

US Army Corps of Engineers – Navigation

Thomas P. Smith, PE, SES

Chief, Operations and Regulatory
HQ U.S. Army Corps of Engineers
Washington, D.C.

Presentation Outline

- Navigation Assets and Mission
- Use of data in Civil Works and Navigation
- Opportunities and Challenges



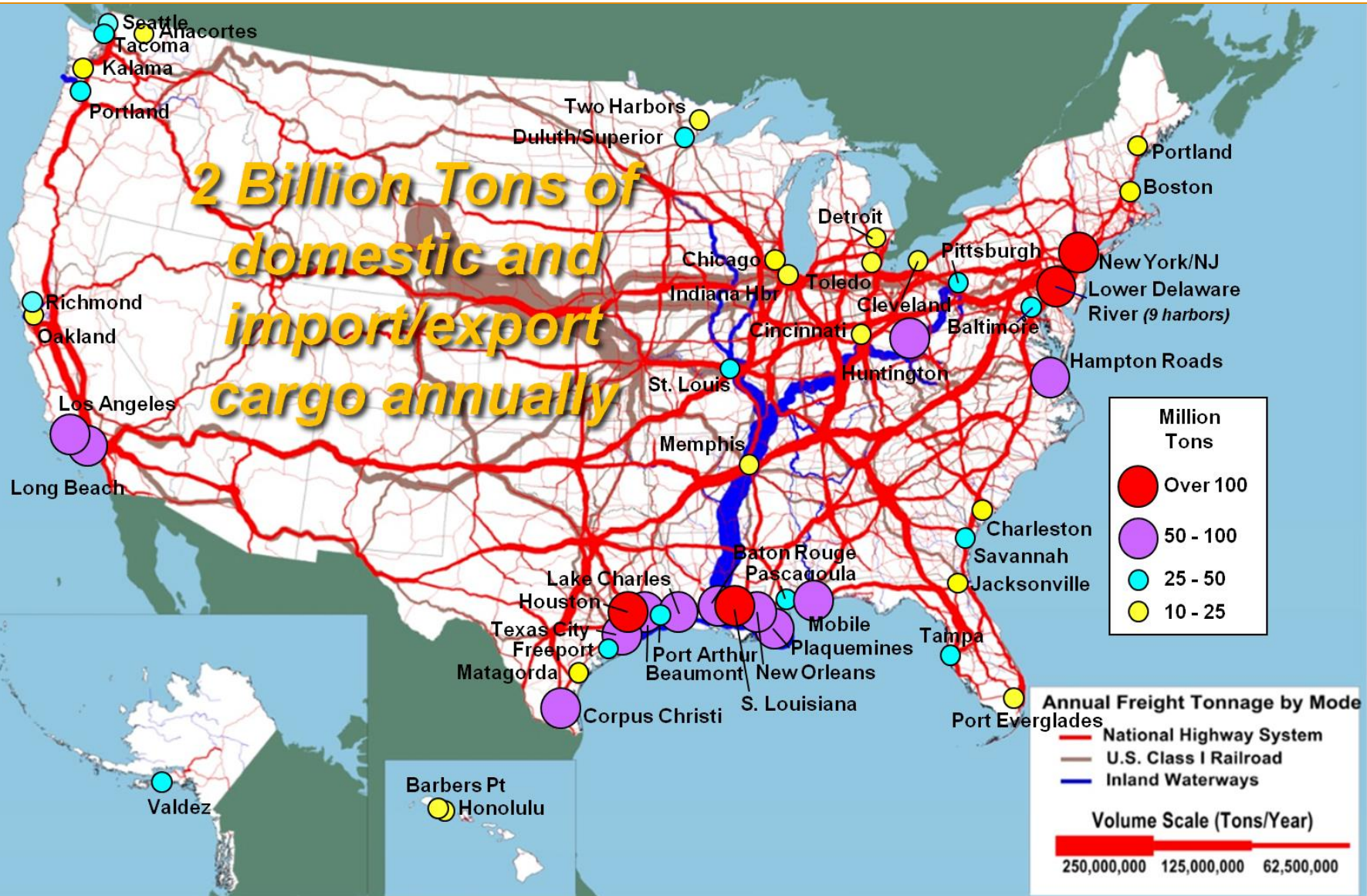
US Army Corps
of Engineers®





U.S. PORTS AND INLAND WATERWAYS: VITAL TO OUR NATIONAL ECONOMY

2



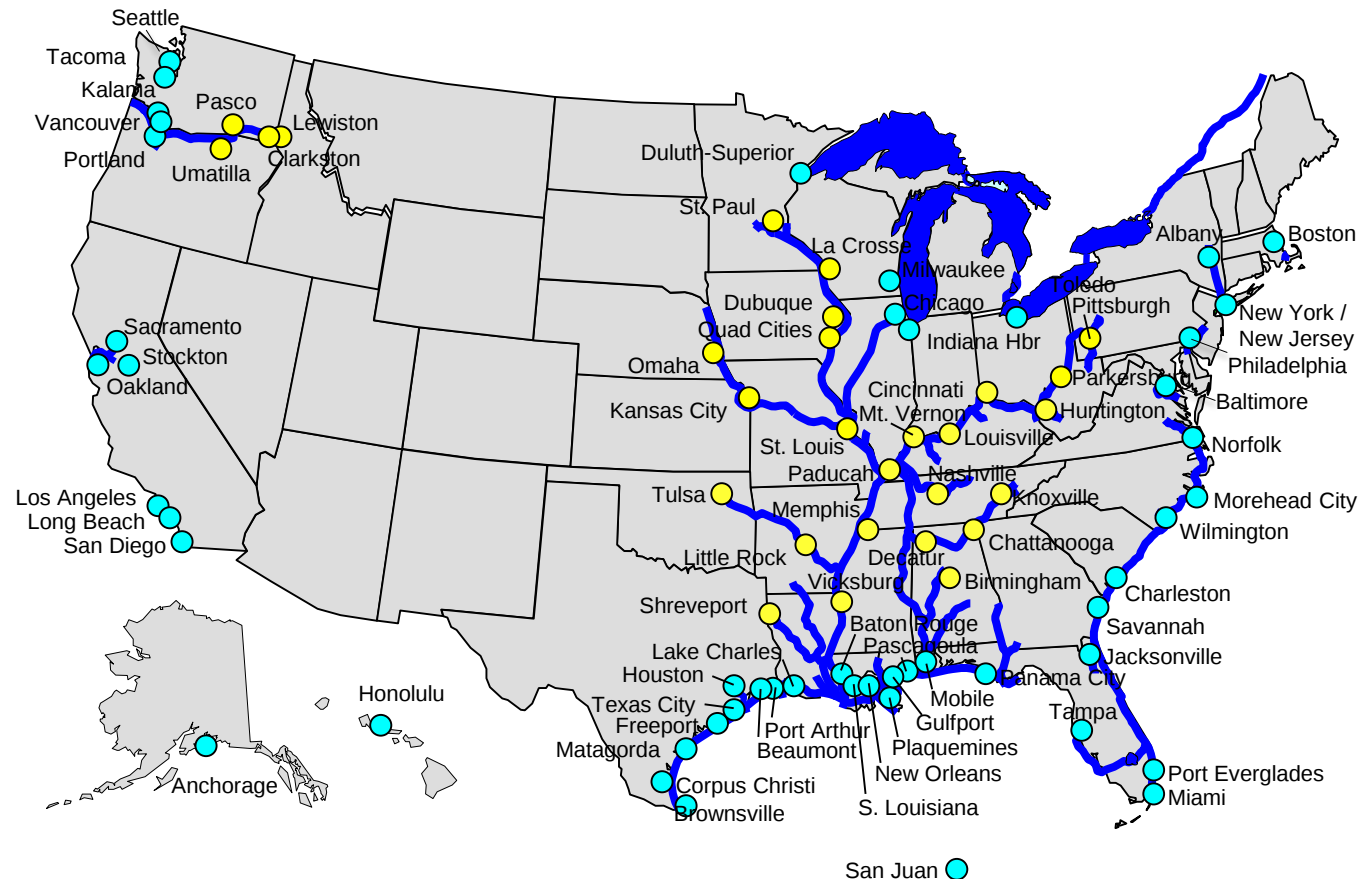


