August 19, 2020

Mr. Edward J. Saade Chairman Hydrographic Services Review Panel 14479 Maplewood Street Poway, CA 92064

Dear Mr. Saade:

Thank you for the Hydrographic Services Review Panel (HSRP) recommendation letter and issue paper. I share your praise of the entire National Oceanic and Atmospheric Administration (NOAA) and HSRP team for their efforts in successfully creating an engaging virtual platform for the April 28, 2020, meeting.

On June 11, 2020, the White House Office of Science and Technology Policy and Council for Environmental Quality released three strategies in response the November 2019 Presidential Memorandum on Ocean Mapping. NOAA's National Ocean Service (NOS) was integral in the development two of the three strategies, which included: 1) a national strategy for mapping, exploring and characterizing the U.S. Exclusive Economic Zone; and 2) a 10-year strategy for mapping the Alaskan shoreline and nearshore.

NOAA has already begun implementing aspects of these two strategies, including establishing new ocean mapping protocols and creating a new coastal subcommittee under the Alaska Mapping Executive Committee. NOAA's National Geodetic Survey (NGS) is integral to implementing the Alaskan strategy, which includes plans to build on existing mapping partnerships; expand coastal data collection; leverage technological innovations; and promote widespread stakeholder engagement. Accurate and complete mapping data will aid in informed management of coastal lands, safe navigation, and responsible resource and energy use in Alaska. This is a tremendous opportunity for Alaska and our country to better understand our vast ocean and coastal resources. NOAA will continue to update and engage with HSRP on the strategies.

I appreciate your continued attention to the challenges of navigation with restricted visibility in fog, and your support for real time visibility sensors via NOAA's PORTS® Program and Operational Forecast System models. I look forward to hearing additional HSRP recommendations on the sensors, programs, and paradigm changes that may be required for NOAA and partners to allow mariners to navigate in fog or reduced visibility in channels and enclosed waterways.



Mr. Edward J. Saade Page 2

A range of unmanned systems applications are being used to advance and support NOS' hydrographic and navigation services mission. Unmanned systems are particularly useful at mitigating impacts to field operations during the COVID-19 pandemic. NOS has continued to make improvements based on your prior recommendations for unmanned systems development.

NOAA will review the challenges, roles, and advice you shared in the issue paper, *Automation and Artificial Intelligence in NOAA's Post-disaster Products and Services*. There is continued interest in artificial intelligence (AI) and its application to hydrographic services broadly as it relates to maritime commerce and port operations. I understand you are also interested in the use of AI to extract actionable information quickly for first responders from NGS emergency response imagery especially related to resuming coastal and port operations. NOAA will further examine our products and role in supporting disaster response and recovery and will share relevant concerns with the Federal Emergency Management Agency and other Federal agency partners.

As alluded to during the April HSRP meeting, NGS officially announced a delay in the release of the modernized National Spatial Reference System (NSRS). NOAA is committed to an effective and efficient release of the modernized NSRS and to encourage early and widespread adoption of the new system. NGS is conducting a comprehensive analysis of all ongoing projects, programs, and resources required to complete NSRS modernization and will provide further updates to HSRP when available.

I appreciate your recognition of RDML Smith and his service to our Nation. I look forward to furthering our discussion at your next meeting in September 2020.

Sincerely,

Neil A. Jacobs, Ph.D.

Assistant Secretary of Commerce for Environmental Observations and Prediction

Performing the Duties of Under Secretary of Commerce for Oceans and Atmosphere