

Lidar Fact Sheet: Orange County, Texas

Overview

The Orange County lidar data set was received from the Texas Water Development Board (TWDB). It was reviewed by the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center at a macro level, which involves checking for format and point characteristics in about 5% of the tiles. In addition, the entire data set is reviewed to establish that bare-earth processing and proper classification of the points has been performed. The review does not include accuracy or data-processing (e.g., bare earth quality, flightline mismatch, feature removal) assessments.

Data Attributes

The Texas county data were delivered as bare-earth processed data sets. However, no accuracy or qualitative assessment information was provided. The data were flown and processed to meet Federal Emergency Management Agency (FEMA) flood mapping standards (root mean square error of 18.5 centimeters in open, bare terrain). Point spacing is nominally on the order of 1.5 to 2.0 meters. For full metadata, follow this link: www.csc.noaa.gov/crs/tcm/ldartdat/metatemplate/tx2006_orange_template.html

Review Results

According to the macro review, the data set on average appears to be of fair quality. This overall determination is a qualitative assessment of the results from the reviews below. No accuracy assessment was performed.

Tile Review

Some formatting issues were noted: 1) no flightline source information, 2) some noisy two-return data, and 3) the majority of ground points were first of two (i.e., first of many) returns. These issues all appeared to be systematic, which, although not necessarily affecting accuracy, raises flags about overall data quality. There appears to have been no attempt to remove points reflected from water. High values also remain in the data set, although correctly classified (unclassified).

Bare Earth Point Density Review

There appears to be only a slight “tile”-specific level of classification as evidenced by the fairly consistent bare-earth point densities (color variations; Figure 1). Water points have not been removed and are highlighted by the “striping” pattern over water bodies from nadir/off-nadir densities. These issues aside, the data, from a density point of view, appear to be decent.

The largest issue is the lack of proper return-number information, which raises flags about the accuracy of the data.

For More Information

NOAA Coastal Services Center
Coastal Remote Sensing Program
(843) 740-1200 • www.csc.noaa.gov/crs/



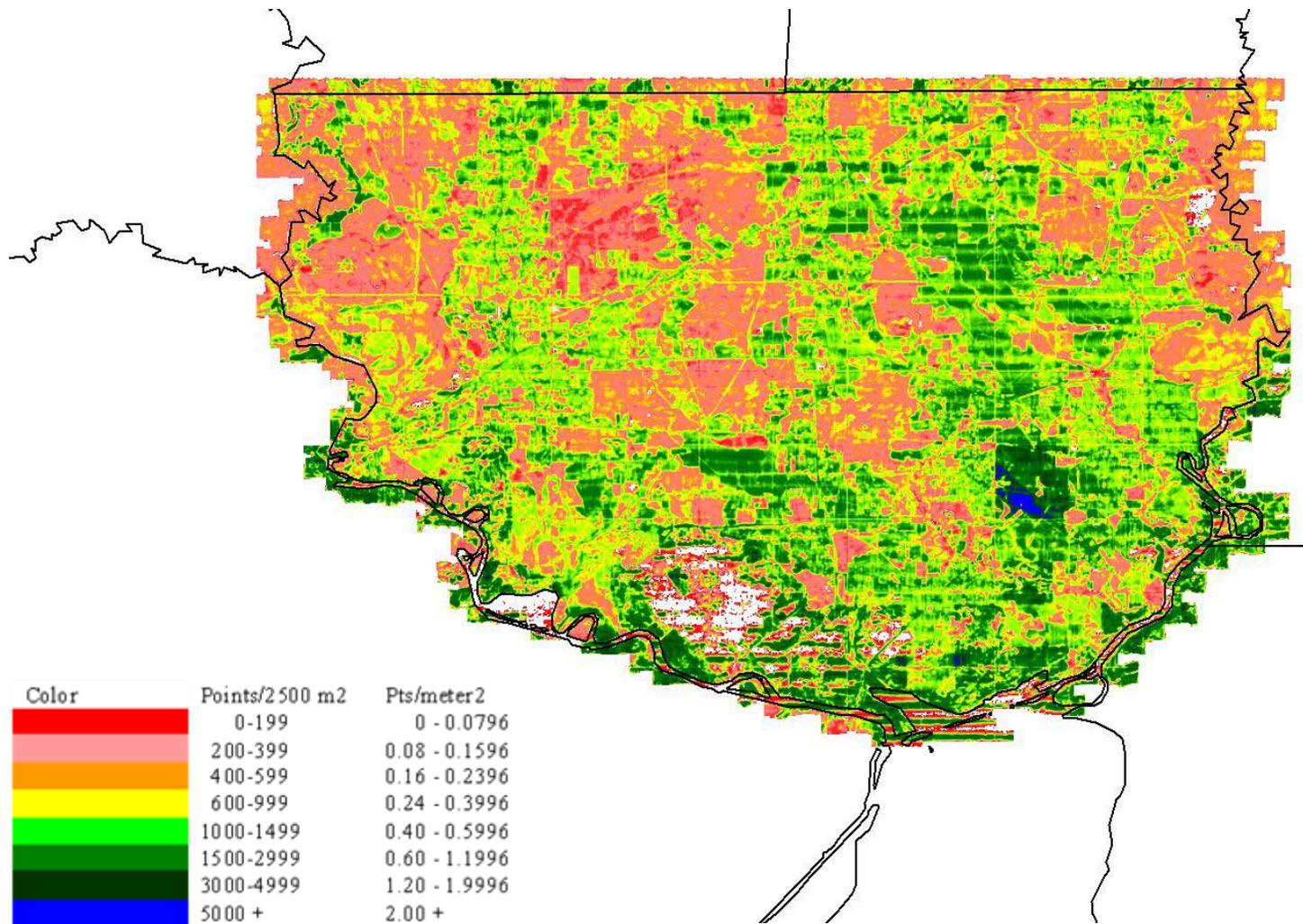


Figure 1. Bare-earth point count density (pts/2500 square meters) in Orange County.