

Conference Seminars

Wednesday, July 26th

Seminar I

8:00 am —
3:00 pm



"The Art of Original Retracement" - A Practical Application and Forensic Style Course #10499 - 6 CEC's Robert A. Stevens, RSM Florida

Objectives:

- Approach to successful retracement
- Procedures for success
- Evidence, historical and existing
- Role of astronomy
- Application of results

Robert A. Stevens, RSM Florida has been surveying for approximately 40 years. Acreage and Commercial surveys, Boundary, Right-of-way, and Easement Litigation, Expert Witness, and Trial Testimony with over a 90% success rate in original retracement. Robert A. Stevens & Associates, established 2009.

Seminar II

8:00 am —
10:45 am



The 2021 ALTA/NSPS Land Title Survey Standards - Changes from 2016 Course #10486 - 3 CEC's Gary Kent, PS

After 2 years of work on the part of the Joint ALTA/NSPS Work Group and others, the 2021 ALTA/NSPS Land Title Survey Standards were adopted by ALTA and NSPS with an effective date of February 23, 2021. In this program we will explain the reasons for each of the many changes from the 2016 Standards and provide an explanation on what each change means to the Surveyor. In addition, an overview of the relationship between Land Title Surveys and title insurance will be provided and each of the eight sections of the Standards will be overviewed. Finally, some common questions that arise and conundrums that surveyors encounter in the process of performing a Land Title Survey will be discussed.

Gary Kent, PS is a Professional Surveyor with Schneider Geomatics in Indianapolis where, after 37 years, he transitioned to part-time in 2020 and formed Meridian Land Consulting to provide training, consulting and expert witness services. He has presented over 1,500 programs on various surveying topics multiple times in all 50 states over the last 20 years. Gary has served on the Indiana Board of Registration for Professional Surveyors since 2004 and is a past-president of both the American Congress on Surveying and Mapping and the Indiana Society of Professional Land Surveyors.

Seminar III

12:15 pm —
3:00 pm



The Surveyor in Jeopardy Course #10487- 3 CEC's Gary Kent, PS

This program will be presented in a Jeopardy like format with the presenter offering answers for which audience members — assembled into teams — must provide the relevant question. The program will include approximately 175 questions/answers in a variety of topic areas such as: ALTA/NSPS Land Title Surveys, Boundaries, Easements and Rights of Way, Expert Witness, Riparian Rights Risk Management, Safety and Health, Florida Statutes and Rules, and Florida Standards of Practice. Answers and questions will be discussed as appropriate or necessary to be sure all participants understand the context and correct answers. This is a very "audience participation"-centric program; it is far more than a simple trivia contest.

Gary Kent, PS is a Professional Surveyor with Schneider Geomatics in Indianapolis where, after 37 years, he transitioned to part-time in 2020 and formed Meridian Land Consulting to provide training, consulting and expert witness services. He has presented over 1,500 programs on various surveying topics multiple times in all 50 states over the last 20 years. Gary has served on the Indiana Board of Registration for Professional Surveyors since 2004 and is a past-president of both the American Congress on Surveying and Mapping and the Indiana Society of Professional Land Surveyors.

SIT Prep

8:00 am —
4:00 pm



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 in July 2023 supplemented by online self-paced instruction via Canvas Learning Management System (LMS) topic-based modules.

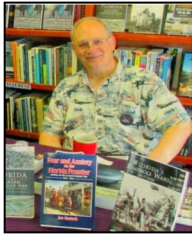
Dr. Stacey Lyle, PhD, RPLS, PLS is an Associate Professor of Practice at Texas A&M University's Zachry Department of Civil and Environmental Engineering and Department of Geography. He has served as an expert witness on land boundary court cases. He is active in the industry with over 35 years of surveying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

Conference Seminars

Thursday, July 27th

Seminar I

8:00 am —
10:45 am



Surveyors of Florida: Who Were They **Course #10488 - 3 CEC's** **Dr. Joe Knetsch, PhD**

The Course "Surveyors of Florida: Who Were They" will emphasize the personal nature of early surveying based upon the instructions from the Land Office and the Surveyor General of Florida. The instructions section will note the inconsistencies asked by the GLO, often to meet the special needs of those working in Florida. It will also include many citations to the letters written by individual surveyors to the Surveyor General describing the conditions facing them in the field. Pre-drainage Florida was a totally different looking place than we now see and offered many challenges to the early surveyors. The concept for the course is to put the current surveyors as close as possible into the mindset of the original surveyors whom they follow in their daily business. Hopefully this will give the current surveyors a better understanding of their predecessors predicaments and how they solved the problems facing them, thus saving today's surveyors time and money in retracing our pioneer surveyors' work and monuments.

