



# 2018 MSLS Fall Meeting Featuring Ray Hintz, PLS October 19, 2018



**Houlton Lodge Of Elks**  
Fraternal Order Of Elks  
Houlton Lodge 835

## 2018 Fall Meeting Schedule & Agenda

*Seminar will be held on second floor; lunch will be served on the first floor.*

8:15-8:45	Registration
8:45-10:15	<b>Program with Ray Hintz</b>
10:15-10:30	Morning Break
10:30-12:00	<b>Program with Ray Hintz</b>
12:00-1:15	Lunch, MSLS Fall General Membership Business Mtg
1:15-2:15	<b>Program with Ray Hintz</b>
2:15-2:30	Afternoon Break
2:30-3:30	<b>Program with Ray Hintz</b>

*CEU certificates available at conclusion of the day for pre-registrants; all others will be mailed.*

### Why Dealing with GNSS Derived Plane Coordinates can raise a Surveyor's Blood Pressure (and how to lower it) with Raymond J. Hintz, PLS, University of Maine

The historical nature of working in assumed plane so-called ground coordinate systems, prior to the use in surveying of GNSS, created an incredibly simple mathematical solution that unfortunately ignored geodesy. It did work great on an HP calculator. Software solutions in the GNSS revolution have tried valiantly to attempt to mix our simplified plane surveying world with the often scary reality that geodesy confronts us with. This seminar will begin with basic geodetic concepts inherent in our use of GNSS including datums, realizations, and gravity models. The focus will then move to the historical nature of plane projection systems in North America and how to deal with the coordinates derived from them. Obviously this will lead to the concept of grid vs. ground distance that has always been the major source of rise in blood pressure. Various solutions to effective dealing with grid vs. ground will be presented including the newest concept of Low Distortion Projections (LDP). The effective use of localization in the inevitable attempt to resolve grid vs. ground issues will be discussed in detail. The seminar will be very question and answer oriented with presentation of real data.

Raymond J. Hintz is a professor of surveying engineering technology at the University of Maine, and is program coordinator for the BS program in surveying engineering technology. Prior to his present position from 1983 to 1987 he was an assistant professor of civil engineering at the University of Florida. He has BS, MS, and PhD degrees in Civil and Environmental Engineering with emphasis in surveying and photogrammetry from the University of Wisconsin. His research interests lie in automation of data collection and processing of surveying and photogrammetric information. He is the author of several surveying software programs used by approximately 25 department of transportations and their consultants. He has published more than 50 articles in journal and conference proceedings, and is a registered land surveyor in the states of Maine and Florida.

#### Directions to Elks Club (86 Main St., Houlton)

- Head north on I-95
- Take exit 302 and bear right onto US RT 1 South
- Go 1.2 miles, crossing a bridge over Meduxnekeag River to traffic light (Walking bridge on the left prior to crossing bridge)
- Take a left at this traffic light onto Main St.
- Go 0.2 miles through Market Square to the Elks Club on the left (Pass Water St. on left, Court St. on right, then pass Mechanic St. on the left)

#### Directions for Public Parking

- After going through Market Square on Main St.
- Take a left onto previously mentioned Mechanic St.
- Public parking will be a short distance on your left.



*Hosted by*  
**Crown  
of Maine  
Chapter**

### 2018 Fall Meeting Registration Form

Name \_\_\_\_\_

Company/Firm \_\_\_\_\_

Address \_\_\_\_\_

City, State & Zip \_\_\_\_\_

**Pre-Registration** Please find enclosed my check payable to MSLS for pre-registration prior to **October 11, 2018** per the following:

- MSLS Members \$80
- Non-members \$110
- Students Members - No cost

**Registration after Oct. 11** and at the door:

- MSLS Members \$100
- Non-members \$130
- Student Members \$20

*Mail your registration to:*  
**MSLS Fall Meeting  
PO Box 420  
Readfield, ME 04355**

*Or register online:*  
**www.mslls.org**  
*Thank you!*