

# ⊕ GEM STATE SURVEYOR ⊕

SEPTEMBER | 2019



*Photo: Travis Hanks*

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## CALENDAR OF EVENTS

<b>December 7, 2019</b>	ISPLS Board Meeting Boise
<b>February 25, 2020</b>	ISPLS Board Meeting Nampa
<b>February 25-28</b>	ISPLS 2020 Annual Conference
<b>February 25</b>	Legislative Reception
<b>May</b>	ISPLS Board Meeting Pocatello
<b>August</b>	ISPLS Board Meeting Lewiston

EDITOR: Aaron Rush

PUBLISHER: AMS

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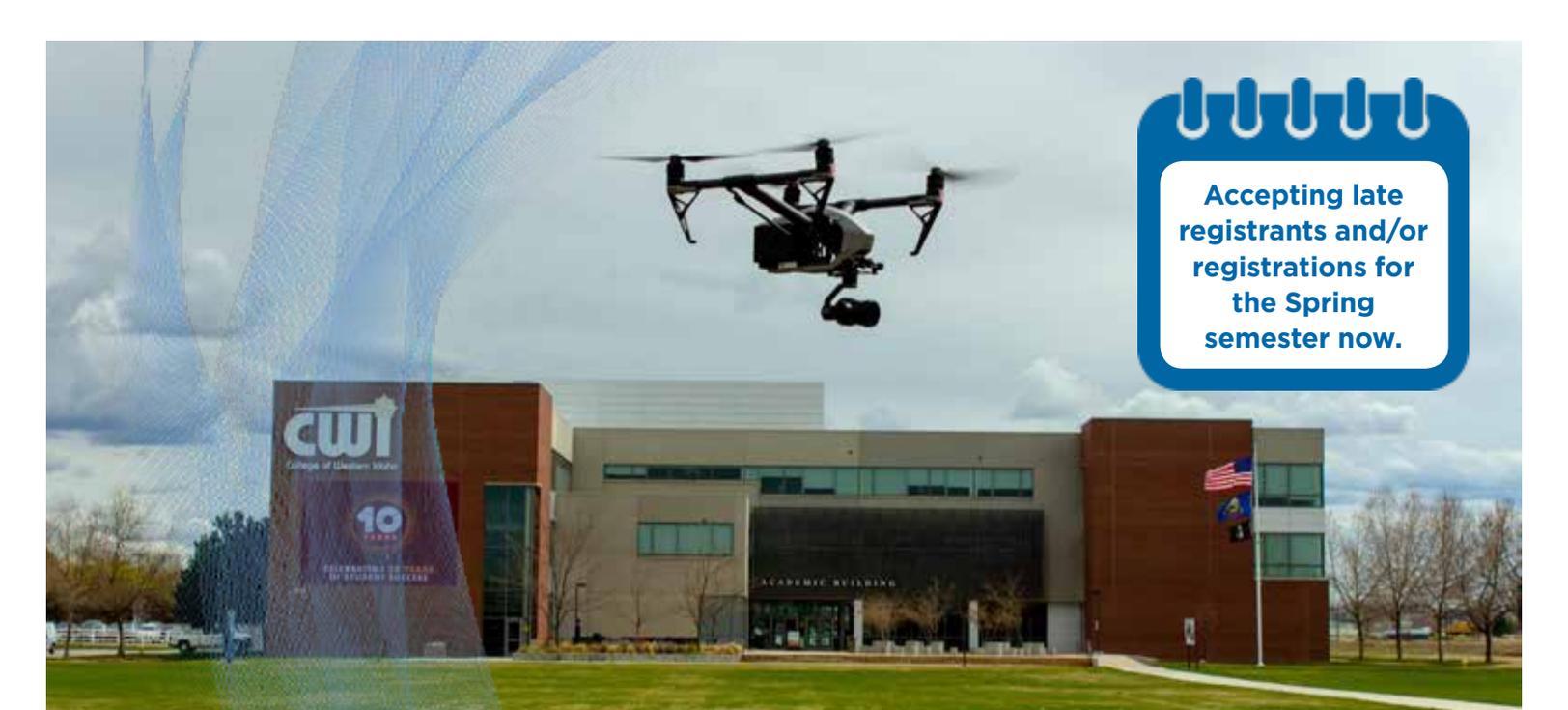
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## PRESIDENT'S MESSAGE SEPTEMBER 2019

**T**here is a lot of planning going on to provide some great services and events for ISPLS members. Watch your inboxes for announcement on some things coming up!

