Wednesday, July 28th

Seminar 1 8:00 am — 3:00 pm Art of Retracement Course #10114 - 6 CEC's Gary Kent, PSM



Every professional surveyor across the Unites States knows the phrase "Follow in the Footsteps" as it relates to conducting a boundary retracement survey. But what does it really mean and what is the basis for following the footsteps? And exactly whose footsteps are we talking about? Surveyors also know the effect of the statute of frauds is that what is written in the conveyancing document is considered by the courts to be the highest and best expression of the parties' intentions. But what happens when the evidence of the footsteps on the ground conflicts with the written title? What if there are seemingly no footsteps to follow? What then? In this program we will explore the concept of retracement, how it relates to and is dependent on the document of conveyance, and what controls when conflicts are inevitably encountered. When armed with a full understanding of the concept of retracement, surveyors will be much better equipped to help steer their clients (and their affected neighbors) away from the pain and cost of litigation, and towards an amicable solution based on well-placed confidence and understanding of their respective roles and responsibilities.

Gary Kent is a Professional Surveyor with Schneider Geomatics in Indianapolis. After 37 years, he transitioned to part-time status in 2020 and formed Meridian Land Consulting, LLC to provide training, consulting and expert witness services. Gary has served on the Indiana Board of Registration for Professional Surveyors since 2004 and is a past-president of both ACSM and the Indiana Society of Professional Land Surveyors. He has also served as Chair of the Joint ALTA/NSPS Committee responsible for the ALTA/NSPS Standards since 1995. Gary has presented programs on easements and rights of way, survey standards, boundary law, and other surveying-related topics in all 50 states.

Seminar 2 8:00 am — 3:00 pm Boundary Surveying Issues for Florida Surveyors Course #9331 - 6 CEC's — CE53 David Melvin, PSM



The seminar deals with boundary surveying in the State of Florida. Many surveyors all over the State of Florida make boundary surveys for their clients. Revisions made in July of 2018 in the wording of boundary survey standards in Florida have made boundary surveys a very topical subject. The revisions have brought to light the complexities involved in performing a boundary survey. In the opinions of many boundary surveyors the new wording in Florida's standards reflects an apparent reawaking to boundary surveying requirements which are based in the law. Florida surveyors need to reexamine their boundary surveying practices. This seminar provides an excellent opportunity to make such an examination of boundary surveying issues.

David Melvin, PSM, is a Professional Land Surveyor with over 40 years of experience in the surveying and mapping profession. He graduated from the University of Florida in 1981 with a degree focused on land surveying. In 2003 he started Land Pro Seminars, a board-certified continuing education provider for surveyors and engineers. David's chosen areas of expertise are land and water boundaries, floodplain mapping, jurisdictional wetlands, and land surveyors' regulatory issues.

Thursday, July 29th

Seminar I 8:00 am — 10:30 am Changes to ALTA Standards Course #10115 - 3 CEC's Gary Kent, PS



After 2 years of work on the part of the Joint ALTA/NSPS Committee, the proposed 2021 ALTA/NSPS Land Title Survey Standards were adopted in August, approved by ALTA and NSPS in October, and they became effective on February 23, 2021. This program will outline the many changes from the 2016 Standards and provide an explanation of what each means to the surveyor. In addition, an overview of the entire set of 2021 Standards will be provided including detailed explanation of the relationship between Land Title Surveys and title insurance. Finally, some common questions that arise in the process of performing a Land Title Survey will be discussed.

Gary Kent is a Professional Surveyor with Schneider Geomatics in Indianapolis. After 37 years, he transitioned to part-time status in 2020 and formed Meridian Land Consulting, LLC to provide training, consulting and expert witness services. Gary has served on the Indiana Board of Registration for Professional Surveyors since 2004 and is a past-president of both ACSM and the Indiana Society of Professional Land Surveyors. He has also served as Chair of the Joint ALTA/NSPS Committee responsible for the ALTA/NSPS Standards since 1995. Gary has presented programs on easements and rights of way, survey standards, boundary law, and other surveying-related topics in all 50 states.

Thursday, July 29th

Seminar I 8:00 am — 10:30 am

Sea Level, Tidal Data & Water Boundaries Course #9666 - 3 CEC's George Cole, PLS PE, PhD



This presentation will be based on a publication in development which will be a much updated version of the venerable WATER BOUNDARIES book (John Wiley & Sons, 1996) and will cover some interesting new twists.

