

# Meeting Report - Montana Geodetic Control Working Group and Montana Height Modernization Executive Committee

---

**December 9, 2009** 10:00 A.M. to 12:00 P.M. at Montana Department of Transportation (MDT) headquarters, Helena, Montana in the ISD Conference Room (basement) with phone-in conferencing.

## Participating Members

- ☎ Diana Cooksey, Montana State University
- Dave Hoerning, MDT
- Bryce Larsen, MDT
- Ralph Jones, MDT
- ☎ Steve Niday, Missoula County
- ☎ Greg Thurston, City of Kalispell
- ☎ Curt Smith, NGS
- ☎ Stu Kirkpatrick, DOA
- ☎ Michael Sweet, University of Montana
- Rj Zimmer, DJ&A

## Members Not Present

- Celinda Adair, DNRC
- Tony Bachman, USFS
- Dave Davis, MDT
- Todd Ferris, Inland GPS
- Bill Grayson, BLM
- Gerald Pavlick, Morrison Maierle, Inc.

## Meeting Reports

### **1. Review and approve notes from previous meeting.**

- A. No comments or edits on October 5, 2009 draft meeting report - accepted as final.

### **2. General Announcements.**

- A. Ralph Jones has been promoted as the new Land Survey Manager at the MDT. Ralph replaces Dave Davis who retired from the MDT September 30, 2009. Ralph will replace Dave as member of the Montana Height Modernization Executive Committee and Geodetic Control Working Group.
- B. Curt Smith reported that he had attended the Great Lakes Regional Height Modernization Meeting on November 10 in Rockford, Illinois. This is a very successful working group - a consortium of nine states holding monthly phone meetings and bi-annual meetings with workshops – leveraging their experiences and successes to gain local and regional support for their height modernization efforts.

### **3. Montana Control Point Database (MCPD):**

- A. Rj Zimmer reports that the MCPD utility, though still draft and available for visual review on its test Web site, is moving along per schedule. The viewer is up and stable and test input datasets can be uploaded and viewed. The control data “up-loader” requires installed software on your computer as the initial “spreadsheet” does not provide up-load capability. The MCPD has been tested and appears to function well in Internet Explorer version 8 and Firefox and currently displays the input “test” Montana control points, NGS control and GCDB points.

Further testing of uploading control points was requested to help identify remaining issues and to work out data format issues specifically by MDT to identify and hopefully resolve their inherent data structure and loading issues. MDT input can help the overall MCPD review process by providing comments and ultimately enhancing the product and functionality of uploading data.

# Meeting Report - Montana Geodetic Control Working Group and Montana Height Modernization Executive Committee

---

Stu Kirkpatrick pointed out the biggest remaining concern was education about the complications encountered when uploading data by the general surveyor. We discussed outreach possibilities such as MARLS surveyor conferences and using MDT experiences in uploading data to help address encountered issues.

Dave Hoerning will look into MDT IT issues with loading the “up-loading” software. Zim will provide the login information and access to the uploading software. Dave and Ralph will address loading MDT control points into the MCPD on a test basis.

B. There were no new MCPD business or other issues discussed.

## 4. Geodetic Reference Center (GRC):

A. No new updates were made to the Geodetic Reference Center contact list. The most current list is as follows:

<u>Agency/University</u>	<u>Member</u>	<u>Potential Contacts Provided</u>
MSU Bozeman	Diana Cooksey	Rick Lawrence, MSU Spatial Sciences Center Doug Smith, MSU Civil Engineering Brett Gunnink, MSU Civil Engineering–Dept Head
MSU Northern	Diana Cooksey	Thomas Welch, College of Technical Sciences
UM Missoula	Michael Sweet	Mike Sweet
UM-Montana Tech	Michael Sweet	Paul Thale
Flathead CC	Steve Niday	Dave Dorsett, Survey Instructor
MDT	Bryce Larsen	James Walther, Preconstruction Engineer
NRIS	Stu Kirkpatrick	Evan Hammer, NRIS Manager, MT State Library
Base Map Service Center	Stu Kirkpatrick	Robin Trenbeath, GIO, MT Dept. Admin.
DNRC	Celinda Adair	(to be provided – ????)
MACO	RJ Zimmer	Harold Blattie 444-4360

B. Zim and Stu reported on their communications with Robin Trenbeath, State of Montana Geographic Information Officer, and the status of his initial meeting with Mike Bousliman, Chief Administrative Officer regarding any possible political or policy issues in the creation of a Geodetic Reference Center in Montana. We will wait for this communication to develop but want to keep it as an agenda item to remember its intent.

