

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

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## Meeting Details

**Date:** January 10, 2011  
**Time:** 10:00 a.m. to 12:00 p.m.  
**Location:** Montana Department of Transportation (MDT) headquarters, Helena, Montana  
ISD Conference Room (basement).  
**Webinar:** A webinar was available for those who could not personally attend.

## Participating Members

- ☐ DeImna Heiken, Triangle Ag-Services
- ☐ Steve Niday, Missoula County
- ☐ Micheal Sweet, U of M
- ☐ Stu Kirkpatrick, DOA
- Ralph Jones, MDT
- Bryce Larsen, MDT
- Kevin McKenzie, Frontier Precision
- Curt Smith, NGS
- Rj Zimmer, DJ&A

## Members Not Present

- Celinda Adair, DNRC
- Tony Bachman, USFS
- Jimmie Brewer, DOWL HKM
- Diana Cooksey, Montana State University
- Todd Ferris
- Eric Martin, MT Tech
- Gerald Pavlick, Morrison Maierle, Inc.
- Bill Weber, Northwest Energy
- Dave Hoerning, MDT
- William Grayson, BLM
- Greg Thurston

## New Invitees Present

- Dan Igotov, MDT

## New Invitees Not Present

- Russ Huotari, Richland County
- Bryce Scala, Selby's

## Meeting Report

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

- A. Discussed report for October 2010 meeting. There were no comments and notes were accepted.

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

- A. Greg Thurston is now retired but would like to remain on the mailing list.
- B. Todd Ferris is now employed by DJ & A. Unknown status and e-mail at this time.
- C. Dan Igotov of MDT is now on the Height Mod. committee

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

- A. Old and new business MCPD.
  - a. Status report.

Rj Zimmer reported that the MCPD is up, running, and stable. Rj also announced that a different approach to uploading is being used due to previous issues with the .NET approach. Completed spreadsheets should be email to Zim who will work with Base Map Services Center to load the spreadsheet to the database. Several possible

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future enhancements were discussed including: adding CORS and HARN stations to the map in the Viewer and using different symbology and to differentiate RTK vs. non RTK CORS sites and providing links to various CORS sites throughout the state. Rj mentioned that they are looking at funding sources to help finance future development. Possible partners previously mentioned were the US Forest Service, Land Information Advisory Council, Bureau of Land Management and partnering with Idaho (they are interested in using the MCPD application in their state).

- b. Other old business  
MDT and Missoula County are still having trouble uploading coordinate data to the MCPD. See A(a) above.
- B. New business MCPD.
  - a. Stu and Rj updated status of new MTID GC FGDC grant. Should have an answer back in Feb. or March. If approved half would go to MCDP application changes and half for the writing of a business plan for the GRC.
  - b. Rj says that MCPD training seminar for the MARLS conference in Billings is ready. He will also post the materials on the web site.

## 4. Geodetic Reference Center (GRC):

- A. Old business GRC.
  - a. Rj mentioned that MT Tech may be interested in hosting the GRC, however there has been no return communication from them.
  - 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

- B. New business GRC.
  - a. Curt and Rj commented that the state of Idaho and Idaho State University is very interested in height modernization as well as possibly hosting the GRC. They may be able to help with grant money as well. Consensus seems to be that in working with another state(s) would be the best way to convince feds to help with funding.

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

- A. Old business MTHMP grant.
  - a. Report on process to get earmark funding and contact with MDT Director.  
Steve Niday and others reported that he has been no new news on attempts to contact the MDT Director to discuss the GRC or obtain a letter of support. There has been no news with earmark funding as well however it was agreed that earmark funding is

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“blacklisted” at this time. Steve said he will continue to apply. No other developments in this area were reported. We would ask Steve to continue to follow up on these items and report back on any new developments. «(Steve)

b. Status of Height Modernization plan update.

Ralph Jones will have the updated plan put on the web site. Members are reminded that this is a dynamic document and changes can be made at any time. «(Ralph)

c. Letters of support.