Dr. Joe Knetsch 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.

Seminar II

8:00 am—
10:45 am



Understanding Road Rights-of-Way **Course #10482 Provider #CE-53 - 3 CEC's** **David Melvin, PLS, CFM**

Understanding Road Rights of Way is a 3-hour seminar. It discusses things land surveyors should know about road rights of way. The instructor uses case law examples to explain how roads are defined, the road's ownership status, the land-owner's rights, and others' rights within the right of way.

David Melvin, PLS, CFM is a Professional Land Surveyor, licensed in the State of Florida, a 1981 graduate of the University of Florida with a degree in land surveying, with over 40 years of experience in land surveying and land surveyor education. He has owned and operated Land Pro Seminars since 2003 and is also a consultant specializing in land boundary problems, floodplain issues, wetland mapping, and land surveying regulations.

Saturday, July 29th (All Day Course)

8:30 am—
3:00 pm



To Adhere or Not Adhere – A Discussion on Laws and Rules, and BPSM Cases **Course #10491 - 6 CEC's** **Panel Discussion - Moderator: Nicholas Campanile, PSM**

An expert panel will run through a variety of laws and rules applicable to surveying and mapping, to include potential for updates, and conclude with example disciplinary cases that came before the Board of Professional Surveyors and Mappers.

Nicholas Campanile, PSM is the FDOT District Five Surveyor and Mapper and recently completed serving eight years on the Board of Professional Surveyors and Mappers. Prior to FDOT, Nick served as Chief, Surveying and Mapping in DEP's Division of State Lands, and also served eight years as Adjunct at Tallahassee Community College, all after having served as adjunct at Miami-Dade Community College and was raised in a surveying and engineering family business.

Panelists:

Richard Allen, PSM, CFM	Richard Malloy, PSM
Jack Breed, PSM	David Melvin, PLS, CFM
Dianne Collins, PSM	Ray Niles, PSM
Dr. Bon Dewitt, PSM	Robin Petzold, PSM
Don Elder, PSM	

Conference Seminars

Saturday, July 29th

8:30 am—
10:10 am



FEMA and the Surveyor, dealing with MT-1 Processes
Course #10500 – 2 CEC's
Richard Allen, PSM

The course will cover eLOMA, LOMA, CLOMA, LOMR-F, CLOMR-F, and the other floodplain impacts and how the surveyor is involved in these processes. The material will cover the different processes and how they impact the floodplain, if any.

Richard Allen, PSM is a Florida Licensed Surveyor & Mapper, and Certified Floodplain Manager who is the City Surveyor at the City of Orlando. He has been in surveying for over 26 years and has been with the City for 17 years. He is the Surveyors in Government Liaison for FSMS and Region V Director for the Florida Floodplain Manager's Association. He is the scholarship chair and Valencia College Liaison for the Central Florida Chapter of FSMS. He is married to his lovely wife Amanda and has a son named Richie.

8:30 am—
10:10 am



Real-Time Surveying to Support the Mission to Mars
Course #10498 – 2 CEC's
Bryan Merritt, PSM/LS/FAA Certified UAV Pilot

The unmanned Artemis I launch system this past November is the first in a line of complex missions aimed at enabling exploration of the Moon and Mars. But before the Orion spacecraft can be launched into space, it must first be moved from the Vehicle Assembly Building to the launch pad at the Kennedy Space Center. Enter the Crawler-Transporter, four connected building-sized vehicles on rolling tracks that, when loaded with the Orion and its mobile launcher, will carry over 25 million pounds. One of the heaviest overland loads ever recorded. NASA needed to evaluate the potential risk that this VERY heavy load may deform the travel way as carried Orion to the launch pad. The presentation will provide the background and process required to provide real-time surveying as the Crawler-Transporter moves to the launch pad. The hardest part: they needed to survey the Crawler-Transporter in motion, making the project exponentially more complex.

Bryan Merritt, PSM/LS/FAA Certified UAV Pilot is a Professional Land Surveyor licensed in FL and NY and FAA Part 107 Certified Pilot and serves as the Manager for Langan's Florida and Caribbean Geospatial/Survey Group. He has more than forty years of experience in the Geospatial Industry. His experience includes management and direct technical experience in performing complex geospatial related projects and providing solutions to complex situations. He is experienced in all facets of surveying and geomatics technologies which includes UAV/UAS systems; terrestrial and mobile lidar systems; 3D modeling and BIM (Scan to BIM); GIS data collection; building documentation and all forms of conventional survey technologies. Bryan has been published in many trade journals and has presented sessions in geospatial survey technology to many organizations. He is a member of the Geomatics Engineering Program Advisory Council for Florida Atlantic University and is one of the founders of the United States Institute of Building Documentation (USIBD) which is a non-profit organization dedicated to actively promote, guide, and support the building documentation industry.

