

AN OVERVIEW OF THE NATIONAL OCEANIC
AND ATMOSPHERIC ADMINISTRATION
BUDGET PROPOSAL FOR FISCAL YEAR 2025

HEARING
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT
OF THE
COMMITTEE ON SCIENCE, SPACE,
AND TECHNOLOGY
OF THE
HOUSE OF REPRESENTATIVES
ONE HUNDRED EIGHTEENTH CONGRESS

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AND ATMOSPHERIC ADMINISTRATION
BUDGET PROPOSAL FOR FISCAL YEAR 2025**

TUESDAY, JUNE 4, 2024

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENVIRONMENT,
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,
Washington, D.C.

The Subcommittee met, pursuant to notice, at 11:18 a.m., in room 2318 of the Rayburn House Office Building, Hon. Max Miller [Chairman of the Subcommittee] presiding.



SUBCOMMITTEE ON ENVIRONMENT

HEARING CHARTER

“An Overview of the National Oceanic and Atmospheric Administration Budget Proposal for Fiscal Year 2025”

Tuesday, June 4, 2024

10:00 a.m.

2318 Rayburn House Office Building

Purpose

The purpose of the hearing is to examine the President’s Fiscal Year (FY) 2025 budget request for the National Oceanic and Atmospheric Administration (NOAA) and related issues within the Science Committee’s jurisdiction. This hearing will be an opportunity for Members to discuss their priorities related to the agency’s mission.

Witness

- **The Honorable Rick Spinrad, Ph.D.**, Administrator, National Oceanic and Atmospheric Administration.

Overarching Questions

- How will the FY25 budget request advance NOAA’s core mission of protecting lives and property?
- What specific research areas is NOAA prioritizing to improve both short-term and long-term weather forecasting?
- How will NOAA modernize and improve its earth observation activities within the parameters of the requested budget?
- How is NOAA working to address staffing issues to build a modern workforce?

Background

The President's FY25 budget request for NOAA is \$6.56 billion, a \$241 million increase from the FY24 appropriated amount.¹ With the FY25 budget, NOAA will prioritize investments in the critical operational and infrastructure activities that support its ability to carry out its mission.

NOAA's core mission and activities include weather forecasting, climate prediction, and management of fisheries, coastal and ocean resources, as well as cross-cutting research to support and advance these operational areas. NOAA carries out this mission through six major line offices:

- **National Ocean Service (NOS)**, responsible for mapping and charting coastal areas and providing other navigation support services.²
- **National Marine Fisheries Service (NMFS)**, responsible for stewardship of living marine resources through the conservation, management, and promotion of healthy ecosystems.³
- **Office of Oceanic and Atmospheric Research (OAR)**, responsible for research in support of most NOAA missions including atmospheric, coastal, and oceanic sciences; climate and air quality research; ecosystem research; and fisheries and marine mammal research.⁴
- **National Weather Service (NWS)**, responsible for weather forecasts and warnings.⁵
- **National Environmental Satellite, Data and Information Service (NESDIS)**, responsible for development and operation of satellites that monitor and transmit data for weather forecasting, climate prediction, space weather forecasting, and earth and ocean science research.⁶
- **Office of Marine and Aviation Operations (OMAO)**, manages a variety of specialized ships and aircraft for collection of oceanographic, atmospheric, hydrographic, and fisheries data.⁷

Table 1 shows the primary accounts, or line offices, of NOAA's budget.

¹ National Oceanic and Atmospheric Administration, *FY25 Budget Estimates Congressional Justification*, NOAA.GOV, https://www.noaa.gov/sites/default/files/2024-03/NOAA_FY25_Congressional_Justification.pdf

² National Oceanic and Atmospheric Administration, *About National Ocean Service*, NOAA.GOV, <https://oceanservice.noaa.gov/about/> (last visited May 23, 2024).

³ National Oceanic and Atmospheric Administration, *About NOAA Fisheries*, NOAA.GOV, <https://www.fisheries.noaa.gov/about-us> (last visited May 23, 2024).

⁴ National Oceanic and Atmospheric Administration, *About NOAA Research*, NOAA.GOV, <https://research.noaa.gov/About-Us> (last visited May 23, 2024).

⁵ National Oceanic and Atmospheric Administration, *About National Weather Service*, WEATHER.GOV, <https://www.weather.gov/about/> (last visited May 23, 2024).

⁶ National Oceanic and Atmospheric Administration, *About National Environmental Satellite, Data, and Information Service*, NOAA.GOV, <https://www.nesdis.noaa.gov/about/what-we-do> (last visited May 23, 2024).

⁷ National Oceanic and Atmospheric Administration, *About Office of Marine and Aviation Operations*, NOAA.GOV, <https://www.oma.noaa.gov/about> (last visited May 23, 2024).

Table 1: NOAA FY 2025 Budget Request (dollars in millions)⁸

Account	FY 23 Enacted	FY 24 Enacted	FY 25 Request	FY25 Request versus FY24 Enacted	
National Ocean Service	\$693M	\$684M	\$590M	-\$93M	14%
National Marine Fisheries Service	\$1,261M	\$1,114M	\$1,169M	+\$55M	5%
Oceanic and Atmospheric Research	\$761M	\$726M	\$646M	-\$80M	11%
National Weather Service	\$1,357M	\$1,352M	\$1,367M	+\$15M	1.2%
National Environmental Satellite Data Information Service	\$1,706M	\$1,797M	\$2,138M	+\$341M	19%
Mission Support	\$504M	\$471M	\$529M	+\$58M	21%
Office of Marine and Aviation Operations	\$461M	\$440M	\$533M	+\$94M	21%
Total	\$6,201M	\$6,319M	\$6,561M	+\$242M	4%

National Ocean Service (NOS)

NOS enables safe, sustainable, and efficient use of marine and coastal resources across a range of economic sectors, including maritime commerce and marine transportation, fishing and aquaculture, energy development, and coastal recreation. NOS has three main mission areas reflected in its budget: Navigation, Observations, & Positioning; Coastal Science & Assessment; and Ocean & Coastal Management and Services. The FY25 request for NOS is \$590 million, a 14% (\$93 million) decrease from the FY24 appropriated level.

Businesses in the maritime community rely on NOS for a range of decisions, from how much cargo can be loaded to choosing the safest and most efficient route between two points. They use NOS data, tools, and services to plan seasonally for ship schedules to service global trade more safely and efficiently. Coastal communities also rely on NOS for water level models, flood risks, and forecasting capabilities.

National Marine Fisheries Service (NMFS)

NMFS is responsible for the management and conservation of living marine resources within the U.S. Exclusive Economic Zone (EEZ)—the area extending from three to 200 nautical miles offshore. NMFS implements science-based conservation and management actions aimed at sustaining long-term use and promoting the health of coastal and marine ecosystems. The FY25 request for NMFS is \$1.17 billion, a 5% (\$55 million) increase from FY24 appropriations.⁹

⁸ FY25 Budget Estimates Congressional Justification, *supra*, note 1.

⁹ FY25 Budget Estimates Congressional Justification, *supra* note 1, p. 34.

