



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Under Secretary of Commerce**  
**for Oceans and Atmosphere**  
Washington, D.C. 20230

July 10, 2023

Ms. Julie Thomas  
Chair, NOAA Hydrographic Services Review Panel  
Senior Advisor, Coastal Data Information Program  
and SCCOOS  
Scripps Institute of Oceanography  
9500 Gilman Drive, No. 0214  
La Jolla, CA 92093

Dear Ms. Thomas:

Thank you for your letter, priorities matrix, and recommendations on behalf of the Hydrographic Services Review Panel (HSRP) following your public meeting in San Juan, Puerto Rico, between February 28 and March 2, 2023. I was pleased to hear there was meaningful conversation about the need for tailored National Oceanic and Atmospheric Administration (NOAA) products and services in the U.S. Caribbean region. We continue to work diligently to ensure equitable delivery and access to all in the U.S. Caribbean and around the country and welcome your input. It comes as no surprise that Puerto Rico and other islands are increasingly experiencing the effects of climate change, and NOAA and our partners need to provide tools to facilitate future planning.

As you note, and as Nicole LeBoeuf and the Navigation Services Office Directors shared following the meeting, your agenda covered topics important to NOAA, which include sustainability, coastal resilience, challenges faced by the maritime community in island communities, and the nexus between NOAA's navigation services and the Integrated Ocean Observing System. I was pleased also that you heard from Rear Admiral (RADM) Nancy Hann about our focus on NOAA fleet recapitalization and ways the future fleet can reduce emissions and increase efficiency.

I appreciate the HSRP's support of the National Geospatial Advisory Committee's resolution on geodesy and recognize the challenge of a declining number of practicing geodesists. The National Geodetic Survey will continue to work with interagency partners to raise awareness of this important economic and national security issue.

I have reviewed the HSRP's advice and six recommendations you listed in your letter and will incorporate them as appropriate going forward. With respect to those recommendations, I offer the following thoughts:

1. NOAA's core Navigation Services products and services are critical, and I am pleased that in the FY 2024 President's Budget there were increases to support the National Water Level Observation Network, Vdatum, NOAA Continuously Operating Reference Station network, and emergency response imagery. I understand that these increases will

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not “fix” all of the challenges faced by the Navigation Services offices, but I am encouraged to see the budget moving in the right direction.

2. NOAA leadership is committed to setting a strong example with respect to sustainability. As the leader in climate information and services, NOAA has a responsibility to look inward as well and to minimize our own carbon footprint. As such, I am leading an ambitious initiative that will see NOAA’s fleet achieve net-zero emissions by 2050. The path ahead will require a commitment to innovative technologies, partnerships, and practices. For example, as Scripps develops its own net-zero emissions research vessel, I look forward to finding opportunities for NOAA and Scripps to learn from each other. We can take on this challenge in a way that not only ensures we protect current research and data collection capacity, but also actually enhances our ocean observations, fisheries, and marine science efforts. I encourage the HSRP to review a Request for Information (RFI)<sup>1</sup> on net-zero emissions technologies and potential enhancements that is open for comment until June 27. The RFI will help inform the design and procurement of the next class of NOAA research vessels largely focused on fisheries research.
3. NOAA is committed to ensuring equitable service delivery for the products and services on which islands like Puerto Rico rely upon. I applaud the HSRP for having such direct conversations during the past two meetings about how NOAA can improve navigation services for remote and underserved communities, and I encourage the HSRP to continue that dialogue.
4. Puerto Rico has seen firsthand the impacts of severe storms. NOAA, and its National Ocean Service in particular, are prioritizing coastal resilience and highlighting the importance of foundational mapping data for coastal resilience planning, mitigation, and adaptation. I have encouraged the National Geodetic Survey and the NOAA Office of Coast Survey (OCS) to explore how we may be able to work with our Federal partners to increase the frequency of Light Detection and Ranging and aerial photography observations. I understand how communities could use this information for planning decisions, and I encourage NOAA’s Integrated Ocean and Coastal Mapping Program to assess and expand regional mapping strategies following examples from other regions in the United States and report back to the HSRP on the status. This type of local-to-regional coordination is needed to leverage all available mapping assets to ultimately acquire additional data in areas that have not been mapped to modern standards.
5. OCS recognizes that more stakeholder engagement is needed to present a comprehensive NOAA Electronic Navigational Chart solution for all segments of the maritime community. RDML Evans will continue to coordinate with the U.S. Coast Guard on the carriage requirements for sub-Electronic Chart Display and Information System vessels to ensure that all mariners are able to adhere to industry standards.

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<sup>1</sup> Request for Information on Net-Zero Options for NOAA’s Fleet – Class C Vessels  
<https://sam.gov/opp/99531e6487da4bf9951df348e0eb6518/view>

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6. NOAA recognizes Digital Twins as a powerful concept for integrating data from many sources and mining it for actionable information. I invite the HSRP to engage with the NOAA Center for Artificial Intelligence to more fully explore the opportunities to use Digital Twins to better meet the missions of the Navigation Services offices.

I appreciate your recommendations, as well as the time and effort the HSRP puts into assessing NOAA's Navigation Services. The HSRP's expert input is vital to ensure that NOAA provides the best available scientific information, tools, and services for sustainable economic growth and environmental stewardship as we work together to build a climate-resilient Nation.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Spinrad", written in a cursive style.

Dr. Richard W. Spinrad  
Under Secretary of Commerce  
for Oceans and Atmosphere  
and NOAA Administrator

cc: Sean M. Duffy, Sr., Vice Chair, HSRP