The major topics will include the following: Sea Level Change, Tidal Variation and Datum Planes, Tidal Coastal Boundaries, Riparian and Littoral Boundaries, and Boundaries for Riparian and Littoral Rights.

George M. Cole is a professional surveyor, engineer, and geographer. His background includes directing hydrographic and geodetic surveys as a commissioned officer of the U.S. Coast & Geodetic Survey (now NOAA); service as the State Cadastral Surveyor for Florida; as a private consultant directing private surveying and mapping operations in both the United States and Latin America; as a visiting professor at the University of Puerto Rico; and currently continues as an adjunct professor at the Florida State University and at the University of Puerto Rico. In addition, he has served as technical advisor to several states on boundary issues; and has provided expert testimony to a number of local, state and federal courts. Dr. Cole has also made significant contributions to professional literature and is the author of several surveying textbooks (with notable examples being Water Boundaries, John Wiley & Sons, Surveyor Reference Manual, Professional Publications, and Land Tenure, Boundary Surveying and Cadastral Systems (with Don Wilson), CRC Press).

Wednesday & Thursday, July 28th & 29th

8:00 am— 4:30 pm Fundamentals of Professional Surveying - SIT Prep Course Course #10116 - 16 CEC's Dr. Stacey Lyle, RPLS



Interactive course following a workbook on the NCEES's Fundamentals of Surveying Exam. The Fundamentals of Surveying (FS) exam is generally the first step in the process to becoming a professional licensed surveyor (P.S.). The is designed for recent graduates and students who are close to finishing an undergraduate surveying degree from an ABET accredited program. This course will summarize the following: 1. Review FS Exam Format and Exam Taking Skills; 2. Math and Science of Professional Surveying; 3. History of Surveying; 4. Mapping Processes and Methods; 5. Boundary Construction Workflow; 6. Geodesy; 7. Photogrammetry/Hydrography; 8. Engineering Surveying; 9. Business Law; and 10. Fundamental of Surveying Exam Problem Solving

Dr. Stacey Lyle, RPLS, Associate Professor of Practice Texas A&M University College of Engineering and College of Geoscience where he teaches Surveying, Engineering, and Geosciences graduate and undergraduate courses. Dr. Lyle is a Licensed Professional Land Surveyor with 30 years of experience in Land Surveying, Geodesy, Hydrographic Surveying, and Photogrammetry with over 30 peer-review publication. He holds a BS in Engineering, a MS Computer Science, and a PhD in Geography. He has worked for Wimpol (Fugro Chance) as an offshore surveyor, for Leica Geosystems as GPS and Photogrammetry Expert, and Director of Machine Control, and was a Research Scientist with Conrad Blucher Institute for Surveying Science at Texas A&M University- Corpus Christi as an Associate Professor in the Geographic Information Science and Geospatial Engineering Programs. Dr. Lyle is the 2021-2022 ABET Engineering Accreditation Commission's Commissioner representing the National Society of Professional Surveyors. He is a former NASA Faculty Fellow, USDA Faculty Fellow, and NOAA NGS Honouree for work developing High Accuracy Reference Networks. And in 2013 he was invited to the United Nations for the Global Geospatial Information Management as the Energy Industry Representative. Dr. Lyle has testified as an expert witness on Federal and State court cases on Land Boundary/ Oil& Gas issues acted as an expert to industry to US Congress and US Senate, to the State of Texas Railroad Commission and to the Board of Professional Land Surveyors on regulations. He has also co-authored State regulatory Rules and Acts with State Boards. Currently, Dr. Lyle is a Subject Matter Expert with BP's onshore Lower 48 operation as the Survey Lead working with the new Technical Information Management team to drive business with Geospatial solutions and capabilities.

Saturday, July 31st (All Day Course)

8:30 am— 3:00 pm Chapter 177

Course # 10113 - 6 CECs

Panel Discussion - Moderators: Richard Allen, PSM, CFM & Matt Kalus, PE, PSM

Panel to Discuss Proposing Changes to Florida Statutes Chapter 177.



The discussion will cover the history of FS 177 and what is the intent of the statute. Discussion will include proposed changes and what discussions there have been thus far and to gather additional positions on the legislation. The importance of subdividing and platting real property is becoming increasingly important as more development takes place in the state and the discussion on what is the purpose and what are the requirements become increasingly important. It must also be discussed that the use of the plat for legal or planning purposes outside of the platting of real property is becoming more prevalent and overburdensome as it has no place on the plat.

