



**RHODE ISLAND SOCIETY  
OF PROFESSIONAL LAND SURVEYORS**

Presents

**47th Annual Meeting & Conference  
Friday - November 17, 2017**

**Radisson Hotel**

2081 Post Road

Warwick, RI 02886

# RHODE ISLAND SOCIETY OF PROFESSIONAL LAND SURVEYORS

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Radisson Hotel

Warwick, Rhode Island

## *Schedule of Events*

7:30 AM	Registration Opens with Continental Breakfast
8:00 - 5:00	Exhibits Open
8:00 - 12:00	<b>Seminar I</b> <b>Raymond Hintz, PhD</b> "Fun with Drones:Using the Technology for Topographic Mapping" "Updates to On-Line Surveying Education at the University of Maine"
8:00 - 12:00	<b>Seminar II</b> <b>Thomas Meyer, PhD</b> Real-time kinematic (RTK), real-time network (RTN) Advanced Continuously Operating Reference Network (ACORN)
10:00 - 10:30	Break
12:00 - 2:00	Exhibits / Free Time
12:00 - 2:00	Lunch - 50/50 Raffle-Plan Contest Voting-Awards-Membership Meeting
2:00 - 6:00	<b>Seminar I</b> <b>Raymond Hintz, PhD</b> "Fun with Drones:Using the Technology for Topographic Mapping" "Updates to On-Line Surveying Education at the University of Maine"
2:00 - 6:00	<b>Seminar III</b> <b>Daniel Martin, National Geodetic Surveys</b> <i>Journey to the Moving Center of the Earth</i> <i>The Evolution of the National Spatial Reference System.</i>
4:00 - 4:30	Break
4:30 - 5:45	NESS Meeting
6:00 - 6:30	Door Prizes / Certificates
6:00 - 8:00	Cocktail Reception w/Hors d'oeuvres & <b>Scholarship Auction</b>

*Event Schedule subject to change. Final Schedule will be posted in Event Program on 11/17/17*

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**Raymond Hintz, PhD**

**University of Maine**

**"Fun with Drones: Using the Technology for Topographic Mapping"**

**"Updates to On-Line Surveying Education at the University of Maine"**

Raymond J. Hintz is a professor of surveying engineering technology at the University of Maine, and is program coordinator for the B.S. 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 B.S., M.S., 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. Specific to the topic of interest, he has been responsible for development of the Cadastral Electronic Field Book, which enables automatic entry of measurement and automated field note information into Cadastral Measurement Management (CMM). At the heart of CMM is a least squares analysis driver for conventional survey measurements and GPS. Both products were developed for the Bureau of Land Management. Also in conjunction with the Bureau of Land Management, he has developed Geographic Measurement Management which is the approved tool for development of their Geographic Coordinate Data Base. GMM has a least squares analysis system which is designed for record survey information. A third project was partial responsibility for the development of Florida Department of Transportation's Electronic Field Book, data processing, and topographic data modeling software system. His primary involvement in this project was the Electronic Field Book Processor (EFBP) which is the least squares analysis engine for a automated link from raw data to final coordinates. EFBP has in recent times been adapted to also accept SDMS (AASHTO) format data and various vendor raw survey data formats. 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.

### "Fun with Drones: Using the Technology for Topographic Mapping"

The use of Unmanned Aerial Vehicles (UAV's) or drones is an alternative to traditional topographic mapping field collection or fixed wing photogrammetry. This seminar will describe types of drones available or mapping collection. An example flight plan for a job will be developed in class. Example collected data and processing of the data along with potential ground survey control requirements will be illustrated. Example products of very dense point clouds and orthophotography will be examined. Point cloud data will then be classified using third party software. Lastly the process towards becoming FFA Certified as a drone operator will be discussed.

### "Updates to On-Line Surveying Education at the University of Maine"

While the on-line graduate education has been in place for 3 years, most of the undergraduate courses at the University of Maine now exist in on-line form and there are currently students seeking a BS degree in surveying engineering technology without coming to campus. The existing system will be examined & questions answered.

