

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

## ***PROJECT NY1101***

### ***Haunts Creek, New York***

#### **Introduction**

Coastal Mapping Program (CMP) Project NY1101 provides accurate digital shoreline data for a portion of Haunts Creek, New York, near its mouth at Sloop Channel. 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**

Project NY1101 was designed in response to a request from the Marine Chart Division (MCD) of the Office of Coast Survey, NOAA. 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 one panchromatic WorldView-2 satellite image from DigitalGlobe, obtained through the National Geospatial-Intelligence Agency (NGA), and one color orthomosaic of Leica ADS52 imagery obtained through the National Agriculture Imagery Program (NAIP). All feature data for this project was extracted from the WorldView image, with the NAIP imagery being used as an aid to interpretation.

#### **Field Operations**

Routine CMP field operations did not apply for this project based on the origin of the project imagery, which was obtained from external sources.

#### **Georeferencing**

Georeferencing tasks were not necessary since DigitalGlobe provided an acceptable accuracy assessment for their imagery. The accuracy of the WorldView image, reported by the vendor at the 90% confidence level ( $CE_{90}=6.5$  m), was converted to  $CE_{95}$  for standard CMP reporting purposes. As a means of further verifying the vendor's accuracy assessment, comparisons were made between published locations of four (4) NGS third order geodetic control points and their locations as measured within the WorldView imagery. These comparisons revealed offsets ranging from 1-2 meters.

#### **Compilation**

Data compilation was performed by RSD personnel in July 2012. Digital feature data was compiled in shapefile format from the WorldView imagery using ESRI's ArcGIS 9.3.1 desktop GIS software. 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.

Spatial data accuracies for NY1101 were determined according to standard Federal Geographic Data Committee (FGDC) practices. Cartographic features were compiled to meet a horizontal accuracy of 7.4 meters at the 95% confidence level.

The following table provides further detail on the imagery used to complete this project:

Sensor	Resolution	Source ID	Acquisition Date/Time	Tide Level*
WorldView-2	0.5 m	03DEC11WV021100011DEC03155502-P1BS-052580242010_03_P004.tif	2011-12-03 / 15:55 GMT	0.3
ADS52	1.0 m	ortho_1-1_1n_s_ny059_2011_1.sid	2011-07-06 / 12:59-13:21 GMT	0.2

\* Tide levels are given in meters above MLLW and are based on actual observations recorded by the NOS reference gauge at Sandy Hook, NJ with offsets applied to the Deep Creek Meadow substation. The Mean Range within the project area is 0.7 meters.

## Quality Control / Final Review

Quality control tasks were conducted upon project completion by senior CMP personnel in August 2012. The review process included 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 9.3.1. The entire suite of project products was evaluated for compliance to CMP requirements.

Comparison of the largest scale NOAA nautical chart with the project imagery and compiled feature data resulted in creation of the Chart Evaluation File (CEF). The following nautical chart was used for comparison:

12352, Shinnecock Bay to East Rockaway Inlet, 1:20,000 Scale, 33<sup>rd</sup> Ed.

## 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 GC10945 file contents, attached to PCR

### Remote Sensing Division Electronic Data Library

- Project database
- GC10945 in shapefile format
- Digital copy of the PCR in Adobe PDF format
- Chart Evaluation File in shapefile format

