



The Florida Surveyor

Volume XXVII, Issue 6

July/August 2019

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Conference Recap



NSRS Modernization News



Did You Ever Wonder Why?



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Cover Photo: L. Levine

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President's Message



WOW!! AMAZING!! FUN!! These are just a few of the many words I could use to describe our conference this year at the Caribe Royale in Orlando.

Our Education offerings were top-notch beginning with Don Wilson and Gary Kent on Wednesday for two separate 6 hour seminars. I attended Mr. Wilson's class on Forensic Evidence and came away from the class knowing a lot more than I did going into it. I heard great things about Mr. Kent's ALTA seminar as well. On Thursday morning, Mr. Wilson and Mr. George Cole presented separate 3 hour seminars. Both were well attended with good reports on each. Saturday's sessions were also well attended with a Panel Discussion on the Laws and Rules. Many thanks go to our volunteer instructors for the Saturday sessions. We have some very talented folks among us.

What can I say about our Bar BQ on Wednesday night? Absolutely delicious food prepared by teams led by Bob Strayer and Steve Carwile. It was SO good. Well done, guys!!!

A change this year was having a Top Golf event on Thursday afternoon. Sixty folks attended and I believe I can say that all of us had a really good time. It was comfortable, easy paced with lots of laughter sounding through the bays.

Many thanks to Trimble for sponsoring our Exhibitor's Reception. The Hall was packed and I believe everyone enjoyed getting a start on seeing what our Exhibitors had to offer. Thanks also go to Trimble for their generous donation of \$7500 to the Community Foundation of North Florida Scholarship Fund.

Thursday evening brought our Legislative Reception which supports FSMPAC. We were pleased to have Senator Kelli Stargel as our speaker and those of us in attendance enjoyed listening to her views and feel we have a friend to our profession in Senator Stargel.

The Friday General Business Session went smoothly and I hope was informative to our members. Thanks to all who attended.

Our Exhibit Hall was one of the best I've ever seen. Many interesting things with good diversity including survey equipment, software, fleet support, and medical among many. The sandbox was once again a big hit. The conference wouldn't happen without our loyal Exhibitors and we appreciate them very much.

Our Friday afternoon meetings included an FDOT Town Hall, NSPS Amicus Brief Presentation by President Lisa Van Horn, Geospatial Users Group, and Surveyors in Government. A big thank you to V.P. Matt Laluzerne who facilitated a Young Surveyors Network meeting and will be assisting with mentoring this group. Our younger generation is the future of our profession and we all need to step up and get them engaged in everything we do as a profession.

The Recognition Banquet on Friday night was great. I can't say enough about our Award winners and our Chapters. Overall the Chapter contributions which included Conference Sponsorships, FSMS Scholarship Fund, FSMPAC and Door prizes totaled over \$36,000. What a great testament to the exceptional efforts of our Chapters and members. Congrats to Charlotte Harbor and Manasota as winners of Small and Large Chapters of the Year.

You missed a real treat if you weren't there. Next year will be at PGA National in Palm Beach Gardens and I hope to see you there.

Dianne Collins
(863) 937-9052
dcollins@collinssurvey.com

Surveyors *in Government*



Richard Allen, PSM, CFM

We just wrapped up another Annual Conference and I had a wonderful time, hope you all did too! If you have never been to a conference, I would suggest you try to make it to one. Conferences and educational events should motivate you and give you a renewed drive in your daily operations. We each get to see and hear what others are doing or at least get each other's problems off their chests. A big topic at this meeting was Florida Statutes Chapter 177, I know I have been going on about it this year but we are gaining momentum in getting the discussion going. Thank you to everyone who has been involved, a big kudos goes to Matt Kalus and Bill Muscatello with Orange County. They hosted two meetings that were held at their offices in Orlando. They both have volunteered extensive time in providing comments and listening to the comments of others. As has Gail Oliver, who provide a great deal of history on previous changes, and offered wise suggestions of her own. Several from other government entities and the private sector have volunteered time, as has FSMS President, Dianne Collins.

We each have been asking for input and sharing our participation in this process. As stated previously, nothing has been opened, this is just to get the cart moving. There is a need to update the current requirements and to discuss ways to better protect the public. In our area we have been fortunate to have participation and support from our local recording office, the Orange County Comptroller. David Rooney, Assistant Comptroller with their office, has participated in our discussions and he has had staff members attend each meeting. They have been extremely helpful in discussing and providing substantive information regarding their portions of 177 that involve recordation of documents. They are also in the discussion of document preservation, which in the past had been an area of concern with his predecessor.

