

# MS GULF COAST *Communicator*



NEWS UPDATES FROM HARRISON COUNTY DEVELOPMENT COMMISSION



October 2009

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#### **About the Harrison County Development Commission:**

Created in 1958, the Harrison County Development Commission (HCDC) is the lead economic development agency for Harrison County, including the cities of Pass Christian, Long Beach, Gulfport, Biloxi and D'Iberville. HCDC, through its people and resources, is committed to promoting Harrison County as a positive place to live and do business, to developing quality jobs, to creating increased wealth for all stakeholders and to "Moving the Mississippi Gulf Coast Forward."

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## Harrison County Special Report

# *The Military*



*With thousands of military and civilian workers and an economic impact of \$1.6 billion, Harrison County's military complex is an education center churning out tens of thousands of students every year, a logistics center with millions of dollars worth of inventory and a training range where thousands hone their aerial combat prowess. And it's likely to grow...*

*Two C-130 J aircraft over the Mississippi Gulf Coast.  
U.S. Air Force Reserve photo by Lt. Col. Chad Gibson.*

## *Learning More About Our Military*

If you've lived on the Mississippi Gulf Coast any length of time, you are probably familiar with our area's military presence, particularly at Keesler Air Force Base in Biloxi and the Naval Construction Battalion Center in Gulfport.

But, how well do you know what actually goes on behind base gates? Do you know how many people they employ and the true extent of their impact on our local economy? Are you aware of their importance in relation to the rest of the state, the region and the country?

While we all respect our military and participate in various "salutes to our military," few of us could confidently answer yes to those questions. That's why we – the Harrison County Development Commission – have put together the following collection of articles on our local military.

As the lead economic development agency for the county, we recognize that, in addition to the massive contribution our local military makes to safety and the economy, it is also a huge asset in the attraction of new industry. Our military bases are important agents for local and regional economic development, providing diversification and longevity.

As residents of the area, having a better understanding of the local military bases will help us all gain a better appreciation for what they do.

Harrison County has four bases: Keesler Air Force Base in Biloxi, Naval Construction Battalion Center, Trent Lott National Guard Center and U.S. Coast Guard station, all in Gulfport.

There are some 17,000 base-related military and civilian personnel in Harrison County – and many thousands more who are dependents. And depending on the factors brought into the equation, in Harrison County the economic impact of the military ranges up to \$1.6 billion.

Even though our articles focus primarily on the military activities within Harrison County, we also take a look at the broader picture including Stennis Space Center, and other activities outside Harrison County. Incorporating these facilities and broadening the look to South Mississippi, the economic impact numbers go up: There are around 20,000 military and civilian personnel, along with thousands more who are dependents, with an economic impact that exceeds \$2 billion.

However, that doesn't begin to tell the economic story. Military activities can be magnets that attract companies to the region. Some of them want to sell services to the bases, like many of the companies currently located in our industrial park which provide vital components for Army, Air Force and Navy operations.



*Larry Barnett*

Others hope to leverage proximity to a knowledge center. Harrison County's "mission" in the military is, first and foremost, education. It churns out tens of thousands of military students every year, learning electronics, medicine and flying at Keesler and building at Naval Construction

Battalion Center in Gulfport. Thousands more rely on Gulfport's Combat Readiness Training Center to help them hone their skills in aerial combat.

Yet another added benefit of the military is the creation of a skilled workforce. Those who have been in the military and stay here can be found in a wide variety of fields, putting what they've learned to work. Some wind up becoming entrepreneurs and leveraging their military skills to start businesses, creating products, services and jobs.

Arguably, the best part of the military's presence is that Harrison County can proudly say it is playing a key role in the nation's defense and security, deploying troops worldwide and acting as a key operational and logistics center.

But, the tremendous positive impact it has on our economy is a great added bonus.

I hope you will delve into the following articles, learn more about this vital part of Harrison County and continue to salute our military.

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# Military Economic Impact Hard to Top

When it comes to a list of the most important pillars of the Harrison County economy, it's hard to top the military. The numbers tell the tale.

Personnel: more than 17,000;

Students: 50,400;

Economic impact: \$1.6 billion.

And those likely are underestimates.

Harrison County has been a military hotspot for years. It's home to an Air Force, Navy, National Guard and Coast Guard bases. Every branch of the military, as well as reserves, are represented thanks to joint initiatives. On top of that, Harrison County is affected by military activities in nearby Hancock and Jackson counties. When those numbers are included, the workforce alone increases to at least 20,000, and the impact rises to more than \$2 billion.

The military in Harrison County and the broader South Mississippi region is the proverbial 800-pound gorilla. Keesler Air Force Base alone calculates it's "extended population," which includes military and civilian employees, family members, retirees and their family members, at more than 93,000. That's larger than the combined populations of Hancock and Pearl River counties, and doesn't include the extended population of the other bases, either in Harrison County or South Mississippi.

But adding the numbers for all the military operations is tricky at best. Not every military activity compiles numbers the same way, and some – like economic impact – are simply not regularly gathered. Then there's the question of full-time versus part-time, civilian employees versus contract employees, and "direct" versus "indirect" impact, just to name a few hurdles.

But Keesler, the largest base in Harrison County, does provide numbers that are instructive and much can be surmised from the numbers. In the most recent economic impact statement from fiscal year 2008, the base said it had 10,848 military/student and civilian personnel with a payroll of \$351.5 million. By comparison, over the last four quarters South Mississippi's 11 casinos had between 10,341 and 11,398 employees and a payroll of \$386.5 million.

Add contracts and the total for Keesler goes to \$458.8 million, and include "secondary jobs created" and it climbs to \$589 million.

The indirect impact is much higher and includes jobs and services that exist in part because of the base. Keesler places the civilian jobs created off-base at 3,701 for a total of 14,549 jobs, direct and indirect. Add the 13,191 military retirees within a 50-mile radius and its \$210.5 million payroll and the impact of Keesler rises to \$1.2 billion.

<b>Harrison County military bases/activities</b>		
<i>Installation/activity</i>	<i>Personnel</i>	<i>Economic Impact</i>
Keesler Air Force Base	10,848 (2008)	\$1.2 billion
Naval Construction Battalion Center	6,000	\$350 million
Trent Lott National Guard Training Center	467	\$113 million*
U.S. Coast Guard Station Gulfport	74	n/a
<b>Other South Mississippi military bases/activities</b>		
<i>Installation/activity</i>	<i>Personnel</i>	<i>Economic Impact</i>
Camp Shelby	2,000	n/a
Stennis Space Center	2,022 (Navy)	\$195 million
Supervisor of Shipbuilding	426	n/a
U.S. Coast Guard Station Pascagoula	211	n/a
<i>*Air National Guard \$50M, Army National Guard \$63M</i>		

But all of that is just Keesler. There are three other bases in Harrison County, and four others in nearby counties. John C. Stennis Space Center's fiscal year 2008 statement shows the Navy, the largest tenant at Stennis, had a \$195 million impact in a 50-mile radius. The payroll for just the 790 workers at the Naval Oceanographic Office is \$84 million, according to officials.

In short, while nailing down the precise numbers is difficult, the numbers are clearly substantial. And based on information provided for this report, the chances seem pretty good that the figures will go up. Many of the facilities and operations anticipate growth.

While the numbers of workers, payroll, operating budgets and impact are all well and good, they show only a slice of what the military means to Harrison County. There's a significance in the military presence that goes well beyond the dollars.

The military is interwoven in the fabric of Harrison County society. Flag down a resident and the changes are almost 1 in 5 that he or she will be a veteran. That's close to twice the national average for counties. Many of those veterans are Harrison County natives, but others are transplants who served at one of the bases and opted to settle here. Many are movers and shakers in their local communities.

During the course of compiling this series, two things became clear during the interviews. The men and women in uniform who serve in Harrison County and the broader South Mississippi region are proud of what they do, and they feel welcome. As one high-ranking Navy officer put it, he likes being in a uniform when he's out in the local community.

