

Datums, Coordinate Systems, Low Distortion Projections (LDP), and the Global Spatial Data Model (GSDM)

A 4-hour Seminar Presented by:
Earl F. Burkholder, PS, PE, F.ASCE
Global COGO, Inc. – Las Cruces, NM

April 24, 2015 1:00pm to 5:00pm

LOCATION: City of Las Cruces, City Hall Conference Room 2007B

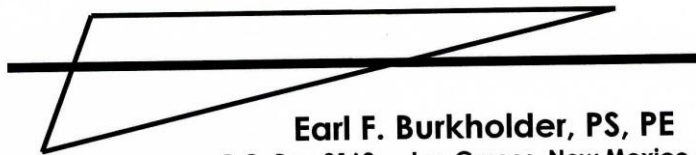


Please **RSVP** for this seminar no later than **April 10, 2015**

Seating limited to 30

By email to: Scott Farnham, City Surveyor, sfarnham@las-cruces.org

(Provide Name, Department/Section, Phone Number)



Global COGO, Inc.
(3-D Coordinate Geometry)

Earl F. Burkholder, PS, PE

P.O. Box 3162 - Las Cruces, New Mexico 88003

email: eburk@globalcogo.com

URL: www.globalcogo.com

Datums, Coordinate Systems, Low Distortion Projections (LDP), and the Global Spatial Data Model (GSDM)

A 4-hour Seminar Presented by:
Earl F. Burkholder, PS, PE, F.ASCE
Global COGO, Inc. – Las Cruces, NM

This presentation is patterned after the successful seminar (GIS track) presented on February 26, 2015 at the 2015 PLSS Rocky Mountain Summit Conference in Arvada, Colorado. A comprehensive outline and the power point presentation for that seminar can be found under “Past Seminars” at www.globalcogo.com. This presentation will be somewhat different with a greater emphasis on GIS applications and more attention focused on details of the GSDM. Hopefully we will also see how the GSDM can serve as an “umbrella” for the LDP concept.

An abbreviated outline for this seminar includes:

- I. Introduction – Scope of Surveying & Mapping
- II. Persons involved in GIS work with spatial data and maps
 - A. Geometry
 - B. Datums
- III. Big picture context of spatial data
 - A. 3-D world, modern 3-D measurements, and 2-D maps
 - B. Map projections
- IV. Coordinate systems
 - A. Geodetic
 - B. Geocentric
 - C. Local
 - D. State plane
 - E. UTM
 - F. Low Distortion Projections (LDP)

Break

- V. Overview and goals of cartography
- VI. Elements of map projections
- VII. Examples of map projection applications
- VIII. Focus on advantages of the LDP – strictly 2-D
- IX. Looking beyond the LDP – capturing the advantages of LDP in 3-D
- X. Features of the global spatial data model (GSDM)
- XI. How does the GSDM provide “umbrella” for challenges of handling spatial data?
- XII. Implementing the GSDM locally – all pieces are already in place.