GRI View

Newsletter of MSU's GeoResources Institute

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Debbie McBride, *Editor*
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Gulf Coast Institute Could Generate Dollars, Improve Storm Forecasting

By Phil Hearn, MSU University Relations

Mississippi State is playing the lead role in establishing a cooperative research institute on the Gulf Coast that could yield "hundreds of millions of dollars" in scientific and economic benefits for the state and region.

The National Oceanic and Atmospheric Administration announced Thursday it is providing a first-year grant of $6.3 million to a consortium of universities and institutions in Florida, Alabama, Mississippi and Louisiana to create the Northern Gulf Institute.

MSU's Dr. Colin Scanes, GRI's Dr. David Shaw, US Senator Thad Cochran, and NOAA Vice Admiral Conrad Lautenbacher. Photo by Russ Houston.

The NOAA funding will ratchet up to $10 million a year over the remaining five years of the contract period—and possibly beyond--with escalating economic benefits anticipated for the entire area.

MSU will serve as lead institution for the institute based at the Stennis Space Center in Hancock County, where Sen. Thad Cochran, R-Miss., and NOAA administrator Conrad C. Lautenbacher Jr. were among those participating in the announcement.

The other institutional players in the cooperative project include the University of Southern Mississippi, Florida State University, Louisiana State University and Alabama's Dauphin Island Sea Laboratory.

MSU's GeoResources Institute, directed by David Shaw, will apply its cutting-edge spatial and modeling technologies to improve storm forecasting and address a wide range of other critical environmental issues in the northern Gulf of Mexico region, which stretches from the Sabine River on the west to the Suwannee River on the east.

In particular, MSU's expertise in high performance computing, geospatial technologies, and watershed and atmospheric modeling will be strongly complemented by the strengths of partnering institutions.

"We need to do a better job of managing our inland resources to preserve the Gulf Coast ecosystem," said Shaw, who led a feasibility study for the proposed project last year. "We also need to look at how we can do a better job of predicting storm activity, particularly hurricanes in the Gulf."

Researchers say a key goal of the NGI will be to help decision-makers and management agencies understand the linkages between ecosystems and human

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STAFF SPOTLIGHT

Dr. Scott Samson Named in ESRI Top 5 Instructors

By Debbie McBride

Scott A. Samson, PhD, Associate Extension Professor with MSU's GeoResources Institute has been named one of ESRI's Top 5 Instructors for the 2006 Third Quarter. Dr. Samson has been an authorized ESRI instructor for 8 years, and offers the following courses through his workshops held in various locations throughout Mississippi:

- Introduction to ArcGIS I
- Introduction to ArcGIS II
- Working with ArcGIS Spatial Analyst
- Introduction to Programming ArcObjects with VBA
- Introduction to ArcIMS

Authorization to offer workshops using ESRI GIS software requires considerable experience with GIS, rigorous examination by ESRI and demonstrated ability to teach effectively. For some courses, Dr. Samson is the only one in the Southeastern United States to offer advanced ESRI workshops. The other ESRI TOP 5 Instructors are from Florida, Texas and Connecticut. While other instructors' student totals numbered from 39 to 64, Dr. Samson taught a total of 153 students during the third quarter of 2006.

Dr. Samson has recently focused his Extension Service activities on utilizing GIS products to assist local and state government agencies with the adoption and integration of GIS in the management of government databases and for disaster preparedness. He was a speaker at the 26th Annual ESRI International User Conference in San Diego, CA this past August. The annual conference brings more than 13,000 attendees from more than 120 countries together under one roof to experience the ever-broadening range of GIS technology and applications.

The title of Dr. Samson's presentation at the international conference was *Preparation for GIS Field Support for Disaster Management*. His abstract was as follows:

> Experiences encountered in GIS field support for disaster relief immediately following Hurricane Katrina helped to identify issues that should be taken under consideration in preparing for future GIS field support. Recommendations address not only spatial data, software and equipment but also personal preparations and logistics planning that will improve efficiency of field support. Issues range from self-sufficiency for 3 to 5 days to building disaster management databases prior to deployment in the field to assessing community assets following the disaster that will aid in the GIS field support.

ESRI was founded as Environmental Systems Research Institute in 1969, as a privately held consulting firm that specialized in land use analysis projects, and has evolved into the largest research and development organization dedicated to GIS. ESRI is the world leader in the nearly $2 billion GIS industry and employs over 4,000 people. With 10 regional offices in the United States, more than 80 international distributors, and users in more than 200 countries, ESRI meets the needs of its user community and sets the standards for the GIS industry.

Dr. Samson may be contacted at 662-325-9491 or ssamson@gri.msstate.edu.

Ask Alice!

IHL Board of Trustees policy 401.0102, requires Board approval of university appointments to specified positions, as well the appointment or promotion of any employee to a position with an annual salary of $75,000 or more. The effective appointment date associated with an offer of employment for any position covered by this policy must be after the date of Board approval, and is contingent upon such approval.