## 5. Montana Height Modernization Program (MTHMP) – Grant Status:

A. Bryce reported there was little change in the in the current grant and few hours were spent by MDT personnel administering MTHMP projects this period. Curt mentioned the Federal budget was expected to include the \$2.5 million for NGS National Height Modernization Program and NGS’s budget should be finalized in January. There was no indication from NGS that any of this NGS Height Modernization money will be available to sates through the grant process.

B. It was suggested spending some of the MTHMP money reserved for outreach to fund a representative from the MTHMP Executive Committee, namely Todd Ferris, to approach the Montana congressionals to garner their support for the MTHMP. It was also suggested Curt accompany Todd as a subject matter expert.

**Updates:** Steve contacted Todd who tentatively accepted the challenge 12/09/09. Curt contacted NGS management who require a letter of request (or other formal invitation) from the congressionals for Curt to participate as a subject matter expert in these meetings

# Meeting Report - Montana Geodetic Control Working Group and Montana Height Modernization Executive Committee

---

12/14/09. Bryce reviewed the restrictions of the Federal Grant which clearly indicate that grant monies cannot be spent in support of lobbying efforts. Grant documents also have reporting requirements on lobbying efforts made by organizations who accept grant money. Since the MDT is responsible for the grant, any lobbying efforts will have to be approved by the MDT Director. 12/15/09.

## 6. Montana CORS:

- A. UNAVCO <http://www.unavco.org/> – Diana Cooksey made initial contacts with Joe Shaw representing UNAVCO concerning a possible partnership but needs further information from this committee regarding our needs and requirements from their involvement. Diana is looking for a list of discussion topic she can address with Joe a little later when busy schedules subside.

Currently, UNAVCO's Plate Boundary Observatory (PBO) <http://pbweb.unavco.org/> has already established and maintains numerous continuously operating reference stations (CORS) scattered in and around Montana, most of which are not part of the NGS National CORS network. Many of these sites would enhance and fill the "holes" in the proposed Montana CORS network. As they are today, if they were incorporated into the NGS National CORS network, they could be easily used by the Montana spatial community in services such as NGS online positioning user service (OPUS). Looking to the future, these incorporated CORS could support real time positioning activities if they could provide data collected at 1 second intervals and streamed in real time.

**Update:** Curt erroneously reported at the meeting that NGS was looking to incorporate all PBO sites in Montana into their National CORS. This is not correct as there is no current effort by the NGS CORS team to incorporate PBO sites 12/15/09. Curt will continue to request that several of the PBO sites in Montana and Idaho be incorporated into the NGS National CORS program.

- B. Some action took place on the three priority sites, Helena, Lewistown and Richland Co., these past months. Stainless steel pipe, SECO antenna adapters, and rebar have been purchased for the Richland and Lewistown CORS.

A brief status report for these sites and other priority sites follows:

1. Helena MDT is on NGS list of "Future/Potential CORS" <http://www.ngs.noaa.gov/CORS/Status/>  
City of Helena has indicated they will provide the radio and mast to add to the Helena MDT CORS to broadcast real time corrections for the Helena area.  
Dave Hoerning and Robert Cash, MDT, have been working with NGS to resolve final issues with the MDT CORS, such as firmware updates and file compression.
2. Lewistown – (complete equipment and monumentation)
  - Diana reported on a possible contact and interested local support person, Neil Kadrmas, Charles M. Russell (CMR) Wildlife Refuge.
3. Richland County – (split cost of pillar monumentation)
  - Dave visited initial proposed site and relocated to a less busy location on the edge of Airport property. A 40-hour data set from this new site along with digital photos was sent to Curt for review.
4. Lubrecht – Mike Sweet reported the site is up and running collecting and providing data locally.  
Need to get documents together and submit to NGS along with access to site data.  
**Update:** Mike submitted documents and link to data to NGS 12/14/09.
5. Montana Resources, Butte – (full cost of pillar monumentation)
  - December 09 -- No activity on this project at this time.

# Meeting Report - Montana Geodetic Control Working Group and Montana Height Modernization Executive Committee

---

6. Havre – (update existing receiver to 5800 and purchase Zephyr Geodetic antenna)
  - December 09 -- No activity on this project at this time.
7. Flathead Valley CC – (update existing receiver to 5800 and purchase Zephyr Geodetic antenna)
  - December 09 -- No activity on this project at this time.
8. Eastern Montana – Wolf Point, Miles City, or Plentywood – (complete equipment and monument)
  - December 09 -- No activity on this project at this time.
9. Choteau – (complete equipment and monument)
  - December 09 -- No activity on this project at this time.
10. Hamilton – (complete equipment and monument)
  - December 09 -- No activity on this project at this time.

