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NOAA, National Geodetic Survey HEIGHT MODERNIZATION COORDINATION MEETING NOTES SSMC3, Room 8836

Date: Thursday, June 10, 2010

Time: **2:00-3:30 pm East Coast time**

Call In Number: 877-426-5014, PASSCODE: 8484480

Attendance:

Call-ins from: IL (Sheena Beaverson, Bev Herzog), Vicki Veilleux, CO (Dan Winester), PA (Brad Foltz), MO (Darrell Pratte, Rick Reese, Robert Ross), NC (Gary Thompson, Dave Zilkoski); TX (Greg Hauger), OR (Ken Bayes), WA (Dave Steele), KY (Clark Graves); NGS Corbin (Charlie Geoghegan, Erika Wilson)
Silver Spring: NGS (Renee Shields, Gilbert Mitchell, Joe Evjen, Neil Weston, Steve Vogel)
Advisors/Coordinators: John Ellingson (WI), Dan Prouty (TX); Scott Lokken (NC); Mark Armstrong (OR), Marti Ikehara (CA)

Grants/Budget status (Gilbert, Renee)

- Grants for FY10 have all been processed. If you are expecting a grant and have not heard from NOAA's Grants Management Division through Grants Online, contact Renee. For new folks, after notification grants must be 'accepted' in the system by the recipient.
- If NGS has a budget to award funds for FY11, those opportunities will be announced in the December Omnibus, end of December 2010 or early January 2011. Information will be announced in future meetings.

Infrastructure, Models and Tools, etc.

GEOID

No updates

GRAV-D (Winester)

- Ground surveys completed in AK last month. Airborne is due to start next week. This year plan is to fly SW Alaska excluding the Aleutians... for long term monitoring, at a meeting in Ottawa, models will concentrate on using GRACE and GOCE data. There has been approval from NASA to develop a follow on mission since GOCE satellites are operating on borrowed time. Also developing a plan for absolute gravity monitoring.

TX HM level tool (Dan Prouty, Greg Hauger)

- A student was working with incorporating Topcon level; waiting on final report, but it is not yet functioning. There was a bug with the Leica part and TAMUCC are working on that.

LOCUS (Joe Evjen)

- In PSC, basically operational. Issue with gravity has apparently been resolved. Current work is to make the interface on line more user-friendly.

User Contributed software (Joe Evjen)

- Software available on this page are developed by NGS stakeholders rather than within NGS. These applications are not supported by NGS but contact information for the developers is provided on the web page. Access to these is provided on the PC Download page of the NGS web site
- DSWorld, version 2.09, a google earth application that displays stations from NGS IDB

OPUS (Joe Evjen)

- South Florida Water Management was asking about using OPUS to get NAVD 88 orthometric heights, since they had leveled to their CORS sites. Joe pointed out that OPUS still only uses GPS ellipsoid heights and geoid model, but does not tie to actual NAVD 88 bench marks. Joe proposed looking at the actual heights from the IDB pull and comparing to the computation using ellipsoid heights and geoid model to see what kind of biases are there. The new geopotential datum in the 10-year plan is consistent with this approach, since the datum will be defined through the CORS ellipsoid heights and the gravitational geoid model. This approach is in the direction of computing heights on the fly rather than tying to bench marks that have not been used over the past 20 years or so and may have moved, but the discussion about on the fly vs. a static reference frame is one where there is room for discussion.
- Scott Lokken reported a surveyor grabbed the wrong orthometric height (the projected one from the gravimetric geoid) from the OPUS extended output, when you ask for output in feet. Scott was asked to send a follow up email request and NGS would look at this.
- Projects is moving along; updates were demo'ed at the NGS Convocation 2 weeks previously. Watch for that.

Guidelines for Trigonometric Leveling methodology for getting heights on CORS into IDB

- Gary Thompson asked about where these guidelines stand. Would like to use this to update heights on CORS. Gary would like to publish how to do this and get info in the IDB. Gilbert and Charlie G. agreed this was written at Corbin and submitted through NGS clearance process and must be stuck somewhere. Renee will follow up.

