Wednesday - July 24

8:00 am - 3:00 pm

Riparian Rights Surveying (6 CECs - Course #10807) Panel Discussion (6 speakers) - Moderator: Richard P. Green, Esq. Florida Bar CLE's: Course Reference Number: 2403461N



This course will provide a history of riparian rights in Florida and the role of the Florida Department of Environmental Protection. From this foundation the course will detail a "nuts and bolts" of riparian rights surveying including techniques, standards, methodology, and emerging technologies. Surveyors will be equipped with the basics for performing a riparian rights survey along any waterbody where riparian rights are applicable.

Richard P. Green, Esq. is Senior Attorney at the St. Petersburg office of Lewis, Longman & Walker, P.A. He has extensive litigation experience in a variety of areas such as real property, commercial, riparian rights, and environmental matters. He represents various public and private entities in litigation in both federal, state, and administrative forums. Green was included in Tampa Magazine's 2024 Top Lawyers List in the areas of Administrative/Regulatory Law and Environmental Litigation, the 2024 Best Lawyers in America "Ones to Watch List" for Environmental Litigation and Real Estate Law, and Rising Star by Florida Super Lawyers, a peer designation awarded to only 2.5% of Florida lawyers, since 2020.

Panelists:

Choose one 6-hour seminar for Wednesday Andrew J. Baumann, Esq. James C. Weed, PLS George "Chappy" Young, Jr, PSM Richard Malloy, PSM Scott Woolam, PSM

A Mock Trial - A Boundary Dispute Case - Based in part on the case of Dowdell v. Cotham (6 CECs - Course #10808) Instructor: Jeffery N. Lucas, JD, PLS, Esq.



This mock trial is loosely based on the case of Dowdell v. Cotham, a case involving neighbors who for over 20 years lived in happy-peaceful-coexistence, until one of the neighbors hired a surveyor to survey his property. After that—well —let's just say that things were never the same. This seminar will explore the world of civil litigation through a mock trial based on a real-life boundary dispute case. Through audience participation, volunteers will play the roles of attorneys, landowners, lay witnesses and expert land surveyor witnesses; the seminar leader plays the role of judge. The remainder of the audience will be divided into jury pools, each with a foreman spokesperson. The size and number of juries will be determined by the size of the remaining audience. The trial will be held, and the juries will deliberate. Following deliberation, each jury will then render their verdict, and discuss their reasoning. This seminar is designed to demystify the litigation process and explain the rules of engagement that will be used in court.

Jeffery N. Lucas, JD, PLS, Esq. is a licensed land surveyor in Alabama, Florida, Georgia, Mississippi and Tennessee. He is also a licensed attorney in the State of Alabama. Jeff is a recognized expert in land boundary law, riparian rights, and land surveying liability issues. He has practiced land surveying throughout the five southeastern states in which he is licensed. Jeff is also an author, columnist, lecturer and seminar presenter. He has authored three books on surveying, has over 100 nationally published articles and over 30 titles in his seminar library. Jeff has presented continuing education seminars at conferences from Alaska to Florida, from California to Nova Scotia, and most places in between.





Geoscholar's Florida Surveying and Mapping Society Fundamentals of Surveying (FS) Exam Prep Course Un-Licensed Attendees - No CEC Credit - Dr. Stacey Lyle, PhD, RPLS, PLS

Geoscholar's Florida Surveying and Mapping Society Fundamentals of Surveying (FS) Exam Prep Course is designed to provide critical information needed to obtain a Surveyor in Training (SIT) Certificate based upon topics tested on the NCEES Fundamentals of Surveying (FS) exam. The course offers an in-person FS review during the annual Florida Surveying and Mapping Society Conference, as well as an online preparation course.

You must complete the online course before attending the Seminar. Dr. Lyle will be covering select questions over the required sections to help you with examination preparation. After the Seminar you will have access for 1 year to the online course.

Dr. Stacey Lyle, PhD, RPLS, PLS is an Associate Professor of Practice at Texas A&M University's Zachry Department of Civil and Environmental Engineering and Department of Geography. He has served as an expert witness on land boundary court cases. He is active in the industry with over 35 years of surveying experience including civil engineering, land surveying, cadastral land records databases, GIS/CAD/BIM Fusion, geodesy, hydrography, photogrammetry, and cartography.



