



Call us to get your complete workflow solution today!

Efficiency and versatility that will accelerate productivity comes part of a workflow solution that includes the FC-6000 field controller, Magnet software, a HiPer VR receiver and the GT-1200/GT-600 single-operator robotic system. The power of long-range reflectorless measurements comes in your choice of 1", 2" or 3" GT-1200 models or 2", 3" or 5" GT-600 models.





Lengemann Corporation

43316 State Road 19 Altoona, FL 32702

800.342.9238

www.lengemann.us

Products for Professionals



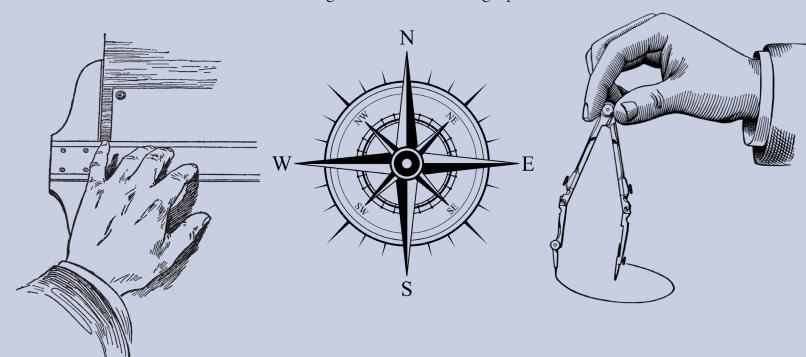
| S |
|----------------|
| آ |
| |
| |
| |
| 1 |
| |
| ontents |
| |
| 17 |
| |
| • • |
|) [|
| |
| 4 |
| |
| |
| |
| 7 |
| |
| |

| nts | PRESIDENT'S Message | 1 | RECOGNITION OF Exhibitors/Sponsors | 25 |
|---|---|----|---|----|
| te | 2022 FSMS Officers | 2 | 67 th ANNUAL Conference Recap | 42 |
|)On | DISTRICTS & Directors | 4 | WELCOME BBQ/ Cornhole Tourney | 47 |
| $\int \int $ | TOM STECKLER Farewell Letter | 7 | CASINO Night | 69 |
| | RICK PRYCE Problem Corners & Thoughts | 9 | EXHIBIT Hall | 79 |
| lat | SUSTAINING Firms | 17 | RECOGNITION Banquet | 97 |

A VERY SPECIAL THANK YOU TO

Hal Peters

for being Conference Photographer



PRESIDENT'S Message

am sure that many of you attended our Annual Convention at the PGS National Resort in Palm Beach Gardens. In my humble opinion, this was our best conference in a long, long while (this millennium). Not that other conferences were slouches. Quite the contrary, but this conference was special. Our Hotel block of rooms reserved and utilized was well more than what we anticipated. All of our events were extremely well attended. This was our first year having a sporting clays event at our conference. I participated in this, and I have to admit that it was a lot of fun and extremely well run. Ditto for our golf tournament. If you missed either, you definitely missed out.

All of our seminars at the conference were at or near capacity, and our annual banquet was a joyous event. In fact, those that were there no doubt heard me remark how everyone that attended was happy to be there and thoroughly enjoyed themselves. I know that I did.

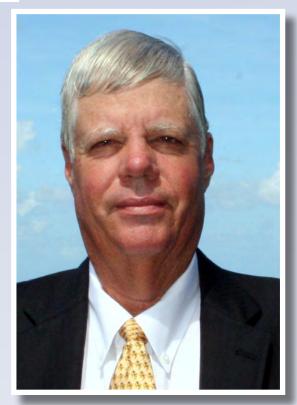
Kudos to Tom Steckler, Rebecca Culverson, Justin Ortiz, Cathy Campanile, and Taylor Singletary. And FSMS VP Jim Sullivan and committee chairs did a

superb job. It seems like every time I turned around, Jim was there, including the "offsite" events (golf and sporting clays).

Speaking of Tom Steckler, July 31 was his last day with FSMS, and he is officially retired. The Society definitely moved things forward (only forward...) in so many ways with Tom as our ED. It was definitely sad to see him go, and we most definitely wish him all the best.

Rebecca has assumed the Executive Director position, and her first official duty is to find a replacement Education Director. Interviews have begun.

I also want to thank NSPS Executive Director Tim Burch for joining us. Tim is a



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

PRESIDENT'S Message

great guy and has a lot of passion for the profession. We are looking forward to working with NSPS and FIG at FIG's Working Week in Orlando, May 28 to June 1, 2023 (https://fig.net/fig2023/).

I also enjoyed sitting and talking with Red Baker, PhD, Director of the UF IFAS School of Forest, Fisheries and **Geomatic Sciences** (note the highlight, yes Geomatics is now a name component of the IFAS program), and, of course, our seemingly perennial Treasurer, Dr. Bon Dewitt. In case we did not adequately announce it, but FSMS helped lead the realization of additional legislative funding that was secured for the Geomatics Program this year which has virtually doubled the program's funding. Special kudos on that to David Daniel and Jack Breed, the Legislative Committee and all of those who have pitched in with the FSM PAC.

Now, it is time to move on to continuing the business of bettering the profession. Look for ideas along those lines to spawn from the Workforce Development Committee and the Professional Practice Committee.

The Florida Surveying and Mapping Society is strong.

Hcers S **FSM**



President-Elect
Howard Ehmke
(772) 286-8083
howard@gcyinc.com



Vice President
Jim Sullivan
(561) 687-2220
Jim.Sullivan@wginc.com



Secretary
Sam Hall
(352) 408-6033
surveysam17@outlook.com



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



Immediate Past President Hal Peters (352) 304-9534 hpeters@gpinet.com

2022 Districts & Directors

District 1 - Northwest

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

Eric Stuart Chad Thurner (850) 685-1149 (850) 200-2441 eric.stuart@sam.biz 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 Randy Tompkins (863) 344-2330 (904) 755-4235 ndigruttolo@pickettusa.com randytompkins1@ outlook.com

District 3 - East Central

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

Al Quickel Robert Johnson (407) 567-1566 (772) 562-4191 alq.fsms@gmail.com bobj@carterassoc.com

District 4 - West Central

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

Greg Prather
(863) 533-9095
(81
gprather@pickettusa.com
alexy

Alex Parnes (813) 493-3952 <u>alexwolfeparnes</u> @gmail.com

District 5 - Southwest

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

Shane Christy Jeffrey Cooner (941) 840-2809 (239) 707-6679 schristy@georgefyoung.com jeff@coonerconsulting.com

District 6 - Southeast

Broward, Palm Beach

Mark Sowers Earl Soeder (954) 868-7172 (407) 601-5816 msowers@mgvera.com earl.soeder@duncan-parnell.com

District 7 - South

Miami-Dade, Monroe

Jose Sanfiel Manny Vera, Jr. (305) 351-2942 (305) 221-6210 psm5636@gmail.com mverajr@mgvera.com

NSPS Director

Russell Hyatt (941) 748-4693 russell@hyattsurvey.com

2022 Chapter Presidents

District 1

Panhandle

David Glaze davidpga@bellsouth.net

Gulf Coast

Chipola

Jesse Snelgrove jsnelgrove@ snelgrovesurveying.com

Northwest FL

District 4

Ridge

Larry Sharp

<u>lsharp@collinssurvey.com</u>

Tampa Bay

Charlie Arnett
carnett@
Geopointsurveying.com

District 2

FL Crown

Kathy Wade kathy@boatwrightland.com

North Central FL

Brian Murphy bmurphy@3002inc.com

UF Geomatics

Taylor Whidden taylorwhidden@ufl.edu

District 5

<u>Charlotte Harbor</u> Derek Miller

millersurveying@comcast.net

Collier-Lee

Steve Shawles II sshawles@haleyward.com

Manasota

Aaron Levine aaron@msbsurveying.com

District 3

Central FL

Sam Hall

surveysam17@outlook.com

Indian River

Brion Yancy

brionyancy@gmail.com

<u>Volusia</u>

Anthony Sanzone eastcoastland@bellsouth.net

District 6

Broward

Benjamin Hoyle

benjamin.hoyle@kci.com

Palm Beach

Lee Powers

lpowers@zemangroup.com

FAU Geomatics

Brett Costanza

brettcostanza@hotmail.com

District 7

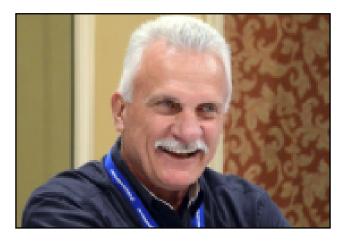
Miami-Dade

Frank Pauas-Suiero

fparuas@gpinet.com

2022 Committees

| Standing Committees | | | | |
|--|--------------------|--|--|--|
| Nominating Committee | Howard Ehmke | | | |
| Membership Committee | Nick DiGruttolo | | | |
| Finance Committee | Bon Dewitt | | | |
| Executive Committee | Lou Campanile, Jr. | | | |
| Education Committee | Greg Prather | | | |
| Annual Meeting Committee | Jim Sullivan | | | |
| Legal Committee | Jack Breed | | | |
| Strategic Planning Committee | Lou Campanile, Jr. | | | |
| Ethics Committee | Shane Christy | | | |
| Legislative Committee | Jack Breed | | | |
| Surveying & Mapping Council | Randy Tompkins | | | |
| Constitution & Resolution Advisory Committee | Eric Stuart | | | |
| Special Committees | | | | |
| Equipment Theft | Manny Vera, Jr. | | | |
| Awards Committee | Hal Peters | | | |
| UF Alumni Recruiting Committee | Russell Hyatt | | | |
| Professional Practice Committee | Lou Campanile, Jr. | | | |
| Workforce Development Committee | Don Elder | | | |
| Liaisons | | | | |
| CST Program | Alex Jenkins | | | |
| FDACS BPSM | Don Elder | | | |
| Surveyors in Government | Richard Allen | | | |
| Academic Advisory UF | Bon Dewitt | | | |
| FES | Lou Campanile, Jr. | | | |
| Practice Sections | | | | |
| Geospatial Users Group | Earl Soeder | | | |



Dear FSMS Members.