Broadly, NMFS is tasked with assessing and predicting the status of fish stocks, setting catch limits, ensuring compliance with fisheries regulations, and reducing bycatch. Most of these activities fall under the Endangered Species Act and the Marine Mammal Protection Act, which are outside of the Science Committee's jurisdiction.

Oceanic and Atmospheric Research (OAR)

OAR is the primary research arm of NOAA, conducting the scientific research, environmental studies, and technology development necessary to improve NOAA operations. The FY25 budget request for OAR is \$646 million, a 11% (\$80 million) decrease from FY24 appropriations.¹⁰

OAR operates through a national network of ten laboratories, 16 Cooperative Institutes, 34 Sea Grant College Programs, and specialized programs.¹¹ Research plans and products are developed in partnership with academia and other federal agencies and are peer-reviewed and widely distributed.

National Weather Service (NWS)

NWS provides weather, hydrologic, and climate forecasts and warnings for the United States, adjacent waters, and ocean areas, and maintains a national infrastructure of observing systems that gather and process data worldwide from the land, sea, and air. The FY25 request for NWS is \$1.37 billion, a 1.2% (\$15 million) increase from FY24 appropriations.¹²

NWS operates six Region Headquarters, 13 River Forecast Centers, 21 Center Weather Service Units, and 122 Weather Forecast Offices across the country that issue daily weather, warnings, advisories, and short-term forecasts for their respective local areas.¹³ NWS also leads efforts towards advancing Impact-Based Decision Support Services (IDSS) to better enable emergency personnel and public safety officials to make decisions to preserve life and property, as well as efforts in making the United States a Weather-Ready Nation, where operations help the public best prepare for and respond to extreme weather events.

National Environmental Satellite, Data, and Information Service (NESDIS)

NESDIS procures, launches, and manages the Nation's civil operational environmental satellites. This office develops and distributes products and information based on data from NOAA, multiple partner satellites, and commercial sources. The FY25 request for NESDIS is \$2.14 billion, a 19% (\$341 million) increase from FY24 appropriations.¹⁴

¹⁰ *FY25 Budget Estimates Congressional Justification*, *supra* note 1, p. 43.

¹¹ National Oceanic and Atmospheric Administration, *NOAA Research Laboratories*, NOAA.GOV, <https://research.noaa.gov/Labs-Programs/OAR-Labs> (last visited May 23, 2024).

¹² *FY25 Budget Estimates Congressional Justification*, *supra* note 1, p. 51.

¹³ *About National Weather Service*, *supra* note 5.

¹⁴ *FY25 Budget Estimates Congressional Justification*, *supra* note 1, p. 51.

95% of the data used in weather forecasting models comes from satellites and NESDIS operates the 17 satellites that NOAA owns or operates, including five geostationary, five polar-orbiting, and one deep space satellite.¹⁵ NESDIS is also in the process of developing the next generation of satellites, named Geostationary Extended Observations (GeoXO), to further protect people and property in an increasingly complex environment. GeoXO will be NOAA's largest procurement ever at a cost of \$19.6 billion and with operations beginning in the early 2030s.¹⁶

Office of Marine and Aviation Operations (OMAO)

OMAO maintains the ships and aircraft used by NOAA to gather and collect oceanographic, atmospheric, hydrographic, and fisheries data which supports NOAA's core missions. OMAO also provides centralized coordination, support and guidance for uncrewed systems across NOAA. The FY25 request for OMAO is \$533 million, a 21% (\$94 million) increase from FY24 appropriations and the largest requested line office percentage increase.¹⁷

The research and survey ships operated, managed, and maintained by OMAO comprise the largest fleet of federal research ships in the nation. NOAA aircraft provide a wide range of capabilities including hurricane reconnaissance and research, marine mammal and fisheries assessment, and coastal mapping. NOAA's fleet of nine crewed aircraft are housed at the NOAA Aircraft Operations Center in Lakeland, FL and flown by the NOAA Commissioned Officer Corp, one of the eight uniformed services of the United States.¹⁸ NOAA is currently authorized for up to 500 NOAA Corps officers, excluding flag officers.¹⁹

Mission Support (MS)

The Mission Support line office supports corporate services and agency management. This includes the Office of the Under Secretary, the Office of the Chief Financial Officer, the Program, Planning and Integration Office, and the NOAA Education Program. The FY25 request for MS is \$529 million, a 21% (\$58 million) increase from the FY24 CR level.²⁰

Within MS, the Acquisition and Grants Office (AGO) obligated \$1.8 billion and managed over 5,000 active contracts valued at over \$12 billion in FY23.²¹ The Office of Space Commerce was recently moved from NESDIS to MS in FY22 and reports directly to the Assistant Secretary for Earth Observation and Prediction. MS also oversees open data dissemination to provide worldwide cloud access to NOAA's climate and earth systems dynamics data.

¹⁵ National Oceanic and Atmospheric Administration, *Current Satellite Missions*, NOAA.GOV, <https://www.nesdis.noaa.gov/current-satellite-missions/currently-flying> (last visited May 23, 2024).

¹⁶ National Oceanic and Atmospheric Administration, *Geostationary Extended Observations*, NOAA.GOV, <https://www.nesdis.noaa.gov/next-generation/geostationary-extended-observations-geoxo> (last visited May 23, 2024).

¹⁷ *FY25 Budget Estimates Congressional Justification*, *supra* note 1, p. 73.

¹⁸ National Oceanic and Atmospheric Administration, *About the NOAA Fleet*, NOAA.GOV, <https://www.oma.noaa.gov/ao/about> (last visited May 23, 2024).

¹⁹ National Oceanic and Atmospheric Administration, *About the NOAA Corps*, NOAA.GOV, <https://www.oma.noaa.gov/noaa-corps/about-noaa-corps> (last visited May 23, 2024).

²⁰ *FY25 Budget Estimates Congressional Justification*, *supra* note 1, p. 67.

²¹ National Oceanic and Atmospheric Administration, *About AGO*, NOAA.GOV, <https://www.noaa.gov/acquisition-grants/about-ago> (last visited May 23, 2024).

Supplemental Funding

In addition to annual appropriations, NOAA has received funding from multiple supplemental bills. In the Infrastructure Investment and Jobs Act, NOAA's Operations, Research, and Facilities account received \$2.6 billion, and the Procurement, Acquisition, and Construction account received \$180 million, both to remain available until September 2027.²²

In the Inflation Reduction Act, NOAA received a total of \$3.3 billion in additional appropriations for FY22, including \$2.6 billion to invest in coastal communities and climate resilience, \$200 million for facilities, \$20 million for efficient and effective reviews, \$150 million for forecasting & research, \$50 million for competitive grants, \$190 million for computing capacity and research, and \$100 million for acquisition of hurricane forecasting aircraft.²³

In the Disaster Relief Supplemental Appropriations Act of 2023, NOAA's Operations, Research, and Facilities account received an additional \$91 million, and the Procurement, Acquisition, and Construction account received an additional \$435 million.²⁴

²² *Infrastructure Investment and Jobs Act*, P.L. 117-58, p. 927-929.

²³ *Inflation Reduction Act*, P.L. 117-169, p. 211-213.

²⁴ *Consolidated Appropriations Act, 2023*, P.L. 117-328, Division N, p. 747.

Chairman MILLER. The Committee will come to order. Without objection, the Chair is authorized to declare recesses of the Committee at any time.