That's an impact hard to measure.

## *An Air Force High-Tech Campus*

- *One of the largest Air Force technical training centers*
- *Air Force training center for electronics, including cyber*
- *Between 20,000 and 30,000 students trained annually*

In a competitive, global economy where so many places tout their high-tech capabilities, few can say they host a technology school that draws students from across the nation.

But Biloxi can.

Keesler Air Force Base's 81st Training Wing trains tens of thousands of students every year in basic and advanced courses in electronics, including the hot field of cyberspace. And in an age where the military increasingly relies on computers, networks, unmanned systems and other electronic systems, Keesler is a center for technologies of the future.

"It is both a university from the perspective that you have graduate level and undergraduate, and also a community college – teaching a trade and developing journeymen who will become craftsmen," said Brig. Gen. Ian Dickinson, commander of the 81st.

### **The Base**

Keesler is one of the largest technical training centers in the Air Force, but it's also home to one of the largest medical facilities in the Air Force, as well as the 403rd Wing of the Air Force Reserve, best-known for the Hurricane Hunters.

Keesler, established in 1941, is west of downtown Biloxi, bordered on the north by Back Bay and on the remaining sides by residential and commercial areas. Mississippi Sound is a half-mile south, and beyond that the Gulf of Mexico.

Part of the Texas-based Air Education and Training Command, Keesler is headquarters of the 2nd Air Force and the 81st Training Wing. In addition to training airmen, Keesler trains sailors, Marines and foreign students.

The number of people associated with the base, military and civilian personnel and dependents, is between 15,000 and 16,000. Some live on base, some off. Dickinson places the "workforce" at between 6,000 to 7,000.

Keesler has an annual operating budget of about \$480 million, but between 2006 and 2009 close to \$1 billion in additional money has come in for hurricane-related construction.



*Keesler is one of the largest technical training centers in the Air Force, educating thousands each year in a variety of electronics fields. Since 1942, 2.2 million students have been trained at the base. Keesler Air Force Base photo*

"I have never been on a base that had this much military construction going on all at the same time," said Dickinson.

The rebuilding included replacing facilities, building on higher ground, hardening facilities and speeding up some projects.

### **Base as Educator**

"The absolute No. 1 key mission for my wing is preparing airmen to take on their specialty within the United States Air Force," said Dickinson.

Keesler is one of the four primary bases where airmen are educated in a variety of fields. The other three are Lackland Air Force Base, Goodfellow Air Force Base and Sheppard Air Force Base, all in Texas.

"Usually, our specialties are only taught at one place," said Dickinson. And for Keesler, that specialty is the wide-ranging field of electronics. "For as long as we've been doing electronics in the Air Force we've been teaching about electronics at Keesler."

But other courses are taught as well, including financial management and hospital administration.

Since 1942, Keesler has graduated more than 2.2 million students. The training group, a Community College of the Air Force institute, is accredited by the Commission of the Southern Association of Colleges and Schools.

The 81st Training Group, the largest electronics training group in the world, annually provides training for 20,000

*(High-Tech Campus continued, page 5)*

## keesler air force base

and 30,000 officers, enlisted and civilian employees of the Department of Defense, contractors and allied nations. Last year the number was 27,000, a figure that does not include medical personnel trained by the co-located 81st Medical Group.

While a comparison to a civilian school is inexact, numbers from Mississippi Gulf Coast Community College put Keesler's education role in perspective. Some 37,000 people were served at MGCCC last year, including academic, technical, career, workforce, continuing education and other non-credit seminars and workshops. Of those, 1,525 students received associates degrees and/or diplomas in May 2009.

The students who come to Keesler directly from basic training stay from a couple of weeks to a year. These non-prior service students numbers about 1,800. The rest, about 900, are personnel who have been based elsewhere and come to Keesler for retraining in a second, third or fourth job or advanced training. Nearly all officers fall into that category.

"Between those two, that's where we get half that uniform population," Dickinson said.

### Future

In an age where the military is facing new adversaries and types of warfare, Keesler will play a crucial role in the future.

"I don't see us picking up training missions from other bases," said Dickinson, but he does expect a "broadening" of the Keesler mission that will coincide with the growth of the electronics industry.

An example of the broadening is the decision to establish the undergraduate cyberspace training program at Keesler. It will



Artist's illustration of Keesler's Bay Breeze Events Center, a \$26 million facility that combines several activities.

Illustration courtesy of Keesler Air Force Base

provide the leaders and technicians that will give the United States protection against attack, as well as an offensive capability.

The training includes information to design, secure, access, exploit, attack, and defend seven types of communications networks: telephones, internet protocol, satellites, land mobile radio, industrial central systems, integrated air defense, and tactical data link.

"We've been teaching about the cyber domain for the life of Keesler," said Dickinson.

Communications, computer technology, air traffic control, and electronics have been taught for years, and the repackaging and expansion of these courses will become the core of the new undergraduate cyberspace training courses.

Lt. Gen. Clark Griffith, the retired former commander of both Keesler and the 2nd Air Force, is excited about the training in the cyberspace domain. He knows the importance of Keesler's technical training to the Air Force – and to the South Mississippi economy.

"This new cyberspace schoolhouse brings yet another high-tech industrial capability to the Mississippi Gulf Coast. Future expansion of this vital national requirement will certainly happen," said Griffith.

### Keesler Air Force Base



**Overview:** Operated by the 81st Training Wing, Keesler is a training base for electronics, but has a medical complex and is used by the Reserve for airlift and weather reconnaissance missions.

**Major tenants:** 81st Training Wing; 81st Medical Group; 403rd Wing (Reserve)

**Size:** 1,500 acres (2.6 square miles)

**Military/students personnel:** 7,365 (2008)

**Civilian personnel:** 3,483 (2008)

**Students:** 20,000 to 30,000 annually

**Operating budget:** \$480 million

**Hurricane-related construction:** \$1 billion

**Standard economic impact:** \$589 million (2008)

**Web site:** [www.keesler.af.mil](http://www.keesler.af.mil)

### Flying Mission

Keesler has a 7,630 foot by 150 foot runway used by three type of aircraft: the C-21 Learjet, WC-130 and the C-130Js.

The 45th Airlift provides pilots with initial training on the C-21, used by high-ranking personnel. Keesler is the only base doing C-21 training. It includes courses for instructors and Air National Guard.

The 403rd Reserve Wing Flying Jennies use the C-130Js for airlift missions and the Hurricane Hunters fly the WC-130 for weather recon.

## *Medical Center an R&D Powerhouse*

- *Only genetics research center in Defense Department*
- *One of the largest medical centers in the Air Force*
- *One of three Air Force hospitals with clinical investigations*

It's well known that Keesler Air Force Base is home to one of the largest medical centers in the Air Force and provides care for thousands of Defense Department patients.

But how many know Keesler's medical center is home to the DoD's only medical genetics center? With \$2 million worth of special equipment, the Air Force Medical Genetics Center performs 1,100 cytogenetic studies and 18,000 molecular genetics tests every year, and is a center of excellence and reference for DoD.

Col. David Garrison, deputy commander of the 81st Medical Group that oversees the Keesler medical campus, is unabashedly proud of the distinction.

"Keesler has always been and will continue to be a hotbed for research and development," said Garrison. "We've always been one of the first ones to raise our hands to try new things here."

Indeed, the medical center at Keesler is one of only three Air Force medical facilities with a formal clinical investigations program in a dedicated research facility.

### **The Organization**

The 81st Medical Group at Keesler has 1,600 military and civilian personnel and uses 200 contractors who provide services ranging from maintenance to highly specialized surgeons to augment the staff.

The medical group campus within Keesler is 88 acres with 900,000 square feet of healthcare facilities spread out over nine buildings, including Keesler Medical Center. It has an annual operating budget of \$78 million, but over the last few years the medical group has poured an additional \$106 million to rebuild in the wake of Hurricane Katrina.