RTK/RTN Guidelines and activities

- No new news. Guidelines (for point positioning) have been announced in ACSM Bulletin or one of the surveyor professional magazines.

CO-OPS

- Rich Edwing is the new Director of CO-OPS.

Outreach and Education

WEBSITE (Renee, Vicki, John Ellingson)

- Height Modernization web site updates are very close to being released. Web site is being converted to new NGS template. New Regional pages are being added providing opportunities for regions and states to submit material to highlight activities they are doing. State pages will be last level to be migrated in but the site will not wait to have all of those updated. Guidelines for a maintenance process for submitting new material will be put in place allowing for additions without over burdening our web page developer.

CORBIN (Charlie, Erika)

- Leveling workshops are being requested more frequently. Attendees are coming from as far as Alaska. Charlie is heading to Florida to take the workshop to the Water District.
- Dave Zilkoski gave a GPS heights workshop 3 weeks ago. Erika reported 70-80 people attending online.
- Dave Lehman is presenting his 2nd Astro class at Corbin.
- A GRAV-D webinar is planned in October. Future workshops can be found on the Corbin calendar on the NGS web page: <http://www.ngs.noaa.gov/corbin/calendar.shtml>

UPCOMING EVENTS

- NGS is preparing a contract for repeat surveys of southern Louisiana to collect the next round of data needed to look at the subsidence rates there.
- (Renee) Reported that the Federal Geospatial Summit held May 11-12 was a great success. Presentations and other materials are available on the web site, including a survey for participants to provide NGS with feedback.
- Dave Zilkoski reported on the Transportation Research Board (TRB) meeting being held in Huntsville, AL the last week of July. The focus is on DOT needs, so if height mod can be linked to that, the TRB might be a funding source to tap into. Dave suggested some proposals to find ways to improve using GPS to get accurate ellipsoid heights.
- ESRI and SEGS conference in San Diego week of 7/10. Sheena Beaverson in Illinois has been facilitating a map gallery display of, so far, 7 states engaged in height modernization activities. NGS will have a poster to give the national perspective.

Updates from States

- **Brad Foltz (PA) – reported on increases to their CORS network.**
- **Gary Thompson (NC) – just completed aerial imagery for all of NC**

Next meeting: Thursday, July 8, 2010, 2:00-3:30 East Coast Time

Recently past events

April 11-16, Sydney, Australia – XXIV FIG International Congress 2010

April 14-15, Illinois – Illinois GIS Association Spring meeting in Champaign, IL

April 24-28, Phoenix, AZ - ACSM

April 26-30, San Diego, CA - ASPRS 2010 Annual Conference

May 11-12, Silver Spring, MD - Federal Geospatial Summit on proposed improvements to the National Spatial Reference System: Replacing NAD 83 and NAVD 88

May 13-14, Galveston, TX – Houston Geological Society hosting a conference on Coastal Subsidence and Sea Level Change

May 17-21, Silver Spring, MD – NGS Convocation

May 16-20, Oklahoma City, OK - Association of State Floodplain Managers

May 26-27, Albuquerque, NM – USACE Vertical Datums workshop

May 31 – June 4, Ottawa, Canada - Joint Canadian Meteorological and Oceanographic Society Congress

Upcoming events

June, Buffalo, NY - USACE Vertical Datums workshop

July 11-16, San Diego, CA – ESRI Conference

July 11 - 21, Chicago, IL – Coastal Zone 2011

September 14-17, Denver, CO – GIS in the Rockies

September 20-22, Fairbanks, AK – International Gravity Field Service

September 21-24, Portland, OR – ION GNSS 2010

Sept. 28 – Oct. 1, Orlando, FL – URISA 2010

October 18-22, Longmont, CO – 2010 North American Intercomparison of Absolute Gravimeters

October 20 and 21, Illinois GIS Association will have a conference in Chicago area at the NIU Naperville campus facilities.

October 31-November 3, Denver, CO - Geological Society of America meeting in Denver, CO is looking to host a session on LIDAR Applications for Geologists.