

Great Smoky Mountain National Park and Foothills Parkway: LiDAR/Elevation Project Summary

Multiple discrete return LiDAR with intensity values of leaf-off, snow free conditions

Project Sponsor: **(University of Georgia and Gainesville State College partnering with Photo Science, Inc. with funding from USGS)**

Project Area: Great Smoky Mountain National Park and Foothills Parkway, TN (Total 540 sq. mi.)

Acquisition Dates: **(February, March and April, 2011)**

Technical Summary:

Nominal Point Spacing – **(1 meter)**

Vertical Accuracy – **(15-18 cm or 6-7")**

Horizontal Accuracy - **(Will meet or exceed 1 ft. horizontal accuracy at 95% confidence level, FGDC Geospatial Positioning Accuracy Standards, 7.3-1998)**

Vertical Datum: **(NAVD88, Mean Sea Level (MSL, [ortho-metric])**

Horizontal Datum: **(WGS84)**

Coordinate System: **(UTM Zone 17, NAD83, horizontal and vertical units in meters)**

Tiling Scheme: **(1500 m x 1500 m)**

Products:

- **Raw point cloud (LAS v1.2 or 1.3) full swath delivery with intensity values**
- **Classified point cloud (LAS v1.2 or 1.3 classified as 1-Processed, but unclassified, 2-Bare-earth ground, 7-Noise, 9-Water, 10-Ignored ground) tiled delivery with intensity values**
- **Bare earth surface (3-m grid spacing, tiled product of 32-bit floating point raster format)**
- **Metadata (Collection, ground survey, processing and QA/QC reports, control and calibration points, project metadata FGDC compliant in XML format)**

