



ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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Response Summary:

The Galveston District (SWG) has requested assistance to setup the standalone application of Corps Shoaling Analysis Tool (CSAT). The CSAT uses hydrographic survey data that has been uploaded through the eHydro tool. The CSAT provides shoaling rate predictions for navigation channels based on a hindcast algorithm.

Period of Performance:

June 15, 2018 through September 30, 2018.

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

This technology transfer assistance will help Galveston District in developing in-house capability for performing shoaling analysis along various navigation channels within its jurisdiction. SWG has used CSAT to identify shoaling hot spots within Galveston Channel and compared the tonnage data to the accumulated volume of sediment at each depth increment for the channel (Figure 1).

Deliverable:

The CSAT executable are installed on the Galveston district computer and a series of webinars were held to review the input files, QC methods, and output files. The SWG is running CSAT for Corpus Christi Channel using surveys from 2011-2015.

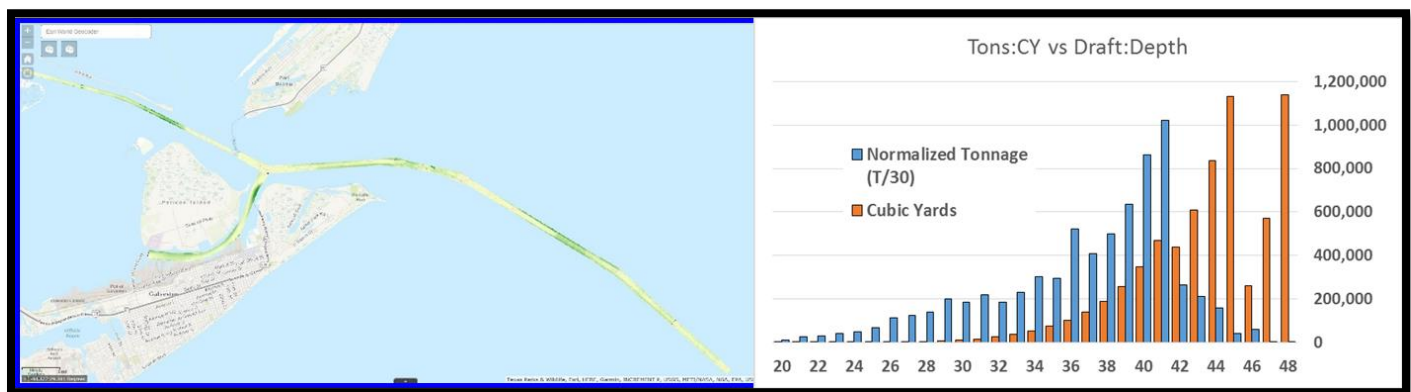


Figure 1. Shoaling rate map for Galveston Channel where the areas of higher shoaling are shown in dark green while less shoaling is shown in yellow (left). Tonnage profile and cubic yards accumulated at each depth increment for Galveston Channel (right).



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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