

# Missouri Society of Professional Surveyors

## 2016 Annual Meeting Exhibitor Registration

# R esolving B oundary D isputes

**October 13-15, 2016**

Sheraton Westport Lakeside Chalet  
191 Westport Plaza  
St. Louis, MO

Missouri Society of Professional Surveyors ~ 722 E. Capitol Avenue, PO Box 1342 ~ Jefferson City, MO 65102  
573-635-9446 ~ Fax: 573-635-7823 ~ [msps@missourisurveyor.org](mailto:msps@missourisurveyor.org)  
[www.missourisurveyor.org](http://www.missourisurveyor.org)

# THURSDAY, OCTOBER 13, 2016

7:00 am Registration and Continental Breakfast

8:00 - 5:00 pm Hospitality Room

## 8:00 - 10:00 am CONCURRENT SESSIONS

### The Missouri USPLSS in Four Hours

Missouri's U.S. Public Land Survey System (USPLSS) is different when compared to the System as applied in all other states. (Its closest cousin is Arkansas.) The GLO instructions of the day, use of standard lines, section protraction, Missouri case law and the Missouri statutes relative to resurveys (in flux since 1814) all combine to make Missouri unique. The object of this course is to cover and summarize Missouri's USPLSS in four hours.

*Speaker: Dr. Dick Elgin, LS, PE*

### Minimum Standards

The Missouri Minimum Standards for Property Boundary Surveys are the rules, promulgated jointly by the Missouri Department of Agriculture Office of State Land Surveyor and the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Landscape Architects, that regulate the practice of land surveying. This session is provided to help land surveyors gain that knowledge to produce a higher standard of land surveyor in Missouri.

*Speaker: Darrell Pratte, PLS, Dept. of Agriculture-Land Survey Program*

## 10:00 - 12 noon CONCURRENT SESSIONS

### Missouri USPLSS in Four Hours continued

(Qualifies for 2 hours of Minimum Standards)

Dick's book "The U.S. Public Land Survey System for Missouri" will be used (Bring yours or purchase one at the Annual Meeting.) This class is suited for students, LSITs, comity applicants for a Missouri PS license, those preparing to become licensed, or PS's or urban surveyors who might be a little vague on the State's System.

### Section Breakdowns

(Qualifies for 2 hours of Minimum Standards)

This course will consist of an analysis of the statutes, rules and procedures for the subdivision of the PLSS in Missouri. The role of the field notes and GLO plats will be emphasized in determining the most correct procedures for the subdivision of the sections of the Public Land Survey System in Missouri.

*Speaker: Robert 'Bob' Shotts*

12:00 - 12:45 pm Lunch and View Exhibits

12:30 pm Golf Tournament at The Quarry

## 12:45 - 2:15 pm Accuracy Using GPS

How do you know what you are getting out of your GNSS Receiver and Data Collector? Grid. Ground. Scale factor. Coordinate system? ITRF? ECEF? Local...Global...Site Calibration... Oblique Mercator projection? All of these things effect what spits out of your data collector. In this session we will look at the settings that make a difference, and talk about what to use when. We will also discuss ways to increase your confidence in your results and how to achieve better accuracy.

*Speaker: Tom Bryant, PLS and Kelly Harris, PLS, Seiler Instrument*

2:15 - 2:30 pm Break to View Exhibits

## 2:30 - 4:00 pm CONCURRENT SESSIONS

### Understanding the Boundaries of the Professional Surveyor

Missouri Revised Statute 327.272 defines who a surveyor is and what they can do. The focus has typically been on understanding items 1-5. This hour and a half will be spent understanding items 6-13. Most of these tasks are not covered by Missouri Minimum Standards; how the surveyor approaches these tasks can be the difference between a successful survey and the one that will never go away.