8:30 am—
10:10 am



Considerations for Automatic Feature Extraction of Drone Based Point Clouds
Course #10489 – 2 CEC's
Jennifer Triana

With the expansion of the geospatial drone market in the transportation industry, we explore how to achieve a more automated feature extraction process in topography mapping. Drone based point clouds from LiDAR vary greatly from Imagery based point clouds, so this presentation aims to explore their differences from the point cloud processing aspect. We will examine the pros and cons of each system for practical survey and mapping applications such as topographies, bare earth, volumetrics, etc. Learn how data accuracy, density, intensity/color, and other data characteristics affect a deliverable. We'll also show how to evaluate whether the data meets quality requirements for a certain application, and if it is suitable for automated feature extraction. Examples of automated extraction of break lines, surface models and asset identification will be demonstrated.

Jennifer Triana has over 18 years' experience in the LiDAR industry. After graduating with a Mechanical Engineering degree from UCF, she joined Riegl USA heading the systems team. More than a decade ago she was one of the founding members of TopoDOT, Point Cloud Processing Software, where she is now the Business Development Director.

Conference Seminars

Saturday, July 29th

10:30 am -
12:10 pm

The ASPRS Positional Accuracy Standards for Digital Geospatial Data—2014 Standards/2023 Proposed Revisions
Course #10492 – 2 CEC's
Michael Zoltek, LS, CP, CFedS, GISP, PMP



This workshop provides an in-depth look at the ASPRS Positional Accuracy Standards to categorize positional accuracy of products derived from digital aerial cameras, manned and unmanned aerial systems, and all types of lidar including terrestrial, mobile, and airborne. The workshop will explain the basis for each accuracy measure adopted in the standards.

Michael Zoltek, LS, CP, CFedS, GISP, PMP 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. He brings to clients a comprehensive background in surveying and mapping, which includes data collection and processing, project management, and QA/QC coordination.

A licensed surveyor who holds active Surveying/Photogrammetry registrations in 26 states, Mike has extensive experience in a variety of Surveying & Mapping tasks for Departments of Transportation in multiple states. Mike is a 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) where he currently serves on the Committee revising the ASPRS Standards for Digital Geospatial Data and where he Chairs the Evaluation for Certification Committee, overseeing the organization's certification program. He has also previously served as a member of the ASPRS Standards Committee responsible for establishing the 2014 ASPRS Accuracy Standards for Digital Geospatial Data, as the Director of the ASPRS Professional Practice Division and has also served as an ASPRS Board member. 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.

10:30 am -
12:10 pm

Professionalism & Ethics
Course # 10493 – 2 CEC's
Robin Petzold, PSM



This course will delve into the professionalism and ethics that will keep you out of "harm's way" should you ever have an encounter with the State Board. A case study will be presented showing you how to respond in a professional manner in accordance with our rules and regulations as well as the history of how these rules developed. Since these types of encounters are very stressful, this is a course worth your time to prevent any future anxiety.

Robin Petzold, PSM retired from Wantman Group, Inc. as an Executive Vice President and partner in December of 2018, but continued to serve on a consulting basis until February 2020. He holds professional Surveying Licenses in Florida, Alabama, Ohio, Iowa, and Wisconsin, and has over 40 years of professional experience. Additionally, Robin served as an adjunct faculty instructor for 12 years in the engineering department of Palm Beach State College as well as an adjunct instructor at the University of Florida from 2017 thru 2022. He has also taught seminars on State Plane Coordinates, Electronic Data Collection, and Global Positioning Systems Methodologies throughout the United States and abroad. In 2010 Robin was appointed to the Florida Board of Professional Surveyors and Mappers and served as Board Chair for three of those years. Robin's second term ended in 2018 but he continued to serve on the Probable Cause Panel as a past Board member for an additional three years ending his tenure in January of 2021. During that time, Robin developed a keen sense of awareness of how Professionalism and Ethics play a very important roll in performing surveys under the guidelines of both the old and new rules, thus avoiding interaction with the Probable Cause Panel.

