THE FLORIDA SURVEYOR

December 2019 Volume XXVII, Issue 1

IN THIS ISSUE: Around the State: Indian River Chapter FSMS Shout Out Did You Ever Wonder Why?

Topcon GT Robotic Total Stations

Patented, best-in-class robotic prism tracking technology from Topcon rejects false positives and remains locked onto the prism so you can focus on the job at hand. And Topcon's unique Hybrid Technology delivers the ultimate in non-stop productivity by combining GNSS positioning to quickly regain lock, and maintain profit.

800.342.9238 www.Lengemann.us



Lengemann

0

TOPCON

101

100

GTseries UQ000057

0

'Flex Lease' 36 Month Terms - Return Anytime

> Call 800.342.9238 for Details

SAVETheDATE

WHAT: 65th Annual Conference

WHEN: July 22-25, 2020

WHERE: PGA National Resort & Spa Palm Beach Gardens, Florida

www.FSMS.org



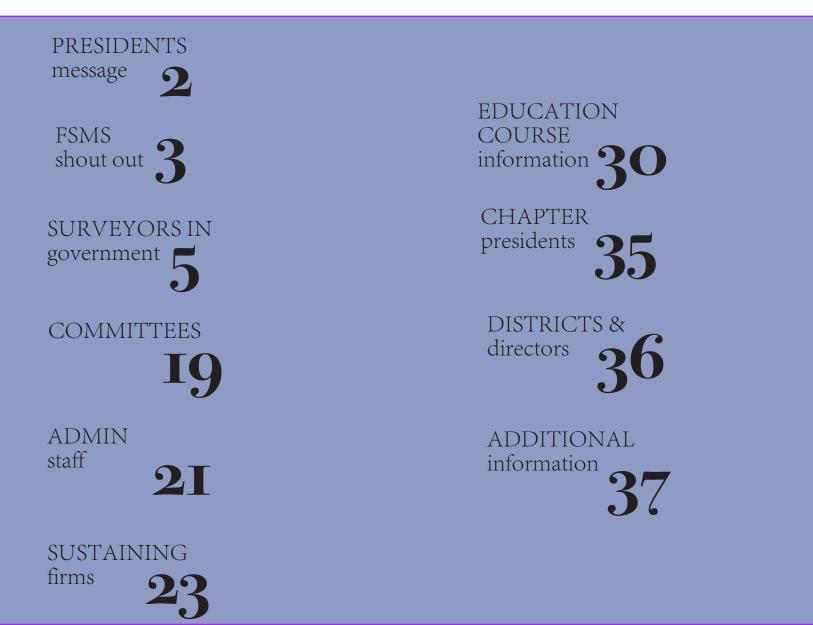
TT SHOULD BE WON OR LOS

THREE GREAT FINISHING





Cover Photo by: Evgeni Tcherkasski



2019 FSMS officers



President-Elect

Don Elder (850) 354-9665 donelderpsm@gmail.com



Vice President Matt LaLuzerne (321) 441-5156 mlaluzerne@gpinet.com

Secretary Joe Perez (321) 230-4420 jlperez@pesengsurv.com

> **Treasurer** Bon Dewitt (352) 392-6010 bon@ufl.edu

Immediate Past President Bob Strayer (941) 497-1290 bob@strayersurveying.com





PRESIDENT'S message

Happy December everyone. Hope everyone had a great Thanksgiving holiday spent with family and friends, relaxing and enjoying good food and company.

As this is my last President's message, I want to reflect a bit on this past year. Being President has meant a great deal to me personally and professionally. Being able to give back to the only profession I've ever known has been a tremendous honor. I hope to continue to serve in whatever way I best can help our Society and profession in the future.

I want to express my thanks to the current FSMS Board of Directors, Committee Chairs, Committee members and Liaisons. Everyone has come together so well. I never have to fear for the work getting done with such wonderful people willing to serve the Society and their profession. Our board meetings have been streamlined to flow well while accomplishing and taking care of the business of the Society. It has been a pleasure to conduct these meetings in such a great working environment. We get the work done while having some laughs along the way.

I am thankful for the opportunities that were provided to travel to many places and meet many people. I made it to many Chapter meetings and apologize if I was unable to make it to yours. I am hopeful I can still get to some I missed during the 2020 year. Traveling to Puerto Rico to meet with surveyors from all over the Caribbean area was a great experience. These are all surveyors we should embrace as valued colleagues in our profession. The opportunity to attend both the Spring and Fall NSPS meetings was also a great experience. Meeting so many Surveyors from across this country was an eye opener, learning we are all facing the same problems with staffing, academics and equipment. These are problems we can work on together, nationally, as well as globally to find resolutions and plan for the future of this great profession.

Legislatively, we've gotten a good start on Chapter 177 revisions but there's still much to be done. I know that President Elect Don Elder will pick up that mantel and carry it through to completion. I am thankful for all those individuals who have worked on this project thus far including but not limited to Gail Oliver, Richard Allen, Matt Kalus and Bill Muscatello. I so appreciate all of the County/City Surveyors who have also provided input into this legislative revision.

I was honored to meet our new Commissioner of Agriculture, Nicki Fried, back in January. I know we will continue to have a good working relationship with the Department of Agriculture and Consumer Services and our Board of Professional Surveyors and Mappers. It has been a pleasure to work with Jenna Harper and know we will establish a good working relationship with her successor. I am looking forward to continuing to attend these quarterly meetings in the years to come.

Lastly, I want to express my sincerest gratitude to our FSMS staff in Tallahassee. Tom, Rebecca, Laura and Cathy have done such a great job for us all year long. Even though we all miss Dominic, Laura has been great and is fitting right in with everyone. This Society would be lost without such a great team handling the day to day operations. Am very grateful for Tom's leadership of this team. His fiduciary responsibility to the Society has been exemplary, being largely responsible for our continued financial success. When you see or speak with any of these folks, please express your gratitude to them.

Have a wonderful Christmas and remember the "reason for the season". God bless you all!



President

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

FSMS SHOUT





Photo by: Maarten van den Heuvel



THANK YOU FOR YOUR **SERVICE** TO **FSMS**



Photo by: Brandon Mowinkel

Hopefully these articles provide some avenue for discussion and insight into what I see in the profession or in government operations. The first surveyor I worked for called me recently and offered some wisdom about prefacing that these views are my own and are by no means the views for the organization at which I work. Randy, thank you for the guidance! So I am prefacing these are my opinions alone, factual experiences I have been a part of or have observed.

To that point, I would like to use this article and maybe one or two more to delve into what being a professional means and what is the difference between a government surveyor and a private surveyor. We are all surveyors, we just have different responsibilities. Some of us have a business that is successful and profitable and others who are entrusted by the public doctrine who enforce regulatory requirements and the rest of surveyors who do everything in between and then some!