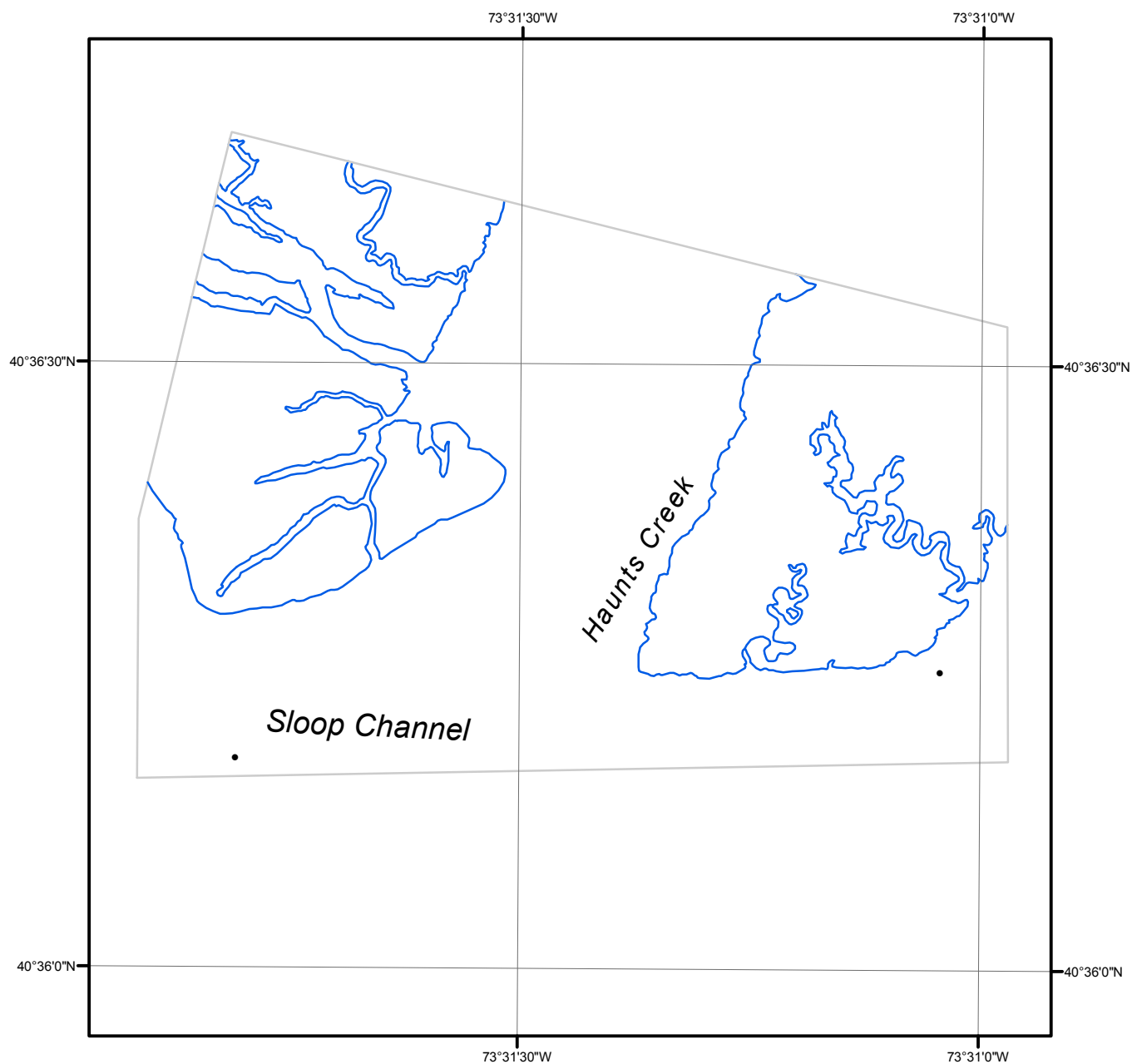
### **NOAA Shoreline Data Explorer**

- GC10945 in shapefile format
- Metadata file for GC10945
- Digital copy of the PCR in Adobe PDF format

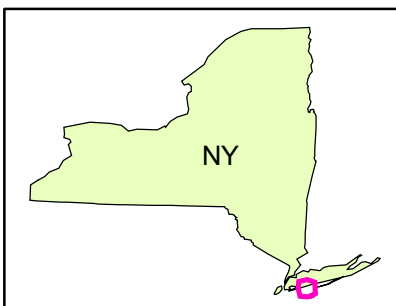
**End of Report**

# HAUNTS CREEK

## NEW YORK



Overview



NY1101

GC10945