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**Thomas Meyer, PhD**

**Surveying with Real-Time Kinematic (RTK) & Real-Time Network (RTN)**

**Advanced Continuously Operating Reference Network (ACORN)**

Tom Meyer was awarded a Ph.D. from Texas A&M University in College Station, Texas in 1998, where he was a research associate in the Mapping Sciences Laboratory. He now is a Professor of Geodesy in the Department of Natural Resources and the Environment at the University of Connecticut, where he teaches courses in land surveying, geomatics, GNSS surveying, geodesy, and spatial statistics. Dr. Meyer was named a UConn Teaching Fellow in 2015. He is also a Fellow and the 2016 President of the American Association for Geodetic Surveying (AAGS), a member of the American Society of Civil Engineers (ASCE), the National Society of Professional Land Surveyors (NSPS), and the Connecticut Association of Land Surveyors. Dr. Meyer is on the editorial boards of the Journal of Surveying Engineering and Surveying and Land Information Science, has published an undergraduate textbook on geodesy and numerous peer-reviewed journal articles. He is a regular presenter at national meetings, giving workshops and seminars on numerous topics in geodesy, GNSS, and surveying.

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**Daniel J. Martin,**

**Northeast Regional Geodetic Advisor**

## **"Journey to the Moving Center of the Earth"**

Dan Martin works for the National Geodetic Survey and has been the Northeast Regional Geodetic Advisor since May of 2015. As the Regional Advisor, he instructs local surveyors, state and municipal agencies, and the geospatial community at large, on how to use and preserve the National Spatial Reference System, and provides liaison between the National Geodetic Survey and the States of ME, NH, VT, MA, CT, RI, NY, and NJ, as well as other federal agencies. He worked in the Route Survey and Geodetic Survey sections of the Vermont Agency of Transportation from 1988 through 2003, and held the position of Geodetic Program Supervisor for the Agency from 1999 through 2003. In 2003 Dan began his career with the National Geodetic Survey as the Vermont State Geodetic Advisor. Dan is a Past President and Fellow Member of the American Association for Geodetic Surveying (AAGS), he is also a member of the Vermont Society of Land Surveyors and the New Hampshire Land Surveyors Association.

## **"Journey to the Moving Center of the Earth - The Evolution of the National Spatial Reference System"**

In 2002, NGS will be replacing the US horizontal and vertical datums (NAD 83 and NAVD 88). This workshop is designed to discuss the need and process for these changes, as well as how that affects surveyors and their access to these datums. Our journey will begin with a discussion of the history of the North American Datum of 1983 and the North American Vertical Datum of 1988, their relationships to other reference frames and the reasons for their ongoing evolution. We will also discuss the data used to produce NGS' National Adjustment of 2011, the relationships of geoid models to various versions of NAD 83 and what can happen should these relationships be ignored. Finally, we will discuss the need to replace NAD 83 and NAVD 88 and what activities are being undertaken to ensure a smooth transition.



## RHODE ISLAND SOCIETY OF PROFESSIONAL LAND SURVEYORS

### 47th Annual Meeting and Conference

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#### Registration Information:

- Please Note the Time Changes in this years schedule of events for the day.
- A plated luncheon served w/ awards, 50/50 raffle etc. and there will be no evening banquet.
- A Continental Breakfast, Lunch, am & pm snack breaks are included in your Full Day Registration
- Limited seating for Seminars. Seminar choices are on a first-come first serve basis.
- Registration **Deadline is November 9, 2017. Late Fee of \$10** will be added if received after 11/9/17
- Active Members of CALS, MALSCE, MSLS, NHLA, NYSAPLS, and VSLS can attend for the RISPLS Member rate—Check appropriate box on next page registration.
- Make reservations early to eliminate late fee, reserve seating and to be able to pick up your attendance certificate at the end of the meeting.
- Be sure to include your **Lunch Choice of Chicken or Sirloin** on next page. If no choice is indicated, you will receive the Chicken Plate. If you register after the 11/9 deadline, you will receive the Chicken.
- All Reservations are non refundable and non-transferable.
- **CHECK OR CREDIT CARD NOW ACCEPTED** (a \$8 transaction fee will be added to your total)
- Please make checks payable to **RISPLS** and mail with completed Registration Form to:

**RI Society of Professional Land Surveyors (RISPLS)**

**410 Tiogue Avenue**

**Coventry, RI 02816**

Email any questions contact Sherri at the RISPLS office 401-294-1262 or [rispls@hotmail.com](mailto:rispls@hotmail.com)

- All Donations are welcome for our Annual Scholarship Auction that will be held during the Cocktail Hour

Each year a benefit auction is held to raise funds for scholarships to students enrolled in approved surveying and engineering programs. Items are donated by members, friends, exhibitors, suppliers and others in the surveying community. We welcome all items, both new and used. Past items have included surveying software, books, maps instruments, gift baskets, boat trips, gift cards, wine, handmade items and more. If you or your company would like to donate, please bring the item(s) the day of the convention.



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**Registration Information:**

Name:		
Name on your identification badge to appear as:		
Company (will appear on Badge)		
Street Address		
City	State	Zip Code
Phone Number		
Email Address		

**Full Day Registration Seminar (Access to ALL & includes lunch & breaks)**

Members: \$230.00 \_\_\_\_\_ Non-Members: \$255.00 \_\_\_\_\_

Luncheon & Award Ceremony **Only** (spouse/guest) \$65.00 \_\_\_\_\_

**\*Lunch Choices:**  Grilled Chicken Breast w/Mozz&Tomato Basil  Grilled Sirloin 6oz w/Mushroom&Onions

**Half Day Registration (Morning Session or Afternoon Session for Seminar II & Seminar III ONLY)**

Members: \$150.00 \_\_\_\_\_ Non-Members: \$175.00 \_\_\_\_\_ Lunch: \$ 65.00 \_\_\_\_\_  Chicken or  Sirloin

**Exhibit Hall Only :** Members:\$75.00 \_\_\_\_\_ Non-Members:\$100.00 \_\_\_\_\_

Students FREE \_\_\_\_\_ Students with an ID can attend Seminar & Exhibits FREE! **(Must RSVP Below)**

**Choose Seminar(s) to Attend:** *(Seminar I is a full day & Seminar II & III are half Day)*

**Seminar I** am&pm  **Raymond Hintz, PhD-Fun w/Drones & On-line Surveying Univ Maine** (8 PDH)

**Seminar II** am  **Thomas Meyer, PhD-Presenting (RTK), (RTN) and (ACORN)** (4 PDH)

**Seminar III** pm  **Daniel Martin - Journey to the Moving Center of the Earth** (4 PDH)

**SPONSORSHIPS**

SPONSOR A STUDENT: STUDENT LUNCH \$65.00 \_\_\_\_\_

SPONSORSHIP FOR CONFERENCE BREAKOUTS: \_\_\_\_\_ Amount \$ \_\_\_\_\_

**Total Amount Enclosed \$** \_\_\_\_\_ **\*Late Fee of \$10, if received after November 9, 2017**

All Reservations are non refundable and non-transferable. Please make checks payable to RISPLS and mail with completed reservation form to:

**RISPLS, 410 Tiogue Ave, Coventry, RI 02816 / Email Questions to Sherri at: rispls@hotmail.com**

OR pay with (check one)  VISA  MASTER CARD *(\$8 transaction fee will be added)*

NAME ON CARD: \_\_\_\_\_ (3 digit on back of card)

CARD NUMBER: \_\_\_\_\_ EXP DATE: \_\_\_\_\_ CODE: \_\_\_\_\_

BILLING ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SIGNATURE: \_\_\_\_\_



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### **SPONSORSHIPS AVAILABLE:**

**RISPLS** has sponsorships available for the conference Breakfast, Lunch Breakouts, Gifts and Student Lunch.

Please reserve your Personal or Company Sponsorship today!!

