

# Gulf Coast Reporters' League

Louisiana

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Alabama

Florida



Vol. II, Issue II

A bi-monthly update of aerospace activities in the Gulf Coast I-10 region

October 2014



Illustration by Bullock Tice, courtesy Pensacola International Airport



Artist's rendering of the VT MAE complex at Pensacola International Airport looking from the northeast.

## One that didn't get away

- VT MAE considered other sites in addition to Pensacola airport
- New \$37 million project increases company's Gulf Coast footprint
- Payroll for 300 workers will top \$12 million a year

### Pensacola, Fla.

When an aerospace company that's had an operation in this region for 23 years decided it needed to expand, it could have looked anywhere. But it focused on this region, an affirmation of the value of doing business here.

VT Mobile Aerospace Engineering, previously called ST Aerospace Mobile, scoured South Mississippi, South Alabama and Northwest Florida to find a location for an additional facility to repair large aircraft. In the end, it decided on Pensacola.

The company will have two hangars. It's a significant increase for the company, which has ten hangars 60 miles away from Pensacola at the Mobile Aeroplex.

Scott Luth said Pensacola economic development officials knew VT MAE was looking and talking to others within a 100-mile radius from its base in Mobile. The Greater Pensacola Chamber senior vice president of economic development and others were determined to land the aircraft maintenance, repair and overhaul (MRO) company.

Luth sees VT MAE as the first of many aviation-related companies that will bring good-paying, high-skilled jobs to Northwest Florida over the next decade.

"The entire process they were looking at other airports and facilities," Luth said. "This is a great success. It definitely helps to go through a couple year selection process

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By Duwayne Escobedo

and successfully get the investment and get the commitment. We realize it's a long-term strategy and not going to happen over night."

VT MAE is a subsidiary of Singapore-based ST Engineering, which reported revenue of \$6.63 billion in 2013. It agreed in September to establish a facility at Pensacola International Airport Commerce Park after two years of negotiations with the city.

The agreement with VT MAE to provide MRO services for commercial airlines and air freight operators was celebrated Sept. 9 when Pensacola city council members unanimously approved the 30-year airport lease.

Sen. Don Gaetz, the Florida Senate President, said it was a "great day" and attended the event at City Hall in Pensacola. "This may be the biggest day for economic development cooperation in the history of the city of Pensacola," he said.

"Today's about taking action on our city's promise and potential," said Mayor Ashton Hayward. "This lease not only establishes a partnership with one of the largest MRO providers in the world, but also gives Pensacola a clear foothold into the aviation and aerospace industries."

VT MAE is expected to create at least 300 jobs when operations at the 18.68-acre site begin in mid-2016 at facilities capable of housing two wide-body aircraft at once. The design and layout of those facilities is expected to wrap up at the beginning of 2015 with construction to begin soon after.

Federal, state and local sources of funding combined to help with the \$37.3 million price of the project. The incentives include \$18.6 million from the state, including \$11.6 million from the Florida Department of Transportation and another \$7 million from British Petroleum's Deepwater Horizon oil spill funds. In addition, Pensacola chipped in \$8 million and another \$3.2 million came from an Escambia County sales tax fund. In exchange, VT MAE pays \$243,000 a year in lease

fees. Its annual payroll is expected to average \$41,000 per employee and top more than \$12 million total, 50 percent more than the city's incentives share.

Plus, the aviation company is projected to pump \$61.9 million into the local economy a year, according to the Haas Business Center at the University of West Florida.

VT Systems chairman and CEO John G. Coburn, a retired U.S. Army General, cited Pensacola's location, infrastructure and leadership as the main reasons that attracted the company, which has 1,300 workers in a Mobile operation that began in 1991.

"We have played a pioneering role in the development and growth of the aviation industry in the Gulf Coast region in the last two decades and have been looking for a suitable location to expand our presence and service offerings in this region," Coburn said. "We look forward to creating greater value for our customers, and hope to bring many value-added jobs to the people of Pensacola and Escambia County."

