Congress of the United States House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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Dear National Academies of Sciences, Engineering, and Medicine Workshop on Sustaining Ocean Observations:

Thank you to the National Academies for inviting me to provide a statement on the final day of this workshop on Sustaining Ocean Observations. I regret that I am unable to be with you in person, but as Chairwoman of the House Science, Space, and Technology Committee, I appreciate this opportunity to tell you about what the Committee has been doing to support and advance ocean science and technology at our Federal agencies and through key partnerships.

While I represent the landlocked 30th Congressional district of Texas, which includes much of the city of Dallas, the value of the oceans is not lost on me. A June estimate by NOAA and the US Economic Bureau estimated the ocean economy, or "Blue Economy," contributes \$373 billion per year to U.S. Gross Domestic Product. And the Blue Economy is growing faster than the nation's economy as a whole. Given the ocean's significant role, it's hard to believe that this was the first official estimate of the value of the Blue Economy to the United States.

Ocean observations, and the technology and enterprise sustaining them, are key enablers for the Blue Economy and our prosperity as a nation. Ocean observations rely on many different types of technologies and infrastructure, from space-based satellites, to sea surface buoys, down to deep ocean Argo floats and gliders. Ocean observations help us understand Earth system processes, build resilient coastal communities, prioritize protection and sustainable use of ocean resources, and contribute to economic growth.

Examples of the benefits of a robust ocean observations capability are numerous. For example, we have seen how increasing ocean observations, such as deploying a fleet of ocean gliders in the Gulf of Mexico, has helped improve the accuracy of Atlantic hurricane forecasts. In addition, our records of key ocean variables such as sea surface and subsurface temperatures, sea surface height, and dissolved oxygen and carbon dioxide levels have revealed alarming rates of

¹ https://www.noaa.gov/media-release/marine-economy-in-2018-grew-faster-than-us-overall

sea level rise, ocean acidification, and biodiversity changes, providing key insights into the impacts of climate change.

As Chairwoman, I have made it a priority this Congress to elevate the conversation surrounding our oceans by supporting the ocean science and research happening at agencies within the Committee's jurisdiction. Agencies such as NOAA, NSF, NASA, and the Department of Energy each play a key role in ocean monitoring, research, and observations. Interagency partnerships have also played an important role in supporting ocean observations in recent years. The interagency National Oceanographic Partnership Program led to the creation of the critical Integrated Ocean Observing System. And DOE and NOAA's Powering the Blue Economy Ocean Observing Prize will support the development of marine renewable energy-powered ocean observing platforms.

The Committee has held hearings this Congress that have discussed the importance of ocean exploration and examined climate change impacts on the oceans and coasts such as glacier and ice-sheet melt, and marine biodiversity loss. Last year, the Committee held its first-ever Ocean Exploration Expo, which brought together over 17 different exhibitors from Federal agencies, private companies, academic labs, and philanthropic organizations who all highlighted the important role of technology in studying and exploring the oceans.

The House also passed five bipartisan Science Committee-led ocean bills last year which addressed the threats of ocean acidification and harmful algal blooms. I am working with my colleagues in the Senate to encourage the passage of these bills out of their chamber as well. I am also hopeful that Congress will reauthorize the National Oceanographic Partnership Program this year as part of the National Defense Authorization Act. In addition, we are continuing work on additional bipartisan legislative initiatives that I hope we can consider in the 117th Congress. Despite all that we have accomplished so far, there is so much more work left to do. The U.S. must chart a strong and steady course both in conducting research to better understand our oceans, and in developing innovative technologies to ensure that we can remain competitive globally in the Blue Economy. Despite the disruption that the COVID-19 pandemic has caused to certain ocean research and observations, it is imperative that we ensure continuity of measurements. We must also ensure that ocean observing systems have built-in resiliency to prevent disruptions from future pandemics and disasters.

I thank you all for the important work you are doing for our oceans. You have my commitment that the Committee will continue to support a robust ocean research, observations, and technology enterprise. I want to wish you a productive Workshop, and I look forward to hearing the results of your efforts.

Eddie Bernier Johnson

Eddie Bernice Johnson

Chairwoman

House Science, Space, and Technology Committee