Mark your calendars for February 25 -28, 2020. The ISPLS Annual Conference will be taking place in Nampa Idaho at the Nampa Civic Center. We will have a board meeting on February 25, to which all members are invited, and will follow with three days of some great continuing education and training. We hope to have materials out sometime in October.

And mark the evening of February 25 for our 3rd Annual Legislative Reception in Boise. This event has gone a long way in getting us in front of our legislators and allows us to explain, face to face, some of our issues. I feel it was instrumental last year in convincing legislators to change the right of entry laws to make it easier for us to perform our duties as surveyors. Building these relationships will help us in the future as we support or want to fight certain pieced of legislation. The event will be from 4:30-6:30 p.m. at Beside the Bardenay, located at 612 W. Grove St. in Downtown Boise. Mark you calendars now!

We are also working on putting together Benchmark Reset training in early April (the date to be announced). This will be in conjunction with NOAA and ITD and will qualify you to work on ITD projects with this requirement.

We continue to stay involved with NSPS, by attending conference calls and national meetings, to represent our views and have a say in what is happening nationally to protect and promote our industry.

And don't forget to check out the latest news on the ISU surveyor program — we participated in a grant that is currently promoting the profession to young people looking to start a career and those wanting to change careers.

As always the Board of Governors is interested in what you have to say — contact any of us (see the list on the back page) and let us know what you are thinking, what issues you are facing, or what programs you would like to see us involved in!

Thank you very much,

**Coy Chapman**  
***President***

*Idaho Society of Professional Land Surveyors*

## LEGISLATIVE UPDATE - BY TOM JUDGE

The Board of Licensure of Professional Engineers and Professional Land Surveyors (IBPELS) pursued three rule changes and two agency bills during the 2019 session of the legislature. All rules were accepted and became effective on adjournment as of April 11. The two agency bills were signed into law and became effective on July 1, 2019. The new Rules have been added to our downloadable Laws and Rules guide on the web-site. The laws were added when they became effective on July 1, 2019.

### MATERIAL DISCREPANCY

The biggest Rule change this year relates to material discrepancy. A provision was added requiring notice to affected adjoining landowners and the board prior to setting a second monument or filing a map showing a second location for an existing monumented corner. This is intended to encourage acceptance of valid, longstanding monuments and keep disputes from escalating to the courts. Forcing the pause before setting a second monument allows resolution without the barrier the second monument presents.

Most questions have centered on how far to go when the surveyor of record is retired or deceased. In some cases, there is a successor company or surveyor. The responsible thing to do would be to contact them and see if they have information that can solve the problem. Reasonable cooperation from that firm or surveyor would be expected.

A second common question has been the removal of existing monuments. Owners may agree that a monument does not occupy their corner and accept your location. That does not mean you should remove the old monument without serious consideration of the effects. Other owners may have used that monument as control in surveys or plats. It may have been relied on to construct improvements or occupation fences.

Involving the owners in solutions is a good step for our profession. If you notify them and they want help solving their issue, you need to ask yourself a few questions. Am I equipped to construct an agreement? Will it serve my client to have me do this work, or should they consult an attorney? We are required to only perform services where we are qualified by education and experience. Referring clients to an attorney does not need to start an adversarial process and it doesn't mean you are incapable as a professional. We need to walk the owners toward solutions where possible but only handle the parts in your wheelhouse.

The duty to report un-resolved issues to the board has been made affirmative again. The key here is "un-resolved". If you solve the problem with the other surveyor, you are done. If the owners effect a solution, you are done. If the process has run its course and no solution is found, you must inform the board.

### SURVEY NARRATIVE

The requirement for a survey narrative on all plats and surveys will become effective July 1, 2019. Most of the questions about the narrative relate to the requirement to describe how the boundary and other lines were established. The term 'other lines' has come up several times in conversations.