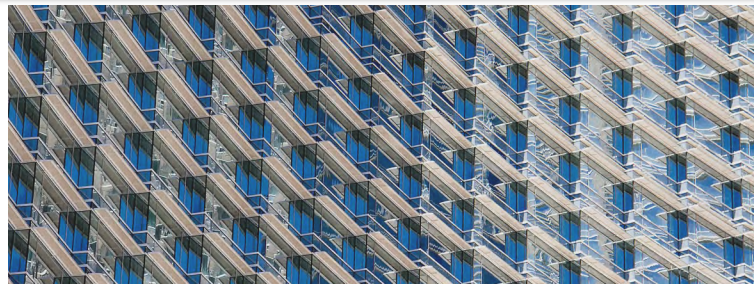


Photo by [Nick Fewings](#) on [Unsplash](#)

I would implore each of the different regions in Florida to do the same and work with those in your region to discuss issues and propose updates to the statutory requirements. That is what we have done in the Central Florida region.

In beginning these discussions, we would advise bringing your local recording agencies in on this discussion. Make sure to involve your local chapters and include them in this conversation. A healthy discussion is helpful in bringing about sound changes to update things that are necessary and educate when things are proposed for plats that do not belong there. We know the planning jargon some departments want on there. Who wants soil borings on there? Discussion is needed to deal with issues that you each are dealing with in your area, I know there are items you are experiencing that I may not have to deal with in Orlando. I recently was approached about doing vertical plats, I have not had to deal with them yet. I have heard they are already dealing with them in South Florida. I am treading lightly as it is new to me. I know everyone will say, it is just a condominium, but still. I do not just run in blindly, I tread lightly! From the initial two meetings we have a working copy to share with others. Our approach was to get a group of government surveyors together in a form of a committee working to compile comments and suggestions to include in the write up that the Central Florida Region has presented for all to see and comment on. Each region should compile their working set of revisions for 177 Part 1.

Your committees should include local government surveyors, private surveying companies and the recorders of your public records. The next stage would be then to have a meeting in each part of the state to finalize a set of requested changes to FSMS. Regionally I was thinking of having a meeting in South Florida, Central Florida and North Florida late this year or early next year to finalize and submit comments.

You can reach me at Richard.Allen@orlando.gov or 407.246.2788.

Special thanks to Joe Boyle for taking so many great photos at conference!!

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CONFERENCE

RECAP

People, Passion, Purpose was our tagline for this year's Conference. Reflecting on this theme, I'm happy to say all three were present. Coming in recently as your new Communications Director, the conference was a great opportunity to witness firsthand what makes the society tick.

Firstly, our *People*. Our community of surveyors and mappers is the heart of the society. Although I was a new face in a large crowd, I was met with enthusiasm and warmth. Seeing the interaction among everyone was uplifting. Whether it was friendly competition during the cornhole tournament, putting together an impromptu guitar session or sharing uneasy glances when our Gatorland entertainment showed up, there always seemed to be a collective comradery.

Then, there was *Passion*. Even over the hustle and bustle at the registration desk, I could hear lively conversations of people discussing their surveying work and their hobbies. Many times, the two overlapped. It is evident there's an abundance of surveyors and mappers who are buoyed by the solace and inspiration that only nature can provide.

Lastly, our *Purpose*. Though we have seen concerning statistics recently that show "the *average* age of the professional surveyor in the United States is 59 and solidly in the Baby Boomer category," the society has addressed this and achieved new interest in the profession. For instance, at our Young Surveyors Network meeting, we had a healthy turnout of over twenty-five young people. ¹

While we're placing the spotlight on gaining traction with younger members, let's not forget where the profession started. As we work to bridge the gap, let's also give our preceding surveyors their due respect and look to these leaders for guidance. There is so much knowledge to pass down as we usher in a new generation.

In the spirit of shared interests and goals, let's harness this energy we generated together at conference to propel us to reach a new crest.

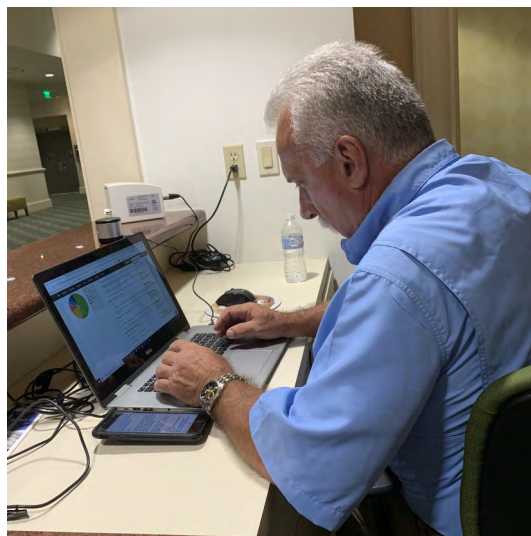
By: Laura Levine, July 31, 2019.

¹ *Surveying and the GNSS Generation: The future is now*, By: Tim Burch for GPS World, May 2, 2018.



