NOAA COASTAL MAPPING PROGRAM
PROJECT COMPLETION REPORT

PROJECT AK0602A

Southern Bucareli Bay, Alaska

Introduction

NOAA Coastal Mapping Program (CMP) Project AK0602A provides digital shoreline data for the southern shore of Bucareli Bay, in southeast Alaska. The project extends from Point Miraballes on Prince of Wales Island south to Sakie Point on northeast Dall Island, and includes all of Suemez Island. The Ulloa Channel and Meares Passage are included. The Geographic Cell (GC) may be used to compliment the Nautical Charting Program (NCP) as well as geographic information systems (GIS) for a variety of coastal zone management applications.

Project Design

Project AK0602A was designed per a request from the Hydrographic Surveys Division (HSD) of the Office of Coast Survey, NOAA, for GIS data in support of HSD operations. Based on an analysis of project requirements and results of a source data search, it was determined that CMP procedures for multiple source projects would apply for this project. Available source data deemed adequate for successful completion of this project included sources acquired in May, August and September of 1997.

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 Western Air Maps, Inc. personnel in September, 2006. The image files were imported into SOCET SET (version 5.3) using the DataThruWay (version 5.3) software. The importing process also converted the stored and compressed files to a recognized native SOCET SET format (NITF 2.0) and included supporting data extension files consisting of previously measured sensor model parameters. Aerotriangulation procedures were completed on a Digital Photogrammetric Workstation (DPW) using the Multi-Sensor Triangulation (MST) tool of SOCET SET. The interactive point measurement tool within MST was used to collect tie points and a simultaneous solve adjustment was 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

The data compilation phase of this project was accomplished by Western Air Maps, Inc. personnel from mid September through October, 2006. The digital mapping was performed using a DPW in conjunction with the SOCET SET Feature Extraction software module. 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. Tidal information was obtained from the NOS tide station at Sitka, Alaska and time and height offsets were applied to tidal substations in the project area. The mean tide range at these substations varied between 2.3 and 2.4 meters. The water level at the times the source images were acquired varied between 0.4 and 3.5 meters above MLLW.

Quality Control / Final Review

Western Air Maps, Inc. personnel conducted quality control interactively from September through October, 2006, with a final independent review upon initial completion of feature extraction. The review process included an analysis of aerotriangulation results and an 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 9.1 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 chart was used in the comparison process:

CHART	SCALE	ED.	DATE
17405 Ulloa Channel to San Cristoval Channel	1:40,000	14th	Oct. /00
17406 Baker, Noyes and Lulu Islands	1:40,000	7th	Feb. /04
17407 N part of Tlevak Strait and Ulloa Chan.	1:40,000	15th	Nov. /03
17408 Central Dall Island and Vicinity	1:40,000	8th	Jun. /04

End Products and Deliverables

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

RSD Applications Branch Archive

- Hardcopy of the Project Completion Report (PCR)
- Page size graphic plot of GC10632 file contents, attached to PCR

Remote Sensing Division Electronic Data Library

- Project database
- GC10632 in shapefile format
- Digital copy of the PCR in Adobe PDF format
- CEF in shapefile format

