida's Great Northwest, the regional economic development organization for the Panhandle.[3]

The bases have attracted many of the largest U.S. defense contractors, international companies, and commercial aviation businesses involved in a variety of cutting-edge research and development activities, including aerial weapons development.

In addition, there is a regional university-based research and development infrastructure that includes Florida State University, the University of Florida, Florida A&M University, and the University of West Florida, with university centers of research in propulsion, robotics, commercial space flight, and composite materials and systems, according to FGNW.

The Gulf Coast is home to one of the largest concentrations of aviation, aerospace, and defense assets in the world. Expansive areas of restricted airspace over land and the Gulf of Mexico are used for test and evaluation activities, including testing of unmanned air systems.

Primary pilot training is done at NAS Pensacola and NAS Whiting Field, while Eglin AFB and Tyndall AFB train F-35 and F-22 pilots, respectively. Hurlburt Field is home of the U.S. Air Force Special Operations Command.

"Aerospace is not new to Northwest Florida," said Rick Byars, economic development chief for Gulf Power.

"We've been doing aerospace for a long time. What's new to Northwest Florida is just a real strong concentration on the opportunity to serve Airbus and Boeing now in South Carolina, so we've expanded what we're chasing but it's not new to us."

He said the region has a strong workforce and is developing more training tools, which he thinks is the biggest concern for any company, but especially aerospace.

One of the most significant aerospace activities in this region is the research and development done at Eglin

on aerial weapons development. It does as much R&D as some of the nation's leading universities. Nearby is the former Doolittle Institute, now called DEFENSEWERX. It's mission is to remove some of the barriers to help contractors work with the military to more rapidly bring innovative products into the hands of the military.

Northeast Florida

The economy of Northeast Florida also is heavily reliant on the U.S. military. It's the region's biggest job generator, dwarfing the region's corporate players, according to *Florida Trend*. The region has about 75,000 active duty, reserve and civilian personnel, some 14 percent of the area's workforce.[4]

Jacksonville is home to Naval Air Station Jacksonville with about 12,000 military personnel and 7,000 civilian workers. It's the largest Navy base in the Southeast and third largest in the nation. It's home to more than 110 tenant commands, including the Fleet Readiness Center Southeast (FRCSE), the base's largest tenant.

FRCSE performs depot-level rework operations on designated weapons systems. It manufactures parts and assemblies as required and provides engineering services, and is the largest industrial employer in the region with 3,000 civilians, 1,000 military personnel and 1,000 contractors.

NAS Jacksonville is also the site of the MQ-4C Triton Mission Control Center and Unmanned Patrol Squadron 19 (VUP-19). The city is also home to the Jacksonville Air National Guard. In nearby Clay County is Camp Blanding Joint Training Center.

The defense impact is 115,965 jobs and $5.2 billion in direct defense spending, according to *Florida Defense Factbook*.

Central Florida

One of the best-known regions for aerospace is the Space Coast, the region around Kennedy Space Center and Cape Canaveral Air Force Station. All of NASA-launched manned spaceflights, beginning with Project Mercury in 1961, have been from KSC or Cape Canaveral. The last manned flight was aboard the Space Shuttle in 2011.

One reason rockets are launched in Florida has to do with the Earth's rotation. It rotates most quickly at the equator, and to take advantage of this, in adding to the orbital velocity of the rocket, it is most beneficial to launch from a southerly location (near the equator).

Cape Canaveral Air Force Station is controlled by the 45th Space Wing and is responsible for ensuring America's safe and assured access to space. It co-joins Kennedy Space Center and consists of 47 Launch complexes used to launch Atlas, Titan and Delta rockets.

Falcon 9 liftoff in April. *NASA photo*

Brevard County, in addition to Cape Canaveral Air Force Station, is home to Patrick Air Force Base, a major component of the Air Force Space Command. It provides combat capabilities through launch, range and expeditionary operations. Host group is the 45th Space Wing.

Orange County is also home to the Naval Support Activity Orlando - Multi-Service Modeling, Simulation and Training Acquisition, and the Naval Ordinance Test Unit. NSA Orlando is home to a variety of private industry, government and academic organizations, many of whom specialize in high-tech research and development programs, including modeling and simulation.

