

# [Lidar](https://assignbuster.com/lidar/)

[Technology](https://assignbuster.com/essay-subjects/technology/)

## 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