National Oceanographic Partnership Program

The National Oceanographic Partnership Program (NOPP) is fundamentally a program designed to facilitate and promote partnerships in the marine community across federal agencies, industry and academia.

Background and Observations

The National Oceanographic Partnership Program (NOPP) Is a multi-agency program established by Congress in 1997 by Public Law 104-201 "to improve the nation's knowledge of the ocean with the goals of promoting national security, advancing economic development, protecting quality of life and strengthening science education and communication." There are 20 federal agencies participating in NOPP working together and with partners in state and tribal governments, academia, and the private sector. This congressionally authorized partnership program permits federal and non-federal participants to coordinate and enhance research in the ocean and education by sharing resources to support common goals. NOPP was reauthorized in 2021 to strengthen and continue to facilitate ocean-related partnerships and advance ocean research and education.

Since its beginning in 1997, NOPP has funded over $500 million in support of over 300 research and education projects involving over 600 partners, and the National Oceanic and Atmospheric Administration (NOAA) has been a major contributor to NOPP since its inception. NOPP projects span a broad range of topics, such as a focus on ocean observing systems and infrastructure, marine resources, sensor development, and ocean education. Importantly, establishing the Integrated Ocean Observing System (IOOS) was one of NOPP's early accomplishments. IOOS regional associations, along with the IOOS Office, have been active participants in NOPP projects. IOOS has leveraged NOPP partnerships and funding from NOAA, National Aeronautics and Space Administration (NASA), Bureau of Ocean Energy Management (BOEM), Office of Naval Research (ONR), National Science Foundation (NSF) and industry in the tens of millions of dollars for over a decade that have advanced marine life observations and have been a key part of the effort to fill that critical gap in the System.

NOPP has been instrumental in supporting innovation and integration among its partners. A noteworthy success of NOPP, through the Interagency Working Group, has been the meetings of the federal partners that has been fundamental to establishing and maintaining partnerships and developing solicitations for projects. The IOOS program at NOAA has been a contributor to NOPP projects focused on ocean observation and observing technology to enhance IOOS capabilities. However, IOOS was established to be the integrated system for U.S. coastal observation, and the IOOS program office should not be alone in advancing IOOS capacity and innovation.

Also of note has been the commitment of industry and academia to participate in NOPP projects. Representatives from industry provided a few suggestions and comments from an industry perspective on potential improvements for NOPP. These include (1) the partnership

with industry could be improved if industry was provided more information on the context and background of NOPP proposals from a "big picture perspective, and (2) having a better and clear understanding of the underlying requirements for the NOPP solicitations so industry can respond in way that meets the short-and long-term needs of NOAA resulting in improvements in technology development and market investment.

Total NOPP funding peaked in FY2019 at about $34 million and declined to about $15 million in FY2021. For many years, ONR played a lead role in supporting NOPP and the NOPP office, and provided the backbone for funding through Broad Agency Announcements (BAAs). A major challenge for NOPP and NOAA in the past was that agency funding often varied from year to year, making long-term commitments difficult. However, it is noteworthy that NOAA now has direct appropriations to support NOPP and the NOPP office, but still depends on the interagency process for funding projects solicited through BAAs. It is also noted that the IOOS Program Office is committed to continue to fund NOPP projects, subject to the availability of funds, to advance new technology, sensor development, and data management.

Of particular note and importance is that NOAA, in conjunction with NOPP agencies, recently announced $24 million in funding for research in marine carbon dioxide removal projects. Using funds from NOAA's NOPP appropriation and the Inflation Reduction Act, a total of 17 projects will be supported in partnership with elements of NOAA, Department of Energy (DOE), ONR, NSF and the ClimateWorks Foundation.

NOAA recently organized to take a leadership role in supporting NOPP and has designated a senior program manager (Jeremy Weirich) for NOPP, who is also the co-chair of the NOPP Interagency Working Group. In addition, the NOPP Program Office was re-established in September 2022 to provide administrative support to NOPP and its member agencies, filling a void that resulted from the absence of a Program Office for a few years. Taken together, the active leadership of NOAA in NOPP and the reestablishment of the NOPP Program Office are critical steps (1) to provide the opportunity to strengthen and revitalize NOPP as a leader in supporting multi-sector partnerships, (2) to seek additional funding to support NOPP projects, and (3) to provide leadership in innovation in the marine community, along with transition of research to operational implementation.

The IOOS Advisory Committee is encouraged by and fully endorses management and funding actions taken by NOAA to support NOPP, especially the significant investment in NOPP through the Carbon Dioxide Removal Project and the commitment of the IOOS Office to funding NOPP projects. However, there are remaining opportunities to further enhance and strengthen NOPP as indicated by the following recommendations.

Recommendations

1. **NOAA should provide leadership, through NOPP, for interagency collaboration and coordination to enhance national observing programs, meeting national priorities that require an interagency approach.** IOOS is a critical piece of all national observing efforts and should be

leveraged to enhance and better connect agency observing programs. Given the alignment of IOOS expertise working across stakeholders and partners, the agencies can develop plans that sustain and grow observing capacity in a holistic way. This will also require continuing to fund NOPP projects that support NOAA needs and innovations in ocean technology and ensuring a stable core funding base for a sustained NOPP program.

2. **IOOS should work with NOPP leadership and appropriate sponsor agencies to develop a process that clearly identifies observing/sensing requirements for NOPP projects far in advance,** so that industry and academia, as partners, can invest in the technology that enhances NOAA's mission, encourages innovation, supports industry and academia investments in research and technology, and the ultimate transition of technology to IOOS and other sustained observing programs. In addition, the IOOS Program Office can provide leadership to improve communication and coordination with NOPP partners.

3. **NOAA and the IOOC should expand public-private partnerships**, **including working with philanthropic organizations, and assess ways to utilize innovative or alternate funding mechanisms other than BAAs to fund NOPP projects**. NOAA and the IOOC agencies should leverage entities like the IOOS Regional Associations, which are experienced in accepting and distributing funds from different sectors to support projects and PIs across the community. Another potential option to explore is the use of "Other Transaction Authority," (OTA) which was originally granted to the Department of Defence (DoD) and has since been granted to additional agencies, including NOAA/NESDIS. OTAs can speed up the acquisition process; can be used for supporting research and development, and prototyping; provides a more flexible way to develop new technologies; allow agencies to enter into agreements with small businesses, research institutions and non-profit organizations; and permits cost sharing with the awardee.