Black's Law Dictionary 10th Edition lists a

professional as: "Someone who belongs to a learned profession or whose occupation requires a high level of training and proficiency". This definition was adopted in 1846. Those who take this responsibility of being a professional seriously would agree to this definition. We continually are learning and enriching ourselves with knowledge. Land Surveying is not a profession that you learn in the beginning and do nothing to continue educating yourself, if so you are not only failing yourself, but you fail the profession. I find I have a passion to continue to learn and understand methods that other surveyors may use and to make sense if the public can reply on the means and methods that have been applied. The profession is continually morphing and changing with technology but the principles remain the same.

I talk about what it means to be a professional but there is a difference between professions and professionals. There are surveyors who do little to act like professionals, a quick buck is all they are after. I am not sure if the reason is they don't care or if they just don't understand what they are doing. I know many of us can look at a survey and ask ourselves, how did they get their license? When I find these issues I can only think about the public that has been harmed. When you find a survey that was eight years old and just awful, and call the surveyor and he still doesn't apparently understand what is wrong with the survey.

All I can think about is all the surveys that have been done since that survey, how does one go back and fix all those surveys. No one ever goes back and makes sure the surveyor fixes all of the other garbage they had been hocking off as surveys.

This issue is not just a problem for the surveying profession, engineering and other professions experience the same problems, quantity over quality it seems. In local government we may see it more frequently than state agencies because of local permitting requirements. To keep the public protected it will take qualified surveyors on the government side to qualify the work and make sure the surveys they review are compliant. Finding or retaining staff on the government side is getting more difficult as the separation in pay between private and government surveyors is widening. Finding and keeping qualified professionals in government who have extensive knowledge is even more challenging, especially when you can make significantly more on the private side.

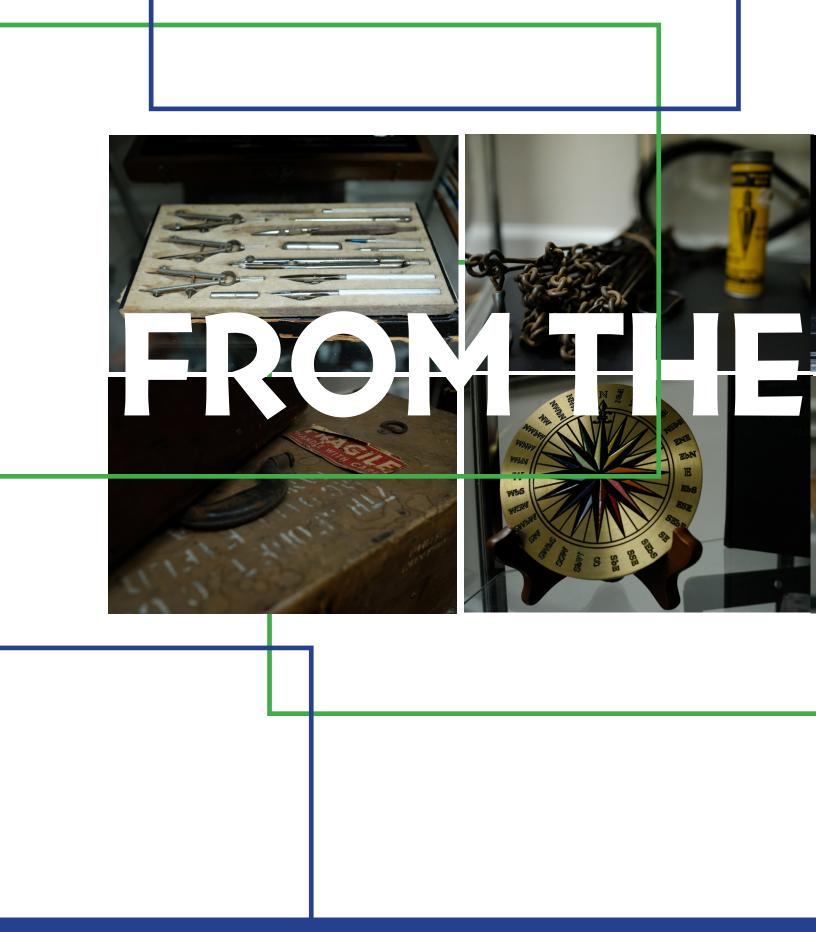
Some government staff professionals are more fortunate than others. For example many of the state agencies were not fortunate enough to have raises consistently over the past decade. At the City we only experienced two years of

no increases due to the economic downturn. I remember seeing for years while Rick Scott was Governor that increases or raises were not approved for state employees in most budgets when he was governor. How is one to keep up with the cost of living if the salaries are not keeping up? This issue is not just one for surveyors but for all professionals. As the number of surveyors start to dwindle, this will be an

ever-increasing problem as qualified employees will be difficult to find, and the agencies, state and local will take several budget cycles to adjust pay scales to a point where they should be. Next month I will continue to delve into this discussion further.



RICHARD ALLEN, PSM, CFM





This Poem was found on a scrap of paper in a School Yard and discovered to be written by a 9 year old boy.

WHAT IS A SIRVAYUR

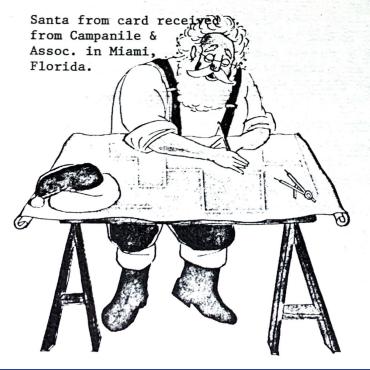
A Sirvayur is something that grubs around in the woods looking for little sticks and stones. When he finds them he does some kind of wierd dance around them with a funny looking 3 leg crutch which he leans on and looks at when he dont find them he walks around all day like he's lost. Sometimes you see them squashed by cars along roads, expeshelly in the summer when all the other bugs are out. A sirvayur has one big eye and one little eye like popeye. He usually walks around bent over all the time which is why he looks so stooped. His face looks like old lether. He cusses terriful. He can't read because he measures between things and then puts down a number in a little book He always making marks on sidewalks and rodes So he can find his way home. His pants is always tore from rock salt and his shoes look like they are made of mud. People stare at him, dogs chase him, and he always looks wore out. I dont know why anyone wants to be a Sirvayur.

Submitted for use by Mr. Bob O'Brien from Ft. Myers, Florida and where he found it is anybody's guess!!

This about concludes our Newsletter for this month and with the hopes that it will reach you before Christmas, we wish you the very warmest and happiest of Holidays. We also wish everyone a prosperous and Happy New Year. Also as we approach the Bicentennial of this great Nation, we would hope that you will not let George and Abe rest in peace and let everyone know that these two great forces in our history were "Sirvayurs".

