



A Local Technical Assistance Program - LTAP

ALABAMA TECHNOLOGY TRANSFER CENTER

AT AUBURN UNIVERSITY

Presents a Seminar on

Geospatial Coordinates with Applications

Huntsville

December 10, 2013

Pelham

December 11, 2013

Montgomery

December 12, 2013

Mobile

December 13, 2013

Dear Colleague:

For millennia coordinates were used to note relationships between places. Romans used roads marked by milestones. Navigators used stars referenced to an angular latitude/longitude geospatial frame. The first southern U.S. boundary in 1799 used these concepts, marking the 31st latitude every mile by earthen mounds.

At nearly the same time a coordinate system of possession, the Public Land Survey System, was used to mark off public lands into square-mile grids. Places of significance were referenced to this frame while performing the survey and this grid still indexes current USGS maps and is noted on state highway plans.

In the 1930's coordinate grids, the State Plane Coordinate Systems, was developed for highway route construction. Indexed to field monuments of known coordinates this grid is extended by users setting stations by taped distances and turned angles. For older engineers/surveyors this coordinate system represents their formal education in the subject and continues today as the geospatial frame for most projects.

Now, with the recent proliferation of Global Positioning Systems (GPS) for locating places, property corners and highway stations, it is necessary to consider the coordinates of position this equipment provides. This, the latest transition of geospatial coordinates, requires a "refresher" in framework and perspective.

This seminar deals with coordinates of place, possession, route and position. Each will be covered in terms of its conceptual framework, means of realizing these coordinates, and its use both in the field and on plans and maps. Practical applications of these coordinate systems will be drawn in part from the instructors' work in rediscovering historic locations using evidence located or recorded in multiple coordinate systems.

The seminar will be of interest to individuals who deal with the coordinate systems and the use of GPS equipment to realize these positions in the field such as surveyors, engineers, and GIS analysts. This seminar will walk you through the requirements in the Construction General Permit (CGP).

Please complete and return the enclosed registration form. A fee of \$125.00 per person should be mailed with your registration. Payment may be made by phone or fax if paying with Visa, MasterCard or government agency purchase order. Registrants are reminded that registration is not complete until payment is made. The registration fee includes handout materials, break refreshments, lunch and a certificate of participation. Thank you for your continued support of the Alabama Technology Transfer Center. Rod Turochy, Larry Sellers, and Garry Havron look forward to your attendance at this seminar.

Seminar Schedule

8:00 a.m.	Registration and Check-In (Coffee)
8:30 a.m.	Welcome and Overview/ Seminar Instruction
10:30 a.m.	Break
12:00 noon	Lunch
1:00 p.m.	Seminar Instruction continues
2:30 p.m.	Break
4:00 p.m.	Seminar Evaluations/Certificates and Adjournment

Seminar Topics

Coordinates of Place – Latitude/Longitude, Latitude/Route and Milepost

Coordinates of Possession – Public Land Survey System

Coordinates of Route – State Plane Coordinate System from Surface Measurements

Coordinates of Position – Coordinate Positions from Satellite Reference (GPS)

Locations and Dates

Huntsville— December 10, 2013

Holiday Inn - Research Park
5903 University Drive
Huntsville, AL 35816

800.845.7275

Montgomery — December 12, 2013

Renaissance Montgomery Hotel
201 Tallapoosa Street
Montgomery, AL 36104

877.545.0311

Pelham— December 11, 2013

Pelham Civic Center
500 Amphitheater Road
Birmingham, AL 35124

205.620.6448

Mobile — December 13, 2013

Hampton Inn & Suites Providence Park
525 Providence Park Drive
Mobile, AL 36695

251.776.5866

Seminar Instructor

Milton E. Denny, RPS is a registered surveyor in seven states and a veteran of project development and management of surveying and mapping firms. He is the past president of the Alabama Society of Professional Land Surveyors, a Fellow in the American Congress of Surveying and Mapping and served on the Board of Direction. Mr. Denny is the author of many manuals dealing with marketing and management of firms for surveyors and photogrammetrists. He was instrumental in the starting of a new member organization in the American Congress of Surveying and Mapping called the Geographic and Land Information Society. He served as the first president. He is considered an expert in the field of new technology as it applies to surveying. Mr. Denny is also a student of the history of surveying equipment and the only manufacturer of reproduction surveying chain measuring equipment. He is the leading authority on the survey chain as used in surveying for over 300 years. He also provides a first person presentation of the colonial surveyor Andrew Ellicott.