The medical group has three missions: healthcare, deployment and training. Its primary mission is to maintain medical readiness for worldwide contingencies by providing healthcare for 11,000 active duty and 47,000 local beneficiaries in a 50-mile catchment area.



*The most imposing structure of the 81st Medical Group is Keesler Medical Center, one of the largest in the Air Force. Keesler Air Force Base photo*

### **Healthcare Mission**

On a daily basis, the medical complex has 900 outpatient visits, 22 inpatient, three births, 400 radiology images procedures, 1,500 laboratory procedures, fills 6,000 prescriptions, has 90 emergency room visits, eight surgeries, and eight ambulatory procedures.

The medical center has seven newly-renovated surgery suites and opened a new Family Birthing Center unit in early 2007.

The Diagnostic Imaging Department has the only 3-Tesla MRI system in the Air Force, and the Keesler Warfighter Refractive Surgery Center is the Air Force's flagship for laser eye surgery in the Southeast.

The 81st Medical Group commander, Brig. Gen. (Dr.) Dan Wyman, also oversees the Gulf Coast Multi-Service Market, which includes five military medical treatment facilities and two Coast Guard medical facilities between Mobile, Ala., and New Orleans, coordinating care for more than 75,000 eligible beneficiaries.

The medical center also serves as the Federal Coordinating Center for the National Disaster Medical System, the medical arm of the Federal Emergency Management Agency. It manages and maintains memorandums of agreement with 25 civilian medical facilities throughout the Mississippi Gulf Coast.

Perhaps one of the least known activities of Keesler's medical group is the work in research, which includes clinical studies.

*(Medical Center continued, page 7)*

## 81st medical group

“Our one and only DoD genetics center is housed here at Keesler,” said Garrison, who notes the workload is fairly large. “They do roughly 20,000 cases a year. The focus there is DNA sequencing, chromosome analysis and gene testing. We do that for all of DoD here. We are the Lone Ranger for that one.”

### Deployment Mission

The 81st Medical Group is responsible for deploying an Expeditionary Medical Support hospital and support staff and is responsible for managing the second largest mobility mission in the Air Force.

At any given time, several hundred people associated with the medical group are rotating in and out of Keesler, going to battle zones or on medical deployment for training missions to places like Costa Rica, Honduras and El Salvador.

Garrison said virtually all military members from the 81st are subject to deployment, depending on the need.

### Training Mission

“Here at the medical center we have our own training mission. We have two physician graduate medical education programs,” said Garrison. “The programs are for internal medicine and general surgery and we are working hard to restore physician residencies in pediatrics and OB/Gyn.”

Before Katrina the center was graduating about 100 a year. The length of the training varies, with five years for surgery and four for pediatrics. The target is to get back to the pre-Katrina level.



Artist's illustration of Keesler Medical Center's inpatient tower, a \$26 million facility scheduled to be finished in 2011. The medical group has done \$106 million in hurricane-related repairs. Image courtesy of Keesler Air Force Base

## 81st Medical Group



**Overview:** Major tenant of Keesler Air Force Base, its missions are healthcare, deployment and training, and it's a key medical research facility

**Major assets:** Full-service hospital with surgery units, family birthing center, diagnostic imaging department, refractive surgery center, genetics center, clinical research lab.

**Size:** 88 acres, 900,000 square feet of space

**Military/civilian personnel:** 1,600

**Students:** 289

**Operating budget:** \$78 million

**Hurricane-related construction:** \$106 million

**Economic impact:** included in Keesler impact

**Web site:** [www.keesler.af.mil](http://www.keesler.af.mil)

“For the dentists, we have three residency programs: the one-year Advanced Education in General Dentistry and General Practice Residency programs, which provide advanced training above that which was attained in dental school, and a two-year Endodontic Residency, with the second predominantly clinical year of study spent at Keesler.”

There are also nine enlisted training programs for pharmacy technicians, radiology and lab workers, nuclear medicine technicians, medical service technicians and more. The classes run up to 39 weeks. The center graduated 288 phase II enlisted personnel last year, and the program is still growing.

The center also trains nurses new to the Air Force.

### Community

Garrison said he believes the medical team is highly integrated with the surrounding community.

He said that if you checked with the medical staff at hospitals and clinics along the coast, you would find many who may have done their residency at Keesler Medical Center. Others who are retired military and came back include nurses, surgeons and others with an Air Force medical background.

One of the reasons that the medical group is so much a part of the community is through the cooperative agreements Keesler has with many of the area's institutions, including William Carey, the VA Hospital, the University of Mississippi, Gulfport Memorial Hospital, Biloxi Regional and more. Garrison said Keesler has a particularly close relationship with the VA in Biloxi, and together they form a DoD center of excellence.

## *Citizen-airmen of 403rd Keep'em Flying*

- **815th Squadron holds seven records in airlift with C-130**
- **53rd the only DoD unit flying weather reconnaissance**
- **36 states represented by the citizen-airmen of the 403rd**

It's the largest flying organization at Keesler Air Force Base, and the only Air Force Reserve command wing in the state of Mississippi. And they keep busy, deploying when needed to perform airlift mission and providing critical weather reconnaissance whenever hurricanes threaten.

It's the 403rd Wing, home of the Flying Jennies and Hurricane Hunters. It's composed of citizen-airmen from 36 states.

The wing operates out of 14 facilities totaling 343,636 square feet. The newest is a maintenance complex of 123,000 square feet, and coming in fiscal year 2010 will be a \$10 million aerial port facility. It has 305 civilian workers and more than 1,300 reservists.

Three groups, 10 squadrons and flights are co-located with the 403rd wing, handling everything from operations to logistics and support to flying. It has an operating budget of \$60 million and total economic impact is \$95 million.

It has a fleet of 18 C-130J aircraft, a high-wing, medium-range aircraft used in weather reconnaissance missions and tactical airlift. It is the most technologically advanced C-130 in the world, with climb time cut in half and power increased by 29 percent.

The 403rd Wing was the first American unit to acquire the J-model and wrote the book on its operation. The 403rd Wing ranks third in the world in hours flown in the J-model behind Italy and Great Britain.

### **History**

The wing's history dates to World War II, when it was activated as a troop carrier group. Inactivated after the war, it was reactivated in the Air Force Reserve in 1949 and has been called to active duty twice: during the Korean War and in 1962 during the Cuban missile crisis. But it has flown under reserve status on a variety of missions, from humanitarian airlift to rescue operations and in support of the space shuttle program.

The wing has flown airlift support to the U.S. Southern Command and U.S. embassies within Central and South



*Aircraft of the 403rd Reserve Wing fly near the convention center in Biloxi.  
U.S. Air Force Reserve photo by Tech. Sgt. James Pritchett*

America, and participated in Operations Just Cause, Desert Shield, Desert Storm, Provide Promise, Provide Comfort, Uphold Democracy and Provide Relief.

The 403rd Wing's squadrons support tactical airlift missions, including personnel, equipment and supplies and aeromedical-refugee evacuation. The wing also is the only Defense Department unit that organizes, equips, trains and performs hurricane weather reconnaissance to support the Department of Commerce.

### **815th Airlift Squadron**

The 815th is nicknamed the "Flying Jennies" and is a tactical airlift unit that has been at Keesler since 1973. The 403rd Wing was the first American unit to combat-prove the C-130J while in Iraq in 2004. The unit deployed again in 2006, 2008 and 2009.

The 815th is authorized 46 officers and 109 enlisted personnel. Thirty-two of those officers and airmen are Air Reserve technicians. The unit also employs three civilians.

The 815th dates to World War II when it was activated as the 815th Bombardment Squadron, flying B-17s. It saw action in Italy, France and Germany. It became part of the Air Force Reserve in 1973 and performed weather reconnaissance, flying into hurricanes to collect atmospheric data. Upon activation of the 53rd Weather Reconnaissance Squadron, the 815th assumed an airlift mission.