FSPLS NEWSLETTER % Executive Administrator

1115 NORTHEAST FOURTH AVENUE FORT LAUDERDALE, FLORIDA 33304



JAMES A THIGPENN, III P O BOX 18020 JACKSONVILLE, FL 32229

THE ONE THAT STARTED IT ALL

44 THE SX10 IS OPENING UP A WHOLE NEW RANGE OF POSSIBILITIES.

- Even Sellevoll, Geomatikk Survey

WE COULD KEEP OUR FEET ON THE GROUND AND SAFELY MEASURE REMOTE OBJECTS.

- Joel Cusick, U.S. NPS

FASTER IN THE FIELD
 AND MUCH
 MORE ROBUST.
 - Steve Sharron, WSP

WE HAVE WITNESSED BETTER RETURNS THAN ANY OTHER SYSTEM.

Terry Nygaard, Tx RPLS

The Trimble[®] SX10 scanning total station is the single must-have piece of equipment that masters surveying, imaging, and high-speed 3D scanning in one powerful solution. Two years and thousands of customers later, the reviews are in: the SX10 remains the first and the best of its kind.



See how others are using the SX10 at Trimble.com/SX10_Stories

Duncan 🔁 Parnell

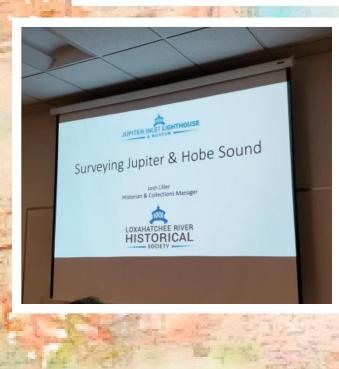
621 Brookhaven Dr, Orlando, FL 32803 (407) 601-5816 www.duncan-parnell.com





(L)

he State







This month the Indian River Chapter had a joint meeting with the Palm Beach Chapter and the FAU Students Chapter with President Dianne Collins in attendance. We had guest speaker Josh Liller, Loxahatchee River Historical Society Historian give a one hour historical presentation on Surveying in Jupiter and Hobe Sound. We had over 30 people in attendance including several FAU Students and Faculty members. The Palm Beach Chapter awarded a \$1,250 scholarship to FAU Student Stephen Castillo and \$500 to FAU Student Joel Rodriguez. The Indian River Chapter also awarded a \$2,000 scholarship to Stephen Castillo. This was a very successful event that we plan to hold again next year.

Photos & text submitted by: Tom Walker



75 0 21 Nanahun 22/10 est There and out bounty, May Jude, 1819 Ar Cherequest of games B. gackane, Maid off and surveyed a Sot of land which is bounded as follows: Bequiningata stake Spin Junes Road and in a Encof the Vande Thursas it gackson curryed lob M. Sydner, Dreuce crofsing the enter tract N 5516 270 Apoles and y links la orale Brie Che bother Dour Brond and ina line of gosefit g Willen's land; Deur with his lower 39816 1 field and 15 links to a stake (; Churce (Stall 32 foles to a stake De when a white oak stort on The land of Andian Rund currer to good Flower; the North & 25 poles to a stake (B); Bure (S 3940 256 poles (pape ing gaschie Mounty's curris and running with his line frant of the way to astatic & current to be M. Sydemi and Reliano History in Jame's Road; Chemeenst. Daich Syderois lines aling said Roads NIBSE 18 upoles and 11 links to astaker 5; Churce N3226 bbapolwand 18 links E The lequining Cartaining 75 acres and 21 squard pole unoritel

As some of you may know, I am collector of colonial surveys, maps and deeds. Recently, I had a chance to examine a cache of documents once belonging to a surveyor named Wiliam Tisinger. I learned that Mr. Tisinger served as the Shenandoah County Surveyor for some time as mentioned in the History of Shenandoah County. He was also listed as a surveyor in Mt. Jackson in the Shenandoah Herald in several runs during 1878.

In the midst of computations, correspondence and survey plats written on the best paper of the day; I found small scraps of paper with notes written on them. One of those scraps contained the following entitled "The Fickleness of Fortune" and read as follows:

Fickleness of fortune may be defined as the inconstancy of good or ill which befalls men in this life. When he enters upon life in

youth, he scarcely dream[s] of the trials that are stored up in the future for him or perhaps he would fret in view of the coils that never come. It is well always to look at

will be something in every occurrence that will afford us pleasure, that is side of things.

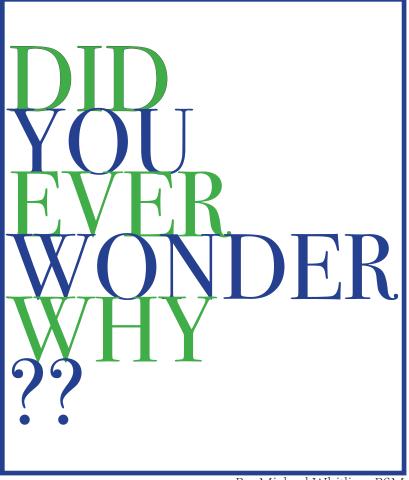
While I have come into the possession of the personal journals of a few surveyors from the early to mid-1800's, none share the degree of reflection shared by this surveyor. As we live our lives today in the midst of electronic overload, it is nice to look back and reflect on a much simpler way of life.

working m.

Photos & Text by: Bob Heggan, Jr., PSM, PLS

the sunny side of things in life; these "As we live our lives today in the midst of electronic overload, frequently lost by looking on the dark it is nice to look back and reflect on a much simpler way of life."

BOB HEGGAN, JR., PSM, PLS



By: Michael Whitling, PSM

YOU YOU WHY ON MHY ON Why do we call them a "dozen" eggs?

The word "dozen" comes from old French word dozeine (twelve). This French word is a derivation from the cardinal number douze ("twelve", from Latin duoděcim). Some lesser known words with a similar meaning; quinzaine (a group of fifteen), vingtaine (a group of twenty), centaine (a group of one hundred). The word "dozen" may bring to mind a "baker's dozen", also known as the devil's dozen and long dozen, which measure 13, one more than standard "dozen" value. In olden days bakers used to make one extra item for an intended "dozen" as an insurance against any item turning out to be faulty which could cause the baker to be fined. For instance, in Egypt if a baker was found to cheat someone they would have their ear nailed to the door of their shop. Such strict laws made them take extra precaution in every possible manner.

Why would a cowboy say he had a "rootin tootin" good time?