Now the work begins to establish the aviation infrastructure and technical workforce VT MAE and other aerospace companies will need, said Brice Harris, West Florida Office of Economic Development and Engagement associate director.

The VT MAE project at the airport establishes the necessary pieces, such as taxi ways, to open up about 100 acres for further development for other interested companies.

"This shows the seriousness of our leadership and support systems to bring such industry here," Harris said. "Once critical infrastructure is in place, it becomes immensely more feasible to expand it."

State, local and economic development officials also promised additional dollars to meet the demands for a skilled aerospace and aviation-related workforce. Plans include creating an Aircraft Maintenance Training Program at George Stone Technical Center and money for other new engineer-

ing and aircraft courses, certifications and degrees, such as the airframe and powerplant. Long-range plans by Pensacola State College call for a \$26 million STEM Center located at the main campus in Pensacola, with labs located across the street at the city's airport.

Luth said the "most exciting part" of the VT MAE development is ramping up training for future employees. Pensacola officials gave VT MAE executives a tour of NAS Pensacola, the "Cradle of Aviation," to show the area already has a population that is knowledgeable about aerospace.

"We have a lot of workforce development and testing to do to find out what the needs are and what the gaps are, so we can continue to bring these high-skill jobs to our area," Luth said. "All the colleges, school districts and training centers have stepped up to make sure we have folks that will have the training necessary for jobs that are going to be created."

Harris agreed with Luth that the VT MAE commitment "begins to really establish the workforce pipeline that's necessary for this project and future projects."

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**VT MAE**

A company of VT Systems

**Corporate family:** VT MAE is part of VT Systems of Alexandria, Va., part of ST Engineering of Singapore.

**Local operation:** VT MAE

**Location:** Pensacola International Airport, 2430 Airport Blvd., Pensacola, Fla. 32504

**Established:** 2014

**No. of local workers:** plans for 300

**Focus areas:** aircraft maintenance and modification for commercial operators.

**Employment:** 251-438-8888 (Eventually, a phone number will be set up for Pensacola inquiries by CareerSource EscaRosa.)

**Training:** George Stone Technical Center at 850-941-6200. Or contact the Aircraft Maintenance Training Program in Mobile, Ala., at 251-370-2833 or 251-438-8648.

**Note:** VT Systems also owns in this region shipbuilder VT Halter Marine of Pascagoula, Miss.

## Military

# Value of Gulf Coast bases climbing

- Bases and sites with aviation mission top \$18 billion value
- Eglin's value up more than 20 percent in one year
- Gulf Coast has seven bases each worth at least \$1 billion

Aviation-focused military bases and sites in the Gulf Coast aerospace corridor between New Orleans and Northwest Florida saw their replacement value increase significantly this year over last, soaring to a combined \$18.4 billion.

That's up 9.8 percent over 2013, according to newly available Pentagon figures. The region's seven "billion-dollar" bases increased their replacement value from \$13.61 billion in the 2013 to \$15.1 billion in the 2014 Base Structure Report.

One base alone, Eglin Air Force Base, Fla., near Fort Walton Beach, would cost \$805 million more to replace in 2014 than in 2013. That's an increase of more than 20.5 percent to \$4.7 billion. At some 449,000 acres, Eglin is home to aerial weapons development and is the site where F-35 pilot and maintainers are trained.

To the west, Naval Air Station Pensacola, Fla., a major technical training center and home to the Navy's Blue Angels, has a plant replacement value of \$2.5 billion, while Panama City's Tyndall Air Force Base, Fla., where F-22 pilots are trained, and Hurlburt Field near Fort Walton Beach, home of the Air Force Special Operations Command, would cost \$1.55 billion and \$1.48 billion, respectively, to replace.

All the bases and sites in Northwest Florida, aviation and non-aviation, went up in PRV from the previous year's Pentagon report.