Thursday - July 25

8:00 am - 10:45 am



The Historical Cartography of Florida Course #10809 - 3 CECs Dr. Joe Knetsch. PhD

The course is designed to facilitate the understanding of the early and current mapping of the State of Florida. Each age has had its differing purposes and various nations have contributed to the mapping of the land of Florida. From the earliest explorers to the current GIS systems, the maps of Florida have shown the changes in the land, the formations exposed or covered and the property lines of all individuals who claim to own the land. Each type of map, coast charts, property plats, etc. have their individual purposes and all need to understand that each map will show or highlight something different depending upon the use for which it is intended. This course will demonstrate that each map has its use and interpretation and it is important to understand these before committing a proper survey of the lands to be depicted.

Dr. Joe Knetsch, PhD received his PhD in history from Florida State University (1990), an MA in history from Florida Atlantic University (1974) and a BS from Western Michigan University with a major in History and Economics. He was the historian for the Florida Department of Environmental Protection (formerly Department of Natural Resources), Division of State Lands, from 1987 to August, 2014. He is the author of fourteen books (mostly on Florida History), over two hundred journal articles, forty book reviews, and over two hundred and twenty papers and presentations on Florida history. Dr. Knetsch is a member of numerous historical societies and associations. He currently resides in Tallahassee, Florida, with his wife of forty-five years, Linda. He also currently works as a consultant for the Town of Redington Beach, the State of Alabama, and other private interests.

Choose one 3-hour seminar for Thursday



Impact of NGS 2022 DATUM & Low Distortion Projections (LDPs) to Mapping & Engineering Projects Course #10810 - 3 CECs Vasileios "Vas" Kalogirou, RPLS, PLS, PS, PSM, LS

The National Geodetic Survey (NGS) is updating both the HORIZONTAL and VERTICAL DATUMS. The presentation will depict the impact of Surveying/Mapping, GIS and Engineering projects based on the design and configuration of the NEW State Plane Coordinate Systems (SPCSs) and the Low Distortion Projections (LDPs). The learning objectives of this presentation will be to have a better understanding of: The principles of the new NGS 2022 Datum & LDPs, The impact of the new DATUMs to various geographic regions after 2022, managing legacy, small-scale & large-scale projects before and after 2022.

Vasileios "Vas" Kalogirou, RPLS, PLS, PS, PSM, LS started his surveying career in Greece 30+ years ago through his surveying family business and is a third generation Surveyor. While working in the surveying industry he received a 5-year bachelor's degree in Land Surveying Engineering from the Aristotle University of Thessalonica, Greece in 2001. At the end of the same year he received his license as a Professional Land Surveyor in Greece and then moved to the United Kingdom where he received his master's degree in GIS in 2003. At the end of 2003 he served in the Greek Artillery where he continued working as a surveyor for various expeditions. Vas moved to Dallas, Texas in 2005 and started working for Halff, which is where he is still employed today as the VP, Survey Practice Leader. Throughout his career, Vas managed several TxDOT & ALTA Surveys, FEMA, USACE, Oil & Gas and Geospatial projects in various parts of Texas and other States. Vas is a Licensed Surveyor in seven (7) States, including the State of Florida. Since 2007 he has been coordinating the RPLS & SIT study groups while serving as the President of the Dallas TSPS Chapter 5 in 2021. Vas is also an adjunct professor teaching the courses of GIS and Geodetic Surveying & Mapping at Dallas County College since 2015 and currently serves as a Surveying Advisory Committee member on behalf of the Texas Board of Professional Engineers and Land Surveyors, but most importantly, he is a devoted family man who really enjoys surveying.

Saturday - July 27

8:30 am -10:10 am



Many surveyors will be involved in boundary litigation as an expert witness. For those surveyors without experience as an expert witness, boundary litigation can be a stressful experience. Even surveyors with experience may wish to improve their testimony and be more credible and persuasive. This workshop will explain boundary litigation and the surveyor's role in litigating boundaries.

