

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

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16500
20 Oct 2015

MEMORANDUM

From: [REDACTED]
COMDT (CG-NAV)

Reply to [REDACTED]
Attn of: [REDACTED]

To: CCGDEIGHT (dpw)
Thru: LANTAREA

Ref: (a) Aids to Navigation Manual – Administrative, CIM16500.7 (series)
(b) Aids to Navigation Manual – Positioning & Range Surveying, CIM16500.1 (series)

Subj: INTERIM GUIDANCE FOR WESTERN RIVERS AIDS TO NAVIGATION
POSITIONING AND INFORMATION MANAGEMENT

1. Purpose: This document is intended to provide interim policy guidance for the administration of Aids to Navigation (ATON) in the Western Rivers (W/R). Upcoming revisions to references (a) and (b) will reflect this policy.
2. Background: The development of U.S. Army Corps of Engineers' (USACE) Inland Electronic Navigation Charts (IENC) coupled with the expanded capabilities and use of commercial Electronic Charting Systems (ECS), has significantly improved the way mariners navigate on the Western Rivers. These advancements require the Coast Guard to adopt new W/R ATON management procedures and supporting systems to meet the needs of the waterway. Principally, the need to exchange near real-time data between USACE, USCG, and users necessitates the adoption of harmonized data file formats. Traditionally, the "River Mile" was used to convey ATON and Marine Safety Information (MSI). While this is extremely useful aboard vessels, it does not work well within database structures, digital communications, and geospatial applications. In an effort to adhere to the international standards set by the International Hydrographic Office (IHO) followed by USACE IENCs, we must transition our ATON and MSI data from river mile to a position standard.
3. ATON Management and Positioning Systems: The W/R ATON system is supported by the U.S. ATON Information Management System (USAIMS) and the USCG Electronic Navigation Charting System-Inland (CG ECS-I).
 - a. USAIMS: This application is the interface to the Aids to Navigation Information System (ATONIS) database used by ATON personnel to administer, maintain, and disseminate ATON and MSI data. All buoys and beacons on the Western Rivers are to be entered into USAIMS and maintained in accordance with reference (a).
 - b. CG ECS-I: This system is a dual purpose navigation and buoy positioning software application used to establish, relocate, and discontinue W/R buoys. Buoy data created within this system is transferred to USAIMS via a synchronization feature. Buoy data

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is transferred to USACE on a weekly basis and is converted into an IENC for use as a value added layer depicting the most current positions of buoys in the W/R system .

4. Positioning Requirements: All Aids to Navigation must have a latitude and longitude to describe their location. International standards set by IHO are based on a World Geodetic Survey 1984 (WGS-84) latitude and longitude coordinate system. In order to adhere to this standard, all W/R ATON will use North American Datum 1983 (NAD83), which is the WGS-84 equivalent.
 - a. Beacons – All beacons shall be given an Assigned Position (AP) in ATONIS and are to be positioned in accordance with chapter 6 of reference (b). Field units unable to position as required shall indicate why and how the beacon position was determined. Paragraph 1.E.2 of reference (b) provides the ability to accept positioning data from other sources, such as data provided by USACE survey teams.
 - b. Buoys – All buoys shall be positioned using the verification functionality provided in CG ECS-I. Cutters and ATON Teams (ANTs) shall at a minimum “verify” all observed buoys or delete missing buoys while transiting a river segment. Cutters and ANTs shall record all established, relocated, or discontinued buoys in CG ECS-I during ATON operations. The data recorded shall include buoy type/size, mooring information, depth and river gauge.
5. Administrative and Procedural Requirements: The unique nature of W/R ATON operations necessitates an equally unique work flow in the pilothouse wherein the safe navigation of the cutter is combined with buoy positioning and data collection functions within CG ECS-I. While this tool provides the operator the ability to safely navigate and execute the ATON mission, we recognize that it does create additional work tasks by requiring extra steps to upload/download data to USAIMS. CG-NAV will continue work to develop a seamless and transparent data transfer protocol.
 - a. USAIMS ATON Data File Transfer – ATON data collected in USAIMS is automatically uploaded and downloaded when the application is started, and when the computer in use is connected to the USCG network (CGOne). ATON units with underway connectivity can remain connected to the network, but USAIMS performance may be negatively impacted if the connection is weak or the signal is interrupted. Units without underway connectivity shall launch USAIMS as soon as possible after the ATON positioning computer has been reconnected to the network. Weekly uploads/downloads in USAIMS should be conducted to lessen the amount of data needed to be moved across the network.
 - b. CG ECS-I ATON Data File Transfer – ATON data collected in CG ECS-I must be transferred to USAIMS via a portable encrypted hard drive. The process for transfer is detailed in the CG ECS-I user guide. ATON units must transfer the data within 24 hours after an ATON servicing deployment is completed or when U/W connectivity is

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available. The synchronization functionality in USAIMS will ensure data uploaded/downloaded by field units is the most current available. Therefore, units must synchronize their data immediately prior to their next ATON deployment.

- c. ATON Verification – ATON units shall verify the information on the USACE IENC and Light List for all assigned ATON in accordance with reference (a). Additionally, ATON contained in the USACE developed buoy chart must be verified through comparison of the data in CG ECS-I. The verification of the buoy chart shall be conducted when a new chart has been issued following an ATON deployment. USACE issues a new buoy chart every Wednesday and uses data obtained from ATONIS on each Monday.

6. My POC is [REDACTED]

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