Imagine a bunch of cowboys riding into town in a noisy and rambunctious manner, shooting their guns in the air. The town folks might not think so but they would be having a "rootin tootin" good time. "Rootin" ('rooting') comes from its sense of "nosing, grubbing or poking around" for some form of reward, like a pig looking for food with its snout and can be dated back to the 1500's. Note: The American English use of "rootin"/rooting, meaning to express support for a team or competitor, comes from the same verbal root but doesn't appear in print until 1889. The "tootin" (short for "tooting") is a form of "to toot," which, since the 16th century, has meant "to sound or blow a horn or similar instrument or to call or proclaim loudly." Which also brings us to "Darn tootin" which has been used in the US at least since the 1930s (and probably much earlier) as an "emphatic affirmative," a way to strongly agree with what has been said (much like "you're darn right"). In the end, "rootin tootin" is a slang adjective meant to emphasize a positive experience. I don't think, (as I read on the internet) that it is related to eating baked beans at a campfire.

Why when you are very tired are you said to be "bushed?"

"Bush" the shrub comes from either the Old English word "busc" or the Old Norse "buskr." The "bush" related to being "bushed" comes from the Dutch word for forest, "bos/bosch". When the Dutch settlers came to New Zealand, it was undeveloped and heavily forested and was proclaimed as "the bush." Clearing away the forests was hard work and they often proclaimed after carving out a trail that they were "bushed" (exhausted). Today the word means to be exhausted from anything and not just physical outdoor labor.

Why when a friend betrays us is it said to be a "double-cross?"

The root of "double-cross" is, of course, the word "cross," which first appeared in Old English, borrowed from the Irish "cross," which was derived from the Latin "crux." The appearance of "cross" in Old English was closely tied to the spread of Christianity in Europe, so it's not surprising that its initial sense in Old English was "the instrument of crucifixion on which Jesus Christ was put to death." Over the next few centuries, "cross" acquired a wide variety of other meanings as a verb, adjective, adverb and noun, including the "x" made in lieu of a signature by someone unable to read or write. One of the meanings "cross" developed as a verb, in the early 19th century, was "to cheat, to act dishonestly towards or to betray". This slang use was popularized in the lower reaches of society at that time, and often employed to describe a criminal deal "gone bad" by the betrayal of one partner by the other. A more dangerous type of betrayal in this world was the "double-cross," first appearing in print in 1834, in which the villain pretends to be in cahoots with not one but two other parties, each of whom is trying to cheat the other. This "man in the middle" pretends to take the side of each party in the scam until the final moment, when both crooks come up empty and the "double-crosser" walks (or runs rapidly) away with the prize.

Quick Facts:

It's not just called the "division sign." According to Merriam-Webster, it's technically an obelus. Way back in the day, centuries ago, the obelus was used as an editing tool to mark factually questionable passages in manuscripts.

Rather than simply referring to this chart as the "eye chart," call it by its real name. The Snellen Chart is named after the Dutch ophthalmologist Herman Snellen, who designed it in 1862. However, in recent decades, many ophthalmologists having been using another chart, the LogMAR chart, to determine more accurate vision estimates.

In case you were curious, that bit of fleshy skin around a turkey's neck is called snood. The longer the snood on a male turkey, the more likely he is to find a mate.



Photo by: David Travis



When you think about the fact that they're responsible for providing us nourishment in the womb, belly buttons are pretty incredible. But not everyone is amazed by the tiny dots in the middle of our bodies. In fact, some people are downright freaked out by them. And if that's you, you now know the official term for it: omphalophobia.

In the heart of Colorado, about 50 miles west of Denver, lies the Dotsero volcano, a 2,300-foot long beast that once produced a lava flow that stretched for two miles. It is indeed active... depending on how you define the term. In the technical, geological sense, any volcano that has erupted in the past 10,000 years is considered active, and Dotsero last spewed lava about 4,200 years ago. However, minus a catastrophe the size of an asteroid strike, it's in no real danger of erupting today.

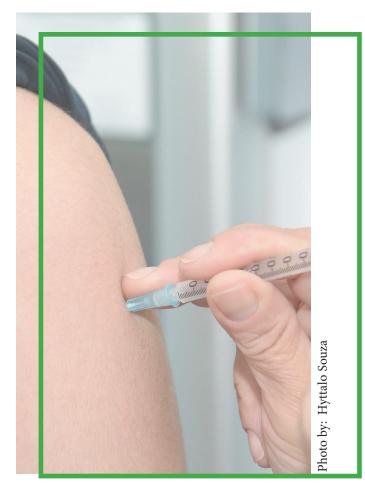
Archaeological surveys show that cheese was being made from the milk of cows and goats in Mesopotamia before 6000 B.C. The Pilgrims included cheese in their supplies on board the Mayflower in 1620.

Bluefin tuna populations have dropped more than 96 percent, primarily due to increasing sushi demands. Most of the bluefin tuna fishing occurs off the coast of Japan, which has very few limits on tuna fishing. The most expensive price ever for a sushi-grade bluefin tuna was \$1.8 million for a 222-kilogram fish in Japan. Over 80 percent of the world's declining tuna stock are eaten by the Japanese.

More than 50 percent of the people who are bitten by venomous snakes in the United States and who go untreated still survive.

When the Citizens Bank of Tenino, Washington, closed on December 5, 1931, the town was without ready cash to do business, so denominations of 25 cents, 50 cents and \$1 were printed on three-ply Sitka spruce wood, the first wooden money issued as legal tender in the United States. The current recommended vaccine schedule for children includes 14 different vaccines spread out over childhood (and longer, in some cases). A single scientist named Maurice Ralph Hilleman is responsible for an astonishing 8 of those 14 vaccines: measles, mumps, hepatitis A and B, chickenpox, meningitis, pneumonia, and a strain of bacteria called Haemophilus influenzae. He also discovered that chlamydia was caused by a bacterium, not a virus. You've probably never heard his name, but he's likely saved the lives of more children than any other single person in history.

Send your thoughts to drmjw@aol.com







p: 770.695.3361 | www.egps.net

YOUR ONE-STOP SHOP FOR ALL SURVEYING NEEDS!

RTK Network | Equipment, Supplies, Accessories | Tech Support Certified Repairs | Rentals | UAV, LiDAR Sales & Training





Gold Status GeoMax-Authorized Total Station, Robotics and GPS Service Center.

December 2019

2019 Committees

Standing Committees	
Nominating Committee	Don Elder
Membership Committee	Jim Sullivan
Finance Committee	Bon Dewitt
Executive Committee	Dianne Collins
Education Committee	Justin Ferrans
Annual Meeting Committee	Matt LaLuzerne
Legal Committee	Jack Breed
Strategic Planning Committee	Don Elder
Ethics Committee	Joe Perez
Legislative Committee	John Clyatt
Surveying & Mapping Council	Randy Tompkins
Constitution & Resolution Advisory Committee	Eric Stuart

Special Committees

Equipment Theft	Pam Nobles
Awards Committee	Bob Strayer, Jr.
UF Alumni Recruiting Committee	Russell Hyatt
Professional Practice Committee	Lou Campanile

Liaisons	
CST Program	Alex Jenkins
FDACS BPSM	Lou Campanile, Jr.
Surveyors in Government	Richard Allen
Academic Advisory UF	Bon Dewitt
FES	Lou Campanile, Jr.