Knud Hermansen PLS, PE, PhD, Esq. is an attorney, professional engineer, and professional land surveyor. His education includes a Ph.D. in Civil Engineering from the Pennsylvania State University and a J.D. (Doctorate in Law) from West Virginia University. Knud has served as an expert witness, litigator, appellate counsel, arbitrator, mediator, boundary commissioner, member of a board of licensure, and surveying faculty member. Knud is a professor emeritus at the University of Maine. He operates a consulting firm offering surveying, engineering, and legal services. He is an author or co-author of numerous books and articles.

8:30 am -10:10 am



Advances in UAV-Mounted Topo-Bathymetric LiDAR Course #10817 – 2 CECs Joe Priestner, PLS, PE

Boundary Litigation and the Surveyor

Knud Hermansen PLS, PE, PhD, Esq.

Course #10816 - 2 CECs

Airborne Topo-Bathymetric LiDAR systems have been commercially available for mounting in manned aircraft for many years. These sensors solve the problem of tying the upland topography and the near shore bathymetry together using a single sensor. Only recently have advances in manufacturing enabled these sensors to be produced small enough to be mounted on a UAV. This presentation will start with a brief history of airborne topo-bathymetric LiDAR, followed by a discussion of how it works, the components that make up the sensor system, and the challenges faced when using an airborne topo-bathymetric LiDAR system. From there, we will discuss the capabilities of current UAV-mounted topobathymetric LiDAR systems and the environments to which they are suited. Mission planning parameters and logistics will be addressed, with an emphasis on special safety considerations for Class 3B lasers. The last section of the presentation will focus on the data processing workflow and deliverable extraction. The datasets used for these examples will be captured in Florida at locations with varying water quality to demonstrate how the local conditions affect the depth and point density of the data captured.

Joe Priestner, PLS, PE is a Geospatial Solutions Engineer at Duncan-Parnell, focusing on the sales and support of automated monitoring, UAS, and mobile mapping solutions. Joe has over 35 years of experience working as a consulting surveyor and engineer with the last 15 years focused on heavy civil and vertical construction. Joe is naturally inquisitive and a tenacious problem solver. Joe holds a BS degree in Survey Engineering Technology from the NJ Institute of Technology and a BS degree in Civil Engineering from The Citadel. He is licensed as both an Engineer and Land Surveyor in multiple states.

8:30 am -10:10 am



Retracement of the Initial Baseline Survey for Florida (Before GPS) Course #10818 – 2 CECs Allen Nobles, PSM

This class will cover the retracement survey of 75 miles of the initial Florida baseline ran in 1824 with a compass and survey chain. This project was done before GPS (1979) so we will cover the use of a Litton inertial guidance system for control; the search for witness trees; proving section corners; doing the solar observations for control traversing; and the data results found.

Allen Nobles, PSM is a licensed surveyor in Florida and Georgia and has previously managed his own company in North Florida for 40 years delivering multidisciplinary professional services in the surveying industry and has an extensive background in hands on surveying, project management and business practices. Mr. Nobles is a Life Member of the Florida Surveying and Mapping Society and has been a speaker at the industry's leading professional groups and has provided classes on LiDAR, photogrammetry, GPS, and boundary surveying for many professional groups (including the University of Puerto Rico, FAU, the University of Florida and Troy University). He has also provided several articles for the major surveying magazines on a wide range of subjects.

Conference Seminars

Saturday - July 27

10:30 am -12:10 pm

Surveying Railroad Corridors with Respect to Property Course #10819 – 2 CECs Leslie Odom, PSM



This course discusses the historical, best practices and practical problems in determining railroad corridor locations with respect to the land and property rights beneath the tracks. Railroads have played a major role in the settlement and development of these United States of America. The importance of 'bands of steel' uniting the country was underscored by the powers granted the railroad companies to acquire land and property rights in whatever way necessary, whether by grant, fee simple absolute, fee with reversionary right, fee determinable, easement or simply by occupation. Surveyors involved with the original location and placement of the railroad faced hostile environments, extreme weather conditions, low pay, no beds, no showers and few hot meals. Today, our goal is to follow in their footsteps and define, as best we can, the original configuration of the rails and the land parcels associated with the rails.

