

DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS

COMPLETE STATEMENT  
OF

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BEFORE THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

SUBCOMMITTEE ON COAST GUARD AND MARITIME  
TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

ON

“Finding Your Way: The Future of Federal Aids to Navigation”

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Mr. Chairman and distinguished members of the Subcommittee, I am Jim Hannon, Chief of Operations and Regulatory for the U.S. Army Corps of Engineers (Corps). I am honored to appear before you today to discuss the issues associated with the future of federal aids to navigation in the United States.

The Corps helps facilitate commercial navigation by providing support for safe, reliable, highly cost-effective, and environmentally sustainable waterborne transportation systems. To this end, the Corps now invests over \$1.8 billion annually – more than one-third of the total annual budget for the Civil Works program – to study, construct, replace, rehabilitate, operate, and maintain commercial navigation infrastructure for approximately 13,000 miles of coastal channels and 12,000 miles of inland waterways. The Corps works in partnership with Federal agencies, including the U.S. Coast Guard and the National Oceanic and Atmospheric Administration (NOAA), and stakeholders to help manage navigation on these waterways.

With respect to federal aids to navigation, the Corps is responsible for providing surveys of these coastal channels and inland waterways to the U.S. Coast Guard, which is responsible for deploying its navigation aids to properly mark the channel. This information is then reflected on the coastal nautical charts provided by the NOAA and the inland nautical charts provided by the Corps.

Over the past decade we have experienced an exponential growth in data we create and use to operate, maintain and manage these assets. We have also seen this same trend throughout the marine transportation community. No matter what the waterways of the future may look like, managing them will require creating, accessing, managing, analyzing, and sharing more data and information than ever before.

Over the past several years, the Corps has developed data frameworks and strategies to improve data value by converting raw data into information and knowledge. Our philosophy is to collect data once and use it many times by making it available throughout our organization and to others. E-Navigation is the term we use to define these principles and the national and international definition of E-Navigation speaks to harmonizing data across all of the Nation's navigable waterways, and to including all stakeholders, both public and private. E-Navigation helps enable us to access this information across all agencies to improve national economic efficiency and the safety, reliability, security, resiliency, and environmental sustainability of the Nation's waterways.

The Corps has successfully developed and deployed a number of E-Navigation tools in use today. As the U.S. nautical charting authority for the inland waterways, for example, we have created over 7,200 miles of detailed inland electronic navigational charts that support navigation safety. In 2013, over one million mariners downloaded these charts and chart updates ensuring they had the most up to date information for navigating on the rivers. We make these charts available at no cost as internet web services, which allows others digital access for use in other tools and applications.

Another E-Navigation tool combines our inland electronic charts with U.S. Coast Guard Automatic Identification System (AIS). The Corps Lock Operations Management Application (LOMA) visualizes real time movement of commercial vessels on the inland waterways. LOMA was deliberately designed to be compatible with the U.S. Coast Guard National AIS program to provide for real-time data quality assurance and long-term data archival and retrieval. Building LOMA in partnership with the Coast Guard saved the Corps time (and resources) and capitalized success by using an existing tool.

In addition to providing both agencies with real time situational awareness, LOMA transmits information, called river information services or RIS, directly to vessels. This includes transmitting water current velocities at our locks to barge-tow operators so they are situationally aware of potential unexpected adverse conditions at our lock entrances. Transmitting information on water currents will help increase lock reliability by reducing the number of incidents of tows hitting our locks, which can damage or close our locks. We also expect improvements in lock operation efficiency by knowing in real time what river traffic exists miles upstream and downstream from a lock.

We also use the LOMA tool to transmit a range of information such as locations of dredges, construction activities, or issue other marine safety notices and we are working with the NOAA and the Coast Guard to create an integrated three-agency marine safety information notice for broadcast on all coastal and inland ports and channels. This will provide commercial mariners and the public a single notice that includes all three agencies' information. We expect the first version to be operational by the end of this year.

We utilize a coastal E-Navigation tool, eHydro, to provide our channel condition surveys to NOAA. This tool assembles and disseminates consistent and reliable surveys from across the Corps by formatting data to international standards to meet NOAA nautical charting needs. E-Hydro is internet based, so it significantly reduces the time it once took to provide this data.

In closing, the Corps is actively engaged in developing, improving and deploying digital navigation information by harmonizing data through E-Navigation principles. Through a working group of the Committee on the Marine Transportation System, we have been working with the U.S. Coast Guard, NOAA, and other Federal agencies to use their data, make our data and information available for their use, link this information, and provide it to mariners and operators with the goal of improving the safety of our Nation's channels and waterways.

Mr. Chairman, this concludes my statement. Again, I appreciate the opportunity to testify today. I would be pleased to answer any questions you may have.