## C. Old/New business CORS.

- Diana Cooksey reported last meeting that Trimble still includes lists several non operational community base stations in their data and made contacts with Neil Kadrmas, CMR Wildlife Refuge who will pursue having the CMR site removed from Trimble's list.
- There was no new business discussed relating to CORS.

## 7. Outreach:

- A. Update on developing an outreach plan and timeline to help build the case for the GRC and a continued MTHMP. Account for the funds identified in the grant proposal.
  - Again, no activity has occurred this reporting period on developing an outreach plan accounting for the funds identified in the reprogram/re-budget. Dave Hoerning has been assigned this task when time allows.
- B. MARLS Surveyor's Conference February 24, 25 and 26, 2010 - Helena
  - Dave Hoerning reported MARLS will provide booth space at the annual surveyor's convention. Space will be provided next to the NGS booth at a minimal cost . Some remaining questions concerned availability of electricity and Internet connection for possible live presentations.
  - Zim will produce a poster of the MCPD promoting benefits.
  - Steve provided an image of CORS monumentation/equipment setups and associated costs which Dave has made into a poster.
  - Greg Thurston will put together a poster of the Flathead Valley Height Modernization GPS Project – map, photos participants.
  - Pamphlets introducing RTN, MTHMP, MCPD, and GRC need to be developed as handouts.
  - Dave H., Curt Smith, Steve Niday and Rj Zimmer have agreed to attend the booth for the MARLS convention.
- C. Status of an improved MTHMP 1-pager with emphasis towards non-technical audience.
  - Curt reported there has been no new development on a non-technical 1-pager for MTHMP. He did discuss visiting other state's Web sites to review their efforts to help incorporate their ideas into creation of our 1-pager(s).
- D. New business outreach –
  - Curt suggested revamping and improving the MTHMP Web site for currency and improved information. He suggested visiting other state's Web sites to review their efforts to help incorporate their ideas into possibly modifying our Web site. Try the NGS Height Modernization Links to other state's efforts:  
<http://www.ngs.noaa.gov/heightmod/states.shtml>

# Meeting Report - Montana Geodetic Control Working Group and Montana Height Modernization Executive Committee

---

## 8. MTHMP Projects:

- A. Greg Thurston provided a progress report on the Flathead Valley Height Modernization GPS Project.
  - GPS observations completed October 13, 14, and 15, 2009 to 25 new and existing control stations. There were 1 state and 1 city agency, 1 college and 9 private firms participating with 21 individuals in this project. Time and materials were all donated.
  - Curt Smith, NGS, is currently reviewing and processing project data.
- B. New business MTHMP
  - There was no new business or projects discussed at this meeting.

## 9. Action items / responsible party / due dates.

- A. Work with BLM to resolve GCDB “glitch” in MCPD / Stu / Dec.
- B. Provide test data input into the MCPD and provide feedback to Zim / Dave, Ralph / Jan.
- C. Review MCPD Web site and provide feedback to Zim / Everyone / ongoing.
- D. Update MDT Height Mod Web page – contacts, minutes, etc. / Ralph / Feb.
- E. Notes/direction to Diana Cooksey regarding talking points with UNAVCO / everyone / Jan.
- F. UNAVCO partnering follow-up. / Diana / as schedules permit.
- G. Develop an outreach plan for revised funding. /Hoerning (consult Zim)/ Jan. or Feb.
- H. MARLS booth – check on power and Internet / Dave / Feb.
- I. MARLS booth posters / Dave, Zim, Steve, Curt, Greg, others? / Feb.
- J. MARLS booth 1-pagers/handouts developed / Dave, Zim, Steve, Curt, others? / Feb.
- K. Finalize any outstanding issues - Helena MTDT CORS / Dave, Curt / Dec.
- L. Finalize any outstanding issues - Lubrecht CORS / Mike / Dec.
- M. Contact NGS to pursue PBO sites in Montana as National CORS / Curt / Dec.
- N. Contact Neil Kadrmas, CMR Wildlife Refuge to support Lewistown CORS / Dave / Jan.
- O. Install Lewistown and Richland County CORS. /Dave / Spring 2010
- P. Review other state’s Web sites to gain ideas to improve MTHMP Web site / everyone / Feb.
- Q. Improve MTHMP 1-page handout with emphasis towards non-technical audience. / Curt, Celinda, others ? / Feb.

## 10. Next Meeting/Upcoming Events.

The next meeting is scheduled for Monday, February 8, 2010 from 1:00 P.M. to 3:00 P.M. at the ISD conference room MDT headquarters, Helena Montana.

Phone-in conferencing will be available for out of town participants. If you are requesting a local call-in number please let Bryce know as early as possible as local numbers are a separate request for phone conferencing and do not cost as much as the toll-free numbers.