Welcome to today's hearing entitled "An Overview of the National Oceanic and Atmospheric Administration (NOAA) Budget Proposal for Fiscal Year 2025." I now recognize myself for 5 minutes for an opening statement.

Good morning, and welcome to our hearing on NOAA's budget proposal for the Fiscal Year of 2025. I'd like to welcome the Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator Dr. Rick Spinrad as our sole witness this morning to discuss the President's proposed budget for the agency. Thank you for coming.

This conversation comes in an especially difficult time for our economy. People across our country are struggling to pay more for just about everything. Since President Biden was inaugurated in January of 2021, the food price index has increased by 21 percent, and the energy price index has increased by 41 percent. Rising costs are unchecked. Additionally, Federal spending is at a record high, and while the increasing national debt is projected to slow economic growth and suppress the growth of Americans' household income over time.

All of that to say any talks around budget and spending even at an agency like NOAA warrant careful consideration and calculated decisions. The President has requested \$6.5 billion for NOAA's Fiscal Year 2025 budget. This would be a \$242 million increase from the total appropriations that NOAA received in Fiscal Year 2024. It's worth noting that NOAA received an additional \$2.6 billion in discretionary appropriations from the infrastructure law, which remains available until 2027. NOAA also received one-time influxes of \$3.3 billion in the *Inflation Reduction Act* and over \$500 million in the Fiscal Year 2023 disaster supplemental bill.

NOAA has billions of dollars that it didn't just have a few years ago. As this is the case with so many other agencies, it's been a difficult adjustment for NOAA, as I know, to responsibly spend all of this money and exceedingly hard for us in Congress to determine how much of it has made it out the door. Any successful business knows exactly how much money it has before seeking a loan for more. NOAA should strive to do the same and detail specific spending plans for their billions of dollars before seeking additional increases. We need to shift from the "we need more" mindset to maximize to what we've been given.

As I mentioned, our current economic outlook clearly tells us that current Federal spending is not sustainable. I'm not placing the blame on NOAA, I want to be very clear, nor am I advocating for drastic cuts at the agency. I would like to be clear about that as well. Too many hardworking Americans rely on the data they provide on a daily basis. But an honest conversation is needed about funding priorities. As the budget request accurately describes, NOAA provides the environmental science information and services needed to protect the lives, lifestyles, and livelihoods for all Americans. Therefore, when making any budget decision, we should ask, does this program, activity, or funding demonstrably protect lives and property?

I'm pleased to see that the budget includes manageable increases for the Office of Marine and Aviation Operations and the National Weather Service. These two offices are at the forefront of innovation in extreme weather prediction that can indeed save lives. My home State of Ohio has faced countless tornadoes this year, and because of early warning systems and accurate predictions, the loss of life has been minimal, thank God.

Yet I am discouraged by the proposal to significantly decrease the budget of the Office of Oceanic and Atmospheric Research (OAR). This office is developing our next-generation radar, supporting technology transfers to commercialized Federal research, and funding the 16 cooperative institutes, which consist of 80 universities. Cutting funding in this office means cutting our investment in the future and accurate weather forecasting.

Nonetheless, I remain optimistic about NOAA's future and working with you, Dr. Spinrad. I have no doubt that the Administrator, in conversations of his own and developing this budget, I'm confident we can productively work through differences in opinion and work together to best advance NOAA's mission. I look forward to hearing from the Administrator as we look to support NOAA's life-saving activities.

[The prepared statement of Chairman Miller follows:]

Good morning, and welcome to our hearing on NOAA's Budget Proposal for Fiscal Year 2025.

I'd like to welcome the Under Secretary of Commerce for Oceans and Atmosphere, and NOAA Administrator, Dr. Rick Spinrad, as our sole witness this morning to discuss the President's proposed budget for the agency.

This conversation comes at an especially difficult time for our economy. People across our country are struggling to pay more for just about everything. Since President Biden was inaugurated in January 2021, the food price index has increased by 21%, and the energy price index has increased by 41%. Rising costs are unchecked.

Additionally, federal spending is at a record high, while the increasing national debt is projected to slow economic growth and suppress the growth of Americans' household income over time. All of that to say, any talks around budget and spending, even at an agency like NOAA, warrant careful consideration and calculated decisions.

The President has requested \$6.5 billion for NOAA's FY25 budget. This would be a \$242 million increase from the total appropriations that NOAA received in FY24.

It's worth noting that NOAA received an additional \$2.6 billion in discretionary appropriations from the Infrastructure Law, which remains available until 2027. NOAA also received one-time influxes of \$3.3 billion in the *Inflation Reduction Act* and over \$500 million in the FY23 Disaster Supplemental bill.

NOAA has billions of dollars that it didn't have just a few years ago. As is the case with so many other agencies, it's been a difficult adjustment for NOAA to responsibly spend all this money, and exceedingly hard for us in Congress to determine how much of it has made it out the door.

Any successful business knows exactly how much money it has before seeking a loan for more. NOAA should strive to do the same and detail specific spending plans for their billions of dollars before seeking additional increases. We need to shift from the "we need more" mindset to "maximize what we've been given."

As I mentioned, our current economic outlook clearly tells us that current federal spending isn't sustainable. I'm not placing the blame on NOAA, nor am I advocating for drastic cuts at the agency - too many hard-working Americans rely on the data they provide on a daily basis. But an honest conversation is needed about funding priorities.

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are at the forefront of innovation and extreme weather prediction that can indeed save lives. My home state of Ohio has faced countless tornadoes this year, and because of early warning systems and accurate predictions, the loss of life has been minimal.

Yet, I'm discouraged by the proposal to significantly decrease the budget of the Office of Oceanic and Atmospheric Research. This office is developing our next-generation radar, supporting technology transfers to commercialize federal research, and funding the 16 Cooperative Institutes, which consist of 80 universities. Cutting funding in this office means cutting our investment in the future and accurate weather forecasting.

Nonetheless, I remain optimistic about NOAA's future. I have no doubt that Administrator Spinrad had tough conversations of his own in developing this budget. I'm confident we can productively work through differences in opinion and work together to best advance NOAA's mission.

I look forward to hearing from the Administrator as we look to support NOAA's lifesaving activities.

Chairman MILLER. I now recognize the Ranking Member of the Environment Subcommittee, the gentlewoman from North Carolina, for an opening statement.

Ms. ROSS. Thank you, Chairman Miller.

I'm pleased to welcome Administrator Spinrad today to discuss the Fiscal Year 2025 priorities of the National Oceanic Atmospheric Administration as we celebrate National Oceans Month and look forward to World Oceans Day on Saturday.

NOAA provides invaluable ocean, weather, and climate research and services to our Nation. NOAA's execution of this mission to protect lives and property through science, stewardship, and service has always been a worthwhile investment for the American taxpayers. NOAA's mission has only become increasingly urgent and valuable due to the climate change-induced increase and frequency of severe and extreme weather events. Across the Nation, Americans look to NOAA for critical and time-sensitive information when confronted with natural phenomenon such as tornadoes, wildfires, hurricanes, tsunamis, geomagnetic solar storms, and much more.