DeImna indicated she spoke with the executive director of the Montana Grain Growers Association who was supportive but needed more information. DeImna will be attending the board meeting in Feb. She is looking for material targeted towards this specific audience. The current plan and one-page handouts will not work. DeImna also mentioned that the new updated plan and upcoming business plan might be helpful. Rj will send latest outreach material. «(Rj,Curt, Ralph, DeImna)

d. New project priorities

A recap of project priorities are as follows:

1. Lewistown – new CORS (equipment and monument).
2. Richland County – new CORS (assist with monument and provide technical assistance). Haven’t heard from Russ.
3. Flathead Valley CC and Havre – (receiver/antenna updates)
4. Eastern Montana and Butte – new CORS (full cost of pillar monumentation)

B. New business MTHMP grant.

DeImna offered to give an automated truck driving demonstration at the next meeting to the executive committee and the MDT Director. The system utilizes GPS for its guidance system. The system takes about a half hour to set up. Ralph will work with DeImna to get something scheduled. It was decided to wait for better weather. «(Ralph)

## 6. Montana CORS:

A. Latest status – Montana CORS:

1. Lewistown – (complete equipment and monumentation)

a. Report on progress of Lewistown CORS.

A pillar monument has been poured and a GNSS receiver has been purchased and installed. The site is up and running and data submitted to NGS for inclusion into the national CORS which has not happened as of this meeting. «(Ralph, Curt, Dan)

2. Richland County – (split cost of pillar monumentation)

a. Report on progress of Richland County CORS.

Nothing new was reported for this site. In a previous meeting it was reported that monument parts had been ordered and delivered to Russ Huotari, Richland County.

3. Havre – (receiver/antenna updates)

a. Report on progress of Havre (MSU Northern) CORS updates.

Kevin McKenzie reported that Frontier Precision will be able to upgrade both receiver and antenna through Trimble’s educational program. The school will need to sign a loan agreement to participate in the program. Kevin will work with the school to get the agreement signed and the antenna and receiver updated. Jeremy Siemens was mentioned as a possible contact for the school. Project is moving forward. «(Kevin)

4. Flathead Valley CC – (receiver/antenna updates) – see discussion above.

a. Report on progress of Flathead Valley CC CORS.

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Kevin McKenzie reported that Frontier Precision will be able to upgrade both receiver and antenna through Trimble's educational program. The school will need to sign a loan agreement to participate in the program. Kevin will work with the school to get the agreement signed and the antenna and receiver updated. Kevin reported that he has already contacted and discussed this with Dave Dorsett. Project is moving forward. «(Kevin)

5. Butte – (full cost of pillar monumentation)
    - a. Report on progress of Butte (MT Tech) CORS.  
Eric Martin is in the process of checking with officials at the MT Tech to determine the level of partnership that will be required. g. «(Eric)
  6. Eastern Montana – (complete equipment and monument for Wolf Point, Miles City, Plentywood and/or other locations)
    - a. Report on progress of Eastern MT CORS.  
The initial plan was to develop partnerships in Miles City, Wolf Point and/or Plentywood to establish a new CORS. Interest was shown by Jimmie Brewer and Quinn Wright of DOWL HKM in Miles City. Jimmie indicated DOWL/HKM would be willing to participate by offering computer equipment and manpower. He will do some initial site investigation and contact the airport commission and county commissioners about the possibility of locating a site at the airport or other logical place. Jimmie Brewer reported via e-mail that as of this meeting he hasn't had much luck gathering support for a CORS in Miles City but will continue to work on and report back at the next meeting. There is no new news. «(Jimmie)
  7. Choteau – (possible partnership with USFS)
    - a. Report on progress of Choteau CORS.  
This project is inactive at this time.
  8. Hamilton – (possible partnership with USFS/City of Hamilton)
    - a. Report on progress on Hamilton CORS.  
This project is inactive at this time.
  9. Helena – (complete equipment and monumentation)
    - a. Report on Helena MTDT CORS.  
This project is complete. The station remains up and operational. Kevin said he will find out the broadcast frequency for the city of Helena RTK correction broadcast.
  10. Lubrecht – (UM)
    - a. Update - Lubrecht CORS.  
This project is complete. The station remains up and operational.
  11. PBO Sites – (add existing PBO sites to national CORS)
    - a. Report on adding MT PBO to the national CORS.  
This project is complete. PBO sites in MT have been added to the national CORS. It was brought up that we should track contribution to height mod from PBO and county CORS stations.
- B. Old business Montana CORS.  
No additional old business was discussed.
- C. New business Montana CORS.  
Steve Niday suggested that we update our list of CORS stations and develop a list of priority stations to assist DeImna in her efforts with the MT Grain Growers Association. «(Curt, Ralph)