Just wanted to say a few parting words as I leave FSMS and ride into the sunset. I have learned a great deal in the last 5 and a half years as your Executive Director. Each year has been a little different as Presidents have had their own style. My thanks to Lou Campanile, Bob Strayer, Dianne Collins, Don Elder, and Hal Peters for their patience and understanding.

This is truly an amazing community of individuals. The support that you provide to each other as well as the state, your communities, and local charities is great and unmatched by any other Profession!

Becoming an Honorary Member of the Society was unexpected however, greatly appreciated. A large part of my success goes to the hard work of the people that I have worked with over the last five years.

Like I said at the conference banquet, one of the things I learned growing up in Montana was to always leave a place Better than you found it. I believe that I can say that I have done that with the FSMS Society! You are in good hands and your future looks bright.

Happy Trails To You and Vaya Con Dios!

Tom A. Steckler
Past Executive Director



Tom's Tip of the Month



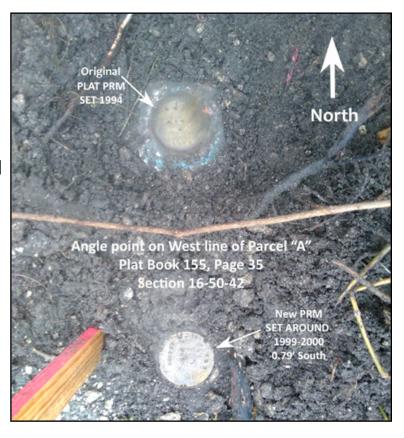
THE FLORIDA SURVEYOR is the official publication of the Florida Surveying and Mapping Society, also known as FSMS. It is published monthly for the purpose of communicating with the professional surveying community and related professions who are members of FSMS. Our award winning publication informs members eleven months out of the year about national, state, and district events and accomplishments, as well as articles relevant to the surveying profession. In addition, continuing educational courses are also available.

A Collection of Survey Problem Corners and Thoughts

by Richard D. Pryce, PLS/PSM

As with all surveyors, we come across problem corners that will make you scratch your head. And once you see these types of disagreements, I would hopefully think that you would do a more intensive search, sometimes in multiple directions, to try to understand the disagreement before you either set a new corner or accept one that's already there, especially if that found corner is brand new, in a very old position.

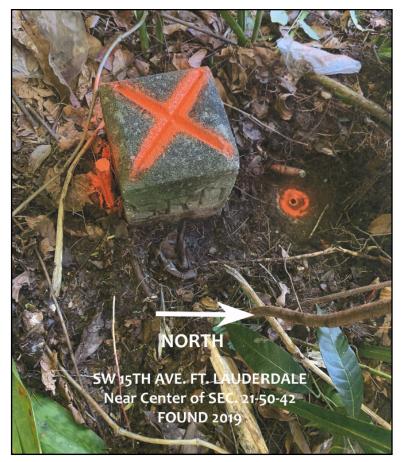
Surveyors should be getting back to being teachers/mentors to their crews (something we've lost over the last 20 years) and get them to dig more, and not just rely on a schonstedt or another metal detector to determine if something is at the calculated position. Branch out several feet if necessary, use a shovel, or machete to dig, and use your other senses even common sense may help to just look around at your situation, the environment, surrounding buildings, utility poles, fences, and even hedges can give you a clue. Don't just set a corner at a calculated position if nothing is immediately found, especially if that position has been there for decades or longer. Question yourself, why am I not finding a corner that may have been surveyed several times over the last 20-30-50 years?



If you find a corner that may be different than where you calculated and expected to find it, a light bulb should light up in your brain and question whether you've made the right decision in the first place, check your own decisions/calculations first before you just call a corner wrong. Ask yourself, could there be something I am missing?

Every one of us makes mistakes, I know I have on several occasions, had to rethink some of my past corner decisions, that at the time I was absolutely sure of, but some other evidence showed up that was there, but





I didn't look hard enough to find at the time. Experience comes from bad/poor decisions, the best thing you can do is admit it when you are wrong and learn from your mistakes. Be open to looking at new evidence and also don't be afraid to ask other surveyors for their opinion, or their work they may have in the area you are surveying. If you find a corner with a business or surveyor number on it and you don't agree with it, make a call to them, maybe they found something that you didn't that made them decide where that corner was set. Talk to them, most of the surveyors I have met in this fashion have been more than happy to share their work. And why not? The best way to get another surveyor to accept your work is to let them review your decisions on surveys you've done. After

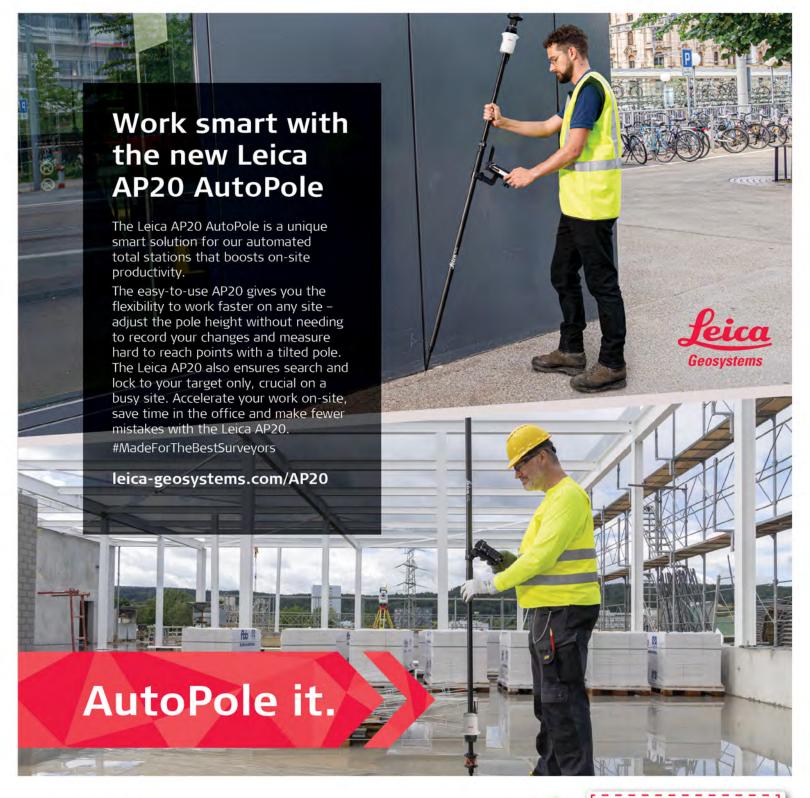
all, before you signed that survey, didn't you do your own due diligence to prove what you did.

Here are a couple of examples I've found, these were real head scratchers for me over the past few years, and there are many more that I'm sure all of us have either pictures or memories of.

There are some good stories out there, and each survey problem creates a new opportunity that presents itself to create a new memory or a new nightmare depending on the situation.

Keeps a Surveyor's life interesting...

Have a great day to all.





www.floridalevel.com



FT. LAUDERDALE

809 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

SUMMER SPECIAL

GET AN ADDITIONAL

10%
ALL STOREWIDE
PURCHASES!

FOR FSMS READERS PROMO CODE: SUMMER10

*Enter code at checkout. Applies to storewide online purchases: supplies, accessories, and instruments. Expires 8/31/22.



by: Richard Allen, PSM, CFM
<u>Richard.Allen@orlando.gov</u>
(407) 246-2788

Page 13

August 2022

I hope that as you are reading this month's edition of the Florida Surveyor, you are cozying up at your desk and going over your agenda for the day with a renewed enthusiasm you recently acquired from attending the annual conference, I know I have. I love being immersed to what other government agencies and private sector employers are doing in our industry. Seeing how technology is being used, having discussions with others on rules and laws and the approaches to each. That is the benefit to bringing members and other professionals together to share knowledge and personal experiences, the overall gaining of knowledge and experience by those who participate. One thing that is always interesting to me when I attend classes with those who are unlicensed, they rarely will sign in or provide the forms for attendance credit. I have always submitted these forms and kept the top copy. The reason is because this is knowledge I have gained and is for my professional use. Just because I was not licensed at the time does not mean it does not benefit me today.

I have attended many classes that I look back on from the time that I was not licensed that were extremely beneficial and still so today. My class Milton Denny and Lamar Evers on retracement camp, I was not licensed then. I gained knowledge on what a real retracement was. Proving a corner became a whole new meaning to me, as it should for all when they try to recover accessories to a section corner. Then there are my classes with Walt Robillard, during one of them that is when I found out that I passed all of the exams to become licensed, the date was December 12, 2012. That is a date I will always remember, especially since it is so easy to remember.

