

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

Meeting Schedule

June 14, 2010 10:00 a.m. to 12:00 p.m. at Montana Department of Transportation (MDT) headquarters, Helena, Montana in the ISD Conference Room (basement) and via a webinar.

Participating Members

- ☐ William Grayson, BLM
- Dave Hoerning, MDT
- Ralph Jones, MDT
- Bryce Larsen, MDT
- ☐ Curt Smith, NGS
- Greg Thurston, City of Kalispell

Members Not Present

- Celinda Adair, DNRC
- Jimmie Brewer, DOWL HKM
- Tony Bachman, USFS
- Diana Cooksey, Montana State University
- Todd Ferris
- DeImna Heiken, Triangle Ag-Services
- Stu Kirkpatrick, DOA
- Steve Niday, Missoula County
- Gerald Pavlick, Morrison Maierle, Inc.
- Michael Sweet, University of Montana
- Bill Weber, Northwest Energy
- Rj Zimmer, DJ&A

Visitor

- Eric Martin, MT Tech

Meeting Report

1. Review and approve notes from previous meeting.

- A. Discussed report for April 2010 meeting. There was no further discussion or comments on the report which is available at: http://www.mdt.mt.gov/mdt/heightmod/strategic_plan.shtml.

2. General Announcements.

- A. Eric Martin, from MT Tech was introduced. Eric is with the Civil Tech program and is looking into developing a class on height modernization.
- B. Curt Smith announced that the NGS recently held a geospatial summit. Over 200 people attended the 2 day event. Several topics related to height modernization were discussed including new horizontal and vertical datums. Implementation of the new datums may come in the 2018-2020 timeframe. Curt recommended group members review available information on this summit. Additional information can be found on: <http://www.ngs.noaa.gov/2010Summit/>.

3. Montana Control Point Database (MCPD):

- A. Old business MCPD.
 - a. Status report.
No status report on the MCPD was given at this meeting.
 - b. Other old business - Status of funding request for MCPD manager.
On May 14, 2010 Zim sent out an e-mail announcing that the geodetic control working group's request for from the Montana Land Information Advisory Council was approved. Additional information is available at: <http://giscoordination.mt.gov/grant.asp>.

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- B. New business MCPD.
 - a. Curt Smith announced that Idaho was adopting MCPD as a model for work they are doing. After looking at what other states have done Idaho was impressed with what Montana was able to do with the MCPD.

4. Geodetic Reference Center (GRC):

- A. Update on meeting with Mike Bousliman to discuss GRC.

Sometime ago Robin Trenbeath contacted Mike Bousliman to discuss the GRC. Mike wanted to meet with Bryce before discussing further with Robin. The meeting between Bryce and Mike has not taken place as of yet.
- B. Old business GRC.
 - a. No other old business was discussed.
 - b. A list of possible GRC hosts discussed in the past 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, Eric Martin-MT Tech
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

- C. New business GRC.

No new business was brought up.

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

- A. Old business MTHMP grant.
 - a. Budget review.

Bryce gave an update on the budget. It appears that there will be money remaining to put towards additional projects. Projects discussed as the next priorities were: Flathead Valley CC and Havre receiver/antenna updates, developing partnerships in Miles City and/or Plentywood to develop a new CORS and working with the USFS to develop a CORS site at Choteau. Additional information is contained in section 5.B.
 - b. Report on process to get earmark funding and contact with MDT Director.

Steve Niday has attempted to contact the MDT Director to discuss the GRC, letters of support and working with Montana’s congressional delegation to obtain earmark funding for Montana’s height modernization program. In an e-mail dated June 14, 2010, Steve reported some progress was being made. We would ask Steve to continue with his attempts and report back at the next meeting. <<(Steve)
 - c. Status of Height Modernization plan update.

The plan was circulated for comment February 9, 2010. Updates were made based on comments received. The revised plan was then circulated on April 14, 2010 for discussion at this meeting. Due to low attendance it was decided to put this item on

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the agenda again for the next meeting. In the mean time, Curt volunteered to talk to Steve to see if there are areas of the plan that need to be changed to target the congressional funding request, GravD, or other areas. Please remember the plan that we are presently working off of is the plan that was submitted to the NGS as part of the grant request. It would be great if we could get everyone's input so the plan can be broadened to include all areas of interest (agriculture, construction, oil & gas, flood management, etc.). Bring your ideas to the next meeting. «(Curt / Everyone)

- d. Continued discussion on possible funding sources – federal, others.

