

**NOAA, National Geodetic Survey**  
**HEIGHT MODERNIZATION COORDINATION MEETING**  
**DRAFT - Meeting Notes –Thursday, December 11, 2008**

**In attendance:**

- call-ins from: AL(John Russell), CA (Maria Turingan), CO (Dan Smith), ID (Rayce Ruiz), IL (Amy Eller), KY (Wolfgang Ziegler), MI (Andrew Semenchuk), NM (Earl Burkholder), SC (Matt Wellslager), WA (Gwen Roy), WI (Dave Moyer, Paul Hartzheim), Juliana Blackwell, Gilbert Mitchell, Vicki Veilleux
- in Silver Spring and other NGS, Mark Eckl, Joe Evjen, Lucy Hall, Janet Irwin, Eric Linzey, Dan Roman, Renee Shields, Ronnie Taylor, Sonita Tiwari, Steve Vogel, Dan Winester, Dave Zilkoski
- Advisors/Coordinators: Brian Ward (AR), Jim Harrington (AL), Dave Minkel (AZ), Marti Ikehara (CA), Pam Fromhertz (CO), Ed Carlson (HI), Chris Pearson (IL), Ross MacKay(KY), Denis Riodan (LA), Curt Crow (MA/NH), Warren Payton (NJ), Bill Stone (NM), Dave Conner (OH), John Ellingson (WI)

**Address**

**Dave Zilkoski**

At a NOS meeting attended by Dave Zilkoski, NOS discussed the need to focus on the interior of the country (Kentucky specifically mentioned), Inner water ways, outcomes and customers, and collaborate to the bigger outcome.

In response to question about future of height mod support via funding, Dave Z. talked about general program support. Earmarks may be scrutinized more but will not ever really go away. Support might be greater if you can tie the program or activities to building new jobs

**Grants**

**Renee Shields**

- Reviewers have reviewed the twenty FY 2009 Grant applications and Sonita will be sending their comments to Grantees for their response.
- Nothing can be awarded until NGS has a budget.
- The next federal funding opportunity (FFO) will be announced in the June 2009 Omnibus.

**Models and Tools**

• **OPUS DB**

**Joe Evjen**

The "publish" option (formerly known as OPUS-DB) is now available via a "preview" link on the OPUS homepage. This version 1 capability is limited to lone-receiver campaigns, but should be useful in harvesting GPS-on-benchmark data. NGS has received almost 500 observations so far, including about 80 bench marks. Multi-receiver HTMOD-style campaign surveys would be better supported by OPUS-projects, which is still a lab project.

• **Status of New Geoid Model**

**Dan Roman**

- The beta geoid models should be out soon (probably this week or before Christmas). The beta model should be tested by State Advisers and others qualified to assess points that have been included or excluded.
- The intent is to finalize a data set used to make GEOID09 around the time of ACSM in Salt Lake City. I will make the beta model with the NSRS2007 data (that had error estimates and was the bulk of the points) plus 745 of the 1700 or so that were not part of the NSRS2007.
- These 745 came from projects adjusted AFTER NSRS2007. Hence they are closely tied to NSRS 2007, though they don't have error estimates. Part of my beta testing will be to analyze these and possibly reject some.
- Dale and many others are working towards a quick analysis to get me some good errors for these points as well as those that were before the NSRS2007.
- The points that came before are the real bone of contention. They are \*not\* in NSRS 2007 and introduce decimeters of systematic error. The error estimates may help with that, though they will likely need to be ADJUSTed into the NSRS2007 to truly be reliable.
- Beyond that, all regions are intended to be finished soon with PR/VI being held off until summer to generate a gravimetric geoid model.

### **Outreach, Education, Capacity Building**

- Renee reported on the Southeast Regional meeting in Asheville, North Carolina. Presentations and notes for those meetings are now online: <http://www.ngs.noaa.gov/heightmod/EventsArchive.shtml>
- A National HMP forum is planned for February 20 at ACSM in Salt Lake City.

### **Events – meetings and workshops**

- **3-Day Precise Digital Leveling Workshop – January 27-29, 2009.** Agenda is available online: <http://www.ngs.noaa.gov/INFO/conferences.shtml>

### **Updates from States**

- **Illinois** **Amy Eller**  
Recent activities in Illinois include the distribution of an on-line questionnaire gathering data about existing geodetic and LiDAR data in and around Illinois. The HM team worked with the Public Opinion Laboratory at Northern Illinois University to develop and distribute the questionnaire. The information gathered will be used to create a database of existing conditions in Illinois to facilitate our proposed HM work.

Illinois also has a draft web site in progress and we expect to release it to the public around the first of the year. The URL will be <http://www.igs.uiuc.edu/nsdihome/webdocs/ilhmp/>

- **Arizona** **Dave Minkel**  
The Arizona Height Modernization Program (AZHMP) is working with Mohave County Flood Control District (MCFCD) on a proof-of-concept project to utilize a Real-Time Network (RTN) of Global Navigation Satellite System (GNSS) base stations in lieu of National Geodetic Survey (NGS) benchmarks to support FEMA-related activities in the district. The RTN will be comprised of AZHMP base stations (AZCORS) and additional stations established by MCFCD.

Mohave County encompasses about 13,470 sq mi (it is larger than the state of Maryland) in the very northwest corner of Arizona; it includes a large portion of the Grand Canyon. The desire is to utilize a partnership that includes MCFCD, AZHMP, NGS, and the Federal Emergency Management Agency (FEMA) to accomplish the project.

- **New Mexico** **Bill Stone**  
There are fourteen CORS (not national) in NM in remote locations with no internet or communications; currently data is collected and stored, and is retrieved manually once a week. He's looking for ideas how to get the needed communications there so they might be eligible to become national CORS. The owners don't need it so won't fund it. Rayce responded they do some things through satellite uplinks and they were going to talk off line about it.

### **Other Business**

Next meeting will be held Thursday, January 8, 2009 at 2:00 Eastern Standard Time.