Idaho remains interested in developing a real-time GPS network for Idaho, beginning with its I-15 corridor; and developing partnerships for areas of common interest such as

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sharing of data/station information, server infrastructure and equipment/software. Future meetings will be held to continue discussions. This prompted a discussion on the cost of software needed to run a real-time network. Kevin McKenzie will look into this and provide a ballpark figure at the next meeting. «(Kevin)

## 7. Outreach:

- A. Develop an outreach plan for revised funding.
  - a. RjZimmer will put a one page document together outlining what we have done to date (MACO, MARLS, Grain Growers, MT Tech., leveling seminars, GRC etc.). «(Zim)
- B. Web page outreach.
  - a. Update MTHMP web page – Ralph will have the updated plan, the 1 page handout, and an updated CORS map to the web page. Ralph will work with Zim on getting the map into KML format. «(Ralph)
  - b. Look into adding CORS status map to MTHMP web site. (see item b above) «(Ralph, Zim)
  - c. Look into adding a list of height modernization projects to MTHMP web page. «(Zim)
- C. Old business MTHMP outreach.

No other old business discussed
- D. New business MTHMP outreach.
  - a. Rj needs responses/suggestions for additions to outreach plan report list presented at the meeting. Please provide responses no later than one week before next meeting (Mar 14, 2011)
  - b. Updates to made to web page (see 7(A)(a)(b)(c) above). «(Zim, Ralph)
  - c. Prepare outreach items for the NGS booth at MARLS conference «(Zim, Dan, Curt)

## 8. MTHMP Projects:

- A. Old business MTHMP
  - a. Update on Mt Tech student projects (poster, monument recovery, MCPD contributions ...).

Eric Martin, MT Tech was unable to attend this meeting. We will ask Eric provide an update on the following items at the next meeting:

    - Status of a height modernization poster.
    - Mark recovery efforts
    - Butte CORS
    - Contributions to the MCPD
  - b. News/updates on completed projects. (Flathead Valley GPS Project ...)

Flathead Valley Height Modernization GPS project is complete.
  - c. No other old business was discussed.
- B. New business MTHMP

Updates will be made to Height Mod Project list spreadsheet. «(Zim, Dan, Curt)

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

- A. MCPD upload issue. (Zim - January)
- B. Contact MT Tech, Paul Thale, to set up informative meeting on hosting the GRC. (Zim – on-going)

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- C. Continue to try to contact MDT Director to discuss GRC, letters of support and earmark funding. **(Steve – on-going)**
- D. Have updated plan placed on MDT height mod web site. **(Ralph – January)**
- E. Help develop materials for MT Grain Growers Association presentation. **«(Curt, Ralph, DeImna - January)**
- F. Automated driving demo. **«( Ralph, DeImna – when weather permits)**
- G. Developments with FVCC and Havre CORS. **(Kevin – on-going)**
- H. Developments with MT Tech CORS. **(Eric – on-going)**
- I. Developments with Miles City CORS. **(Jimmie – on-going)**
- J. Update CORS map and update CORS priority map. **«(Curt, Ralph - January)**
- K. Software costs for RTN software. **(Kevin - January)**
- L. One page outreach summary. **(Zim – will be ready for March meeting)**
- M. Add updated plan and MTHMP 1-page handout to web site. **(Ralph – January)**
- N. Add CORS status map to MTHMP web site. **(Ralph, Zim – January)**
- O. Develop a list of height modernization projects to be included on MTHMP web site. **(Zim – please send project information to Zim ASAP so that we can this posted by the MARLS conference Feb 24)**

## 10. Next Meeting/Upcoming Events.

The next meeting is scheduled for Monday, March 14, 2011 from 10:00 A.M. to 12:00 P.M. in the Basement West Conference Room, MDT headquarters, Helena Montana.

MARLS Conference-Billings. Feb 23-25, 2011

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