USACE Role in the US Navigation System



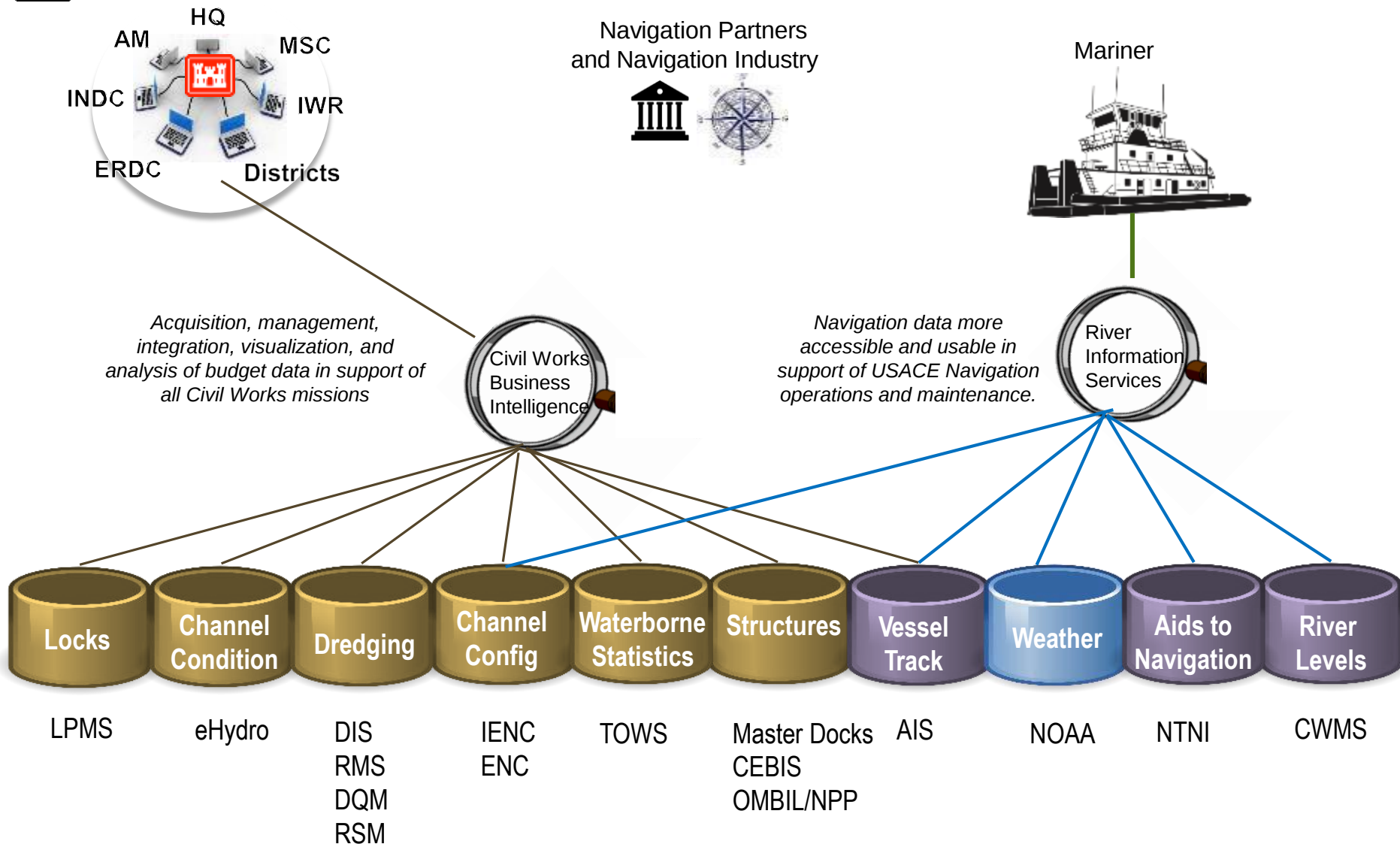
- U.S. Marine Transportation Industry Supports
~ **\$2 Trillion** in Commerce Annually
- **More than 48%** of Consumer Goods Bought by Americans Pass Through Harbors Maintained by Corps.
- Over **1.3 Billion Short Tons** of Foreign Goods Moved Through U.S. Ports/Waterways in 2015
- Over **900 Million Short Tons** of Domestic Goods Moved Thru U.S. Ports/Waterways in 2015
- **15%** of U.S. Domestic Freight Carried by Water
- **239** Lock Chambers at **193** sites
- **13,000** Miles of Coastal and Deep Draft Channels
- **12,000** Miles of Commercial Inland and Intracoastal Waterways
- **1,067** Coastal, Great Lakes and Inland Harbors
- **40** States are directly served by USACE Channels & Waterways

Provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of national security needs, commerce, and recreation.



