



US Army Corps
of Engineers®

Engineer Research and
Development Center

Navigation Systems Research Program (NavSys)

Description

The U. S. Army Corps of Engineers is responsible for developing the nation's waterways for commercial navigation. The United States' marine transportation system includes more than 25,000 miles of navigable waterways and more than 300 ports and their connections to other transportation modes, such as railroads, highways, and pipelines. The Corps operates and maintains about 12,000 miles of inland navigation channels and approximately 240 locks.



Issue

NavSys provides focused research and development in Deep Draft (coastal) and inland (shallow draft) navigation channel design, sedimentation, structure evaluation and design, economics, risk, and asset management. The program balances efforts on critical present-day problems with efforts that prepare the Corps to meet U.S. navigation systems requirements of the future. NavSys is organized into five focus areas: Project Management and Technical Infusion; Deep Draft Navigation; Inland Navigation; Hydropower; and Marine Navigation Technology.

Users

USACE District and Division engineers.

Products

NavSys develops engineering technologies to improve the navigation system's functional performance, preserve and enhance environmental quality of our waterways, reduce unit costs, and improve safety. Research products include engineering tools, computer models, and design guidance for 1) defining and managing water levels and currents that affect navigation and

sedimentation, waves that impact coastal structures and drive sedimentation processes, sediment that settles in navigation channels and harbors, and vessel transits within navigation channels and structures and 2) facilitating rapid and economical navigation facility design, construction, inspection, repair, and rehabilitation.



Benefits

Provide navigation-oriented engineers improved technologies and methodologies that enhance the Corps' ability to meet its navigation mission of providing safe, reliable, efficient, effective, and environmentally sustainable waterborne transportation systems

Point of Contact

Jeff Lillycrop, US Army Engineer Research and Development Center, 3909 Halls Ferry Road, Vicksburg, MS 39180; (251) 694-3721, (Jeff.Lillycrop@usace.army.mil), or Mr. Charles E. "Eddie" Wiggins, (601) 634-2471, (Charles.E.Wiggins@usace.army.mil). Website: <http://chl.erdc.usace.army.mil/navsys>