*(Keep'em Flying continued, page 9)*

## keesler air force base

The wing's 815th was selected as the first Reserve unit in the Air Force to take delivery of the new "J" model C-130 and participated heavily in writing the book for "J" model operations.

In the near future, the 815th Flying Jennies and maintainers will be associated with an active-duty unit, resulting in more personnel and two more aircraft to the wing. The 815th holds seven world-records in airlift in the C-130 airframe.

### Hurricane Hunters

Although satellites are able to keep close watch on hurricanes, they are unable to determine the interior barometric pressure of a hurricane, and can't provide accurate wind speed information. That's where hurricane hunters come in.

The 403rd Wing's 53rd Weather Reconnaissance Squadron is responsible for all weather reconnaissance missions flown with the Department of Defense. It has 10 Lockheed Martin WC-130J aircraft to perform the mission.

Called Hurricane Hunters, the squadron flies into hurricanes in the Atlantic and Caribbean to measure weather data in and around the storms. It's the only DoD organization doing the mission and the only operational hurricane reconnaissance unit in the world.

But the 53rd is not the only organization called hurricane hunters. The National Oceanic and Atmospheric Administration also has a team of hurricane hunters, based at the aircraft operations center at MacDill Air Force Base in Tampa, Fla. That organization, which focuses on research, uses WP-3D Orion and Gulfstream IV-SP aircraft for the mission.

### Future

It would be hard to picture a time when the airlift and weather reconnaissance missions of the 403rd would not be considered crucial.



*The Hurricane Hunters and their WC-130Js fly into the eye of a hurricane to retrieve data that satellites can not. U.S. Air Force Reserve photo by Tech. Sgt. James Pritchett*

With U.S. troops deployed worldwide, tactical airlift plays a key and growing role. Officials with the 403rd say the capabilities of the wing and its aircraft enable it to adapt to any challenge.

The Flying Jennies can perform aeromedical/refugee evacuation airlift and resupply forces in a combat zone and forward areas. The ability to land in short distances and reconfigure the plane depending on the mission gives 403rd a high degree of flexibility to meet asymmetrical or conventional threats.

In addition, every year hurricanes pose a threat, and the Hurricane Hunters play a key role in helping threatened areas prepare. The data collected by the Hurricane Hunters increases the accuracy of the National Hurricane Center forecast by 30 percent.

In almost any scenario imaginable, both the airlift and weather missions will continue to be important.

### 403rd Wing

**Overview:** Major tenant of Keesler Air Force Base, its mission is tactical airlift and weather reconnaissance.

**Major assets:** Three groups, 10 squadrons, 18 C-130 J aircraft

**Size:** 14 facilities totaling 343,636 square feet, including new maintenance complex of 123,000 square feet.

**Military/civilian personnel:** 1,300

**Operating budget:** \$60 million

**Economic impact:** \$95 million

**Web site:** [www.403wg.afrc.af.mil](http://www.403wg.afrc.af.mil)



### 403rd Units at Keesler

- 403rd Operations Group
- 403rd Maintenance Group
- 403rd Mission Support Group
- 403rd Aeromedical Staging Squadron
- 41st Aerial Port Squadron
- 403rd Civil Engineer Squadron
- 403rd Logistics Readiness Squadron
- 403rd Maintenance Squadron
- 403rd Mission Support Flight
- 403rd Security Forces Squadron
- 815th Airlift Squadron "Flying Jennies"
- 53rd Weather Reconnaissance Squadron "Hurricane Hunters"
- 403rd Communications Flight
- 403rd Operations Support Flight

Also provides administrative support to a unit at Little Rock AFB, Ark.

## ANG a Nerve Center for Combat Training

- *One of four National Guard Combat Readiness Centers*
- *Provides combat environment for thousands of warfighters*
- *Uses ranges at Camp Shelby and over the Gulf of Mexico*

It was a weekday at the Air National Guard Combat Readiness Training Center, and not an unusual one. Every few minutes the air was punctuated by the sound of jets coming and going. Some were airliners taking off or landing at Gulfport-Biloxi International Airport, but most were warplanes.

Welcome to the nerve center of an impressive array of combat training designed to keep American fighting at the top of their game.

The Air National Guard base on the eastern edge of Gulfport-Biloxi International Airport is the smallest base in Harrison County, whether measured by personnel or acreage. But the level of activity is impressive by any standard.

“Our sole purpose is to provide an integrated, year-round, realistic environment, facilities, airspace and ranges, to prepare the Air National Guard and other military units to go to war,” said Col. Lance Hester, commander of the CRTC.

In any given year, thousands of pilots come to Gulfport to engage in mock combat and hone their skills in case the real thing comes along. It’s an airborne schoolhouse equipped with a state-of-the-art, multimillion-dollar combat training system that keeps track of every move, good or bad.

On this particular day in August there were 50 sorties at the airport, 20 bombing runs and four C-17 assault landings at Camp Shelby, and 20 sorties over the open waters of the Gulf of Mexico range. On the ground there were 800 uniformed visitors on base. The most intimidating activity might have been the personnel manning machine gun placements.

And it’s all fairly routine. In a typical month, the Gulfport ANG center accounts for 25,000 training days.

As if that’s not enough activity, over the past four or five years the ANG has also served as a launching point for troop deployments. An average of 40,000 troops have flown out of the airport in some 700 military and charter flights.



*The Hurricane Hunters and their WC-130Js fly into the eye of a hurricane to retrieve data that satellites can not. U.S. Air Force Reserve photo by Tech. Sgt. James Pritchett*

### The Base

The Trent Lott Readiness Training Center takes up 220 acres on the eastern edge of Gulfport-Biloxi International Airport. In addition to the Combat Readiness Training Center, the complex is also home to the 255th Air Control Squadron, 209th Civil Engineering Squadron, the Army National Guard’s 1108th helicopter maintenance depot and a U.S. Drug Enforcement Agency drug interdiction unit.

Hester said the CRTC has 120 military personnel, 100 civilians and 55 contractors. It had an operating budget last year of \$14 million, of which payroll accounted for \$4.5 million for both military and civilians.

In addition, the CRTC accounts for some \$20 million in contracts, and the construction total for fiscal year 2008 was \$44 million. Another \$4.5 million is current “under design.”

Hester estimated the total economic impact of the base in fiscal year 2008 was about \$50 million.

The Air National Guard training site was established at the airport in 1954 and renamed the Combat Readiness Training Center in 1990. The CRTC, which has no warplanes permanently assigned to the base, is one of four operated by the Air National Guard to provide all branches of the military, active duty, Reserve and Guard, with a training environment with land and sea ranges. The other CRTCs are in Savannah, Ga., Alpena, Mich., and Volk Field, Wis.

When units are scheduled to deploy, they come to the CRTC to go through a practice run of what they’ll do overseas, including setting up everything that will be needed.

*(Nerve Center continued, page 11)*

## Far-flung Assets

The CRTC's assets are far flung.

It utilizes two runways at the busy Gulfport-Biloxi International Airport. One runway is the 9,000 foot east-west and the other the 6,000 foot north-south.

Another asset used by the CRTC is Camp Shelby, south of Hattiesburg. The largest state-owned training site in the nation, it is nearly 135,000 acres and features an air-to-ground range and low altitude airspace to provide realistic ground attack scenarios.

South of Gulfport are the vast ranges over the open waters of the Gulf of Mexico. The offshore airspace is fully instrumented for recording air-to-air engagements.

"We have fighters over the gulf every day," Hester said.

At the heart of the aerial training is a multimillion-dollar, state-of-the-art P5 Combat Training System, which provides training and debriefing capability and combines sophisticated electronic threat and scoring systems as well.

Combined, the Gulfport center, Camp Shelby and Gulf of Mexico provide the CRTC with supersonic airspace, gunnery ranges, facilities and equipment to enhance combat readiness of the nation's fighting forces.

The activity at the base has actually picked up over the past few years because of another activity. For around five years the ANG center has become a key embarkation and debarkation center for all branches of the military.

