

NOAA, National Geodetic Survey
HEIGHT MODERNIZATION COORDINATION MEETING
DRAFT – MEETING NOTES - Thursday, November 12, 2009

Attendance:

Call-ins from: CA (John Canas), IL (Bev Herzog), KS (Ingrid Langraf), MO (Rick Reese), NE (Jim Langtry), NGS (Sonita Tiwari, Vicki Veilleux, Dan Winester), PA (Brad Foltz), TX (Greg Hauger), WA (Gwen Roy, Justin Holt), WI (Dr. Dave Moyer)

Silver Spring: NGS (Renee Shields, Gilbert Mitchell)

Advisors/Coordinators: FL (Dave Newcomer), Ross Mackay (KY), Denis Riordan (LA), Mark Armstrong (OR), Dan Prouty (TX), Dan Martin (VT), John Ellingson (WI)

Grants/Budget status (Sonita Tiwari)

No new developments. No budget for FY10 as we are currently operating under a Continuing Resolution (CR). Current CR continues until December 18, 2009.

Infrastructure, Models and Tools, Standards, Specs, and Guidelines

Software developments –TX HM level tool (Dan Prouty)

No new developments as other projects have taken priority this month.

LOCUS (Ajit Singh, not present)

LOCUS has not moved out of Products and Services Committee (PSC) to best of our knowledge, and it is therefore still in its Beta version. The beta version is available, and if you are interested you can contact NGS.

OPUS (no representation)

No new products.

GRAV-D project status – (Renee Shields)

Processing software is being refined and is expected to be operational within days. Biases caused by software designed for certain altitudes and speeds of data collection that varied from ours have been resolved. Processing of aerogravity data collected so far will go quickly and processed data will be turned over to geoid team for use in future geoid models (the aerogravity data collected to date was not used in Geoid09).

Geoid09 status (Dan Roman, not present)

- Dan M. reported that comparisons of GEOID03 and GEOID09 in Vermont showed little or no differences.
- Ross has heard from contractors that they are getting good agreement with published bench marks.

- Renee reported that Dan R. said some states (WY, MN/MI?) evaluated benchmarks and used superseded values, so there may be some inconsistencies. If you see discrepancies, contact Dan R. or Julie P.

Guidelines/Publications

RTK/RTN Guidelines (Bill Henning not present)

Dan Martin reported that the ACSM/AAGS Government Programs Committee is completing their review of the single real time and real time networks guidelines and will be submitting their recommendations/comments soon. There is a timeline in place, but we do not know what it is. Recommendations may address combining (or keeping separate) single base and network guidelines into one document.

CO-OPS (no representation)

Outreach and Education

Website (Vicki Veilleux)

Majority of the time this month has been dedicated to working on the conversion of the Height Modernization web site to the new NGS web template. Renee said that if there are partners/others that you think additional material should be on website, contact Renee/Vicki. Curt's leveling workshop materials (currently ongoing) are online on ftp site, and this may be something that should be available on Height Mod website.

Corbin (Renee Shields)

NGS has several working groups updating and creating a variety of NGS workshops. These are a combination of existing workshops and new efforts, and it is in response to interest in workshops gathered from the ForeSee web site survey data. Advisors and others in NGS are tasked with completing a draft of the power points by the end of July 2010. Many of the volunteers are on multiple work groups, e.g. Renee is on 3 work groups, Dave Doyle is on 4.

Workshops, past and upcoming events,

- Rockford, IL – Bev Herzog reported on the success of the Great Lakes Region Height Modernization Consortium Real Time Workshop earlier this week. The workshop was attended by 75 people, and included a status report on Illinois' program by Bev, and overview of Height Mod by Renee, CORS/OPUS by Chris Pearson, and Real Time by Bill Henning. Chris Pearson also moderated a panel that included vendors with networks in IL, representatives from WI, IL, IL and Bill Henning. Lack of funds provided a challenge for out of state government employees to attend, but probably ½ to ¾ of attendees were from private sector. Curt Smith is also giving a 3-day leveling workshop which was limited to 30 attendees and full. As an incentive to attend the RTN workshop, continuing education credits were available, and cost to attend day 1 of Curt's leveling workshop was waived.