I had taken dozens of classes prior to this time and even today I can pull those forms that stated the class title and date, and that I was there for those specified hours. Knowledge does not begin when you became licensed, you have earned it your entire life. That is what it took to make you the professional you are today, knowledge and experience. That time from

The Florida Surveyor

a rodman getting yelled at by your party chief. My first day I was asked to grab a PK to set a POL. This was within the first 30 minutes on a job site. I had several expletives thrown at me immediately because I had no idea what the hell he was asking me to do, this goes to communication as well, but that can be discussed another day. The instrument man stood up for me and told the party chief, it was my first day and that he was being ridiculous.

I will tell you one thing, I never will forget what a PK or POL is in my life and it will be related to that experience that day in November in 1997. There is platting experience I gained as a junior party chief working on a subdivision, where I had only been surveying a little over two years and was asked by the owner of the company to go over a plat with the County Surveyor to make sure we addressed the needed corrections. I will never forget Lake County Surveyor Don Roof, he was so kind to me. He took time to explain to a kid who knew very little about surveying, and nothing about platting what the issues were with the plat submitted by the company I worked for. Many individuals today I don't think would do that. I have tried to be similar in nature, if you come to see me, I will invest the time with you, that you have invested in yourself and your deliverables. If you invest little effort, I will not invest substantial time holding your hand to get your project completed, that I say is not mutual respect.

I have had many experiences that are documented and undocumented that made me what I am today. Keeping evidence of that knowledge where possible is important just to reference, not that you need to produce that evidence, but you could. This is what we base our opinions on, these experiences we have gained over the course of a career. So to those starting out or working their 50th year in this profession, licensed or not, sign your class forms and keep a copy of them, it is time you invested in yourself to better understand or learn about an aspect of our profession.

For those who attend the conference I would be intrigued what you enjoyed most about the conference, me there were several moments from attending Corky's class on Wednesday regarding the public land survey system and proper ways to re-establish section corners to attending the panel class discussing Standards of Practice on Saturday that have made me want to refocus on certain areas of my own operations. I want to make sure things are clear to my field and office staff as they are not able to attend due to



DON'T GET BOX-DROPPED! WE DELIVER & CONFIGURE.



OUR SERVICES

- Equipment, Supplies & Accessories
- Tech Support
- Certified Repairs

- Rentals
- M2M Data Plans
- UAV, LiDAR Sales & **Training**

Stan Wilson | FL Sales & Support Rep | swilson@egps.net c: 770.715.3891 | o: 770.695.3361 | www.eGPS.net

Follow us on social media











the expense of going to conferences. I need to make sure I share these experiences and share my knowledge with them to help perpetuate the knowledge gained. Sometimes that is difficult because it seems as though we never have enough time.

On a final note, I did receive a great suggestion from John Krause with FDOT about asking other government surveyors to share their stories or experiences as part of the Surveyors in Government articles and I think that is an awesome idea. If anyone would like to share, please reach out to me and we can share your stories in the upcoming issues of *The Florida Surveyor*.

Sincerely,

Richard Allen, City Surveyor for the City of Orlando FSMS Surveyors in Government Liaison 407.246.2788 (O) Richard.Allen@orlando.gov



From Coastal to Deep Sea



For over fifty years, CSA Ocean Sciences' team of survey professionals including hydrographers, geophysicists, marine scientists, registered professional land surveyors, and GIS specialists execute challenging projects safely and efficiently. Our geomatics experts conduct surveys for infrastructure and engineering companies, port authorities, power companies, dredging companies, the cruise line industry, telecommunications companies, coastal cities and counties, and the State of Florida

Learn more about our services at csaocean.com

2022 SUSTAINING

3002 Surveying 833-352-3002

Accuright Surveys of Orlando, Inc. 407-894-6314

Agnoli, Barber & Brundage, Inc. 239-597-3111

AIM Engineering & Surveying 239-332-4569

Airworks 857-990-1060

Allen & Company, Inc.407-654-5355

Allen Engineering 321-783-7443

American Consulting Professionals, LLC.

813-435-2600

American Surveying, Inc. 813-234-0103 **Amerritt, Inc.** 813-221-5200

Arc Surveying & Mapping, Inc. 904-384-8377

Ardurra, Inc. 239-292-7773

Associated Land Surveying & Mapping, Inc.407-869-5002

Atlanic Drafting & Surveying 386-264-8490

Avirom & Associates, Inc. 561-392-2594

Axis Geospatial SE, LLC. 410-822-1441

Banks Engineering 239-939-5490

Barnes, Ferland and Associates, Inc. 407-896-8608 **Barraco & Associates, Inc.**239-461-3170

Bartram Trail Surveying, Inc. 904-284-2224

Bello & Bello Land Surveying Corporation 305-251-9606

Benchmark Surveying & Land Planning, Inc. 850-994-4882

Berntsen International 608-443-2772

Betsy Lindsay, Inc. 772-286-5753

Biscayne Engineering Company, Inc. 305-324-7671

Boatwright and Durden Land Surveyors, Inc. 904-241-8550

Bock & Clark Corporation330-665-4821

Bowman Consulting Group703-454-1000

Bradshaw-Niles & Associates, Inc. 904-829-2591

Brown & Phillips, Inc. 561-615-3988

BSE Consultants, Inc. 321-725-3674

Buchanan & Harper, Inc. 850-763-7427



Calvin, Giordano, & Associates 954-921-7781

Carlson Environmental Consultants, PC 561-371-2402

Carter Associates, Inc. 772-562-4191

FIRMS DIRECTORY

Caulfield & Wheeler 561-392-1991

Chastain-Skillman, Inc.

863-646-1402

CHW Professional Consultants (Causseaux, Hewett & Walpole, Inc.) 352-331-1976

CivilSurv Design Group, Inc.

863-646-4771

Clary & Associates, Inc. 904-260-2703

Clements Surveying, Inc. 941-729-6690

Clymer Farner Barley, Inc. 352-748-3126

Coastal Engineering Associates, Inc. 352-796-9423

Colliers
Engineering
& Design
732-383-1950

Collins Survey Consulting, LLC.863-937-9052

Compass Engineering & Surveying, Inc. 727-822-4151

Cousins Surveyors & **Associates, Inc.** 954-689-7766

CPH Consulting, LLC 407-322-6841

Craven-Thompson & **Associates, Inc.** 954-739-6400

Cross Surveying, LLC. 941-748-8340

Culpepper & Terpening, Inc. 772-464-3537

Cumbey & Fair 727-324-1070

Dagostino Geospatial, Inc.239-352-6085

DeGrove Surveyors, Inc.904-722-0400

Dennis J. Leavy & **Associates** 561-753-0650

Dewberry 321-354-9729

DMK Associates, Inc. 941-475-6596

Donald W. McIntosh Associates, Inc. 407-644-4068

Donoghue Construction Layout, LLC.321-248-7979

Douglass, Leavy & **Associates, Inc.** 954-344-7994

DRMP, Inc. 407-896-0594

DroneView Technologies248-321-9417

DSW Surveying & Mapping, PLC. 352-735-3796

Duncan-Parnell, Inc.

407-601-5816

Durden Surveying & Mapping, Inc. 904-853-6822

E

Echezabal & Associates, Inc. 813-933-2505

ECHO UES, Inc. 888-778-3246

Eda Consultants, Inc. 352-373-3541

E.F. Gaines Surveying Services, Inc. 239-418-0126

Eiland & Associates, Inc.904-272-1000

Element Engineering Group, LLC. 813-386-2101

2022 SUSTAINING

Engenuity Group, Inc.561-655-1151

Engineering Design & Construction, Inc.772-462-2455

ER Brownell & Associates, Inc.305-860-3866

ESP Associates FL, Inc. 813-295-9024

ETM Suryeying & Mapping 904-642-8550

Exacta Land Surveyors, Inc. 866-735-1916



Ferguson Land Surveyors 727-230-9606

First Choice Surveying, Inc. 407-951-3425 Florida Design Consultants, Inc. 727-849-7588