*Speaker: Mark Wiley, PLS, Heideman & Associates*

### UAV's - Pro's, Con's and Pricing Availability

With UAV's becoming the next tool that any Land Surveyor will need to have in their toolbox, where do you start when considering purchasing one? This session will give you the basics of UAV's: the different types, models, and accessories. We will cover all the terminology and features that you need to know to get started in the UAV business.

*Speaker: Jim Martin, Griner and Schmitz*

4:00 - 4:15 pm Break to View Exhibits

4:15 - 5:15 pm **CONCURRENT SESSIONS**

**Safety and the Professional Land Surveyor** **UAV Regulation and Insurance**

Missouri Revised Statute 327.371 states Surveyors and their crews are not liable for trespass. A survey crew encountered a farmer and informed him they were going to cross his field to search for corners and there was nothing he could do about it showing him a copy of the statute. When they had made it to the middle of the field a bull challenged them and their crossing of his territory. They yelled to the farmer for help at which point he hollered back show them your Statute wise guys. How does the surveyor keep themselves and their staff safe in the ever changing work place the Professional Land Surveyor finds themselves in.

*Speaker: Mark Wiley, PLS, Heideman & Associates*

After purchasing your first UAV and taking the initial training, what does it take to legally and safely fly your aircraft for commercial use? This session will cover the current federal and state regulations regarding commercial UAV use. Did you know that your current liability insurance probably has a clause exempting the use of aircraft for your business? UAV's are considered aircraft and you will probably need to purchase supplemental insurance. This session will cover the options for UAV liability and commercial insurance.

*Speaker: Jim Martin, Griner and Schmitz*

## FRIDAY, OCTOBER 14, 2016

7:00 am Registration, Continental Breakfast and View Exhibits

8:00 - 5:00 pm Hospitality Room

8:00 - 10:00 am Business Meeting

10:00 - 10:30 am Break to View Exhibits

10:30 - 11:00 am **Keeping the Professional Land Surveyor Professional**

Missouri Revised Statute 324.00 establishes the Division of Professional Registration. Can a State Law make the Professional Land Surveyor respected and honored for the skill and expertise we provide the people of this state or is that respect something we have to earn? Let's look at what it takes to be considered professional in these ever changing times.

*Speaker: Mark Wiley, PLS, Heideman & Associates*

11:00 - 12 noon

**CONCURRENT SESSIONS**

**Surveying Liability - Insurance & Coverage** **Data Collection Field to Finish**  
**- What, Why and How Much**

*Speaker: Lisa Isom (invited)*

True Field to Finish is one of the most powerful tools for a Land Surveyor to use to reduce the office time required to produce a finished product. But it remains one of the most underutilized. This session will cover the complete field to finish process including pre-collection office and field setup, field collection, and office processing. We will use Carlson SurvCE and Carlson Survey to demonstrate the complete solution but will also use data sets from Topcon Magnet and Spectra Precision Survey Pro.

*Speaker: Jim Martin, Griner and Schmitz; Aaron Newman, Carlson Software*

12:00 - 1:30 pm Awards Luncheon

1:30 - 3:00 pm

## CONCURRENT SESSIONS

### Contracts and Liability

You will learn how to prepare a contract that contains provisions to “save the day”! What happened to the old principle that “a handshake alone is a good contract”? Do I need a simple written contract for each and every client? Should I develop a series of contract forms to be customized for simple through complex job provisions in a contract that a Surveyor needs to have in order to protect the Surveyor from assignments? What are the minimum liability? How should the Contract be amended to cope with unforeseen circumstances? Although Surveyors are not considered “insurers” of the correctness of their findings, the courts recognize that Surveyors have a duty to perform a survey of real property with reasonable care, skill, diligence and ability and that a failure to satisfy this duty of care may constitute a tort or breach of contract, forming the basis for a claim for damages suffered as a result of an inaccurate survey.