Leslie Odom, PSM is a Registered Land Surveyor in Texas and Florida and has 28 years of land surveying experience with 12+ years dedicated to surveying the railroad at CSX (retiring 2017) and various other railroad projects since retiring. As the lead in-house surveyor for CSX, his responsibilities included managing surveys in 23 eastern states and 2 Canadian provinces and being an expert witness in several railroad land disputes. Les has surveyed and designed tracks within active rail yards, mainlines, passing sidings and industry tracks. Les is a graduate of the University of West Florida with a B.A. in Mathematics, has taught surveying mathematics at Northlake Community College in Lewisville, Texas and authored mathematic courses specific for survey technicians.

10:30 am -
12:10 pmA.I. Unleashed - Surveyor's Dream or Nightmare
Course # 10820 – 2 CECs
Dr. Youseff Kaddoura, PhD



This presentation explores the possible advantages and hurdles associated with incorporating A.I. technologies into geospatial analysis and surveying. Attendees will be guided through the changing terrain where surveying and artificial intelligence converge, examining the intricate dynamics of A.I. as both an ally and a potential obstacle in the realm of surveying technologies.

Dr. Youssef O. Kaddoura, PhD currently holds the position of Academic Program Specialist II at the Fort Lauderdale research and Education Center within the University of Florida (UF). His Ph.D. in Geomatics Science from UF forms the basis for his specialized focus on developing a replicable technique for georeferencing oblique tower mounted (PhenoCam) images. In addition to his responsibilities as Chapter Coordinator at FSMS Broward Chapter, Dr. Kaddoura has served as a voting Board Member for ASPRS in the years 2020 and 2023, and he presently serves as ASPRS Florida Region President. Beyond his doctoral degree, he also earned a Master of Science in Computer Engineering, also from the University of Florida. Prior to his tenure at the University of Florida, Dr. Kaddoura gained valuable expertise through employment at Geospatial Consultancy Company, an ESRI affiliate.







An Introduction to Leveraging Remote Sensing and Surveying Practices for Design-Grade Survey Projects Course #10821 — 2 CECs

Michael Zoltek, LS,CP,CFedS, GISP,PMP/Jeffery Young, PSM, CP, PPS, SP

As remote sensing, surveying, and geospatial technology continue to improve, so do the requirements and workflows for applying these services to engineering design and survey projects. This presentation will provide a background in remote sensing technology and will give insight into how to apply remote sensing technology and methods to projects that have a tight accuracy tolerance. Topics will include the creation of customized flight and drive acquisition plans for aerial and mobile mapping projects, the design of ground control layouts, the feature extraction and compilation process, and the QA/QC of final deliverables. Attendees will leave this class with an understanding of remote sensing workflows and, how they are applied to design projects, and how to assess the accuracy of remotely sensed data.

Mike Zoltek is a land surveyor, photogrammetrist, and GIS professional with over 30 years of geospatial experience. As the National Geospatial Program Director at GPI Geospatial, Inc. (GPI), Mike is responsible for the coordination, execution, and supervision of projects for local, state, federal, DOT, and private clients. A licensed surveyor who holds active registrations in 26 states Mike brings to clients a comprehensive background in surveying and mapping, which includes data collection and processing, project management, and QA/QC coordination. Mike is a current member of Florida's State Board of Professional Surveyors & Mappers and is a long-standing member of the American Society for Photogrammetry and Remote Sensing (ASPRS). Mike has presented numerous technical seminars at universities and community colleges, as well as at industry conferences, and has served as an expert witness in boundary litigation cases in the state of Florida.