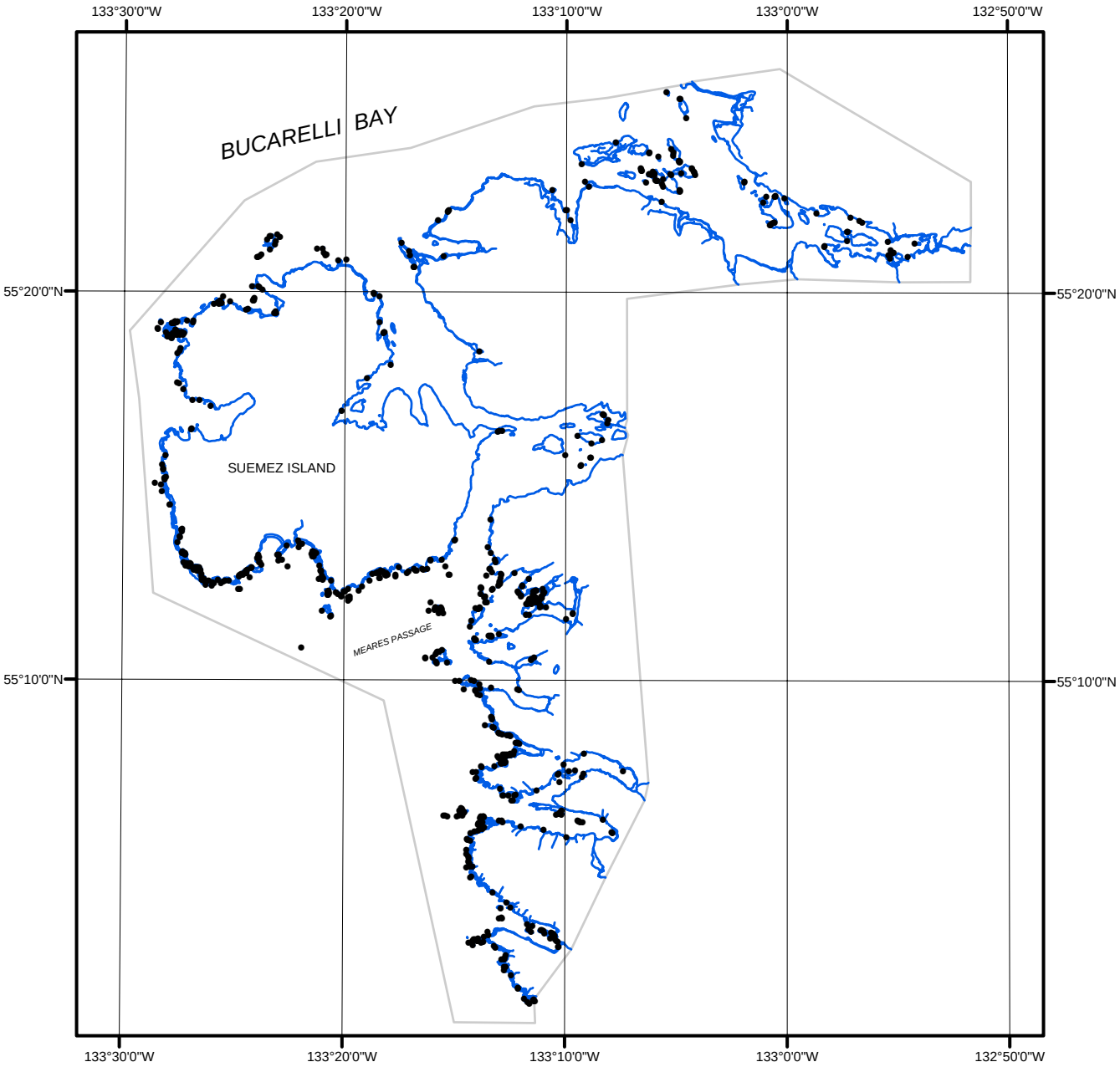
NOAA Shoreline Data Explorer

- GC10632 in shapefile format
- Metadata file for GC10632
- Digital copy of the PCR in Adobe PDF format

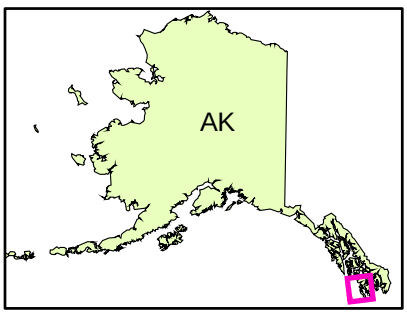
End of Report

SOUTHERN BUCARELI BAY

ALASKA



Overview



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