Wednesday, July 24, 2019

64TH ANNUAL CONFERENCE



L. Levine



J. Boyle



L. Levine



L. Levine



J. Boyle



L. Levine



T. Steckler



J. Boyle



L. Levine

EXHIBIT HALL



L. Levine



J. Boyle



J. Boyle



J. Boyle



L. Levine



L. Levine



L. Levine



J. Boyle



J. Boyle



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WELCOME BBQ & CORNHOLE TOURNAMENT



J. Boyle



J. Boyle



J. Boyle



J. Boyle





L. Levine



L. Levine



L. Levine



L. Levine

Justin Lahman and David Stickle from Team Hole Enchilada reigned supreme!

TOPGOLF TOURNAMENT



X. Rodriguez



X. Rodriguez



S. Russell



J. Sullivan



S. Russell



S. Russell



X. Rodriguez



S. Russell



Friday, July 26, 2019

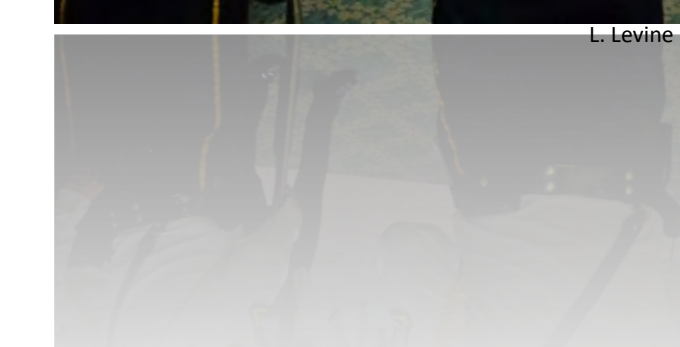
GENERAL BUSINESS SESSION



L. Levine



L. Levine



L. Levine



J. Boyle



L. Levine



L. Levine



J. Boyle



L. Levine

RECOGNITION BANQUET



J. Boyle



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BANQUET

ENTERTAINMENT



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PRESIDENT'S RECEPTION



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THANK YOU CONFERENCE ATTENDEES!



J. Boyle



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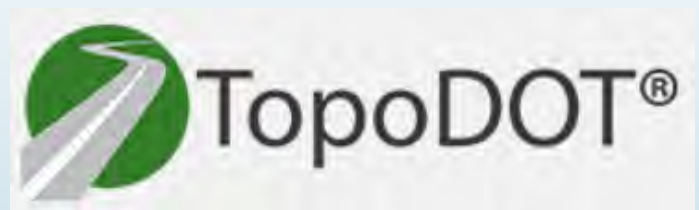
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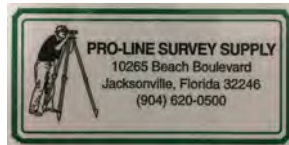
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Virtual Surveyor



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Special Shout Out to:



WGI

Brian Peterson

Emily Bolinsky

Jim Sullivan

**For their part in creating the
superb graphics for the conference!**

WELCOME OUR NEW COMMUNICATIONS DIRECTOR, LAURA LEVINE

Laura is a 2007 Communications graduate from Florida State University and an administrative professional with over 10 years experience.

Most recently she spent the last six years as the Office and Social Media Manager for a commercial production company in New York City named Variable. Variable had the pleasure of working with many prestigious clients such as National Geographic, Tiffany, Audi and Chevrolet.

In her time there, she helped increase their social media following on Instagram from hundreds to 14.5 thousand. She also created multiple 100+ page briefs to assist six international commercial directors gain work Visas for entry into the United States.

Weaving creativity, writing and design into her personal and professional life has been a lifelong pursuit. She was pleased to be the Editor and primary designer of her high school yearbook in 2002, and a photographer for The Renegade yearbook and FSView paper from 2006-2007 at FSU.

Laura married her college sweetheart Jeff in 2011, adopted two sweet rescue dogs in 2013, and were thrilled to welcome their son Ari into their lives in 2015. In 2018, their lives were further enriched when they welcomed their daughter Evie into the world.

With her family in mind, Laura's perspectives and goals shifted which has led her back to her roots. It is with renewed vigor and a fresh perspective that she's returned to Tallahassee to be the Communications Director at the FSMS.

In her free time, Laura is passionate about art, coffee, conservation, gardening and reading.

Issue 16, July 2019



NSRS Modernization News

For all issues of **NSRS Modernization News**, visit:
geodesy.noaa.gov/datums/newdatums/TrackOurProgress.shtml

Blueprint for 2022, Part 3

The Blueprint for 2022, Part 3: Working in the Modernized NSRS document was published in April, 2019. It contained significant details on the future of “bluebooking,” new types of coordinates, new terminology, planned improvements to the NOAA CORS Network, and more. Download a copy at: https://geodesy.noaa.gov/library/pdfs/NOAA_TR_NOS_NGS_0067.pdf

What Will “2022” Entail?

