NOAA COASTAL MAPPING PROGRAM
PROJECT COMPLETION REPORT

PROJECT TX2008-CS-T

Port of Victoria, Texas

Introduction

Coastal Mapping Program (CMP) Project TX2008-CS-T provides highly accurate digital shoreline data for key areas of change in the port of Victoria, Texas and 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

The design of Project TX2008-CS-T was accomplished by the Requirements Branch (RB) of the Remote Sensing Division (RSD) in response to the need for updates to the NOAA Electronic Navigational Chart (ENC) series. Project requirements were formulated as a result of analysis conducted within the Coast and Shoreline Change Analysis Program (CSCAP), in which NOAA nautical chart products are compared to contemporary high-resolution digital imagery in order to ascertain the need for more current shoreline data. Orthorectified WorldView satellite imagery from DigitalGlobe was utilized for the CSCAP analysis, with image tiles from the National Agriculture Imagery Program (NAIP) subsequently obtained for use in compilation. A Chart Evaluation File (CEF) was forwarded to the Applications Branch (AB) of RSD once the change analysis was complete. Refer to the CSCAP Memorandum for Project TX2008-CS-T for details of the chart comparison process.

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

Metadata which accompanied the NAIP imagery fully describes the photogrammetric processing and orthorectification of the imagery. Further georeferencing tasks were deemed unnecessary for this imagery since it compared well with sources used to assess spatial accuracy, and the image provider conducted an acceptable accuracy assessment. As a means of verifying image accuracy, comparisons were made between the NAIP imagery and features from previously compiled CMP project TX1402-CS-N, which had a reported horizontal accuracy of 0.8 meters at the 95% confidence level. Positional data is referenced to the North American Datum of 1983 (NAD 83).

Compilation

Data compilation was accomplished by a member of AB in July 2021. Digital feature data was compiled in shapefile format using Esri's ArcGIS (ver. 10.8.1) 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. Selected features were further modified with additional descriptive information to refine general classification.

Spatial data accuracies for TX2008-CS-T were determined according to standard Federal Geographic Data Committee (FGDC) practices. Cartographic features extracted from the NAIP imagery were compiled to meet a horizontal accuracy of 6.0 meters at a 95% confidence level, a figure representing the level of accuracy claimed by the image provider. The table below provides information on imagery used in the completion of this project.

Sensor	Source File Name	GSD	Acquisition Date/Time (GMT)	Tide Level*
ADS-100	naip18-nc-cir-60cm_2896353_20181201.jp2	0.6 m	2018-12-01 / 13:51-14:31	0.2 m
ADS-100	naip18-nc-cir-60cm_2896431_20181201.jp2	0.6 m	2018-12-01 / 13:51-14:31	0.2 m
ADS-100	naip18-nc-cir-60cm_2896342_20181201.jp2	0.6 m	2018-12-01 / 14:12-14:53	0.2 m
ADS-100	naip18-nc-cir-60cm_2896252_20181201.jp2	0.6 m	2018-12-01 / 14:55-15:35	N/A
ADS-100	naip18-nc-cir-60cm_2896171_20181202.jp2	0.6 m	2018-12-01 / 15:17-15:35 2018-12-02 / 11:01-11:19	N/A
ADS-100	naip18-nc-cir-60cm_2896173_20181202.jp2	0.6 m	2018-12-01 / 15:17-15:35 2018-12-02 / 11:01-11:19	N/A

* Tide levels are given in meters above MLLW and are based on actual observations recorded by the TCOON gauge at Seadrift, TX at the time of photography. The elevation of the MHW tidal datum at the gauge is equal to 0.11 m above MLLW. Due to insufficient water level data, the tide levels for the imagery covering the upper Victoria Barge Canal could not be determined.

Quality Control / Final Review

Final review tasks were completed in April 2022. The review process included analysis of image georeferencing and 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. The entire suite of project products was evaluated for compliance to CMP requirements.

