



National Geodetic Survey Updates

Friday, December 1, 2017

Clark University, MetroWest Campus

333 Turnpike Road (Route 9), Southborough, MA (off I-495, Exit 23A)

8:00 - 8:30 AM Registration; 8:30 AM - 4:30 PM Seminar

During this one-day seminar, Dan Martin, Northeast Regional Geodetic Advisor for the National Geodetic Survey (NGS) will discuss three NGS projects:

Journey to the Moving Center of the Earth - The Evolution of the National Spatial Reference System

In 2022, NGS will be replacing the US horizontal and vertical datums (NAD 83 and NAVD 88). This workshop is designed to discuss the need and process for these changes, as well as how that affects surveyors and their access to these datums. Our journey will begin with a discussion of the history of the North American Datum of 1983 and the North American Vertical Datum of 1988, their relationships to other reference frames, and the reasons for their ongoing evolution. We will also discuss the data used to produce NGS' National Adjustment of 2011, the relationships of geoid models to various versions of NAD 83, and what can happen should these relationships be ignored. Finally, we will discuss the need to replace NAD 83 and NAVD 88, and what activities are being undertaken to ensure a smooth transition.

Update on GRAV-D and Progress Toward a New Geopotential Datum

The National Geodetic Survey (NGS) has a clearly stated mission to “define, maintain and provide access to the National Spatial Reference System” (NSRS). Accurate gravity data is the foundation for the Federal government’s determination of heights (the vertical component of the NSRS). In this presentation we will discuss the purpose and progress of the ongoing GRAV-D Project (Gravity for the Redefinition of the American Vertical Datum) and highlight other activities contributing toward the creation of a new geopotential datum which will replace NAVD 88.

The NGS Geoid Slope Validation Surveys – Which Way is Up?

In 2011, 2014, and 2017, the National Geodetic Survey undertook a significant project designed to validate the slope of a gravimetric geoid which was created with the aid of airborne gravity as part of the GRAV-D project. Projects would include over 600 new survey marks spread across three project areas (Texas, Iowa, and Colorado). Observation on these marks included geodetic leveling, campaign GPS, absolute gravity, relative gravity, gravity gradients, and astro-geodetic observations. This presentation will discuss the different field techniques used and the progression of the surveys.

Speaker

Daniel J. Martin,

Northeast Regional Geodetic Advisor, National Geodetic Survey

Dan Martin works for the National Geodetic Survey and has been the Northeast Regional Geodetic Advisor since May of 2015. As the Regional Advisor, he instructs local surveyors, state and municipal agencies, and the geospatial community at large, on how to use and preserve the National Spatial Reference System, and provides liaison between the National Geodetic Survey and the States of ME, NH, VT, MA, CT, RI, NY, and NJ, as well as other federal agencies. He worked in the Route Survey and Geodetic Survey sections of the Vermont Agency of Transportation from 1988 through 2003, and held the position of Geodetic Program Supervisor for the Agency from 1999 through 2003. In 2003, Dan began his career with the National Geodetic Survey as the Vermont State Geodetic Advisor. Dan is a Past President and Fellow Member of the American Association for Geodetic Surveying (AAGS), he is also a member of the Vermont Society of Land Surveyors and the New Hampshire Land Surveyors Association.

Registration Information

Registration fees are \$200/person for MALSCCE members and \$250/person for non-members. Registration fee includes a continental breakfast, two snack breaks, lunch and all seminar handouts. Registration is processed on a first-come, first-served basis.

Registration deadline is Tuesday, November 28, 2017. Seminar registrations will be accepted via fax, mail or online. Complete the registration form below fax it to 617/227-6783. Mail your registration form and check (payable to "MALSCCE") to: MALSCCE, The Engineering Center, One Walnut Street, Boston, MA 02108-3616. Use Visa, MasterCard or American Express to register online at <http://bit.ly/MALSCCE1212017>. To register online for this seminar at the MALSCCE member rate, login using your MALSCCE assigned username and password. If you do not know your login information call 617/227-5551. Registrations are processed on a first-come, first-served basis. No refunds will be given after the November 28, 2017 registration deadline. No-shows will be billed.

Continuing Education

This seminar is worth 6.5 professional development hours (subject to state-specific exclusions; seek clarification from appropriate state authorities). All seminar participants will receive a certificate documenting attendance at the end of the seminar. Please complete the registration form with your legal name, address, and other contact information so that you will be properly identified on the certificate.

Tax Information

Expenses incurred for education undertaken to maintain and improve professional skills (including travel, meals and lodging) may be tax-deductible.

Location

Clark University, MetroWest Campus, 333 Turnpike Road (Route 9), Southborough, MA

Registration Form

National Geodetic Survey Updates

Friday, December 1, 2017, Clark University, MetroWest Campus, 333 Turnpike Road (Route 9), Southborough, MA 01772

Registrant Information

Name: _____
Company (if applicable): _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____ Email: _____
Dietary Restrictions: _____

Registration Fees

\$200 MALSCCE Member*

* Members of CALS, MSLS, NHLA, NYSAPLS, RISPLS and VSLS can attend for the member rate. Please check the appropriate box below:

CALS MSLS NHLA NYSAPLS RIPLS VSLS

\$250 Non MALSCCE Member

Total Amount Enclosed _____

Make checks payable to "MALSCCE" and mail with completed form to: MALSCCE, The Engineering Center, One Walnut Street, Boston, MA 02108-3616

Or Pay with (Check one): Visa Master Card American Express

Card Name: _____
Card Number: _____ Expiration Date: _____
Billing Address: _____
City: _____ State: _____ Zip: _____
Signature: _____

- Registrations are processed on a first-come, first-served basis. Registration deadline is Tuesday, November 28, 2017.
- No refunds will be given after this date. No-shows will be billed.
- Questions? Call 617-227-5551.