

NOAA COASTAL MAPPING PROGRAM PROJECT COMPLETION REPORT

PROJECT AK0501

Chirikof Island and Trinity Islands, Alaska

Introduction

Coastal Mapping Program (CMP) Project AK0501 provides coastal zone mapping data of the area around Chirikof Island and the Trinity Islands. This data includes Aiaktalik Island, Sitkinak Strait, Tugidak Island and Sitkinak Island of the Trinity Islands group, Tugidak Passage and Chirikof Island. The digital cartographic feature file may be used in support of the NOAA Nautical Charting Program (NCP) and coastal zone management activities. Project survey data is referenced to the North American Datum of 1983 (NAD 83).

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 from April 2000 through September 2002.

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 mid May, 2005. 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 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 Maps, Inc. personnel from May through August, 2005. Map data was sent in stages, with the Chirikof Island priority area delivered in May and the follow on areas around the Trinity islands sent in

August. 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 not obtained for all of the source imagery associated with this project.

Quality Control / Final Review

Western Air Maps, Inc. personnel conducted a final review interactively between June 2005 and January 2006, and independently upon initial completion of feature extraction. The process included a review of the aerotriangulation results and assessment of the identification and attribution of cartographic features within the DCFF according to image analysis and criteria defined in C-COAST. 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.

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:

<u>CHART</u>	<u>SCALE</u>	<u>EDITION</u>	<u>DATE</u>
16580 Kodiak Island	1:350,000	13 th	Jan 2005
Southwest Anchorage (INSET)	1:52,150		
16590 Sitkinak Strait and Alitak Bay	1:81,529	10 th	Jul 2002

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 GC10582 file contents, attached to PCR

Remote Sensing Division Electronic Data Library

- Project Database
- Digital copy of DCFF GC10582 in shapefile format
- Digital copy of the PCR in Adobe PDF format
- CEF in shapefile format

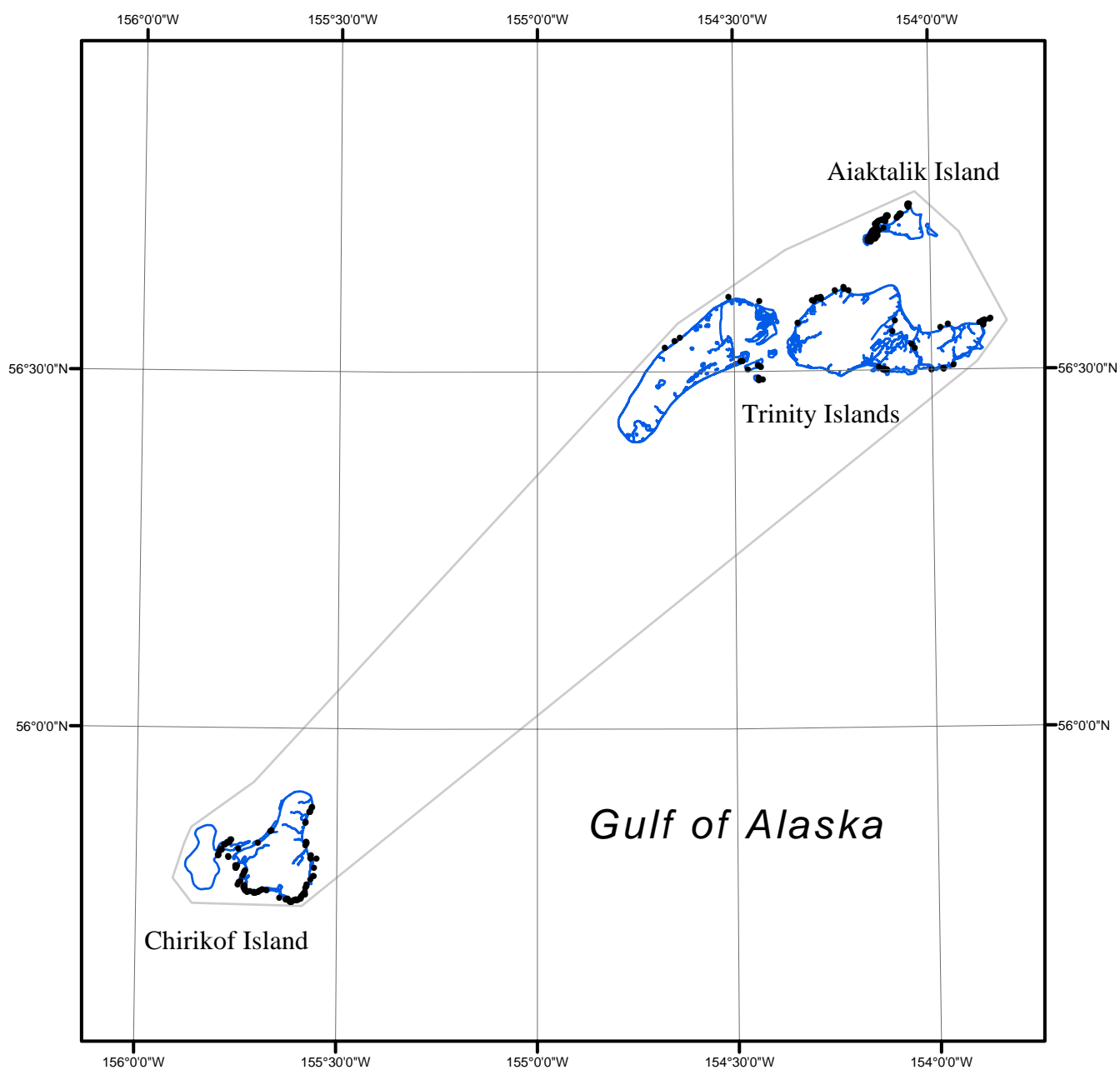
NOAA Shoreline Data Explorer

- DCFF for GC10582
- Metadata file for GC10582
- Digital copy of the PCR in Adobe PDF format

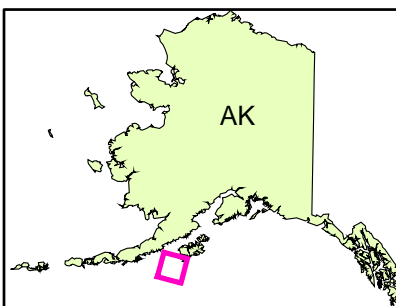
End of Report

CHIRIKOF ISLAND AND TRINITY ISLANDS

ALASKA



Overview



AK0501

GC10582