NGS has published a Technical Memorandum which outlines every product and service currently slated for the 2022 roll-out of the NSRS modernization, as well as a status report on each project related to those products and services. Download a copy at: https://geodesy.noaa.gov/library/pdfs/NOAA_TM_NOS_NGS_0078.pdf

Progress of Ongoing Projects

There are currently 24 ongoing projects directly related to NSRS modernization around NGS. Here are highlights from a select few:

- **GRAV-D**

Project Manager: Jeffery Johnson

Weather and mechanical issues prevented NGS from completing airborne gravity collections over Hawaii. With 75% of Hawaii collected, it now looks like NGS will return there sometime in 2021 to finish up.

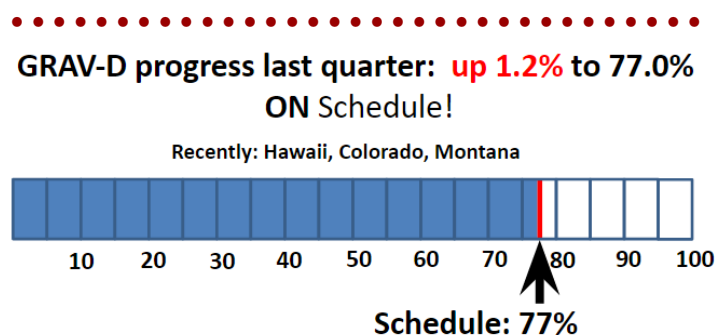
- **GPS Campaign for Transformations** Project Manager: Galen Scott

NGS has released a [new web map](#) for its updated priority listings of marks where new GPS observations will best improve its 2022 coordinate transformation tool. For more information, check out the GPS on Bench Marks web page at: <https://geodesy.noaa.gov/GPSonBM/>

- **OPUS-Projects for RTK/RTN**
Project Manager: Dr. Dan Gillins

NGS has been working behind the scenes to develop a standardized file format for GNSS vectors, as part of the necessary infrastructure to building a version of OPUS-Projects which can ingest vectors directly. Such vectors might come from long-session post-processing of GNSS data, but might also come from short RTK/RTN sessions. The new format will replace the “G files” of bluebooking, and are built around the XML standard. The draft format will be released in late summer 2019 for public comment prior to being formally adopted at NGS.

This new expansion to OPUS-Projects will set the standard for future developments in OPUS-Projects, including methodologies like leveling, classical surveying, and gravity.





Trimble, Inc.
Exhibitor's Reception

Broward Chapter
Recognition Banquet

Miami-Dade Chapter
Recognition Banquet

DRMP, Inc.
Welcome BBQ

Geospatial Users Group
Welcome BBQ

Wantman Group, Inc.
Program Books & CST Exams

Collins Survey Consulting, LLC.
Exhibit Hall Prizes

Bowman Consulting Group, Ltd.
Refreshment Breaks

FLT Geosystems
Name Badges & Lanyards

Pennoni Associates, Inc.
Registration Desk

Rogers, Gunter, Vaughn Insurance
Registration Desk

Central FL Chapter
Registration Packets

Tampa Bay Chapter
Registration Packets

Southeastern Surveying & Mapping Corporation
Young Surveyors Network Meeting

Broward Chapter
Young Surveyors Network Meeting

M.G. Vera & Associates, Inc.
Cornhole Competition

North Central FL Chapter
Game Night

F.R. Aleman & Associates, Inc.
Signs

Langan Engineering
Tote Bags

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General Business Session

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Did YOU Ever WONDER Why?

Michael Whiting, PSM

Why do all airport runways have two numbers on it?

Runways are numbered between 01 and 36 and actually represent the magnetic azimuth in degrees, where 09 is 90° representing east, 18 is 180° and south, 27 is 270° and west, and 36 is 360° and north. Rounding is done to the nearest 10 degrees so 228° would be runway 23. Runway designations may change over time because of magnetic direction changes. A runway can normally be used in both directions, and is named for each direction separately: e.g., "runway 15" in one direction is "runway 33" when used in the other. The two numbers differ by 18 (= 180°). For clarity in radio communications, each digit in the runway name is pronounced individually: runway one-five, runway three-three, etc. (instead of "fifteen" or "thirty-three"). If there is more than one runway pointing in the same direction (parallel runways), each runway is identified by appending left (L), center (C) and right (R) to the number to identify its position (when facing its direction) — for example, runways one-five-left (15L), one-five-center (15C), and one-five-right (15R). Note: Denver International Airport in Denver, Colorado, United States has the longest commercial runway in North America. The 16R/34L runway is 16,000 feet long and is one of the six runways in operation that make Denver International Airport one of the world's largest and busiest airports.