*Speaker: Eric Harris*

### Point Cloud Processing

UAVs (drones) have become the next hottest tool in land surveying greatly reducing the field time needed. Most UAVs are designed to capture imagery and software is then used to create point clouds which are then processed to generate a plat. This session will focus on the processing of those point clouds using Carlson Survey 2016 and Carlson Point Cloud 2016 starting with data sets collected from UAVs. We will cover cleaning up the data, stripping it down to “bare earth”, extracting features, and generating contours.

*Speaker: Jim Martin, Griner and Schmitz;  
Aaron Newman, Carlson Software*

3:00 - 3:30 pm

Break to View Exhibits

3:30 - 5:30 pm

## CONCURRENT SESSIONS

### Contracts: Others and Your Own

A Surveyor’s liability for a mistake or misrepresentation in a land survey depends on the particular circumstances involved, including the relationship between the Surveyor and the party that has relied upon the survey, the nature of the claim for relief asserted, the application of a statute of limitations, the extent of the survey error and other relevant factors.

*Speaker: Eric Harris*

### Point Cloud Processing continued

*Speaker: Jim Martin, Griner and Schmitz;  
Aaron Newman, Carlson Software*

5:30 pm

Reception with Exhibitors

## SATURDAY, OCTOBER 15, 2016

7:00 am

Registration and Continental Breakfast

8:00 - 10:00 am

### Revisiting Justice Cooley and Resolving Boundary Disputes – The Judicial Functions of the Land Surveyor

Justice Thomas McIntyre Cooley (1824-1898) has had some of the greatest impacts upon the land surveying profession than any one individual. His thoughtful tome captioned “The Judicial Functions of the Land Surveyor” has laid the foundation for the application of the rules for land surveying across the country. From 1864 to 1885, Cooley was in a unique situation to comment on the formative years of American boundary surveying while serving as the Chief Justice of the Supreme Court of Michigan, a role that permitted him to lay the legal framework for some of the country’s most important rules of land surveying. Regrettably, over the passage of time, many of the important rules and principles espoused by Cooley have been neglected by people who push buttons and measure things with satellites. In commenting on the original “record” monuments placed in connection with these early maps, Cooley succinctly described them as “nothing but green sticks driven into the ground.” Across the country, courts continue to invoke Cooley’s valuable words when ruling on boundary line disputes in spite of fancy surveying equipment and satellite sprayed coordinates. If one wants to understand that laws of surveying, turn the satellites off. Mr. Pallamary will discuss the importance of Justice Cooley as well as the application of proper law in defining and establishing boundary lines.

*Speaker: Michael J. Pallamary, PLS, Pallamary & Associates*

10:00 - 10:30 am

Break

10:30 - 12:00 noon **Revisiting Justice Cooley continued**

12:00 - 12:45 pm Lunch

12:45 - 2:45 pm **Quality Control for Land Surveyors**

Quality control (QC) is a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets or exceeds the requirements of the client or customer. Quality Assurance (QA) is sometimes expressed together with QC as a single expression, quality assurance and control (QA/QC). In order to implement an effective QC program, a company must first decide which specific standards the product or service must meet. Then the extent of QC actions must be determined. QA is the planned and systematic activities implemented in a quality system so that quality requirements for a product or service will be fulfilled. QA is the activity of providing evidence needed to establish quality in work, and that activities that require good quality are being performed effectively. All those planned or systematic actions necessary to provide enough confidence that a product or service will satisfy the given requirements for quality. Mr. Pallamary will discuss the application of QA/QC in the practice of land surveying and he will provide some ideas how to enhance the quality of your work product in a manner which will limit liability and increase productivity.

*Speaker: Michael J. Pallamary, PLS, Pallamary & Associates*

2:45 - 3:00 pm Break

3:00 - 5:00 pm **Quality Control continued**

5:00 pm Adjourn

## GENERAL INFORMATION

### Location & Lodging

Sheraton Westport Lakeside Chalet in St. Louis, Missouri is the site for the 2016 Annual Meeting of the MSPS.