Florida Engineering & Surveying, LLC. 941-485-3100

FLT Geosystems 954-763-5300

Fortin, Leavey, Skiles, Inc. 305-653-4493

F.R. Aleman & Associates, Inc. 305-591-8777

Frontier Precision Unmanned 701-222-2030

F.R.S. & Associates, Inc.561-478-7178

FTE Engineers & Planners800-639-4851



Gary Allen Land Surveying 850-877-0541 **GCY, Inc.** 772-286-8083

GeoData Consultants, Inc407-732-6965

Geoline Surveying 386-418-0500

Geomatics Corporation904-824-3086

Geo Networking, Inc.407-549-5075

GeoPoint Surveying, Inc. 813-248-8888

George F. Young 727-822-4317

GeoSurv, LLC. 877-407-3734

Germaine Surveying, Inc.863-385-6856

GPI Geospatial, Inc.407-851-7880

Gustin, Cothern & Tucker, Inc. 850-678-5141



Haley Ward, Inc. 239-481-1331

Hanson Professional Services, Inc. 217-788-2450

Hanson, Walter & Associates, Inc. 407-847-9433

H.L. Bennett & Associates, Inc. 863-675-8882

Hole Montes, Inc. 239-254-2000

HUB International 850-386-1111

Hyatt Survey Services 941-748-4693



I.F. Rooks & Associates, LLC.813-752-2113

FIRMS DIRECTORY

John Ibarra & Associates, Inc. 305-262-0400

Johnson, Mirmiran & Thompson, Inc. 813-314-0314

Johnston's Surveying, Inc. 407-847-2179

K

KCI Technologies 954-776-1616

Keith and Associates, Inc. 954-788-3400

Kendrick Land Surveying 863-533-4874

L&S Diversified, LLC. 407-681-3836

Land Precision Corporation727-796-2737

Landmark Engineering & Surveying Corporation813-621-7841

Langan Engineering973-560-4900

Leading Edge Land Services, Inc.407-351-6730

Leiter Perez & Associates, Inc.305-652-5133

Lengemann Corp. 800-342-9238

Leo Mills & Associates941-722-2460

LiDAR USA 256-274-1616

Long Surveying, Inc.407-330-9717

Manuel G. Vera & Associates, Inc. 305-221-6210

Marco Surveying & Mapping, LLC. 239-389-0026

Massey-Richards Surveying & Mapping, LLC. 305-853-0066

Masteller, Moler & Taylor, Inc. 772-564-8050

McCain Mills, Inc. 813-752-6478

McKim & Creed, Inc. 919-233-8091

McLaughlin Engineering, Co. 954-763-7611

Metron Surveying and Mapping, LLC. 239-275-8575

Metzger + Willard, Inc. 813-977-6005

Midwest Aerial 614-853-2902

Mills & Associates, Inc. 813-876-5869

Mock Roos & Associates, Inc. 561-683-3113

Moore Bass Consulting, Inc.850-222-5678

Morris-Depew Associates, Inc. 239-337-3993

Murphy's Land Surveying 727-347-8740

Navigation Electronics, Inc. 337-237-1413

Northwest Surveying, Inc. 813-889-9236

2022 SUSTAINING

NV5, Inc 407-896-3317



On The Mark Surveying, LLC. 321-626-6376



PEC Surveying & Mapping 407-542-4967

Pennoni Associates, Inc. 863-594-2007

Perret and Associates, Inc 904-805-0030

Pickett & Associates, Inc. 863-533-9095

Platinum Surveying & Mapping, LLC. 863-904-4699

Point Break Surveying 941-378-4797 Polaris Associates, Inc. 727-461-6113

Porter Geographical Positioning & Surveying, Inc. 863-853-1496

Pro-Line Survey Supply, Inc. 904-620-0500

Pulice Land Surveyors, Inc. 954-572-1777



Q Grady Minor & Associates, PA 239-947-1144



Reece & White Land Surveying, Inc. 305-872-1348

Rhodes & Rhodes Land Surveying, Inc. 239-405-8166 **Richard P. Clarson** & **Associates, Inc.** 904-396-2623

R.J. Rhodes Engineering, Inc. 941-924-1600

R.M. Barrineau & Associates, Inc. 352-622-3133

Robayna and Associates, Inc. 305-823-9316



SAM Surveying & Mapping, LLC. 850-385-1179

SCR & Associates NWFL Inc. 850-527-1910

Sergio Redondo & Associates, Inc.

305-378-4443

Settimio Consulting Services 850-341-0507 SGC Engineering, LLC. 407-637-2588

Shah Drotos & Associates, PA 954-943-9433

Shannon Surveying, Inc. 407-774-8372

Sherco, Inc. 863-453-4113

Sliger & Associates 386-761-5385

Southeastern Surveying & Mapping Corp. 407-292-8580

Stephen H. Gibbs Land Surveyors, Inc.

954-923-7666

Stoner Inc. 954-585-0997

Strayer Surveying & Mapping, Inc. 941-497-1290

SurvTech Solutions, Inc. 813-621-4929

FIRMS DIRECTORY



T2 UES Inc. 407-587-0603

Thurman Roddenberry & Associates 850-962-2538



Upham, Inc. 386-672-9515



Winningham & Fradley, Inc. 954-771-7440

Woolpert, Inc. 803-214-5928

77

ZNS **Engineering, LLC.** 941-748-8080



Wade Surveying, Inc. 352-753-6511

Wallace **Surveying Corp.** 561-640-4551

Wantman Group, Inc. 561-687-2220

WBQ Design & Engineering, Inc. 407-839-4300

SOCIAL MEDIA REPORT

LinkedIn = 103 Followers

Facebook = 717 Followers

Twitter = 403 Followers

Instagram = 128 Followers



- I.F. Rooks & Associates is a full-service Geospatial firm serving clients throughout Florida and the Southeastern United States for over 50 years.
- We have extensive experience in providing topographic/ planimetric mapping, digital orthophotos, Aerial LiDAR, fixedwing and helicopter aerial photography for transportation, site development, coastal and environmental projects.
- Our steady growth in technology and personnel has allowed the development of long-term relationships with several Florida municipalities and government agencies, power companies, mining companies as well as engineering firms.
- I.F. Rooks is Pre-Qualified by FDOT in Workgroup 8.3 -Photogrammetry.

Office: 813.752.2113 ~ Web: www.ifrooks.com



Outsourced Survey CADD Services at \$15/hr

Get access to the huge talent pool of Remote Survey CAD Designers expert in Civil 3D & AutoCAD

1500+ 255+ 250+ Worldwide **Projects** Clients **Employees** Delivered

Our Footprints:

- Florida
- Surat, IN (HQ)
- Ahmedabad, IN
- Nashik, IN

M sales@ispusa.net

🏶 www.ispusa.net



Offices





EXHIBITORS

PLATINUM

Duncan-Parnell

Since 1946, Duncan-Parnell has been the trusted supplier to surveyors, construction contractors, architects and designers. With a wide array of Trimble equipment and cloud-based construction information management systems, Duncan-Parnell specializes in providing high quality hardware, innovative software, and invaluable services to make projects successful. Today, we're proud to remain an independent, family-owned business with 15 locations to deliver excellent customer experiences.

GOLD

GSource Technologies, LLC

With over 250 CAD technicians & 4 global offices, Gsource Technologies targets companies and individuals who value fast, accurate and comprehensive results. The versatility of our CAD processes and technologies means that we can serve clients from a range of industries, including Home builders, architects, land surveyors, civil engineers, structural engineers, fabricators, estate agents and more. The list of companies able to benefit from CAD modeling and drafting is enormous, and we're out to serve the ones who don't accept second-best.

GOLD

International Service Partners

With clients spread across the USA and having four operational divisions located in India, International Service Partner's (ISP) mission is to help its clients grow through qualified and cost-effective remote staffing. Our unique model starts with the in-house training institute where certified professionals receive in-depth training on US design standards, codes, materials, and methods. ISP's Survey CADD Department delivers high-quality commercial or residential CAD Drawings for Surveyors. We are experts in software like AutoCAD, Civil 3D, Revit, etc. We review samples of any Survey company's current CADD Standards and match all components including boundary and plat information, survey points, building and roadway data, title blocks, and general notes. We can quickly adapt to your company's processes and help increase the production of your CADD documents while greatly decreasing costs.



LiDARUSA, also known as Fagerman Technologies, is a family-owned business just outside of Huntsville, AL. Since 1999, We have specialized in laser scanning, photogrammetry, instrumentation and all things geomatics. We offer mobile LiDAR systems for the ground vehicle (car, truck, boat, backpack, etc.) as well as lowaltitude aerial platforms such as UAV's and helicopters. We have sold or serviced over 63 counties with our LiDAR systems.



LIDAR USA\\\\

Pickett

Pickett provides land and hydrographic surveying, aerial mapping, LiDAR and engineering services to clients throughout the US and Caribbean. Pickett specializes in offering the simultaneous collection of high resolution 4-Band Aerial Imagery combined with engineering-grade airborne LiDAR, allowing us to turn around baseline imagery and LiDAR-derived data quickly and efficiently. We deliver CADD and GIS-ready products to meet unique client specifications. With over 60 years of experience, we have established ourselves as leaders and innovators in the surveying and geospatial industry.

Woolpert

Woolpert is the premier architecture, engineering, geospatial (AEG) and strategic consulting firm, with a vision to become one of the best companies in the world. With more than 1,600 employees and 60 offices on four continents, we innovate within and across markets to serve public, private and government clients worldwide.



June 2022 Page 26

SILVER

CSA Ocean Sciences, Inc

CSA has been a fixture in Florida since 1970 for applied marine science & consulting, hydrographic, geophysical, geotechnical & benthic environmental surveys. CSA supports data analytics, data processing and handling, physical sampling, operations, and logistics. We've conducted thousands of surveys and studies for over 600 clients in 79 countries, nearly 60 in the Tropics. Our experience in marine studies includes



sampling, monitoring, mapping, permitting, baseline surveys, impact assessment, and mitigation. CSA is headquartered in Stuart, FL with branch offices in Tampa, Houston, and Houma; and international offices in Brazil, Trinidad, Surinam, Qatar, Western Australia, and the Eastern Mediterranean. We own a large inventory of hydrographic equipment ranging from single to multibeam echo sounders, inertial navigation sensors, side-scan sonars, sub-bottom profilers, magnetometers, sound velocity sensors, surface and subsea positioning systems, data collection/acquisition, and post-processing software programs and are supported by a team of surveyors and operations specialists.

Leica Geosystems

Leica Geosystems – when it has to be right. Revolutionizing the world of measurement and survey for nearly 200 years, Leica Geosystems is the industry leader in measurement and information technologies. We create complete solutions for professionals across the planet. Known for innovative product and solution development, professionals in a diverse mix of industries, such as surveying and engineering, building and heavy construction safety and socurity and power and plant trust Leica Consystems for all their



construction, safety and security, and power and plant trust Leica Geosystems for all their geospatial needs. With precise and accurate instruments, sophisticated software, and trusted services, Leica Geosystems delivers value every day to those shaping the future of our world.

Leica Geosystems is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technology solutions that drive productivity and quality across geospatial and industrial landscapes.

TopoDOT

TopoDOT is a leading software development company located in Orlando, FL specializing in LiDAR and point cloud processing solutions. TopoDOT develops, sells and supports TopoDOT, a high performance MicroStation application for importing and extracting topography and models from point clouds, calibrated images and related data.



