NAVIGATION SAFETY ADVISORY COUNCIL (NAVSAC)

Resolution 15-01

Automatic Identification System (AIS) Aids to Navigation (ATON)

Whereas physical ATONs (i.e., buoys, day markers, visual ranges, lights, etc.) are critical components not only of safe visual and radar navigation, but also of navigation safety in general;

Whereas physical ATONs are relied upon by all segments of the maritime community (commercial, recreational, sport, large/small vessels) to safely navigate;

Whereas smaller vessels, including recreational, sport and fishing vessels, may not have access to, or have available, AIS receivers and, therefore, may rely *exclusively* on physical ATONs to safely navigate for a considerable length of time;

Whereas with the deployment of AIS ATON, it is crucial that mariner training and public educational outreach keep pace and be commensurate with the advancing technology and equipment carriage requirements; and

Whereas NAVSAC understands that the U.S. Coast Guard (USCG) policy regarding AIS ATONs is that AIS aids should be used to enhance existing ATONs, not to replace physical ATONs;

Therefore, NAVSAC strongly recommends to the Secretary of Homeland Security, through the Commandant of the USCG, the following actions regarding the future deployment of AIS ATON:

1. The USCG should view AIS ATON as an ***enhancement***, not a ***replacement*** strategy.
2. The USCG should consider AIS ATON deployment on the basis of navigation safety and **not** a budgetary or cost-cutting framework.
3. The USCG should continue to actively engage with, **and** heed the advice of, local mariners (diverse stakeholders representing all aspects, sectors, and personnel involved in the shipping and boating community) as any plans regarding AIS ATON deployment moves forward.
4. The USCG should develop and promulgate application procedures for requesting private AIS ATON and an implementation timeline.
5. Based on input from local stakeholders, the USCG should continue to add "test beds" for AIS ATON (in port areas with diverse users), which can increase the pool of users, who can then provide more informed feedback to the USCG.

6. If AIS ATON deployment moves forward, the USCG should ensure charting system portrayal symbology includes a "quality / reliability indicator."

7. Even if eventual replacement of a particular physical ATON with an AIS ATON is envisioned, the USCG should ensure a trial period - **of a considerable length of time** - where the AIS ATON is overlapping or redundant to the physical ATON should be used.

8. The USCG should continue to study AND engage local stakeholders as to whether AIS ATONs should reflect the actual position vs. the charted or intended position of the physical ATON.

9. The USCG should continue to develop standard symbology, in cooperation with the International Maritime Organization as appropriate, to distinguish between the three types of AIS ATON.

10. Because it is crucial that mariner training keep pace and be commensurate with the advancing technology and equipment carriage requirements, the USCG should ensure that, in addition to formal classroom course work, that the agency engage in aggressive public outreach and education efforts to ensure operators of recreational and other smaller vessels, as well as foreign flag vessel crews, are aware of AIS ATON placement, symbology, etc.

11. USCG should require graphical display of chart and AIS information by vessels covered by the existing AIS carriage requirements.

12. NAVSAC is not suited to conduct a review of all AIS ATON currently deployed. Decisions on the deployment of AIS ATON should be viewed by the USCG *as a local matter*. Even though NAVSAC is not best suited to conduct a nationwide review of AIS ATON already deployed USCG should <u>continuously</u> provide to NAVSAC a complete list of all AIS ATON currently in place, timelines for projected AIS ATON deployment, as well as any specific public comments (positive and negative) the agency has received about these deployed AIS ATON.

13. The USCG should recognize that any value that AIS ATON may contribute to navigation safety is critically impacted by several factors largely beyond the control of the USCG, including: (1) Portrayal equipment aboard vessels (i.e., ECDIS) is functional, properly installed and operated as designed; and (2) Mariners aboard vessels are fully aware of, and understand, how the various AIS ATON variants function and are marked on charting equipment (i.e., symbology).

14. The USCG, as a priority, should consider the following opportunities for deploying AIS ATON:

- When a physical ATON (floating or fixed) is moved (e.g., dredging project) or off station (i.e., storm, ship strike, etc.), AIS ATON could be placed in a timely manner as a **<u>temporary</u>** marker of the missing or damaged ATON.
- **<u>Temporarily</u>** mark a hazard (i.e., sunken barge, newly discovered shoal) until permanent arrangements can be made (i.e., placement of physical ATON, barge removed, dredging completed).
- Quickly mark a temporary "exclusion zone" or "safety zone".
- As a redundancy, add an AIS ATON (overlapping, <u>not</u> in lieu of) to all RACONS (e.g., sea buoys, bridges, TSS, etc.).
- Place AIS ATONs in locations where physical ATON is desired, but not currently in place due to impracticalities (e.g., environment, water depth, geographic location, remote Western Alaska).
- Augment "seasonal buoys". For example, on the Great Lakes, when physical ATONs must be removed due to ice, AIS ATONs can be put in place (or left in place).
- In areas where large wave action (i.e., Columbia River Bar) prevents reliable detection of essential floating ATONs, AIS enhancement of the physical ATON could be implemented to allow for safe navigation.
- In the event of a natural disaster that compromises the physical ATON array in a port / waterway area, a full array of virtual ATONs should be ready for immediate, but temporary, deployment to expedite movement of the most essential shipping traffic.