



# THE FLORIDA SURVEYOR

May 2020  
Volume XXVIII, Issue 5



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From the Archives: Recovery of the Key  
Biscayne South Base

Surveying Chains

NSRS Modernization News



## Topcon GT Robotic Total Stations

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DID YOU EVER WONDER  
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Cover Photo by: Jeremy Bishop



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# 2020 FSMS officers



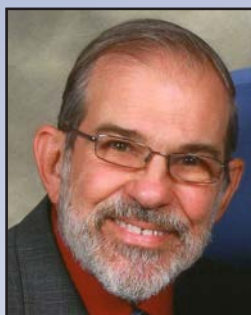
## **President-Elect**

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## **Immediate Past President**

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# PRESIDENT'S message

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First, an unfortunate but probably unsurprising announcement: FSMS has been closely monitoring the Covid-19 virus and its impact on social gatherings and business operations. Based on the information available at this time, FSMS believes that in the best interest of our members, the only option is to terminate the contract for the conference scheduled for July 23rd to 25th, 2020, at the PGA National Resort. As you are aware, the purpose of this annual conference is for our members to share industry knowledge, discuss FSMS and industry business, promote our mission, gather information on new technologies and equipment and to mingle, network and learn from each other and from our Sponsors and Exhibitors. Unfortunately, the Covid-19 virus has negated and frustrated the very purpose of that conference.

We hope to reschedule at this property for the 2022 conference, as we have already booked the 2021 conference at the Sawgrass Marriott in Ponte Vedra.

So that's the bad news, but I have positive things to report too: A few weeks ago, the FSMS Board of Directors successfully held our quarterly Board and Committee meetings remotely, continuing the business of advocating for our members and the profession. Within a month or two, we expect to have a variety of new and revised continuing education courses available to help you meet the biennial renewal requirements for the current cycle.

Last week, I had the pleasure of attending the Broward Chapter meeting without having to take a flight or make the long drive south from Pensacola. While I would have preferred to physically be in the same room with my friends and colleagues, remote meetings are something we can do safely right now.

For Chapters who need videoconferencing support to be able to hold their next meeting as scheduled, the FSMS administrative office can assist with hosting and facilitating meetings. If your chapter would like to have a virtual meeting this month, please contact the office in Tallahassee and we'll get you set up. If you do hold a virtual meeting this month, let me know when it is and I'll make every effort to attend and field your questions.

I'd also like to express my appreciation for the efforts of our friends at the Board of Professional Surveyors and Mappers to keep the profession growing. Last week, BPSM held a telephonic conference where the applications of prospective Florida surveyors were reviewed and advanced accordingly. Unlike some government services which have been incapacitated by the challenges of pandemic, BPSM continues to work hard and work well on our behalf.

Our current circumstances aren't ideal. However, making the best of evolving conditions is what we all do every day as geospatial professionals, and together we will prevail as people and as a profession.

I hope to see many of you this month at virtual chapter meetings, and until next month, stay safe out there!



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**President**

Don Elder

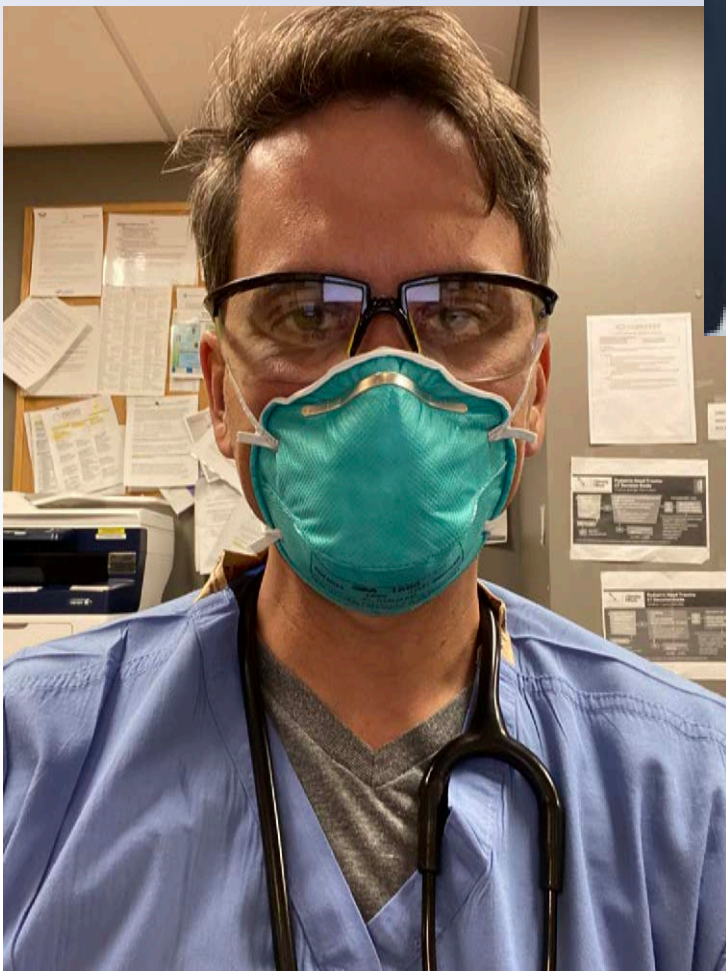
(850) 354-9665

[donelderpsm@gmail.com](mailto:donelderpsm@gmail.com)



# FSMS SHOUT OUT

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Mike Whitling's son, David Whitling, an ER doctor in Boulder, CO.



Michael Capozza, MD doctor at UF Health-Shands, Gainesville, son-in-law of Michael and Tamara Osipov.

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**A big thank you to medical professionals, truck drivers, police officers, teachers, grocery store clerks, warehouse workers, janitors, farmers and restaurant workers for keeping critical services functioning!**

---

*THANKS  
TO  
ESSENTIAL  
WORKERS  
FOR  
YOUR  
CRUCIAL  
EFFORTS*



Michael O'Brien's daughter, Shannon O'Brien, is a practicing nurse in Tallahassee.

She brings pride to the family and the profession, keeping good spirits, working long hours to serve patients, the community, and preparing for the future.

Even though Tallahassee is not a pandemic hot-spot in Florida; Shannon's team has been working long hours being overwhelmed with patient fears and worries, shortage of strategic medicines and supplies, that have been purchased in large quantities, or redirected to other areas in the nation.

Kudo's to Shannon, her team in Tallahassee and all in the medical profession!



# FSMS SHOUT OUT

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Jeff Cooner's brother, Brad on duty as a paramedic in the Bronx and Queens in New York City.



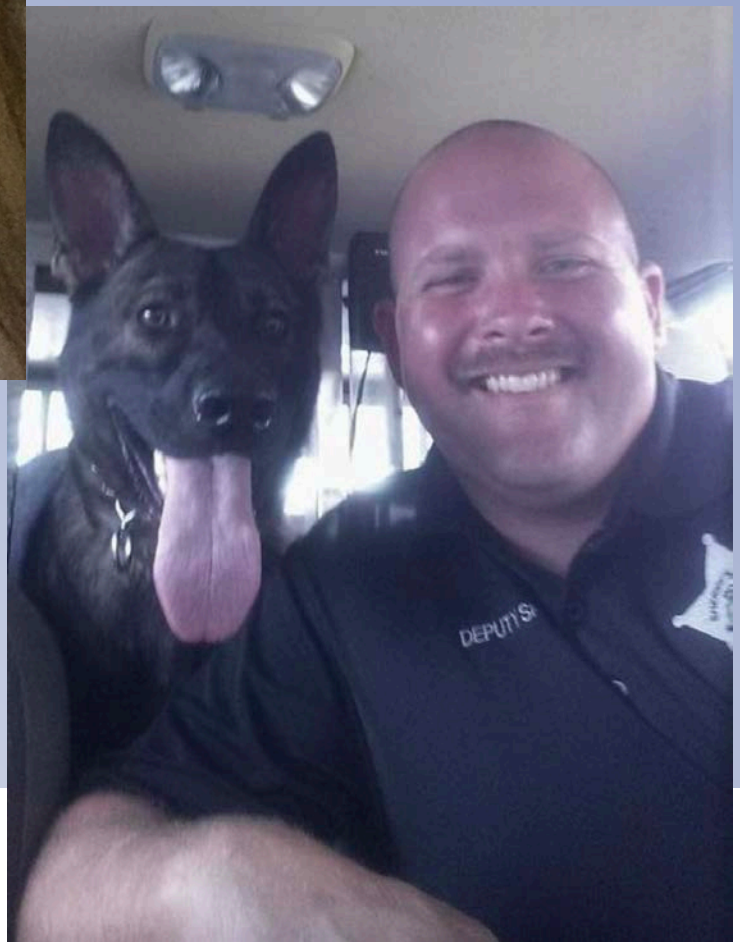
Dianne Collins' cousin and her husband are both elementary age teachers in Polk County.