NOAA also supports the private sector and academia through partnerships, as well as the generation of highly—high-quality research and data products. Much of NOAA's lifesaving work and accomplishments are carried out with little fanfare. Often, NOAA's success manifests as the prevention of negative consequences from natural hazards, and we thank you for that.

While NOAA's success can be difficult to recognize and appreciate when disasters don't happen, we know that the quiet hard work of NOAA scientists, meteorologists, pilots, and administrators culminates in saved lives and reduced economic losses. Though NOAA does an excellent job of executing its mission, sustained investments in research, operations, and communication should still be made to bolster the effectiveness of the agency. NOAA's Fiscal Year 2025 budget request of \$6.6 billion, a 4 percent increase over 2024 appropriations levels, prioritizes investments in the next generation of weather satellite infrastructure, an investment that will pay off. NOAA also plans to expand its portfolio of climate services, which will greatly benefit decisionmakers grappling with the effects of climate change.

As skilled public servants form the backbone of NOAA's scientific and operational endeavors, the agency also plans to invest in much-needed retention and recruitment of its excellent workforce.

And I visited a National Weather Service facility last week and met with several people who are saving lives every day.

Despite the impressive and valuable array of initiatives that NOAA plans for 2025, I'm concerned about the proposed funding decreases to critical programs within the National Ocean Service (NOS) and the Office of Oceanic and Atmospheric Research. These funding reductions would negatively impact NOAA's capacity to execute coastal observations, ecosystem protection, ocean exploration, innovative research, educational outreach, and many more important functions that advance the agency's mission. I hope we can discuss strategies to continue the essential work of these programs, even under the constraints of the *Fiscal Responsibility Act*.

While supplemental funding made available to NOAA under the *Inflation Reduction Act* is being put to great use, and I'm excited to hear more about those projects, I want to hear what steps NOAA is taking to avoid a budgetary cliff for NOS and OAR when those funds expire, especially considering proposed budget reductions in the base budget for Fiscal Year 2025. I'm also concerned about the majority's proposed topline appropriation reductions of 6 percent to nondefense funding that would do immense harm to NOAA and other critical science agencies within the Federal Government.

Just over a week ago, NOAA announced it predicts an above-normal 2024 Atlantic hurricane season. Now, more than ever, it is essential that we invest in our Nation's scientific leadership, including the ever-important sectors of weather, climate, and ocean research. I look forward to hearing from Administrator Spinrad about NOAA's admirable work and how Congress can continue to support the agency.

[The prepared statement of Ms. Ross follows:]

Thank you, Chairman Miller. I am pleased to welcome Administrator Spinrad today to discuss the fiscal year 2025 priorities of the National Oceanic and Atmospheric Administration as we celebrate National Oceans Month and look forward to World Oceans Day on Saturday.

NOAA provides invaluable ocean, weather, and climate research and services to our nation. NOAA's execution of its mission to protect lives and property through science, stewardship, and service has always been a worthwhile investment for American taxpayers. NOAA's mission has only become increasingly urgent and valuable due to the climate change-induced increase in the frequency and severity of extreme weather events. Across the nation, Americans look to NOAA for critical and time-sensitive information when confronted with natural phenomena such as tornadoes, wildfires, hurricanes, tsunamis, geomagnetic solar storms, and much more. NOAA also supports the private sector and academia through partnerships and as well as the generation of high-quality research and data products.

Much of NOAA's life-saving work and accomplishments are carried out with little fanfare. Often, NOAA's success manifests as the prevention of negative consequences from natural hazards. While NOAA's success can be difficult to recognize and appreciate when disasters don't happen, we know that the quiet, hard work of NOAA scientists, meteorologists, pilots, and administrators culminates in saved lives and reduced economic and losses.

Though NOAA does an excellent job executing its mission, sustained investments in research, operations, and communication should still be made to bolster the effectiveness of the agency. NOAA's fiscal year 2025 budget request of 6.6 billion dollars, a 4% increase above the 2024 appropriations level, prioritizes investments in the next generation of weather satellite infrastructure - an investment that will pay off. NOAA also plans to expand its portfolio of climate services, which will greatly benefit decision-makers grappling with the effects of climate change. As skilled public servants form the backbone of NOAA's scientific and operational endeavors, the agency also plans to invest in much-needed retention and recruitment of its excellent workforce.

Despite the impressive and valuable array of initiatives that NOAA plans for 2025, I am concerned about the proposed funding decreases to critical programs within the National Ocean Service and the Office of Oceanic and Atmospheric Research. These funding reductions would negatively impact NOAA's capacity to execute coastal observations, ecosystem protection, ocean exploration, innovative research, educational outreach, and many more important functions that advance the agency's mission. I hope that we can discuss strategies to continue the essential work of these programs, even under the constraints of the *Fiscal Responsibility Act*.

While supplemental funding made available to NOAA under the *Inflation Reduction Act* is being put to great use and I'm excited to hear more about those projects—I want to hear what steps NOAA is taking to avoid a budgetary cliff for NOS and OAR when those funds expire, especially considering the proposed reductions in base budget in FY 2025.

I am also concerned about the majority's proposed topline appropriations reduction of 6% to non-defense funding that would do immense harm to NOAA and other critical science agencies within the federal government. Just over a week ago, NOAA announced that it predicts an above-normal 2024 Atlantic hurricane season. Now, more than ever, it is essential that we invest in our nation's scientific leadership, including in the ever-important sectors of weather, climate, and ocean research.

I look forward to hearing from Administrator Spinrad about NOAA's admirable work and how Congress can continue to support the agency.

Thank you, Mr. Chairman, and I yield back.

Ms. ROSS. And, Mr. Chairman, before I yield back, I ask unanimous consent to enter the opening statement of Ranking Member of the Full Committee, Ms. Lofgren, into the record.

Chairman MILLER. Without objection.

[The prepared statement of Ms. Lofgren follows:]

Thank you, Chairman Miller and Ranking Member Ross for holding this hearing on NOAA's Fiscal Year 2025 budget request. Welcome back Dr. Spinrad, and thank you for your service and leadership at NOAA.

NOAA's mission of science, service, and stewardship is accomplished through many diverse programs and activities that span the Earth's systems from the bottom of the ocean to the sun. This critically important scientific agency is required to understand and predict the changes in climate, weather, and oceans;—conserve and manage coastal and marine ecosystems;—and effectively communicate all of this information to the right people in order to protect lives, property, and our economy. This is no small feat, especially during this time of constrained resources and the growing urgency to address climate change.

Understandably, with its top line constrained by the *Fiscal Responsibility Act*, NOAA had to make difficult decisions in its fiscal year 2025 Request.

In NOAA's request, I am pleased to see the support for the next generation of satellites. The environmental data used from these satellites are critical to NOAA, commercial industries, and other Federal and international partners in a wide range of applications—including providing 95% of the data used in weather forecast models. It was not that long ago that NOAA's satellites were on the Government Accountability Office's high-risk list due to a potential gap in coverage. To make sure these environmental satellites do not rejoin that list, NOAA must ensure there are no delays and no unnecessary cost overruns. As these projects progress, I look forward to seeing NOAA's plans to make certain they stay on track.