- Boulder, CO – Renee and Dan Winester reported on the success of the Boulder workshop to discuss monitoring temporal changes in the geoid model, which speaks to the feasibility of using a gravimetric geoid for vertical datum definition. The workshop was international, including representatives from Canadian and Mexican government, and gravity experts from US government agencies and around the world, and all aspects of gravity data collection (satellite, aero, terrestrial) and ellipsoid height determination were discussed. Mexico currently does not plan to shift to a gravitational model; in fact, they will begin a country-wide re-leveling campaign (they are using the technology they know at this point).
- Nashua, NH – Dan Martin reported New England Surveyors Societies is holding its annual meeting and equipment show December 10-12, and a 1-day Height Modernization forum will be held December 10th as part of this event. Dan and Curt Crow are making an effort to reach out beyond the surveying community, for example reaching out to state Departments of Environmental Conservation and Natural Resources, and flood plain manager community. Also, reaching out to USACE district datum coordinators (expecting NE coordinator to attend, but unsure about NY or western VT). Economy may impact attendees, especially from state government, but hoping that location will allow some people to make the one-day trip without having to stay overnight.
- Rhinelander and Hayward, WI – Dr. Dave Moyer reported on Northern Wisconsin forums which are outreach events scheduled in Dec. where Renee will discuss national Height Mod program and Paul Hartzheim will report on WI program. Any updates on budget issues will be of particular interest, there will be focus on active local program, and live demo of CORS. Program is set up to facilitate local attendees can make the day trip without the expense of an overnight stay. Already there 15 and 12 registered, respectively, and we are expecting about for 35-40 attendees/site. Looking for budget information because they have been very active with congressional leadership.
- Raleigh, NC – Scott Lokken reported that during the week of November 16, Gary Thompson will be speaking at GIS Day in Raleigh, and then giving a presentation to general contractors on Height Mod the next day. Later in December, both Scott and Gary will be conducting a couple of workshops.

Updates from States, Other Business.

- Bev Herzog, IL – Illinois has completed its first level line, 50 miles, 22 stations. Currently blue-booking and planning to submit to NGS by Thanksgiving.
- Dr. Dave Moyer, WI, reported that with recent release of state funds, the team is currently in the field installing cement pillars while the weather holds.
- Greg Hauger, Dan Prouty, TX – Getting ready to do a control survey to establish ground control stations for TNRS to use in its Lidar surveys (to 59 standards) in mid-east TX. The first phase will be in three counties: Lee County, Leon and Madison Counties. The

next phase will be along the Red River area near the Oklahoma border. They will recon existing marks with the goal of having 4 marks per county, and they expect to set one new mark per county.

- Dan Prouty (TX Advisor) – Greg and Dan recently completed conference call with NGS staff (Galen Scott et. al.) to discuss project at Mission Aransis NERRS. Plan to bluebook the project, and will be putting in a new CORS at Rockport which is at the center of Mission Aransis NERRS.
- Scott Lokken (NC Advisor) – New aerial imagery campaign will commence this year, looking to fly the whole state at ½ pixels, color, and color IR. As part of flyover, also engaged in setting up a Digital Camera Calibration Range with USGS.
- Mark Armstrong (OR Advisor) – will be a meeting next week with NGS and ORDOT personnel to discuss a project proposal for comparison of various methods of height determination, including GPS, leveling, and real time, and evaluation of whether FGCS standards of accuracy are being achieved. It has been some time since a comprehensive comparison study has been done, and improvements in technology, models, and tools suggest it is time to evaluate the current accepted methods and the accuracies derived from each.

Special report on USGS Stream gage datum update

Renee gave a report on an effort NGS is engaged in with USGS and NWS to update USGS stream gages to NAVD 88. Some are on NAVD 88 already but many are on NGVD 29 or even other vertical datums. Consistency of datums is key for NWS to use the elevation data for the gages and water levels when developing inundation models. Renee listed the members of this work group including personnel from USGS and NWS offices across the country, as well as Gary Thompson from NCGS. The goal is to develop guidelines to use to identify the process at a particular site for doing the conversion, whether VERTCON, OPUS DB, or Leveling is used. She will keep the monthly mailing list participants informed of progress, and announced to advisors and NGS partners that they may hear from the work group to solicit help with these activities. USACE has guidelines in draft form that were developed for their levee, dam, and stream gage datum updates, but they are more rigorous than what is needed for this effort.

Ross was in touch with USGS and the word is being spread about getting the gages on NAVD88. Renee said that NGS has been in touch with USACE who is finalizing their datum managers, and they should invite USGS personnel to attend workshops.

Next meeting: Thursday, January 14, 2010, 2:00-3:30 East Coast Time