Janet Archambault Paxton, husband Marty Paxton (right) and their two sons Bradley on left and Harrison between.

---



Kyra Graham, R.N.  
Chronic Care Management Nurse at Accent  
Physicians Specialist, Gainesville Florida, niece of  
Florida PSM Ricky Sears.



Son of Dianne and Dana Collins, Deputy Sheriff Scott  
Cronin with partner K-9 Vise.





Photo by: Brandon Mowinkel

This month's article is going to be brief and discuss what has been going on with the proposed changes to Florida Statutes Chapter 177 Part I. Thus far, there has been feedback from the Palm Beach Chapter and their members, from Central Florida with the meetings that were held with Orange County Government, employees with St. John's County, FDOT District 5 and a few others that have sent me comments. It has been comments so far and the proposed language have not been put forth. I am working to digest all of the comments and begin a working document. I had several comments that this is being done without any feedback from the private sector. That is not the case, I am asking for feedback from anyone. Government surveyors should be asking their constituents if they have any feedback or items in 177 that need to be revised.

The rules and requirements for subdivision platting are very important and need to protect the public and make sure they do not muddy the waters to what the purpose is for a plat. As stated in 1971 in Chapter 71-339 of the Laws of Florida:

**177.011 Purpose and scope of act.—**This act shall be deemed to establish consistent minimum requirements and to create such additional powers in local governing bodies as herein provided to regulate and control the platting of lands. This act establishes minimum requirements and does not exclude additional provisions or regulations by local ordinance, laws or regulations.

# SURVEYORS IN government

By: Richard Allen, PSM, CFM



Photo by: Katie Moum

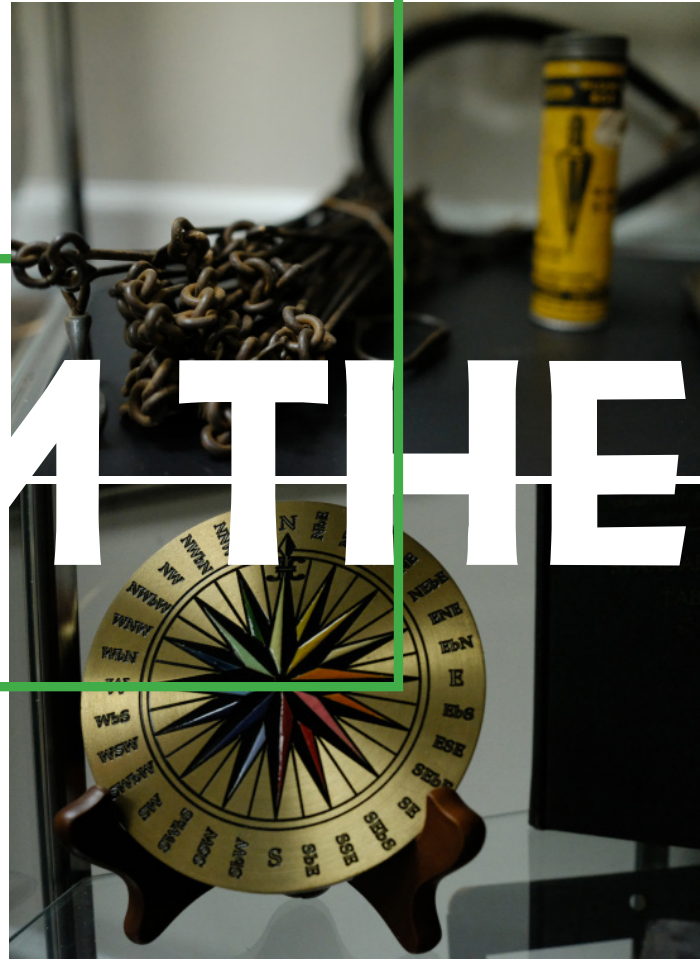
I will end it there for this month. If you have any feedback, comments or potential language please email that to me and I will disseminate the information to those who are working with me on a re-write to provide proposed language to begin the process of getting workshops together, even if they are virtual over the next several months.

Until next time my friends.

You can reach me at [Richard.Allen@orlando.gov](mailto:Richard.Allen@orlando.gov) or 407.246.2788.



# FROM THE



# ARCHIVES





# Recovery of the Key Biscayne South Base

by Landon "Alfie" Cross

(Ed. note: This article does not include the historical background for the original setting of this monument. The preceding reprinted article "The Survey of the Key Biscayne Base, 1855" by Blair Conner, although written some years ago, gives an excellent overview of both the North and South Base Monuments. Unless otherwise noted the photos were taken by the author.)

On Tuesday April 12, 1988 the Infamous National Ocean Survey Base No. 7, south monument, was recovered from Biscayne Bay. The 800 pound-plus obelisk was yanked from about 300 feet off shore and 12 foot waters, by an Air Force helicopter.

This rescue was the culmination of many years of effort by the Dade County Chapter of the FSPLS, the Air Force Aerospace Rescue and Recovery Service, the Florida DOT and the Cape Florida State Park Service.

Historically, this one and its sister north monument were set in April 1855 by A.D. Bache, then superintendent of the N.O.S., for accurate loca-

tion of the Florida coast to aid in shipping. Both monuments were reported lost during the early part of this century and it wasn't until 1978 that the north monument was uncovered by a dozer operator when a golf course was under construction.

After the recovery of the north monument, the Dade County Chapter was able to use it to locate its sister. However, because of a 130 year span of tides and rough waters on the tip of Key Biscayne, the south monument was now 12 feet deep and a football field length away. For the next 10 years the chapter would scheme and debate on how best to recover the monument.

The final idea was hatched between Jens Henricksen, president Dade County Chapter FSPLS, and two of his Air Force friends. Jens discussed the use of a helicopter for the recovery with Cliff Kunde, a reservist,

and Bob Stenevik, the then operations supervisor for the 301st ARRS, Homestead Air Force Base. However, because of the change in commanders at the base, Jens' friend Bob moving away and just the old "we'll get to it someday" attitude, the monument stayed put.

Then in early April, Jens and Cliff decided there had been enough talking and planning and approached Bill Pieden, the current commander, and got permission to use one of their helicopters.

The Tuesday afternoon weather was excellent. A slight breeze for the onlookers and although the sea was choppy it was calmer than usual for the bay. Before the helicopter arrived the pararescue divers group had been able to put straps around the obelisk portion of the monument by rolling it. The full monument itself weighs in excess of 3500 lbs., and the Dade







Pararescue divers pose with the recovered South Base Monument, left to right, Mike Gorsline, Dave Dahl, Cliff Kunde, Paul Miller, Dave McKay, Barry Foster, Craig Kennedy and Joe Johnston.



