Pearl Harbor to Tinian
SHOALS Completes
Island-hopping Campaign

Waikiki Beach, Oahu, HI

The Scanning Hydrographic Operational Airborne Lidar Survey (SHOALS) system recently completed the most extensive survey project yet undertaken by an Airborne Lidar Hydrography system (ALH). Taking in 9 Pacific Islands, surveys conducted between Aug 2000 and Feb 2001 for the US Navy, US Army Corps of Engineers (USACE), National Ocean Service (NOS) and US Geological Survey (USGS), ranged from the approaches to Pearl Harbor in Hawaii to the coastline of Tinian, 4000 mile to the west.

The business of hydrographic surveying is always costly and nowhere is this truer than in shallow coastal waters. Consequently when faced with the problem of coastal survey requirements spanning the width of the Pacific Ocean, a variety of US Federal agency requirements were consolidated into a single project. The foundation for this was an existing partnership between the US Navy and USACE that operates SHOALS through the Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX). As the only operational ALH system in the USA, SHOALS availability to rapidly and safely survey shallow water areas is at a premium. By expanding the project to take in the requirements of the USGS and NOS it became possible for all agencies to benefit from a US Navy sponsored deployment of this advanced technology.

SHOALS is a state-of-the-art technology that uses an airborne mounted laser to determine the water depth by measuring the time difference in laser energy returns from the water surface and the seabed. A world leader in ALH, SHOALS is owned by the USACE and administered by the JALBTCX, located at the Mobile District Office. The system is operated by international survey leader John E. Chance & Associates, Inc., a member of the multi-national Fugro group of companies with 200 offices in 45 countries.