End Products and Deliverables

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

Remote Sensing Division Electronic Data Library

- CSCAP evaluation memorandum
- Project database
- GC11733 in shapefile format
- Project Completion Report (PCR)
- CEF in shapefile format

NOAA Shoreline Data Explorer

- GC11733 in shapefile format
- Metadata file for GC11733
- PCR in Adobe PDF format

End of Report

PORT OF VICTORIA

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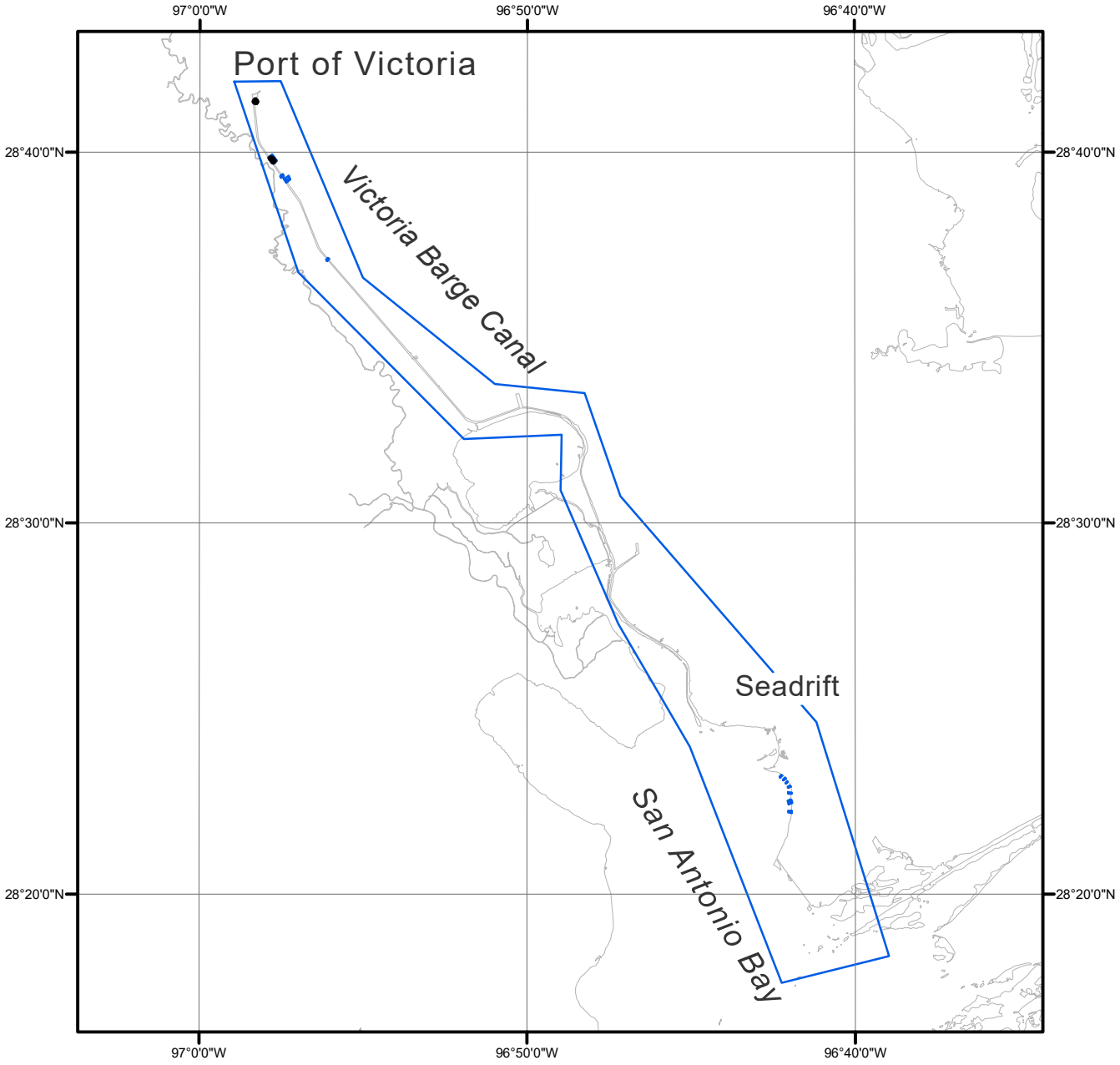
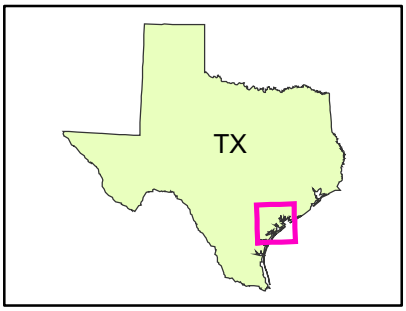


Overview



TX2008-CS-T

GC11733