Practice	Sections
Geospatial Users Group	Matt LaLuzerne









Executive Director Tom Steckler director@fsms.org

Education Director Rebecca Culverson education@fsms.org

Communications Director

Laura Levine communications@fsms.org

Regional Coordinator Cathy Campanile seminolecc84@gmail.com

The Florida Surveying and Mapping Society 1689-A Mahan Center Blvd., Tallahassee, FL 32330

What we give our attention to, grows. The more attention you pay to a behavior, the more it will be repeated. Accentuating the positive and redirecting the negative are the best tools for increasing productivity.



What we give our attention to, grows.

The more attention you pay to a behavior, the more it will be repeated. Accentuating the positive and redirecting the negative are the best tools for increasing productivity.

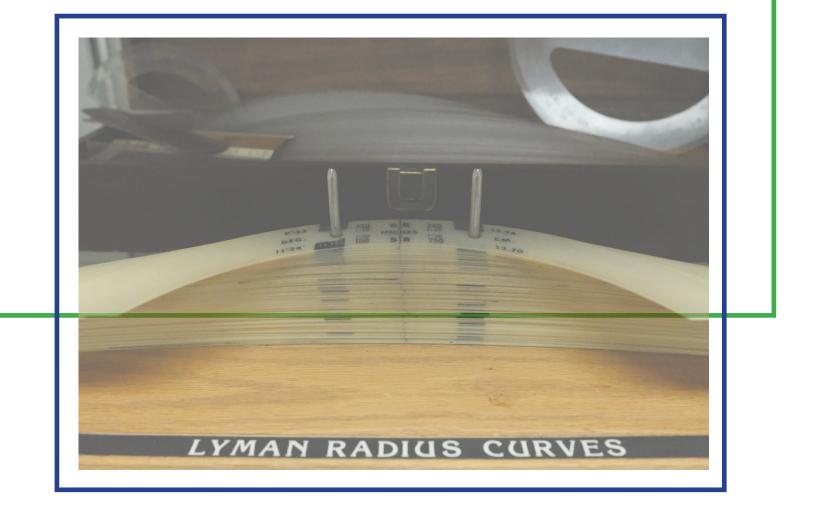
Killer-whale trainers know that when you don't pay a lot of attention to what the animals do wrong but instead give a lot of attention to what they do right, they do the right thing more often. When trainers start working with a new whale, the whale knows nothing about jumping over ropes. The trainers begin with the rope underneath the water, high enough from the bottom for the whale to swim under. If the whale swims under the rope, the trainers don't pay attention, but every time he swims over the rope, they feed him.

Focusing on the negative often creates situations that demoralize people. When good performance is followed by a positive response, people naturally want to continue that behavior.

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.



Sustaining s Directory



A	
A	
Accuright Surveys of 407-894	4-6314
Orlando, Inc.	
Agnoli, Barber & 239-597	7-3111
Brundage, Inc.	
AIM Engineering & 239-332	2-4569
Surveying, Inc.	
Allen & Company, Inc. 407-654	
Allen Engineering, Inc. 321-783	3-7443
AM Engineering, Inc. 941-377	7-9178
American Consulting 813-435	5-2600
Professionals, LLC.	
American Surveying, Inc. 813-234	4-0103
Amerritt, Inc. 813-22	1-5200
Arc Surveying & Mapping, 904-384	1-8377
Inc.	
Associated Land Surveying 407-869	9-5002
& Mapping, Inc.	
Avirom & Associates, Inc. 561-392	2-2594
Axis Geospatial SE, LLC. 386-439	9-4848
В	
Banks Engineering 239-939	9-5490
Barnes, Ferland and 407-896	5-8608
Associates, Inc.	
Barraco & Associates, Inc. 239-461	1-3170
Bartram Trail Surveying, 904-284	4-2224
Inc.	
BBLS Surveyors, Inc. 239-597	7-1315
Bello & Bello Land 305-251	1-9606
Surveying Corporation	
Benchmark Surveying & 850-994	4-4882
Land Planning, Inc.	
Berntsen International 608-443	3-2773
Beta Company Surveying, 941-751	1-6016
Inc.	
Betsy Lindsay, Inc. 772-286	5-5753
Biscayne Engineering 305-324	4-7671
Company, Inc.	
Boatwright and Durden 904-241	1-8550
Land Surveyors, Inc.	
1	5-4821
Bock & Clark Corporation330-665Boundary & Mapping407-696Associates, Inc.407-696	

Bowman Consulting Group, Ltd.	703-464-1000
1 I I I I I I I I I I I I I I I I I I I	561-615-3988
Brown & Phillips, Inc. BSE Consultants, Inc.	321-725-3674
Buchanan & Harper, Inc.	850-763-7427
Bussen-Mayer Engineering	321-453-0010
Group, Inc.	
С	
C & M Road Builders, Inc.	941-758-1933
Calvin, Giordano &	954-921-7781
Associates, Inc.	
Cardno, Inc.	407-629-7144
Carter Associates, Inc.	772-562-4191
Caulfield & Wheeler, Inc.	561-392-1991
Causseaux, Hewett & Walpole, Inc.	352-331-1976
Chastain-Skillman, Inc.	863-646-1402
CivilSurv Design Group,	863-646-4771
Inc.	003-040-4771
Clary & Associates, Inc.	904-260-2703
Clements Surveying, Inc.	941-729-6690
Coastal Supply, Inc.	321-345-4051
Collins Survey Consulting,	863-937-9052
LLC.	005 757 7052
Compass Engineering &	727-822-4151
Surveying, Inc.	
Control Point Associates FL, LLC.	908-668-0099
County Wide Surveying,	850-769-0345
Inc.	
Cousins Surveyors &	954-689-7766
Associates, Inc.	
CPH, Inc.	407-322-6841
Craven-Thompson & Asso-	954-739-6400
ciates, Inc.	
Cross Surveying, LLC.	941-748-8340
Culpepper & Terpening	772-464-3537
Inc.	
Cumbey & Fair, Inc.	727-324-1070
D	
Dagostino & Wood, Inc.	239-352-6085
DeGrove Surveyors	904-722-0400
Dennis J. Leavy &	561-753-0650
Associates	