A special room rate of \$109.00 for single or double rooms has been extended until September 12, 2016. Reservations can be made by calling 877-845-7354.

Sheraton Westport Lakeside Chalet  
191 Westport Plaza  
St. Louis, MO

### Dress

Men's business casual: jacket optional, casual pants (khakis) with a collared shirt or golf shirt.

Women's business casual: slacks, skirts, dress or Capri's with coordinating top or jacket.

### Continuing Education

This course has been approved for 21.5 Professional Development Units (PDUs) by the Missouri Board of Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects.

*The breakdown on days is as follows:*

*Thursday - 8.0 PDUs*

*Friday - 5.5 PDUs*

*Saturday - 8.0 PDUs*

### For More Information

Contact Sandra Boeckman  
MSPS Executive Director  
at 573-635-9446

*Please send all registration information to*

*MSPS*

*722 E. Capitol Avenue*

*PO Box 1342*

*Jefferson City, MO 65102*

# EXHIBITOR REGULATIONS

## Exhibitor Set Up

Exhibit space will be table top displays. Provided with each table will be one 7" by 44" black on white identification sign; one 6' draped table skirted on three sides, two chairs and wastebasket.

## Exhibit Hours

Exhibitors will set up on Thursday, October 13, 2016 from 5:15 to 7:00 pm. All workshop sessions will take place in adjoining rooms and participants will be encouraged to visit the Exhibit Hall during all available times. Exhibit Hall will close for move-out at noon on Saturday October 15, 2016 at noon.

## Exhibit Assignment

Please indicate your exhibit space preference on the Exhibitor Reply Form, giving first through third choices. Exhibit space will be assigned according to the date of receipt of your contract and the availability of unreserved space. (See layout)

## Terms of Payment

The request of exhibit space must be accompanied by the non-returnable fee of \$500.00 per exhibit space.

## Exhibit Representatives

Exhibitors are requested to submit the names of staff members who will be working in booths with a **limit of two per booth**.

## Lunch

Lunch and continental breakfast is included each day (Friday and Saturday) for two people per booth with the registration fee. **Additional lunch tickets may be purchased in advance.**

## Silent Auction

The Silent Auction will begin Thursday, October 8, 2015 and continue until noon on Saturday, October 10, 2015. If you would like to donate an item please call MSPS at 573-635-9446.