NSA Orlando is a 40- acre facility located in the Central Florida Research Park adjacent to the University of Central Florida. It provides shore installation support services to DoD tenant.

In the Tampa region, Hillsborough County is home to MacDill Air Force Base, which hosts U.S. Central Command, one of six geographically defined unified commands in the DoD. It is responsible for U.S. security interests in 20 nations in Northeast Africa as well as Southwest and Central Asia.

MacDill also hosts the U.S. Special Operations Command, with its primary mission of disrupting and defeating terrorist networks that threaten US citizens and interests worldwide.

MacDill also hosts the 6th Air Mobility Wing, whose primary mission is airlift and aerial refueling.

Pinellas County is home to the U.S. Coast Guard Air Station Clearwater, the largest and busiest air station in the Coast Guard. It operates in the Gulf of Mexico, the Caribbean basin and the Bahamas. The station maintains de-

ployed H-60s for operations in the Bahamas, and Turks and Caicos engaging anti-drug and migrant smuggling operations. The station also has C-130s deployed in support of its operations in the Caribbean.

Polk County is home to Avon Park Air Force Range, the largest live ordnance bombing and gunnery range east of the Mississippi River. It includes 400 square miles of restricted airspace, 1,000 square miles of military operating area and 106,035 acres inside the fence. It's utilized by active, reserve and Gulf units from the Army, Navy, Air Force, Marines, and Coast Guard, special operations and Homeland Security.

South Florida

South Florida is home of the U.S. Coast Guard 7th District Headquarters Miami, Homestead Air Reserve Base, the U.S. Southern Command and Naval Air Station Key West. Defense activities account for over $4.5 billion in direct spending and 130,000 jobs.

Miami itself has been a commercial and military flight center going back to the early 20th century. In the past five years, local aviation-sector jobs have grown from a total of $1.2 billion in payroll to $2 billion, accounting for one of every four local jobs.[5]

The industry's top trade group, the International Air Transport Association, chose Miami for its confab in 2017, the Wings of Change conference. It's held every two years.

The Miami-Dade Beacon Council is the county's economic development agency, whose 20-year initiative is to grow the aviation industry.

The number of aviation and aerospace companies in Miami-Dade has grown from 448 in 2011 to 483 in 2017, resulting in industry-sector job growth of 23 percent and an increase of average salaries from $60,491 to $82,811. In Broward County, industry jobs have grown nearly as much, by 20.8 percent over the past five years.[6]

Miami is the gateway to the Americas. It has an industrial cluster with airports, commercial and private aviation, parts/services, pilot training, and attorneys specializing in aviation law. It's the nation's busiest airport for international cargo, and third busiest for international passengers.

Aviation is also big in Broward, according to the Greater Fort Lauderdale Alliance. The hub is the Fort Lauderdale-Hollywood International Airport.

F135 engines for the F-35 fighter. *UTC photo*

Miami International Airport has 200 plus companies in maintenance, repair and overhaul. Hundreds of others are located elsewhere in the county and in Broward. Jobs involve a range of skills, including maintenance, repair, air traffic control, fuel services, catering, freight, security, customs and freight logistics, engineering, passenger services, clean manufacturing of electronics and complex parts.

Miami now has the nation's largest cluster of flight-training facilities and simulators, including a Boeing facility used to train pilots from all over the world, and Airbus's Americas flight training center. In early 2017, Franco-Italian turboprop-plane manufacturer ATR opened a Miami training center.[7]

Miami is a center for flight simulation training, attracting thousands of pilots from around the world. Boeing, Airbus both have major simulation training in Miami, as does the Pan Am International Flight Academy, spun out of Pan Am World Airways in 1992 and now owned by the parent company of Japan's All Nippon Airways.

In a Miramar warehouse, workers repair and maintain airplane parts. And at North Miami Beach, a company deploys drones to survey difficult-to-reach property.[8]

Pratt & Whitney has been in northern Palm Beach since 1958, and today has a 7,000-acre campus that manufactures and tests F-135 engines used in the F-35 Joint Strike Fighter. It has over 1,000 employees in Palm Beach. In 2013, it completed a 100,000-square-foot jet engine production facility to go with its existing 400,000-square-foot plant. It operates 24/7, including engine testing.

