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ENGINEER RESEARCH & DEVELOPMENT CENTER

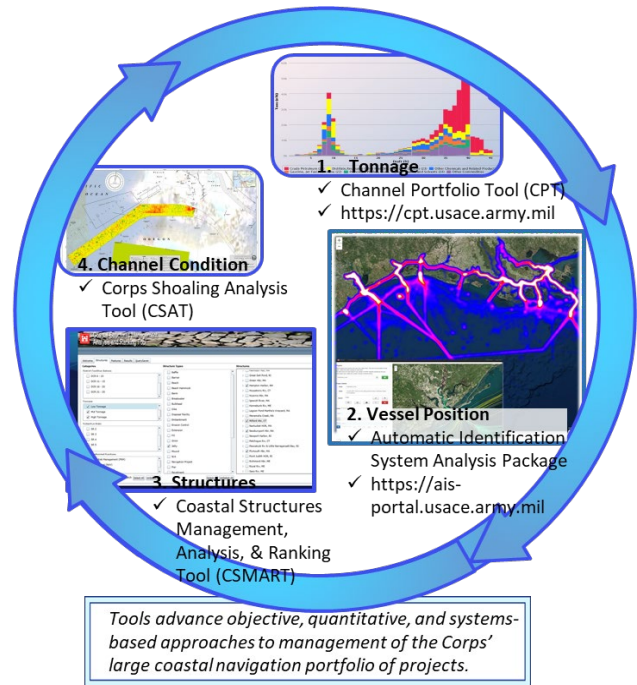
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## Coastal Navigation Portfolio Development Technologies (FY21)

**Background:** The coupling of the Channel Portfolio Tool (CPT), AIS Analysis Package (AISAP), and Channel Shoaling Analysis Tool (CSAT) with other navigation related tools/datasets (i.e., eHydro and CSMART) provide enterprise capability that will support research efforts aimed at understanding and quantifying channel optimization, jetty functional performance metrics, and other opportunities to connect models and tools. These navigation-support tools as well as research efforts as part of this work unit help advance objective, quantitative, and systems-based approaches to management of the Corps' large coastal navigation portfolio of projects.

**Approach:** Districts are required to use CPT for annual O&M budget formulation, as outlined in the annual Budget Engineering Circular (EC) and the recent Dredge Project Selection memo further emphasizes the need for having these enterprise datasets and tools (CPT, CSAT) coupled for efficient transfer of data between the tools. AISAP is at the forefront of an emerging analysis capability that significantly enhances the quantitative rigor that District users are able to bring to a wide range of problems facing the Navigation business line. CIRP supports the hosting of CPT and AISAP in a production environment on the ACE-IT managed CorpsNet so that they will be readily available to all USACE personnel.



### Technical Advancements:

- Coordinated development of the NavPortal framework for modularized tools (AISAP, CPT, and CSAT).
- Maintenance for AISAP, CPT, and CSAT web applications and continued integration into modern cloud-computing environment to gain efficiencies in Coastal Navigation analyses.

**Payoff:** These tools leverage existing data, user-friendly tools, and robust analytical approaches to develop objective, quantitative, and systems-based approaches for management of the Corps' large coastal navigation project portfolio. Objective, consistent data analytics for the Corps' coastal navigation infrastructure portfolio will help ensure that limited resources are rationally allocated across portions of the system with the greatest need.

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