While there are other bright spots in the budget request, I have a grave concern with NOAA's proposal to make steep cuts to some of its research programs. NOAA's Office of Oceanic and Atmospheric Research conducts critical weather, climate, and ocean research that supports all the other line offices within NOAA. This budget would bring invaluable research to a halt or significantly delay any progress. For instance, the Joint Technology Transfer Initiative, which incorporates research into operations, would face a 90% decrease in funding. The U.S. Weather Research Program which houses various weather phenomena research projects—including fire weather and seasonal to subseasonal prediction—would take a 20% hit to its budget. Ocean Research will also take a devastating hit to its bottom line. These types of cuts would be detrimental to the prediction and response to our changing climate.

Last month, House Republican appropriators announced that they have no plans to follow the agreement of the *Fiscal Responsibility Act*. Instead, they intend to slash non-defense spending by 6%. I worry that the President's budget proposal for NOAA is making it even harder for the rest of us to fight to restore NOAA's budget.

This committee has heard over and over the importance of our scientific research. Robust funding for federal science agencies, including NOAA, is necessary if want to be the world leader in cutting edge research and technology.

Dr. Spinrad, I look forward to hearing from you on NOAA's priorities for this upcoming fiscal year in these challenging times and how this Committee can help support NOAA meet its mission. Likewise, I look forward to working with my colleagues on both sides of the aisle in securing the necessary investments for NOAA.

I yield back.

Ms. ROSS. Thank you, Mr. Chairman. I yield back.

Chairman MILLER. Thank you very much, Ms. Ross.

I now recognize the Chairman of the Full Committee, the gentleman from Oklahoma, for an opening statement.

Chairman LUCAS. Thank you, Chairman Miller, and thank you, Administrator Spinrad, for being here.

I'm pleased to say that this is our first NOAA-related hearing since the overwhelmingly bipartisan passage of the *Weather Act* reauthorization on the House floor. I'll repeat the same sentiment I said at that time. I cannot stress enough how critical it is to invest in our Nation's weather system. That's why I'm extremely disappointed after reviewing NOAA's proposed budget. In the *Weather Act* reauthorization, we placed additional responsibilities on the Weather and Air Chemistry Programs within the Office of Oceanic and Atmospheric Research and increased authorizations for those programs. Three hundred and ninety-four Members of Congress voted in support of this effort.

This budget takes the opposite approach and decreases the funding for the OAR office and the Weather and Air Chemistry Research Programs. Yes, the budget request is simply a request. And, at the end of the day, Congress controls the purse strings, but the budget request is also a message to all stakeholders and industry, and NOAA's message is this: The need for improved early and accurate forecasting of severe weather is not a priority for this Administration.

I'm also disappointed to see yet another proposed decrease in the funding for the National Mesonet Program (NMP) and a continued plan the flat-fund commercial data purchases. These programs are golden opportunities—examples, I should say, of how NOAA can supplement and even improve their weather data inventory with cheaper, flexible industry efforts. Instead of supporting these programs, NOAA is requesting significant increases in the National Environmental Satellite Data and Information Service in order to build out Federal satellite constellations. While that is an admirable goal, I support ensuring our next generation of satellites avoid gaps that can affect NOAA's ability to weather forecast, and it shouldn't come at the cost of decreasing commercial data.

As Chairman Miller noted out, recent supplemental appropriation bills have ensured NOAA's coffers are well stocked. It would seem logical to annually bolster programs like the in NMP and the CDP and use one-time in fluxes for keeping large projects on budget and on schedule. Additionally, it seems prudent to test the usefulness of commercial data before NOAA tries to collect data on their own through expensive buildouts and federally owned instruments.

I sincerely hope this hearing brings us the opportunity to hear NOAA's justification for the budget decisions, as well as detailed

updates on how they are using the billions of dollars currently at the agency. And I look forward to continuing to work with you, Administrator Spinrad. And I would note, I do a lot of public townhall meetings back home, and frequently people speak shall I say with me or to me or through me. I've never spoken to you, Doctor. I've always spoken with you, and I think we have a wonderful level of communication. But on this day, much like my constituents, I'm using you as a conduit to send a message back up the line, which I hope will be heard.

With that, I yield back the balance of my time, Mr. Chairman.
[The prepared statement of Chairman Lucas follows:]

Thank you, Chairman Miller, and thank you Administrator Spinrad for being here.

I'm pleased to say that this is our first NOAA related hearing since the overwhelmingly bipartisan passage of the *Weather Act Reauthorization* on the House Floor. I'll repeat the same sentiment I said at that time: I cannot stress enough how crucial it is to invest in our country's weather system.

That is why I'm extremely disappointed after reviewing NOAA's proposed budget. In the *Weather Act Reauthorization*, we place additional responsibilities on the Weather and Air Chemistry Research programs within the Office of Oceanic and Atmospheric Research and increase authorizations for those programs. 394 Members of Congress voted in support of this effort.

This budget takes the opposite approach and decreases the funding for the OAR office and the Weather and Air Chemistry Research programs.

Yes, the budget request is simply a request. At the end of the day, Congress controls the purse strings. But the budget request is also a message to all stakeholders and industry, and NOAA's message is this: the need for improved early and accurate forecasting of severe weather is not a priority of this Administration.

I'm also disappointed to see yet another proposed decrease in funding for the National Mesonet Program (NMP) and a continued plan to flat fund Commercial Data Purchases (CDP).

These two programs are golden examples of how NOAA can supplement and even improve their weather data inventory with cheaper, flexible industry efforts. Instead of supporting these programs, NOAA is requesting significant increases to the National Environmental Satellite, Data, and Information Service (NESDIS) in order to build out federal satellite constellations.

While that is an admirable goal, and I support ensuring our next generation of satellites avoid gaps that could affect NOAA's ability in weather forecasting, it shouldn't come at the cost of decreasing commercial data.

As Chairman Miller pointed out, recent supplemental appropriations bills have ensured NOAA's coffers are well stocked. It would seem logical to annually bolster programs like the NMP and CDP and use one-time influxes for keeping large projects on budget and on schedule.

Additionally, it seems prudent to test the usefulness of commercial data before having NOAA try to collect data on their own through expensive buildouts and federally owned instruments.

I sincerely hope this hearing gives us the opportunity to hear NOAA's justification for their budget decisions, as well as detailed updates on how they are using the billions of dollars currently at the agency. I look forward to continuing to work with you, Administrator Spinrad, and I yield back the balance of my time.

Chairman MILLER. Thank you, Mr. Chairman.

Let me introduce our witnesses. Richard "Rick" W. Spinrad, Ph.D., was sworn in June 2021 as the Under Secretary of Commerce for the Oceans and Atmosphere, and the 11th NOAA Administrator. Dr. Spinrad is responsible for the strategic direction and oversight of the agency and its over 12,000 employees. Earlier in his career, Dr. Spinrad held leadership positions at the United States Office of Naval Research and Oceanographer of the Navy, where he was awarded the distinguished Civilian Service Award, the highest award given by the United States Navy to a civilian.

Dr. Spinrad served as NOAA's chief scientist under President Barack Obama from 2014 until 2016. He received his B.A. in earth and planetary sciences from the Johns Hopkins University, and his M.S. and Ph.D. in oceanography from Oregon State University.

I now recognize Administrator Spinrad for 5 minutes to present his testimony. And, Doctor, thank you for your service.

