

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

## ***PROJECT AK0605C***

### ***Eastern Pavlof Islands, Alaska Peninsula***

#### **Introduction**

Coastal Mapping Program (CMP) Project AK0605C provides coastal zone mapping data of the area around the eastern Pavlof Islands. This data includes the main islands of Ukolnoi, Wosnesenski and Poperechnoi islands and various smaller islands in the vicinity. The Geographic Cell (GC) may be used in support of the NOAA Nautical Charting Program (NCP) as well as Geographic Information Systems (GIS) for a variety of coastal zone management applications.

#### **Project Design**

This project was designed per a request from the NOAA Hydrographic Surveys Division (HSD) of the Office of Coast Survey, NOAA 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 May 2000.

#### **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 Map, Inc. personnel in May, 2008. The image files were imported into SOCET SET, Version 5.2 using the DataThruWay, Version 5.2 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 a 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 Western Air Maps, Inc. personnel from May, 2008 through July, 2008. The digital mapping was performed using a DPW in conjunction with the SOCET SET (Version 5.4) 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 Sand Point, Alaska. The mean tide range at this station is 2.0 meters. The water level at the time the source images were acquired was 1.5 meters above MLLW.

## **Quality Control / Final Review**

Western Air Maps, Inc. personnel conducted quality control interactively from June through July, 2008, with a final independent review upon initial completion of feature extraction. The review process included analysis of aerotriangulation results and assessment of the identification and attribution of cartographic features 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 (version 9.2) 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 digital nautical charts were used in the comparison process:

16540, Shumagin Islands to Sanak Islands, 1:300,000 scale, 12<sup>th</sup> Ed.

16549, Alaska Peninsula, Cold Bay and Approaches, 1:80,000 scale, 15<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 GC10653 file contents, attached to PCR

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

- Project Database
- GC10653 in shapefile format
- Digital copy of the PCR in Adobe PDF format
- CEF in shapefile format

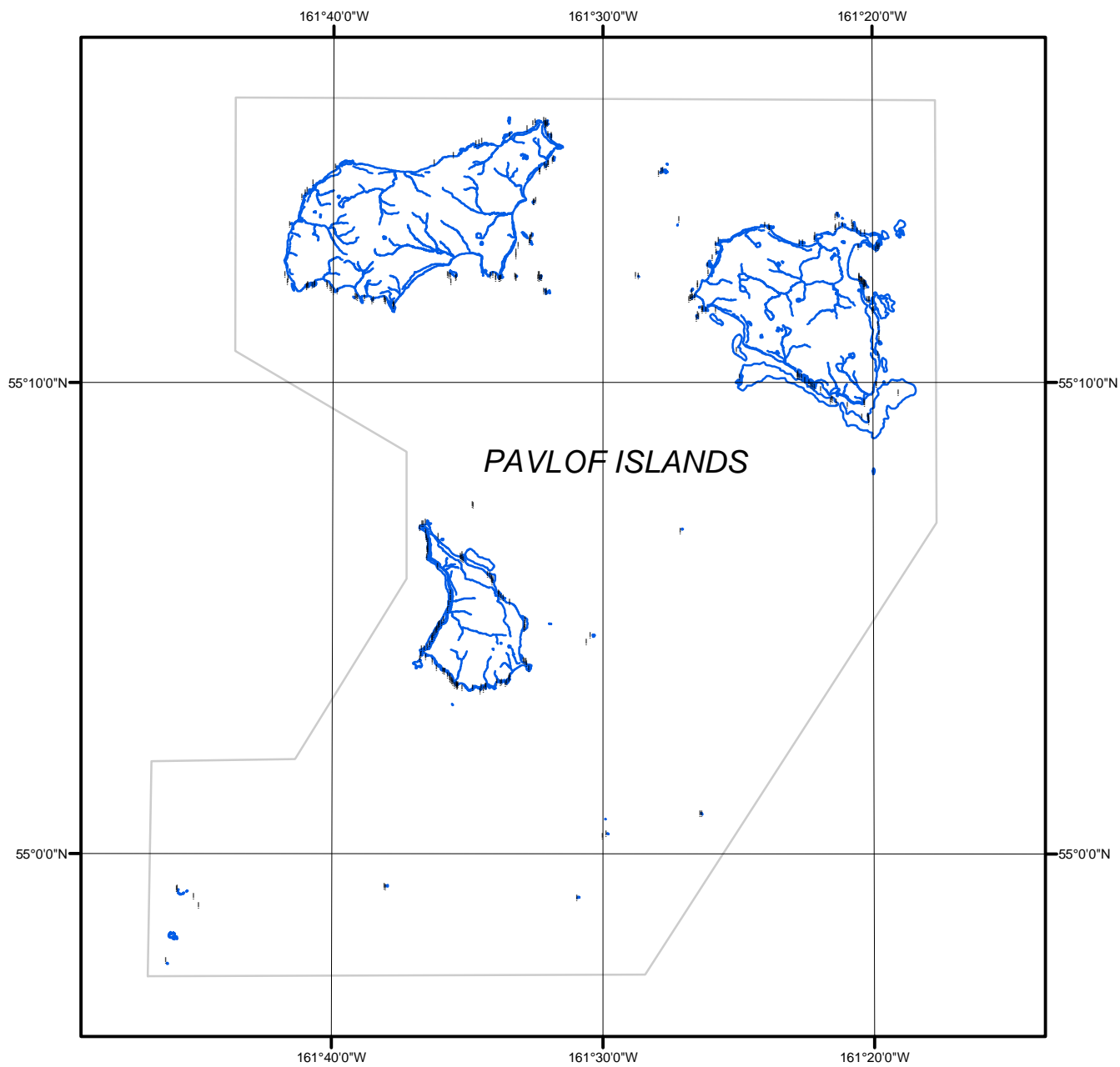
### **NOAA Shoreline Data Explorer**

- GC10653 in shapefile format
- Metadata for GC10653
- Digital copy of the PCR in Adobe PDF format

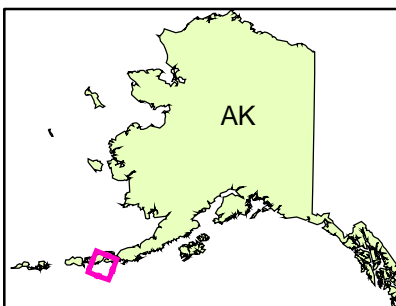
## **End of Report**

# EASTERN PAVLOF ISLANDS

## ALASKA



Overview



AK0605C

GC10653