Dewberry	321-354-9729
DMK Associates, Inc.	941-475-6596
Donald W. McIntosh Associates, Inc.	407-644-4068
	850-763-7427
Donoghue Construction Layout, Inc.	850-765-7427
Douglass, Leavy &	954-344-7994
Associates, Inc.	934-344-7994
DRMP, Inc.	407-896-0594
DSW Surveying &	352-735-3796
Mapping, PLC.	552-755-5790
Durden Surveying and	904-853-6822
Mapping, Inc.	JUI 035 0022
E	
E.F. Gaines Surveying Ser-	239-418-0126
vices, Inc.	012 022 2505
Echezabal & Associates, Inc.	813-933-2505
	000 770 2246
ECHO UES, Inc.	888-778-3246
Eda Engineers-Survey- ors-Planners, Inc.	352-373-3541
Eiland & Associates, Inc.	904-272-1000
Element Engineering Group, LLC.	813-386-2101
Engenuity Group, Inc.	561-655-1151
Engineering Design &	772-462-2455
Construction, Inc.	
England, Thims & Miller,	904-642-8990
Inc.	
ER Brownell & Associates,	305-860-3866
Inc.	
ESP Associates FL, Inc.	813-295-9024
Exacta Land Surveyors, Inc.	305-668-6169
F	
F.R. Aleman & Associates,	305-591-8777
Inc.	
F.R.S. & Associates, Inc.	561-478-7178
First Choice Surveying, Inc.	407-951-3425
Florida Design Consultant,	727-849-7588
Inc.	
Florida Engineering &	941-485-3100
Surveying, LLC.	
FLT Geosystems	954-763-5300
Fortin, Leavy, Skiles, Inc.	305-653-4493

G	
Geo Networking, Inc.	407-549-5075
Geodata Consultants, Inc.	407-732-6965
Geoline Surveying, Inc.	386-418-0500
Geomatics Corporation	904-824-3086
Geomni, Inc.	904-758-2601
GeoPoint Surveying, Inc.	813-248-8888
George F. Young, Inc.	727-822-4317
Geosurv, LLC.	877-407-3734
Germaine Surveying, Inc.	863-385-6856
Global One Survey, LLC.	786-486-8088
GPI Geospatial, Inc.	407-851-7880
GPServ, Inc.	407-601-5816
Gustin, Cothern & Tucker,	850-678-5141
Inc.	
Η	
H.L. Bennett & Associates,	863-675-8882
Inc.	
Hamilton Engineering &	813-250-3535
Surveying, Inc.	
Hanson Professional	217-788-2450
Services, Inc.	
Hanson, Walter &	407-847-9433
Associates, Inc. Hole Montes, Inc.	239-254-2000
Honeycutt & Associates, Inc.	321-267-6233
Hutchinson, Moore & Rauch, LLC.	251-626-2626
Hyatt Survey Services, Inc.	941-748-4693
Ι	
I.F. Rooks & Associates,	813-752-2113
LLC.	
Inframap Corporation	804-550-2937
J	
John Ibarra & Associates,	305-262-0400
Inc.	
John Mella & Associates, Inc.	813-232-9441
Johnston's Surveying, Inc.	407-847-2179

K		Murphy's Lan
KCI Technologies, Inc.	954-776-1616	Inc.
Keith and Associates, Inc.	954-788-3400	N
Kendrick Land Surveying	863-533-4874	Navigation Ele
King Engineering	813-880-8881	Northstar Geo
Associates, Inc.		Northwest Sur
L		NV5, Inc.
L&S Diversified, LLC.	407-681-3836	0
Landmark Engineering &	813-621-7841	Omni Comm
Surveying Corporation		LLC.
Leading Edge Land	407-351-6730	On The Mark
Services, Inc.		LLC.
Leiter Perez & Associates,	305-652-5133	Р
Inc.		
Lengemann	352-669-2111	PEC Surveyin
Leo Mills & Associates, Inc.	941-722-2460	Pennoni Asso
LidarUSA	256-274-1616	Pickett & Asso
Long Surveying, Inc.	407-330-9717	Pittman Glaze
Ludovici & Orange	305-448-1600	Associates, Inc
Consulting Engineers, Inc.		Platinum Surv
М		Mapping, LLC
MacSurvey, Inc.	727-725-3269	Point Break Su
Manuel G. Vera &	305-221-6210	LLC.
Associates, Inc.		Point to Point
Marco Surveying &	239-389-0026	Surveyors, Inc
Mapping, LLC.		Polaris Associ
Maser Consulting, P.A.	813-207-1061	Porter Geogra
Massey-Richards Surveying	305-853-0066	Positioning &
& Mapping, LLC.		Inc.
Masteller, Moler & Taylor,	772-564-8050	Pulice Land S
Inc.		Q
McKim & Creed, Inc.	919-233-8091	Q Grady Mine
McLaughlin Engineering,	954-763-7611	Associates, PA
Co.		R
Metron Surveying and	239-275-8575	R.M. Barrinea
Mapping, LLC.		Associates, In
Metzger + Willard, Inc.	813-977-6005	R.J. Rhodes En
Mock Roos & Associates,	561-683-3113	Inc.
Inc.		Reece & Whit
Moore Bass Consulting,	850-222-5678	Surveying, Inc
Inc.		Rhoden Land
Morris-Depew Associates,	239-337-3993	Inc.

Murphy's Land Surveying,	727-347-8740
Inc.	
Ν	
Navigation Electronics, Inc.	337-237-1413
Northstar Geomatics, Inc.	772-485-1415
Northwest Surveying, Inc.	813-889-9236
NV5, Inc.	407-896-3317
0	
Omni Communications, LLC.	813-852-1888
On The Mark Surveying, LLC.	321-626-6376
Р	
PEC Surveying & Mapping, LLC.	407-542-4967
Pennoni Associates, Inc.	215-222-3000
Pickett & Associates, Inc.	863-533-9095
Pittman Glaze &	850-434-6666
Associates, Inc.	
Platinum Surveying & Mapping, LLC.	863-904-4699
Point Break Surveying, LLC.	941-378-4797
Point to Point Land Surveyors, Inc.	678-565-4440
Polaris Associates, Inc.	727-461-6113
Porter Geographical Positioning & Surveying, Inc.	863-853-1496
Pulice Land Surveyors, Inc.	954-572-1777
Q	
Q Grady Minor &	239-947-1144
Associates, PA	
R	
R.M. Barrineau &	352-622-3133
Associates, Inc.	
R.J. Rhodes Engineering, Inc.	941-924-1600
Reece & White Land Surveying, Inc.	305-872-1348
Rhoden Land Surveying, Inc.	352-394-6255