The base has averaged 40,000 per year who leave Gulfport for deployment to a variety of locations. Hester said the huge aircraft many residents see flying into and out of the airport on many occasions are these deployment flights. He said the deployments account for some 700 aircraft a year, mostly chartered.

## Lost in the Mix

Hester said he thinks the Guard activity at the base is sometimes overlooked when people think about the military. Part of the reason, he said, may be because the base is so much smaller than Keesler Air Force Base in Biloxi.



Troops from National Guard units come to the ANG center to do everything that will be done in a deployment.

Photo courtesy Air National Guard

## Combat Readiness Training Center



**Overview:** Part of the Trent Lott Readiness Training Center at Gulfport-Biloxi International Airport, it oversees combat training ranges and is a deployment location. Co-located with 255th Air Control Squadron, 209th Civil Engineering Squadron.

**Major assets:** P5 Combat Training System

**Size:** 220 acres

**Military/civilian/contractors:** 275

**Training:** averages 25,000 training days a month

**Operating budget:** \$14 million

**Economic impact:** \$50 million

**Web site:** [www.ngms.state.ms.us](http://www.ngms.state.ms.us)

"A lot of folks in Gulfport, Miss., have no idea this place exists," said Hester, who said that when he's out in the community wearing his uniform, many people assume he's from Keesler. When he tells them he's based at the airport and with the Air National Guard, some say they are unfamiliar with the mission.

"This area is a big secret. They know the Seabees, they know Keesler," he said. "We get lost in the mix."

But he said that's not necessarily a bad thing. Guard members are to a large extent people who have grown up in the area and are already highly integrated into their community.

He said the only time they are seen is when they get involved in community activities.

"I think the big difference between us and active duty is, most of the folks who work here grew up here. I think there's a little more sense of community," Hester said.

There's also an age difference between the Guard and active duty. The Guard includes a lot of personnel with prior service in active duty, and that means a higher median age.

"I think it's a little older group with a little more vested interest," said Hester. Besides, the Guard personnel know they're not going to be moving.

## Future

While the nation's military tries to determine the best way to deal with both conventional and unconventional threats in an age of tight budgets, Hester thinks that no matter how the military goes, the ANG activities in Gulfport have a secure future.

"I really think what we do here is going to be relevant, it doesn't matter what the conflict or potential threat," said Hester. He said military units "will still have to go somewhere, still have to deploy. Training is still going to be relevant. We're going to be in business."

## Aviation Depot Sets Sights on Growth

- *One of just four Army aviation classification depots in U.S.*
- *Performs work for nine states, Puerto Rico and U.S.V.I.*
- *Growth plans call for doubling size of the facility*

With 192 full-time and 205 part-time workers and a 140,000 square-foot facility, the Army National Guard's aviation depot is already a big operation in Gulfport. But plans are in the works to make it larger – doubling the size of the facility in anticipation of expected growth.

The Army National Guard's 1108th Aviation Classification Repair Activity Depot, on the east side of Gulfport-Biloxi International Airport, does maintenance, repairs and overhaul work on about 350 helicopters each year. Work performed includes airframe and component repair, as well as painting.

It's one of just four AVCRADs operated by the Army National Guard nationwide. The others are in California, Connecticut and Missouri, and each is responsible for work for states in its region.

“Our main mission is to provide intermediate level and limited depot level maintenance to Army National Guard aircraft throughout the nine Southeastern United States,” as well as the U.S. Virgin Islands and Puerto Rico, said Maj. Andrew Ratcliffe. “We also provide support for the 22 Army Aviation Support Facilities.”

The AVCRAD also performs work in special projects and deploys to Southwest Asia. In fact, one unique National Guard maintenance task force in Kuwait keeps Army helicopters flying in Iraq and Afghanistan. Task Force AVCRAD includes personnel from all the U.S. AVCRADs, as well as other individuals.

### Facilities

The AVCRAD takes up 35 acres at the Trent Lott National Guard Training Complex and is co-located with the Air National Guard's Combat Readiness Training Center. The AVCRAD includes a main hangar, paint hangar, supply warehouse, motor pool, blade/machine shop and engine shop.

The current \$6.5 million facility was built in 1988, but because of an expected increase in personnel, plans are under way to build a facility twice as large with updated features. The estimated cost is \$103 million.



*The four-blade, twin-engine AH-64 Apache attack helicopter is among the aircraft handled by the 1108th AVCRAD. U.S. Army photo*

Plans are to begin this project in 2012.

The 1108th AVCRAD has been in Gulfport since 1971, when it had just six employees. At that time it was called the Transportation Aircraft Repair Shop, but in 1979 was renamed the Mississippi AVCRAD.

Today the AVCRAD has 192 full-time personnel, 113 of them uniformed, 75 contractors and four state workers. And as a National Guard unit, there is also the influx of those who do not work there full time but kick the number of workers up dramatically. There are 205 uniformed men and women who work at the AVCRAD part-time, one weekend a month, bringing the workforce to 397.

*(Aviation Depot continued, page 13)*



*The 1108th does maintenance work on the four-blade, twin engine UH-60 Black Hawk transport helicopter. U.S. Army photo*

## gulfport-biloxi international airport

In calendar year 2008, \$60.3 million was spent in wages, allowances and other direct compensation, and the AVCRAD spent an additional \$2 million on the new construction of a supply warehouse and an aircraft blade/machine shop building.

The depot performs work on the OH-58C and OH-58D Kiowa Warrior, UH-60 Blackhawk, CH-47 Chinook and the AH-64 Apache.

A few years ago the AVCRAD took on a major special project when it upgraded and overhauled 22 OH-58 Kiowa helicopters that were used by the National Guard to support the U.S. Border Patrol in Operation Jump Start. In total, three dozen Kiowas were overhauled, but most of the refitting work on the Vietnam-era helicopters was done by the 1108th.

The aircraft were upgraded with a half-dozen 21st-century law enforcement devices, including better radios, moving maps, radar altimeters, night vision equipment, a two-million candlepower spotlight and higher skids to raise clearance. They were all rewired and fitted with new monitors.

In fact, the Kiowa scout helicopter introduced in 1968 keeps being reincarnated in the National Guard. The four AVCRADs have managed to get decades more service out of the relatively low-cost Kiowas than the aircrafts' originally projected 20-year lives. Before Operation Jump Start, the AVCRAD refitted 76 Kiowas for the Army Guard's Counterdrug Reconnaissance and Interdiction Detachments, the RAID program.

But the AVCRAD is saying goodbye to one helicopter model that has been a mainstay for the U.S. military. In September the UH-1 Iroquois was retired from the Army inventory. To mark the event, the 1108th AVCRAD scheduled a ceremony in early October 2009 to formally retire the Huey and pay tribute to the Mississippi pilots and crew who flew the helicopter for the Army National Guard.



*The 1108th AVCRAD is already one of the largest operations in Gulfport, but plans are in the works to double the size of the facility.  
Photo courtesy 1108th AVCRAD*



*The Boeing CH-47 Chinook is designed for troop transport, artillery emplacement and resupply. It's one of the aircraft handled at the 1108th AVCRAD. U.S. Army photo*

### Training

In addition to all the hands-on work with helicopters, the AVCRAD also provides year round, in-house training for National Guard soldiers from throughout the United States. In the most recent fiscal year, it hosted over 100 soldiers for two-week periods of training.

The AVCRAD also hosts an annual workshop at the IP Casino every March. This year there were about 250 in attendance, which generated \$68,000 for lodging and operational costs. Some attendees bring their families and make this vacation time which generates additional monies for the Gulf Coast.