No additional discussion took place on possible funding sources.

- e. Letters of support.

No additional letters of support were obtained. Where are we at and how do we need to proceed with the letters of support? «(Steve)

- B. New business MTHMP grant.

- a. Project priorities.

With the possibility of funds remaining to put towards additional projects, project priorities were discussed with the following follow-up items:

- Flathead Valley CC and Havre – (receiver/antenna updates) – the initial plan for these two sites was to use grant funds to purchase new antennas and for Inland GPS to donate used 5700 receivers. At this time we need to update the plan and costs associated with these two projects. Todd and/or Glenn Borkenhagen need to be contacted to determine if there is still a possibility of them donating 5700 receivers. If this is not possible, we should see if Frontier Precision or Selby's would be willing to donate one or more receivers. Bryce will check into this further. «(Bryce)
- Butte – (full cost of pillar monumentation) – the Montana Resources site was removed from the list in favor of developing a site at MT Tech. Eric Martin will check with officials at the school to determine level of partnership that will be required. «(Eric)
- Eastern Montana – (new CORS) – the initial plan was to develop partnerships in Miles City, Wolf Point and/or Plentywood to establish a new CORS. Initial interest was shown by Jimmie Brewer and Quinn Wright of DOWL HKM in Mile City. Ralph will follow up with them to determine the level of partnership that will be required. «(Ralph)
- Choteau – (new CORS in co-operation with the USFS) – the initial plan was to work with the USFS to establish a new CORS site in Choteau. The USFS initially did not have funding to help out. Curt did a little investigation to see if any of the PBO sites that are being added to the network would eliminate the need for a new site in Choteau. Curt found out that the nearest PBO site is in East Glacier, 65 miles away, thus Choteau would still be a good candidate for a new site. Bryce will follow up with Tony Bachman to see if the USFS is still interested in partnering and what level of partnership would be required.

«(Bryce)

6. Montana CORS:

- A. Latest status – Montana CORS:

1. Helena – (complete equipment and monumentation)
 - a. Report on Helena MTD T CORS.

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MTDT is now online but does not appear on the NGS map. Curt indicated the station is being used but it will take a little more time for the NGS to add it to their map.

The city of Helena has purchased a broadcast radio, has obtained a radio license, has built a mast and will use the data from the MTDT CORS to broadcast an RTK correction signal. They do not plan on charging for the service.

- b. Additional new or old business.
No new business was discussed.
2. Lewistown – (complete equipment and monumentation)
 - a. Report on progress of Lewistown CORS.
A pillar monument has been poured, a GNSS receiver has been ordered (rcd. 6-18-10) and preliminary arrangements for cable trenching, running conduit etc. have been made. Expectations are to have this site up and running in the next several months.
 - b. Additional new or old business.
No new business discussed.
3. Richland County – (split cost of pillar monumentation)
 - a. Report on progress of Richland County CORS.
Nothing new was reported for this site. In the last meeting it was reported that monument parts had been ordered and delivered to Russ Huotari, Richland County. Construction is expected to take place in the summer of 2010.
 - b. Additional new or old business.
No new business discussed.
4. Butte – (full cost of pillar monumentation) – the Montana Resources site was removed from the list in favor of developing a site at MT Tech.
5. Havre – update existing receiver to 5700 (possible donation by Inland GPS) and purchase Zephyr Geodetic antenna
6. Flathead Valley CC – update existing receiver to 5700 (possible donation by Inland GPS) and purchase Zephyr Geodetic antenna
7. Eastern Montana – Wolf Point, Miles City, or Plentywood – (complete equipment and monument)
8. Choteau – (possible partnership with USFS)
9. Hamilton – (possible partnership with USFS)
10. Lubrecht – (UM)
 - a. Update - Lubrecht CORS.
Project complete.
11. PBO Sites – (add existing PBO sites to national CORS)
 - a. Status of including PBO sites into the national CORS.
Curt reported that the NGS will include PBO sites in the NGS CORS network. The process is underway but may take a little time. There are a number of sites that will benefit Montana's network including: P047 - East Glacier, MT, P053 - Whitewater, MT, P045 - Dillon, MT, P461 - Emigrant, MT, P455 - ID/MT border south of Dillon, P361 - Island Park, ID, P025 - Bonners Ferry, ID, P024 - Wallace, ID.
 - b. Additional new or old business
Curt mentioned that the NGS will add Canadian sites to the CORS network; we just need to let the NGS know which sites would be beneficial. Curt will look to

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see if there are any Canadian sites that would benefit Montana and report back.

