

February 20 – 22, 2019 MARLS Conference Presentations

MARLS Pre-Conference on Wednesday, Feb. 20, 2019 (8am-5pm)

Private-Federal Boundary Determination - Presenters Byron Johnson & Steve Parrish (8 PDH)

State licensed land surveyors know that we do not have the authority to declare who owns the land on either side of a survey line we mark on the ground. However, our surveys and descriptions have a substantial impact on the decisions made by land owners, title experts and the courts. Insufficient records research often results in boundary and title issues that surface at a later date and may end up in court as adjoining land owners cannot agree on their common property line.

This full-day CFedS Continuing Education course highlights survey procedures and applications when surveying “**private-private**” boundaries versus “**federal-private**” boundaries. The workshop will include a variety of actual survey experiences and discuss acquired federal land status. Two (2) CFedS CE credits will be awarded to Certified CFedS attendees after successful completion of an online post-workshop quiz. **This workshop is considered to be an 8 PDH course or a 2-Credit CFedS course.**

February 21 – 22, 2019 MARLS Conference Presentations

Non-Rectangular Surveys - Presenters – Byron Johnson & Steve Parrish - Thursday, Feb. 21, 2019 (7:30 am – 11:30 am) 4 PDH

This half-day workshop highlights retracement of non-rectangular government surveys, and reestablishment of lost corners of these unique surveys, with a sprinkling of urban surveys adjacent to or within federal interest lands. Mineral surveys, homestead entry surveys, exchange surveys, townsite surveys, small holding claims, donation land claims and a few others will be highlighted during this workshop. Special surveys call for special applications and resolutions. This workshop is considered to be a 4 PDH course or a 1-Credit CFedS course.

Specifications for Land Descriptions - Presenter – Byron Johnson - Thursday, Feb. 21, 2019 (2:00 pm - 4:00 pm) 2 PDH

A quarter-day workshop on interpretation, writing and content of land descriptions. Emphasis will be placed on writing user friendly and technically correct land descriptions. This workshop is considered to be a 2 PDH course or a 1-Credit CFedS course if accompanied with the “Fraudulent Surveys – Or Not” course.

Fraudulent Surveys – Or Not - Presenter – Steve Parrish - Friday, Feb. 22, 2019 (3:00 pm – 5:00 pm) 2 PDH

Our predecessors in the General Land Office were quite creative from time to time. It is easy to conclude that they sometimes committed outright “fraud.” When we are unable to locate original evidence of a GLO corner the only conclusion we can actually make is that “we could not find the corner” (with an exception of proof that it had been destroyed or we find the monument out of place without knowledge of where it was originally placed).

This quarter-day workshop discusses retracement of a couple of suspected fraudulent PLSS township surveys. Actual dependent resurvey cases will be presented that emphasize the extra effort required when a fraudulent (or partially fraudulent) PLSS township survey is encountered. This workshop is considered to be a 2 PDH course or a 1-Credit CFedS course if accompanied with the “Specifications For Land Descriptions” course.

Developing GNSS A Real Time Network In Montana -Roundtable – Gavin Schrock – Thursday, February 21, 2019 (7:30 am to 11:30 am) 4 PDH

Presented By: MT RTN Committee and Washington State Reference Network

Abstract: Real-Time Networks (RTN) developed rapidly in the U.S. and worldwide over the past decade. An example is the WSRN (Washington State Reference Network), now in its 17th year of operation, is a regional cooperative of GPS reference stations and data that enables cost-saving solutions for public and private sectors in the fields of surveying, mapping, science, precision agriculture, construction, and other high accuracy positioning technology needs. The WSRN is operated as a cooperative of 100+ cities, counties, utilities, state agencies, and private entities.

This seminar examines how an RTN can provide seamless RTK capabilities over wide regions, serve as an “active control” network to keep reference frameworks up-to-date, and a long list of other positioning, navigation, and timing services beyond land surveying. This session also explores the fundamentals of “Network RTK”, how it differs from conventional RTK and static GPS in theory and practice, various uses, and some related emerging technologies.

The WSRN is also hosting a pilot of RTN subnets in MT to help the committee formed in to explore development of an RTN. This presentation will include test results and lessons learned from the pilot. MT RTN committee members and champions from the various regions of MT will present on development status, and as well as other federal, state, local, and private stakeholders.