### 1108th Aviation Classification Repair Activity Depot



**Overview:** Part of the Trent Lott Readiness Training Center at Gulfport-Biloxi International Airport, it provides helicopter maintenance and repair. It's co-located with the 231st, HSC/890th, Co. A/890th

**Size:** 35 acres

**Full-time workforce:** 192

**Part-time workforce:** 205

**Wages/other compensation:** \$60.3 million

**Aircraft:** OH-58, UH-60; CH-47, AH-64

**New construction:** \$2 million (2008)

**Web site:** [www.ngms.state.ms.us](http://www.ngms.state.ms.us)

## *Seabees: Building on a Long Tradition*

- *Millions in equipment ready for deployment stored at NCBC*
- *Home of Navy's Expeditionary Combat Skills course*
- *Personnel from NCBC deployed worldwide*

There's something about the line of work of Seabees that seems a good fit for Gulfport. Seabees are blue collar workers who use their hands, muscle and sweat, and have a "can do" attitude to build whatever needs to be built. And they'll fight, too.

The Seabees are the stuff of legend, thanks in part to the popular 1944 John Wayne movie, the "Fighting Seabees." Their motto, "We build, we fight" is about as succinct as you can get, but so is the unofficial "can do."

Seabees were created at the start of World War II when it was clear that having unarmed civilian construction workers in combat zones was impractical. So fighting became a mark of the Seabees, as much as building.

Today the Seabees call two places home: Port Hueneme in California, the West Coast Seabees, and the East Coast Seabees in Gulfport, also known as the Atlantic Fleet Seabees. Each center can support theaters of operation worldwide.

While the Seabee reputation is built around tough, hands-on kind of sailors, in today's modern world they are equally adept at using the most modern technologies available to move personnel and machines wherever needed. They're masters of logistics.

"The Seabees have been doing this since 1942. We know how to do the logistics. Some of the others are trying to solve today some of the things we've already solved," said Mark Ashley, operations officer.

There's reason to think the Seabee mission may increase over time.

"The nature of war has changed. It's not all ships, subs and airplanes," said Ashley. A lot of the work today involves community- and nation-building, especially in a contingency environment. "We think that's going to continue."

### **The Base**

The three missions for Naval Construction Battalion Center Gulfport are training, mobilization, and logistics to support expeditionary forces.

The Gulfport center is 1,168 acres, west of U.S. 49. It has more than 40 tenants in over 600 facilities and is home to Naval Mobile Construction Battalions 1, 7, 11, 74 and 133.

About 6,000 people work on the base, including 4,900



*Seabee equipment being loaded at the State Port at Gulfport. Photo courtesy of NCBC*

active duty, 900 civilians and 150 contractors, making it one of the largest employer in Gulfport. Another 1,000 family members live on the base.

NCBC has an annual financial scope – a term that includes operating budgets of the tenant commands and military payroll – of \$150 million. Officials estimate its economic impact in the community as \$350 million. And like other bases in South Mississippi, a lot of money has gone into construction in the wake of Hurricane Katrina - \$450 million in recapitalization for NCBC Gulfport, officials said.

### **Training**

About 20,000 students go through training at the base every year, though the numbers from month to month can vary widely. The training involves classroom and hands-on work in the entire range of construction fields, including heavy equipment maintenance.

"In training we're starting to do a lot of work with simulators," said Ashley, noting that simulators are common for pilots, but not so common for equipment operators and steelworkers.

One of the key training missions is something the Seabees have been doing for years: combat training.

"We've always had a Seabee 101 course. Every Seabee goes through that," Ashley said about the combat training.

But now they're doing the training for others. It's designed for sailors whose primary duty when they go into war zones is not combat, but who may find themselves face to face with an enemy.

After the Navy Expeditionary Combat Command was established in 2006, the Navy placed the Expeditionary Combat Skills course in Gulfport. Sailors learn how to fire individual and crew-served weapons, administer combat first

*(Long Tradition continued, page 15)*

## naval construction battalion center

aid and other skills, including land navigation and small unit tactics. Some 3,000 trainees a year come to Gulfport for the combat school, said Ashley.

### Mobilization

To get a sense of how big the mobilization role of Naval Construction Battalion Center Gulfport is, all you have to do is take a look at what's stored.

Each battalion has 100 containers worth of gear and equipment needed to operate independently, along with 300 pieces of construction equipment. The "ship" for Seabees is that stuff, and NCBC is the "shipyard" that stores, maintains, packages it and turns it out for use.

"All these warehouses are filled with trucks and Humvees and bulldozers and cranes and chairs and office supplies," said Ashley about the warehouses spread out over 500 acres, a portion of which a visitor sees when first entering the base.

The value of the warehouse assets is about \$400 million, and additional materials stored for the 20th Seabee Readiness Group and other tenants with a combined value of \$200 million.

The NCBC is a readiness center, and all that equipment and material is stored in Gulfport to support the warfighters. Some material is forward deployed.

"We basically have enough equipment and gear here to outfit five Naval Mobile Construction Battalion's if needed," said Rob Mims, public affairs officer for the center in Gulfport.

All this material requires a state-of-the-art, computerized, automated packaging system, and the Seabees have it.

"Within the military there's probably not another state-of-the-art packaging containerization facility like we have," said Ashley. "We have the largest, covered storage capacity in the Navy."

It's several million square feet.

### Logistics

Call it great planning or call it serendipity, but Gulfport Seabees are positioned at the center of an intermodal system that provides it with access to a seaport, international airport,



The Seabees use simulators for training, including one to train welders.  
Photo courtesy of Seabees

### Naval Construction Battalion Center



**Overview:** Located in downtown Gulfport, the center is home of the Atlantic Fleet Seabees. It deploys worldwide and is also a training center.

**Size:** 1,168 acres

**Workforce:** 6,000

**Active duty:** 4,900

**Civilian personnel:** 900

**Contractors:** 150

**Students:** 20,000 annual

**Financial scope:** \$150 million

**Economic impact:** \$350 million

interstate highways and rail system.

"This is the best place to be from a dollar standpoint. The cost of doing business is less," said Ashley.

The Mississippi State Port at Gulfport is a mile and a half to the south and Gulfport-Biloxi International Airport and the Air National Guard a short hop to the north. Interstates 10 and 59 are also nearby, and on base there's rail access.

"This base is great for the Navy dollars. We are fortunate to have outstanding partnerships with other logistics agencies on the coast which provides flexibility to meet a variety of missions and share the infrastructure cost," said Ashley. "It's twice the base at half the cost."

### Local Ties

The relationship between the Seabees and the local community runs deep. Ashley said that when Hurricane Camille hit in 1969, the Seabees were the first on the ground to help. And a month after Hurricane Katrina hit in 2005, there were 3,000 Seabees on the ground, a huge chunk of the 4,800 Seabees available worldwide.

"We have the can-do spirit. If you need something done, we can get it done," Ashley said, whether the work is in Gulfport or elsewhere.

Ashley sees a lot of positives about being in Gulfport. He said it has a strong business climate, great logistics and a tremendous workforce. "There's no place in the country like this," said Ashley.

Although locals are certainly aware of the Seabees, Mims feels the bigger story about their work needs to be told.

"My point of view is, yes, we go and do the combat missions. However, other building projects – water projects, bridges, cafeterias, your Seabees are out there helping. We make it our mission to make the world better, one bridge at a time," Mims said.

## Scanning Oceans with Robots and More

- *Navy is the largest tenant at NASA's Stennis Space Center*
- *Provides "on-demand" data to deployed warfighters*
- *Oceanography and special warfare focus of Navy's activities*

It may be one of the more unusual jobs at John C. Stennis Space Center.

Back in April the Navy deployed long-endurance unmanned underwater vehicles in the Arabian Gulf to support mine-hunting operations during a nine-day, multi-national military exercise. At the controls of the vehicles were pilots thousands of miles away at Stennis Space Center's Naval Oceanographic Office.

Unusual, yes. New, no. In fact, these deployments are daily and routine.

The Naval Oceanographic Office has logged some 60,000 hours piloting underwater vehicles, and the current crop of two dozen unmanned systems is scheduled to increase to over 150 by 2015.

And that's only a small slice of the Navy activities at Stennis Space Center.

