Committee Act body, as NOAA is now statutorily required through the FY 2021 reauthorization to provide administrative and technical support.

National Oceanic and Atmospheric Administration
I respectfully request at least $7.2 billion for NOAA (3% more than the request).

To make the best, proactive management decisions possible, it is necessary that we first understand our ocean. So much of our ocean remains unknown—more than 80 percent is unexplored, unmapped, or unobserved. We must grow our nation's ability to both observe and to explore the ocean. I respectfully request at least:

- **$100 million for the Office of Ocean Exploration and Research** (130% more than the request), the only federal organization dedicated to ocean exploration. Due to the cooperative nature of the enterprise, I also request report language addressing the importance of collaboration and coordination among federal and state agencies, academic institutions, industry, Indigenous communities, philanthropy and other oceanographic partners to maximize return on investment and advance shared data, science and public engagement, and innovative technology.

- **$69.5 million for the U.S Integrated Ocean Observing System (IOOS) regional system** (equal to the request), which includes at least $40.2 million for the national network of regional coastal observing systems; $2.5 million to install high-frequency radar systems to close gaps in the surface current mapping system, $3.5 million to support underwater gliders; $2.5 million to streamline observations, coastal resiliency, and coastal climate observations; $3.5 million to expand pilot projects for a National Harmful Algal Bloom Observing Network; and $4.3 million for ocean technology and modeling innovation. Additionally, I request at least **$7.3 million for the Program Office.** I also support language in the request around the establishment of a Marine Life Program and the $15 million in external grant funding to expand marine life observations (which should include activities around eDNA and ‘omics), support analysis, and forecast implications of climate change. Finally, I support authorizing language around maintaining and expanding the **Ocean Noise Reference Station Network** (in coordination with IOOS) and request $1.5 million for this work.

- **$66.8 million for the Sustained Ocean Observations and Monitoring Program (SOOM)** (equal to the request) to maintain observations to better understand and respond to changing ocean conditions. SOOM, whose funding has remained essentially flat since FY 2005, funds an array of monitoring capabilities necessary to understand the long-term impacts of the changing climate; to enhance hurricane forecasting, tsunami warning systems, and storm surge monitoring; to improve weather forecasting; to assess and plan for environmental variability and change; and to sustainably manage marine ecosystems.

- **$10 million for Uncrewed Systems** (150% more than the request) within the Office of Oceanic and Atmospheric Research to advance research and evaluation for operational readiness, including testing and evaluation in partnership with academia, industry, and other non-governmental organizations in support of the **CENOTE Act of 2018 (PL 115-394).** I respectfully request at least half the funding be for uncrewed maritime systems and that, to the extent practicable, funds be competitively awarded in open competition.

NOPP is not the only partnership program that brings great benefit to the ocean science community. Many programs at NOAA advance cooperation and coordination between federal and non-federal partners and provide extramural funding opportunities. I respectfully request at least:
• **$42 million for the National Centers for Coastal Ocean Science Competitive Research Program (NCCOS CRP)** (equal to the request), which has supported coastal and Great Lakes states and U.S. territories with groundbreaking and innovative research over the last 30 years. The $68.5 million has funded 113 projects around a variety of topics, including harmful algal blooms (HABs), hypoxia, coastal change, and regional ecosystems. However, the program has received many more proposals than it has funded, with more than $441 million requested. Continuing to grow this account is necessary to support the increasing demand for these funds to address HABs and hypoxia challenges.

• **$115.7 million for the National Sea Grant College Program (Sea Grant)** (equal to the request) and **$15 million for Sea Grant (Marine) Aquaculture** (15% above the request). For decades, Sea Grant has supported coastal and Great Lakes communities, improving community and economic resiliency, ensuring healthy coastal ecosystems, and advancing environmental literacy and workforce education.

The importance of STEM education and extensions programs cannot be overstated. Expanding and growing our ocean-STEM pipeline to reach underserved and underrepresented communities is an imperative, as the ocean sciences severely lack diversity. This will also benefit the ocean-STEM pipeline and associated workforce, whose stability and diversity are at risk due to the COVID-19 pandemic and lingering inequities. I respectfully request at least:

• **$50 million for NOAA's Office of Education** (22% more than the request), including a $20 million increase for NOAA’s Bay-Watershed Education and Training and Environmental Literacy Program grants (ELP). Sustained and adequate funding for these programs advances NOAA’s mission, grows the STEM workforce, and strengthens our economy. As the longest-standing and most comprehensive national grants program with a focus on environmental literacy, ELP grants have and will continue to keep our coastal communities – and our nation as a whole – safe, secure, and prosperous.

