



DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY  
CIVIL WORKS  
108 ARMY PENTAGON  
WASHINGTON DC 20310-0108

FEB 23 2026

MEMORANDUM FOR COMMANDING GENERAL, U.S. ARMY CORPS OF  
ENGINEERS

SUBJECT: Use of Ship Simulation in Navigation Project Design

1. References:

- a. EM 1110-2-1613: Hydraulic Design of Deep Draft Navigation Projects, May 31, 2006
- b. EM 1110-2-2602 Planning and Design of Navigation Locks, September 30, 1995
- c. EM 1110-2-1611 Layout and Design of Shallow-Draft Waterways, December 31, 1980

2. Purpose: This memorandum provides policy direction to the U.S. Army Corps of Engineers (Corps) regarding the use of ship simulation in designing Army Civil Works navigation projects. This direction is needed to ensure the Corps fully utilizes the best available resources in designing navigation projects to ensure safety, promote efficiency, and increase capacity of dredges. In particular, it is intended to ensure that the actual needs of harbor pilots are captured and reflected in project designs such that projects are not overdesigned or overbuilt. Overbuilding of navigation projects has resulted in unnecessary project costs while preoccupying dredges from being available for other priority dredging efforts across the navigation portfolio.

3. As soon as possible in the design process, the Corps shall, unless a waiver is approved by me, use navigation ship simulation conducted by marine pilots and/or other marine professionals to assist in the design of navigation channels. In addition to using ship simulation in the design of deep draft navigation projects, the Corps shall also, where appropriate, use simulation in the design of locks and other elements of the Inland Waterway's system. The Corps shall use its own simulation capability at the Engineering Research and Development Center and shall augment that capability by contracting with other organizations with suitable simulation capability such as the Maritime Institute of Technology and Graduate Studies operated by the Masters Mates and Pilots in Baltimore Maryland, the Simulation Training Assessment & Research Center operated by the American Maritime Officers Association in Dania Beach Florida, and the Marine Engineers Beneficial Association's Training Center in Easton Maryland.

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4. Memorandums of Agreement. Within 60 days from the date of this memo, the Corps shall enter into at least three memorandums of agreement with entities that have ship simulation capability to assist in the design of navigation projects. Partnering with these entities will ensure that navigation projects account for human factors and result in designs that are safe, usable, and avoid costly mid-construction re-design.

5. Briefing. The Corps should provide me a briefing NLT 75 days after the date of this memorandum which focuses on the status of the memorandums of agreement and any initial results from their implementation.

6. Questions regarding the policy in this memorandum should be directed to Robyn Colosimo, Deputy Assistant Secretary of the Army, Project Planning and Review at [robyn.s.colosimo.civ@army.mil](mailto:robyn.s.colosimo.civ@army.mil) or (703) 614-3977.



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