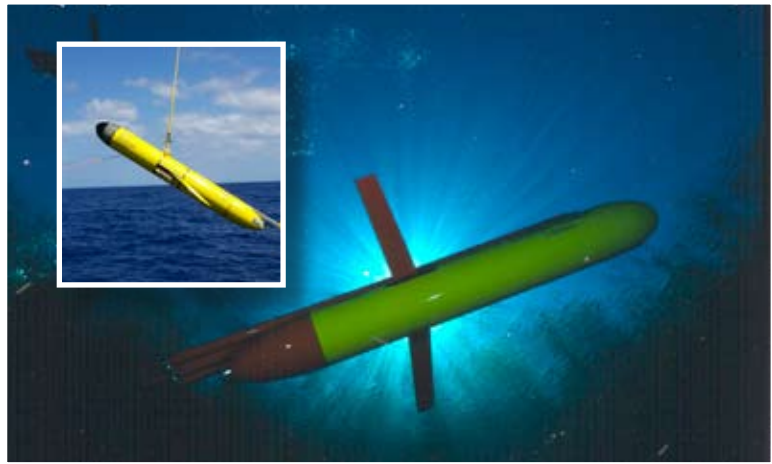
The sprawling NASA center with its 14,000 acres surrounded by 126,000-acre buffer zone is known for testing rocket and jet engines for NASA and contractors. But it's also home to 30 federal and state agencies, and the biggest dog on the block is the Navy.

With over 2,000 people, the Navy's operations at Stennis are heavily involved in two very dissimilar, but growing fields: one is science-focused operational oceanographic work, the other the blood and guts work of special warfare.

Indeed, the Navy activities and assets at Stennis are impressive: It oversees a fleet of high-tech ships that survey the world's oceans; operates one of the world's most powerful supercomputers; and has a world-renowned oceanographic library with materials dating to the 1800s. It also has a detachment of the Naval Research Laboratory, Special Boat Team 22 and a growing small craft school.

Since 2005 other activities have been established, including the Naval Oceanography Operations Command, the Naval Oceanography Anti-Submarine Warfare Center in 2006 and the Naval Oceanography Mine Warfare Center in 2007.

"The Navy at Stennis represents a growing and unique capability for our nation," said Rear Adm. Jon White of the Naval Meteorology and Oceanography Command. "When you look to the future ... this place will have a role."



*Slocum Gliders used in an exercise in April in the Arabian Gulf were controlled by operators at the Naval Oceanographic Office at Stennis. Photos courtesy of Office of Naval Research, NAVOCEANO*

### Oceanography

The mission of the Naval Meteorology and Oceanography Command is simple to state.

"We help to keep the fleet safe, and to enhance the operational effectiveness of the Navy in everything we do, in the air, on the surface of the ocean and subsurface. We do that by identifying risks and opportunities," said White.

Oceanographers are tasked with figuring out not just what the environment is now, but what it will be like in the near future. Knowing that is crucial to determining the best platforms or tools to conduct a particular mission.

"We're running really the world's only operational global ocean model," White said. "We're probably maybe two decades behind the weather model, if you will, in terms of our accuracy and our ability to actually predict."

The model is run 24/7.

"Every day we've got a prediction of what the ocean's doing and oceanographic features that are going to impact all types of warfare," White said.

### Big Subordinate

The Naval Oceanographic Office, NAVOCEANO, is the Naval Meteorology and Oceanography Command's largest subordinate command, where 98 percent of its workforce of 790 are civilian. Of those, 70 percent are scientists and 5 percent have doctorates. It has two subordinate commands, the co-located Fleet Survey Team with 70 people, two-thirds of them military, and the Washington, D.C.-based National/Naval Ice Center. It also hosts 200 contractors, both for permanent positions and special projects.

*(Scanning Oceans continued, page 17)*

NAVOCEANO operates out of 630,000 square feet of space at Stennis, which includes the main building and a newly built \$42 million Ocean Science Building, said Capt. Brian Brown, the commanding officer. It has an annual operating budget of \$140 million, payroll of \$84 million and close to \$13 million annually in contracts.

NAVOCEANO is responsible for providing oceanographic products and services to all of the Department of Defense, and uses airborne, surface and subsurface platforms, remote-sensing satellites and seaborne buoys to collect data from around the world.

Global ocean and littoral data gathered with those platforms are analyzed by NAVOCEANO experts, who use computer models and other techniques to convert the data into specialized products and services to support virtually every type of fleet operation 24/7. Those products play key roles in operational and tactical decision-making.

### New Focus

Delivering those products directly to the hands of the warfighters is a new approach of relatively recent vintage, and represents a shift in the way the oceanographers conduct business. In the past, notably during the Cold War, much of what oceanographers did involved building databases for strategic level planning. Direct involvement with warfighters was not common. That's no longer the case.

"We've put a lot of effort over the last 10 or 15 years on going from what I would call a strategic focused command to a more operational, tactical-focused command," said Brown.

To that end, in the mid-90s the Warfighting Support Center was created within NAVOCEANO to focus on the outreach.

"What has essentially happened is that it started out as a small group, and now our entire production engine here, all our departments that deal with oceanographic production ... all those now fit under the umbrella of the Warfighting Support Center," said Brown.

It provides 24-hour support to warfighters with the near-real-time environmental analyses of the battlespaces they face, whether it is near shore, deep water or anywhere in between.

In Afghanistan, Iraq and other areas of the world where the U.S. has forces "we are providing products, we are getting requests and turning products around in tactical time scales – hours."

The information is specific to the need.

"We're not giving them a host of products and saying 'pick what you need. Instead of giving them a whole bunch of science, we give them actionable decisions based on science. We know you need to go from A to B, but based on the environment, this is how we'd do it," said Brown.

At the heart of all this is something called "Battlespace on Demand," which is precisely what it sounds like: specific information needed by the warfighter. And a key part of that is "reach back."

## The Navy at Stennis

**Overview:** The Navy at Stennis Space Center plays crucial roles in oceanography as well as special warfare operations and is the largest tenant at the federal facility.



**Major commands at Stennis:** Naval Meteorology and Oceanography Command, Naval Oceanographic Office, Naval Research Laboratory detachment, Special Boat Team 22, Naval Small Craft Instruction and Technical Training School

**Size:** Multiple buildings, offices within Stennis

**Navy personnel/employees:** 2,022

**Economic impact:** \$195 million

**Web site:** [www.navmetoccom.navy.mil](http://www.navmetoccom.navy.mil)

White said the command is the first organization in the Navy that's been able to successfully execute a reach back concept of operation. It allows the warfighter in the field to reach back to the oceanography office and leverage all its expertise.

Part of what makes it work is to place sailors from the Stennis-based Naval Oceanography Operations Command on deployed ships.

"They don't have a whole team," said White, but they don't really need one. With the Naval Oceanographic Office on board, they can "reach back to Stennis to a whole room filled with experts supporting the forward guys."

At any given time there can be up to two-dozen of these ship-deployed experts serving on Navy ships.

### Future

For the Navy, the remoteness of Stennis is a plus.

"We've got this buffer zone around here and from a Navy perspective we don't have to worry about encroachment. In places like San Diego and Norfolk encroachment is becoming very big," White said.

Being near other federal agencies helps.

"They all have a lot of scientific and technical work associated with them. So what that does is, it creates sort of a workforce that gains expertise in federal government work in science and technology work," he said.

In an age when the nation faces both conventional threats from nations and unconventional threats from terrorists, the Navy at Stennis may be about as well-positioned as any military organization to be a major player against both threats.

"We're ready to answer the bell. If we end up with a major conflict with another nation or trying to fight guys in caves and guys in boats, the ocean and the atmosphere is still very important," said White. "We've taken a lot of steps to address both problems."

