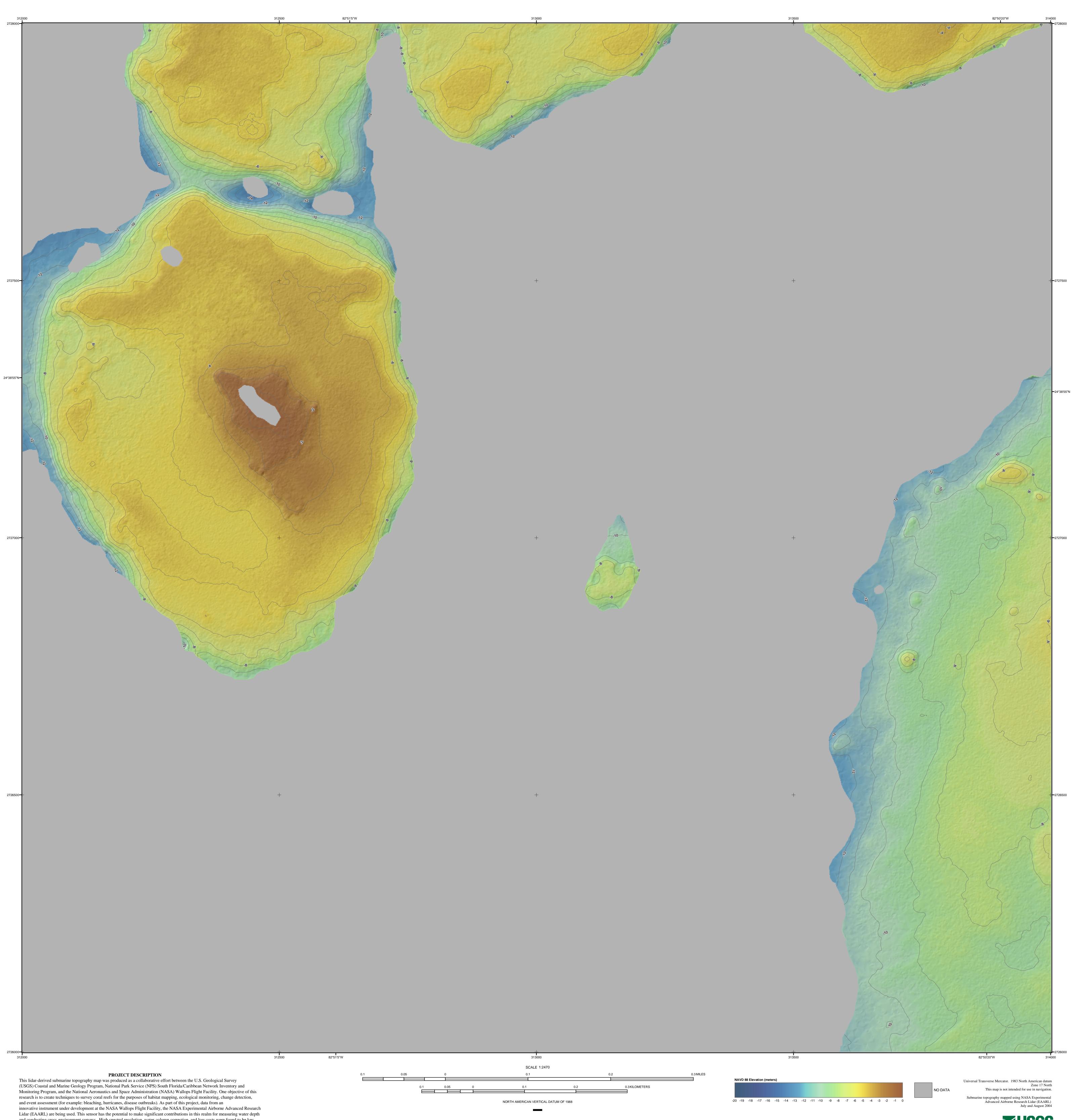
U.S. DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY OPEN FILE REPORT 2006-1244 SHEET 41 OF 71 (ST)



and conducting cross-environment surveys. High spectral resolution, water-column correction, and low costs were found to be key

factors in providing accurate and affordable imagery to managers of coastal habitats. DATA DESCRIPTION The laser soundings used to create this map were collected during July and August 2004 by the NASA EAARL system mounted on a Cessna 310 aircraft. The EAARL uses a 'waveform-resolving' green laser capable of mapping submarine and subaerial (land) topography in a single overflight. The EAARL system is typically flown at 300 m altitude AGL, resulting in a 240 m swath for each flightline. Data collection occurred with approximately 50% overlap between flightlines, resulting in about one laser sounding per square meter. The data were processed by the USGS Center for Coastal and Watershed Studies to produce 1-meter resolution raster images that can be easily ingested into a Geographic Information System (GIS). The data were organized as 2 km by 2 km data tiles in 32-bit floating-point integer GeoTiff format. Contour line and hillshade layers were

generated from the lidar data tile and incorporated into this map product. FURTHER READING

May 20-22, 2002: Ann Arbor, MI, Veridian International Conferences, 1 computer optical disc.

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Brock, J.C., Wright, C.W., Nayegandhi, Amar, Clayton, Tonya, Hansen, Mark, Longenecker, John, Gesch, Dean, and Crane, Michael, 2002, Initial results from a test of the NASA EAARL lidar in the Tampa Bay Region: Transactions of the Gulf Coast Association of Geological Societies, v. 52, p. 89-98. Wright, C.W. and Brock, J.C., 2002, EAARL: A lidar for mapping shallow coral reefs and other coastal environments, in the Proceedings of the Seventh International Conterence on Remote Sensing for Marine and Coastal Environments, Miami,

Dry Tortugas National Park **USGS-NPS-NASA EAARL Submarine Topography** Map Tile 312000e_2728000n

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