Larry G. Crowley, P.E., PhD is a member of the Civil Engineering faculty at Auburn University where he teaches classes in surveying, construction engineering, and management. He holds an MBA in management and finance from Texas Christian University and a B.S. and Ph.D. in civil engineering from Texas A&M University. Prior to entering academics, Dr. Crowley worked in the design/construction industry for more than a decade and is a registered professional engineer in both Texas and Alabama.

Continuing Education Units

Participants completing this seminar will receive 0.6 Continuing Education Units (CEUs). The CEU is a nationally accepted measure of continuing education credit and is awarded at the rate of one CEU for each ten contact hours of qualifying instruction. Auburn University makes every effort to ensure that its CEU granting programs conform to the requirements of the State of Alabama Board of Licensure for Professional Engineers and Land Surveyors for the award of Professional Development Hours to support the annual renewal of professional licensure.

Sponsorship

This seminar is one of the series of conferences and workshops being conducted as part of the Alabama Technology Transfer Center at Auburn University. This program is a part of the Local Technical Assistance Program (LTAP) supported by the Federal Highway Administration, the Alabama Department of Transportation, and Auburn University.

This seminar is the 293rd offered, with more than 37,000 attendees, since the program's inception in 1983. In addition to conducting training seminars, the T2 Center also publishes a quarterly newsletter, distributes publications and maintains a lending library of videotapes on technical subjects. The Alabama Technology Transfer Center is administered at Auburn University through the Engineering Continuing Education office and the Department of Civil Engineering. For further information and suggestions for future programs, contact Dr. Rod Turochy, Civil Engineering, at (334) 844-6271 or rodturochy@auburn.edu

Accommodation of Participants with Disabilities

It is the policy of Auburn University to provide accessibility to its programs and reasonable accommodation for persons defined as having disabilities under the Americans with Disabilities Act of 1990. Please contact us at least two weeks prior to the event so that proper consideration can be given to any special needs.

Cancellation Policy

We understand that circumstances may arise that could require you to cancel your registration, and we make every effort to accommodate your needs. Due to commitments to our instructors and facilities, the registration fee is not refundable if a registrant withdraws less than five working days before the seminar. You may substitute registrants; please notify us in advance if possible. Non-paid, no show registrants will be invoiced for the full cost of the seminar. Engineering Continuing Education reserves the right to cancel or modify any program offering, but will provide registrants the option of a full refund. Auburn University will not be responsible for expenses incurred by a registrant as the result of a cancelled or rescheduled program.

Registration

Your pre-paid registration guarantees you a seat in the seminar as well as information on any changes to the seminar. Registration on the day of the seminar will be accepted on a space available basis, but enrollment will close when the capacity of the seminar is reached. **Participants are reminded that registration is not complete until payment is received.**

Registration Form

ONLINE REGISTRATION AT: WWW.ENGCE.AUBURN.EDU

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Please print or type; register one person per form; photocopy if more forms are needed.

Name _____ Last Four Digits of SS# _____

Employer _____ Position _____

DOT Division/Bureau _____ Address _____

City _____ State _____ Zip+4 _____

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Fee: \$125.00

Payment by: Check (Payable to Auburn University)

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Signature _____

Are you an Auburn Alumnus? Yes No

Return Registration Form and Payment to:

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Auburn University, AL 36849-5331
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Fax (334) 844-5715
www.engce.auburn.edu

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