The Department of Human Resources Management will post on its website a schedule of dates by which personnel actions requiring Board approval must be submitted to HRM in order to be considered at a particular Board meeting.

If you have questions, please contact Alice Osaji, HPC^2 Department of Human Resources at 325-9334 or visit : http://www.hrm.msstate.edu.

Gulf Coast Institute...

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societies, in an effort to reduce the vulnerability and enhance resiliency of these linked systems.

"Increased human presence along the coast also requires improved predictive capabilities relative to severe storms and changes in sea level," Shaw said.

Lautenbacher, a retired U.S. Navy vice admiral, said NOAA scientists and university researchers will collaborate to study regional issues associated with coastal hazards, climate change, water, quality, ecosystem management, coastal wetlands and pollution.

"This will benefit the residents of the region and also support NOAA's participation in the president's U.S. Ocean Action Plan," predicted Lautenbacher, who also serves as under secretary of commerce for oceans and atmospheres.

Although NOAA operates a number of cooperative institutes nationwide with varying missions, the only one in the Southeast is located in Florida. Shaw said the timing for a northern Gulf program appears right.

"There is a strong need for good science to address these critical questions" added Shaw, who will serve as director of the new institute from his base in Starkville. "NOAA recognized that and has provided the funds to develop answers."

Shaw said the U.S. Commission on Ocean Policy "endorsed the concept of establishing the Gulf of Mexico as a priority" for scientific research two years ago.

Responding to that 2004 report, Mississippi Gov. Haley Barbour urged NOAA and the Navy to "establish a prototype cooperative ocean and coastal information management system at Stennis to build on the successful programs already extant there"—including NOAA's National Coastal Data Development Center and National Data Buoy Center.

"The economic impact will probably start in the hundreds of millions of dollars and get bigger than that," predicted GRI deputy director Charles Hill. "You have positive economic benefits if you save money or if you make money--and this could do both."

He said the NGI will build bridges to private industry to help develop and commercialize the evolving scientific technology. MSU's Extension Service, he said, will play a "pivotal role" in making the academic research operational.

Through the MSU Extension Service, geospatial applications derived from research activities and technology training are brought into local communities through various outreach programs.

"The educational side will be extremely important," said Shaw. "There is a great need and hunger for training on new technologies for those people out in the field."

MSU programs currently operating at Stennis include the GRI's Science and Technology Research Center and the Department of Defense-funded Center for Programming Environment and Training.

The Gulf of Mexico ecosystem encompasses 1.8 million square miles and is the receiving body for 66 percent of the rivers within the continental United States—including the Mississippi River, the largest river system in North America. Specific issues of concern in the Gulf region include nutrients, habitat, public health, environmental monitoring, modeling, storm forecasting and other research.

Visit www.ngi.msstate.edu for more info.

HAPPY HOLIDAYS!

MSU will be closed for the Winter Holiday beginning December 21, 2006 through January 2, 2007. We truly hope you have a very Merry Christmas and wish you a Happy New Year!

Excerpt of an E-mail from a Former GRI Student Instructed by Dr. Scott Samson:

Hello!

So glad to hear from you, and the thank you card is on its way to the MSU address. The 'thanks' is because I got the job!

I have been hired by 3001 Inc. and the intern security clearance has been approved. Susan was hired last week also. I'm going in as Geospatial Analyst in Mike Emmer's dept, but Susan will be in another department under Doreen. Not sure of Susan's title, but it's something that will lead to Quality Control in a few months. With Susan's accounting and audit experience, that doesn't surprise me.

We really appreciate what you have done for us. That's at least two life-improving career changes you have helped to bring about. We wouldn't know enough to be able to succeed at these jobs if not for what we brought out of your classes, and I, at least, feel comfortable that I will succeed. I'm really excited about this!

The class seemed over in an instant and I hope that we will meet again. Perhaps in an advanced GIS class that 3001 will allow us to attend. Susan and I plan on looking into the GeoSpatial Analyst Certification that Esri offers through their site.

Thanks again!
Melissa Feigel

It's a Wonderful Life!

On August 16, 2006 at 1:39pm, Andrew Scott Maddox was born to Victor and Lara Maddox. Measuring in at 19" and weighing 7 lbs 4 oz. This marks the Maddox family's 5th experiment in human development.

Xavier Ryan Wersal was born on October 21, 2006 at 5:14pm to Ryan and Melissa Wersal. Little Xavier was only 7 lbs, 7.4 oz and 20" long. Siblings Madeline (age 4) and Aiden age 2) were quick to show him the ropes.

SMILE! YOU'RE ON CANDID CAMERA!

You never know when you might be 'caught' on camera by our publications staff. If you have a need in your projects for photos, we can help you get them. We can assist you with other photography services such as mug shots or simple portraits. Also, if you'd like to submit info for the next GRI newsletter, please tell us!

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Kudos!

In addition to being selected as the first student representative to the Aquatic Plant Management Society's executive board, Ryan Wersal, a GRI Research Associate studying aquatic invasives, also received 2006 Graduate Student Scholarships from the Mid-South and Mid-West Chapters of the APMS.