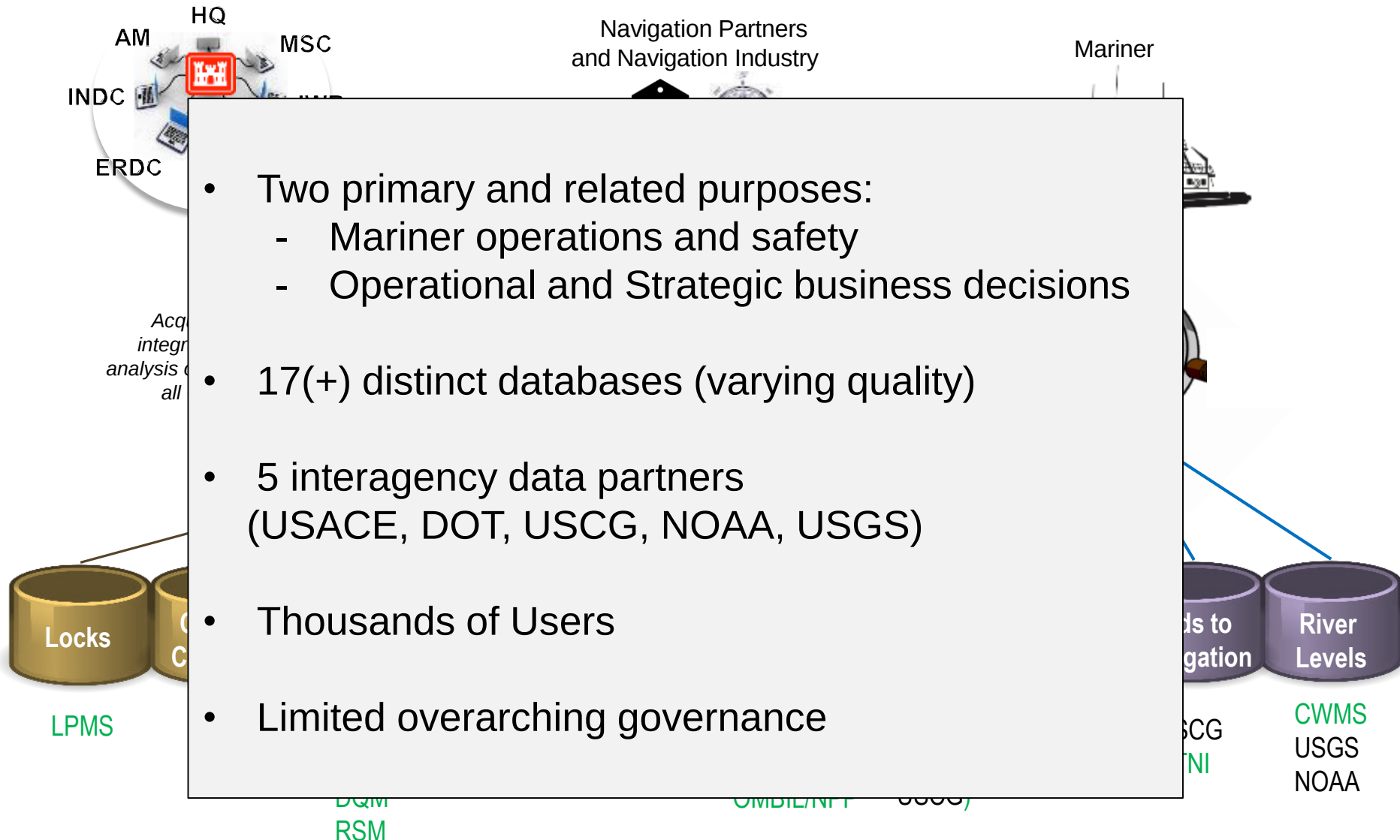


Building the USACE Vision for Using Data in Support of the Navigation Mission.



