

Lidar

Technology



**ASSIGN
BUSTER**

What is LiDAR?

Light Detection and Ranging. The dictionary title: a measuring system that detects and locates objects on the same principle as radar but uses light from a laser. A method for quickly and accurately collecting ground information from an aerial platform using a laser and ground control. In the technical definition of the word, LiDAR is a survey but it cannot be used for a legal boundary survey. How is LiDAR Data Collected?

What Data is Collected During a Flight? “ Everything ”

- Foliage
- Bare Earth
- Transmission Lines and Towers
- Railway Beds
- Roadways
- Vehicles
- Buildings etc.
- Optional
- Photography
- Weather Conditions

What Were the Deliverables to VELCO?

- DTM – Digital Terrain Model
- Orthorectified Imagery
- AutoCAD Drawings
- Contours
- Streams

- Roads
- Buildings
- Utility Lines and Poles
- Edge of Trees
- PLS?

CADD Terrain Model PLS? CADD (Power Line Systems ? Computer Aided Design and Drafting): overhead power line design software.

What Has VELCO Created With the Data?

- New Transmission Line Designs
- Permitting Drawings
- EPSC (Erosion Prevention and Soil Containment)
- Plans
- Aesthetic Mitigation Plans
- Tree Planting etc.

Issues Encountered With the Data?

- Mobilization
- Ground Control
- Foliage
- Units Conversion

LiDAR Data Collected in October 2006 Cost for LiDAR?

- Aerial Laser Ground Profile – DTM: \$743. 75 /mile
- Digital Imagery and Orthophotography – \$743. 75 /mile
- AutoCAD Mapping – \$637. 50 /mile

- PLS? CADD Format Files – \$185. 00 /mile
- Cost Per Mile: \$2, 310. 00
- Miles Surveyed: 52. 5
- Total Project Cost: \$121, 275. 00