Dade County FSPCS President Jens Hendriksen inspects the monument close-up.

chapter felt only the obelisk portion of the monument needed to be recovered.

By the time the helicopter arrived the event and the area were covered by 40 to 50 local television reporters, newspaper photographers, surveyors, and general onlookers.

I believe the whole surveying profession should be proud of the Dade County Chapter's tremendous efforts to recover this monument and return it to the surveying community once again.

The Sikorsky heavy-lift helicopter made several passes by the site to burn off extra fuel, it then descended to the water, where the divers attached the rescue cable and slowly lifted. It hovered for a minute or two over the spot, making sure the monument would not come loose, and then even slower moved towards shore. The obelisk made small arcs as it was suspended below the helicopter until gently being set down on the beach.

After the sandy beach area settled down, the straps were removed and except for some recent barnacles that obscured some letters it looked as good as its sister to the north. From there it was an easy pickup by a FDOT truck and transported to the office of John Frosbutter, head of the Cape Florida State Park.

Although the site and the permit have been approved, beside the Cape Florida Lighthouse, the resetting of

the monument as of this date has not been announced.

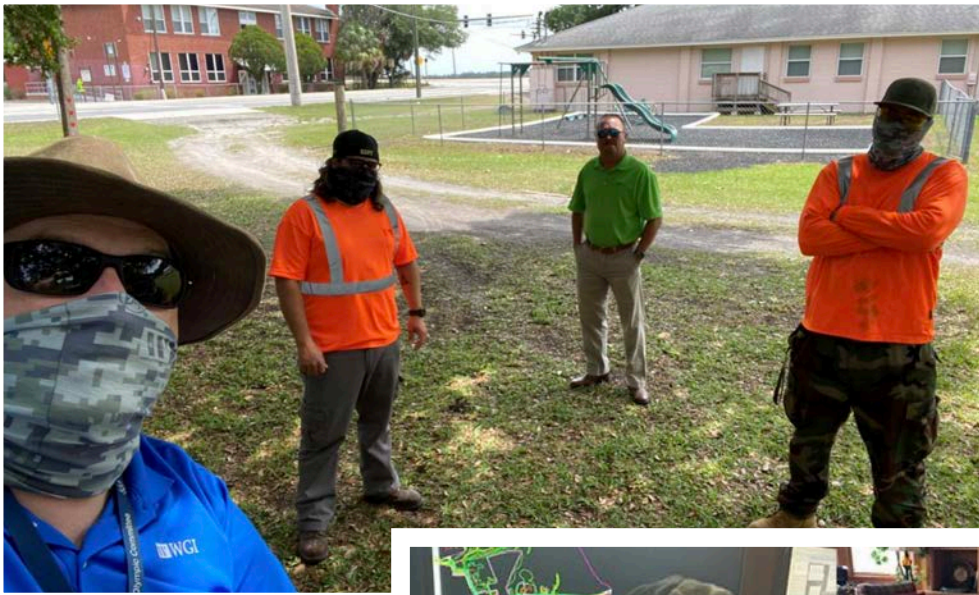
After the recovery and the divers came ashore to look at the monument out of the water, one of them was questioned by the press on how he felt about his work. He simply stated "All in a days work."

I believe the whole surveying profession should be proud of the Dade County Chapter's tremendous efforts to recover this monument and return it to the surveying community once again. ☐

Reprinted from  
*Backsights & Foresights*, Summer 1988



# Around the State



WGI's Tampa office  
Subsurface Utility  
Engineering (SUE) crew  
in Plant City, FL.



GPI shows off their furry co-workers!





Matt Simpson, PSM and Chris McLaughlin, PSM donning protective gear while working within 6' of each other and accessing sanitary sewer pipe inverts in a Clearwater shopping plaza.





NOAA weather  
satellites in  
operation

**16**

**1**  
minute

Time it takes for NOAA's GOES-17 satellite to capture and transmit a high-definition image to forecasters and emergency responders

# NOAA **at 50**

## by the numbers

**1.5**  
million

Forecasts and 50,000 warnings issued each year

**76 billion**

Weather observations collected each year

CO<sub>2</sub>

**675,000**

Greenhouse gas measurements per year

**321**

Active-duty, uniformed NOAA Corps officers



**480,906**

PreK-12 students participated in NOAA-supported formal education programs



**197**  
knots

Highest wind speed measured from NOAA's hurricane hunter planes



**1,435**

Unmanned aircraft system flights in 2019



**279,863**

Miles NOAA ships sailed in 2019 on research and survey missions



Value of shipped goods NOAA's navigation services supports each year

**\$1.3 TRILLION**



Year NOAA's predecessors began continuously observing sea levels

**1854**



Terabytes of oceanic, atmospheric, & geophysical data archived per month

**26**



**1.9 million**

Sq. kilometers of ocean floor mapped globally via NOAA Ship *Okeanos Explorer*

Nautical charts maintained for 95,000 miles of shoreline and 3.4 million sq. nautical miles of water



**1,000+**

**\$3.4 BILLION**

Total economic value of coral reefs NOAA supports each year through conservation



**165**

Endangered or threatened species NOAA is responsible for conserving & recovering



Metric tons of marine debris removed since 2006

**22,593**



Depth at which NOAA researchers recorded the first sounds of the Mariana Trench

**36,000 ft**



**600,000**

Sq. miles of underwater parks protected in 14 national marine sanctuaries and 2 marine monuments



**46**

Fish stocks rebuilt since 2000, including multiple species of salmon and crab

50 Years of Science, Service, and Stewardship  
noaa.gov

February 2020



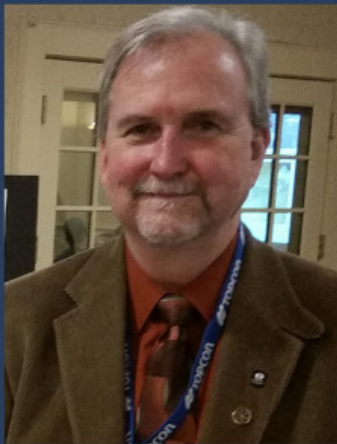
NOAA

# National Society of Professional Surveyors

## Press Release

### NSPS is proud to announce the 2020-21 Officers

During the April 17, 2020 NSPS Annual General Membership meeting (held via a virtual meeting platform) NSPS Executive Director Curtis Sumner installed officers for their respective terms.



**Mark Sargent**  
President



**Tim Burch**  
President Elect



**Amanda Allred**  
Vice President



**Lisa Van Horn**  
Past President



**Robert Miller**  
Treasurer

Treasurer, Robert Miller and Secretary, Craig Amey will serve the final year of their 2-year term.



**Craig Amey**  
Secretary





Issue 19, April 2020



# NSRS Modernization News

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

## Current Situational Difficulties

In the vein of good news / bad news, the current situational difficulties affecting the nation and the world have upended a number of NGS operations. This has allowed NGS to refocus and re-prioritize, but it also has meant grounding GRAV-D flights. See other content later in this newsletter.

## Progress in Ongoing Projects

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

### State Plane Coordinate System of 2022 (Project Manager: Dr. Michael Dennis)

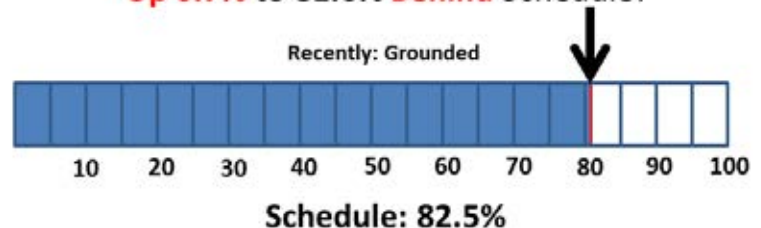
March 31, 2020, was the deadline for state stakeholders to submit requests and proposal forms for SPCS2022 zone layers. NGS received 67 forms from 41 states. Requests are for NGS to design zones for a state (36 received from 28 states). Proposals are for states to design their own zones (31 received from 29 states). The deadline for states to submit their proposed designs is March 31, 2021. For states and territories that did not submit forms, NGS will design SPCS2022 zones similar to existing SPCS 83 zones. Maps and data for [preliminary NGS designs](#) are available online.

