

Montana Geodetic Report

By: Stew Willis
June 5, 2019

Announcements

Bill Stone and Brian Shaw from the NGS will be assisting with the transition as Pam Fromhertz retires in June, 2019.

Stew Willis is replacing Joshua Phillips as The Montana Geodetic coordinator for MARLS and will be joining Tyson Olinger (MDT) as Geodetic co-coordinators for Montana.

RMRC Meeting , Helena, MT; April 1st

Attendees:

Erin Fashoway, MT State Library
Pam Fromhertz, NGS
Wally Gladstone, MT Tribes
Brian Huotari, MDT
Joe Kauffman, NE MT
Tyson Olinger, MDT
Bill Weber, MDT
Stew Willis, USFS

- **Legislature**

Actions were taken by Erin and Wally to seek funding for the RTN but the opportunity for that funding this Legislative session has passed.

- **MDT**

MDT is currently exploring the opportunities for adding GNSS antennas to 4 section houses in the Helena Region. These locations are Cascade, Lincoln, Townsend and White Sulphur Springs. Upper management has initiated an in-house research project that will explore the different business models for an RTN. A report was provided to Director Tooley to take to a Cabinet meeting April 3rd.

- **NW MT**

Stew is working towards updating the FVCC CORS with help from Tom Sands. The duo is also planning installation of GNSS Stations to airport facilities in Eureka, Libby, Thompson Falls and West Glacier. Stew has been in contact with Steve Niday about the CORS station in Polson and plans to follow-up on replacing said station.

- **MT State Library**

The State Library is willing to host the RTN but needs funding. The State Library has ideas for the RTN to follow Utah's example of a fee subscription-based system. Funding will be required to buy software, new stations, coordinator salary, etc. The system would be self-sustaining eventually with fees providing coordinator and maintenance costs.

- Wally

There is potential for four PBO CORS(P052,P053,P054,P055) to be upgraded and six GNSS stations added during a pipeline project in eastern MT. This would be a great addition to the MTSRN in a highly needed area. Hopes are high for this pipeline project. Wally is still in the communication phase with Torgerson Machinery for adding their AG GNSS stations(approx.. 20 stations) to the network.
- Pam

Be on the lookout for CORS switching from IGS08 to ITRF14. SPCS 2022 • Discussion on Layer Design. Montana will most likely have two layers: 1) the statewide zone NGS is providing for all states and 2) an LDP layer.
- LDPs

Wally provided a presentation on LDPs. As of now, SPCS2022 LDP boundaries cannot overlap. Redesign of the RMTCRS could be necessary. Funding options for the design of LDPs was discussed and exploration of funding is a priority. The State Library could possibly provide grants for the design and implementation of LDPs with the justification of avoiding multiple LDPs in the same jurisdiction. A discussion on software capabilities to transform from grid to LDP ensued.
- Units of measure

Long story short, International Feet could be the unit for the future datum. More to come. Along the same lines, a discussion ensued on the state statute language for surveying and mapping datums.
- Next deadline

An October 31, 2019 was set for the group to have a preliminary design for “Layer 2”. This gives the group a four month buffer to work out problems. A “Consensus letter” will be provided by the working group by the March 2020 official “proposed design deadline.”
- Outreach

Hopefully NGS will provide educational workshops for LDP development. Joe Kauffman has joined the working group as representation for NE MT. An update to the MARLS web information page is necessary, updating all member information.
- Recruitment for a leader of MAGIP to joinMT Geodetic Working Group

Steven Jay, Park County GIS, is to join the group as a MAGIP representative.
- Geo Spatial Summit May 6-7, 2019

Register by April 5th for live and online attendance. Stew Willis will be present through MARLS as representation for MT. It was unclear if Jonathan Roen would be attending
- GPS on Benchmarks

A new map has been published on the NGS website with more updates to come in the near future. Pam is going to check on the grade of accuracies of the NCAT transformation tool (survey or mapping). Currently there is no disclaimer for accuracies on the website.

Geospatial Summit, Silver Spring, MD; May 6th – 8th, 2019

- Recordings (not yet available)
- Keynote speakers from NGS and other agencies covered various topics that the NGS is working on including: SPSC2022, Real Time Networks, new Geoid models, Grav-D projects, GPS on Benchmarks, Low Distortion Projections, LiDar, OPUS Projects and other topics.
- Each day there were multiple speakers with a chance for the audience to ask the panel questions at the end of the day.
- Very informative summit and a great resource to connect with NGS and other agencies.

RMRC Meeting , Conference Call May 28th, 2019

Attendees:

CO- John Hunter, Jerremy Harris, Becky Roland, Genie Hays, Dave Seiler, Thomas Breitnauer

WY- Mark Corbridge, Karen Rogers

MT-Wally Gladstone, Tyson Olinger

NGS – Pam, Bill Stone, Brian Shaw

-Introductions

Bill Stone and Brian Shaw will be assisting with the transition as Pam retires. Pam has built a [spreadsheet](#) of resources for the transition. ACTION: There are several sheets. Please add your contact and other pertinent information.