«(Curt)

- B. Old business Montana CORS.
No additional old business was discussed.
- C. New business Montana CORS.
No new business was discussed.

7. Outreach:

- A. Update status 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.
 - a. Develop an outreach plan for revised funding.
No new developments in this area yet. Hoerning has been assigned this task in consultation with Zim. We will discuss this further at the next meeting.
«(Dave/Zim)
- B. Web page outreach.
 - a. Review other state's web sites to gain ideas to improve MTHMP web site.
No comments were made. Need to add this item to next meetings list after everyone has had a chance to review other sites. «(Everyone)
 - b. Update MTHMP web page – add updated plan and updated 1 page handout. «(Ralph)
 - c. Look into adding CORS status map to MTHMP web site. «(Dave)
 - d. Look into adding a list of height modernization projects to MTHMP web page. «(Zim)
- C. Old business MTHMP outreach.
No other old business was discussed.
- D. New business MTHMP outreach.
NGS has requested help in developing height modernization posters for the upcoming ESRI conference in San Diego. It may be a little late for this year but developing a height modernization poster for Montana may be something MT Tech students may be interested in doing. Eric Martin will look into this and report back at the next meeting. «(Eric)

8. MTHMP Projects:

- A. Update on Flathead Valley Height Modernization GPS Project.
Greg provided an update on the Flathead Valley Height Modernization GPS Project. The data has been submitted to the NGS and everyone is optimistic it will be posted soon.
- B. Old business MTHMP
No other old business was discussed.
- C. New business MTHMP
Eric Martin, MT Tech, indicated he was looking at setting up a height modernization class at the MT Tech - College of Technology. He indicated he was looking at ways for his students to help build the height modernization program in Montana. Several suggestions were offered including: benchmark recovery in the Butte area, OPUS geoid analysis, CORS densification, developing a Montana height modernization poster and working on updating Montana CORS densification maps. Eric will look into these ideas and discuss further in future meetings. «(Eric)

9. Action items / responsible party / due dates.

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- A. Continue to try to contact MDT Director to discuss GRC, letters of support and earmark funding. **(Steve – August)**
- B. Discuss specific height modernization plan updates required for earmark funding with Steve. **(Curt – August)**
- C. Review present height modernization plan and provide comments on updates. **(Everyone – August)**
- D. Update on letters of support. **(Steve – August)**
- E. Flathead CC and Havre project status and contacts. **(Bryce – August)**
- F. MT Tech CORS possibility and level of partnership. **(Eric – August)**
- G. Eastern Montana – Miles City interest and level of partnership. **(Ralph – August)**
- H. Choteau – USFS interest and level of partnership. **(Bryce – August)**
- I. Inclusion of Canadian CORS into NGS network. **(Curt – August)**
- J. Continue work on Lewistown and Richland County CORS. **(Dave – August)**
- K. Develop an outreach plan for revised funding. **(Dave/Zim – August)**
- L. Review other state's height modernization web sites to gain ideas to improve MTHMP web site. **(Everyone – August)**
- M. Add MTHMP 1-page handout to web site. **(Ralph – August)**
- N. Add CORS status map to MTHMP web site. **(Dave – August)**
- O. Develop a list of height modernization projects to be included on MTHMP web site. **(Zim – August)**
- P. Montana height modernization poster – MT Tech student project. **(Eric – August)**
- Q. Student projects. **(Eric – August)**

10. Next Meeting/Upcoming Events.

The next meeting is scheduled for Monday, August 23, 2010 from 10:00 A.M. to 12:00 P.M. in the ISD Conference Room, MDT headquarters, Helena Montana.

For those who cannot make it to Helena a webinar has also been scheduled.