*By David Tortorano*



**Eglin AFB: \$4.73B**



**NAS Pensacola: \$2.51B**



**Fort Rucker: \$1.87B**



**Keesler AFB: \$1.83B**



**Tyndall AFB: \$1.56B**



**Hurlburt Field: \$1.48B**



**Camp Shelby: \$1.1B**

Seven bases in the region, all with aviation activities, each has a replacement value in excess of \$1 billion. One base alone, Eglin Air Force Base, Fla., went up in value by 20.5 percent, \$805 million, between 2013 and 2014. PRV is what it would cost to replace all buildings, structures and linear structures at a facility, using today's labor and materials costs. Area cost factors play a huge role in the equation. While all the bases in Northwest Florida cost more to replace than a year ago, bases and sites in Mississippi and Louisiana cost less to replace today than in 2013.

"The economic impact that is generated from our local military installations in Northwest Florida, and this increase in the replacement value of their infrastructures, illustrates the tremendous value that exists in Northwest Florida for our military operations," said Larry Sassano, executive director of Florida's Great Northwest.

"We've always measured the total impact that the military has on the

Florida economy, and that impact is measured in terms of direct and indirect value that bases and military personnel provide the economy," he said.

For Florida as a whole, the military follows tourism, agriculture and international trade. But the military in Northwest Florida provides the biggest boost to the economy.

*(Continued on page 4)*

In South Alabama, the PRV of the Army's aviation center at Fort Rucker went up \$311.6 million to \$1.87 billion, a nearly 20 percent increase. Most of South Alabama's military sites are outlying fields, stagefields and basefields

used for aviation training by the surrounding bases.

In South Mississippi's Biloxi, Keesler Air Force Base is home of a reserve flying wing that includes the famous Hurricane Hunters, and it's also the

center of Air Force cyber training. It would cost \$1.83 billion to replace. To the north near Hattiesburg, it would cost \$1.1 billion to replace the Camp Shelby training complex, along with another \$17.3 million to replace the camp's assault runway.

And those are just the bases with a replacement value better than \$1 billion. There are other major bases, aviation and non-aviation alike, with significant replacement values each under \$1 billion, including Florida's Naval Support Activity Panama City, Naval Air Station Whiting Field in Milton, and Corry Station, the center for information dominance training. In addition, there's Mississippi's Naval Construction Battalion Gulfport, home of the East Coast Seabees, and Louisiana's NAS Joint Reserve Base New Orleans.

The military in the region use commercial and private airports for some training, and operate 20 military outlying airfields in Florida and Alabama. Most are in Alabama.

Baldwin County between Pensacola and Mobile, has four outlying fields: Barin Field, Foley, NOLF Wolf and NOLF Summerdale, both in Summerdale, and NOLF Silverhill, Daphne.

In and around the Fort Rucker area, Dale, Coffee, Houston, Conecuh and Escambia County (Ala.) have 10 outlying fields: 10C Stagefield and Shell Basefield, Fort Rucker; Cairns Basefield, Daleville; Goldberg Stagefield and Hunt Stagefield, Ozark; Skelly Stagefield, Kinston; Stinson Stagefield, New Brockton; Toth Stagefield, Dothan; NOLF Evergreen; and NOLF Brewton.

In Florida, Santa Rosa County, home of NAS Whiting Field, has four: NOLF Spencer, Pace, NOLF Santa Rosa, Milton, and NOLF Holley and NOLF Choctaw, Navarre. Escambia County has two: OLF Bronson and Saufley Field, both Pensacola.