### GRAV-D (Project Manager: Jeffery Johnson)

The following is an official statement from NOAA:

*"In support of Federal guidance to slow the spread of COVID-19, NOAA has implemented a risk-based approach to aircraft and vessel deployment to keep our teams and those they work with as healthy and safe as we can. . . . all NOAA research surveys planned for ships and aircraft scheduled for April 2020 are now postponed or cancelled. NOAA ships and aircraft will remain ready to respond to national emergencies as appropriate and critical tasking as needed, including hurricane reconnaissance and surveillance and flooding and hurricane response. We will continue to evaluate our ability to conduct surveys while respecting the health and safety guidance from Federal, State, and local authorities, including prioritizing our planned surveys as needed through September 30, 2020."*

### GRAV-D progress last quarter: Up 0.7% to 81.6% **Behind** Schedule!



When I was about ten years old, I remembered working with my Grandfather surveying. At that age, I was puzzled as to why they referred to a steel tape as a chain. My Grandfather went on to explain that surveyors once used chains to measure. Now, all that I could imagine was surveyors trudging through the woods with 100 feet of tow chain. Later, in my teenage years, I remembered my father bringing home a Gunter's Chain to show me. It was crude and rusty, and I couldn't imagine that any surveyor could do anything accurate with such a device. As I went on and learned the art of surveying, I discovered the true depth of this measuring instrument.

In a 1593 Act of Parliament, the statute mile was established in England. While chains and other distance measurement devices were employed through the millennia, there was little discussion as to their lengths or how they were divided.



Aaron Rathbo[r]ne (1572-1622)

Aaron Rathbo[r]ne (1572-1622), an English mathematician and possible surveyor, published a comprehensive treatise in 1616 on the mathematics, instrumentation and laws pertaining to the surveying of land. In it, he describes the use of a decimal chain preferably two poles in length but as many as three. Each pole is then divided into 10 equal part called primes which are  $19 \frac{4}{5}$  inches long. Each prime was then divided into 10 equal parts called seconds which were just under 2 inches long. Collectively a Rathbone chain consisted of 2 poles, each being divided into 100 parts.

Very few, if any, of these chains are known to exist. While accuracy may have been the intent, it far exceeded that of the directional instruments of the day. Also, they would be as cumbersome in their use as they were to manufacture.

Some seven years later an English mathematician, clergyman, geometer and astronomer, named Edmund Gunter (1581-1626), published his Works on the Description and Use of the Sector, the Crosse-Staffe and Other Instruments in 1623. In it, he proposed a chain of four (4) perches in length divided into 100 links. This would aid in determining the content of land whereby 10 square chains would equal an acre. This gave rise to the "modern" chain most commonly referred to today.





Gunter's chain was widely used during the settlement of the American colonies. In some instances, the chain was reduced by half to allow for easy passage through the dense underbrush. Later, Gunter's chain was also adopted by the General Land Office as the standard for surveying lands outside of what were considered colonial states. Later improvement included brazed links that prevented stretching.



In 1664, an astrologer, astronomer and practicing surveyor named Vincent Wing (1619-1668) published *Geodaetes Practicus* or *The Art of Surveying*. In this treatise, Wing described the use of a four (4) perch or pole chain divided into 80 links whereby every two (2) links would equal one tenth of a perch.

It seemed that the Wing chain was more widely used in Pennsylvania and for that reason W. & L. E. Gurley referred to the 80-link chain as a Pennsylvania chain. Ironically, most of the treatises on surveying following Wing referred to converting the Gunter chain to perches rather than using Wing's chain.



In or around 1836, F. W. Simms noted the use of a chain, 100 feet in length, used in the layout of canals and railroads. It was composed of links that were 12 inches in length. This later was referred to as an engineer or railroad chain.



In 1859, a City Surveyor in Brooklyn, NY named Josiah M. Grumman (1833-1862) obtained a patent for an improved surveyor's chain. It was 33 feet in length and consisted of 100 18-gauge tempered steel links. Each link connected with an oval loop and a circular loop at each end to prevent twisting as well as reduce the number of wearing surfaces. Each was equipped with handles that contained a spirit level to make sure that the chain was level, a thermometer to apply the necessary corrections and a tension scale for the same purpose.

They were very light by comparison to the traditional chains of the day and could be read to the hundredth of a standard link.

Grumman had died during his service in the Civil War in 1862 and in 1870, his widow sold the rights of his chain to W. & L. E. Gurley. From that point Gurley had offered several different variations of the Grumman Patent Chain. Those variations included 50-foot chains made with 18-gauge wire as well as two-pole and four-pole chains made with a heavier 12-gauge tempered steel link while still bearing Grumman's name on each one.

Other types of chains existed based on regional standards such as the Mexican vara chains used in the Arizona, New Mexico, Texas, and California. In the 1854 Annual Report of the Commissioner of the General Land Office, the Surveyor General of California documented in his 1851 report that all of the grants of lots in California or that of Mexico referred to the vara as the measurement of length. It was determined that the vara should be considered to be thirty-three American inches. The Mexican vara had taken its pattern and size from the Castilian vara of the mark of Burgos, which set the measurement of all commodities in the mid-15th century.

English chains of varying lengths could be found as well. Even though the Statute Mile had been enacted, settlers in the colonies may have taken their regional standards of measurement with them. In the treatise *Geodaesia*, John Love writes of different lengths of the yard that were set by regional standards or even land use.



In the 1880 Annual Report of the Commissioner of the General Land Office, it was recommended that all chains used for surveying be made of good steel wire, which should be No. 12 American gauge with all of the joints securely brazed. It was also required that a four-pole chain be adjusted to a length of 66.06 feet to allow the chain to be placed on the ground and not having to apply more than twenty pounds of strain to it when extended.

By 1871, W. & L.E. Gurley began to offer Chesterman & Co. steel band tapes. At the time, it was not cost effective to replace the traditional chain with the new band tapes. But as the manufacturing process improved and drove down the cost; band tapes slowly began to replace the cumbersome link chains. Another dynamic was the need for the length measuring instruments to be on a par with the angular measuring instruments of the time as well as the need for a more stable means of distance measurement. While a typical chain with 800 wearing surfaces, could lengthen as much as eight (8) inches if each of those surfaces wore just one hundredth of an inch (about three sheets of newspaper). Although the surveying chain faded into obscurity sometime in the early 1900's; it transcended a longer period than its successor.

**Bob Heggan, Jr.** is the City Surveyor for the City of Sarasota (FL). He is a subject matter expert on early surveying methods as they impact boundary retracement. Bob served as a Deputy Surveyor General for the Province of West New Jersey, one of the oldest provincial governments still known to exist in the original colonies. He is an avid collector of early surveying instruments, books and ephemera and specializes in instruments made primarily in Philadelphia. Special thanks is also given to Russ Uzes of the Compleat Surveyor for his contribution on the Mexican vara and other commentary.



# APRIL 2020 CONSUMER ALERT

## How to Spot, Avoid, and Report Coronavirus Scams

Scammers are taking advantage of fears surrounding the Coronavirus. The Florida Department of Agriculture and Consumer Services is sharing the following Federal Trade Commission tips to help you fight back.