The intent of the other lines language was to capture those lines required to perform the survey without



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giving an exhaustive (and likely flawed) list of every type of survey line. It was not intended to capture things drawn in for context such as a non-controlling bluff line, edge of asphalt, etc.

When Statutes are passed there are several ways the practical meaning is developed. The first step is guidance from the governing agency. This guidance can come in the form of opinions, newsletters or letters like the one sent to all licensees. We also amend our FAQ from time to time and it is good to visit the site when you can. Over time this combines with accepted practices by licensees and develops into a standard of care. If the process does not flow properly or the desired result is not achieved, the board may pursue Administrative Rules to clarify the requirements of the law.

#### HOUSEKEEPING AND ELECTRONIC RECORDING

The licensing exam and application processes have been amended to 'decouple' the NCEES exams and application. You now schedule, take and pass the FS on your schedule. Once that is complete you do the same for the PS. After passage of both exams and meeting all other requirements you apply for licensure.

Rules governing electronic recording of corner records, surveys and plats were established and are in effect. These will take time to implement and will only effect interested counties. News will be shared as things develop.

#### RIGHT OF ENTRY

Effective July 1, 2019, professional surveyors and our subordinates will have right of entry to perform surveys. The authority comes with a notice requirement. Some have indicated they thought the notice was a request for permission. It is not. If you provide notice with the elements listed in the statute in the manner required, then you have a right to enter. You need to balance that right with the realities of safety, personalities and respect. Remember you represent the profession and your client. If you handle situations with dignity and respect you can preserve the right of entry for future surveyors. Your actions and attitude can either contribute to or de-escalate disputes between your client and his neighbors. The point is, use the right wisely.

One advantage of the notice and cooperation provisions is that it should generate conversations. Take advantage of these to get local knowledge of corners. Ask the old-timers about fences and other possession. Use the interaction to gather the evidence to support your corner and boundary decisions.

#### 2020 PROPOSALS:

- **CP&F law change for setting the C ¼, etc.**

Nearly every patented section in our state was divided in such a way that the center of section was established. This began early in the homestead period and continued through 1978 with no recording law to preserve the plats and notes showing how the center quarter was set or who did the work. That leaves roughly 100 years of unrecorded surveys or unavailable and unindexed county surveyor records to contend with.

Many surveyors do not attempt to locate evidence of these surveys when breaking down a section. Others reject the established corners if they do not meet some arbitrary mathematical or procedural test. At the end of their own survey they do not set a monument to memorialize the corner location. This requires a new section breakdown every time someone visits the section. The owners are at the whims of the measurement prowess of every new surveyor and have no stability of boundaries. This change will require the surveyor to find or set the center of section and file a complete corner record when breaking down a section. Where the monument cannot be set, reference monuments or witness corners should be employed where practical.

- **Housekeeping law changes related to electronic delivery of renewal notices and license reinstatement and other minor updates**

Current law requires all renewal notices to be mailed. This means 600 plus notices every month, most of which will be renewed on-line. This change will allow the option to e-mail notices.

- **Monument Rehabilitation for non-magnetically detectable monuments**

Many non-magnetically detectable monuments were set after the GLO surveys and prior to the law requiring magnetically detectable monuments. Under the current law only those set by the GLO must be upgraded to current standards. This change will require the remonumentation of non-magnetic monuments regardless of who set them.

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- **Definition of Professional Boundary Land Survey to clarify what types of surveys require monuments be set**

The term “Professional Land Boundary Survey” appeared in our statutes several years ago. It was intended to differentiate between boundary related practice and services we perform that are not related. Rather than eliminate the term the board intends to define and use it where appropriate.

- **Repeal of 54-1231, 54-1232, and 54-1233 related damage assessments that are superseded by other provisions**

During the last legislative session, the Right of Entry statute for federal surveyors was amended to include all surveyors and subordinates. The outdated public surveyor damage provisions are being repealed. Damages are handled in other sections of code and the rules of civil procedure.

- **CPD - IDAPA 10-0104-005-006 includes mentoring students as a qualifying CPD activity**

The board recognizes the high value of serving as mentors for distance learning college students. This is a critical function that makes the ISU program accessible for a broader group of students. The proposal would allow up to eight PDH's per year for those mentors.