The Florida Surveyor

STANDARD

Aerotas

Aerotas provides drone data processing services for land surveyors and civil engineers throughout the United States. Aerotas is a technology-enabled services company that delivers survey-grade CAD files created from drone-collected data in days, not weeks. Data is handled by our expert team of Photogrammetrists, Lidar Techs, and CAD Techs



who correct errors and perform quality assurance checks at each step in the data processing workflow. Drone photogrammetry, Lidar, and CAD drafting services are enabled by a combination of advanced technology, high-performance computing architecture, and human expertise — providing fast and predictable turnaround times, lower drone survey costs, and the most accurate deliverables anywhere to 900+ leading survey and civil engineering firms across the United States.

Airworks

AirWorks is an AI-powered autonomous drafting software for firms in the built world. We developed a platform that allows firms to quickly get CAD drawings from their aerial images, shortening the current traditional process by weeks, if not months. With our Al-powered algorithms, the data files that you upload are autonomously identified and



categorized such that our software can then churn out a pixel-accurate engineering plan. Our software is available around the world to whoever needs it and remains 100% web-based, meaning that it is accessible to almost anyone, at the office or on-the-go.

Axis GeoSpatial LLC

Founded in 2001, AXIS GeoSpatial, LLC, a national geocapture firm, employs innovative remote-sensing and measurement technologies to capture geospatial data for integration into civil engineering, land surveying and GIS applications. AXIS is headquartered in Easton, Maryland. During the past 21 years, AXIS has applied extensive, proven experience in producing high density LiDAR, aerial imagery, CADD, GIS and other related geospatial datasets for civil engineering and government clients throughout the U.S. and abroad.



Ayres Associates, Inc.

With 300+ innovative problem-solvers nationwide, we stand with integrity behind thousands of projects engaging in multiple service lines and specializing in survey and mapping services. With clients as varied as the topography we've surveyed; our expertise is suited for a range of project possibilities. Our team of surveying and mapping professionals



applies a blend of cutting-edge technology and proven principles, working with our peers in the engineering disciplines to provide land surveying, HD laser scanning services, high-accuracy aerial lidar and imagery, photogrammetric and stereo compilation, and unmanned aerial system (UAS) lidar and imagery.

June 2022 Page 28

STANDARD

Carlson Preferred

Carlson Preferred Solutions specializes in CAD Design Survey/Civil/Hydro/GIS software, Hardware: Field Data Collectors Best in Class GPS Base/Rovers, Robotic Total Stations, ESRI Data Collection to ESRI (all within native DB) and Machine Control products for Land Surveying, Civil Engineering, Construction, providing one-source DATA FLOW technology solutions from data collection to design to construction.



CTS Engineering, Inc

CTS Engineering, Inc is a well-known and respected leader in providing Professional Engineering services throughout the State of Florida for over 12 years. We offer a wide array of services to our clients including transportation planning, traffic engineering, public transit support, roadway design, policy planning, data collection, statistical analysis, PD&E studies, multimodal improvements and surveying and mapping



services. Our team of Professional Surveyors & SUE experts have provided high quality deliverables for Surveying & Mapping assignments to our clients including utility coordination to many FDOT Districts, Counties and Cities. CTS is a certified DBE firm with offices throughout the state to support all your Surveying, SUE & Utility Coordination needs. CTS will provide a turnkey package of all these services.

Cyanic Job Book

Cyanic Job Book is a digital job book to run your survey company. It's a one-stop application to store all your customers and job locations in an easy-to-use intuitive system built specifically for surveyors. With the ability to manage your project, geospatially search previous jobs, input work hours, and keep track of billing, you can improve your company's profitability and help staff stay accountable.



Digital E Consulting

Digital E Consulting, LLC, headquartered in Miami, FL, provides aerial drone services for Land Surveyors and geospatial solutions for various industries. We offer our drone expertise to help our clients take advantage of the newest drone and 3D modeling technologies. Our unique data processing technique and QA/QC procedures allow



us to process large drone-collected datasets accurately. Our workflow and systems significantly reduce the amount of manual work needed and open the possibility of getting previously impossible insights. Additionality, we provide drones for purchase and offer training for use in land survey applications.

eGPS Solutions

Launched in 2004, eGPS Solutions has steadily grown from a private RTN (Real Time Network) into a full-service survey equipment dealer for GeoMax, CHC, SitePro, SECO, DJI, LiDARUSA and more. Our services include RTK network plans, M2M data plans, survey equipment rentals, certified repairs, technical support, and UAV-LiDAR training. As we continue to grow and upgrade our technology and services, we stay steadfast in



our pursuit of excellence, innovation and outstanding customer support. Look no further than us for all your surveying needs because at eGPS Solutions, we will not let you fail.

Emlid

Emlid makes RTK receivers Reach for surveying and mapping. The company also develops software for land surveyors: ReachView3 for data collection, Emlid Studio for data post-processing, and NTRIP caster for transmitting RTCM corrections. Emlid enhances RTK GNSS and engineers modern geomatics tools relying on surveyors' experience. Emlid distributes its products via the online store and through the worldwide network of dealers.



Featherstone Supply

Featherstone Supply Inc has been dedicated to providing quality technical services and state of the art products to the Surveying, Engineering and Construction community since 2004. We are committed to customer service and satisfaction, and provide comprehensive field to finish training on Global Positioning Systems and other three dimensional data capture systems.



Although we may not be a mail-order giant, Featherstone Supply will always strive for competitive pricing on most field supplies, combined with the personal touch that only a small company can provide. If your business needs high tech survey grade Total Stations, Digital Levels, GPS, GIS, Robotics, field supplies, training, repairs and more, Featherstone Supply is the answer.

Florida Level & Transit (FLT)

FLT Geosystems (Florida Level & Transit) is a full-line dealer for Leica Geosystems (optical, GPS, HDS scanning, & lasers), Topcon Positioning (optical & lasers), Spectra Precision (optical, data collectors, & lasers), Carlson Software, Septentrio, and many more. Our home office is in Ft. Lauderdale, with a full-service office in Tampa.



Geo Networking

Geo Networking is a Topcon/Sokkia distributor located in central Florida. The company focuses on end-to-end sales through a consultive sales strategy. In this process, Geo Networking is able to match the right product to meet your team's goals for your deliverables. Geo Networking is proud to offer the senseFly line of drones that include the ePeo X and the powerful line of sensors. These products matched with



that include the eBee X and the powerful line of sensors. These products matched with the very well known products from Topcon/Sokkia make any job doable.

GPI

GPI Geospatial, Inc. has been a premier provider of geospatial solutions for over 49 years. Our mission is to map the foundation for infrastructure improvements that enhance the connectivity between people and communities. It's our vision to be the most trusted provider of precision mapping, imagery, LiDAR, and surveying services



within the transportation, planning, design, construction, and government communities. We provide innovative surveying and mapping solutions to state, local and federal governments, as well as private-sector clients. Our team understands the value and precision of geospatial data and is committed to providing a customized approach using state-of-the-art sensors, software, and methods to deliver accurate and complete information for design and planning purposes. GPI owns and operates multiple aircraft and vehicles equipped with imagery and LiDAR sensors, to provide customized solutions for our clients, whether it's from the air or ground. Our dedicated professional team consistently meets the highest standards, which ensure quality and customer satisfaction.

Hyatt Survey

Hyatt Survey Services, Inc. is a full-service surveying and mapping company. Our professional staff combines over sixty years of extensive experience in a variety of project areas. From boundary, topographic, and right-of-way surveying to intricate geodetic, construction, and hydrographic/bathymetric surveying, we can fulfill all your



surveying requirements. Our current list of clients includes the US Army Corps of Engineers, the Florida Department of Transportation, South Florida Water Management District in addition to Hillsborough, Manatee, Sarasota, and Charlotte Counties. Hyatt Survey Services is a certified WBE with the State of Florida Office of Supplier Diversity as well as a certified DBE with the Florida Department of Transportation. With our Florida headquarters located in Manatee County, Hyatt Survey Services, Inc. has convenient access to a broad geographic area. We have provided professional surveying services throughout the state of Florida for twenty years for federal, municipal, commercial, and private sector clientele.

I.F. Rooks & Associates

Celebrating our 53rd Anniversary, I.F. Rooks & Associates is a full-service geospatial firm, serving clients throughout the Southeastern United States. We provide a full suite of geospatial services including Aerial LiDAR, Fixed-wing and Low Altitude Photogrammetry. We are Pre-Qualified by FDOT in the 8.3 Workgroup - Photogrammetry.



Our work experience in photogrammetry ranges from digital orthophotos and Low Altitude (Helicopter) mapping for DOT roadway projects to detailed GIS base mapping of major power producing plants and University campuses throughout the Southeast as well as the use of LiDAR technology for supporting photogrammetric mapping information.

Javad, GNSS

JAVAD GNSS, Inc. Javad GNSS, Inc. designs and develops GNSS receivers for high precision survey applications with its range of Triumph products. Founded in 2005 by Dr. Javad Ashjaee and headquartered in San Jose, California, JAVAD has built a reputation amongst the surveyor community for products that deliver accuracy, reliability, and quality. This applies surveyors to be more productive, says time, as well as protest and growths.



This enables surveyors to be more productive, save time, as well as protect and grow their reputation.