### VISIT FOR MORE INFORMATION

- [www.fdacs.gov/covid19](http://www.fdacs.gov/covid19)
- [ftc.gov/coronavirus](http://ftc.gov/coronavirus)
- [coronavirus.gov](http://coronavirus.gov)
- [usa.gov/coronavirus](http://usa.gov/coronavirus)

**REPORT** suspicious claims or questionable practices:  
<https://www.fdacs.gov/Contact-Us/File-a-Complaint>

1-800-HELP-FLA (1-800-435-7352)

1-800-FL-AYUDA (1-800-352-9832)





### TREATMENTS & CURES

Ignore online offers for vaccinations and home test kits. If you see ads touting prevention, treatment, or cure claims for the Coronavirus, stop. If there's a medical breakthrough, you're not going to hear about it for the first time from an ad or sales pitch. At this time, there also are no FDA-authorized home test kits for the Coronavirus.



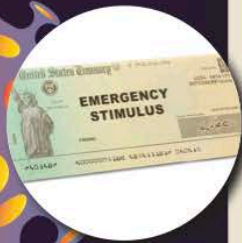
### EMAIL AND TEXT SCAMS

Don't click on links from sources you don't know. It could download a virus onto your computer or device. Make sure the anti-malware and anti-virus software on your computer is up to date.



### ROBOCALLS

Hang up on illegal robocallers. Don't press any numbers. The recording might say that pressing a number will let you speak to a live operator or remove you from their call list, but it might lead to more robocalls, instead.



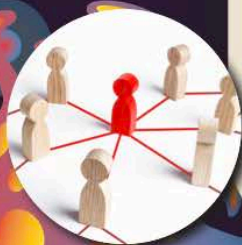
### GOVERNMENT RELIEF CHECKS

Expect scammers to take advantage of this. Here's what you need to know: The government will not ask you to pay anything up front to get this money. The government will not call to ask for your Social Security number, bank account, or credit card number. Anyone who does is a scammer.



### FAKE CHARITIES

Do your homework when it comes to donations. Use the organizations listed at [ftc.gov/charity](https://www.ftc.gov/charity) to help you research charities. If someone wants donations in cash, by gift card, or by wiring money, don't do it.



### MISINFORMATION & RUMORS

Before you pass on any messages, do some fact checking by contacting trusted sources. Visit [usa.gov/coronavirus](https://www.usa.gov/coronavirus) for links to federal, state and local government agencies.



**Florida Department of Agriculture and Consumer Services**

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FDACS-P-02141  
Rev. 4/20

May 2020



DID  
YOU  
EVER  
WONDER  
WHY  
??

By: Michael Whitling, PSM

## ***Why were surveyors in ancient Greece called "Bematists?"***

So maybe you never heard of them, but "bematists" were specialists in ancient Greece who were trained to measure distances by counting their steps. "Bematist" comes from the word bema meaning single pace. Their existence comes with controversy in how accurate they were. In 334 B.C. Alexander the Great invaded Asia. Accompanying his armies were several "bematists" who measured the distance traveled, generally 200 to 500 mile routes. Their deviation was about 3%, or about 6 miles off for every 200 miles. Considering they were pacing on uneven dirt roads, they did remarkably well. (How close could you pace on a paved road?) One guy in particular measured 529 miles between the cities Hecatompylos and Alexandria Areion, which later became a part of the Silk Road, with a deviation of only 0.4%. That's 4 tenths off every 100 feet, 27,931 times. The actual distance was 531 miles. He was so accurate it has been suggested he used some sort of mechanical device, but no evidence of that has ever been found. Hey, if that's your only job, why not be really good at it.

## ***Why do we call a certain unit of measurement a "gallon?"***

The gallon we use for our liquids comes from the Roman word galeta, which meant 'a pail full.' From there it become galon in Old Northern French, then "gallon" in Old English. The "gallon" originated as the base of systems for measuring wine and beer in England. The sizes of "gallon" used in these two systems were different from each other: the first was based on the wine gallon (equal in size to the US gallon), and the second one either the ale gallon or the larger imperial gallon. The wine, fluid, or liquid gallon has been the standard US "gallon" since the early 19th century and is about 16% lighter than the imperial gallon. Note: The US dry gallon, is defined as 1/8 US bushel.

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MAY  
WONDER  
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## ***Why is a school for young children called “kindergarten?”***

Friedrich Froebel (1782-1852) invented the word “kindergarten” from the German language words *kinder* meaning children and *garten* meaning garden. It symbolized his vision for early childhood education: “Children are like tiny flowers; they are varied and need care, but each is beautiful alone and glorious when seen in the community of peers.” He started the first “kindergarten” in 1840 and his philosophy of education rested on four basic ideas: free self-expression, creativity, social participation and motor expression. Previous to his school, children under 7 did not attend school because it was believed that children under the age of 7 did not have the ability to focus or develop cognitive and emotional skills.

## ***Why is a “rabbit’s foot” considered lucky?***

Rabbits have been special animals since 600 B.C., at a time when it was believed that spirits inhabited the bodies of animals and humans descended from certain sacred animals. The Celts, an ancient race living in Europe at the time, believed rabbits to be sacred for two reasons. First, because rabbits spent so much time underground they must be able to communicate with underground spirits. And second, because rabbits were so prolific, it was believed those underground spirits intended rabbits to be symbols of health, prosperity, and procreativity. So, any part of a rabbit was believed to be lucky, but since a “rabbit’s foot” is small and easily dried out, it was the part of the animal that most people carried for luck.

## ***Quick Facts:***

Auld Lang Syne is the song traditionally sung at the end of New Year’s parties. Poet Robert Burns wrote it in 1788. Though most people do not know all of the words, Auld Lang Syne means “times gone by.”

Kleenex tissues were invented for gas masks. During World War I, there was a cotton shortage and the thin tissue was created to place inside gas mask as a filter.

The original name for the Bank of America: the Bank of Italy.

That little strawberry attached to a pincushion is an emery board for your needles. Filled with tough emery sand, a combination of aluminum and iron oxides, the strawberry is historically a tool for polishing, sharpening, and removing rust from your pins and needles.



Photo by: Krzysztof Hepner





Courtesy: Lucas Dudek

The inventors of Bubble Wrap, Al Fielding and Marc Chavannes, in 1957, originally tried to create a textured wallpaper. Though that failed, they realized it was a good protector of walls, and other things.

According to a study published in "Archives of Pediatrics and Adolescent Medicine," duct tape proved more effective at treating warts than having them frozen off. Cut a piece of duct tape as close to the size of the wart as possible. Leave the tape in place for 6 days. If the tape falls off, put on a new piece. After 6 days, remove the tape and soak the area in water. Repeat as necessary.

You can make some pretty goofy comparisons with DNA but according to researchers humans share around 50 percent of their DNA with bananas. Now it makes sense how banana peels are always outsmarting people.

Shellac is a resin secreted by female lac bugs on trees in India and Thailand. It's sold in dry flakes and then dissolved in alcohol to make liquid shellac.

Turns out that goofy ball on the top of a stocking cap served a purpose at one time and probably continues to bail people out today. French marines once wore sailor hats with a bobble on top so they wouldn't bang their heads on low cabin ceilings on ships.

In 1885 the Czar of Russia commissioned the jeweler Faberge to design an enameled egg each Easter. The first Faberge egg contained a diamond miniature of the crown and a tiny ruby egg.

Of the 50 Imperial Easter Eggs made, most are now in museums. The Third Imperial Faberge Egg, a jeweled and ridged yellow gold egg standing on its original tripod pedestal with a surprise lady's watch inside, was found in an American flea market by a scrap-metal dealer who bought it for \$14,000. He later sold it at auction to a private collector for an estimated \$33 million.