Rhodes & Rhodes Land	239-405-8166
Surveying, Inc.	
Richard P. Clarson &	904-396-2623
Associates, Inc.	
Robayna and Associates,	305-823-9316
Inc.	
Robert M. Angas Associ-	904-642-8550
ates, Inc.	
Rogers, Gunter, Vaughn	850-386-1111
Insurance, Inc. (HUB FL)	
S	
S&ME, Inc.	407-975-1273
SAM Surveying and	850-528-1005
Mapping, LLC.	
Sergio Redondo &	305-378-4443
Associates, Inc.	
Settimio Consulting	850-341-0507
Services	
Shah Drotos & Associates, PA	954-943-9433
Shannon Surveying, Inc.	407-774-8372
Sherco, Inc.	863-453-4113
Sliger & Associates, Inc.	386-761-5385
Southeastern Surveying &	407-292-8580
Mapping Corporation	
SGC Engineering, LLC.	207-347-8100
Stephen H. Gibbs Land	954-923-7666
Surveyors, Inc.	
Stoner & Associates, Inc.	954-585-0997
Strayer Surveying &	941-497-1290
Mapping, Inc.	
Suarez Surveying &	305-596-1799
Mapping, Inc.	
Surv-Kap	520-622-6011
SurvTech Solutions, Inc.	813-621-4929
T	
Thurmon Doddonhours 0-	850 062 2528
Thurman Roddenberry & Associates, Inc.	850-962-2538
Tradewinds Surveying	863-763-2887
Services, LLC.	
Tuck Mapping Solutions, Inc.	276-523-4669

U	
Upham, Inc.	386-672-9515
W	
Wade Surveying, Inc.	352-753-6511
Wallace Surveying Corporation	561-640-4551
Wantman Group, Inc.	561-713-1714
WBQ Design & Engineering, Inc.	407-839-4300
Winningham & Fradley, Inc.	954-771-7440
Woolpert, Inc.	937-461-5660
Ζ	
ZNS Engineering, LLC.	941-748-8080

One System. Multiple Uses. es, You Can Do Both!

SNOOPY DUAL VUX - RIEGL

Designed to easliy move from a UAV to a ground vehicle. Optimize your ROI. Spend more time scanning, only 30 seconds to initialize. We Make 3D Mapping Easy. Learn more on our website. www.LiDARUSA.com





Florida Surveying and Mapping Society

2019 eLearning Courses



Basics of Real Property Course #8360 (3 General CEC)

\$ 7000



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

\$ 12000



\$ 70⁰⁰



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



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 Courtesy 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)

\$ 12000



Introduction to Photogrammetry Course #7968 (3 General CEC)





Public Land Survey System Course #7147 (6 General CEC)





Remote Sensing

(6 General CEC)

\$ 12000

Applications to Surveying

& Mapping Course #7148



\$ 12000



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





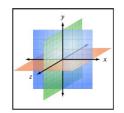
Writing Boundary **Descriptions** Course #8362 (3 General CEC)





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

\$ 12000



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





FSMS Correspondence Courses

Lowest Rates of Any Florida Surveying and Mapping Continuing Education Provider

Step 1: Choose Course(s)

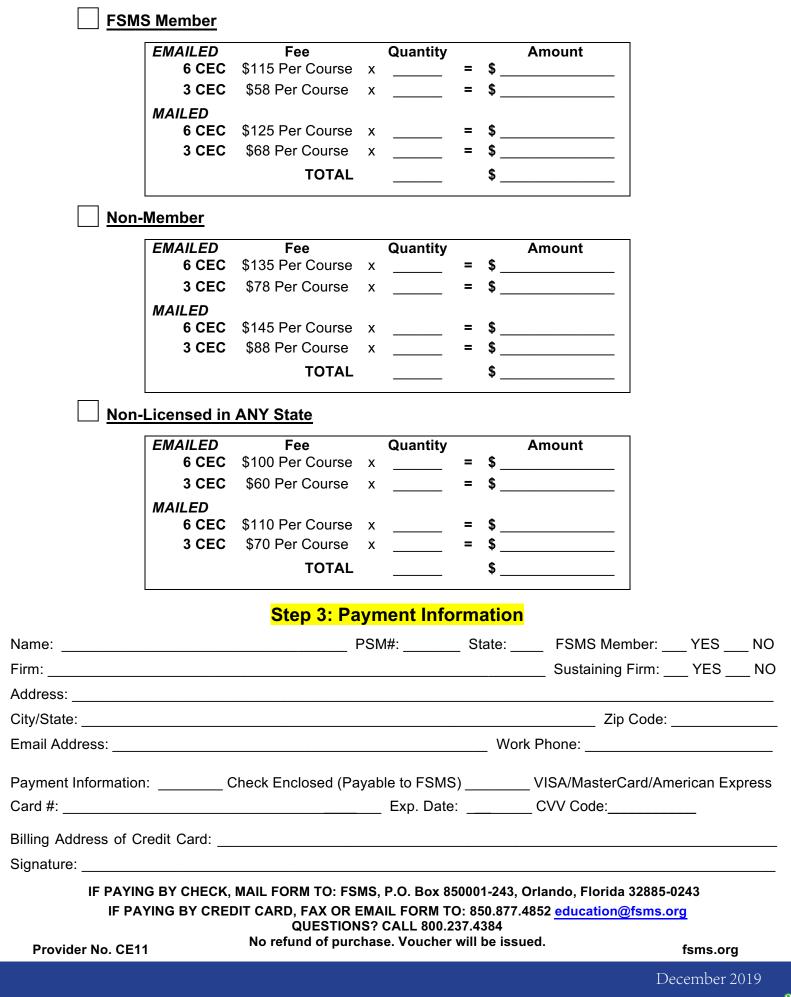
3 Hour Courses Available

- □ 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
- D 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, <u>ONLY AVAILABLE BY MAIL</u>
- □ Time Management for Surveyors & Mappers: How to be Productive & Exercise Time Mastery in a Hectic World, #6901, 6 CEC, <u>ONLY AVAILABLE BY MAIL</u>

Step 2: Choose Member Type



Our publication reaches over 3,000 people...

Advertise your job openings here!



Contact the FSMS office at (850) 942-1900 or go to fsms.org for more info.

FSMS wishes everyone a wonderful holiday season and HappyNew Yean

2019 Chapter Presidents

District 1

Panhandle William T. Butler wtb@butlersurveying.com

Gulf Coast Frederic Rankin erankin@dewberry.com

Chipola Jesse Snelgrove jsnelgrove@ snelgrovesurveying.com

Northwest FL Chad Thurner chad.thurner@sam.biz

District 2

FL Crown Bill Faust cfaust@drmp.com

N. Central FL Hal Peters hpeters@gpinet.com

> **UF Geomatics** Daniel Hutton dhutton8@ufl.edu

District 3

Central FL Leon Hampton lham5910@yahoo.com

> **Indian River** Brion Yancy byancy@martin.fl.us

> > Volusia Anthony Sanzone eastcoastland@ bellsouth.net

District 4

Ridge Larry Sharp lsharp@collinssurvey.com

Tampa Bay Charlie Arnett carnett@ southeasternsurveying.com

District 5

Charlotte Harbor Greg Rieth greg@strayersurveying.com

> **Collier-Lee** Steve Shawles II sshawles@cesincusa.com

Manasota Donald A. Bouchard, Jr. donb@znseng.com

District 6

Broward Earl Soeder earl@gpserv.com

Palm Beach Derek Zeman dzeman@drmp.com

FAU Geomatics Gerardo Rojas grojas2017@fau.edu

District 7

Miami-Dade Frank Pauas-Suiero fparuas@gpinet.com

2019 Districts & Directors

District 1 -/Northwest

Bay, Calhoun, Escambia, Franklin, Gadsden, Madison, Okaloosa, Santa Rosa, Taylor, Wakulla, Walton, Washington