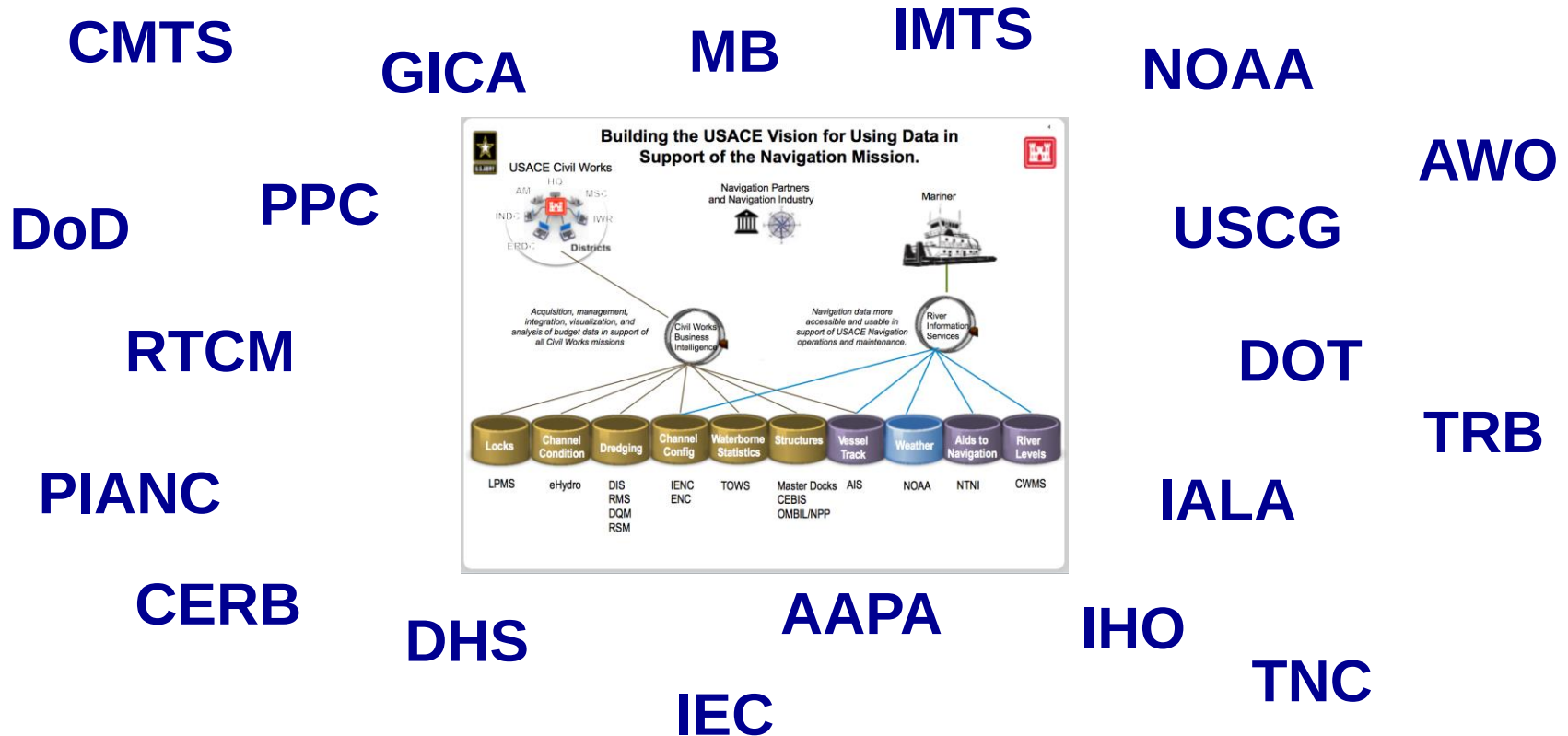


Building the USACE Vision for Using Data in Support of the Navigation Mission.





USACE NAVIGATION INFLUENCES



Establishing integrated data and data systems for the USACE Navigation Mission affects Federal, Non-Federal, Commercial and Private Partners



USACE e-Navigation Data Tools



Inland Electronic Navigational Charts (IENC):
7,260 miles of electronically charted inland
waterways (<http://ienccloud.us>)

Automatic Identification System (AIS):

- Port and waterway performance metrics
- Channel safety and efficiency
- Electronic chart overlay information
- Navigational hazard notifications

Reference data:

- Master Docks+
- USCG buoy overlays

River Information Services

- Hydraulic and meteorological information
- Lock queue status



A primary use of USACE data tools is improved safety and operational efficiency for the mariner.



Opportunities and Challenges

Opportunities:

- Significant potential for **increased safety and operational efficiency** of the mariner through leveraging increasingly available and relevant data
- Navigation technology and data integration is helping **improve decision-making for reliability and efficiency.**

Challenges:

- **“Legacy data”**
- **Pace of technology change**
- **User expectations** of data accessibility, data accuracy, data relevance
- **Data Integration and transparency**

Partnering to inform our research needs and identify gaps in existing capabilities is key to advancing use of data for the navigation mission.