Friday Continental Breakfast	\$100.00
Friday Morning Break	\$100.00
Friday Luncheon	\$200.00
Friday Afternoon Break	\$100.00
Give Away Gifts to all Attendees	\$150.00
Friday Evening Hors d'oeuvres	\$200.00
SPONSOR A STUDENT LUNCH	\$ 65.00

If you or your company are interested in a sponsorship, please indicate on the Registration page and include with your payment.

Sponsorships will be recognized in the Convention Program and on display during the day.

RISPLS appreciates your sponsorship contributions to help make our Convention a success!!

Thank you !





# THE PIERRE H GUILLEMETTE SCHOLARSHIP AWARD

The RISPLS is pleased to offer a scholarship for the 2017-2018 academic year to a deserving student of Land Surveying.

The Pierre H. Guillemette Scholarship is an annual award which is available to any Rhode Island resident who is enrolled in a course of study leading to a certificate program or degree in land surveying offered by a qualified institution of higher learning.

Applicants must submit a statement outlining their qualifications and future career goals, together with their educational transcripts, a resume and any other pertinent information that may assist the review committee in the recognition of their achievements. Depending on the merits of the various applicants, the Scholarship Committee may recommend award of either all or a portion of the scholarship to one or more qualified individuals.

Payment of your award will be made directly to you in one installment after we receive documentation that you have attended a post secondary school or technical program.

To receive your awarded funds, please send a copy of your grades for the prior semester to the RISPLS office address above. The applicant must submit a new application for each new academic year to be considered for the award of the scholarship. The scholarship award marks a continuing commitment by RISPLS toward the advancement of surveying education.

## THE PIERRE H GUILLEMETTE SCHOLARSHIP AWARD APPLICATION

NAME:			
ADDRESS:			
TELEPHONE:		EMAIL:	
EMPLOYER:			
ADDRESS:			
TELEPHONE:		EMAIL:	
<b>EDUCATION</b>			
HIGH SCHOOL:			
COLLEGE:		OTHER:	
SURVEYING BACKGROUND:			

ON A SEPARATE SHEET OF PAPER, PLEASE EXPLAIN WHAT HAS PROMPTED YOU TO PURSUE A LAND SURVEYING CAREER AND PROVIDE SUCH INFORMATION AS YOU FEEL SUPPORTS YOUR APPLICATION.

PLEASE MAIL TO RISPLS, 410 TIOGUE AVENUE, COVENTRY, RI 02816

**\*\*\* DEADLINE: NOVEMBER 1, 2017 \*\*\***

**Decision will be made at the BOD Meeting 11/2/17**



# 2017 RISPLS PLAN CONTEST

## Contest Rules

1. Must be a plan of RI, dated between November 2016 and November 2017.
2. Entries must be un-mounted blue or black line prints.
3. Plans must be 1 sheet (no multiple sheets or sets)
4. Each entry must be accompanied by an entry form.
5. No plans will be accepted after the submission deadline (10:00 am November 17, 2017)
6. Check Awards will be mailed.
7. All decisions are final. Award-winning entries and the results will be displayed at the Convention.
8. All entries will become the property of RISPLS, Inc., and will be disposed of after award presentation.

### Awards

Awards will be presented to the first place winners and announced for the second and third place winners in each category.

First Place-----\$100.00

Second Place-----\$ 50.00

Third Place -----\$ 25.00

### Judging

All entries will be checked for compliance with the Procedural and Technical Standards for the Practice of Land Surveying in the State of Rhode Island and Providence Plantations as adopted by the Board of Registration. No plan will be judged if it does not comply with said Standards.