### Military aviation sites replacement value change

Site	PRV 2013	PRV 2014	change	percent
Eglin Air Force Base, Fla.	\$3,921.0M	\$4,726.7M	\$805.7M	20.54
NAS Pensacola, Fla.	\$2,129.3M	\$2,514.8M	\$385.5M	18.10
Fort Rucker, Ala.	\$1,560.3M	\$1,871.9M	\$311.6M	19.97
Keesler Air Force Base, Miss.	\$2,067.3M	\$1,831.4M	-\$235.9M	-11.41
Tyndall Air Force Base, Fla.	\$1,459.6M	\$1,556.3M	\$96.7M	6.62
Hurlburt Field, Fla.	\$1,300.6M	\$1,484.3M	\$183.7M	14.12
MTA Camp Shelby, Miss.	\$1,180.5M	\$1,122.5M	-\$58.0M	-4.90
NAS JRB New Orleans, La.	\$799.6M	\$769.9M	-\$29.7M	-3.70
NAS Whiting Field Milton, Fla.	\$618.3M	\$698.0M	\$79.7M	12.89
Duke Field (Eglin Auxiliary Field 3), Fla.	\$357.7M	\$398.0M	\$40.3M	11.26
Saufley Field, Fla.	\$255.4M	\$306.6M	\$51.2M	20.04
Cairns Basefield, Ala.	\$216.9M	\$201.7M	-\$15.2M	-7.0
Camp Rudder (Eglin Auxiliary Field 6), Fla.	\$113.3M	\$127.6M	\$14.3M	12.62
Gulfport-Biloxi Regional Airport, Miss.	\$147.4M	\$116.5M	-\$30.9M	-20.96
NAS JRB New Orleans, La.	\$129.3M	\$109.2M	-\$20.1M	-15.84
NOLF Choctaw Fla.	\$82.2M	\$91.7M	\$9.5M	11.55
NOLF Holley, Fla.	\$29.9M	\$74.4M	\$44.5M	148.82
Shell Basefield, Ala.	\$47.1M	\$45.8M	-\$1.3M	-2.76
Barin Field, Ala.	\$40.5M	\$40.4M	-\$0.1M	-0.24
NOLF Brewton, Ala.	\$37.2M	\$37.1M	-\$0.1M	-0.26
NOLF Santa Rosa, Fla.	\$34.5M	\$36.3M	\$1.8M	5.21
NOLF Evergreen, Ala.	\$25.0M	\$31.2M	\$6.2M	24.79
NOLF Summerdale, Ala.	\$30.7M	\$30.7M	\$0.0	0
NOLF Silverhill, Ala.	\$30.1M	\$29.4M	-\$0.7M	-2.32
NOLF Wolf, Ala.	\$29.3M	\$28.4M	-\$0.9M	-3.07
OLF Bronson, Fla.	\$18.9M	\$22.5M	\$3.6M	19.04
NOLF Spencer, Fla.	\$19.2M	\$22.0M	\$2.8M	14.58
Toth Stagefield, Ala.	\$15.2M	\$16.4M	\$1.2M	7.89
Skelly Stagefield, Ala.	\$13.4M	\$14.7M	\$1.3M	9.7
10C Stagefield, Ala.	\$14.0M	\$14.1M	\$0.1M	0.71
Stinson Stagefield, Ala.	\$14.0M	\$14.1M	\$0.1M	0.71
Hunt Stagefield, Ala.	\$12.2M	\$13.8M	\$1.6M	13.11
Goldberg Stagefield, Ala.	\$12.2M	\$13.1M	\$0.9M	7.37
Cape San Blas, Fla.	\$12.4M	\$13.1M	\$0.7M	5.63
<b>Totals</b>	<b>\$16,774.5M</b>	<b>\$18,424.6M</b>	<b>\$1,650.1M</b>	<b>9.83</b>

Source: DoD Base Structure Report Fiscal Year 2014 Baseline (as of Sept. 30, 2013).

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## Research and development

# Growing base tech outside the fence

- *Institute is one of four funded by Air Force Research Lab*
- *Outside the fence facilitates cooperation with civilians*
- *Work expected to benefit military and the public*

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**Fort Walton Beach, Fla.**


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Col. Jimmy Doolittle flew into history at America's darkest hour when he led a bombing raid on the Japanese homeland in April 1942, four months after the surprise attack on Pearl Harbor.