Eric Stuart (850)857-7725 eric.stuart@sam.biz Chad Thurner (850) 200-2441 chad.thurner@sam.biz

District 2 / Northeast

Alachua, Baker, Bradford, Clay, Columbia, Dixie, Duval, Gilchrist, Hamilton, Lafayette, Levy, Marion, Nassau, Putnam, Suwannee, St. Johns, Union

Nick Digruttolo (863) 344-2330 ndigruttolo@pickettusa.com Randy Tompkins (904) 755-4235 randytompkins1@ outlook.com

District 3/East Central

Brevard, Flagler, Indian River, Lake, Okeechobee, Orange, Osceola, Seminole, Martin, St. Lucie, Volusia

Al Quickel (407) 395-3518 aquickel@drmp.com Howard Ehmke (561) 682-2987 hehmke@sfwmd.gov

District 4/ West Central

Citrus, Hernando, Hillsborough, Pasco, Pinellas, Polk, Sumter

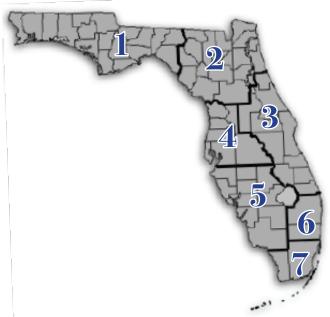
Greg Prather (863) 533-9095 gprather@pickettusa.com

Justin Ferrans (727) 461-6113 justin@polaris-survey.com

District 5/ Southwest

Collier, Charlotte, DeSoto, Glades, Hardee, Hendry, Highlands, Lee, Manatee, Sarasota

Joe Kelly (941) 907-6900 joe.kelly@stantec.com Jeffrey Cooner (239) 829-7016 jeff.cooner@cardno.com



District 6/Southeast

Broward, Palm Beach

Ken Buchanan (561) 687-2220 ken.buchanan@wginc.com Dodie Keith-Lazowick (954) 788-3400 dkeith@keithteam.com

District 7/South

Miami-Dade, Monroe

Manny Vera, Jr. (305) 221-6210 mverajr@mgvera.com

NSPS Director

Ronnie Figueroa (407) 292-8580 rfigueroa@southeasternsurveying.com

Lou Campanile (954) 980-8888 lou@campanile.net

Additional Information

Past Presidents

1956 *H.O. Peters Harry C. Schwebke John P. Goggin R.H. Jones*

1960

Hugh A. Binyon Russell H. DeGrove Perry C. McGriff Carl E. Johnson James A. Thigpenn, III Harold A. Schuler, Jr. Shields E. Clark Maurice E. Berry II William C. Hart

Frank R. Schilling, Jr.

1970

William V. Keith James M. King Broward P. Davis E.R. (Ed) Brownell E.W. (Gene) Stoner Lewis H. Kent Robert S. Harris Paul T. O'Hargan William G. Wallace, Jr. Robert W. Wigglesworth 1980 Ben P. Blackburn William B. Thompson, II John R. Gargis Robert A. Bannerman H. Bruce Durden Buell H. Harper Jan L. Skipper Steven M. Woods Stephen G. Vrabel W. Lamar Evers

1990

Joseph S. Boggs Robert L. Graham Nicholas D. Miller Loren E. Mercer Kent Green Robert D. Cross Thomas L. Conner Gordon R. Niles, Jr. Dennis E. Blankenship W. Lanier Mathews, II Jack Breed

2000

Arthur A. Mastronicola Michael H. Maxwell John M. Clyatt David W. Schryver Stephen M. Gordon Richard G. Powell Michael J. Whitling Robert W. Jackson, Jr. Pablo Ferrari Steve Stinson

2010

Dan Ferrans Jeremiah Slaymaker Ken Glass Russell Hyatt Bill Rowe Dale Bradshaw Lou Campanile, Jr. Bob Strayer, Jr.



Advertise With Us!

All advertisements contained within the publication are published as a service to readers. Publication of the advertisements does not imply or express any endorsement or recommendation by FSMS. The rates are as follows.

Requirements: Contracts for one year (II issues) receive 10% discount if paid in advance; camera-ready copy (JPEG, PDF, GIF, PNG docs); new ads and/or changes are due by the 15th of each month. It is the responsibility of the client ot submit new ads or changes.

Benefits: Full color; hot links to your websites added to your ad.

J		J
Size	1 Issue	2-11 Issues
Inside Front Cover	n/a	\$525/issue
Inside Back Cover	n/a	\$525/issue
Full Page	\$720	\$395/issue
1/2 Page	\$575	\$320/issue
1/4 Page	\$290	\$175/issue
Business Card	\$120	\$100/issue

SURV-KAP®

THE LANDMARK NAME IN SURVEY PRODUCTS Exceptional Customer Service

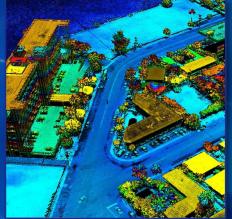


520-622-6011 • 800-445-5320 • FAX 520-792-2030 • SURV-KAP.COM

Success can be Measured

Land & Hydrographic Surveys Aerial LiDAR Mapping & Imagery UAS & USV Mapping Transmission Engineering









Ann Arbor • Bartow • Dallas • Gainesville • Raleigh • Tampa Visit us at PickettUSA.com or call us at 863.533.9095

Leica Aibot UAV Surveying You Can Trust

This complete UAV solution for surveying and mapping enables fast and flexible data collection from above. An easy workflow integrated into the Leica Geosystems' ecosystem guides you through your project lifecycle, providing quick access to critical information needed to complete your day-to-day surveying, inspection and GIS tasks.

Visit uav.leica-geosystems.com for more information. Contact John McKay jmckay@floridalevel.com or 954-818-4631 to request a demo.



Geosystems

www.FLTgeosystems.com





FT. LAUDERDALE

800 PROGRESSO DR., FT. LAUDERDALE, FL 33304 (954)763-5300 · FAX: (954)462-4121 1-800-327-0775

 TAMPA

 5468 56TH COMMERCE PARK BLVD., TAMPA, FL 33610 (813)623-3307 • FAX: (813)623-2100

 We'RE AN EQUAL OPPORTUNITY EMPLOYER

 1-800-282-7003