10:30 am —
12:10 pm

High-Tech, Low-Tech, No-Tech...Embracing Technology to Overcome Labor Shortages
Course #10494 — 2 CEC's
Timothy Kinder, PSM



This presentation will walk through a brief history of surveying, where we are today with technologies, and the need to embrace multiple technology platforms to overcome the labor shortage in the surveying and engineering industry. The number of licensees leaving the profession is greater than the number entering. Fewer people are getting into surveying for various reasons; we will dig into this a little. The recession of 2008 – 2010 saw a huge loss to the survey labor market; we lost a lot of younger staff that decided to never get back into surveying. We will have sample projects, case studies, visuals, and data to drive the discussion, as well as labor statistics and projections. Real life projects examples will be reviewed to show how technology was used to save time (labor) and some that should have used technology to save time but didn't. We will dive into what we can expect when we embrace the various technologies and when we don't. We will see how various technologies are currently being used to help offset the shortage of qualified and experienced talent, some of the best practices when using the different technologies, and what our end product could look like.

Timothy Kinder, PSM is a Licensed Professional Land Surveyor and experienced leader of 3D reality capture technologies. He has 28 years of experience in surveying and 3D data collection, analysis, processing, and modeling. He has spearheaded the growth and development of the Reality Capture operations with his current and previous employers pushing them to be some of the foremost providers of advanced technologies in the region. Under Tim's direction, his teams have scanned more than 45,000 lane miles of roadway across the eastern half of the United States. More than 7,200 miles of roadways have been developed into 360 degree panoramic videos. In addition to investigating and implementing ongoing technology solutions for capturing data to support engineering design, Mr. Kinder is responsible for building a strong talent pool, directing surveyors and technicians, as well as managing client expectations.

Conference Seminars

Saturday, July 29th

1:30 pm -
3:00 pm



Guiding the Course, Leveraging Mobile Mapping with TopoDOT to Help Build a Formula 1 Race Track
Course #10495 — 2 CEC's
Russell Hall, PSM and Jennifer Triana

This course is an overview of mobile LiDAR and its pros and cons versus UAV and Terrestrial LiDAR. It will go through the entire process from planning and acquisition, to registration of the clouds. We will then go through the case study of how it was used to complete a Formula 1 race track. The class will also cover how TopoDOT is used in the extraction process for both the track as well as other real world examples.

Russell Hall, PSM is a professional land surveyor in Connecticut and has over 20 years experience in various aspects of land surveying with a big focus on Terrestrial LiDAR, Mobile LiDAR, and UAV LiDAR.

Jennifer Triana has over 18 years experience in the LiDAR industry. After graduating with a Mechanical Engineering degree from UCF, she joined Riegl USA heading the systems team. More than a decade ago she was one of the founding members of TopoDOT, Point Cloud Processing Software, where she is now the Business Development Director.

1:30 pm —
3:00 pm



Are We There Yet? Update on Working Toward the Modernized NSRS
Course #10496 — 2 CEC's
Denis Riordan, PSM

The mission of NOAA's National Geodetic Survey (NGS) is "to define, maintain and provide access to the National Spatial Reference System (NSRS) to meet our nation's economic, social, and environmental needs." The NSRS is the system of latitude, longitude, elevation, and related models and tools, which comprise the nation's foundational positioning infrastructure. NGS has, for several years, been developing and promoting the ongoing modernization and evolution of NSRS, toward the 2022 goal of replacing the North American Datum of 1983 (NAD83) and the North American Vertical Datum of 1988 (NAVD88). The new positioning paradigm will impact all users of geospatial data, either directly or indirectly, and an understanding of the resulting changes of this effort will ease your transition. This presentation will update you on today's status of the NSRS modernization and help you prepare for 2024.

Denis Riordan, PSM Gulf Coast Region Geodetic Advisor, NOAA, National Geodetic Survey - Mr. Riordan has worked with the National Geodetic Survey (NGS) for the past 18 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. 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.

1:30 pm —
3:00 pm



Sovereignty Lands and Water Boundaries
Course #10497 — 2 CEC's
Richard Malloy, PSM and Scott Woolam, PSM

This discussion will focus on the history of sovereignty lands and how to identify them. It will also look at water boundaries and how they impact the private surveyor.

Richard Malloy, PSM has worked for the Board of Trustees for over 40 years. He has worked on retracement surveys and boundary surveys for state lands; however, his specialty is water boundaries and he has worked for over 30 years defending the ownership of sovereignty lands for most of that time. Richard has had the opportunity to work with many of the surveyors throughout the state, an opportunity most surveyors haven't had the pleasure to experience. Through this, he has learned how surveyors have handled many difficult problems as they arise through the course of conducting surveys.

Scott Woolam, PSM is the Chief of the Bureau of Survey and Mapping with the Department of Environmental Protection. After 10 plus years surveying in the private sector in the Pensacola area, he went to the Bureau of Survey and Mapping in 1991 where he is now in his 33rd year or tenure. Scott graduated from the Surveying and Mapping Program (Geomatics) at the University of Florida. He is a member of Tau Beta Pi Engineering Honor Society and the Florida Survey and Mapping Society.