T. Jeffrey "Jeff" Young has more than 40 years of involvement in the photogrammetry field. Currently a Senior Geospatial Manager with GPI Geospatial Inc., Jeff manages photogrammetry projects for the company out of their Tampa office. Formerly with Pickett and Associates, Inc., Jeff managed the Lakeland based photogrammetry department for 25 years. Jeff was also with BKS Surveys, Ltd. in Northern Ireland and Washington, D.C. He has received catensive photogrammetric training and has vast experience utilizing analog, analytical, and softcopy photogrammetric instruments. Jeff earned his Photogrammetric Training from Coleraine Technical College in Northern Ireland. He is a Florida licensed Surveyor & Mapper, a licensed Photogrammetric Surveyor with the State of South Carolina, a licensed Surveyor Photogrammetrist with the Commonwealth of Virginia.

Saturday - July 27

1:30 pm -3:00 pm



This seminar covers the things a surveyor needs to know to establish a boundary line on a tidal water body. We will discuss the forces that influence the tides and the causes of local variations. Tidal datums and how to determine their elevation at a project site will be described. The effects of erosion, accretion, avulsion and sea level rise on tidal boundaries will be shown with case studies and the resources and methods surveyors use to perform tide studies will be compared in detail.

Nick DiGruttolo, PSM, PhD 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. Nick's PhD research focused on variations in mean high water in bays and tidal creeks. Nick currently works for Pickett and Associates as a Survey Manager supporting electrical utility projects.

Martin "Scott" Britt, PSM founded MSB Surveying, Inc. in 2000 and is currently the acting President and Surveyor & Mapper. Scott is a second-generation Surveyor & Mapper in the Sarasota, Manatee and Charlotte County areas and he has surveyed for over forty years. His expertise and project experience includes historical research and local knowledge, boundary, topographic, hydrographic, mean high water, tidal studies, littoral rights, route surveys, construction stake out, subdivision and condominium platting, ALTA/ACSM Land Title Surveys, FEMA Elevation Certificates, and expert witness on boundary, tidal water boundaries and littoral lines.

1:30 pm -3:00 pm



Emerging Technology for Data Collection Course #10823 — 2 CECs Adam Long, PE, PS

Course #10824 - 2 CECs

Wendi McAleese

Tidal Datums and Property Boundaries

Dr. Nick DiGruttolo, PSM, PhD/Martin Scott Britt, PSM

Course #10822 — 2 CECs

This course will provide examples of the use of emerging technologies for surveying and mapping. This will include current programs using AI technologies for extracting survey data from photos and LiDAR, working with 3D data in visible formats, working with a Calibration Test Facility to test equipment specifications from a surveyor's point of view, and examples of other emerging technology trends.

Adam Long, PE, PS joined SAM in 2011 as Chief Technology Officer. He has over 30 years of diverse experience in engineering, surveying, and information technology, which he used to create the Applied Technology department at SAM. Adam partners with SAM leaders to provide strategic technology innovation focusing on quality and efficiency for client solutions. His curiosity in technology and physical sciences fosters original ideas and designs that deliver precise results. Adam holds a Bachelor of Science in Civil Engineering from Ohio State University and is registered as an engineer in Ohio and Texas, as well as a Registered Professional Land Surveyor in Ohio, Indiana, Texas, and West Virginia. He has served as an adjunct professor in the Geospatial Engineering Department at the Austin Community College since 2014, teaching Engineering Design Surveying, Land Surveying, and Intro to Surveying.

1:30 pm -3:00 pm



During this presentation, Wendi will discuss the various title products available, how each one supports the due diligence products required by government agencies, including surveys, and how to determine which one best meets the needs of project stakeholders. Wendi will review title issues relevant to the survey and outline changing agency concerns with these issues. She will present recent case studies for these issues and discuss solutions used to move projects forward.

Wendi McAleese is a Florida licensed Title Agent and a Florida licensed Real Estate Agent with 25-plus years of experience with public acquisition projects. Wendi is the President and a principal at American Government Services Corporation, a full-service title agency which specializes in acquisitions by government agencies at all levels – local, state and federal. She has recently been appointed to the Florida Board of Professional Surveyors and Mappers as one of two Consumer Members.

