

Status Report on the Joint Airborne Lidar Bathymetry Technical Center of Expertise and CHARTS First Year of Operations

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The Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) has evolved from a loosely defined virtual organization into a brick and mortar powerhouse for lidar operations, research, and development. A ribbon-cutting ceremony in August 2004 marked the collocation of personnel from the US Army Corps of Engineers (USACE), the US Naval Oceanographic Office (NAVO), the National Oceanic and Atmospheric Administration, Chance Fugro, and Fugro Pelagos. This arrangement places lidar system operators and data collectors in close contact with the lidar system owner and primary lidar data users. Both groups benefit from having lidar system manufacture, development, and maintenance within walking distance at Optech International.

The JALBTCX is also supported by several operational and research groups in government and academia at Stennis Space Center.

August also marked the end of the first operational year of the Compact Hydrographic Airborne Rapid Total Survey system (CHARTS). CHARTS is an in-house survey capability that collects 9 kHz topographic lidar data, 1 kHz bathymetric lidar data, and digital imagery. After acceptance testing the previous August, CHARTS embarked on surveys for NAVO in Japan and the Pacific Islands, and initiated the National Coastal Mapping Program for the USACE. In the NAVO surveys, CHARTS is a shallow water tool used in conjunction with surface vessels for a complete hydrographic survey. It provides high resolution elevation data and imagery for shoreline delineation and shallow water (0-40 m) depths. CHARTS is the primary tool for the National Coastal Mapping Program, which is designed to provide bathymetric lidar data from the shoreline to 1 km offshore, topographic lidar data from the shoreline to 0.5 km inshore and high resolution imagery for all flights. At current levels of funding and system availability each section of continental US coastline will be mapped on a five-year cycle.

In 2005, Optech will deliver system upgrades to include a 3 kHz bathymetric laser, 30 kHz topographic laser, and an integrated CASI 1500 hyperspectral imager.