- **Red Tape Reduction Act - IDAPA 10-0104 - executive order by the governor to reduce or eliminate unneeded rules**

Governor Little has issued an executive order that any new rule will be offset by the elimination of two existing rules. It is qualified that rules to comply with federal law or those dealing with public safety won't have to meet the requirement. We have yet to see the practical effect, but it will mean changes to the way we propose rule changes.

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• **Veterans, Military and Military Spouses rules of procedure either a modification of our existing rule of procedure or a new chapter in response to HB 248 soon to be enacted.**

The law requires us to develop a stream-lined process to license veterans, military and their spouses. We also must propose rules to license them by endorsement if they are qualified license holders in another jurisdiction. We are not looking at reducing qualifications.

PERSONAL NOTE

The creation of the Deputy Director for Surveying position was a great development for our profession. I consider it a privilege to serve and enjoy the job more than you can imagine. Many of the day to day duties are well defined, but the ways we can use this position are very much open. Keep the ideas and questions coming.

Thank you, Tom

**Thomas A. Judge, PLS, CFedS**  
*Deputy Director for Surveying* ☉

**YOU ARE INVITED TO THE  
3RD ANNUAL LEGISLATIVE RECEPTION**

**February 25, 2020, 4:30-6:30 p.m.  
Beside the Bardenay, Boise, ID**

Come and meet with your legislators over food and drink and help us promote the surveying profession! This reception is being held in conjunction with the 2020 ISPLS Conference, February 25-28, 2020 at the Nampa Civic Center.

**ISPLS CALL FOR PICTURES**

**W**e are looking for great pictures depicting surveyors and surveying situations around the state for use on both our website and the *Gem State Surveyor*. The pictures have to be high quality, in a tif or jpeg file, and should not be long shots of anything (close-ups are preferred). We also need permission to use them now or in the future! Please submit to the ISPLS office at [info@idahosppls.org](mailto:info@idahosppls.org) or [tottens@amsidaho.com](mailto:tottens@amsidaho.com). ☉

The advertisement features a screenshot of a GIS software interface. On the right side, there are several data layers listed in yellow boxes: CPF Data, Parcels Data, USGS Topography, and Plat Documents. At the bottom of the map area, two more layers are highlighted: Records of Survey and GCDB Points. A white text box with a blue border is overlaid on the bottom right of the map, containing the text: "It's all at your finger tips... Gain access to Records of Survey, CPFs, Parcels Data, Plat Documents, and much more! Get the job done quickly with outstanding results. Start your FREE trial now!". At the bottom of the advertisement, there is a logo for "landproDATA" with a magnifying glass icon over the letter 'o' in "pro", and the website address "landproDATA.com" below it.

## CONFERENCE REPORT:

The 2019 Annual Conference happened February 19-22, 2019 at the Sho-Ban Event Center in Fort Hall, ID. All 176 attendees enjoyed the great facilities and conference activities while networking with one another and our great vendors.

The classes included Railroad Surveying 101, Legal Descriptions for Deeds and Easements, Introduction to Map Projections, Laser Scanning for Today's Surveyor, 2022 Datum Update, Monument Preservation: Using MCPD and Compliance with ITD Standards Spec 107.19, Introduction & Practical Ethics for Idaho, Land Survey Professional Practices & Ethics, Best Practices for Narrowbanded Radios, and Next Generation Communications, and Title research and Liability for land Surveyors-(Easement and ROW).



*AWARDS — Two people in our profession were honored at the conference:*

### Surveyor of the Year - Travis Hanks

Kenny Roberts nominated Travis for this award. He felt that Travis's role to collect and share OPUS solutions with the GPS on Benchmarks Project to improve the National Spatial Reference System and 2022 Transformation Tool was critical. He spent many hours of his own time collecting monuments, largely at his own expense. He made collecting them a part of his family vacations and outings, involving his wife and children in the task! This nomination was reviewed and endorsed by the Eastern Section due to Travis's fine reputation as a quality surveyor.

### Distinguished Service Award - Jeremy Fielding

Jeremy was nominated by Glenn Bennett who put him up for the award for his "ongoing contributions to IS-PLS and the scholarship auction." Jeremy has worked tirelessly for many years in gathering donations, organizing the auction and helping to ensure that it ran smoothly. This job is difficult and time consuming and Jeremy has done a superb job.