Lengemann Corporation

Established in 1962, Lengemann Corporation is celebrating 60 years of meeting customer needs. Lengemann Corporation is one of the leading Topcon and Sokkia full line surveying instrument dealers in the United States. We sell/rent/finance GPS, Robotics, Total Stations, Drones, Machine Control, and supplies. Lengemann



Corporation is the only authorized Topcon and Sokkia master repair facility in the state of Florida. We also operate one of the largest, privately owned GPS networks in the U.S. called L-Net. Our new onsite training facility is equipped for all your survey and machine control needs.

LiDARit, Inc.

LiDARit Provides unlimited infrastructure, and develops vision-based LiDAR and machine perception technologies, primarily for surveying. It is an end-to-end, multiplatform, open sky, and indoor solution in a straightforward subscription that includes trajectories processing, cloud classification, deliverables, unique analytics with AI, and an online and secure viewer, for companies and professionals to digitize with survey accuracy.



Multicopter Warehouse

Multicopter Warehouse ® was founded in 2014 and is a Tier 1 Authorized Dealer and Distributor for major UAS manufacturers of multicopters, parts, and accessories. We specialize in UAS technologies utilized for many applications such as Search & Rescue, Crime Scene Investigation, Agriculture, GIS Mapping, Utility Inspection, and



Professional Cinema Aerial Photography. Additionally, We perform all repairs in-house based on our client's needs We are located in the heart of DTC at 7045 S Fulton St #250 in Centennial, CO, 80112. Please feel free to contact us by calling (303) 552-2300 Monday to Friday, 8 am to 5 pm MDT.

National Geospatial - Intelligence Agency (NGA)

The National Geospatial-Intelligence Agency (NGA) delivers world-class geospatial intelligence that provides a decisive advantage to policymakers, military service members, intelligence professionals and first responders. Anyone who sails a U.S. ship, flies a U.S. aircraft, makes national policy decisions, fights wars, locates targets,



responds to natural disasters, or even navigates with a cellphone relies on NGA. NGA enables all of these critical actions and shapes decisions that impact our world through the indispensable discipline of geospatial intelligence (GEOINT).

NSPS

NSPS strives to establish and further common interests, objectives, and political effort that would help bind the surveying profession into a unified body in the United States. Governance: The National Society of Professional Surveyors, Inc. is governed by a Board of Directors. The NSPS Board of Directors meets twice per year. NSPS has working agreements with state surveying organizations which are represented on



has working agreements with state surveying organizations which are represented on the NSPS Board of Directors, and with the NSPS Foundation, Inc.

SAM Biz

As one of the largest full-service surveying and mapping companies in the United States, SAM has the capacity to field more than 175 crews. With 24 offices nationwide and one in Orlando, our more than 800 professional and support staff consists of licensed surveyors, professional engineers, and technicians, and is supported by millions of dollars of equipment, hardware, and software. When combined with more



millions of dollars of equipment, hardware, and software. When combined with more than 23 years of experience, the result is a uniquely positioned service provider that is continuously prepared to mobilize quickly, perform tasks reliably, and consistently provide quality deliverables.

SmartDrone

SmartDrone is a leader in drone surveying innovation and technology for accurate land surveying, utilizing U.S. manufactured drone hardware to collect feasible aerial LiDAR data, combined with streamlined processing software for that data.



Vacmasters

VACMASTERS has been the industry leader in Air-Vacuum Excavation systems for over a quarter of a century. Our air-vacuum excavation equipment is offered factory direct and is used for locating underground utilities for civil engineering, environmental, and construction companies. Air excavation often offers many advantages compared



to hydro excavation including smaller non-CDL truck mounted units. We also manufacture a complete line of hydro excavation trailer vacuum units with our Spoilvac product line, which are often custom built for directional boring and construction contractors' specific needs. We manufacture with a focus of keeping our products simple. Simple means no computers, no digital display screens, and no electronic chips and this often equates to easy fix, more reliable, and less down time. In summary, VACMASTERS offers industry leading products, keeps things simple and skips middlemen/distributors to offer you great factory direct pricing.

FAU Geomatics Engineering

The NCEES award winner Florida Atlantic University Bachelor of Science degree in Geomatics Engineering is one of the state-of-the-art ABET accredited engineering programs in the nation. The award winning faculty have outstanding teaching and research experience and diverse professional backgrounds. Students can collaborate



with other engineering and science disciplines such as geosciences, computer science, urban planning, and other fields. While this program prepares students for the Professional Land Surveyor (PLS) license, some students successfully pass the NCEES Fundamental of Surveying (FS) and Fundamental of Engineering (FE) examinations before graduating from the program.

FREAC / Florida State University

The FL Resources & Environmental Analysis Center (FREAC), established in 1969, is the original center within the Institute of Science and Public Affairs (ISPA) at Florida State University (FSU). FREAC professionals conduct research in the general areas of resource management and environmental analysis, as well as provide advice



and technical assistance to state and local agencies. Public lands research and analysis, geographic information system development and graphic representation of digital databases are current and long-range FREAC research interests. FREAC also trains university students in these areas through direct involvement in projects, providing real-world experiences.

Geospatial Users Group (GUG)

The Geospatial Users Group is a practice section of FSMS that facilitates Communication and Outreach between practitioners, experts, suppliers, and users of GNSS and their applicable systems. The purpose of which is to act as a central voice to protect the accessibility and provide education of such systems. The Group promotes education,



outreach, and information to act as a liaison between users and the various industries interacting with GNSS and advanced geomatic positioning based systems. This includes reviewing, meeting and providing comments when rules, procedures, and policies are being developed that may affect Users' methods of practice.

UF IFAS

The UF/IFAS School of Forest Resources & Conservation has undergraduate and graduate programs in Forestry, Natural Resource Conservation, Fisheries, Geomatics, & Marine Sciences. Our Geomatics major has 2 specializations – Surveying & Mapping for those interested in traditional surveying and licensure, and Geospatial Analysis for those focusing on analyzing geospatial data.



UF Geomatics

The UF Geomatics program was established in 1973 and is the preeminent Geomatics program in Florida. Consisting of six full-time faculty members, 70 Bachelor's degree students, 35 graduate students, and boasting two remote educational facilities in Ft. Lauderdale and Plant City, it has become the premier and leading resource for students seeking a degree in Geomatics from one of the country's most prestigious institutions.



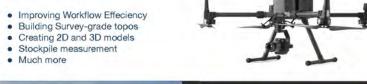
The UF Geomatic Student Association (GSA) is an active student chapter of the Florida Surveying & Mapping Society (FSMS) and has been a regular Exhibitor at their Annual Conference for many years, providing GSA members the opportunity to interact with FSMS members, gain inspiration and professional Awareness, as well as increase visibility of the GSA and UF Geomatics program to prospective students.







From surveying and 3D modeling to inspections and job site monitoring to gathering topo data or stockpile measurement, many construction companies are utilizing UAS systems for different uses, including:





The Matrice 300 RTK and Phantom 4 RTK have a built-in centimeter-level navigation and positioning system and a high-performance imaging system that supports both RTK and PPK solutions. Companies that have adapted this technology are seeing dramatic increases in accuracy and saving 75% in setup time over land based surveys.



Measure Images with Pix4D

A unique suite of analysis software for drone-based mapping. Capture images with your choice of drone and process on your desktop or cloud to create maps and 3D models. Multicopter Warehouse is proud to be an authorized Pix4D dealer.

Contact one of our Enterprise Specialists today to schedule a free consultation.



multicopterwarehouse.com

7045 S Fulton St #250, Centennial, CO 80112 enterprise@multicopterwarehouse.com - (303) 552-2300



We listen.



USTOMER

We take the time to make sure that we are aware of your needs. Our specialists will collaborate with you to establish an understanding of the requirements and equipment needed to accomplish your goals.

We understand.



USE

Our skillful staff specializes in this industry. We don't hire just anyone to work for us. We employ avid fans that can even teach us a thing or two. From electrical and mechanical engineers to GIS specialists, we have the knowledge and expertise required to help you make the right purchase.

We recommend.



GEAR

Multicopter Warehouse won't just try to sell you the most expensive, newest, or hottest products on the market. We strive to match your with only the products and services that your endeavor requires. When you've purchased a system from

When you've purchased a system fron us, you will have no doubts about accomplishing whatever task is at hand.



We support.

We're here for you. Multicopter Warehouse completely stands behind all of the products we sell. After all, it's our reputation on the line, and we've worked extremely hard to turn our enthusiam for this industry into a thriving business. We were beginners once too, we we are always excited to educate our customers. When it comes to service, every issue is closely investigated to provide the most prompt and profecient solution.

We're not just another dealer, we are an extension of the brands we carry We are on the few DJI Gold Tier Enterprise dealers and one of only three DJI Recommended Service Centers.



multicopterwarehouse.com

7045 S Fulton St #250, Centennial, CO 80112 enterprise@multicopterwarehouse.com - (303) 552-2300

Land Survey +Aerial Mapping +GIS

Nationally recognized for our skill and experience in land surveying, aerial mapping, and GIS.

Ayres delivers **efficient** and **intelligent solutions** for your projects.



Cape Coral | Tampa | Titusville 813.978.8688 | www.AyresAssociates.com

Exhibitor Reception Trimble Trimble. **Conference Mobile App Keith & Associates Clay Shoot Aviron & Associates Swag Sponsor** Atwell ATWELL **Hyatt Surveys Room Keys** Hyatt Welcome BBQ & DRMP **Young Surveyors Event BDRMP Welcome BBQ** Caulfield & Wheeler CAULFIELD & WHEELER INC.