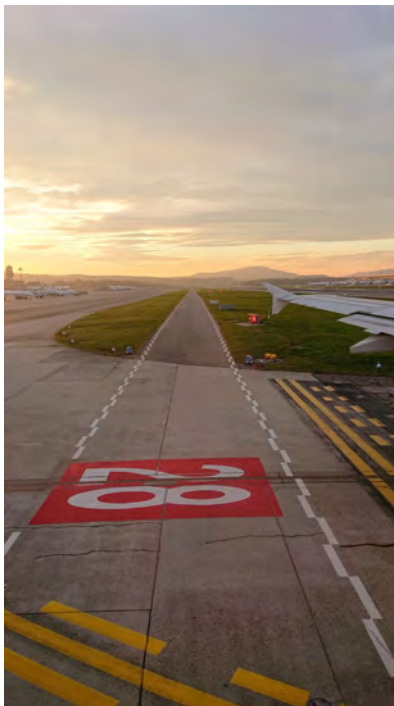


Photo by [Phil B](#) on [Unsplash](#)

Why when you are faking sadness or remorse are you said to shed “crocodile tears?”

“Crocodile tears” is a false, insincere display of emotion such as a hypocrite crying fake tears of grief. The allusion is to the ancient notion that crocodiles weep while devouring their prey. Crocodiles do indeed have lachrymal glands and produce tears to lubricate the eyes as humans do. They don't cry with emotion though. Whatever experience they have when devouring prey most certainly isn't remorse.



Photo by [Robert Zunikoff](#) on [Unsplash](#)

Why do Amish men grow beards but not Mustaches?

In the 1800's, wearing elaborate mustaches was common among those in the military. In fact from 1860 to 1916, uniform regulation in the British Army stipulated that every soldier should have a moustache. In their early days, the Amish and other Mennonites in Europe were often persecuted by the military. In addition to that, the Amish, being a pacifist group, didn't want to associate themselves with those who waged war, so strictly forbid their members from growing mustaches. Today, few men in the Western world choose to grow mustaches, but this tradition remains among the Old Order Amish people, which number about 200,000 in North America. While mustaches are not allowed, beards are practically a requirement among the Amish due to beards being common among men in the Bible. However, not all Amish men are traditionally allowed to grow beards. It isn't until an Amish man gets married that he will stop shaving his beard and allow it to grow out, with beards being a mark of an Amish male having become a man.

Quick Facts:

- ⇒ "When you buy a chicken breast, how many animals is that? One. Ground beef? As many as 400 animals in commercially processed beef," said Northeastern University food safety expert Darin Detwiler.
- ⇒ Americans will consume 59 pounds of beef per capita in 2019, according to the USDA's forecast. That's up from 54 pounds in 2015.
- ⇒ Australia is the 6th largest country in the world, and there are only 24,000,000 people in the entire country! Australia is the only continent without many hills, mountains, and valleys. It is the flattest continent on earth.
- ⇒ The longest fence in the world is in Australia, called the Dingo Fence. It is 3,488 miles long and was built to keep dingoes out. The second longest fence, called the Rabbit-proof is also in Australia. It is 2,021 miles long and it was built toyou guessed it.
- ⇒ A normal raindrop falls at about seven miles per hour.
- ⇒ If you got into your car, turned on the ignition and drove up to the sky at 60 mph, it would take just one hour to get to outer space, according to astronomer Fred Hoyle. Of course, that's if you could drive on a vertical angle and all. But it sure is fun to think about!
- ⇒ It is usually a serious crime to try to escape from prison. However, in Denmark, any fugitive that is caught after running away will only go back to complete his or her jail term.
- ⇒ Japan is one of the few cities in the world where there are no janitors, but is always clean. The people have come to learn not to leave any rubbish on the streets. Also, being a volunteer janitor greatly increases their chances of getting a job in the future.
- ⇒ There are more old people than young people in Japan. Up to 25% of the population are above 65 years of age. This is because they refused to have more than one child, or none at all, because of the high living expenses.
- ⇒ In what must have been the cutest science experiment of all time, neuroscientists discovered that rats laugh when tickled.
- ⇒ On the rare occasion that you swallow a razor blade, don't fret. The human body is more capable than you think. Acids are ranked on a scale from 0 to 14—the lower the pH level, the stronger the acid. Human stomach acid is typically 1.0 to 2.0, meaning that it has an impeccably strong pH. In a study, scientists found that the "thickened back of a single-edged blade" dissolved after two hours of immersion in stomach acid.

- ⇒ Your childhood dreams of floating on a weightless cloud may get rained on with this fact: the average cumulus cloud can weigh up to a million pounds. A million pounds! That's about as heavy as the world's largest passenger jet.