But even before the raid that would boost U.S. morale and earn the future general the Medal of Honor, Doolittle was already accomplished. He'd earned a doctorate in aeronautics at the Massachusetts Institute of Technology and set multiple flying records. One of his biggest achievements was developing instrument flying that's used to this day. He was the first to test the now ubiquitous artificial horizon in an instrument panel.

"He was maybe the only person who could have made that raid happen," said Steve Butler, director of the newly established Doolittle Institute in Fort Walton Beach. Doolittle hallmarks of speed, innovation and solutions have provided the institute with words to live by as it works to lift the entire region by fusing military prowess, technological breakthroughs, business acumen and education.

Conceived two years ago, the Doolittle Institute officially opened the doors to its 6,000 square foot Fort Walton Beach facility on Sept. 8. The hand full of institute employees work under a roughly \$1 million contract with the Air Force Research Laboratory's Munitions Directorate at nearby Eglin Air Force Base. It is one of a select group

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*By Tom McLaughlin*

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of institutes nationwide. It's the fourth military/business/educational collaborative organization funded by the Air Force. The first, the Wright Brothers Institute near Dayton, Ohio, funded by the AFRL at Wright-Patterson Air Force Base, was founded in 2002 following a study analyzing the scientific and technology workforce needs of the U.S. entering the 21<sup>st</sup> Century.

In Rome, N.Y., the Griffiss Institute was created through a partnership with the AFRL's Information Directorate at Griffiss Air Force Base before that central New York base closed. Today, the Griffiss Institute continues as an AFRL partner with a focus on cyber technology.

Out west near Albuquerque, N.M., the Phillips Technology Institute is partnered with the AFRL's Directed Energy and Space Vehicles Directorate at Kirtland Air Force Base. It has the same four goals as the Doolittle Institute, Butler said.

"First and foremost," among those goals, Butler said, the Doolittle Institute seeks to assist in transferring Air Force technology into the community. Its location in the middle of Fort Walton Beach provides a space for scientists and engineers from Eglin to interact with a diverse business population

that exists outside the base gates. It serves as a link between the military science and technology community and their civilian counterparts.

Military scientists have tended through the years to cling to the technology they develop, but once many of those technologies found their way into the private sector, their uses expanded into areas never imagined, and the cost of the technology went down. The GPS represents perhaps the best modern example of this, said Taylor.

What makes all this collaboration work possible, and what helps push it into the private sector, is the Bayh-Dole Act. Passed in 1980, it allowed academia and companies to benefit from collaborative work funded by the federal government. Before the act, the federal government retained patents, a system that provided little incentive to businesses or scholars.

Bayh-Dole led to a huge increase in the number of university technology transfer offices, and more products eventually got out to the public. The Doolittle Institute will be able to serve as a conduit for the intellectual property that results from collaboration.

"We see this as a way to help technologies from the base find their way

*(Continued on page 6)*

to other applications,” and that can bring prices down. “This way technology goes main stream. The military, the business community and the region itself all benefit,” Butler said.

The second goal of the Doolittle Institute goes hand and hand with the first, providing a neutral “outside the fence” location for communion between the military and civilian worlds.

“It’s so hard for businesses not on the base to come onto the base to meet,” Butler said. “We provide a facility that is connected to the base but not on the base.”

High end small businesses, universities and educational organizations, aerospace companies, all are welcome to access Doolittle Institute resources, Butler said. Those resources include bountiful classroom space, state of the art technology, whole walls of white-

### Early collaboration

The Air Force has a long track record of working with civilian science and technology experts.

One organizations that owes its birth to that collaboration is RAND Corp., a contraction of “research and development” and one of the world’s original think tanks.

World War II underscored the important role of science and technology in modern warfare, and shows that much of the needed expertise was outside the military.

RAND in its early years was most notable for what’s commonly called out of the box thinking. Originally part of Douglas Aircraft, it was spun off and over time assembled a unique team of researchers committed to interdisciplinary cooperation.

Collaboration with entities “outside the fence,” along with legislation that allowed academia and companies to benefit from that research, helped keep the United States a world leader in military and civilian technology.