Suppose you thought the 57 on a Heinz ketchup bottle just meant how many previous attempts were made at the formula. Well, it means a couple of things. The Heinz Company used to advertise 57 varieties of pickles it sold but it sold greater than 60 products before adopting the slogan. It seems Henry Heinz picked the numbers 5 and 7 for 57 independently of each other. Heinz said 5 was his lucky number and 7 was his wife's lucky number. The other secret behind the 57 is that is where the company suggests people tap on a glass bottle of ketchup to make it come out of the bottle.

During the Roman era German blondes were taken captive and had their hair cut off to be made into wigs for fashionable ladies.

The king of hearts is the only one without a mustache.

Send your thoughts to [drmjw@aol.com](mailto:drmjw@aol.com)

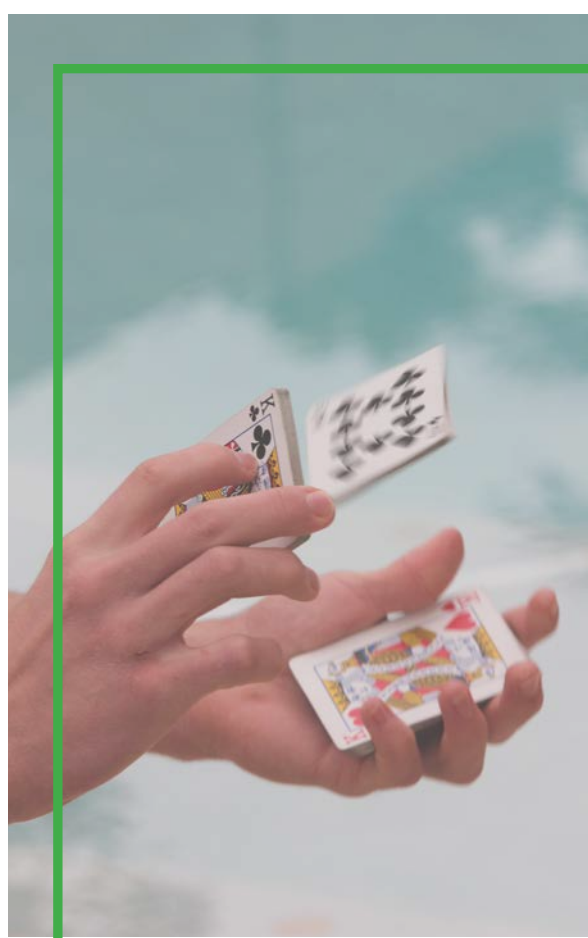


Photo by: Sheri Hooley



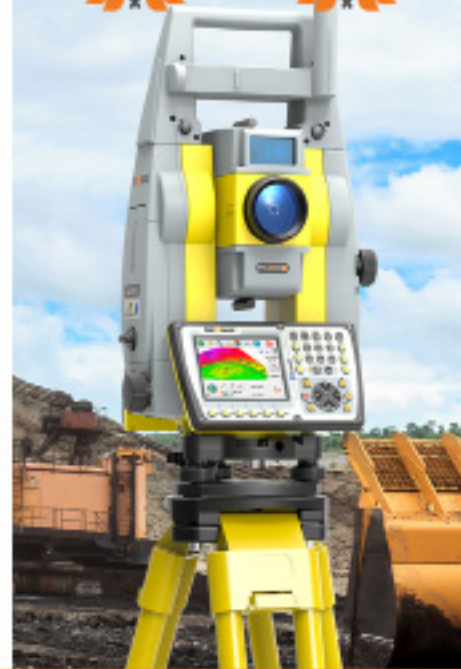
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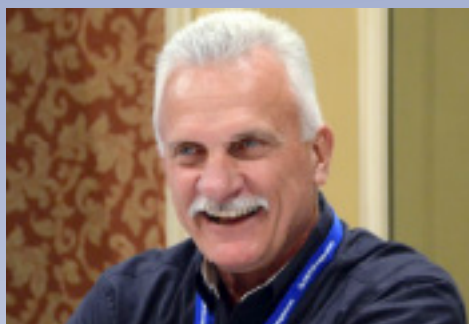
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<b>FDACS BPSM</b>	Howard Ehmke
<b>Surveyors in Government</b>	Richard Allen
<b>Academic Advisory UF</b>	Bon Dewitt
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## Practice Sections

<b>Geospatial Users Group</b>	Matt LaLuzerne
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## **Executive Director**