Pratt & Whitney's plant has PW100 engines, which are installed in planes such as the Airbus A320neo. The engines are suspended from an assembly line built into the ceiling while they are manufactured by hand.

Pratt & Whitney, part of United Technologies, leases space at its campus to Lockheed Martin subsidiary Sikorsky, for helicopter manufacturing and testing, and Aerojet Rocketdyne, for rocket propulsion.

- David Tortorano

[1] Aviation & Aerospace, Enterprise Florida.

[2] 2017 Aerospace manufacturing attractiveness rankings, August 2017, PwC.

[3] Aerospace & Defense, Florida's Great Northwest.

[4] A Mighty Military Presence, Dec. 28, 2017, Florida Trend.

[5] Powerful aviation industry soars in Miami-Dade, April 2, 2017, Miami Herald.

[6] ibid.

[7] ibid.

[8] Aviation and aerospace: South Florida's $41 billion economic engine - and growing, June 16, 2017, South Florida Business Journal.

Airbus-Bombardier

Mobile: From newcomer to trendsetter

Mobile is the newest center for jetliner assembly, but now it's on the threshold of becoming the only hub where jetliners from two companies are built...

Mobile, Ala.

If everything goes as planned and Mobile becomes the site where Bombardier CSeries jetliners are assembled, the Alabama city will have a unique claim: It will be the only place in the nation building jetliners for two companies.

The two planes, one built by Airbus the other by Bombardier, are in the popular single-aisle market segment, ensuring workers at the two assembly lines will have work for years to come.

This good fortune for Mobile started developing in 2015, when Airbus and Bombardier first began discussions, according to officials from the two companies.

"Finally, in 2017, all the stars aligned," said Alain Bellemare, president and CEO of Canada's Bombardier. The result was the stunning announcement in October 2017 between the two jet makers: Mobile would become the home of a second assembly line, this one for Bombardier.

The transaction, where Airbus gets a majority stake in the Bombardier CSeries jetliners, is not expected to be finalized until the second half of this year.

"When we conceived this partnership with Bombardier, there was no question in our mind that the final assembly of the CSeries aircraft would occur in Mobile," said Allan McArtor, chairman of Airbus Americas. "This is our industrial home; this is where we've come to grow."

It could be argued that the genesis of all this goes back even further. Airbus and Boeing have been battling for 15 years now over government subsidies. Both sides filed cases with the World Trade Organization; Boeing and the U.S. in 2004 and Airbus and the European Union nine months later. Each accuses the other of taking subsidies.

Bombardier CSeries passenger jet during visits to Mobile Aeroplex. *GCAC photo*

Boeing, which cites government funding for Airbus, has been on the winning end of its case. Airbus, which cites incentives provided to Boeing, has been winning its case. Both have appealed rulings against them, and rulings on those appeals won't be made until later this year and into next year.

If each side ultimately wins its case, the next steps will be negotiations or the imposition of tariffs.

But as those cases made their way in court, a new front opened up when Boeing set its sights on the Bombardier CSeries, an all-new jet designed from the ground up that required a huge investment to develop.

Boeing in its complaint said it was forced to discount its 737 to compete with Bombardier. It said Bombardier used government subsidies to dump the CSeries during the 2016 sale of 75 jets at "absurdly low" prices to Atlanta-based Delta Air Lines.

That was followed by the U.S. Commerce Department recommending slapping a nearly 300 percent duty on the sale of the 110- to 130-seat CSeries jets for five years.

But before the U.S. International Trade Commission ruled on the complaint, Airbus and Bombardier stunned the aviation world with the October 2017 announcement that Airbus would get a majority share of the C Series Aircraft Limited Partnership (CSALP), the entity that manufactures and sells the CSeries.

Under the arrangement, the planes would be built in Mobile and Quebec. Airbus will provide procurement, sales, marketing and customer support.

Building the jetliners in Alabama would make the planes no longer sub-

ject to import taxes, according to the partners. But Boeing disagreed.

