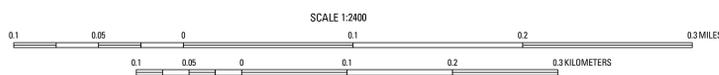


Universal Transverse Mercator, 1983 North American Datum-Zone 18 North
Topography mapped using NASA Experimental Advanced Airborne Research Lidar (EAARL) April 2005.
This map is not intended for use in navigation.



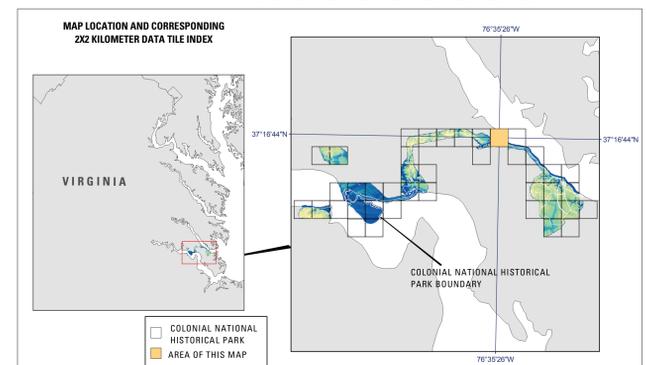
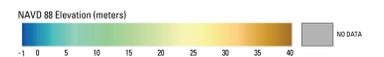
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR INTERVAL IS 2 METERS

Colonial National Historical Park
USGS-NPS-NASA EAARL Bare Earth (BE) Lidar Topography
Map Tile 358000e_4128000n

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2008



Project Description
This project was produced as a collaborative effort between the U.S. Geological Survey (USGS) Northeast Coastal and Barrier Network of the National Park Service (NPS) Florida/Caribbean Network of the NPS Inventory and Monitoring Program, and the National Aeronautics and Space Administration (NASA) Wallops Flight Facility. The aim of the partnership that created this project was to use the USGS FISC (Florida Integrated Science Center) office, St. Petersburg, FL, to collect and process the data for mapping barrier island geomorphology and habitats, and to enable the use of the data within National Seashores. This product is based on data from an innovative instrument under development at the NASA Wallops Flight Facility, the Experimental Advanced Airborne Research Lidar (EAARL).

Data Description
The data were collected during April 2005 by the NASA EAARL system mounted on a Gulfstream IV aircraft. The system is a "form-resolving" green laser capable of mapping submarine and subaerial (land) topography. The system is typically flown at 300 m altitude AGL, resulting in a 240 m swath width with approximately 50% overlap between flightlines, resulting in about one laser scan per meter. The data were processed by the USGS FISC (Florida Integrated Science Center) office, St. Petersburg, FL, and are available in a Geographic Information System (GIS). The data were processed in a floating-point integer GeoTIFF format. Contour line and hillshade layers were derived from the data and incorporated into this map product.

Further Reading
For more information on topographic Lidar mapping for coastal science and resource management, see USGS Open File Report 2008-1326, U.S. Geological Survey Open File Report 01-46, p. 4. Other references include: A., Clayton, T., Hansen, M., Longenecker, J., Gesch, D., and Crane, M., 2005, "Using NASA EAARL Lidar in the Tampa Bay Region: Transactions of the Gulf of Mexico Association of Geographical Societies, v. 52, p. 89-98." A Lidar for mapping shallow coral reefs and other coastal environments, in the Proceedings of the Conference on Remote Sensing for Marine and Coastal Environments, Miami, FL, 2005, Veridian International Conferences, 1 computer optical disc.