Richard Allen, PSM, CFM, Is the City Surveyor for the City of Orlando. Richard has over 24 years of land surveying experience and has been with the City of Orlando for the last 15 years. He over sees the survey activities for the City of Orlando and manages the survey section. Richard is the Surveyors in Government Liaison for FSMS and is the Secretary for the Geospatial Users Group. In addition he is the Region 5 Director for the Florida Floodplain Managers Association representing Central Florida.

Matt Kalus, PE, PSM, Is a Senior Surveyor and Mapper in the Development Engineering Division of Public Works for Orange County Government. Matt has extensive experience in surveying, mapping, GIS and engineering. His current role is the review and approval of subdivision plats and for development across Orange County. He has also worked for the Orange County Property Appraisers Office in the GIS Mapping section and for Lake County Government.

Saturday, July 31st (2 Hr. Morning Segments)

8:30 am— 10:10 am **Data Fusion**

Course #10106 — 2 CEC's

Craig Emrick, Sherry Grymko, Nick DiGruttolo



This course includes a brief summary of technologies used for data collection and how to fuse this data together to create a seamless dataset. Technologies included in this course are Airborne LiDAR, Terrestrial scanners and Single/Multi-Beam Hydrographic Surveying. The course is designed to provide an understanding of the various datasets created with different technologies (Air, Land, Water) and how to merge them together to provide the full topographic picture.



Craig Emrick is a native Floridian and has been involved in surveying since 1993 in both the public and private sectors statewide. He is a 2002 graduate of the University of Florida's Geomatics Program and is a licensed surveyor in the States of Florida and Alabama. Craig is Pickett's Vice President of Geospatial Services and is responsible for the management, execution, and quality control of various aerial surveying projects throughout the US and Caribbean.



Sherry Grymko has been involved in the surveying and mapping field since 2002 when she began her career at Pickett and Associates. She graduated from Penn State University with a Bachelor's in Surveying, and the University of Florida with a Master of Science in Geomatics in 2004. Her experience includes hydrographic surveys, boundary surveys, topographic surveys, ALTA/ACSM title surveys, "as-built" surveys, photogrammetric geodetic ground control, volume computations and GIS mapping. Ms. Grymko is the Survey Manager and Lead Project Surveyor for all hydrographic surveys and has extensive knowledge of single beam and multibeam hydrographic survey data collection and processing.

Nick DiGruttolo has been surveying since 1988 and spent 15 years working as a field crew chief for Sarasota County before moving to Gainesville to pursue his bachelors in Geomatics. After obtaining the bachelor's degree, Nick obtained surveying licenses in Florida, Georgia and Mississippi and completed a MSc and PhD with a concentration in geomatics while working for Northrop Grumman Advanced Geospatial Intelligence Operating Unit. At Northrop Grumman, Nick managed surveying and mapping projects mainly in support of the Naval Facilities Engineering Command, which involved establishing control for LiDAR and photogrammetry projects and producing real estate base maps for Navy installations. Nick currently works for Pickett and Associates as a Survey Manager supporting electrical utility projects.

Saturday, July 31st (2 Hr. Morning Segments)

8:30 am— 10:10 am Updates on the Modernized NSRS (2022) and NGS Products Course # 10107- 2 CECs

Denis Riordan, Gulf Coast Region Geodetic Advisor, NOAA, National Geodetic Survey (VIRTUAL)



The National Geodetic Survey continues to work on the updated 2022 Datums for the U.S., now being called the "Modernization of the National Spatial Reference System" (NSRS). This presentation will provide updated information on the state of that NSRS modernization project, along with discussion on related NGS products such as, coordinated transformations using NCAT, deprecation of the U.S. Survey Foot, the NGS GPS on Benchmark project, and the latest on OPUS products.