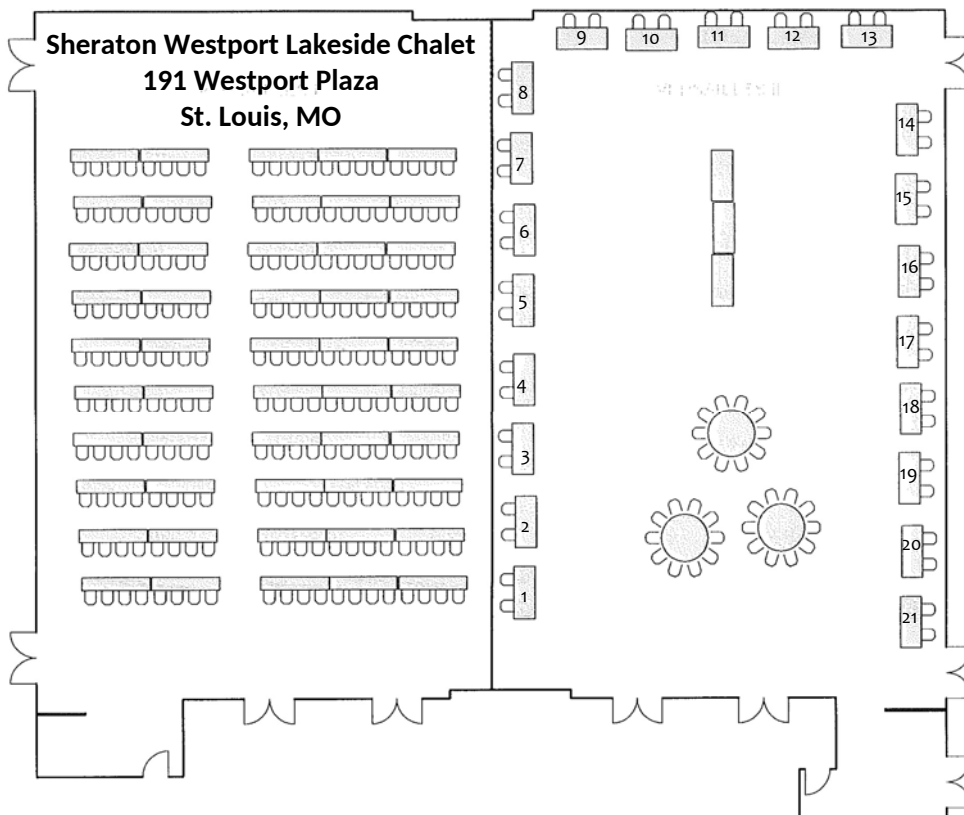
## Golf Tournament

The Golf Tournament will be a four person scramble held at The Quarry. It is \$85 per person or \$325 per team. This includes an 18-hole green fee, cart and two mulligans per golfer. Cancellations received two weeks prior to the tournament will be given a refund. No refunds will be given after October 1, 2016. If the tournament is canceled due to inclement weather (snow, sleet, rain or whatever), a full refund will be given, if requested. There will be prizes

for the first through third place teams. If your company would like to sponsor a hole at this year's tournament, contact MSPS at 573-635-9446.

## Hotel Accommodations

Sheraton Westport Lakeside Chalet in St. Louis, Missouri, is the site for the 2016 Annual Meeting of the MSPS. A special room rate of \$109 for single or double rooms has been extended until September 12, 2016. Reservations can be made by calling 877-845-7354. Parking is complimentary for all guests and attendees. Ask for the conference special rate and identify yourself with Missouri Society of Professional Surveyors when making reservations.



# EXHIBITOR REGISTRATION FORM

Company Name \_\_\_\_\_  
Contact \_\_\_\_\_  
Address \_\_\_\_\_  
City/State/Zip \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_  
Email \_\_\_\_\_  
Product/Service to be Exhibited \_\_\_\_\_  
\_\_\_\_\_  
Special Needs \_\_\_\_\_

*This application/contract is made in accordance with the Exhibitor Regulations and Information.*

## Additional Nametags

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Select Booth Choice

*(first through third - see diagram)*

1st \_\_\_\_\_  
2nd \_\_\_\_\_  
3rd \_\_\_\_\_

## Liability

It is expressly understood and agreed that the Exhibitors assume the entire responsibility and liability for losses, damages, and claims arising out of the loss, injury or damage to Exhibitors' display, equipment, and other property brought onto the premises of the Hotel. We will provide additional security in the Exhibit Hall on Thursday and Friday evenings from 7:00 pm to 7:00 am.

## Exhibitor Costs

**Booth Rental:** \_\_\_\_\_ booth(s) at \$500.00 each \$ \_\_\_\_\_  
**Additional Lunch Tickets:** \_\_\_\_\_ at \$25.00 each \$ \_\_\_\_\_  
**Golf at The Quarry** at \$85.00 each \$ \_\_\_\_\_

**Total Amount Enclosed** \$ \_\_\_\_\_

Charge my Credit Card     Check Enclosed     Invoice my Company

Credit Card #: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

*The total fee above is required with this application to reserve your space.*

*Make checks payable to the Missouri Society of Professional Surveyors (MSPS) and return with this form to  
MSPS, PO Box 1342, Jefferson City, MO 65102.*

*For questions call Sandy Boeckman at 573-635-9446 or email [mssp@missourisurveyor.org](mailto:mssp@missourisurveyor.org)*

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**R**esolving  
**B**oundary  
**D**isputes

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