**TESTIMONY OF DR. RICK SPINRAD, ADMINISTRATOR,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**

Dr. SPINRAD. Thank you, Chairman Miller, Ranking Member Ross, Chair Lucas, Members of the Subcommittee. Thank you for the opportunity to testify about NOAA's Fiscal Year 2025 budget and a quick note of thanks for your very kind words about the hard work of our workforce, especially over the last several months. We appreciate the continued support of Congress, the Administration, and our broad and diverse set of stakeholders.

For Fiscal Year 2025, NOAA's budget request proposes \$6.6 billion in discretionary appropriations, an increase of \$224 million from the Fiscal Year 2024 enacted level. This Fiscal Year 2025 request will prioritize investments in critical operational and infrastructure activities that support NOAA's ability to carry out our mission across five thematic areas.

First, NOAA will invest in the next generation of environmental satellites in order to provide significant improvements in data and products to meet security, safety, and prosperity needs of the Nation. NOAA uses industry's standard acquisition procedures to ensure that we invest appropriately and effectively.

Second, NOAA will address the climate crisis and strengthen resilience. Specifically, NOAA will invest in increasing conservation and protection in an expanded sanctuary system by training the next generation of marine-protected area professionals and expanding technology use to support management priorities.

Third, NOAA will continue to provide critical science and data to inform economic development. Notably, NOAA will continue to work closely with the Department of Interior's Bureau of Ocean Energy Management and others to maximize the benefits of off-shore wind.

Fourth, NOAA will integrate equity across the organization by improving knowledge-sharing capabilities and service delivery to tribal, rural, and urban communities.

And finally, NOAA will continue to reduce the deferred maintenance and repair backlog across our facilities in order to maintain operations, address safety issues, and ensure mission capability.

This Fiscal Year 2025 budget builds on investments from the *Inflation Reduction Act* and the *Bipartisan Infrastructure Law*. I'm proud to share that, as of the end of Fiscal Year 2023, we have awarded a total of \$1.1 billion in *IRA* and *BIL* grants and contracts. Some of our programs have seen 28 times more demand, which equates to about \$16 billion more than we have available in funding, demonstrating the strong need for these types of opportunities.

Additionally, NOAA is continuing to invest in a few other notable areas. We're prioritizing funding for the current satellite constellation, making the critical investments necessary to maintain the de-

velopment timelines for the most mature next-generation satellite programs to expand delivery of essential climate, weather, atmospheric, oceanographic, and space weather information. NOAA will continue the development of the GeoXO satellite program, which will provide sustained observations for weather forecasting, real-time monitoring of air quality conditions, and improved ocean forecasting and fisheries management. These investments are needed now to ensure NOAA continues to provide relevant, timely, and targeted information support to prevent loss of life and property, especially for underserved communities now and well into the future.

In addition, NOAA is committed to investing in climate research and providing actionable environmental information that is the basis of smart policy and decisionmaking to improve readiness. The National Weather Service will begin the work of transforming the Advanced Weather Interactive Processing System, or AWIPS, to a cloud framework, which will give forecasters secure remote access to provide in-person impact-based decision support services to decisionmakers anytime, anywhere. These investments are absolutely necessary since we've recorded seven disasters with losses exceeding \$1 billion each just this year. And after rolling out the hurricane season outlook, we know it's going to be another very busy season.

And then lastly, the Fiscal Year 2025 request will support enhanced fleet operations by improving maintenance, ensuring competitive crew rotations, and implementing best safety practices. This funding includes the addition of the NOAA ship Oceanographer to the fleet and will allow us to deliver a total of 2,840 days at sea. Similarly, the Fiscal Year 2025 request will support flight hours to penetrate hurricanes and atmospheric rivers. The Administration and I are fully committed to the Hurricane Hunter mission, and these investments are critical to meet mission requirements and inform climate science and critical emergency services.

On almost a weekly basis now, we're bringing all of our resources to bear, whether it's to directly support the Federal response to the Francis Scott Key Bridge disaster, provide tornado warnings in Iowa, or supply air quality guidance for Minneapolis. Overall, with this 2025 budget request, NOAA will be well-positioned to help support the communities we serve, particularly those most vulnerable to climate change and its impacts.

I look forward to working closely with you on each of these initiatives and to discussing NOAA's mission more with you today. Thank you.

[The prepared statement of Dr. Spinrad follows:]

**WRITTEN TESTIMONY OF
DR. RICHARD W. SPINRAD
UNDER SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE AND
NOAA ADMINISTRATOR**

**ON
THE PRESIDENT'S FISCAL YEAR 2025 BUDGET REQUEST FOR THE NATIONAL
OCEANIC AND ATMOSPHERIC ADMINISTRATION**

**BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT
COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES**

JUNE 4, 2024

Chairman Miller, Ranking Member Ross, and members of the Subcommittee, thank you for the opportunity to testify about the National Oceanic and Atmospheric Administration (NOAA) Fiscal Year (FY) 2025 budget. NOAA appreciates the continued support of Congress, the Administration, and our broad and diverse base of stakeholders.

For FY 2025, NOAA's budget request proposes \$6.6 billion in discretionary appropriations, an increase of \$224.8 million from the FY 2024 enacted level. The FY 2025 budget builds on investments from the Inflation Reduction Act (IRA) (P.L. 117-169) and Bipartisan Infrastructure Law (BIL) (P.L. 117-58) for climate resilience, climate science, data and services, environmental observations, and fisheries and protected resources.

The FY 2025 request will prioritize investments in the critical operational and infrastructure activities that support NOAA's ability to carry out its mission. These substantial investments, along with other targeted increases, reflect my priorities as Administrator, which are to:

1. Build on NOAA's long history of success, and meet the needs of the future by expanding, diversifying, and enhancing climate products and services for all Americans.
2. Ensure that NOAA builds economic opportunities in the new blue economy and upholds our critical role of environmental stewardship.
3. Integrate equity across NOAA by improving capabilities and knowledge sharing, and honing product development and service delivery in Tribal and underserved communities and taking an aggressive and active role in diversifying the Federal workforce, in a just, equitable, and inclusive manner.

Invest in Critical Satellites

NOAA satellites are critical for NOAA's mission, as well as the security, safety, and prosperity of the Nation. Data from these satellites provide essential support to all segments of the U.S.

economy. In FY 2025, NOAA requests an additional \$605.7 million for significant investments in NOAA's observational infrastructure, underscoring NOAA's commitment to making crucial, time-sensitive, and cost-effective investments to ensure that the Nation's next-generation satellite systems expand delivery of essential earth system observations to meet the evolving needs of the American public. The FY 2025 budget will help NOAA better forecast weather events, issue accurate warnings, and observe environmental phenomena connected to climate change-related impacts and patterns, and deliver products, information, and climate services to inform decision makers.

NOAA's current satellite constellation has proven its worth and will continue to do so into the 2030s. However, NOAA must concurrently invest in the next generation of environmental satellites with the needs of user communities in mind. FY 2025 funding for future geostationary, low earth orbit, and space weather observations will ensure critical data continuity from legacy systems, while providing significant improvements in data and products to meet the complex societal and environmental needs of the Nation. In FY 2025, NOAA will continue the development of the GeoXO satellite program, which will provide improved weather forecasting, real-time monitoring of air quality conditions, and improved ocean forecasting and fisheries management yielded from geostationary orbit observations.

