

# **NOAA COASTAL MAPPING PROGRAM PROJECT COMPLETION REPORT**

## ***PROJECT AK1003***

### ***Woewodski Island, Alaska***

#### **Introduction**

NOAA Coastal Mapping Program (CMP) Project AK1003 provides digital shoreline data for Beecher Pass and other waterways surrounding Woewodski Island near Sumner Strait in southeastern Alaska. The Geographic Cell (GC) may be used in support of the NOAA Nautical Charting Program (NCP) and coastal zone management activities.

#### **Project Design**

This project was designed per a request from the Marine Charting Division (MCD) of the Office of Coast Survey within NOAA for cartographic data in support of chart updates. Based on an analysis of project requirements and results of a source data search, it was determined that CMP procedures for multiple sources would apply for this project. Available source data deemed adequate for successful completion of this project included sources acquired in May and June 2010.

#### **Field Operations**

Routine CMP field operations did not apply for this project based on the origin of the project source data.

#### **Aerotriangulation**

The aerotriangulation task was accomplished by personnel of the Applications Branch (AB) of the Remote Sensing Division (RSD) in October 2012. Aerotriangulation procedures were completed on a Digital Photogrammetric Workstation using the Multi-Sensor Triangulation (MST) Tool of SOCET SET version 5.6. The Interactive Point Measurement tool within MST was used to collect several tie points and a simultaneous solve adjustment was then performed, forecasting an average predicted horizontal circular error for all well defined points in this project area of 7 meters at the 95% confidence level. Positional data for this project is referenced to the North American Datum of 1983 (NAD 83).

#### **Compilation**

Digital feature data compilation for this project was accomplished by AB personnel in February 2013. The Feature Extraction tool within SOCET SET was used during the digital feature data compilation phase of project completion. Feature attribution was assigned in compliance with the Coastal Cartographic Object Attribute Source Table (C-COAST), which provides the definition and attribution scheme for the full range of cartographic features pertinent to the CMP. Selected features were further modified with additional descriptive information to refine general classification.

Cartographic features were compiled to meet a horizontal accuracy of 10 meters at the 95% confidence level. Verified water levels were obtained from the NOS reference tide station at Ketchikan, Alaska, and time and height offsets were applied to the Greys Island tidal substation in the project area. The height of the mean high water (MHW) tidal datum in the project area is 4.4 meters above mean lower low water (MLLW). The water level at the times the source images were acquired was between -0.5 meters and 1.1 meters above MLLW. Since the source imagery was collected outside of the acceptable tide tolerance no MLLW contours were compiled.

## **Quality Control / Final Review**

Senior AB personnel conducted quality control (QC) tasks during all phases of project completion. The final QC review was completed in April 2013. The review process included analysis of aerotriangulation results and assessment of the identification and attribution of digital feature data within the GC according to image analysis and criteria defined in C-COAST. The quality control process concluded with an inspection of topological connectivity within the GC using ArcGIS 10 software. All project data was evaluated for compliance to CMP requirements.

Comparisons of the largest scale NOAA nautical charts with source imagery and compiled project data resulted in creation of the Chart Evaluation File (CEF). The following nautical charts were used in the comparison process:

- 17360, Etolin Island to Midway Islands, 1:217,828 scale, 35<sup>th</sup> Ed.
- 17375, Wrangell Narrows, 1:20,000 scale, 22<sup>nd</sup> Ed.
- 17382, Zarembo Island and Approaches, 1:80,000 scale, 17<sup>th</sup> Ed.