Jeremy has been licensed since 2006 and has been active in ISPLS and on the Board for most of that time. He has also served at the Chapter level, last year as Southwest Chapter Director. He is active in his local community, serving on the board of the Middleton Chamber of Commerce and as its president. He has helped to promote the surveying profession and young surveyors coming up through the ranks.



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HOW YOU MEASURE MATTERS



*Above: Incoming President Coy Chapman gives a plaque of appreciation to outgoing President Jerry Hastings for his many years of service on the Board of Governors.*

*At right: The new Board of Governors are sworn in.*

*Left: Travis Hanks, winner of the Surveyor of the Year Award, accepts with his family present.*

*Below: ISU Students host First Annual Cornhole Contest!*



### ISU Students

The ISU student organization was at the conference to network with our members, and raise money for their organization. They made a total of over \$1500 with an equipment raffle and doubled their profits when Jeannie Liimakka donated it back and they raffled it off again!

They also sponsored a Corn Hole Tournament which was a hit with several teams fighting it out to the very end.

### 2020 Conference

We are just beginning our planning for 2020 and are looking for suggestions on classes you would like to see. Please forward those to the ISPLS office at [tottens@amsidaho.com](mailto:tottens@amsidaho.com). ☺




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**HOW YOU MEASURE MATTERS**

## SURVEYING - A GREAT CAREER CHOICE WITH A VERY BRIGHT FUTURE

*by Michael Carter*

**H**ow would you like to be a scientist, or an adventurer, or an historian? Would you like to learn about ancient tools and techniques, or do you prefer to work with some of the most modern technologies available? Would you like to work in the heart of major cities around the world, or in remote rural areas far away from any roads? Would you like to work in an office using a variety of sophisticated softwares, or would you like to work outside exploring different places? Better yet, how would you like to do any or all these things in a career for which there is enormous demand? If that sounds appealing, please keep reading. That career exists, and we call it Surveying.

Surveying is a licensed profession under the jurisdiction of the State Office of Professional Licensure and Certification, which is the same office that licenses architects, engineers, and several other professions.

This is important, as the surveyor's duty is to meet the standard of care dictated by laws, rules, standards and

ethics that are in place so that design professionals and landowners can rely on the survey professional's measurements and expert opinions.

When you think of a surveyor, you quite likely think of a person standing beside a tripod peering through a transit. We certainly do that frequently, but that is just one small part of a vast scope of work that our profession is deeply involved in.

Surveyors are experts at measuring things and representing & communicating our measurements in ways that other people can understand. As an example, we use 3D laser scanners to survey entire buildings inside and out, and then use sophisticated software to create 3D models of the structural & architectural features of the buildings as well as the pipes, valves, ducting, conduit, and other features related to the utilities in the building. This creates the foundation for our architectural and engineering clients to create a Building Information Model (BIM) of the facility, which is an enormously valuable tool for the building owners and stake-holders. In an industrial or school building, for example, a BIM could allow the facilities team to know the exact model number of every motor and compressor used in the HVAC system, what the recommended preventative maintenance schedule is for each, and when that PM work was last performed and/or is coming due for each of those components. It is interesting to consider that for as valuable as a given piece of land is, the building that rests upon that land often costs many times more than the actual plot of land is worth. A thorough BIM "map" of that building should be an excellent investment.

Surveyors also use Unmanned Aerial Vehicles (UAVs, sometimes called drones) to perform detailed measurements on features that are difficult to reach with ground-based measuring systems. One of the members of our survey team, for example, has an extensive background in photography and also earned a "Remote Pilot Certificate" through the Federal Aviation Administration (FAA). He uses a tablet to guide our quad-copter over an area to be surveyed and takes very high-resolution photos that we use to create a variety of valuable deliverables for our clients.