## Coast Guard: Enforcer, Regulator, Rescuer

- *The only military branch with a federal enforcement mission*
- *Personnel in Gulfport, Pascagoula and Stennis Space Center*
- *Patrols an area from Ocean Springs to the Pearl River*

It was after midnight when the Coast Guard Station in Gulfport got a call from a woman who said her husband hadn't returned from a fishing trip, and she was worried.

Crews from Gulfport, Pascagoula and New Orleans launched boats as well as a rescue helicopter from Mobile to search. Around 3 a.m., the helicopter crew, using night vision goggles, spotted the flickering light from a small campfire on Horn Island. The rescue was a success.

All in a day's – or night's – work.

The U.S. Coast Guard Station Gulfport and Coast Guard Station Pascagoula are part of an organization that has a mission unique within the nation's military branches. While the others are prohibited from domestic law enforcement activities, the Coast Guard is right in the thick of it.

In addition to its military role, it's part law enforcement agency, part regulatory agency. And for average people like the fisherman, it's the cavalry coming to the rescue in time of need.



*The old building destroyed by Hurricane Katrina, the new one is designed to withstand a Category 4 hurricane. U.S. Coast Guard photo*



*Coast Guard Station Gulfport has 41-foot utility boats, like this one, 25-foot response boats and is the homeport of two 87-foot cutters. U.S. Coast Guard photo*

That role was highly visible when Hurricane Katrina hit in 2005. Search and rescue operations alone saved 24,135 lives, and Coast Guardsmen evacuated 9,409 hospital patients. In total, 33,545 lives were saved, nearly equaling the number the agency saves during a calendar year.

Established in 1790 as the United States Revenue Cutter Service, the Coast Guard predates the Navy and for eight years was the fledgling nation's only agency protecting the coast. Once part of the Treasury Department, it was placed under the Department of Transportation in 1967 and the Department of Homeland Security in 2003, where it is the largest component of DHS.

In time of war, it can be transferred to the Department of the Navy.

By law, the Coast Guard has 11 missions: ports, waterways and coastal security; drug interdiction; aids to navigation; search and rescue; living marine resources; marine safety; defense readiness; migrant interdiction; marine environmental protection; ice operations; and other law enforcement.

### New Digs

While the Coast Guard in 2005 was busy helping people pounded by Hurricane Katrina, its station in Gulfport was taking a beating itself. The station, commissioned at its current location in 1986, was pounded by a 30-foot wave that wiped out the building and boat facilities, leaving the crew to operate from trailers. Construction on a new building got

*(Enforcer continued, page 19)*

## u.s. coast guard gulfport

under way in 2006, and the Coast Guard held a ribbon-cutting in May 2009 for a new building designed to withstand a Category 4 hurricane.

The 40-member U.S. Coast Guard Station Gulfport, part of New Orleans' 8th District, patrols an area in the Gulf of Mexico about the size of Delaware – more than 1,870 square miles from Ocean Springs to the Pearl River.

The station has two 41-foot utility boats and three 25-foot response boats, and is scheduled to get a new shallow-water response boat in October. But those aren't the only vessels. The station hosts three other commands, the 87-foot patrol boats USCG Cutter Razorbill and USCG Cutter Pompano, and the Aids to Navigation Team Gulfport.

Each cutter has about 11 members and aids to navigation team has 12.

The station missions include maritime law enforcement, like enforcement of fisheries rules and environmental laws, inspecting safety gear on board recreational and commercial vessels and enforcing laws against boating while intoxicated in both domestic and international waters. The Coast Guard is also on the front lines drug interdiction. Annually, station personnel conduct 600 plus boardings on recreational as well as commercial boats.

But it's life-saving that gets attention.

The station in Gulfport averages 300 search and rescue cases annually that assist 650 people and involves some \$1.9 million worth of property. Some \$1.2 million in property has been saved thanks to the Gulfport station. Cases have included everything from disabled vessels to sinkings, medical emergency evacuations and midnight search and rescues – like the one that led them to Horn Island.

The station maintains a continuous radio guard on VHF-FM Channel 16 and has a manned communications room 24/7 every day of the year. On any given moment there is fully qualified boat crew ready to swing into action.



A 25-foot rapid response boat is among the vessels used by Coast Guard Station Gulfport. U.S. Coast Guard photo

### Coast Guard Station Gulfport

**Overview:** Station is responsible for patrolling an area from Ocean Springs to the Pearl River.

**Size:** 6.5 acres

**Personnel:** 74

**Facilities:** The station includes three tenant commands: the USCG Razorbill, USCG Pompano and Aids to Navigation.

**Payroll:** not available

**Economic impact:** There is no economic impact statement available for Coast Guard Station Gulfport.

**Web site:** [www.uscg.mil/d8/staGulfport](http://www.uscg.mil/d8/staGulfport)



### Across South Mississippi

In addition to the station in Harrison County, the Coast Guard also has personnel in Jackson County's Pascagoula and Hancock County's Stennis Space Center.

The Pascagoula station is at the former home of Naval Station Pascagoula on the 437-acre Singing River Island, where 30 people are assigned to the station.

The station also hosts four additional commands, all cutters: the 210-foot Decisive, and the 179-foot cutters Shamal, Zephyr and Tornado. They are all used for lengthy patrols in the Gulf of Mexico. Decisive has a crew of 82 and the other three each has a crew of 33.

A much smaller Coast Guard group works at Stennis Space Center. The six-member team works at the NOAA's National Data Buoy Center.



A 179-foot Shamal is one of four cutters based at Coast Guard Station Pascagoula. U.S. Coast Guard photo

## base at a glance



### Harrison County military base profiles

<i>Installation/activity</i>	<i>Branch</i>	<i>Location</i>	<i>Acres</i>	<i>Mission</i>
Keesler Air Force Base	Air Force	Biloxi	1,664	technical training; Reserve: airlift, weather recon
Naval Construction Battalion Center	Navy	Gulfport	1,000	construction training; mobilization; logistics
Trent Lott National Guard Training Center	National Guard	Gulfport	220	combat training; deployment prep; helo repair
U.S. Coast Guard Station Gulfport	Coast Guard	Gulfport	6.5	search and rescue, maritime law enforcement

### Personnel

<i>Installation/activity</i>	<i>Military personnel</i>	<i>Civilian</i>	<i>Students</i>
Keesler Air Force Base	7,365 (2008)	3,483 (2008)	20,000 - 30,000 annually
Naval Construction Battalion Center	4,900	900	20,000 annually
Trent Lott National Guard Training Center	467 (military/civilian)	n/a	25,000 training days a month
U.S. Coast Guard Station Gulfport	74	n/a	n/a

### Dollars

<i>Installation/activity</i>	<i>Operating Budget</i>	<i>Payroll</i>	<i>Construction</i>	<i>Contracts</i>	<i>Economic Impact</i>
Keesler Air Force Base (including Reserve)	\$480 million	\$351.5 million	\$1 billion (multi-year)	n/a	\$589 million (FY08)
Naval Construction Battalion	\$150 million*	\$360 million	\$320 million	150	\$350 million (est.)
Trent Lott National Guard Training Complex					
Air National Guard	\$14 million (FY08)	\$4.5 million	\$44 million (FY08)	\$20 million	\$50 million (FY08)
Army National Guard	\$60 million* (FY08)	n/a	\$2.6 million	n/a	\$63 million (FY08)
U.S. Coast Guard Station Gulfport	n/a	n/a	n/a	n/a	n/a

\*includes more than just operating budget \*\*combines operating budget, payroll, contracts

### Other South Mississippi Bases

<i>Installation/activity</i>	<i>Branch</i>	<i>Location</i>	<i>Acres</i>	<i>Personnel</i>	<i>Economic Impact</i>
Camp Shelby	National Guard	Hattiesburg	136,000	2,000	n/a
Stennis Space Center	NASA	Bay St. Louis	138,500	2,022 (Navy)	\$195 million
Supervisor of Shipbuilding	Navy	Pascagoula	n/a	426	n/a
U.S. Coast Guard Station Pascagoula	Coast Guard	Pascagoula	437 (island)	211	n/a