Days before the ITC was expected to rule, Rep. Bradley Byrne, R-Ala., and Sen. Jerry Moran, R-Kan., wrote to the head of the commission to express support for Bombardier in the trade dispute with Boeing.

"This trade enforcement action would ultimately serve no other purpose than to take work away from U.S. suppliers and quash thousands of U.S. jobs, ultimately hurting the greater U.S. aerospace industry," wrote Byrne to ITC chair Rhonda K. Schmidtlein.

Bombardier called the case self-serving after Boeing revealed on Dec. 21 that it was discussing a "potential combination" with Brazil's Embraer, which builds the E190-E2, about the same size as the Bombardier CS100.

In late January 2018, a decision was announced by the ITC that surprised everyone. The ITC in a unanimous 4-0 ruling sided with Bombardier, noting Bombardier's prices did not harm Boeing. The ruling allows the Canadian company to sell its newest jets to U.S. airlines without heavy duties.

Speaking in Montreal, Airbus Chief Executive Tom Enders said the unexpected win was a victory for "sober business" and the plans for Alabama would "go ahead full throttle."

In February, Airbus and Bombardier invited the local media to take a look at a CSeries jetliner like the ones that will be built at the Mobile Aeroplex .

The CSeries will be assembled in a separate hangar to the north and parallel to the hangar where Airbus is building A320 series jetliners. The plan is to eventually build four CSeries jets per month in Mobile.

Like the Airbus operation, major sections will be shipped to Mobile from other locations, chiefly from Europe. The engines are built by Pratt & Whitney, and the podding work may be done by UTC in Foley, where A320 podding is done.

While a lot of details are still being worked out, Bombardier will use the Airbus delivery center, which will be expanded.

"When you take the global reach of Airbus, the sales and marketing capabilities, the product support, customer service and the supply chain leverage that Airbus has and combine it with the technologically sophisticated C-Series airplane, it is a formidable single-aisle portfolio," said McArtor.

"It will give us a leg-up, quite frankly in dealing with not just U.S. carriers but airlines around the world to be able to combine the capabilities on the lower end of the spectrum, the 100-150 seat of the CSeries and the larger single-aisle product of the A320 and A321. It gives us a significant competitive advantage," he said.

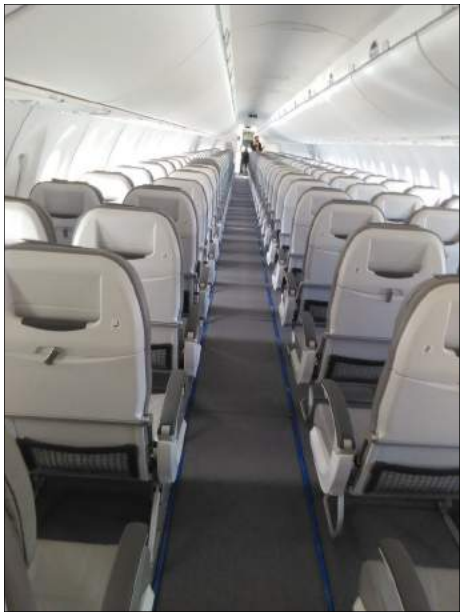
While Bombardier did win the case against Boeing, it still makes sense to the company to open up another assembly line. Building the CSeries in Mobile as well as Quebec will allow Bombardier to meet the expected demand. Alain Bellemare, president and CEO of Bombardier, said there will be a need for 6,000 of the CSeries jetliners over the next 20 years.

Bellemare also pointed out that more than 50 percent of the plane's content is U.S.-produced. Officials said they expect more suppliers might now commit to setting up an operation in Mobile or the surrounding region with the arrival of Bombardier.

In addition to the 400 additional jobs brought by Bombardier, Airbus will add as many as 200 jobs if it increases A320 production from four jets a month to six.

What's happening in Mobile can't help but grab the attention of nearby economic development officials. In Pensacola, Fla., which has not yet landed any Airbus supplier, Rick Byars, economic development chief for Gulf Power, said the increase in production offers opportunities.

"I think Northwest Florida will continue to be very important as Airbus looks to bring the CSeries Bombardier jet to Mobile for final assembly as well as when they build out the A320 line and increase the monthly production."



