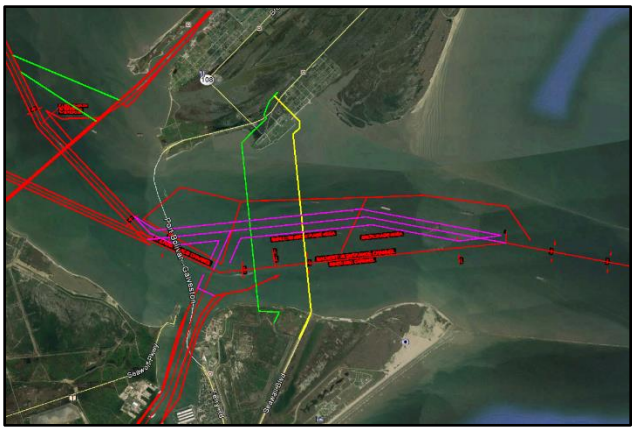
Coastal Texas Navigation Feasibility Study

Response Summary:



ERDC is assisting the U.S. Army Corps of Engineers, Galveston District (CESWG) in analyzing a Coastal Storm Surge Reduction Measures (CSRM) alignment and gate structure across the Bolivar Roads inlet, between Galveston Island and Bolivar Peninsula. The study will address whether the proposed structure location provides a feasible amount of time and space for ships to complete the southward turn to the Galveston channel. This will be accomplished through a ship simulation study. The DOTS program allowed for ERDC personnel to conduct a reconnaissance trip to Galveston to observe navigational conditions at Bolivar Roads.

The purpose of the reconnaissance trip is to collect site information and photographs needed to develop simulation databases. ERDC personnel rode a gas tanker from outside the Galveston Bay Entrance Channel to the Fairway Anchorage to collect photographs. Remaining photos were taken from the pilot boat. ERDC met with representatives from CESWG and the Galveston-Texas City Pilots to discuss ship handling and the current operations at the study area.

Period of Performance:

The reconnaissance trip was conducted on 13-15 November 2018.

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

The ship simulation study will provide a tool to CESWG that can be used to assess the general feasibility of the proposed location of the gate structure. The results from this study will be in used in the developing the subsequent PED phase simulations.

Deliverable:

The visual database for the Coastal Texas ship simulations will be developed using the digital images collected during the reconnaissance. These visuals can be used for future navigation studies within the area. The information gathered during meetings and ship riding will be used to develop the test matrix. The results from the ship simulation feasibility study will be documented in a memorandum, including track plots and pilot input.

Kiara I. Pazan
Coastal and Hydraulics Laboratory
kiara.i.pazan@usace.army.mil

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