- David Tortorano

board to jot down ideas and nooks and crannies actually designed to encourage personal interactions within the framework of scheduled meetings.

The third goal of the Doolittle Institute is professional development. “We want to help people be better at what they do,” Butler said.

They do this by offering technical classes in things like finance, leadership, marketing and career guidance. Butler calls it “the people part of helping a business grow.”

Recently a class in personality type testing was offered at the institute with the theory being that an understanding of personality can help business leaders mold a better workplace, while knowing one’s own personality type can also prove beneficial.

“We provide both the technical and the very personal, the touchy feely, what we call soft skills,” Butler said.

The fourth goal of the Doolittle Institute is to encourage education in science, technology, engineering, mathematics and, in the case of Okaloosa County, medicine (STEMM).

The Doolittle Institute is directly involved with the Okaloosa County School District’s STEMM Center in Valparaiso. “We help with the core curriculum,” Butler said. “We want these students to learn through hands on experience.”

By introducing students in the sixth, seventh and eighth grades to the fascinating world a science and technology education opens up to them, the Air Force and Doolittle Institute want to “help create employees in the future, not just for the Air Force, but in the community,” Butler said.

“The Air Force has put its money where its mouth is to say STEM is important to us,” Butler said. “If these students leave from here and go off and study STEM subjects in high school and college, then eventually come back and help either in the military or in business, this area will be better for what they do.”



*Doolittle, left, and Capt. Marc Mitscher, commander of the USS Hornet, pose with aircrew members on the flight deck before the April 18, 1942 raid on Japan..*

The Doolittle Institute was originally located at the University of Florida’s Research and Engineering Education Facility adjacent to Eglin’s main gate just north of Shalimar, and for a couple of years plans called for a permanent home to be created there.

But Butler said it became clear that to do so would have placed a great space burden on the center’s limited facilities. An important REEF Center tenant, the University of West Florida, would have ultimately been displaced.

But office space was found at Uptown Station in Fort Walton Beach, more centrally located to area businesses. Parking is plentiful, restaurants abundant and hotels and other amenities an easy drive. The REEF Center, while close to Eglin, is otherwise in a fairly isolated location, and could not offer the access of Uptown Station, Butler said.

“Instead of being in the woods this place was more centrally located,” he said.

Butler emphasized the Doolittle Institute remains closely tied to the REEF Center, and there is no desire to cut any of those crucial ties. In addition, future plans still call for the creation of a technology park on the local UF campus.

“The REEF is still the center of our universe,” Butler said.

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## Company profile

# Optech adds to string of innovations

- *Optech developed lidar for mission to Mars*
- *Kiln developed and produce award-winning CZMIL*
- *Local operation has grown since start in 2001*

## Kiln, Miss.

Remote sensing powerhouse Optech celebrated its 40th anniversary in May, and in recognition of the milestone, company founder Dr. Allan Carswell declared it was entering “a new era of continued innovation and development with ever more exciting active and passive sensor solutions to meet real-world project requirements.”

He had reason to be so optimistic about the company, a leader in lidar (laser radar) systems. Optech, with operations in Canada, New York, and the Kiln community in South Mississippi just outside NASA’s Stennis Space Center, has had a remarkable string of successes. It includes putting the first lidar on the surface of Mars as part of NASA’s Mars Phoenix Lander mission.

Carswell, now chairman of the board, is recognized as a visionary for seeing the potential of lasers in remote sensing at a time when lasers were only just coming into their own. Since he founded Optech in 1974, the company has established a tradition of developing cutting-edge technology for its international clients. And the South Mississippi office is a key part of that innovation.