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With the ever-increasing demand for detailed geospatial data about our environment, manufacturers are constantly innovating to create and combine technological advancements that give surveyors amazing new tool sets. We, in turn, create increasingly detailed measurements and representations of the built environment around us that, among other things, provide the foundation for increasing use of augmented reality (AR) and mixed reality (MR). The days of large paper rolls of 2D plan sets on construction sites are drawing to a close. The Architecture, Engineering, and Construction (AEC) industries are transitioning to the use of 3D documentation in electronic format, so builders are starting to use AR headsets that provide virtual 3D displays of what needs to be built — exactly where it needs to be built — as the modern builder walks/drives around a project site. Surveyors play a crucial role in making that possible.

And as all of these technological advancements are happening, we still get to work in beautiful outdoor settings that often involve hiking in the forest, walking through small rivers in chest waders as we survey the river-bottom topography, or working from a kayak or other small boat to survey slightly deeper waters.

My company has also collaborated with other teams of surveyors whose job involves working from larger

boats as they survey and map the ocean floor along our nation's coasts and harbors.

Before surveyors arrive at a site to set up their tripods for a boundary survey, you can be sure that someone on that survey team spent a great deal of time doing research in a variety of places including Town or City Records, at the Registry of Deeds, and quite possibly in the State Archives in Concord and/or other sites. In the eastern part of the US, the documents involved in that research are often old hand-written script pages dating back to the early days of our nation or even into the colonial periods. A surveyor must also understand how the courts decide boundary dispute issues, as there are typically ambiguities in property descriptions, corner monuments called for may be very difficult to find (or may have been obliterated), and in most instances old measurements do not match with those made by modern instruments. It is essential that these issues be evaluated by a licensed professional because these issues concern the boundary of land that is precious to people economically and emotionally.

This is a career that for whatever reason has been “off the radar screen” of many guidance and career counselors for a long time. Meanwhile, the demand for surveying has been growing tremendously and is forecasted to continue doing so. People with skills (even entry-level skills) in surveying profession are therefore in very high demand today.

In conclusion, if you are a young man or woman looking to enter an exciting, high paying and rewarding career, or if you're considering leaving your existing career to enter a more enjoyable one, surveying is a very good place to look. Our work is interesting, challenging, and every-changing as new technologies emerge, but as we move forward with these technologies we also walk carefully and deliberately in the footsteps of those who preceded us centuries ago, including several of our nation's founding fathers. If you're interested, please reach out to a surveyor to find out more. Our company has welcomed young people to come with us and spend “a day in the life of a surveyor” to begin to get a feel for the profession. As the summer approaches, there may be opportunities to intern with a survey firm. Please don't hesitate to call and ask!

*The author, Michael Carter, is the Director of 3D Mapping at Doucet Survey, LLC. ☉*

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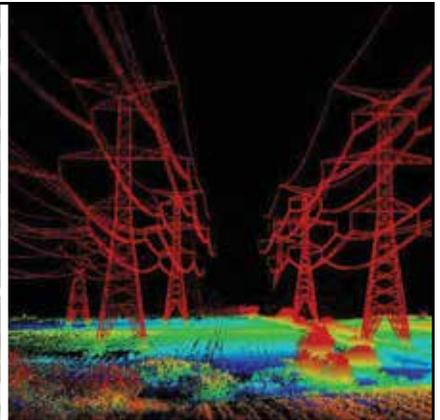
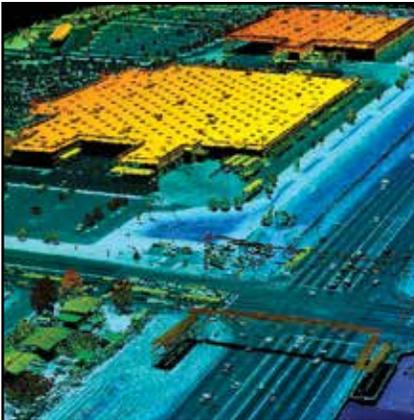
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## UPDATE TO THE ISU GRANT PROGRAM – PROMOTING SURVEYING

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Idaho State University's Surveying and Geomatics Engineering Technology program is excited to announce a new online surveying program for people currently working as survey technicians. Technician Resource Initiative--Practical Online Development (TRIPOD) offers an opportunity for current survey technicians and other survey personnel to earn college credits and gain additional certifications while working in their current positions. Eight courses from ISU's ABET-accredited Surveying and Geomatics Engineering Technology program have been grouped together to prepare students to pass NSPS Certified Survey Technician Examinations, Levels 1, 2 or 3. This grouping of 8 courses is called the TRIPOD program.