The value of NOAA's world-class data is enhanced by NOAA applications and accessibility for users. The FY 2025 budget supports much-needed improvements to NOAA's data infrastructure. For example, the request includes funding to transition NOAA data from on-premise systems to a cloud-based environment for data ingest, processing, dissemination, and archiving, which will expand the size and diversity of NOAA user communities and data applications.

Expand Climate Products and Services to Build Climate Resilience

The FY 2025 budget in conjunction with investments in BIL and IRA and in collaboration with other Federal agencies will address the climate crisis and strengthen resilience. In FY 2025, NOAA requests an additional \$155.5 million to contribute to implementing Executive Order (EO) 14008 on *Tackling the Climate Crisis at Home and Abroad*. Establishing an end-to-end value chain for climate and weather data and services starts with investing in observational infrastructure and culminates in delivering services to meet a diverse set of missions. Therefore, NOAA will support observational infrastructure, decision support tools, service delivery, and conservation.

NOAA provides timely and actionable environmental observations on global, national, and regional scales from satellites, radar, surface systems, atmospheric greenhouse gas sampling stations, ocean buoys, uncrewed systems, aircraft, and ships. With the funding requested in FY 2025, in addition to the funding provided through IRA, NOAA will finalize the acquisition of a second G-550 for its high-altitude jet program. Additionally, NOAA will invest in Days at Sea

and Flight Hours to support critical mission priorities, and the NOAA Corps officers needed to safely and effectively operate ships and aircraft.

NOAA's weather forecasts and climate projections and information must be reliably delivered to users to inform decision making. Forty percent of the U.S. population lives and works in coastal counties, making a disproportionate segment of our society and economy at increasing risk to hazards such as hurricanes and coastal inundation. The National Weather Service will provide more Impact-based Decision Support Services, and NOAA is expanding its service delivery with more products and services to more communities across the country. The foundation for expanded service delivery is the Advanced Weather Interactive Processing System (AWIPS) in the cloud. AWIPS in the cloud will allow for more products across NOAA to use this dissemination system and reach local offices across the country. As a result, AWIPS in the cloud will push out a greater amount of information to reach a larger number of communities to provide greater decision support services. Therefore, the FY 2025 request will transform AWIPS into a modern, extensible cloud-based framework.

Planners and decision makers face challenges when seeking Federal data to support resilience-building efforts. In FY 2025, NOAA, in collaboration with other agencies under the U.S. Global Change Research Program, will enhance the accessibility and usability of Federal climate data through the Climate Resilience Information System and Climate Mapping for Resilience and Adaptation, a publicly accessible, interoperable architecture that makes it easy for people to find and use Federal agencies' decision-relevant data to support climate adaptation and mitigation planning. NOAA will support this enhancement and expansion to include information specific to additional environmental hazards, integrate stakeholder feedback, and improve the systems' functionality.

NOAA will also invest in increasing conservation and protection in an expanded sanctuary system, which is an integral part of NOAA's contribution to the implementation of the *America the Beautiful* initiative that includes the goal to conserve at least 30 percent of U.S. lands and waters by 2030. NOAA's FY 2025 request will enhance NOAA's sanctuary management capacity as new sanctuaries are designated. NOAA will work to identify gaps in marine protection, train the next generation of Marine Protected Area professionals, and expand technology use in sanctuaries to support management priorities.

Provide Science and Data to Inform Economic Development

NOAA will continue to foster environmental stewardship and optimize advances in science and technology, with a particular focus on the New Blue Economy: supporting development framed around an information and knowledge-based approach to support fisheries, transportation, shipping, renewable energy, recreation, and livelihoods. In 2023, the Bureau of Economic Analysis, in partnership with NOAA, released the official Marine Economy statistics that the

U.S. marine economy contributed about \$432.4 billion, or 1.9 percent, to the Nation's gross domestic product, an increase from 1.7 percent, or \$363.2 billion¹ and supports 2.3 million jobs annually.² In FY 2025, NOAA requests an additional \$55.1 million in support of the expansion of offshore wind energy, salmon populations of the Columbia River basin and beyond, and improvements in our tsunami and space regulatory infrastructure.

NOAA is an important Federal collaborator in support of the Administration's goal to responsibly deploy 30 gigawatts (GW) of offshore wind energy by 2030. In FY 2025, NOAA will continue to work closely with the Department of the Interior's Bureau of Ocean Energy Management (BOEM), the lead Federal agency for offshore wind siting, leasing, and permitting, and others to maximize the benefits of offshore wind; minimize the effects of offshore energy projects on protected marine resources, fisheries, and important habitats; and mitigate impacts to NOAA assets, fisheries surveys, and other activities.

NOAA will continue supporting the production of 42 million hatchery fish, which represents about 30 percent of the total hatchery salmon and steelhead released in the Columbia River Basin, as well as their associated monitoring programs. Salmon smolts from hatchery programs funded through the Mitchell Act translate into the harvest of about 250,000 fish that add to commercial, recreational, and Tribal fisheries. Fish from the Columbia River Basin also reflect an important component of Canadian and Alaskan ocean fisheries. These funds will complement the \$60 million in IRA funds for Mitchell Act hatchery deferred maintenance, repair, and modernization.

In FY 2025, NOAA will support the multi-agency National Strategy to Develop Statistics for Environmental-Economic Decisions. This request is part of a multi-agency initiative, and will further develop statistics to measure the contribution of environmental resources and environmental-economic activities to the U.S. as valuable efforts that directly support employment, income, productivity, and growth. As a result of this work NOAA will develop the methodology to expand the Marine Economy Satellite Account to include a natural capital component that builds toward a comprehensive and integrated accounting of ecosystem usage by industry, contributing to ocean intelligence.

To further address tsunamis' unpredictability and potentially disastrous consequences to life and property along vulnerable U.S. coastlines, NOAA will provide a common framework that supports the National Tsunami Warning Center, located in Alaska, and Pacific Tsunami Warning Center, located in Hawai'i. Funding will ensure continuity of operations by eliminating

¹ Bureau of Economic Analysis, *Marine Economy Satellite Account, 2021*, <https://www.bea.gov/news/2023/marine-economy-satellite-account-2021> (accessed January 22, 2024)

² Bureau of Economic Analysis and NOAA, *Marine Economy*, <https://coast.noaa.gov/states/fast-facts/marine-economy.html> (accessed January 25, 2024)

discontinuities within existing systems, and providing consistent guidance to all users, independent of location.

NOAA's role in providing data for sustainable economic development extends beyond the Earth environment and into the space environment. Our Office of Space Commerce is making significant progress in the development of the new Traffic Coordination System for Space (TraCSS), which will provide space situational awareness (SSA) data and space traffic coordination safety services to commercial and civil space operators. Such information is critical to spaceflight safety and space sustainability as Earth's orbits become increasingly congested with satellites and debris. TraCSS will be a modern, cloud-based IT system leveraging commercial innovation and data to ensure it remains on the cutting edge and responsive to stakeholder needs. We recently completed setting up part of the infrastructure for cloud storage, selected and onboarded our system integrator, and held 29 demonstrations with commercial vendors as part of market research for the TraCSS user interface. We are in the middle of a pathfinder project involving commercial SSA data and services to work out the processes and metrics of acquiring, ingesting, evaluating, and validating such data and services for the operational system. TraCSS is on track to go live with a Phase 1.0 capability for a limited set of beta users by the end of this fiscal year. In FY 2025, the Office of Space Commerce will continue to build on this success by integrating additional capabilities into TraCSS's operational service, including data quality monitoring, mission planning, a public user interface, and additional commercial SSA capabilities.

