

**The Department of Homeland Security, Coast Guard, Docket No. USCG-2010-0164,
National Boating Safety Advisory Committee; August 2022 Virtual Meeting**

Captain Amy M. Beach, USCG Director of Inspections and Compliance, Code 9110-04-P

**Mr. Jeff Decker, Alternate Designated Federal Officer, National Boating Safety Advisory
Committee**

Committee members, Ladies and Gentlemen:

**Regarding Agenda Items (6) (b) National Recreational Boating Strategic Plan and (11)
Boating Safety Related Topics**

**The following comment is pertinent to the Plan and contains information critical to
improving recreational boating safety.**

To wit:

The safety of recreational boaters on the navigable waters of the United States is being jeopardized by the boaters' lack of access to up to date navigational charting information due to the current standard of care being exhibited by the manufacturers of recreational electronic chart display information systems. The electronic charts and associated subscription update services being offered by the manufacturers are navigationally unsafe due to being generally significantly out of date, at some manufacturers by more than one year, and the displayed charts do not provide boaters any traceability to the USCG issued weekly Local Notices to Mariners that have been incorporated.

The worldwide IMO/IHO led transition to Electronic Navigation Charting in support of SOLAS and GMDSS treaty obligations is well underway and effectively supporting the safety needs of the participating large commercial ship mariners. The United States' own National Oceanic and Atmospheric Administration has been leading the way in architecting a successful transition from traditional paper charts to electronic navigation charts in collaboration with its mission partners. Today, NOAA and the USCG provide ENC and LNM charting updates on a weekly cycle.

The electronic charting update infrastructure exists throughout the worldwide commercial maritime industry and is supported by the commercial manufactures of the GMDSS / ECDIS equipment. These participants access and utilize weekly updates to maritime charting information. Indeed they are mandated to utilize this update process and frequency. This weekly update process is the established international standard for ensuring the carriage of most recent navigation planning charts.

The manufactures of recreational electronic chart plotters and multi-function displays advertise that they provide boaters access to the latest charts via internet subscriptions and one-time memory card updates. The fact of it is that none of the manufacturers comes anywhere close to providing "the most recent charts". The ones that I am personally familiar with and those of my

boating associates, is that the updates are generally six months to several years out of date. And even more jeopardizing to boater safety, none of the major manufacturers enables traceability of the viewed chart segment to the USCG LNMs that are incorporated.

Across the industry, by manufacturers' design, recreational boaters have no way to know exactly how old the electronic chart is that they are viewing on their recreational navigation displays and what is the date of last incorporation of USCG LNM data regarding lateral navigation aids!

The data and infrastructure is available to rectify this safety shortfall. NOAA / USCG provide it now to the GMDSS / ECDIS manufacturers and mariners on a weekly update basis. Not one single recreational navigational display manufacturer provides a recreational version of this weekly update service, at any price to recreational boaters. (To my knowledge)

I am requesting that The Committee recognize the existence of this critical navigational safety gap and work to expeditiously remedy it by incorporating the necessary actions into the National Recreational Boating Strategic Plan, agenda item (6) (b).

As governments sunset the traditional printed navigational charts and industry and government move to an all electronic chart format for both SOLAS ships and recreational boaters, navigationally safe frequent updates and the traceability of displayed data to the incorporated USCG LNM needs to be made available to recreational boaters.

Over the last ten years neither the recreational boating marketplace nor its product competition has brought about any notable improvement in chart updating recency. The technology has improved and eased the burden of boaters applying changes, but the manufacturers' chart packages and updating subscription services have not noticeably improved in their recency of charting information. And there has been no progress to link the charted information or the chart segment displayed with the latest USCG LNM incorporated within.

NOAA encourages recreational boaters to utilize ENC data and viewers instead of the RNC paper charts:

"Easier to Update – No hand corrections are needed on ENCs as is the case to update paper nautical charts. Loading ENC revision files automatically apply all the latest ENC updates. **ENC updates are available weekly from NOAA** and its value added resellers."

NOAA recognizes that as conventional printed charts are sunset, that ENC charts and viewers will become the primary means of navigation for recreational boaters

"NOAA Custom Chart – This capability, currently being prototyped by Coast Survey, will enable users to define the extent, scale, and paper size of their own customized paper

chart, created from the latest ENC data and output as a PDF file. **Recreation boaters may print these files to use as a backup for their chart display systems** or for small scale overview planning."