Conference Tote Bags

Langan

LANGAN

Registration Desk & Signs

Pennoni



Registration Desk & Signs

WGI



Legislative Reception

SAM



Legislative Reception

Manasota Chapter



Program Book (Front Cover) Zeman Consulting Group



Program Book (Back Cover)

KCI Technologies



July/August 2022 Page 38

Banquet Door Prizes

Collins Survey Consulting



Program Book (Inside Front Cover) Ayres Associates, Inc.



Golf

FL Crown Chapter



Lion Country Safari & Casino Night **Palm Beach Chapter**



Lanyards

GPI



Name Badges & Saturday Break

Bowman

Bowman

Exhibitor Welcome Bags

Lengemann



Exhibitor Hall Door Prizes Tampa Bay Chapter



General Business Session, Young Surveyors Event, & Registration Packets **Central FL Chapter**



Registration Packets

GdB Geospatial

 ${\color{red}\textbf{GdB}} \textbf{Geospatial}$

General Sponsor

HALFF

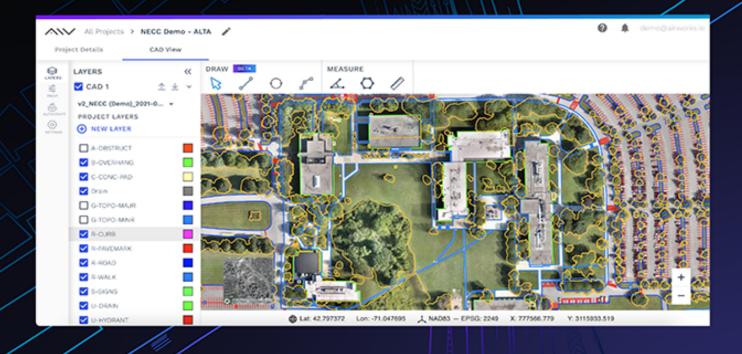


July/August 2022



AIRWORKS

Our AI-powered software turns remote sensing data into pixel-accurate basemaps.



67th Annual Conference Recap













July/August 2022 Page 42

Round of Golf at the PGA National











The Florida Surveyor

Page 43















Page 44



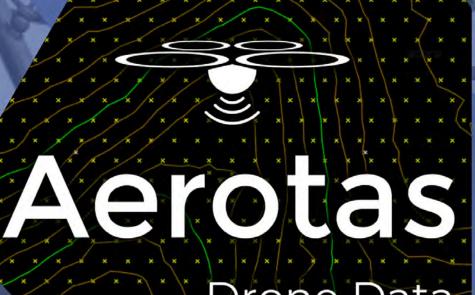












Drone Data Processing For

Survevors

Aerotas

Drone Data

Surveyors

Processing For

CAD FILES
FROM YOUR
DRONE DATA













SIGN UP AND GET YOUR FIRST PROJECT FREE

aerotas.com/app

LEADING PROVIDER OF SURVEY AND MAPPING SERVICES

Bathymetry, Survey, UAS, Aerial Data Acquisition, Engineering



We're hiring! Check out our current career opportunities in Florida at woolpert.com/jobs.



WELCOME BBQ











The Florida Surveyor

Page 47

























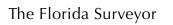














Page 51























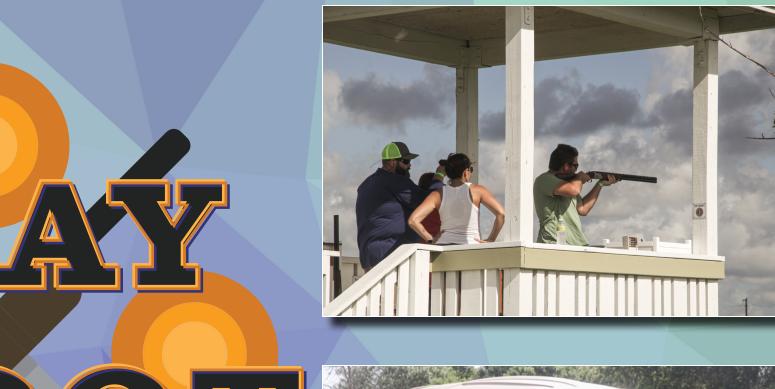




























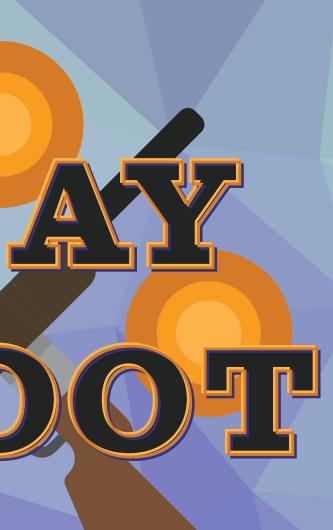








The Florida Surveyor

















The Florida Surveyor



Page 63



THE HIGHEST PERFORMING,
MOST REASONABLY PRICED,
BEST-SUPPORTED
GNSS SOLUTION AVAILABLE TODAY

Call 561.316.6250 or visit carlsonps.com



BAND OPENING

3



Eutting











Legislative Leception







Legal & Legislative
Committee Chair
Jack Breed introduces
Chip LaMarca of the
Florida Legislature
representing the state's
93rd House District.

July/August 2022 Page 66

Build Your Business



from the Ground Down!

Pothole *profitably* with air using a VACMASTERS Air-Vacuum Excavation System. With five different sized models, VACMASTERS has the system designed to meet all your excavation and budget requirements. From the SYSTEM 6000, the world's most powerful air-vacuum excavator, to the highly mobile, low-cost SYSTEM 1000, VACMASTERS systems are guaranteed to get your jobs done quickly, efficiently and safely.

SYSTEM 6000 – The world's most powerful air-vacuum excavation system and the first with the power to trench as well as pothole. Hydraulic boom for safer/easier operation.

SYSTEM 5000 – Incredible power to pothole and open up larger excavations in stubborn soils. Substantially faster than the SYSTEM 4000 with only a negligible size increase.

SYSTEM 4000 – The most powerful and highest capacity non-CDL system we offer and power to pothole in the hardest soils and ground frost make this a very popular unit.

SYSTEM 3000 – Powerful, compact, maneuverable. Offers you a mid-priced system with big-time power.

SYSTEM 1000 – Affordable, trailer, truck, or skid mounted. Our smallest air-vacuum system, offering low cost, small size and high performance.

To see VACMASTERS air systems in action, view our demo at www.vacmasters.com or for more information, call 1-800-466-7825.





Spend more time scanning, only 30 seconds to initialize. We Make 3D Mapping Easy. Learn more on our website. www.LiDARUSA.com

LIDAR USA\\\

3D MAPPING SOLUTIONS





























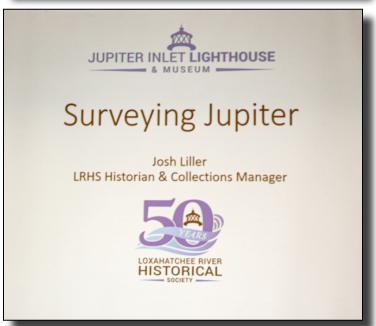




Breakfast with













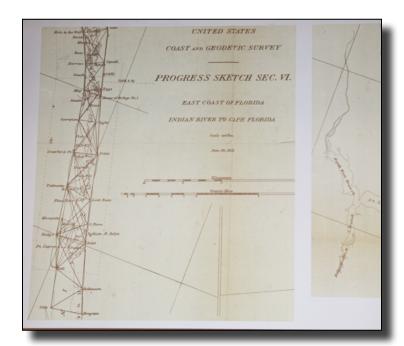
The Florida Surveyor Page 75

Reynote Speaker

h Liller

























JAVAD Patented Multi-Engine RTK

Input GNSS Signals



Single-Engine RTK

www.javad.com/wato

Learn more about the benefits of multi-engine RTK







































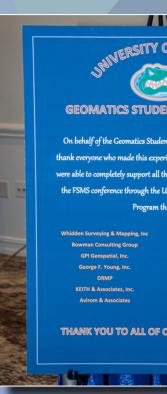












IBIT!



















IBIT!











































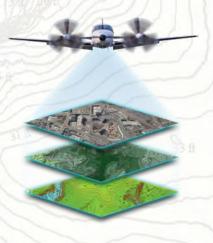






MAPPING SOLUTIONS





Integrated Mapping & Geospatial Solutions for Surveyors

www.axisgeospatial.com















2022 eLearning Courses

6 General CEC - \$99/course (members)

\$120/course (non-members)

- Professional Ethics & Professional Courtesy - Course #8363
- Georgia Technical Standards for Property Surveys - Course #8554
- History of Surveying
 - Course #7140
- Identification of Native & Non-Native Trees in Florida
 - Course #8132
- Ethics for the Design Professional Course #8621
- Land Tenure & Cadastral Systems
 Course #8260
- Map Projections & Plane
 Coordinate Systems Course #8261
- Mean High Water Observations & Computations - Course #8262
- Public Land Survey System
 Course #7147
- Remote Sensing Applications to Surveying & Mapping
 - Course #7148
- Practical Geometry for Surveyors
 - Course #7141

3 General CEC - \$49/course (members)

\$70/course (non-members)

- Basics of Real Property
 - Course #8360
- Contracts for the Professional
 - Course #8412
- Elevation Certificates & the Community Rating System
 - Course #8256
- Introduction to Photogrammetry
 - Course #7968
- Writing Boundary Descriptions
 - Course #8362

Florida Surveying & Mapping Society 1689 Mahan Center Blvd. Suite A Tallahassee, FL 32308

www.fsms.org (850) 942-1900

FSMS Correspondence Courses

Florida Surveying and Mapping Continuing Education Provider Offering 25 Years of Dedication, Quality & Trusted Services

