

**The Alabama Department of Revenue,
Alabama Department of Transportation,
and the National Geodetic Survey
Presents:**

Alabama Height Modernization Forum

April 8, 2008
Renaissance Riverfront Plaza Hotel
Mobile, AL 36602

Grand Ballroom

8:00 a.m. - 5:00 p.m.

Limited seating, please RSVP by April 4, 2008

WHAT IS HEIGHT MODERNIZATION?

Height modernization is a program of the National Geodetic Survey, the nation's positioning agency. The program is to enhance the vertical component of the National Spatial Reference System (NSRS). The NSRS is a consistent national reference framework that specifies latitude, longitude, height (elevation), scale, gravity, and orientation throughout the United States. NSRS provides accurate knowledge of the size, shape, and position of our environment, as seen in the design, construction, and safety of roads and buildings, the transportation of goods and people by car, ship, or plane, as well as in the monitoring and protecting of our environment. The horizontal component of the NSRS is in place and functioning. The vertical component of the NSRS is not, and therefore the full potential and national benefits of real-time measurement of heights are not yet a reality.

Height Modernization –
the importance of accurate elevations

Modern society is becoming increasingly dependent on geographic data that is spatially referenced – horizontally and vertically.

Height Modernization provides the basis for Intelligent Transportation Systems (highway, rail, air, water) for improved safety and efficiency.

Precision Agriculture applies GPS technology and management strategies to individual fields to protect the environment, improve productivity, and save time and money.

Relative (local) and absolute (national) height inconsistencies are eliminated through the use of a common vertical datum – NAVD88.

NOAA's National Geodetic Survey
Height Modernization Program
Juliana Blackwell, Program Manager
Email: himod@noaa.gov
Visit: www.ngs.noaa.gov/heightmod/

University of California, San Diego/Scripps • Wisconsin Department of Transportation • Harris-Galveston Coastal Subsidence District • California Spatial Reference Center • North Carolina Geodetic Survey • South Carolina Geodetic Survey • NOAA's National Ocean Service Federal Emergency Management Agency • Louisiana Spatial Reference Center • NOAA's National Weather Service • Spatial Reference Center of Washington • U.S. Army Corps of Engineers • Washington Department of Natural Resources • Alabama Department of Revenue Louisiana State University • NOAA's Coastal Services Center • U.S. Geological Survey • Alabama Department of Transportation • North Carolina A & T State University • University of Southern Mississippi • NOAA's Center for Operational Oceanographic Products & Services

NATIONAL HEIGHT MODERNIZATION PROGRAM

In 1998, the U.S. Congress directed the National Geodetic Survey, the nation's positioning agency and an office within the National Oceanic and Atmospheric Administration (NOAA), Department of Commerce, to conduct a National Height Modernization Study. The purpose of the study was to determine the effectiveness of height modernization in California and North Carolina, and its potential benefits to the nation. Up until the time of the study, there were many indications that considerable efficiencies and cost savings could be achieved through the utilization of Global Positioning System (GPS) technology when applied to surveying and in particular, the measurement of heights. This study proved this and projected in some cases a 90 percent cost savings over conventional surveying methods. Moreover, the study indicated the emergence of many height modernization applications ranging from improvements to air and marine navigational safety, to precision farming and mining, and from high accuracy flood mitigation and mapping to real-time monitoring of gravity and aquifer-based water systems. These findings caught the attention of Congress and the Administration, and over the past six years, more than \$18 million has been appropriated with 90 percent going to participating states to initiate the implementation of the study nationwide.

**Alabama Height Modernization Forum
Tuesday, April 8, 2008**

- | | |
|--------------------|---|
| 7:00-8:00 | Registration |
| 8:00-8:15 | Introduction, opening remarks
Gilbert Mitchell, NGS |
| 8:15-9:30 | National Height Modernization Program
Renee Shields, NGS |
| 9:30-9:50 | Break |
| 9:50-11:00 | Alabama Height Modernization Program
John Russell, ALDOT |
| 11:00-12:00 | Vertical Datums
Ronnie Taylor, NGS |
| 12:00-1:00 | Lunch on your Own |
| 1:00-2:00 | NGS Grav-D Program
Mark Eckl, NGS |
| 2:00-3:00 | GPS for LIDAR Collection and Post-processing
Mark Brooks, Optimal Geomatic, Inc. |
| 3:00-3:20 | Break |
| 3:20-4:00 | CORS and Precision Agriculture
Amy Winstead, Auburn Agricultural Extension Service |
| 4:00-4:30 | Gulf of Mexico Alliance Program
Todd Davison, NGS |
| 4:30-5:00 | Discussion -- Adjourn |

Registration Form

There is no Registration Fee for this Forum, but due to limited seating please
RSVP by April 4, 2008

First Name	Middle Initial	Last Name	

Organization

Address

City	State	Postal Code	Work/Office Phone

Mobile Phone	Fax	Email Address	

Citizenship	

Please return this form NO LATER THAN Friday, April 4, 2008 to:

**Alabama Department of Transportation
1409 Coliseum Blvd. Montgomery, AL
36130
ATTN: Design Bureau, John Russell**

Or

**Fax to: (334) 269-4689 ATTN: John Russell
Phone (334) 242-6139
Russellj@dot.state.al.us**

Accommodations

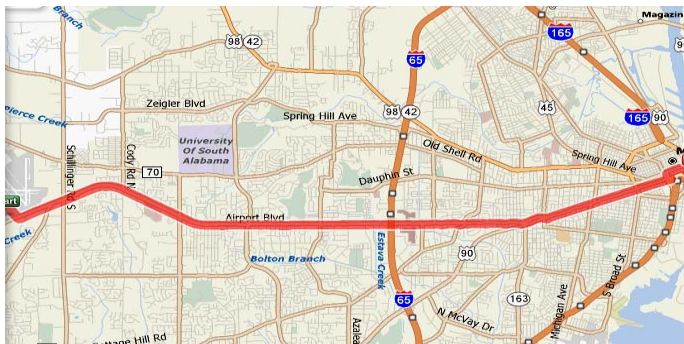
Renaissance

Riverview Plaza Hotel

64 South Water Street Mobile, AL 36602 Phone: (251)438-4000 Fax: (251)415-0123



Driving Directions from **I-65 S**: Take the I-165 S Exit 9- towards PRICHARD/DOWNTOWN MOBILE. Continue straight ahead to go onto N WATER ST.



Driving Directions from **Mobile Regional Airport**: Start out going SOUTHEAST on JOSEPH DRAWNS DR toward AIRPORT BLVD/CR-56W (0.3 Miles). Turn LEFT onto AIRPORT BLVD/CR-56 E. Continue to follow CR-56 E (9.7 Miles). Turn SLIGHT LEFT onto GOVERNMENT ST/US-90/AL-16. Continue to follow GOVERNMENT ST/AL-16 (2.3 Miles). Turn LEFT onto S JACKSON ST. (0.1 Miles). Turn RIGHT onto DAUPHIN ST (0.3 Miles). Turn RIGHT onto S WATER ST (<0.1 Miles). End at 64 S WATER ST.