-Geospatial Summit de-brief

- ❖ Recordings (not yet available)
- ❖ [Photos](#)
- ❖ Posters (NGS convocation)
 - Rocky Mountain Regional [Coordinator](#) s and Working Group Members
 - [Pikes Peak](#)

-Websites

- ❖ CO and MT websites need updating. Click here for [WY updated website language](#) .
- ❖ Each state has NGS material on various webpages
 - CO www.plsc.net/geodetic_resources.php (would like to get this material also on [GIS Colorado](#) website)
 - WY <http://wygeo.org/ngs-info/>
 - MT www.marls.com/resources/montana-geodetic-resources/ (would like to get this material also on [MAGIP](#) website)

- State of SPCS2022

- ❖ John Hunter - Colorado is trying to identify the stakeholders and provide deadlines to get to a consensus on the LDP designs and other layers.
 - Colorado is looking at doing 3 different layers and probably the most complex of the 3 states.

- John Hunters [article](#) (May 2019) and [survey](#) on SPCS2022 for CO
- [Planning Documents from CO](#) and [PLSC report](#)
- ❖ Mark Corbridge - Wyoming has 4 zones and plans to keep the 4 zones, have a state wide zone and LDPs for the reservations
 - Mark will meet with the WY Geodetic Coordinator WG on wed at 11 to derive a plan; then will set a mtg with Bill and Brian
- ❖ Tyson/Wally - Montana will keep state zone as the first layer, use LDPs for the second layer and. Has set a deadline of October 4 for proposed designs to allow time for nailing things down.
 - MARLS has an [LDPs handbook](#) , currently for the reservations, but perhaps needs to be more inclusive.

-Conferences

- ❖ June 10-13, 2019 - [Association of American State Geologists Annual Meeting](#) , Fairmont Hot Springs, MT , Bill Stone will be presenting on June 11.
- ❖ June 11 - Tribal – Bozeman
- ❖ July 8-12, 2019 - [ESRI UC](#) , San Diego, CA
- ❖ July 31 - August 1, 2019 - Wyoming Department of Education (WDE) Step into STEAM Conference, Laramie, WY
- ❖ August 7-9, 2019 - [GIS Colorado Quarterly Meeting](#) , Lake City, CO (with BLM)
- ❖ September 17-18, 2019 - [GIS in the Rockies](#) , Denver, CO. Brian is submitting an abstract
- ❖ September 23-27, 2019 - NSGIC Annual Conference, Snowbird, UT (Brian, Bill, Karen, Erin attending)
- ❖ October 9-11, 2019 - [WyGEO /WYOPASS Joint Fall Meeting](#), Gillette, WY
- ❖ October 11, 2019 - [GIS Colorado Fall Quarterly Meeting](#) , Durango, CO
- ❖ November 7 - 9, 2019 - WDE Innovations in Learning Conference, Gillette, WY
- ❖ November 13, 2019 - GIS Day
- ❖ November - [PLSW Fall Conference](#), Casper
- ❖ February 26-28, [2020 PLSC Rocky Mountain Survey Summit](#) , Lakewood, CO (M. Dennis invited speaker)
- ❖ February [MARLS](#) (Great Falls) **deadline for MARLS abstracts is 6/15**
- ❖ February [WES](#) (Cheyenne) 100th Convention
- ❖ May 13-15, 2020 - GeoElevations Summit, Steamboat Springs, CO (GIS Colorado and WyGEO)

-RTNs

- ❖ Montana is starting to get some traction for implementing their own RTNs. They currently have a pilot from the [Washington State Reference Network](#) . Letters between the 2 states Governor's were written for this to occur.
- ❖ [Montana RTN Pilot Project](#)
- ❖ Other networks of Interest:
 - PBO – [Networks of the Americas \(NOTA\)](#);
 - [NOTA Map](#)

- [Mesa County, CO RTN](#) covers nearly ½ of Colorado and extends into UT
- [Utah RTN](#)
- ❖ Yellowstone is interested in the MT RTN. Wally has already worked with them and have added some new stations (PBO). There are more stations being evaluated for Wyoming (near Dubois).
- ❖ Denver International Airport has a RTN operating and they are working to integrate one of the RTN stations added into the CORS.
- ❖ Karen has had a discussion at the Western Governor's Meeting to try and have the Western States band together to build an RTN before industry does.

-Next Steps

- ❖ Email addresses - cocoordinator@plsc.net change to NGS.Colorado@gmail.com (notify folks)
- ❖ Set a meeting with CDOT – Dave Seiler set up a mtg
- ❖ Provide contacts – see google sheet
 - Pam provide contacts for UT and PBO
- ❖ Invite Dan Gillins to Western Governors meeting
- ❖ OPUS Projects – Contact Bill Stone
- ❖ MT – communicate by email; Plan face – face mtg with Bill in June
- ❖ _____Reach out to Bill Stone as needed
- ❖ Brian will schedule every other month mtgs