Interior from the back. *GCAC photo*

He said the expansions "creates a need for suppliers to be closer because the volume become much greater … I believe our location is ideal to support that investment."

Byars thinks the expansions increases the chances large components made overseas might be made here.

"What makes sense is a focus on large structures, large components that are currently not produced here. I'm talking about wings, I'm talking about fuselages. That would be ideal to source those here in Northwest Florida or the Southeast, close to the Airbus and Bombardier final assembly line."

Neither company sees the CSeries as competition for the current lineup of Airbus single-aisle passenger jets. As officials put it, they are in different segments of the market and airlines will buy planes in a size to fit a particular route.

- David Tortorano

Analysis

Relativity and SSC; education growth

David Tortorano

Sometimes, if you look closely enough you might see something that makes you go, hmmm.

That's what happened to me when I started putting together this review of important aerospace news that occurred since the last newsletter in February.

Let me explain.

It was back in late 2011 that I wrote about the E-4 Test Facility at Stennis Space Center, Miss., and NASA's bid to gauge industry interest in using the under-utilized facility.

Originally designed to conduct ground tests of propulsion systems in support of NASA's Rocket Based Combined Cycle program, it was only partially built.

It consists of concrete-walled test cells and associated hard stand, a high-bay work area with a bridge crane and adjacent work area, control room space and personnel offices. It was designed to provide low-pressure hydrocarbon fuel and oxidizer to test articles having a thrust in the horizontal plane.

I wrote about it again in March 2012, when Engineering and Test Directorate Associate Director John Stealey called it a "great opportunity for a commercial company to explore partnership possibilities with NASA."

In addition to the facilities at the site, NASA pointed out that it had road and barge canal access and utilities, and that onsite amenities and support capabilities could be accessed by the commercial company. What's more, NASA said that E-4 could be expanded to meet future requirements. OK, that's the operative word - expanded. I'll get back to that in a minute.

Around this time, there were plenty of stories about NASA facilities going unused. E-4 was just one of many within the agency.

Fast forward to today. Florida's Space Coast has had a high level of success bringing in commercial space companies to utilize NASA facilities, and to build more to boot. And the effort at SSC also is bearing fruit.

Los Angeles-based Relativity Space, a startup company developing small launch vehicles using additive manufacturing technologies, has signed a Commercial Space Launch agreement with SSC that authorizes the startup to use exclusively the E-4 Test Complex for 20 years.

Relativity has the option to expand the use of the facility from about 25 acres to 250 acres. The new agreement will help Relativity expand its test efforts, which include the qualification and acceptance tests of up to 36 of its Terran small launch vehicles.

Relativity is under a separate Reimbursable Space Act agreement with SSC for the use of the center's E-3 test stand, which has supported 85 tests of the firm's Aeon 1 engine.

Tim Ellis, CEO and co-founder of Relativity, said the startup will continue using E-3 while it builds up E-4, then use both facilities in parallel in the future. He said the company will develop a single manufacturing facility that would allow it to produce the Terran rocket, but the company hasn't said where that facility will be located.

Now I don't want to jump to conclusions, and you won't find me predicting anything here, but just imagine what Relativity could do if it expanded its 25-acre footprint 10-fold to 250 acres. Just musing.

Another California company, Stratolaunch, founded in 2011, also has a Reimbursable Space Act agreement with NASA and SSC.

The company is developing a giant aircraft as part of an air-launch system. It has done some taxi tests at the Mojave Air and Space Port in California, but hasn't yet had its first flight.

Funded by billionaire Paul Allen, Stratolaunch's giant plane – the world's largest by wingspan – was initially designed to carry modified versions of rockets from other companies. Now Stratolaunch is also considering developing its own launch system.

The company hired propulsion engineers and has the Space Act Agreement with NASA's Stennis Space Center, Miss., to use the E-1 test stand there for "testing of its propulsion system test article element 1."

Education

The new aviation experience center to be built in Mobile, Ala., near the Airbus assembly line will be named "Flight Works Alabama."

Airbus in March showed the first architectural rendering of the facility, and said the name reflects the different aspects of the center's mission.