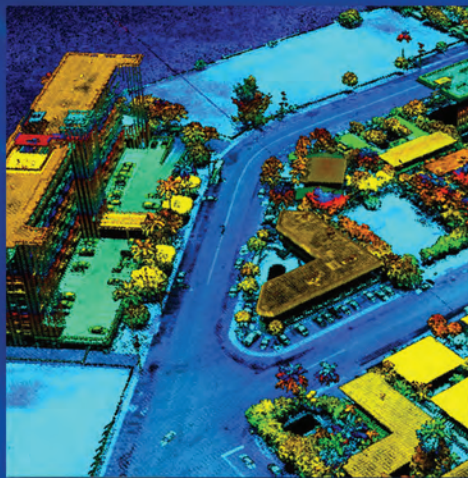
Photo by [Łukasz Łada](#) on [Unsplash](#)

- ⇒ In just one teaspoon of soil, there are more microorganisms than people on the planet, said the U.S. Department of Agriculture. "Millions of species and billions of organisms—bacteria, algae, microscopic insects, earthworms, beetles, ants, mites, fungi and more—represent the greatest concentration of biomass anywhere on the planet."
- ⇒ About half of your body is bacteria. That's right. A 2014 study estimates that the human body consists of 39 trillion bacteria and 30 trillion human cells.
- ⇒ Lost land animals may not be able to find their way home, but sea animals might. According to the U.S. Geological Survey (USGS), "there is evidence that some animals, like sea turtles and salmon, have the ability to sense the Earth's magnetic field and to use this sense for navigation."
- ⇒ Diamonds are definitely the Milky Way galaxy's best friends. Studies have examined the potential that Neptune, Uranus, Jupiter, and Saturn have to produce diamonds. The atmospheres in all four planets have such extreme pressure that they can crystallize carbon atoms and turn them into diamonds. Scientists were able to create the correct conditions in a lab to prove this occurs on Neptune and Uranus. Separately, a different group of researchers speculates that it may rain as much as 2.2 million pounds of diamonds on parts of Saturn every year.

Send your thoughts to drmjw@aol.com

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Around the State



MaryHanna Clodfelter with her daughter, Jessica H. Ports Robbins. Jessica received her Ph.D. from Tulane University, New Orleans, LA, in May. Jessica works for the American Red Cross.

Her dissertation was *Red Cross First Aid & Hazard Smartphone Apps: Understanding the Process and Contexts Impacting ICTs for Disaster Preparedness*.



Captain Jack Breed and his grandson fishing in the Keys.



Allen Nobles and Russell & Pam Hyatt recently spent a week riding motorcycles throughout Oregon.



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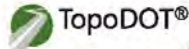
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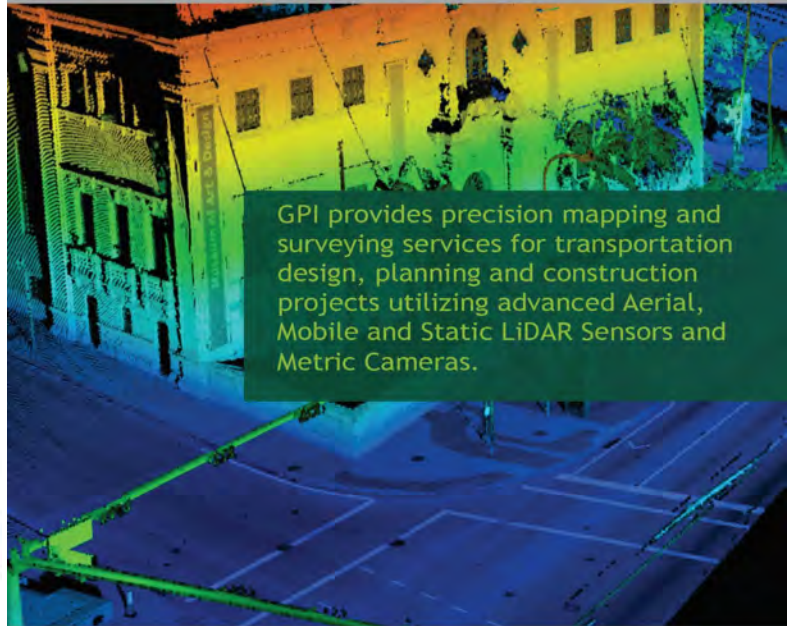
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\$ 70⁰⁰



Boundaries in Florida Course #8255 (6 SOP/L&R CEC)

\$ 120⁰⁰



Contracts for the Professional Course #8412 (3 General CEC)

\$ 70⁰⁰



Elevation Certificates and the Community Rating System Course #8256 (3 General CEC)

\$ 70⁰⁰



Ethics for the Design Professional Course #8621 (6 General CEC)

\$ 120⁰⁰



Florida Laws Course #7149 (6 SOP/L&R CEC)

\$ 120⁰⁰



Professional Ethics and Professional Courses FULL Video Course #8363 (6 General CEC)