The Role of Title in the Government Acquisition Due Diligence Process

Saturday - July 27 - All Day Course

8:30 am -3:30 pm

> Surveying the Infrastructure of GIS Course #10815 — 6 CECs Moderator: Richard Allen, PSM, CFM (9 speakers)

CAD vs GIS, & Intro to the "Parcel Fabric" Frank Conkling PSM, GISP Successful Project Integration of Survey & GIS Richard Pryce, RLS, PSM Panel Discussion - Experts and Users on Survey and GIS

A presentation on the differences between CAD and GIS and an introduction to the Parcel Fabric by Frank Conkling, PSM, GISP, and then a presentation of Successful Project Integration of Survey & GIS by Rick Pryce, PSM. Following the presentations will be a panel discussion of the topics presented and what opportunities, misconceptions, and problems that exist for those in both industries with a diverse group of individuals from academia, government, and the private sector.

Richard Allen, PSM, CFM is a Florida Licensed Surveyor & Mapper and Certified Floodplain Manager. He is the City Surveyor at the City of Orlando. He has been in surveying for over 27 years and has been with the City for 18 years. He is the Surveyors in Government Liaison for FSMS, Region V Director for the Florida Floodplain Manager's Association, and a Director for the ASPRS Florida Region. He is the scholarship chair and Valencia College Liaison for the Central Florida Chapter of FSMS. He is an Adjunct Professor at Valencia College's Built Environment Program, teaching Surveying and





Drafting. He is married to his lovely wife Amanda and has a son named Richie. **Frank J. Conkling, PSM, GISP** owns Panda Consulting, an LB-licensed Professional Surveying and Mapping business offering GIS Professional Services since 1998. Frank is a recognized authority on GIS and Surveying and Mapping technology, including mapping various types of ownership interest in land. Frank has been involved in GIS and Parcel Mapping since 1974 and has enjoyed studying and guiding the creation, implementation, and maintenance of some of the country's most effective GIS systems and most accurate land ownership databases. Frank is a licensed Professional Surveyor and Mapper in Florida and a licensed GIS Surveyor in South Carolina. He is a Past President of the Florida Association of Cadastral Mappers, an organization focused on cadastral mapping throughout the state of Florida, and a Member Emeritus of the Florida Board of Professional Surveyors and Mappers, the regulatory Board for all Surveyors and Mappers in the State. Panda Consulting is the first organization in the nation to receive the Esri Parcel Management

Richard Pryce, **RLS/PSM** Vice President Survey & G.I.S. at Craven Thompson & Associates, Inc.; current President-Elect for State FSMS; former Director and President of Broward Chapter FSMS. Rick has been surveying since 1972 and was licensed in 1983. He has performed surveys in 42 counties within Florida and was an early adopter of Geographic Information Systems using ESRI software since 1990. He has successfully integrated and completed multiple Survey, Engineering, and GIS multi-million-dollar projects over the past three decades and has provided numerous presentations and general talks on them to a diverse group of Engineers, Surveyors, and GIS Professionals. His interest, knowledge, and expertise in remote sensing started in 1996 when he worked directly with a remote sensing firm while surveying, to assist in developing a precision agriculture applications. He has expanded his knowledge and expertise to include all forms of LiDAR, (terrestrial, mobile and aerial) since then, and has also included forensic work on disaster sites. He developed multiple ways to QA/QC LiDAR work and check both horizontal and vertical accuracies to improve upon the final product. Most recently he has been using his background with LiDAR and remote sensing to assess properties for Monroe County Land Authorities in determining how much of the property is below the Mean High water line.

Panelists:

Specialty Designation.

Richard Allen, PSM, City of Orlando Surveyor Frank Conkling, PSM, GISP, Owner Panda Consulting Richard Pryce, RLS/PSM, VP Survey & GIS at Craven & Thompson Matthew Kalus, PSM, PE, Chief Engineer, Development Review Services, Orange County Dr. Bon Dewitt, PSM, PhD, Retired Professor Geomatics at UF Allen Nobles, PSM, VP. SAM,LLC & Former Owner: Nobles Consulting Greg Caffee, CCF, Mapper Sr./Cadastral, Orange County Property Appraiser Howard Ehmke, PSM, GCY, INC Mike Garcia, PSM, Program Manager II, Seminole County