Denis Riordan, has worked with the National Geodetic Survey (NGS) for the past 16 years and serves as the Geodetic Advisor for the NGS Gulf Coast Region (AL, FL, LA, & MS). He works to support those who use NGS products and services (products like the National Spatial Reference Frame (NSRS). He holds a B.S. Degree in Surveying and Mapping from the University of Florida, is a licensed surveyor in the State of Florida, and worked for over ten years with private industry in the field of land surveying prior to joining NGS

8:30 am — 10:10 am Future of Florida Surveyors and Mappers Course #10108 — 2 CEC's Moderated by: Jack Breed

The Florida Surveyor and Mapper

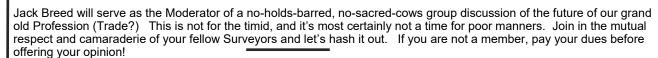
... A Professional?

... ... A Tradesman?

... ... Licensed or Certified?

... Educated, Experienced and Tested?

...... The Grandfathered Majority or the Educated Minority?



J.N. "Jack" Breed, P.L.S. is a Fellow, Life Member, and Past President of the Florida Surveying and Mapping Society, and currently serves our profession as the Chairman of both the Legal and Legislative Committees. Mr. Breed is a High Honors graduate of the University of Florida College of Engineering, with a 1982 Bachelor's Degree in Land Surveying. In addition to being one of the Founders of CivilSurv Design Group, Inc., he is an Adjunct Instructor in the School of Forest, Fisheries and Geomatics Sciences (FFGS) in the University of Florida's College of Agriculture & Life Sciences. He is a Floridalicensed Professional Surveyor and Mapper (LS4089), an FDACS BPSM approved Continuing Education Provider (CE77), and serves on the UF Geomatics Program Advisory Committee and the FFGS Advisory Board. The grandfather of a sixthgeneration Floridian, Mr. Breed is active in many arenas, including serving as an Elder and Bible Instructor in the Associate Reformed Presbyterian Church, Founding Chairman of the Geneva Classical Academy, and holding active memberships in the National Society of Professional Surveyors, the Lakeland Chamber of Commerce, the Ridge League of Cities, the Lakes Management Society, the Sebring Historical Society, the Coastal Conservation Association, Ducks Unlimited, and the National Rifle Association. Mr. Breed is the CC&BW for the world-renowned Grove In The Swamp Barbecue Team, and a Life Ambassador for Maker's Mark.

Mr. Breed's 40+ years of experience has included leading all phases of infrastructure planning and development in Surveying and Mapping, Engineering, Environmental Sciences, Planning, Design, Agency Permitting, and Construction Management. His career has focused on Public Infrastructure projects. As a Professional Surveyor and Mapper, he has been responsible for route/right-of-way, sectional retracement, boundary, construction, topographic, hydrographic and geodetic control surveys for roadways, electric transmission lines, transportation projects, land acquisition / conservation projects, watershed modeling, and commercial and residential developments. Mr. Breed's credentials as an Educator combined with his expertise in resolution of complex boundary and title problems has established him as an Expert Witness throughout the State of Florida, particularly in eminent domain proceedings and professional practices issues.



Saturday, July 31st (2 Hr. Mid-Morning Segments)

10:30 am — 12:10 pm

Standards of Practice Course #10109 - 2 CEC's Howard Ehmke II

This course will look at the Standards of Practice



Howard Ehmke, PSM earned his Associate in Science Degree in Land Surveying from Palm Beach Junior College in 1979 and an Associate in Arts Degree in Building Construction from Palm Beach Junior College in 1973.

Mr. Ehmke, corned his Florida Professional Surveyer and Manner License in 1985 (License number 1991). He has worked

Mr. Ehmke earned his Florida Professional Surveyor and Mapper License in 1985 (License number 4191). He has worked for the South Florida Water Management District for the past 46 years.

In 1999 he was a co Project Manager for the CERP Geodetic Vertical Control Project a joint survey control project of the Army Corps of Engineers and the South Florida Water Management District (SFWMD). In 2008 he served as President of the Indian River Chapter of the Florida Surveying and Mapping Society (FSMS). He also served as chairman of the Florida Surveying and Mapping Council for FSMS. Worked at the South Florida Water Management District for 45+ years. Member of the Board of Professional Surveyors and Mappers from 2009-2017. FSMS District 3 Board Member 2020-

10:30 am — 12:10 pm

Human Performance & Safety Course #10110 — 2 CEC's Greg Prather, PSM



This discussion will focus on safety and how human performance tools can improve workplace safety, or can they?