\$ 120⁰⁰



Georgia Technical Standards for Property Surveys Course #8554 (6 General CEC)

\$ 120⁰⁰



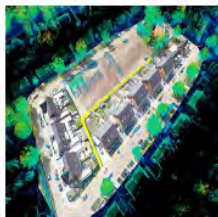
History of Surveying Course #7140 (6 General CEC)

\$ 120⁰⁰



Identification of Native and Non-Native Trees in Florida Course #8132 (6 General CEC)

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Introduction to Photogrammetry Course #7968 (3 General CEC)

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Land Tenure and Cadastral Systems Course #8260 (6 General CEC)

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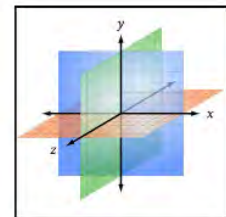
Map Projections and Plane Coordinate Systems Course #8261 (6 General CEC)

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Mean High Water Observations & Computations Course #8262 (6 General CEC)

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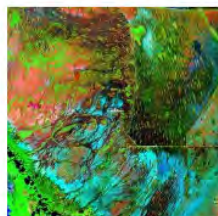
Practical Geometry for Surveyors Course #7141 (6 General CEC)

\$ 120⁰⁰



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Remote Sensing Applications to Surveying & Mapping Course #7148 (6 General CEC)

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\$ 70⁰⁰



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3 Hour Courses Available

- A History of the Prime Meridian Marker, #8403, 3 CEC**
- Basics of Real Property, #8359, 3 CEC**
- Contracts for the Professional, #8411, 3 CEC**
- Digital Signatures for Surveyors, #8491, 3 CEC**
- Elevation Certificates and the Community Rating System, #8257, 3 CEC**
- Introduction to Photogrammetry, #7887, 3 CEC**
- Quality Assurance/Quality Control for the Design Professional and Technical Staff, #9293, 3 CEC**
- Writing Boundary Descriptions, #8361, 3 CEC**

6 Hour Courses Available

- Boundaries in Florida, #7667, 6 CEC**
- Chapter 177, Platting (Plat Law), #6970, 6 CEC**
- Client Satisfaction Excellence for Surveying and Mapping Professionals, #7229, 6 CEC**
- Critical Communication for Surveying & Mapping Professionals, #7228, 6 CEC**
- Ethics for the Design Professional, #8620, 6 CEC**
- Florida Laws, #6966, 6 CEC**
- Florida Surveying Law and Rule Changes, #9573, 6 CEC**
- Georgia Technical Standards for Property Surveys, #8553, 6 CEC**
- Geographic Information Systems (GIS), #7107, 6 CEC**
- History of Surveying, #7108, 6 CEC**
- Identification of Native and Non-Native Trees in Florida, #7874, 6 CEC**
- Land Tenure and Cadastral Systems, #7829, 6 CEC**
- Map Projections and Plane Coordinate Systems, #7669, 6 CEC**
- Mean High Water Observations and Computations, #8220, 6 CEC**
- Practical Geometry for Surveyors, #7109, 6 CEC**
- Public Land Survey System, #6979, 6 CEC**
- Remote Sensing Applications to Surveying & Mapping, #6972, 6 CEC**
- Stress Management for Surveyors & Mappers: How to be Productive Under Pressure, #6902, 6 CEC, ONLY AVAILABLE BY MAIL**
- Time Management for Surveyors & Mappers: How to be Productive & Exercise Time Mastery in a Hectic World, #6901, 6 CEC, ONLY AVAILABLE BY MAIL**

Step 2: Choose Member Type

FSMS Member

<i>EMAILED</i>	Fee	Quantity	Amount
6 CEC	\$115 Per Course	x _____ =	\$ _____
3 CEC	\$58 Per Course	x _____ =	\$ _____
MAILED			
6 CEC	\$125 Per Course	x _____ =	\$ _____
3 CEC	\$68 Per Course	x _____ =	\$ _____
TOTAL			\$ _____

Non-Member

<i>EMAILED</i>	Fee	Quantity	Amount
6 CEC	\$135 Per Course	x _____ =	\$ _____
3 CEC	\$78 Per Course	x _____ =	\$ _____
MAILED			
6 CEC	\$145 Per Course	x _____ =	\$ _____
3 CEC	\$88 Per Course	x _____ =	\$ _____
TOTAL			\$ _____

Non-Licensed in ANY State

<i>EMAILED</i>	Fee	Quantity	Amount
6 CEC	\$100 Per Course	x _____ =	\$ _____
3 CEC	\$60 Per Course	x _____ =	\$ _____
MAILED			
6 CEC	\$110 Per Course	x _____ =	\$ _____
3 CEC	\$70 Per Course	x _____ =	\$ _____
TOTAL			\$ _____

