



Fact Sheet

## Vessel Fleet Forecast Methodology Unit

**Start Date:**

**Lead Researcher(s):**

**Projected  
End Date:**

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**Problem Addressed:**

Deep-draft vessel fleet forecasts which define relevant parameters for vessel type, cargo capacity and physical dimensions are critical to analysis and planning of improvements for waterway systems. While fleet forecasts based on stratification of the overall world fleet are available from various sources at any given time; such forecasts are often difficult or impractical for USACE civil works analysts to meaningfully apply as they tend to be capacity-driven as measured by general estimations of deadweight tonnage (DWT). Characteristically, little information is provided within the context of such forecasts regarding corresponding hull dimensions such as draught, length, and breadth needed for dimensional specifications in waterway design. In addition, highly aggregated world fleet forecasts typically provide little or no information or means for viable adaptation or adjustment of projections or methodology to meet region or project-specific planning needs. Accordingly, a framework is needed that will facilitate the derivation of initial or baseline region or project-specific fleet forecasts which analysts can directly apply for economic analysis of individual waterway improvement projects.

**Objective:**

The objective of this work unit is to develop a process and framework for the practical and efficient derivation of baseline deep-draft fleet forecasts for application to waterway system improvement studies. Commensurate with this objective, research efforts are being undertaken to review and extend the logic of preliminary investigations initiated under the deep-draft Navigation Trends Unit (NTU) completed in 2000-2001. Within the scope of the NTU conducted with primary support of the U.S. Naval Academy, the primary directive of the NTU was to review existing and foreseeable characteristics of the world fleet according to general vessel type and determine the predominant trend(s) for self-propelled vessel design. Associated research identified the most significant trend across nearly all vessel types was evolution of hull design and construction toward increased "blockiness" with research efforts culminating in general recommendations for more definitive research applicable to fleet forecasts.

**Benefits:**

Development of a practical and effective baseline fleet forecast framework that will enhance USACE civil works planning through time and cost efficiencies for project analysis and lead to more accurate estimates of the economic benefits of deep-draft navigation improvements.

**Status:**

Research and supporting investigations have been initiated.

**Contract Data:**

**Progress:**

**Products (Bookshelf/Toolbox):**

IWR

**Contact:**

**Related Links:**

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