**National Science Foundation**

I respectfully request at least **$10.2 billion for the agency** (equal to the request).

I thank the subcommittee for providing $127 million in FY 2019 to finish out the three-year funding profile to complete construction of all three Regional Class Research Vessels (RCRVs). With more modern technology and abilities than previous generations, these long-awaited RCRVs will provide even more access to the marine realm, and I respectfully request the subcommittee maintain full operational and maintenance support for these critical research vessels, including funding needs related to COVID-19 delays and impacts. I appreciate the committee’s efforts to bring the RCRVs online and believe now is the time to initiate conversations focused on ensuring continued access to Global Class Research Vessels in the future.

NSF’s Directorate for Geosciences (GEO) supports basic research from the ocean to the poles to the atmosphere. GEO is only growing in relevance to NSF’s mission, particularly as we gain a better understanding of the impacts of a changing climate on everything from the ocean and human health to its role as an essential element of our national security. This research will help our nation meet the challenges of today, particularly around the changing climate, from understanding, adapting to, and mitigating the impacts of change to predicting environmental hazards and extreme events. I respectfully urge strong support for GEO to help us understand our global environment.
STEM education at NSF plays a vital role in securing our national, homeland, economic, energy, food, and water securities. Broadening the backgrounds of scientists to represent all people across our nation, better reflecting our diversity of gender, race, class, and perspective, is critical for all STEM fields. A diverse, STEM-literate workforce strengthens our nation’s economy and is vital to maintaining the nation’s leadership in science and technology innovation. It is imperative to reinforce the importance of funding federal programs that empower underrepresented groups to become the next generation of ocean-STEM leaders at every educational and technical level. The NSF INCLUDES (Inclusion across the Nation of Communities and Learners of Underrepresented Discoverers in Engineering and Science) program aims to increase access to and participation in STEM learning by demographic groups with historically low participation in these fields. Programs such as this—that support a more diversified academic core in the science and technology workforce—are key to ensuring the inclusion of underrepresented groups and in growing our blue economy, and I respectfully urge strong support for NSF INCLUDES.

U.S. investment in scientific ocean drilling over the past 55 years has been vital to the health and sustainability of our nation and our planet. Scientific ocean drilling has been and will continue to be a foundational platform to make advances of acute societal relevance and resilience. For example, it has allowed us to grow our understanding of past climate change and sea level rise and is critical to our understanding of future climate risk and the assessment of possible adaptation and remediation scenarios. Additionally, it has been and will continue to provide the critical insights and state-of-the-art monitoring data that will enable more reliable forecasts and assessments related to understanding the tectonic processes that result in mega-earthquakes and tsunami, which cause some of our planet’s deadliest and most costly natural disasters, impacting highly vulnerable communities. Scientific ocean drilling also provides an opportunity to grow our STEM leadership and to diversify our workforce and represents one of this nation’s most successful, productive, and impactful investments advancing national STEM education and basic research. Maintaining U.S. leadership in scientific ocean drilling—through beginning to take actions necessary to build and support operations of a new drill ship to carry the International Ocean Discovery Program beyond the 2024 horizon that it is scheduled to end—is of the utmost importance.

**National Aeronautics and Space Administration**

Understanding our home planet is central to NASA’s mandate, and space provides a unique perspective from which to understand Earth on a planetary scale. To grow our understanding of Earth—and to better prioritize understanding the changing climate—I respectfully request at least $9 billion for the Science Mission Directorate (14% more than the request) and at least $2.5 billion for NASA Earth Science (9% more than the request). This should include support for the agency’s Earth-facing missions, specifically the Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) mission and the Climate Absolute Radiance and Refractivity Observatory (CLARREO) Pathfinder instrument. Both were recommendations from the 2007 Earth Science decadal survey.

Education programs bringing students into the STEM pipeline are critically important and need to increase their outreach to attract and retain underserved and underrepresented students in STEM fields. I request at least $147 million for the Office of STEM Engagement (equal to the request).

By maintaining and growing these funding levels across all three agencies, the committee would also be supporting our nation’s leadership on recently announced U.S.-led initiatives that are part of the UN Decade of Ocean Science for Sustainable Development.