



AIS Data Mining for Galveston District at Two Locations Along the Texas Coast

ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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Response Summary:

This Dredging Operations Technical Support (DOTS) response provided technical assistance to navigation staff from USACE Galveston District (SWG). Assistance was required to acquire and visualize historic vessel position information collected via the Automatic Identification System (AIS) for two areas: Pelican Island near the Houston Ship Channel entrance, and the intersection of the Gulf Intracoastal Waterway and Sabine Entrance Channel in Jefferson County, TX.

Period of Performance:

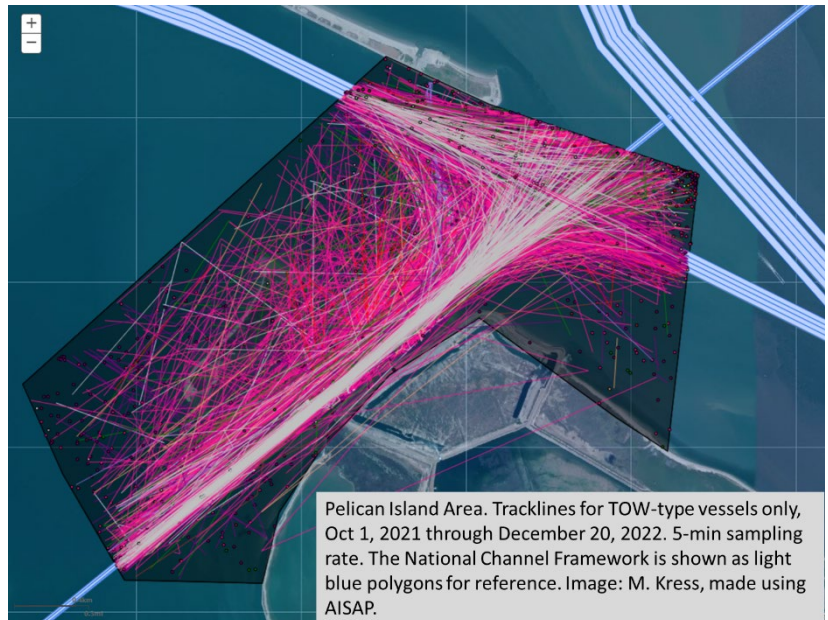
This request was completed in FY23.

Benefits of the Response to the USACE Dredging/Navigation Program:

This response provided technical information to navigation/operations staff in Galveston district in the form of map visualizations, data files, and statistical summary information, allowing them to carry out additional analysis for their navigation channel maintenance and planning mission.

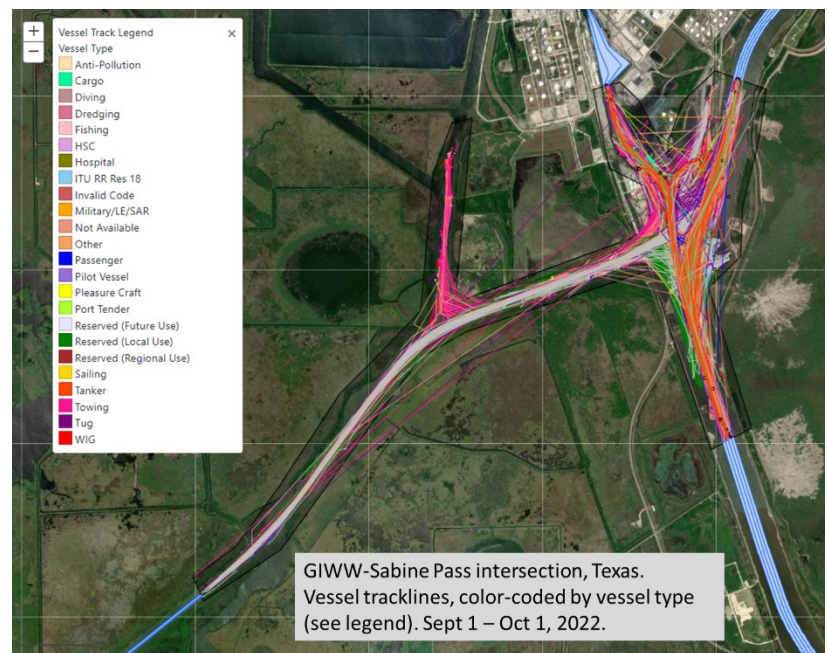
Deliverable:

The main deliverables for this DOTS request included map visualizations assembled in a PowerPoint file, multiple CSV of vessel data, and KML files of the study areas for future use if needed.



Pelican Island Area. Tracklines for TOW-type vessels only, Oct 1, 2021 through December 20, 2022. 5-min sampling rate. The National Channel Framework is shown as light blue polygons for reference. Image: M. Kress, made using AISAP.

Figure 1. Re-created vessel tracklines, tow-type vessels, in the area near Pelican Island, Houston Ship Channel, Texas.



GIWW-Sabine Pass intersection, Texas. Vessel tracklines, color-coded by vessel type (see legend). Sept 1 – Oct 1, 2022.

Figure 2. Re-created vessel tracklines, all vessel types, at the intersection of the Gulf Intracoastal Waterway (GIWW) and the Sabine Pass, Texas.



Providing environmental and engineering technical support to the U.S. Army Corps of Engineers Operations and Maintenance navigation and dredging missions

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DOTS ID: DOTS-23-R23