Tom Steckler  
director@fsms.org



## **Education Director**

Rebecca Culverson  
education@fsms.org



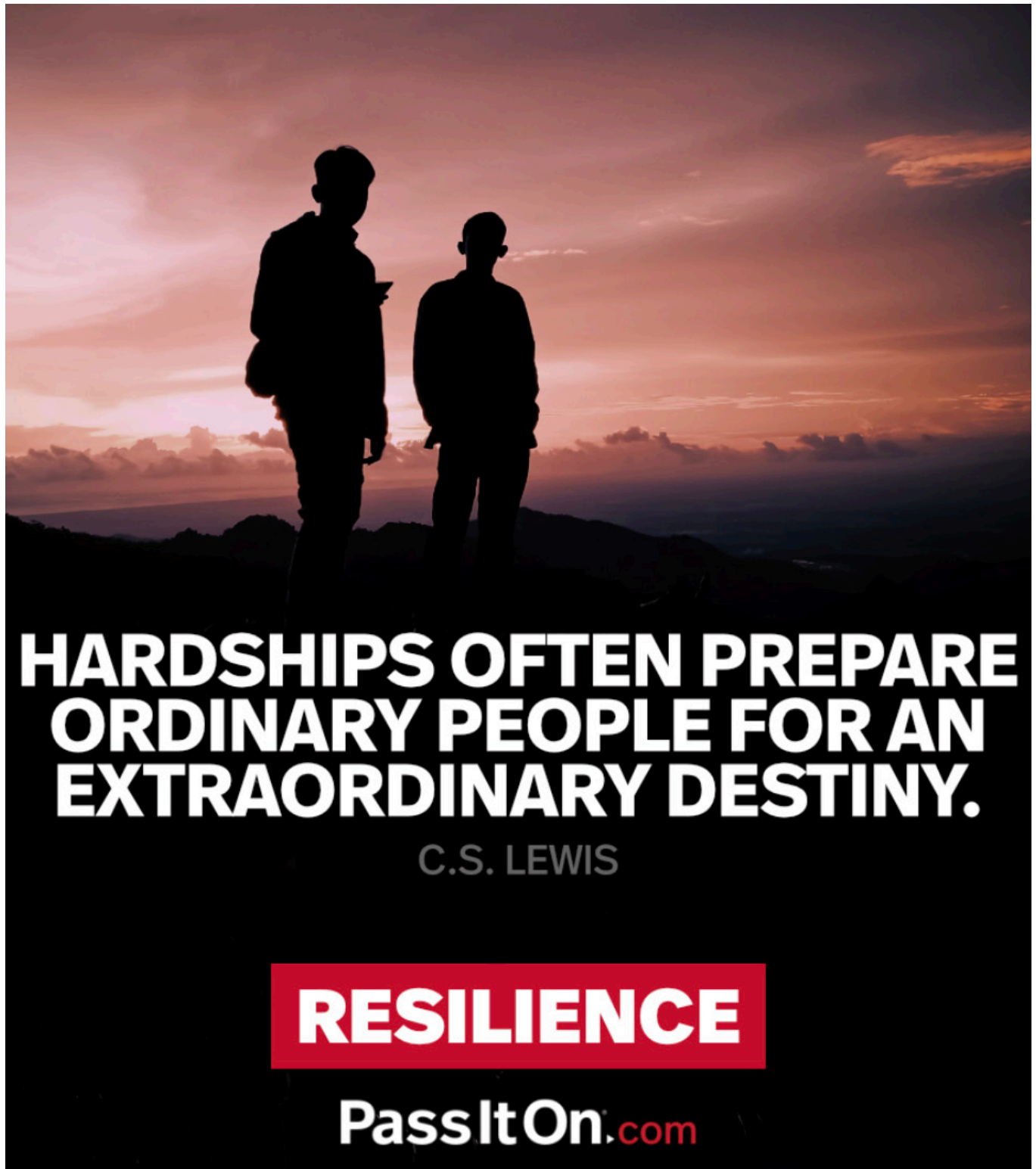
## **Communications Director**

Laura Levine  
communications@fsms.org



## **Regional Coordinator**

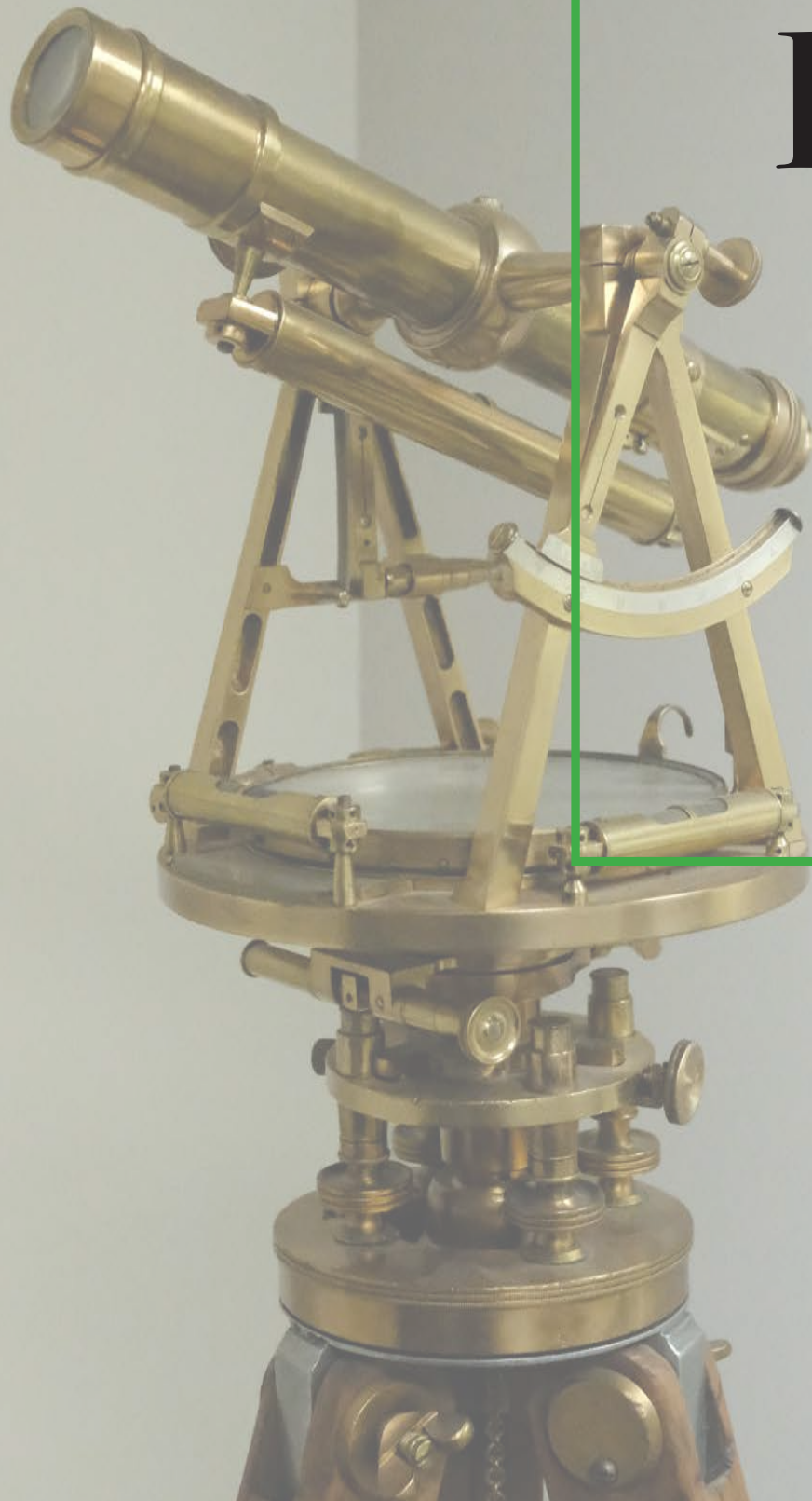
Cathy Campanile  
seminolecc84@gmail.com



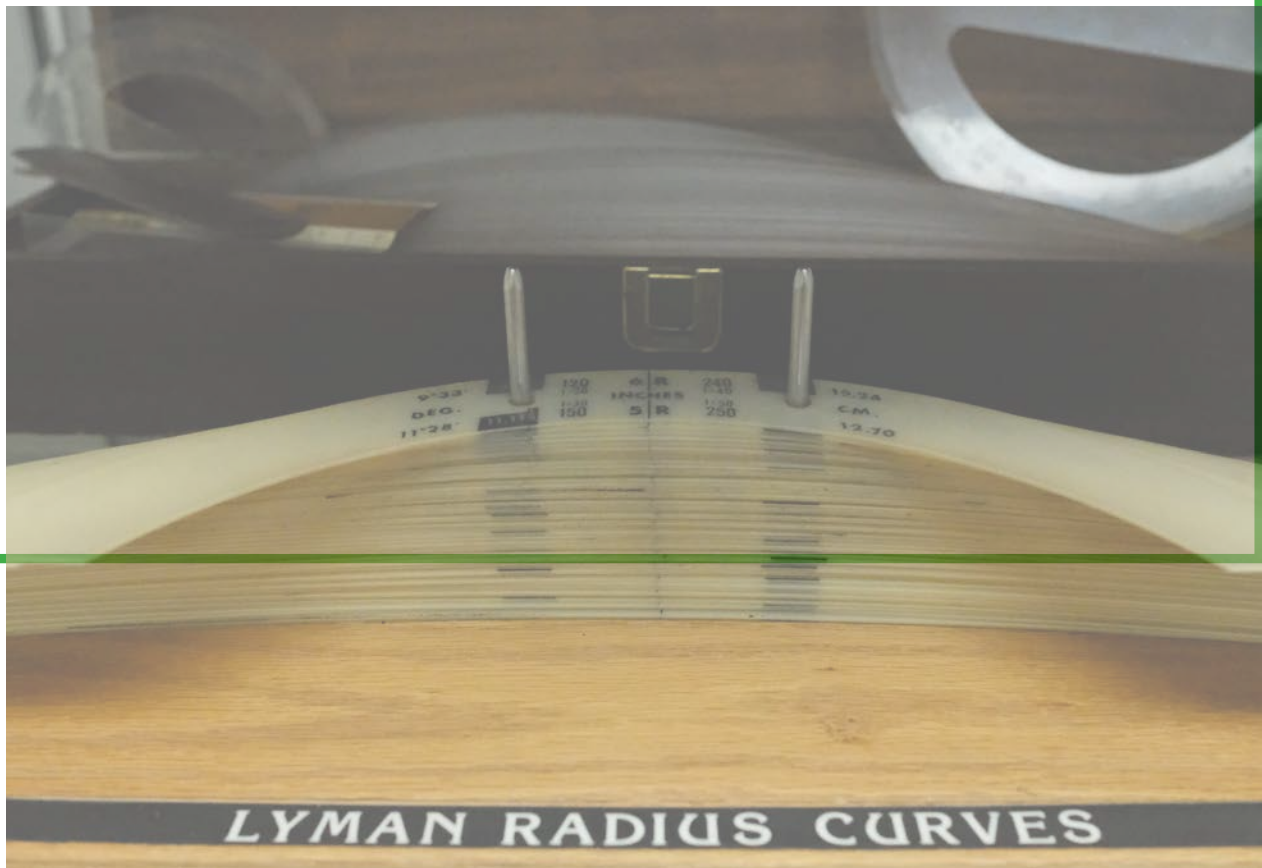
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Hamilton Engineering & Surveying, Inc.	813-250-3535
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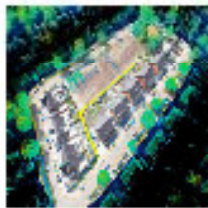
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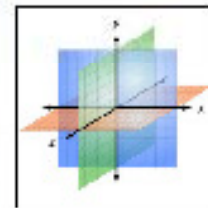
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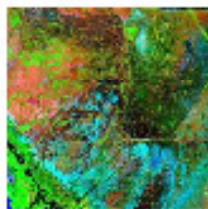
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# Correspondence Courses



