

# 2015 LiDAR Collection



Geospatial & Technology Management

11/24/2014

Quality Level 2

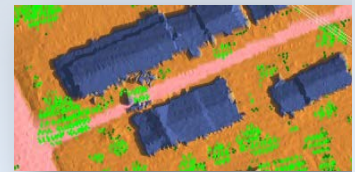
## 2015 LiDAR

### Coordination across Federal and State Data Collections

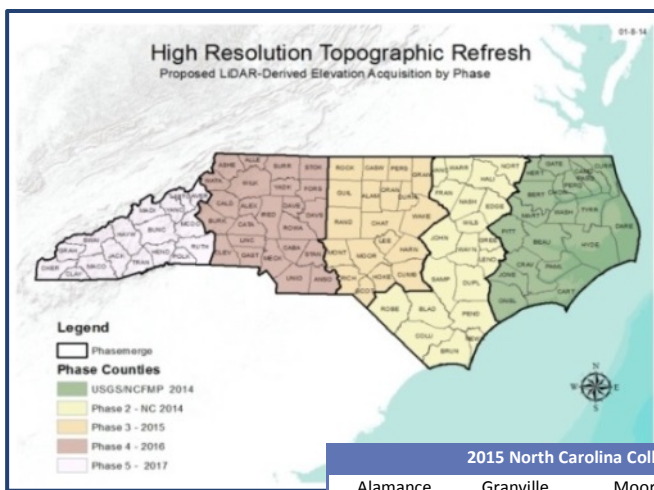
North Carolina Geospatial & Technology Management Office in Coordination with NC Department of Transportation and the North Carolina General Assembly is collecting LiDAR for 19 counties in the Central area of the State. The 2015 acquisition is adjacent to the collection done in 2014 with the same specification for data collection and deliverables. Two contracting teams will be used to collect the information. These teams will work closely to coordinate the

acquisition, processing, and classification so that all final deliverables will match. This includes: all of the flight teams coordinating control point collection, Flight times and collection times, tie lines, tiling scheme, and standards for acquisition. All information will be delivered in NC State plane feet and tiled to the NC statewide tiling scheme. Classifications will be collected to match the 2014 collection (listed to the right).

## 2015 LiDAR Specifications



The 2015 LiDAR data collection will meet 2 points per square meter standard with nominal post spacing of 0.7 meters. All data will include multi-return and intensity values. Data collected will support a 9.25 cm (3.36 inches) RMSEz and 18.13 cm FVA based on NDEP guidelines.



2015 North Carolina Collection			
Alamance	Granville	Moore	Richmond
Caswell	Guilford	Montgomery	Rockingham
Chatham	Harnett	Orange	Scotland
Cumberland	Hoke	Person	Wake
Durham	Lee	Randolph	

Class Description	
1	Default
2	Ground
3	Low Veg/Strata**
4	Medium Veg/Strata**
5	High Veg/Strata**
6	Buildings (Automated)
7	Low Points
9	Water (Hydro Cleaned Areas)
10	Breakline Proximity
11	Withheld (high points)
13	Roads
14	Bridges
17	Overlap Default
18	Overlap Ground
25	Overlap Water

Classification for this project will include the points specified below. With the additional automated

LiDAR Deliverables:

Deliverables for this product will include:

1. LAS For mat deliverables of all return data with classification levels defined
2. LAS delivered in Statewide 5k tiling scheme (approximately 14,400 tiles)
3. Hydro-Breakline files to USGS specs (200 acres or 100 ft across)
4. Dems in ESRI grid format
5. Terrain Datasets by county
6. Intensity imagery for area (8-bit, GeoTiff, 10 foot raster cell size)
7. Metadata to FGDC standards for point cloud
8. QA/QC report from contractors for internal QC

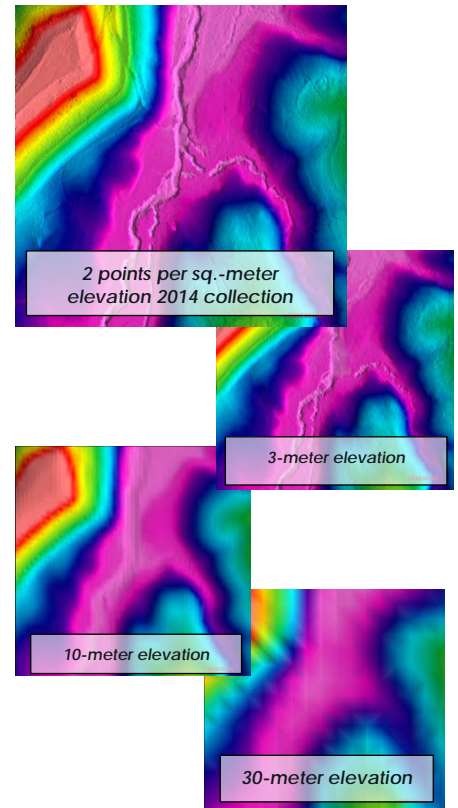
QC Control Collection

North Carolina Geodetic Survey will provide Independent QC for the collection. No less than 40 points of field collected survey per county, determined by the area of the county. Points collected within that area are collected based on a percentage of land cover to include:

- Bare earth/open terrain/low grass
- Urban
- High grass and crops
- Scrub-shrub/brush vegetation
- Forested and Fully Grown

These points provide the control for the State independent QC completed by NC Geodetic Survey. These reports are provided with the data for public distribution when the product is finalized.

Military Areas Military areas have security measures that will be considered for the LiDAR collection. Some data will be “de-densified” and possibly some classifications will not be available for public distribution. We are working with our Military bases now to determine the distribution requirements for protected military areas.



**Clip and Ship Delivery**

One of the major developments for the 2014 LiDAR will be the delivery mechanism. GTM is working on having clip, zip, and ship capabilities to pull the LiDAR in smaller areas based on need. This would allow for faster use without having to clip data or download large areas of data for a small area of need. This should save time and computer space. We are looking to have this product available on the [fris.nc.gov/fris](http://fris.nc.gov/fris) website by December of 2014. This would allow for delivery on an ftp site with an email while allowing NC to know the benefits of data utilization throughout the nation.

