

HYDROGRAPHIC SERVICES REVIEW PANEL

A federal advisory committee, advising the NOAA Administrator

Recreational Boating

ISSUE AND STATUS

NOAA needs to continue to prioritize the needs of the 88 million recreational users¹, and look for innovative ways to harness technology to serve the needs of nearshore boaters. Each year over 12 million recreational vessels in the United States² take to the water and NOAA's data, products, and services are vital to these waterway users to ensure safe boating and navigation. Unlike professional mariners, recreational boaters vary greatly in their experience and formal training as well as their vessel types and sizes. The fact remains that boaters need to understand the rules of the road, basic navigation principles, and have access to the most current information regarding tides, currents, water levels, and depths to stay safe. NOAA's role in providing these products and services is essential.

CHALLENGES

Recreational boaters are not a homogenous group, different boaters have different needs and access data in different ways. A boater in a 12 foot aluminum fishing boat accesses information very differently than a sailor in a 45 foot cruising sailboat. A sailor with a 6 foot draft, a kayaker, a family going water skiing and a distance cruiser navigating unfamiliar waters will all have different data needs. NOAA must continue to provide data in a variety of formats from pdf charts that are easy to print and view on small craft to the chart tile service that makes it possible for more complex electronic systems to update with ease. In this digital age, people have become accustomed to the idea that what they are viewing on their phone, chart plotter or tablet is the latest information, when often it is not. Data needs to be provided in formats that are easy to download over wireless connections and in file sizes that are manageable to enable ease of access. NOAA has done a good job of producing products in a variety of formats and should continue to explore new technologies and adapt products to support recreational boaters.

Current authoritative data needed for safe navigation is not currently located in one place. While NOAA remains the primary source of hydrographic data in the U.S. there are other agencies, state and federal, that have data sets relevant to safe navigation that are of importance to recreational boaters. Authoritative data, such as that from the U.S. Army Corp of Engineers, and state agencies, needs to be accessed easily from one location by the general public and industry that provide chart plotter and mobile applications.

Asking boaters traversing the Intracoastal Waterway to know which Army Corp District they are transiting through or asking them to navigate to multiple government websites to find navigation information is unrealistic. State data sets that include local speed restrictions and other regulatory markings should be accessible in one centralized location.

Nearshore data sets need to be more robust to meet the needs of recreational boaters. It is a financial reality that the funding of nearshore hydrographic surveys is prohibitive when compared to the charting needs of the nation's ports, harbors and the frontier Arctic. For decades, the term charting backlog has been used to describe the portion of U.S. waters that has not been adequately surveyed. Additionally data on tides, currents and water levels are also vital to boating safety in nearshore areas. With a natural priority placed on



Data and format needs vary for vessels of different sizes to allow for safe navigation by all. Credit: BoatU.S.

commercial navigation, the near shore areas that recreational boaters occupy are not adequately covered. NOAA needs to utilize other data sets and technologies such as airborne LiDAR bathymetry, the use of unmanned technologies, and crowdsourcing to provide more data to near shore users including recreational boaters. NOAA also needs to continue R&D of the use of crowdsourced information and explore better methods to encourage its adoption. In resource constrained environments NOAA can increase their reach by making it easier to report current chart discrepancies and finding ways to display non authoritative data, especially in areas where the existing authoritative data is out of date.

Boaters need accurate and accessible height data and storm surge prediction. Many boats, due to their very nature are found at that water's edge. Preparing for storm and surge events is vital to coastal boaters. Having an accurate understanding of heights at potential storage areas, as well as accurate storm surge models play an important role in a boater's ability to make the best decisions regarding storm preparation.



Boating along the Erie Canal, part of the Great Loop. Credit: Gladys Buzzell

RECOMMENDATIONS FOR NOAA ACTION

- Data for recreational boaters must continue to be available in a variety of formats to support current and emerging products, and be updated easily.
- Authoritative data needs to be located in one place. NOAA should coordinate with other federal and state entities to facilitate different data sets being brought together in a user friendly format.
- NOAA must embrace alternative methods of data acquisition for near shore areas that are lower in priority including the use of aerial and unmanned technologies.
- The appropriate methods for the use and verification of crowdsourced data should be greatly expanded.
- NOAA needs to continue to invest in R&D to address the issues of varying quality of authoritative and non-authoritative data, and alternative technologies to improve services and products in the nearshore areas.

¹ National Marine Manufacturers Association, 2014 U.S. Recreational Boating Statistical Abstract.

² U.S. Department of Homeland Security, U.S. Coast Guard, Office of Auxiliary and Boating Safety, 2015 Recreational Boating Statistics, COMDTPUB P16754.29.

The Hydrographic Services Review Panel was established as directed by the Hydrographic Services Improvement Act of 2002, Public Law 107-372.

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