(the above two quotes were retrieved from <https://nauticalcharts.noaa.gov/updates/noaa-encourages-all-mariners-to-use-noaa-enc-for-latest-updates-and-other-advantages/> on 8/7/2022)

For the purpose of establishing minimum safety thresholds, governing bodies and governments routinely establish minimum system requirements and manufacturing regulations. With the sunset of paper RNCs and the transition to ENCs and electronic displays, the old method of writing LNM updates on paper charts needs to be transitioned into its equivalent for electronic displays. The most likely method for this transition is to utilize the currently available weekly ENC update infrastructure.

Manufacturers of ENC display devices across the industry, by conscious analysis and decision, are intentionally preventing recreational boaters from having access to the latest navigational information for their ENC display devices. This is readily apparent by examining the ENC chart update products and services the manufacturers offer for sale. These products and services represent the manufacturers' decisive allocation of capital and labor. An allocation that does not include a chart update recency that meets the international definition of navigationally safe updates. The SOLAS participants define navigationally safe chart update frequency to be weekly.

(1) I ask the Committee to adopt the SOLAS definition for navigationally safe chart updates as the standard for recreational boating safety. And thus incorporate into the 2022 – 2027 Plan an Opportunities and Challenges - Technologies strategy. This strategy to evolve the recreational boating electronic manufactures' culture toward a practice of weekly ENC chart update availability for equipment owners. Also within the Plan promulgate associated Performance Initiatives.

As an example of how important it is for recreational boaters to have access to current navigational information consider the following:

Plan a 200 mile cruise (extends your navigation planning beyond your home range and local knowledge) using your favorite ENC chart plotter and ENC chart supplier. As of the date of your planning, do you know which of the LNM permanent chart corrections are incorporated on your charts and which are not? What is the cleared by date for the LNM on the chart segments in your cruise plan? Can you tell how far back in the LNM archive you need to go to be cognizant of the unincorporated permanent changes?

In the Fall of 2021, in my home waters, the USCG re-marked an entire navigation channel between two sounds by flipping the navaid chain end - over - end, "R-60" is now "G-1". As of August 2022 my Premium Subscription for ENC updates with a major

recreational marine electronics manufacturer does not include these navaid changes! How would you like to approach that navigational scenario in unfamiliar waters? How would you even know that the charts are so out of date?

The recreational marine electronics industry has not, and is not addressing the described critical navigation data recentcy gap.

(2) I am requesting this Committee, through its powers, cause a remedy to be enacted through appropriate actions being incorporated into the National Recreational Boating Strategic Plan, agenda item (6) (b) and by all other means at the Committee's disposal.

These two requests are consistent with and support the objectives contained in the USCG National Recreational Boating Safety Program

The mission of the National RBS Program is to ensure the public has a safe, secure, and enjoyable recreational boating experience by implementing programs designed to minimize the loss of life, personal injury, and property damage while cooperating with environmental and national security efforts

Ensuring that recreational boaters have access to up to date navigational information for their electronic navigational displays is paramount for a safe and enjoyable experience.

The RBS Program includes Technologies as the second of its four Challenges & Opportunities.

Since the US Commerce Department / NOAA has made the strategic decision to sunset traditional paper charts and to recognize Electronic Navigation Charts and information displays as the primary navigational planning means, and based upon United States adoption of the GMDSS with its ECDIS and emerging trends in the recreational boating community towards the use of electronic navigation instead of the traditional printed paper chart, an additional Technology C & O for the RBS Program is evident: Improve education and training of recreational electronic navigation displays and improve boater access to up-to-date ENC data ensuring that the displayed charts are navigationally safe.

I trust that the foregoing comment will be useful to the Committee as it reviews and evaluates the 2022 -2027 RBS Strategic Plan and discusses boating safety related topics.

Respectfully,

Richard LaPalme

Richard LaPalme
USCG Merchant Mariner, Master
Fifteen Year Member of the United States Power Squadrons, Senior Navigator
Federal Aviation Administration Certificated Flight Instructor, Multi-Engine, Instrument