

NOAA COASTAL MAPPING PROGRAM PROJECT COMPLETION REPORT

PROJECT AK0401A

SOUTHEAST CHATHAM STRAIT SOUTHEAST ALASKA

Introduction

Coastal Mapping Program (CMP) Project AK0401A provides coastal zone mapping data of the southern and eastern shores of Chatham Strait. This data includes Kingsmill Point near Frederick Sound and extends southward to Howard Cove, including Washington Bay, Rowan Bay, Bay of Pillars, Tebenkof Bay, Port Malmesbury, Table Bay, and Point Howard. Included in this project shoreline mapping data is the Affleck Canal area from Port McArthur to Point Amelius. The digital cartographic feature file 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 NOAA Hydrographic Surveys Division (HSD) for cartographic 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 April 2003.

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 Mapping personnel in November 2004. The image files were imported into SOCET SET, version 5.0 using the DataThruWay, version 5.0 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 using the Multi-Sensor Triangulation (MST) Tool of SOCET SET. The interactive point measurement tool of MST was used to collect several tie points and it was determined from running the simultaneous solve adjustment program that the average predicted horizontal circular error for all well defined points in this project area is 7 meters at the 95% confidence level.

Compilation

Digital feature data compilation for this project was accomplished by Western Air Mapping personnel in March 2005. The Feature Extraction Tool of SOCET SET was used during the digital cartographic feature data compilation phase of project completion. Feature attributes were established from the C-COAST specification file which provided the definition and attribution scheme for the suite of cartographic features pertinent to the CMP. 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 which has a tidal range between MLLW and MHW of 2.8 meters. The source imagery was acquired when the stage of tide above MLLW was 2.0 meters during April 2003.

Final Review

A final review was conducted interactively by Western Air Mapping personnel in May 2005, and independently upon initial completion of feature extraction. The process included a review of the aerotriangulation results, a review of the identification and attribution of cartographic features based on image analysis and criteria defined in C-COAST, and a review of client specific support products such as the Chart Evaluation File (CEF) generated for NCP application. The entire suite of project products was evaluated for compliance to CMP requirements. The last step in the quality control process was the evaluation of the DCFF contents focusing on the integrity of topology once the DCFF was converted into shapefile format.

<u>CHART</u>	<u>SCALE</u>	<u>EDITION</u>	<u>DATE</u>
17320 Coronation Island to Lisianski Strait	1:217,828	16	Dec 2003
17368 Security Bay Extension	1:40,000	6	Aug 1997
17370 Bay of Pillars	1:20,000	10	Oct 2003
17376 Tebenkof Bay and Port Malmesbury	1:40,000	7	Aug 2004
17386 Sumner Strait-Southern	1:40,000	3	May 2001

Project Products

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

RSD Applications Branch Archive

- Textual (hard) copy of the Project Completion Report (PCR)
- Page size graphic plot of GC10569 file contents, attached to PCR

Remote Sensing Division Electronic Data Library

- Project Data Base
- Digital copy of DCFF GC10569 in ESRI shapefile format
- Digital copy of CEF in ESRI shapefile format
- Digital copy of the PCR in Adobe Acrobat PDF format

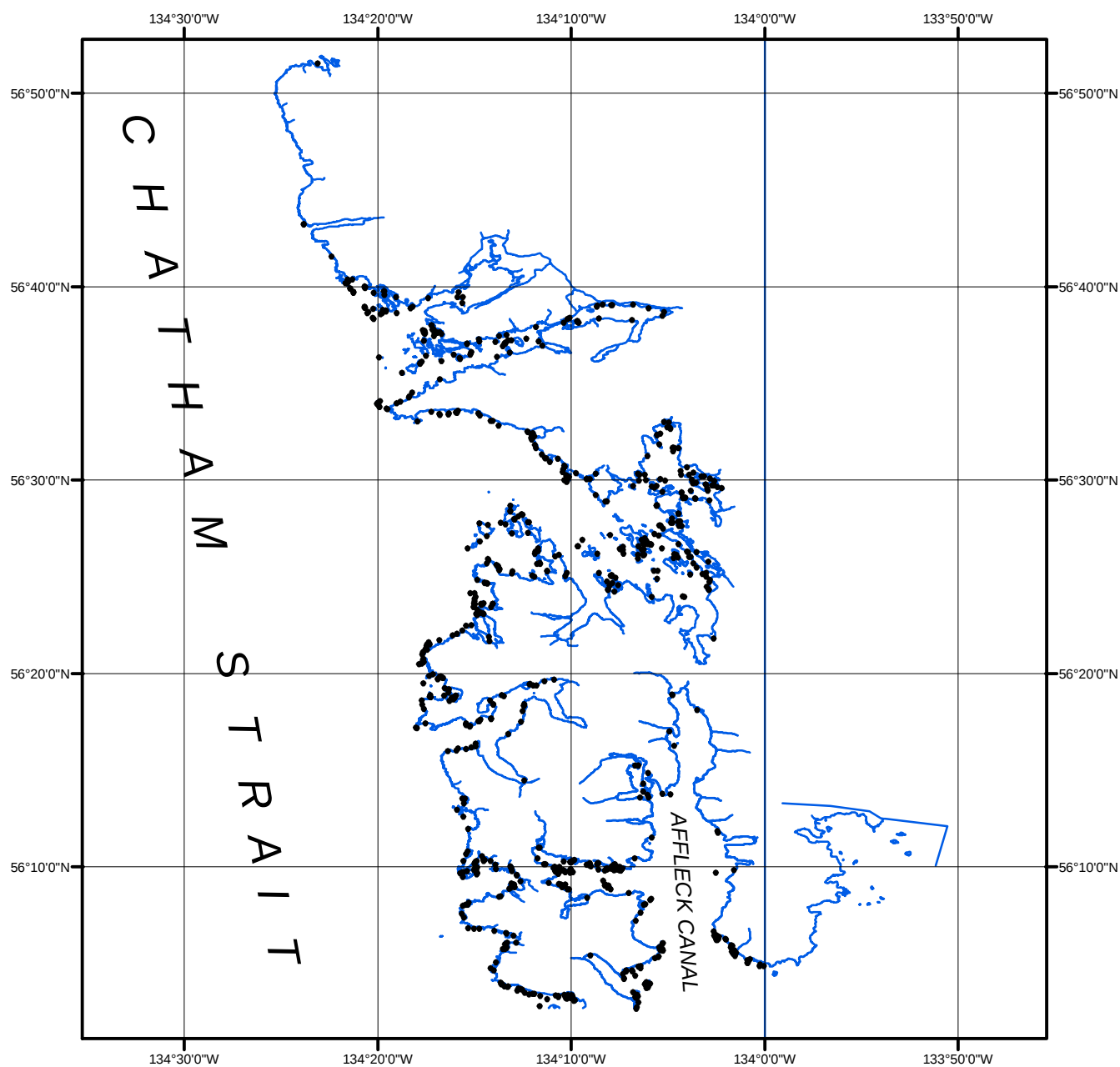
NOAA Shoreline Data Explorer

- DCFF for GC10569
- Metadata file for GC10569
- Digital copy of the PCR in Adobe Acrobat PDF format

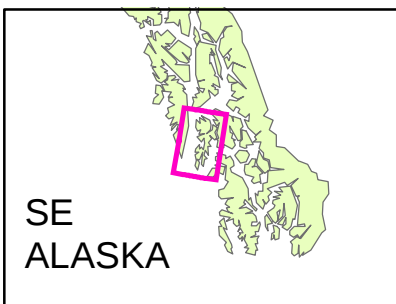
End of Report

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Overview



AK0401A

GC10569