## Step 1: Choose Course(s)

- ☐ 5J-17 Standards of Practice (SOP), #6962, 6 SOP/L&R CEC
- ☐ A History of the Prime Meridian Marker, #8403, 3 General CEC
- ☐ Basics of Real Property, #8359, 3 General CEC
- ☐ Boundaries in Florida, #7667, 6 SOP/L&R CEC
- ☐ Chapter 177, Platting (Plat Law), #6970, 6 SOP/L&R CEC
- ☐ Client Satisfaction Excellence for Surveying and Mapping Professionals, #7229, 6 General CEC (*Only available by mail*)
- ☐ Contracts for the Professional, #8411, 3 General CEC
- ☐ Critical Communication for Surveying & Mapping Professionals, #7228, 6 General CEC (*Only available by mail*)
- ☐ Digital Signatures for Surveyors, #8491, 3 General CEC
- ☐ Elevation Certificates and the Community Rating System, #8257, 3 General CEC
- ☐ Ethics for the Design Professional, #8620, 6 General CEC
- ☐ Florida Laws, #6966, 6 SOP/L&R CEC
- ☐ Georgia Technical Standards for Property Surveys, #8553, 6 General CEC
- ☐ Geographic Information Systems (GIS), #7107, 6 General CEC
- ☐ History of Surveying, #7108, 6 General CEC
- ☐ Identification of Native and Non-Native Trees in Florida, #7874, 6 General CEC
- ☐ Introduction to Photogrammetry, #7887, 3 General CEC
- ☐ Land Tenure and Cadastral Systems, #7829, 6 General CEC
- ☐ Map Projections and Plane Coordinate Systems, #7669, 6 General CEC
- ☐ Mean High Water Observations and Computations, #8220, 6 General CEC
- ☐ Practical Geometry for Surveyors, #7109, 6 General CEC
- ☐ Public Land Survey System, #6979, 6 General CEC
- ☐ Remote Sensing Applications to Surveying & Mapping, #6972, 6 General CEC
- ☐ Stress Management for Surveyors & Mappers: How to be Productive Under Pressure, #6902, 6 General CEC (*Only available by mail*)
- ☐ Time Management for Surveyors & Mappers: How to be Productive & Exercise Time Mastery in A Hectic World, #6901, 6 General CEC (*Only available by mail*)
- ☐ Writing Boundary Descriptions, #8361, 3 General CEC

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6 CEC	\$115 Per Course	x _____	= \$ _____
3 CEC	\$58 Per Course	x _____	= \$ _____
<b>MAILED</b>			
6 CEC	\$125 Per Course	x _____	= \$ _____
3 CEC	\$68 Per Course	x _____	= \$ _____
<b>TOTAL</b>		_____	\$ _____

☐ **Non-Member**

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

☐ **Non-Licensed in ANY State**

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

## Step 3: Payment Information

Name: \_\_\_\_\_ FSMS#: \_\_\_\_\_ State: \_\_\_\_\_ FSMS Member: \_\_\_\_ YES \_\_\_\_ NO

Firm: \_\_\_\_\_ Sustaining Firm: \_\_\_\_ YES \_\_\_\_ NO

Address: \_\_\_\_\_

City/State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Email Address: \_\_\_\_\_ Work Phone: \_\_\_\_\_

Payment Information: \_\_\_\_\_ Check Enclosed (Payable to FSMS) \_\_\_\_\_ VISA/MasterCard/American Express

Card #: \_\_\_\_\_ Exp. Date: \_\_\_\_\_ CVV Code: \_\_\_\_\_

Billing Address of Credit Card: \_\_\_\_\_

Signature: \_\_\_\_\_

**IF PAYING BY CHECK, MAIL FORM TO: FSMS, P.O. Box 850091-249, Orlando, Florida 32865-0249**

**IF PAYING BY CREDIT CARD, FAX OR EMAIL FORM TO: 850.877.4952 [education@fms.org](mailto:education@fms.org)**

**QUESTIONS? CALL 800.237.4364**

Provider No. CE11

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May 2020



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# PREVENT COVID-19

## COVER COUGHS AND SNEEZES



Cover your mouth and nose with a tissue, or use the inside of your elbow.

## WASH HANDS OFTEN



Wash with soap and warm water for at least 20 seconds.

## AVOID CLOSE CONTACT



The CDC recommends you keep a minimum distance of 6 feet between yourself and others.

## AVOID TOUCHING YOUR FACE



Avoid touching your eyes, nose & mouth. If you do, wash your hands or use a hand sanitizer that contains at least 60% alcohol first.

## CLEAN AND DISINFECT



Clean and disinfect frequently touched surfaces daily. Use detergent or soap and water prior to disinfection.

## STAY HOME IF YOU ARE SICK!



STAY HOME. Do not leave, except to get medical care. Do not visit public areas.



# 2020 Chapter Presidents

## **District 1**

### **Panhandle**

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### **Gulf Coast**

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## **District 6**

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### **Palm Beach**

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### **FAU Geomatics**

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## **District 7**

### **Miami-Dade**

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# 2020 Districts & Directors

## District 1 -/Northwest

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

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Chad Thurner  
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## District 2 / Northeast

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## District 3/East Central

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

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Howard Ehmke  
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## District 4/ West Central

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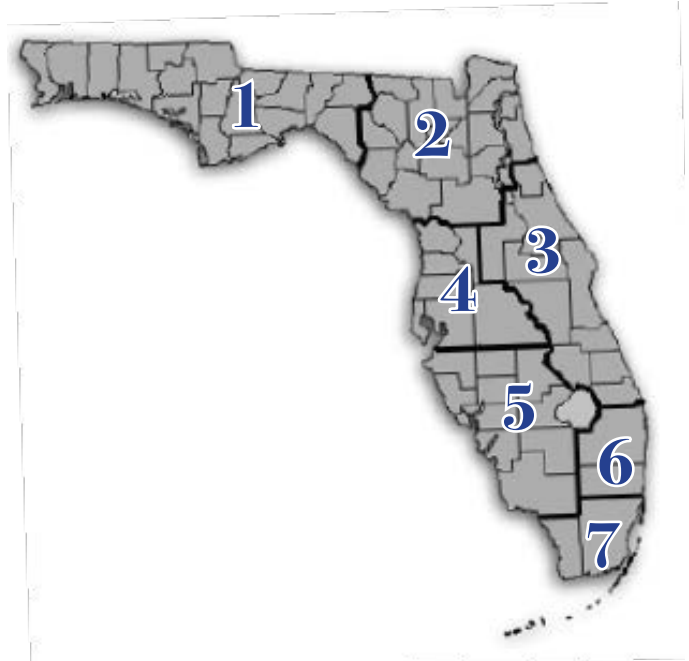
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## NSPS Director

Russell Hyatt  
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russell@hyattsurvey.com



# 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. Whiting*  
*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.*  
*Dianne Collins*

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