Gregory A. Prather, PSM is the Vice President of Surveying and the Company Safety Officer for Pickett and Associates, Inc. Mr. Prather began his career with Pickett in 1983 and became a Florida Registered Surveyor in 1992, later he became a company partner in 2003. Gregory has extensive field and office experience and is a hands-on leader. He has held several positions at the Chapter level of FSMS and currently the District 4 Director. He remains an active member of FSMS and is Chair of the Education Committee and a member of the Ethics and Professional Practice Committee.

10:30 am — 12:10 pm

Professionalism & Ethics Course #9391— 2 CEC's Robin Petzold, PSM



This course will introduce attendees to all aspects of professionalism and ethics. Surveyors and mappers need to know, understand, and execute the highest levels of professionalism and ethics. Attendees will learn tips and answers to solving ethical problems.

Robin Petzold recently retired after 40 years in the surveying industry. He was a senior partner with the firm of Wantman Group, Inc. headquartered in West Palm Beach with offices throughout the country. In addition, he served on the Board of Professional Surveyors and Mappers from 2010 to 2018 and continues to serve on the Probable Cause Panel as a past Board member. Robin currently serves on the EPS committee and has served on several past Committees including Surveying Task Force, PAKS, Education, National Surveying Award to name a few with The National Council of Examiners for Engineering and Surveying

Mr. Petzold currently holds degrees in Business, Land Surveying, and Animal Science. He began surveying in 1981 while studying Land Surveying at Palm Beach Junior College, which eventually became Palm Beach State College. While attending school and working full time, he also served as an adjunct faculty instructor at PBSC in the surveying program from 1982 to 1994, teaching basic surveying, route geometrics, and measurement science. Mr. Petzold holds surveying licenses in Florida, Alabama, Ohio, Iowa, and Wisconsin.

Saturday, July 31st (2 Hr. Afternoon Segments)

1:30 pm — 3:00 pm

Trimble Connect - Spectra Central Cloud Services Course #10118 - 2 CEC's - CE91 Earl Soeder, PSM



This course will go over Trimble connect / Spectra Central Cloud services – How to create account, set up account and implement for field to office contactless data transfer. Also configuring hardware i.e. Base & Rover internet data collection including best practices. We will discuss best practices as well as warnings "things not to do" procedures.

Earl Soeder is a licensed Professional Surveyor & Mapper and Registered in Florida and has been surveying for 36 years. Earl has been deeply involved in many aspects of surveying from GPS/Hydrographic to ControlSurveys. His unique experience led him to teaching surveying as an associate scientist at Florida Atlantic University Geospatial department as well as community colleges throughout Florida. A member of FSMS (Florida Surveying and Mapping Society), he has given back to his profession through education and volunteering in many trade associations. Earl is well versed in all Trimble & Spectra products from Surveying/Engineering Systems to Mapping grade products

1:30 pm — 3:00 pm

Aerial Mapping & Accuracy Course #10111 — 2 CEC's Jason Heywood



This discussion will focus on safety and how human performance tools can improve workplace safety, or can they?

Jason Heywood is the President of DroneView Technologies. An aerial mapping and geospatial services company based in Southeast Michigan. He is an ASPRS Certified Photogrammetrist (CP) a Florida Professional Surveyor and Mapper (PSM) and is a Virginia licensed Surveyor Photogrammetrist (SP). He earned his Bachelor's degree at Stafford-shire University in England, and his Master's degree at Eastern Michigan University. He is an active member of several national and state professional geospatial organizations and is the Past-President of the Eastern Great Lakes Region of the American Society for Photogrammetry and Remote Sensing [ASPRS]. His 25 years of experience providing aerial mapping and geospatial services include projects for federal, state, municipal and private clients.

1:30 pm — 3:00 pm





Meets, Bounds, Meanders, and Public Lands

A Comparison of Meets and Bounds vs the Public Land Survey System

This course will discuss the history of each system including the challenges the led to the Land Act of 1785, the order of calls, retracement challenges in each system, and various differences between Florida boundary law and various regions within the 13 Colonial States.

Sam Hall, PSM has 22 years of experience, the majority of which has been spent supporting public infrastructure development in the southeast region in the U.S. He is licensed as a professional surveyor in Florida, Maine, and New Hampshire. His experience covers a broad range of surveying and mapping aspects, including traditional boundary retracement, GNSS positioning, remote sensing, and subsurface utility engineering surveys. He's currently a Vice President at DRMP, Inc., a multidiscipline engineering consulting firm headquartered in Orlando, Florida.