The American Waterways Operators

801 North Quincy Street
Suite 500
Arlington, VA 22203

PHONE: 703.841.9300
EMAIL: cstewart@americanwaterways.com

Caitlyn E. Stewart
Vice President – Regulatory Affairs

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Mr. Michael D. Emerson
Director, Marine Transportation Systems
U.S. Coast Guard
2703 Martin Luther King Jr. Avenue SE
Washington, DC 20593

Re: Study on Reliance on Aids to Navigation (PL 119-60, Section 7264)

Dear Mr. Emerson:

The American Waterways Operators (AWO) is the tugboat, towboat and barge industry's advocate, resource and united voice for safe, sustainable and efficient transportation on America's waterways, oceans and coasts. Our industry is the largest segment of the nation's 40,000-vessel domestic maritime fleet and moves 665 million tons of cargo each year safely, sustainably and efficiently. On behalf of AWO's more than 300 member companies, we appreciate the opportunity to provide feedback on the Coast Guard's study on the extent to which maritime users rely on physical Aids to Navigation (AToNs) in the Northeast and Northwest Districts and on the Missouri River, mandated by the Fiscal Year 2026 National Defense Authorization Act.

AToNs are essential for ensuring safe navigation for all types and classes of vessels. Although the maritime industry is gradually incorporating more electronic systems into the wheelhouse, commercial and recreational vessel operators continue to rely primarily on physical aids because they provide reliable, tangible navigation reference points that transcend experience level, language barriers and degree of technological sophistication. AWO opposes any broad-based effort to eliminate physical AToNs. We understand that maintaining physical aids is costly and time-consuming. We also understand that periodically re-evaluating the utility of certain AToNs is an important part of the Coast Guard's navigation safety mission. However, we cannot overstate the extent to which towing vessel operators continue to rely on physical aids to navigate safely, regardless of where they operate.

Blue Water and Brown Water Operators Rely on Physical Aids

In the coastal towing industry, mariners rely on physical aids for far more than demarcating a safe area for navigation. Buoys that mark the entrance to port areas are used by assist tugs as

meeting points for larger vessels entering the port. RACON buoys allow mariners to use physical aids in conjunction with their vessel's radar to ensure safe navigation in low visibility conditions. Critical buoys are outfitted with both audible and visual delineators, such as a bell, gong or whistle, and a 4-second flash or colored flash. These additional features, which were added to eliminate confusion about which aid navigators are referencing, are important as they provide definitive identification of the aid. Industry practice is to place a towing vessel lookout as far forward and as low to the water as safely possible to allow the lookout to aid the watch officer by using both sight and sound to identify their vessel's position and the location of other maritime traffic. Eliminating buoys impairs the ability of the lookout to identify the vessel's location and increases navigation risk.

Coastal towing vessel operators benefit from the full suite of physical aids. AToNs that other maritime users rely on are important to a tugboat captain not necessarily because the captain uses that buoy, too, but because the captain depends on the safe operation of every other vessel on the water. Many recreational boats do not have radar or electronic charts and rely on buoys to delineate traffic separation schemes and entrances to narrow channels. Removing such buoys would make it harder for recreational boats to navigate complex waterways, and this in turn would make navigation for tugboats more challenging even where tug captains themselves do not rely on those same buoys. In Washington State, which has the most registered pleasure boaters in the United States, many of the most important physical aids for tugboat captains are those that directly serve recreational boaters.

On the inland waterways, towing vessel operators are just as reliant on physical AToNs as coastal users. The Missouri River in particular presents navigational challenges that distinguish it from nearly any other waterway in the United States. Its self-scouring design, shifting channel conditions, inconsistent depths, sediment movement, and rapidly changing navigation environment require mariners to continuously assess channel conditions while underway. In this dynamic setting, physical AToNs provide critical real-time visual references that allow towboat operators to verify channel alignment, identify crossing locations, and safely navigate changing river conditions.

Missouri River towing vessel operators have long expressed concerns regarding the reliability of the recommended sailing line. Because the line was originally developed as a mile-marker reference rather than a primary navigational reference for commercial vessel operators, it does not always reflect actual channel conditions. Although progress has been made through coordination with the U.S. Army Corps of Engineers to improve its accuracy, many towboat operators continue to view the recommended sailing line as unreliable in certain locations. Dayboards and buoys thus provide an essential layer of situational awareness and safety that cannot be fully replicated through electronic navigation systems alone.

Over-Reliance on Electronic Aids Poses Clear Safety Risks

AWO has repeatedly expressed concerns that federal agencies are shifting to electronic navigation systems too quickly and without adequate consultation with maritime users. In late 2024, the National Oceanic and Atmospheric Administration ceased producing traditional paper and raster nautical charts, forcing commercial vessel operators to transition to electronic

navigational charts before the Coast Guard had finalized regulations for electronic chart carriage. To date, the Coast Guard has published only an advance notice of proposed rulemaking and has otherwise managed the transition to electronic charts through policy, which does not provide for public notice and comment. Any large-scale decommissioning of physical aids while commercial vessel operators are still awaiting these regulations is not prudent.

Furthermore, recent cyber attacks on coastal ports have highlighted the dangers of over-reliance on electronic systems. For vessel operators, electronic navigational charts and Global Navigation Satellite Systems (GNSS) are useful tools, but they are not infallible. GPS interference, signal degradation, equipment failures, power disruptions and other technological issues can occur without warning. In these situations, physical AToNs become the most reliable means for mariners to confirm their position and safely navigate the waterway. Any reduction in the physical AToN network would increase navigational risk, particularly in busy port areas where towing vessels navigate alongside smaller, less well-equipped vessels or on river systems where channel conditions can change rapidly and electronic references may not reflect current conditions. Because internet-connected systems may be vulnerable to a cyber incident, it is important to maintain a comprehensive, "belt and suspenders" approach to navigation safety by maintaining physical AToNs.

Quantifying the safety impact of physical aids is challenging. Finding comprehensive data on vessel casualties is difficult and every stretch of waterway has different risks. However, one AWO member operating on the Upper Mississippi River researched 111 casualties between mile markers 170 and 180 and found that 90 percent of casualties were due to a discrepant aid (that is, a physical aid either off station or missing). While the Upper Mississippi River is outside the scope of this study, this analysis nonetheless offers a compelling example of the importance of physical aids to safe navigation and highlights the true utility of electronic AToNs: not to replace physical AToNs, but to supplement them.

A Better Approach

In the past, AWO has opposed Coast Guard proposals to decommission hundreds of physical aids and open a docket for stakeholders from individual segments of the maritime industry to defend the maintenance of those buoys that are most important to their specific navigation safety needs. This study, which attempts to gather information from every maritime stakeholder in order to better understand how diverse operators use physical aids to maintain navigation safety, is a much better approach. We thank the Coast Guard for being responsive to our past concerns. We also understand the challenge of maintaining physical aids and we stand by to help the agency determine how to more efficiently accomplish its navigation safety mission as this important study moves forward. Thank you again for the opportunity to comment.

Sincerely,



Caitlyn Stewart
Vice President – Regulatory Affairs