Changes are Coming - Are You Ready? – Pamela Fromhertz, NGS – Thursday, February 21, 2019 (2:00 pm – 4:00 pm) 2 PDH

MT Geodetic Coordinator and Working Group

NSRS Modernization

SPCS2022

Changes are coming – what do you want for MT

Survey for input

LDPs

International vs US Survey Foot

GPS on BM

Phase II

RTN – future direction, collaboration with GIS and others in the State

Panel and Roundtable Discussion – Impact of NSRS Modernization on various organizations

Private, MARLS, Joshua Phillips

MDT, Tyson Olinger

Invited: Tribal, Wally

Invited: Montana State Library, TBD

Invited: Washington State, Gavin Schrock

The East Line of Montana – Aaron Hummert. PLS – Thursday, February 21, 2019 (4:00 pm – 5:00 pm) 1 PDH

The course will go through the survey of the East Line of Montana. This will cover the history and survey methods used particularly in regards to the established of longitude. It will also discuss the precision achieved by the original surveyor.

Surveyors, Floodplain Admin and Understanding the LOMA Process – Marijo Brady - Thursday, February 21, 2019 (4:00 pm – 5:00 pm) 1 PDH

Discussion of FEMA's flood zones and relationship of surveyor with local floodplain administrator, insurance and the LOAC processes.

Riparian Issues in Montana Law – Randall Snyder, PC – Friday, February 22, 2019 (8:00 am – 12:00 pm) 4 PDH

1. Introduction, Definition of Issues, Scope of Discussion (15 minutes)
2. Early Montana History (45 minutes)
 - a. Elections: ownership to low water mark
 - b. Statutory provisions
 - c. Early decisions and precedent
3. Presumption of ownership to low water mark; most recent supreme court treatment (30 minutes)
4. How to define "lakeshore" or "shoreline" (15 minutes)
5. How to bend a boundary from the shoreline to low water mark. (15 minutes)
6. Distinguishing navigability, lakes, streams and ponds (30 minutes)
7. Relevance of Adverse Possession principles. (15 minutes)
8. Riparian Issues with recreational stream access – unique to Montana (45 minutes)
9. Review of Most Recent Montana Supreme Court Decisions (30 minutes)

In Search of the Baptise Mineral Surveys – Linda Smith, PLS and David Dorsett, PLS – Friday, February 22, 2019 ((8:00 am – 11:00 am) 3 PDH

This presentation will provide the land surveyor or survey technician with information about the mineral survey retracement process and corner searching techniques for recovery of mineral survey corners. The two mineral surveys are located in northwest Montana near the Great Bear Wilderness. This interesting project was completed through the efforts of private and Forest Service Land Surveyors taking 13 years to complete.

Cadastral Automated Plat Drafting in AutoCad – Blaise Lodermeir – Friday, February 22, 2019 (11:00 am to 12:00 pm) 1 PDH

CAPD is a set of script files design to be loaded and work within AutoCad. These script files allow the user to make geodetic calculations based on commonly used projections (state plane , UTM's, and others) . All of the calculations are performed in accordance with the Manual of Surveying Instructions (2009) . This presentation will explain and demonstrate the use of CAPD in performing these calculations in AutoCad . This script is used by the Bureau of Land Management for all calculations in performing Official Federal Authority Surveys and is available at no cost.

Surveying Topics; Issues, A Legal Perspective – Dan Stahly, PLS, Tara DePuy, land use attorney, MACo and Kelly Lynch – Friday, February 22, 2019 (1:00 pm – 3 PM) 2 PDH

This session will cover recent land use legal issues in surveying as well as provide a brief legislative update of the status of land use bills in the 2019 legislative session. The session will be a roundtable discussion and will include audience questions, discussion and solutions. Topics include legal ramifications of topics that the typical Montana PLS deals with on a day to day basis.

Professionalism and Perception of Land Surveying – Lisa Van Horn, PLS, NSPS President-elect – Friday, February 22, 2019 (3:15 pm to 5:15 pm) 2 PDH

Land Surveying has made significant changes over the years and this course will talk about how the Land surveyor presents him or herself to the general public and other professionals. The presentation will include historic survey advertisement, notes and survey work examples. The course is meant to inspire us to do more for the profession on a daily basis.

Montana811 – Clint Kalfell – Friday, February 22, 2019 (3:15 pm to 5:15 pm) 2 PDH

Montana811.org is the Call Before You Dig system for 54 counties in Montana. It is a non-profit association of underground facility owners that provides a Call Center for excavators to call to receive marks indicating the location of their underground facilities in their excavation area. It is a free service provide by the association, paid for by its members.