The plan shall be judged and voted on the following:

- Overall appearance, neatness, balance and consistency.
- Lettering - clear and unmistakable.
- Completeness (deed reference, plan references, areas, old property lines, monuments, etc)
- Qualifying notes or statements (clearly and unmistakably stated)  
Signatures and seals.

### Plan Categories

Plan Categories (Property Line, Subdivision, Site Plan) will be judged using either mechanical or freehand methods.

## Entry Form (please print)

Title of Plan:	Category:
Name of Preparer:	Company Name:
Company Address	Company Phone#

Please submit plan to: RISPLS C/O Don Medeiros  
ABLE ENGINEERING, INC, 291 Long Highway, Little Compton RI 02837  
401-592-1302 email: ABLEENGINEERING@COX.NET

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**Telephone: 1844-746-9035 or 401-739-3000**

**Check out their website at [Radisson.com](http://Radisson.com)**

RISPLS has a block of rooms on hold.

If you plan on staying overnight, please make your reservations early and mention that you are attending the RI Society of Professional Land Surveyors Event on 11/17/17.

**Deluxe Rooms \$119.00 USD per night  
Executive Suite \$139 USD per night**

Please note that these sleeping room rates are subject to local taxes. Currently there is a 7% Rhode Island Sales Tax and a 6% Rhode Island Occupancy Tax charged per room per night.

The check-in time is after 3:00pm, check-out time is prior to 12:00 noon on day of departure

**The Radisson has free parking for conference attendees.**



**RI Society of Professional Land Surveyors**  
410 Tiogue Avenue  
Coventry, RI 02816

Please be reminded, when you are considering the purchase of services and equipment, these companies are RISPLS Members and support the aims and objectives of the society.

### PROFESSIONAL DIRECTORY

#### **CEi~COL-EAST, INC.**

*Aerial Photography, Digital Mapping, Orthophotos*  
PO Box 347, North Adams, MA 01247  
TEL:800/FLY/TOPO  
Web Page [www.col-east.com](http://www.col-east.com)

#### **EASTERN TOPOGRAPHICS**

495 Center Street, PO Box 970  
Wolfeboro, NH 03894-0970  
TEL:603/569/2400  
FAX:603/569/8200  
E-mail [mail@e-topo.com](mailto:mail@e-topo.com)

#### **KEYSTONE PRECISION INSTRUMENTS**

1670 East Race Street  
Allentown, PA 18109  
TEL:888/443/9840  
Web Page [www.keypre.com](http://www.keypre.com)

#### **AEROTECH**

365 Smith Street  
Providence, RI 02908  
TEL:401/351/0600  
FAX:401/351/6755  
E-mail [REF@aerotechcorp.com](mailto:REF@aerotechcorp.com)  
Web Page [www.aerotechcorp.com](http://www.aerotechcorp.com)

#### **BUNCE INDUSTRIES, LLC**

PO Box 720, Stow, MA 01775  
800/225/9400  
[pmorin@bunce.com](mailto:pmorin@bunce.com)

#### **SUPERIOR INSTRUMENTS**

1403 Meriden-Waterbury  
Milldale, CT 06467  
860-621-3621  
[dschor@superiornetwork.com](mailto:dschor@superiornetwork.com)

#### **MAINE TECHNICAL SOURCE**

*Surveying Instruments & Supplies*  
110 Winn Street  
Woburn, MA 01801  
TEL:800/322/1599

#### **VANASSE HANGEN & BRUSTLIN, INC.**

*Transportation, Land, Environmental Services*  
10 Dorrance Street, Suite 400  
Providence, RI 02903  
TEL:401/272/8100

#### **BERNTSEN INTERNATIONAL, INC.**

PO Box 8670  
Madison, WI 53708-8760  
TEL:608/249/8549  
FAX:608/249/9794  
E-mail [surveymark@berntsen.com](mailto:surveymark@berntsen.com)