Optech products include stand-alone and fully integrated lidar and camera

*By Lisa Monti*



Image courtesy of Optech

Optech’s CZMIL lidar is an award-winning product developed, produced and serviced in South Mississippi.

systems for airborne mapping, airborne lidar bathymetry, mobile mapping, terrestrial laser scanning, mine cavity monitoring and industrial pro-

In this milestone anniversary year, a couple of Optech’s products have earned major awards. The CZMIL HydroFusion software won the 2014

*“We have world-class expertise that we’ve developed over 40 years. It’s not only based in Mississippi, it’s relevant to those who live here on the Gulf Coast, as well as to the wider world.”*

• Max Elbaz

cess control, as well as space-proven sensors. They serve important roles in engineering, transportation, utilities, defense, surveying, and environmental monitoring for large and small clients worldwide.

Geospatial Products and Services Excellence Award for Technology Innovation presented by MAPPs, the national association of private U.S. firms in the remote sensing, spatial data and geographic information systems fields.

In addition, the Optech CZMIL (Coastal Zone Mapping and Imaging Lidar) was awarded a Geospatial World Technology Innovation Award at the Geospatial World Forum in Geneva, Switzerland. CZMIL won for combining its tightly integrated lidar, RGB and hyperspectral sensors with a cut-

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*David Tortorano*

*Editor*

*October 11, 2014*

[dtortorano@tortorano.com](mailto:dtortorano@tortorano.com)

ting-edge data fusion workflow that achieves unprecedented results in turbid waters and muddy seafloors, while also penetrating 80 meters deep in clear water.

Max Elbaz, president of Optech, Inc., accepted the award on behalf of the Optech staff in the South Mississippi office who developed, produce and service CZMIL.

That office opened in 2001 at Stennis International Airport to serve government agencies, including the U.S. Army Corps of Engineers and the U.S. Navy at nearby Stennis Space Center. Optech has long collaborated with the Joint Airborne Lidar Bathymetry Technical Center of Expertise, whose mission is to develop airborne lidar bathymetry to support the coastal mapping and charting needs of the U.S. Army Corps of Engineers, the U.S. Naval Meteorology and Oceanography Command, and the National Oceanic and Atmospheric Administration.

“We delivered the first CZMIL system in 2012 to the Army Corps and the Navy, and since then we’ve produced and sold them internationally to the Japanese coast guard and the U.S. government,” said Elbaz.

CZMIL performs multiple tasks including classifying the characteristics of the seafloor and the water column, which is helpful in developing nautical charts and locating marine hazards that could damage ships.

“We bring to the table the unique ability to do work in turbid waters,” Elbaz explained. Turbidity, which is due to pollution or algae, normally limits the ability of airborne lidar bathymetry to map the water bottom. “But we developed this software, unique in the world,” he said, “and it’s opened up those areas.”

In one pass over a target area, CZMIL collects three types of information: water-penetrating lidar data, and camera and hyperspectral imagery. This information is all processed and integrated via a single interface, HydroFusion.

Elbaz pointed out the importance of CZMIL. “About 40 to 60 percent of the population lives near the coast, and because



*Max Elbaz*

of climate change hurricanes and typhoons are becoming more common and severe. People will always be drawn to the sea, so it’s crucial to understand the nature of these areas.”

Optech has a “very talented and skilled staff” working in the U.S. and Canada, Elbaz said, but the South Mississippi location is unique because it is a center of excellence.

“There are about 20 employees in Kiln and most have doctorates or master’s degrees – all highly qualified people. Our office is very good for the Gulf region because these are high-paying jobs,” he said. The work, shared with subcontractors, consists of design, assembly, integration, test and calibration, and support as well as further development.

“It’s a unique center of excellence,” he said. “We have world-class expertise that we’ve developed over 40 years. It’s not only based in Mississippi, it’s relevant to those who live here on the Gulf Coast, as well as to the wider world.”

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**Corporate HQs:** Toronto, Canada

**Local operation:** Optech, Inc.

**Location:** 7225 Stennis Airport Road, Kiln, Miss. 39556

**Established:** 2001

**No. of local workers:** About 20

**Focus areas:** Develops, produces and services lidar products for government agencies

**Types of workers:** Mostly master’s and doctorate level plus subcontractors

**Employment information:** 228-252-1004 or fax 228-252-1007

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