William Hanson, Chair Joyce Miller, Vice Chair

April 22, 2016

Kathryn Sullivan, Ph.D.
Under Secretary of Commerce for Oceans and Atmosphere
National Oceanic and Atmospheric Administration (NOAA)
U.S. Department of Commerce
1401 Constitution Avenue, NW, Room 6217
Washington, DC 20230

Dear Dr. Sullivan:

The Hydrographic Services Review Panel (HSRP) wishes to provide our recommendation letter based on our recent meeting convened in Galveston Texas 15-17 March 2016. We would first like to acknowledge key individuals involved not only in this meeting but also in numerous others over the last several years.

- The active participation of Dr. Russell Callender, Assistant Administrator,
 National Ocean Service (NOS), and Mr. Glenn Boledovich, Chief, Policy and
 Constituent Affairs Division, NOS is very important to progress made at these
 meetings. With their combined expertise and knowledge, they always provide
 valuable perspectives and advice to the panel about current NOAA issues.
- As discussed in our email and letter of March 28, 2016, we also want to highlight the outstanding leadership that Rear Admiral Gerd Glang, NOAA's Designated Federal Official for the HSRP, has provided during his tenure.
- Finally, we also want to acknowledge the superior leadership of our now Past Chair Scott Perkins, who has successfully led the panel as chair during an important period even as his own career changes demanded a lot of his time.

HSRP members are working to create an on-going series of one-page issue papers about critical hydrographic issues to inform current and future NOAA leadership personnel and stakeholders. We believe that issue papers are and will continue to be a significant HSRP contribution to help focus attention on issues that will help move NOAA forward as a world leader in hydrography and on critical stakeholder needs. Attached to this letter are the first three of these documents:

- The NOAA Hydrographic Survey Fleet: A Critical National Asset
- Charting the Maritime Arctic
- The Hampton Roads Regional Pilot Project

The HSRP developed three major recommendations during this meeting. We considered the first of these issues to be extremely time critical with NOAA decisions due in a few days or weeks; thus the HSRP already delivered this recommendation in a separate e-mail and letter dated March 28, but repeat it briefly here for completeness.

- 1. There was a great deal of discussion among panel members expressing their opinions that the members believe that it critical that the Director of the Office of Coast Survey (OCS), who is designated as the National Hydrographer, be an experienced hydrographer. The position requires extensive technical knowledge of hydrography, charting, geodesy and marine navigation, and the Director of OCS represents our national interests at international forums such as the International Hydrographic Organization (IHO). While we understand that this is a personnel matter and not within the scope of the HSRP, it would be disingenuous if we did not share this discussion with you.
- 2. The single most pressing need for recapitalization of the NOAA fleet is replacement of two of the oldest vessels, the hydrographic survey ships *Rainier* and *Fairweather*. The HSRP recommends that the \$80.5 M appropriated in 2016 for NOAA fleet recapitalization should be applied to the acquisition or construction of an Arctic-capable survey vessel that carries multiple launches. The attached paper "The NOAA Hydrographic Fleet: A Critical National Asset" provides detail on the many reasons that the hydrographic fleet is essential to our nation's infrastructure and economy.
- 3. The HSRP continues to highly recommend that a Congressional budget line item for NOAA (minimum \$30M annually) be requested for Arctic hydrography, charting and associated geodetic and oceanographic observations. Only 4.7% of the U.S. maritime Arctic is charted to modern international standards, a serious gap in U.S. Arctic marine infrastructure. This frontier region is experiencing increased marine operations and continues to be of strategic and economic importance to the U.S. The attached paper "Charting the U.S. Maritime Arctic" provides a more complete discussion of this issue.

Other topics discussed at this meeting include a number of issues. At this, as at almost every other HSRP meeting in recent memory, numerous stakeholders and panel members in Galveston praised the abilities of and stressed the need for NOAA's Physical Oceanography Real-Time System (PORTS) program and Navigation Response Team (NRTs); these programs are two of NOAA's most visible, popular and successful, and there is strong community support for their continuation and/or expansion. Coastal inundation, ranging from storm surge to sea-level rise, is a critical issue on the Gulf Coast. Data and tools that NOAA provides to monitor, predict and prepare for these phenomena are invaluable to the local community. We congratulate you on the success of these programs and the credit they bring NOS and will continue to promote these programs as essential and beneficial to the nation.

Another important discussion related to the lack of qualified hydrographic personnel for both commercial and government work and the need for more training programs in the United States. HSRP will be delving into this issue more in the future as we look for ways to assist with future promotion of the profession. The HSRP held a timely discussion in response to the largest ship to ever enter a U.S. port, the December 2015

visit of the mega-ship *Ben Franklin* to Los Angeles/Long Beach and Oakland. With everlarger container and cruise ships operating in U.S. ports, safety issues and precision navigation requirements become even more critical.

Representatives from the maritime industries discussed the need to make use of multiple streams of voluminous data from different sources, to integrate these data streams into user friendly, uniform formats, and to quickly get integrated information into the hands of users. The panel also discussed the need for NOAA and the US Army Corps of Engineers (USACE) to work toward more rapid data exchange; data should also be posted in an easily accessible format and a single location. We applaud NOAA and USACE leadership efforts to partner in this direction, and we encourage additional collaboration to generate efficiencies. The Integrated Oceanographic and Coastal Mapping (IOCM) program was discussed as a positive example of data sharing & coordination, and the HSRP recommends that this group should receive continued support and promotion as a best practice for use in other applications.

The HSRP held elections for the positions of Chair and Vice Chair. Bill Hanson, the previous Vice Chair, was elected as Chair and Joyce Miller as Vice Chair. Five newly selected panel members were present at the meeting, but paperwork to install three of the new designees had not yet been completed. The diversity of the panel well represents the NOS stakeholder community and will allow for meaningful dialogue in future meetings. As a result of the vibrant discussion regarding trends in hydrographic services, a new Evolving Technologies working group was created. We anticipate this group to provide interesting recommendations and challenges in future meetings.

Your past participation and interest in our work has been critical in encouraging the panel to continue to produce what we believe is important advice to NOAA leadership. We would welcome the opportunity to meet with current and/or future NOAA leaders to discuss recommendations and ideas presented in this letter. The next meeting of the HSRP is planned on August 30-31 in Cleveland, Ohio, and we hope that you or Vice Admiral Brown might be able to attend.

Sincerely,

William Hanson

Chair, HSRP

Joyce Miller Vice Chair, HSRP

Attachments

Charting the U.S. Maritime Arctic issue paper

The NOAA Hydrographic Survey Fleet: A Critical National Asset

The Hampton Roads Regional Pilot Project