

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

## **PROJECT AK01A**

### **KASAAN BAY PRINCE OF WALES ISLAND SOUTHEAST ALASKA**

#### **Introduction**

Coastal Mapping Program (CMP) Project AK01A provides coastal zone mapping data of Kasaan Bay, Alaska. Kasaan Bay is located on the eastern side of Prince of Wales Island and tangent to the western shore of Clarence Strait, Southeast Alaska. The project site includes Kasaan Bay, Mills Bay and Twelve Mile Arm, and all islands within their boundaries. 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 Program (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. Available source data deemed adequate for successful completion of this project included sources acquired in 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 the Applications Branch of the Remote Sensing Division (RSD) in February 2001. Softcopy aerotriangulation methods were applied using the appropriate modules of a suite of Autometrics Softplotter™ software with additional information provided with the source data files. The root mean square of the standard deviations of the residuals for each triangulated ground point were used in the computations of a predicted horizontal circular error of 12.5 meters at 95% confidence level, which is a predicted accuracy of well defined points.

## **Compilation**

The Data Compilation Phase for this project was accomplished by the Applications Branch of RSD in February 2002. Cartographic data was compiled stereographically using the appropriate modules of Autometrics Softplotter™ software. Feature attributes were assigned utilizing the IDPF Cartographic Code File in adherence with the standard procedures of the CMP. The digital cartographic feature file (DCFF) was translated to attribution based on C-COAST specifications, which provides for the definition and attribution scheme for the suite of cartographic features germane to the CMP. Cartographic features were compiled to meet a horizontal accuracy of 25 meters at the 95% confidence level. This predicted accuracy of compiled, well defined points is derived by doubling the circular error calculated from aerotriangulation statistics.

## **Final Review**

Final office review operations were conducted interactively as the compilation phase was in progress, and independently upon initial completion of feature extraction. The process included review of aerotriangulation results, on-line evaluation of the cartographic feature file for feature identification, attribution and positional accuracy, and off-line comparisons of hard copy plots of project data with the largest scale nautical charts available. 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. A copy of NOAA nautical chart 17426, KASAAN BAY, 1:40,000 scale, 7/11/1992, 13th edition, was used for chart comparison.

## **Project Products**

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

### **RSD Applications Branch Archive**

- Hard copy of the Project Completion Report (PCR)
- Page size graphic plot of GC-10486 file contents

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

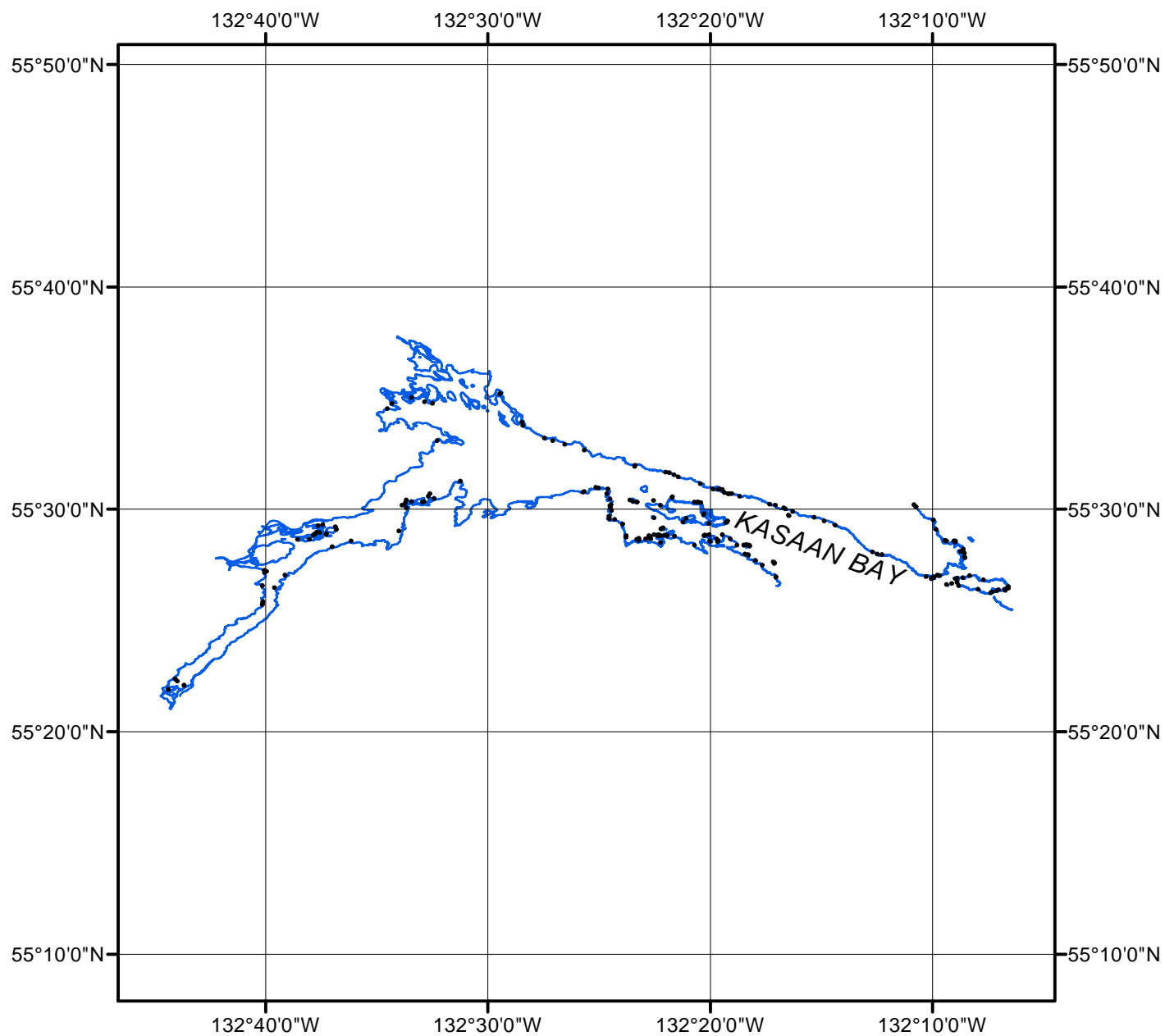
- Project data base
- 3-D MicroStation Design File for GC-10486
- DCFF GC-10486 in ESRI Shapefile format
- Digital copy of PCR in Adobe Acrobat (.pdf) format

### **NOAA Shoreline Data Explorer**

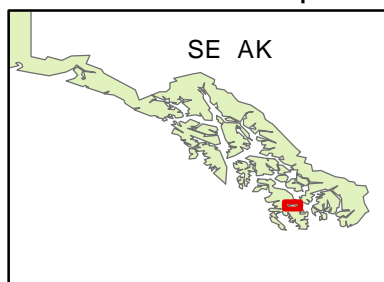
- DCFF GC-10486
- Metadata file for GC-10486
- Digital copy of PCR in Adobe Acrobat (.pdf) format

End of Report

KASAAN BAY  
PRINCE OF WALES ISLAND  
SOUTHEAST ALASKA



Overview Map



AK01A

GC10486