Step 3: Payment Information

Name: _____ PSM#: _____ State: _____ FSMS Member: ___ YES ___ NO

Firm: _____ Sustaining Firm: ___ YES ___ NO

Address: _____

City/State: _____ Zip Code: _____

Email Address: _____ Work Phone: _____

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Card #: _____ Exp. Date: _____ CVV Code: _____

Billing Address of Credit Card: _____

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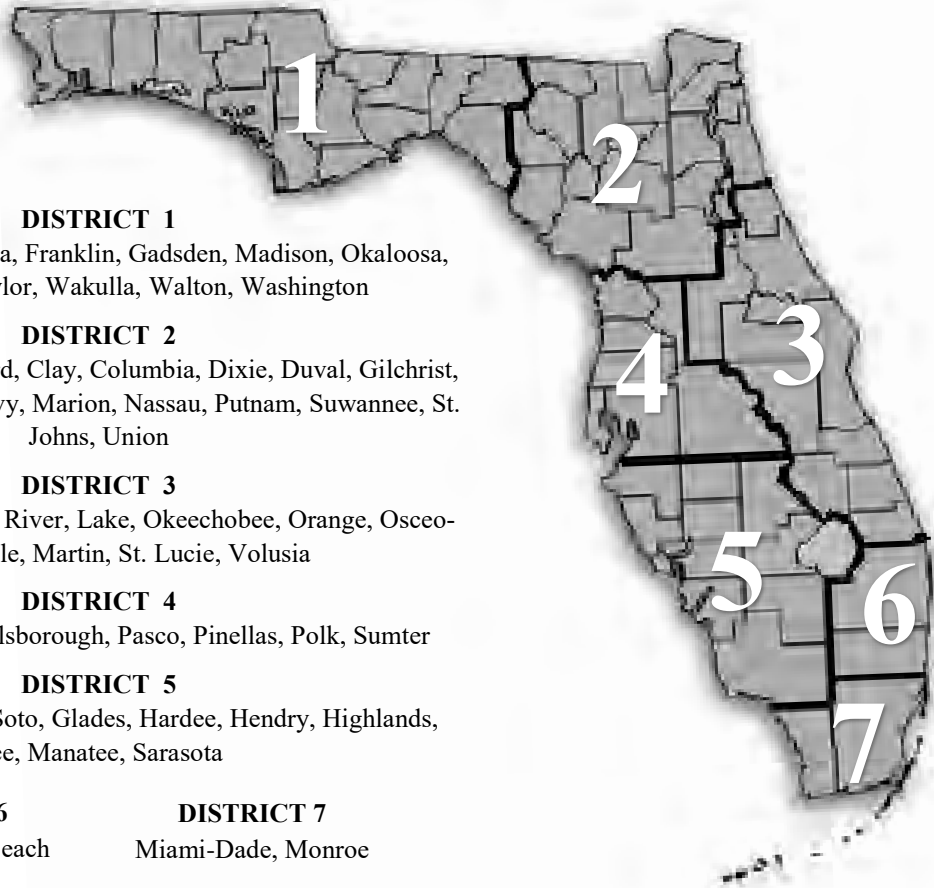
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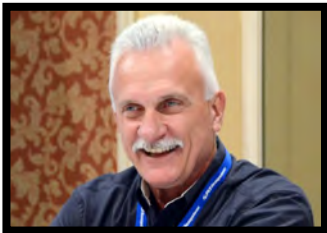
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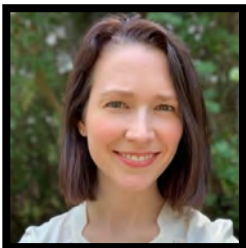
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Tom's Tip of the Month



The Florida Surveyor is the official publication of the Florida Surveying and Mapping Society, Inc. (FSMS). It is published monthly for the purpose of communicating with the professional surveying community and related professions who are members of FSMS. Our award winning publication informs members eleven months of the year of national, state, and district events and accomplishments as well as articles relevant to the surveying profession. The latest educational offerings are also included.

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Allen Engineering, Inc.	321-783-7443	Cumbey & Fair, Inc.	727-324-1070
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American Consulting Professionals, LLC	813-435-2600	Dennis J. Leavy & Associates	561-753-0650
American Surveying, Inc.	813-234-0103	Dewberry	321-354-9729
Amerritt, Inc.	813-221-5200	DMK Associates, Inc.	941-475-6596
Arc Surveying & Mapping, Inc.	904-384-8377	Donald W. McIntosh Associates, Inc.	407-644-4068
Associated Land Surveying & Mapping, Inc.	407-869-5002	Donoghue Construction Layout, LLC	321-248-7979
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Barraco & Associates, Inc.	239-461-3170	E.F. Gaines Surveying Services, Inc.	239-418-0126
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September 25, 2019

Waldorf Astoria Orlando

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October 3-4, 2019

Tallahassee, FL

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