

NOAA COASTAL MAPPING PROGRAM PROJECT COMPLETION REPORT

PROJECT LA2305-CM-T

Grand Isle at Caminada Pass, Louisiana

Introduction

Coastal Mapping Program (CMP) Project LA2305-CM-T provides accurate digital shoreline data for Grand Isle at Caminada Pass, Louisiana. 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 LA2305-CM-T was designed in response to a data request from NOAA's Office of Coast Survey. Based on 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 two orthorectified, pan-sharpened natural color satellite images (downloaded in tiled format) from DigitalGlobe, Inc.

Field Operations

Routine CMP field operations did not apply for this project based on the origin of the project source data.

Georeferencing

Refinement of image georeferencing was not necessary since the images compared favorably spatially with data sources used to check their geolocation and since the image vendor provided an acceptable accuracy assessment. DigitalGlobe reported an RMSE of 3.9 meters for the WorldView imagery, which was used to calculate a horizontal accuracy of 6.8 meters at the 95% confidence level for well-defined points measured during compilation. Positional data is referenced to the North American Datum of 1983 (NAD 83).

Compilation

Data compilation was completed by AB personnel in August 2023. Digital feature data was compiled in shapefile format from satellite imagery using ArcGIS software. Feature identification and attribution within the GC were based on image analysis of the satellite imagery as well as information extracted from the largest scale NOAA nautical chart and other ancillary sources. 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 LA2305-CM-T were determined according to standard Federal Geographic Data Committee (FGDC) practices, with the actual value indicated in the preceding section. The table below provides further information on the imagery used to complete this project.

Image Source	Source File Name (Mosaicked Tiles)	Acquisition Date / Time	GSD	Tide Level*
WorldView-3	2023May02_WV03_ORI_mos.jp2	2023-05-02 / 17:02 GMT	0.4 m	0.09 m
WorldView-3	2023May07_WV03_ORI_mos.jp2	2023-05-07 / 16:41 GMT	0.32 m	0.48 m

* Tide levels are given in meters above MLLW and are based on actual observations recorded by the NOS gauge at Grand Isle, LA (#8761724), near the project area. The elevation of MHW at the Grand Isle gauge is 0.321 meters above MLLW.

Quality Control / Final Review

Quality control tasks were conducted by a senior CMP member. The final QC review was completed in August 2023. 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 software. All project data was evaluated for compliance to CMP requirements.

A Chart Evaluation File (CEF) resulted from the comparison of source imagery and compiled project data with the largest scale NOAA electronic navigational chart (ENC) covering the project area:

US5LA38M, 26th Ed., Aug. 2022, Scale 1:50,000

End Products and Deliverables

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

RSD Electronic Data Library

- Project database
- Project Completion Report (PCR)
- GC11957 in shapefile format
- CEF in shapefile format

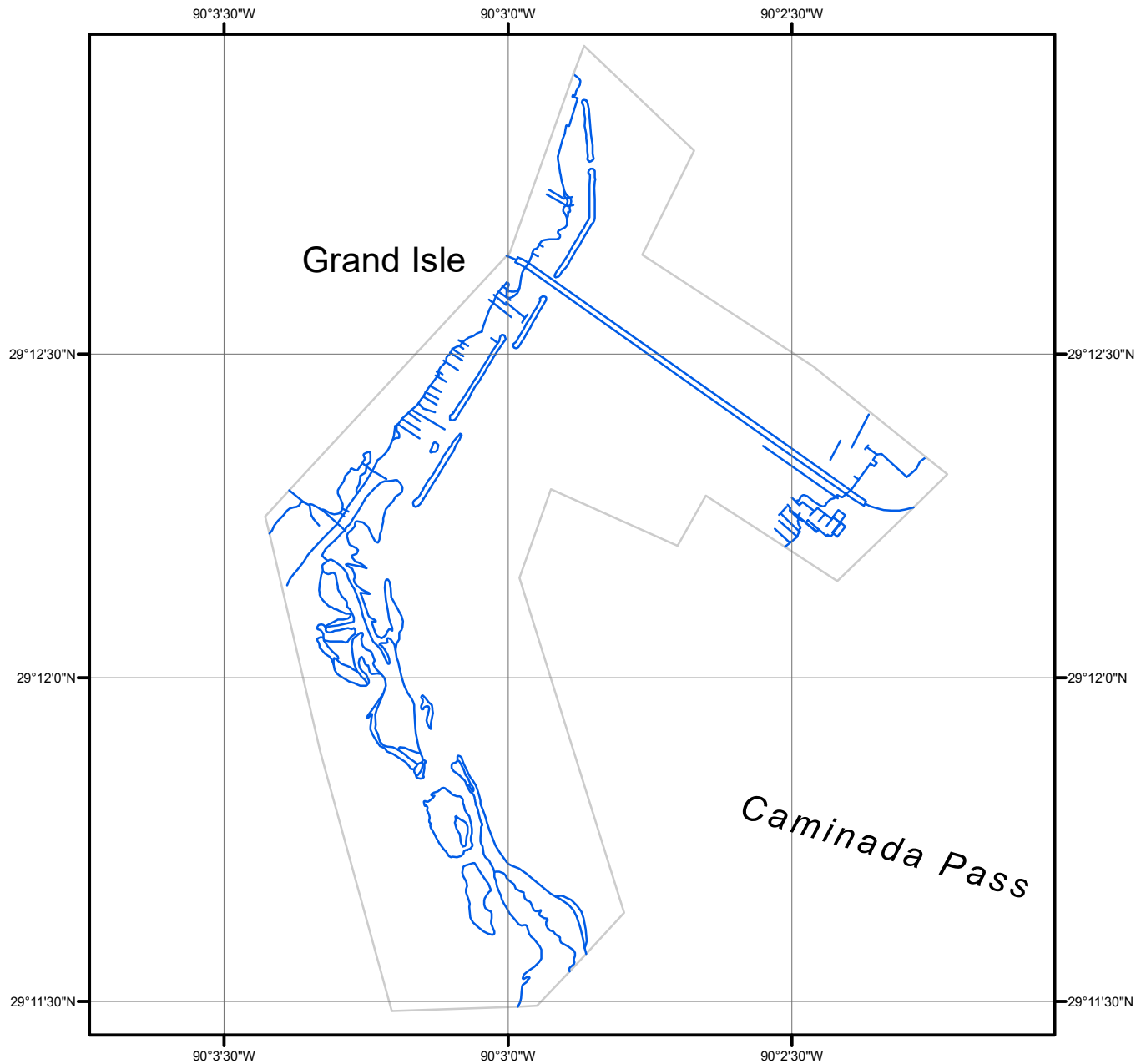
NOAA Shoreline Data Explorer

- GC11957 in shapefile format
- Metadata file for GC11957
- PCR in Adobe PDF format

End of Report

GRAND ISLE AT CAMINADA PASS

LOUISIANA



Overview



LA2305-CM-T

GC11957