## **End Products and Deliverables**

The following specifies the location and identification of the products generated during the completion of this project:

### **RSD Applications Branch Archive**

- Hardcopy of the Project Completion Report (PCR)
- Page-size graphic plot of GC10821 file contents, attached to PCR

### **Remote Sensing Division Electronic Data Library**

- Project database
- GC10821 in shapefile format
- Digital copy of the PCR in Adobe PDF format
- CEF in shapefile format

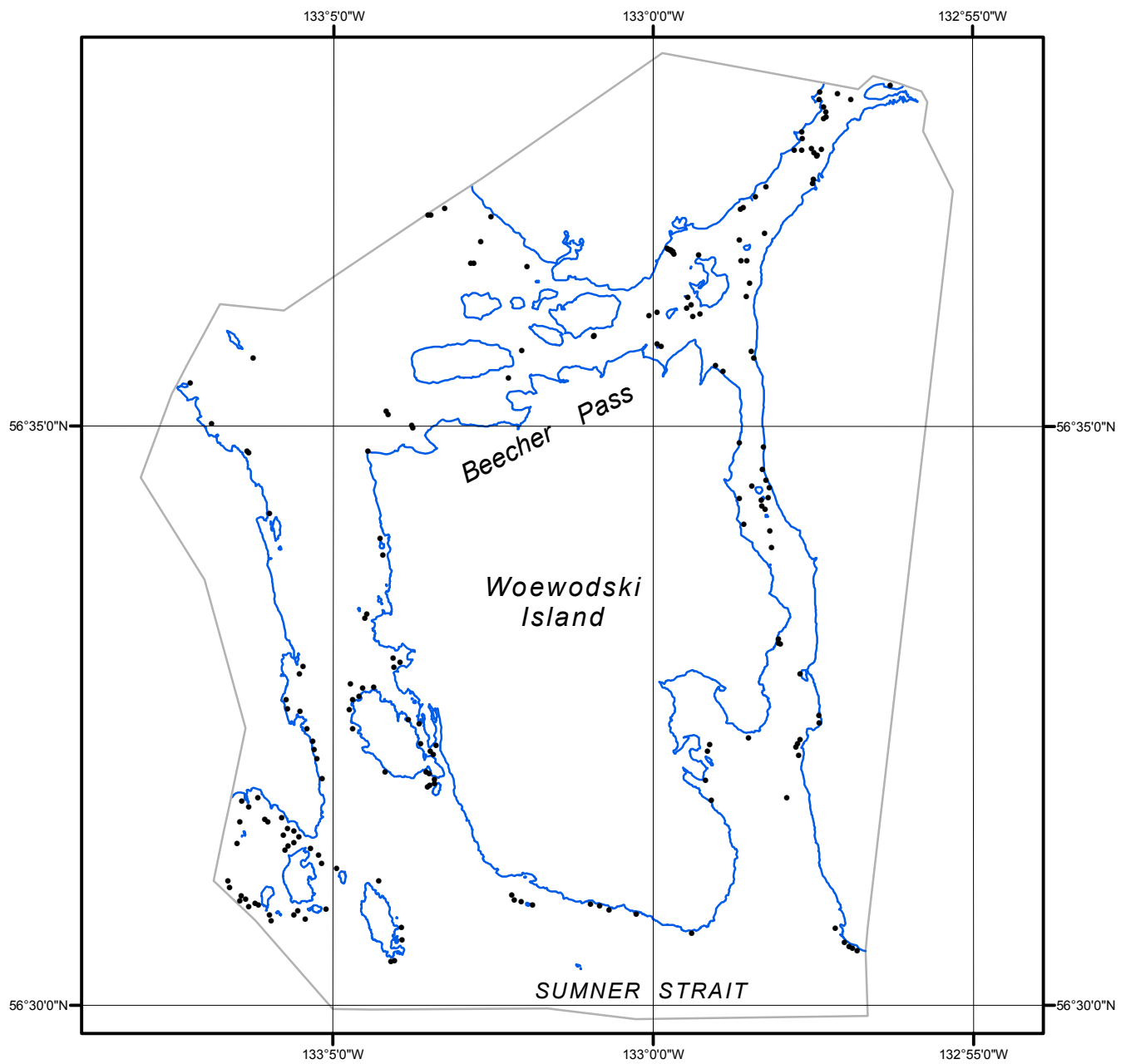
### **NOAA Shoreline Data Explorer**

- GC10821 in shapefile format
- Metadata file for GC10821
- Digital copy of the PCR in Adobe PDF format

## **End of Report**

# WOEWODSKI ISLAND

## ALASKA



Overview



AK1003

GC10821