Students in the TRIPOD program will take two surveying courses each fall and spring. There are no scheduled class meeting times, and students can study at their convenience. All credits can be applied to earning an associate degree in Civil Engineering Technology or a bachelor degree in Surveying and Geomatics Engineering Technology if the students decide to continue their education beyond the TRIPOD program. Special scholarships are available for TRIPOD students who do not have any previous college education.



Each student is required to have a Professional Land Surveyor as a Mentor to oversee the hands-on course instruction. Mentors will receive a small stipend for each course supervised to partially compensate mentors for their time, use of equipment, software, and willingness to promote the surveying and geomatics profession.

For more information about this program and how to apply, feel free to contact Robert Liimakka or visit the Surveying and Geomatics Engineering Technology program webpage: [www.isu.edu/geomatics](http://www.isu.edu/geomatics)

*Robert Liimakka, PLS  
liimrobe@isu.edu  
(208) 282-5705*

Please encourage your survey technicians or any survey personnel you know of to enroll in the Surveying and Geomatics Engineering Technology program or in the TRIPOD program. Idaho needs more licensed surveyors and more survey technicians, and we hope this new online option will help meet those needs.

### **Steve K.**

*Stephen Keller, Ed.D.  
Director, Marketing and Recruitment*

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## ISPLS CALL FOR ARTICLES

And we are in need of surveying related articles for the *Gem State Surveyor*! Please submit any suggestions or articles in electronic form to the ISPLS office at [info@idahosppls.org](mailto:info@idahosppls.org) or [tottens@amsidaho.com](mailto:tottens@amsidaho.com). ☎

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## LONG TIME ISPLS MEMBER, JOHN ROOT, DIES

*September 13, 1935 - August 28, 2019*

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John Otis Root was born in Shoshone Idaho on September 13, 1935 to Verne Otis Root and Marie Mercy Root. He passed away on August 28th 2019 at the age of 83 at his home. He was raised in Dietrich where he excelled in football, basketball and baseball. He was a member of the 1952 Dietrich Blue Devil 8-man football team that won the state title. He went on to college on a football scholarship.

During his senior year of high school, his mother died in a fire. Being the 4th of 7 children, that left three sisters still at home. He felt compelled to leave college to go home to help care for his sisters. They have always been appreciative of his thoughtfulness and kindness. Although he came home early from college, that did not deter him from learning and educating himself to become successful in his career.

He married Darlene Davis in 1954 and they had three children, Barbara Marie, John Earl and Steven Verne. They divorced in 1983.

He went to work for the Idaho Transportation Department in Shoshone and worked as a construction engineer and retired after 35 years at the age of 55.

He became a licensed land surveyor in 1973 while working for the ITD and after retirement went into full time surveying business. He and Merle Swain started Swain Root surveying, then he began Root Surveying until it became All Points Land Surveying. He men-

tored many young people that have become licensed land surveyors and engineers themselves. He was always proud of their accomplishments.

Surveying was his passion and hobby until the end. When we told him he needed to retire and go where it was warmer, he told us he to leave him alone because he was doing what he wanted to do. John was a long-standing member of the Idaho Society of Professional Land Surveyors until his death.

He is survived by his children, Barbara Root, John (Tawna) Root, Steven (Michelle) Root, his 5 grandchildren, Trevor Root, Ashley Root, Cassie Martin, Cody Root and Connor Root and two great grandchildren Cadence and Elijah. His sisters, Grace Wegener, Helen Magoffin, Edna Draper, and Rose Kisling and many nieces and nephews.

He was preceded in death by his parents, his brother Edward Root and sister Mary Heiken. He cherished all his friendships and lived a happy and fulfilled life. He was well respected for his gentleness and kindness towards others.

Memories can be shared online at [magicvalleyfuneralhome.com](http://magicvalleyfuneralhome.com). Memorials may be made to the Twin Falls Animal Shelter or to a charity of your choice. ☩

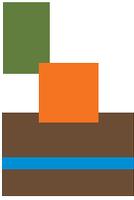
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**SAVE THE DATES - FEBRUARY 25 - 28, 2020**

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