

**HEIGHT MODERNIZATION COORDINATION MEETING
DRAFT - Meeting Notes –Thursday, September 10, 2009**

Attendance:

- Call-ins from: CA (John Canas), CO (Dan Winester), ID (Rayce Ruiz), KY (Wolfgang Ziegler), MI (Andy Semenchuk), MN (Dave Zenk), MO (Daryl Pratt), MT (Bryce Larson), NC (Gary Thompson) NGS (Renee Shields , Vicki Veilleux, Maralyn Vorhauer, Erika Wilson), NJ (John Knapp), NM (Earl Burkholder), PA (Chuck Hart), WI (Dave Moyer)
- Silver Spring: NGS (Gilbert Mitchell, Christine Gallagher, Dan Roman, Giovanni Sella, Bill Henning)
- Advisors/Coordinators: Jim Harrington (AL), Pam Fromhertz (CO), Dave Rigney (MI), Curt Smith (MT), Scott Laken (NC), Curt Crow (NH/MA), Bill Stone (NM), Mark Armstrong (OR), John Ellingson (WI)

Fairbanks Forum-Surveyor Society and AK DOT

Renee Shields

Attendance was great - 22 in Fairbanks and 7-8 in Anchorage/Juneau (offering of CEUs likely increased attendance). The speakers/presentations were: Renee Shields/Background & GPS Heights; Mark Eckl/GRAV-D; Bryan Coyle/PBO network; David Steele/HM in Washington State; Jeff Freymueller/crustal motion, velocities with gravity. Good discussion on issues with and future of vertical datum. We will return for conference in Anchorage in February

Grants/Budget status

Gilbert Mitchell

No FY10 budget yet, so uncertainty about a call for project proposals (around Dec.) is depending on availability of funds for grants
Grants already supposed to be “in the mail” are still caught up administratively in NOAA

Models and Tools

- **Status of LOCUS**

No update

- **GRAV-D**

Dan Roman

There will be no more airborne collections right now; currently, resolving systematic problems with airborne data (filtering problem, striations latitudinally dependent). It is a valid result; they are busy reducing data specifically cleaning up GPS and then airborne data reduction. A challenge is that built-in software uses surface assumptions different than the collection flights at 35,000 feet. Recommendation that built in software will not give you production level work. Assuming GRAV-D funding stays in FY10 budget, will return to Alaska next summer for more airborne data collection

- GEOID** **Dan Roman**

Goal is to release website Thur. (Sept. 17) after approval of Products and Services Committee (PSC) meeting. Beta testing sent to state advisors and reviewed in-house with no huge problems. Final version went out to state advisors with few responses; putting up GPS and benchmark, final clean-up. In summary, changes from Geoid03 to Geoid09 included (1) EGM96 replaced with EGM08 to throw out suspect points especially in mountains and (2) GPS leveling national adjustment changed ellipsoid; together, the changes are resulting in decimeter to multi-decimeter changes in parts of country.
- Guidelines/Publications** **Bill Henning**

CORS forum Atlanta in conjunction with another meeting and panel about RTN guidelines. Finishing up RTK/RTN guidelines, and should have draft guidelines ready for the PSC in a month. Comments on Single base/classical guidelines have been received, so we will work to finalize them hopefully in October. We will also talk about RTN in Great Lakes forum in Illinois in November

Outreach and Education

- Website** **John Ellingson/Vicki Veilleux**

Website (John Ellingson & Vicki Veillus): Brian Shaw updated the regional maps, will begin collecting input from Wisconsin and Great Lakes states how to organize state pages, updating pages to new templates, past meetings recently posted
- Corbin** **Erika Wilson**

There will be a GPS derived heights webinar Oct 6-7 1-4 pm each day, and check ngs.noaa.gov/corbin for more information. There will be a Digital Leveling workshop in Corbin in November; it is currently full, but wait list is available. Also, we are working on calendar for 2010 with a lot more webinars.
- CORS Update** **Giovanni Sella**

Adding new sites on hold for a month (semi-moratorium) because Silver Spring is at 97% capacity for data storage, but new hardware arrived this week which will hopefully resolve some of the data storage issues. Also, the multi-year effort is proceeding, submitting data to IGS, so new ITRF coming out in fall. NAD 83 will be updated; implications of reprocessing have been discussed at a number of meetings; discussions have included what epoch dates to choose, etc. OPUS-RS continues working, and OPUS-DB is out and being used. Real-time network, we are currently operating 7 sites and will soon bring in 4 more from Great Lakes.

Daryl Pratt asked about adding all of new MO CORS stations to NSRS. While there are still no guidelines/restrictions on what sites you can submit for CORS, Giovanni recommends picking geographically representative equidistant set of stations to submit.
- OPUS Projects**

OPUS-Projects is gradually coming together still under beta production with no timeline yet to turn out of Beta stage. Daryl Pratt said MO has projects that can be beta tested in OPUS Projects. Dave Zenk says OPUS projects is a little rough around the edges, but can be worked with and encourages it. There is no date for release currently targeted. It is will very much in beta testing phase.

Updates from states

- **Alabama** **Jim Harrington**
Alabama has offered to give Mississippi and Denis Riordan help with setting marks.
- **Missouri** **Daryl Pratt**
Budget constraints have scaled back projects of HM surveys; will continue county by county funding permitting; still continuing to submit to NGS through blue-booking
- **North Carolina** **Gary Thompson**
Annual Height Mod workshop (basic and advanced) will be held at NC A&T next week. They will present at Norfolk's society of surveyors meeting coming up, and a few other workshops with Scott are coming up and need to be submitted to Vicki to post.
- **Washington** **Allen Duback**
Fieldwork GPS completed eastern half of zone 2 northeast area now processing, and also recovering monuments across the state for next phase.
- **Minnesota** **Dave Zenk**
Minnesota has 10 horizontal (80-100 marks) and 30 vertical (varies 3-5 marks to 40-50 marks) projects to submit in next couple of months.
- **Great Lakes** **Dr. Dave Moyer**
There will be a Nov. 10 Great Lakes meeting, and on the 11-13 there will be a leveling workshop Chris and Curt Smith are involved with. We are still trying to set up northern Wisconsin forums Nov. 17-18, but lack of funding presenting challenges. Planning a CORS network state workshop WSLs on Feb. 3-5 to collect user testimony on benefits and applications (in Wisconsin) to be given by Paul Hartzheim.

Other Business

Next meeting: Thursday, October 8, 2009, 2:00-3:30 East Coast time