

STS GIS Services USGS 3DEP 2015 Project Summary

(TN27 County QL2 Cumberland Plateau)

Project Sponsor (s): Tennessee Department of Transportation, Tennessee Department of Environment and Conservation, the Tennessee Valley Authority, Department of Energy, Department of Agriculture, Hamilton County, STS – GIS Services

Project Area: Bledsoe, Bradley, Cannon, Clay, Coffee, Cumberland, DeKalb, Fentress, Franklin, Grundy, Hamilton, Jackson, McMinn, Marion, Meigs, Overton, Pickett, Polk, Putnam, Rhea, Warren, White, Morgan, Roane, Anderson, Campbell, Claiborne

Acquisition Dates: December 2015, January 2016

Technical Summary:

Nominal Point Spacing : $\geq .70$ meter

Accuracy: $RMSE_z \leq 10\text{cm}$ (non-vegetated Swath, DEM)

NVA ≤ 19.6 cm 95% Confidence Level (Swath, DEM)

VVA ≤ 29.4 cm 95th Percentile (DEM)

Vertical Datum: NAVD88, Geoid12B, US Feet

Horizontal Datum: NAD83

Coordinate System: State Plane TN FIPS 4100, NAD83 (2011), U.S. Survey Feet

Tiling Scheme: 7,000 x 4,000 feet tiles

Products:

- Raw Point Cloud in LAS1.4 format
- Full Class in LAS1.4 format Tile index shape file in ESRI .SHP format
- PolygonZ file for water bodies two acres and greater in area used for hydrologic-flattening
- PolylineZ file for waterbodies 100 ft in nominal width used for hydrologic-flattening
- Hydrologically-flattened Bare Earth Surface (Raster DEMS) in ERDAS .IMG format at 1m cell size
- 8-Bit gray-scale intensity GeoTIFFs at 1m cell size
- Building Polygon shape file in ESRI .SHP format used in classification of lidar
- FGDC compliant metadata