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 |
| □ Digital Signatures for Surveyors, #8491, 3 CEC |
| □ Easements and Rights of Ways, #9945, 3 CEC *2020 UPDATED COURSE |
| □ Elevation Certificates and the Community Rating System, #8257, 3 CEC *2020 UPDATED COURSE |
| □ 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_*2020 UPDATED COURSE |
| 6 Hour Courses Available |
| □ Boundaries in Florida, #7667, 6 CEC |
| □ Chapter 177, Platting (Plat Law), #6970, 6 CEC |
| □ Critical Communication for Surveying & Mapping Professionals, #7228, 6 CEC |
| □ Ethics for the Design Professional, #8620, 6 CEC |
| □ Florida Laws, #6966, 6 CEC |
| □ Florida Surveying Law and Rule Changes, #9574, 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 <u>*2020 UPDATED COURSE</u> |
| □ Land Tenure and Cadastral Systems, #7829, 6 CEC |
| □ Map Projections and Plane Coordinate Systems, #7669, 6 CEC |
| □ Practical Geometry for Surveyors, #7109, 6 CEC |
| □ Public Land Survey System, #6979, 6 CEC |

The Florida Surveyor Page 93

□ Remote Sensing Applications to Surveying & Mapping, #6972, 6 CEC

FSMS Correspondence Courses

| [| FSMS | S Member | Step 2: Ch | 100 | <mark>se Mem</mark> t | <mark>oer</mark> | Type | | | |
|-------------|-----------|----------------|---------------------------------------|-----------|-----------------------|------------------|-------|----------------------|-----|-------|
| | | EMAILED | Fee | | Quantity | | | Amount | | |
| | | 6 CEC | \$115 Per Course | Χ | | = | \$ | | | |
| | | 3 CEC | \$58 Per Course | Х | | = | \$ | | | |
| | | MAILED | | | | | | | | |
| | | 6 CEC | \$125 Per Course | Χ | | = | \$ | | | |
| | | 3 CEC | \$68 Per Course | Χ | | = | \$ | ···· | | |
| | | | TOTAL | • | | | \$ | | | |
| [| Non- | Member | NP. | | | 0 | UX | 5, | | |
| | | EMAILED | Fee | | Quantity | | | Amount | | |
| | | 6 CEC | \$135 Per Course | Х | | = | \$ | | | |
| | | 3 CEC | \$78 Per Course | X | | = | \$ | | | |
| | | MAILED | | | | | | | | |
| | | 6 CEC | \$145 Per Course | Х | | = | \$ | | | |
| | | 3 CEC | \$88 Per Course | Х | | = | \$ | | | |
| | | 7 | TOTAL | | _ | | \$ | [7] | | |
| [| Non- | Licensed in | ANY State | | | 1 | | | | |
| | | EMAILED | Fee | | Quantity | | 1 | Amount | | |
| | | 6 CEC | \$100 Per Course | Х | | = | \$ | | | |
| | | 3 CEC | \$60 Per Course | Х | | = | \$ | | | |
| | 2 | MAILED | | | | | | | | |
| | | 6 CEC | \$110 Per Course | Х | | = | \$ | | | |
| | | 3 CEC | \$70 Per Course | Х | | = | \$ | | | |
| | | 1 | TOTAL | | | | \$ | | | |
| | | > | Step 3: Pa | oo avm | ent Info | rm | ation | .41 | | |
| Name: | | | - | | | | | FSMS Member: _ | YES | NO |
| | | | 0 | | | _ | | | | |
| | | | / _ / | | | | 5 | Sustaining Firm: _ | | |
| | | | · V(- | | | | | Zip Code: | | |
| | | | | | | | | k Phone: | | |
| | | | | | | | | | | |
| - | | | | - | | | | _ VISA/MasterCard/Ar | | press |
| Card #: | | | · · · · · · · · · · · · · · · · · · · | | Exp. Date | : | | _ CVV Code: | | |
| | | | | | | | | | | |
| Billing Add | ress of C | redit Card: | | | | | | | | |

IF PAYING BY CHECK, MAIL FORM TO: FSMS, P.O. Box 850001-243, Orlando, Florida 32885-0243 IF PAYING BY CREDIT CARD, FAX OR EMAIL FORM TO: 850.877.4852 education@fsms.org **QUESTIONS? CALL 800.237.4384**



SAM

Mobile LiDAR

Terrestrial Scanning

AERIAL MAPPING

UAV

SUE

SAM offers a complete range of solutions to move projects ahead quickly, reliably, and safely.



sam.biz



Why Join FSMS?

LEGISLATIVE SUPPORT -

The Legislative Committee and our Lobbyist are committed to keeping the Public and the Surveying and Mapping Profession protected

EDUCATIONAL BENEFITS -

With recently updated courses, getting your CECs has never been better

NETWORKING -

Attend our Annual Conference to meet other professionals and meet vendors with all the latest equipment

SOCIAL BENEFITS -

Attend local chapter meetings to meet individuals with common professional goals

CLICK HERE TO JOIN!

Florida Surveying & Mapping Society
1689 Mahan Center Blvd. Suite A
Tallahassee, FL 32308

www.fsms.org
(850) 942-1900

Recognitio





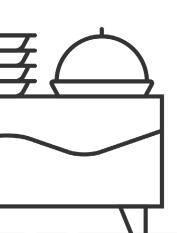




n Banquet









Recognitio





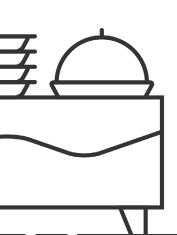




n Banquet









Recognitio

the Magic of









n Banquet











Recognitio



Chapter President Benjamin Hoyle accepts the award for Large Chapter of the Year, Broward County.





Brion Yancy accepts award for Chapter President of the Year.



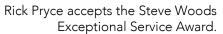
The Florida Surveyor

Page 103

n Banquet



Chapter President Brion Yancy accepts the award for Small Chapter of the Year, Indian River.







Dr. Bon Dewitt accepts award in place of Dr. Amr Abd-Elrahman for Professional Excellence.



District 5 Director Shane Christy accepts award for Young Surveyor of the Year.

Recognitio



Vice-President Jim Sullivan accepts the Committee Chair of the Year Award.



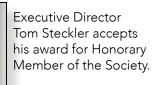


Past-President Bob Strayer accepts his Life Member Award.



The Florida Surveyor

n Banquet



District 4 Director Greg Prather accepts the Fellow Member Award.





Secretary Sam Hall receives the Board Member of the Year Award.





Recognitio











n Banquet









Recognitio

2022 FSMS Board of Directors









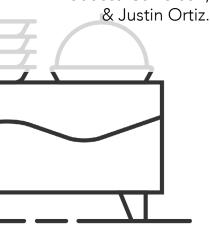
n Banquet

from L to R: NSPS Director Russell Hyatt with outgoing Executive Director Tom Steckler & Past President Bob Strayer





FSMS Administrative Staff, om L to R: Taylor Singletary, Catherine Campanile, Tom Steckler, Rebecca Culverson, & Justin Ortiz.







SHALL













NARS

















SHALL













NARS









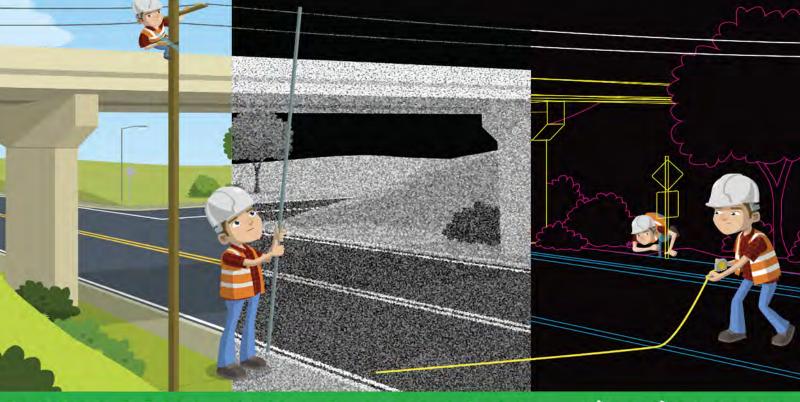








TURN POINT CLOUD DATA INTO DELIVERABLES



TOPODOT.COM - INFO@TOPODOT.COM - +1(407)2480160

2MLID

REACH RS2+

Multi-band RTK GNSS with LTE Modem

\$2199



EMLID

REACH RS2+

Multi-band RTK GNSS with LTE Modem

\$2199

Free iOS and Android app for data management

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

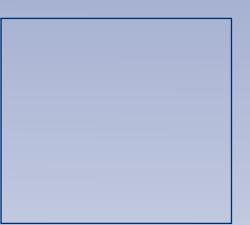
Dan Ferrans
Jeremiah Slaymaker
Ken Glass
Russell Hyatt
Bill Rowe
Dale Bradshaw
Lou Campanile, Jr.
Bob Strayer, Jr.
Dianne Collins

2020

Don Elder Hal Peters



Executive Director
Rebecca Culverson
director@fsms.org



Education Director
Vacant
education@fsms.org



Communications
Coordinator
Justin Ortiz
communications@fsms.org



Regional Coordinator
Cathy Campanile
seminolecc84@gmail.com



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:

Benefits: Full color; hyperlinks added to your webpages and/or email addresses.

Requirements: Contracts for one year (11 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 to submit new ads or changes.

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