Alabama Gov. Kay Ivey announced in May 2017 the intent to build the hands-on instructional facility, with the goal to bolster Alabama's workforce development efforts and inspire young people to pursue careers in aerospace.

It will be 19,000 square feet and house an interactive exhibition area, classrooms, a collaboration room and more. It will serve as a gateway for tours of the Airbus A320 plant.

Grand opening is expected in 2019.

Additional support provided by

Trent Lott International Airport, Moss Point, Miss.

Enterprise Florida Orlando, Fla.

Upcoming

Now that we've finished our series on aerospace in Alabama, Florida, Louisiana and Mississippi, here's what you can expect in some upcoming issues.

Because our Gulf Coast Aerospace Corridor reference book is biennial and the next one won't be published until 2019, our June newsletter will be an 8-page update of chapters from our 2017 book.

Then in October we take a close look at education and training in aviation and related fields in the Gulf Coast states. We expect it to be widely distributed within education circles in the region.

Thanks for being a reader, and feel free to thank our underwriters.

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That kind of center, which makes learning a fun experience, adds to the Gulf Coast region's portfolio of science centers designed to pique the interest of youth in science. It's a welcome addition.

That's not the only step on the education front. Middle school, high school and college students near Eglin Air Force Base, Fla., will get one-on-one training from leading professionals thanks to the expansion of a program out of Ohio.

Wright-Patterson Air Force Base's Educational Outreach Office has reached out with its Leadership, Experience, Growing, Apprenticeships Committed to Youth program, providing it to the area around Eglin, Robins Air Force Base, Ga., and the United States Air Force Academy in Colorado.

The three locations began taking applications in January with course work starting this summer. So far, the four sites have more than 600 student applications. The three sites were chosen for their strong STEM programs already in place.

Economic development

Yes, a lot has been written about Airbus, but there's another Mobile-based company that's expanding.

AeroStar said it would more than double its facility and workforce over the next several years at the Mobile Aeroplex. The company founded in 2011 to service commercial, commuter and military aircraft has maxed out its 6,000-square-foot facility. It's adding another 16,875-square-foot building next to the existing one.

The company has 22 employees and will add 28 new positions. The $2 million investment includes land, construction costs, machinery and equipment. The expansion will be completed before the end of 2018.

Officials in Panama City say the acquisition of GKN Aerospace in what's called a hostile takeover is not expected to affect the company's new manufacturing facility at VentureCrossings.

Melrose Industries secured an $11 billion takeover of the British engineering firm and defense contractor.

Becca Hardin, president of the Bay Economic Development Alliance, said the change won't impact the plant, which will start making parts this summer.

Hardin said GKN's building near Northwest Florida Beaches International Airport is open now and equipment is being moved in. She said the 170 employees are in the process of being hired.

Hardin said the undisclosed aviation products that will be manufactured there are part of a long-term federal government project.

Meanwhile, in Escambia and Santa Rosa counties, another project that's had its ups and downs is moving forward again.

It was back in 2013 that the two counties and Navy first raised the issue of the land swap. Escambia County wanted the Navy's Outlying Field 8 in Beulah to use for a commercial park, and said that in exchange it would prepare a site in Santa Rosa County closer to Naval Air Station Whiting Field.

The Escambia County Commission recently awarded an $8 million contract to Panhandle Grading and Paving Inc. to complete the second and final phase of construction on the new 600-acre helicopter training field.

The Navy uses the outlying fields spread throughout the region for aviator training.

Military

Seapower magazine reported that the Navy plans to replace the TH-57 training helicopter with a commercially available helicopter.

Rear Adm. Scott D. Conn, the Navy's director of air warfare, said it's a new approach to replace the 115 training helicopters. He told the Senate Armed Services seapower subcommittee March 6 that the Navy would hold a competition and pick a winner to purchase.

The TH-57, derived from the Bell 206, has trained helicopter pilots for the Navy, Marine Corps and Coast Guard since 1968. It's flown by three training squadrons at Naval Air Station Whiting Field, Milton, Fla.

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***Page 1 mast**: Blue Angels F/A-18 refueled during return to NAS Pensacola, Fla., March 19, 2018. Photo by Tech. Sgt. Samantha Mathison*