Bolster Equity

NOAA will continue to support Executive Order 13985 on *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* and Executive Order 14091 on *Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*. NOAA will integrate equity across the organization including by implementing the Ocean Justice Strategy, improving capabilities and knowledge sharing, and honing product development and service delivery in Tribal and underserved communities.

Update and Maintain Crucial Facilities

Safe and modern facilities are vital to support NOAA's mission of science, service and stewardship. In FY 2025, NOAA requests an additional \$26 million to reduce the deferred maintenance and repair (DM&R) backlog in order to maintain operations, address safety issues, and ensure mission capability. Funding will also support design needs for facilities such as science centers and laboratories which will support future new construction and renovation projects.

Summary

NOAA is working hand-in-hand with Federal and non-federal partners locally and sharing best practices globally. People know they can turn to NOAA for reliable climate and extreme weather information to help make informed decisions that help save lives and livelihoods. In FY 2025, NOAA will invest in its world class satellite program; expand Federal climate products and services to improve climate resilience; foster environmental stewardship and economic development by optimizing advances in science and technology with a focus on the New Blue Economy; integrate equity across the organization and in our work; and support ongoing investments in NOAA's aircraft, ships, and facilities. NOAA will be well-positioned to help support the communities we serve, particularly those most vulnerable to climate change and its impacts. Through this budget, NOAA will support the whole-of-government effort to address the climate crisis, boost resilience, and promote economic growth.

Richard W. Spinrad, Ph.D.

Under Secretary of Commerce for Oceans and Atmosphere & NOAA Administrator

Richard (Rick) W. Spinrad, Ph.D., was sworn in on June 22, 2021 as the under secretary of commerce for oceans and atmosphere and the 11th NOAA administrator. Dr. Spinrad is responsible for the strategic direction and oversight of the agency and its over 12,000 employees, including developing NOAA's portfolio of products and services to address the climate crisis, enhancing environmental sustainability and fostering economic development, and creating a more just, equitable, diverse and inclusive NOAA workforce.

Prior to returning to NOAA, Dr. Spinrad served as the vice president of research at Oregon State University (OSU), from 2010-2014.

Previously, Dr. Spinrad served as NOAA's chief scientist under President Barack Obama from 2014 until 2016. He also led NOAA's Office of Oceanic and Atmospheric Research and National Ocean Service from 2003-2010. While at NOAA, Dr. Spinrad co-led the White House Committee that developed the nation's first set of ocean research priorities and oversaw the revamping of NOAA's research enterprise, including the development of the agency's Scientific Integrity Policy.

Earlier in his career, Dr. Spinrad held leadership positions at the U.S. Office of Naval Research and Oceanographer of the Navy, where he was awarded the Distinguished Civilian Service Award — the highest award given by the U.S. Navy to a civilian. He has held faculty appointments at OSU, the U.S. Naval Academy, and George Mason University; served as Executive Director at the Consortium for Oceanographic Research and Education; was President of Sea Tech, Inc.; and worked as a research scientist at OSU and the Bigelow Laboratory for Ocean Sciences. He also developed the National Ocean Sciences Bowl for high school students. In the international arena, Dr. Spinrad served as the U.S. permanent representative to the United Nations' Intergovernmental Oceanographic Commission from 2005-2009.

He is the recipient of Presidential Rank Awards from presidents George W. Bush and Barack H. Obama. Dr. Spinrad is past president of The Oceanography Society (TOS) and the Marine Technology Society. He is a fellow of the American Meteorological Society, Marine Technology Society, TOS, and the Institute of Marine Engineering, Science and Technology (IMarEST), and an IMarEST Chartered Marine Scientist.

Dr. Spinrad received his B.A. in Earth and Planetary Sciences from The Johns Hopkins University, and his M.S. and Ph.D. in Oceanography from Oregon State University.

Chairman MILLER. Thank you for your testimony, Dr. Spinrad. The Chair recognizes himself for 5 minutes of questions.

And real quick, I just wanted to say I like your style today, blue tie, blue suit. We're doing the same thing. We didn't coordinate that if any of you were wondering, but—all right.

Dr. SPINRAD. I'll get you a blue lapel pin, too, sir.

Chairman MILLER. You promise?

Dr. SPINRAD. Absolutely.

Chairman MILLER. All right. Let's get it done.

Well, thank you for coming, Administrator Spinrad. It's good to see you.

The weather enterprise is relying upon collaboration not just between NOAA and domestic stakeholders, but international partners as well. Global data sharing improves models across the board and leads to greater accuracy and prediction capabilities. However, in the current world landscape, there can be bad actors. They go after its data and its users. How is the department making sure that the national security is prioritized and American interests are protected? And how does NOAA monitor and evaluate international partnerships with adversaries like China, Russia, or Iran?

Dr. SPINRAD. Thank you for the question, Chair. This is a critical issue for us, and there's a couple of ways that we go about ensuring that national security is paramount in our products and services. Internally, that is to say internal to the U.S. Government, we have a number of very effective relationships with our partners in DOD (Department of Defense). I've got MOUs (memorandums of understanding) with Navy and Air Force specifically, and we regularly meet to talk about what are the joint requirements, what are the capabilities that we've got to support each other in terms of providing products and services.

We also work closely with the National Security Council. And in fact, just this past year, we took the effort, we took the initiative in the National Weather Service to embed one of our Weather Service employees in the National Security Council so that we can make sure we've got real-time connectivity and we're not waiting for a phone tree to respond to these kinds of issues.

Outside of the United States, outside of the U.S. Federal Government we are active participants in the global dialog, most notably through the World Meteorological Organization, where the head of our National Weather Service sits as the United States' permanent representative and can talk about policies, practices, and programs that best serve our national needs and also, quite honestly, leverage the capabilities and capacities of our other allies around the world, so it's a combination of internal and external activities.

Chairman MILLER. Thank you. I appreciate that, Administrator.

Earlier this Congress, I was proud to pass H.R. 1715, the *Advanced Weather Model Computing Development Act*, through the House of Representatives. This bipartisan, commonsense piece of legislation requires the Department of Energy (DOE) and the National Oceanic Atmospheric Administration to carry out research on advancing weather and climate modeling and prediction. What progress has been made at NOAA regarding using HPCs (high-performance computing) for weather modeling? And has any progress

been made in partnerships with other Federal agencies that we have?

Dr. SPINRAD. Yes, thank you, Chair, for that question as well. The short answer to your question is, yes, a lot of progress. I think you know that, in years past, and this year, we're continuing to invest in our own high-performance computing capacity. Not being satisfied that that will meet all of our computational needs, we have also invested heavily through MOUs and actual grants and contracts with the private sector to provide cloud-based services. So a lot of what we're trying to do in terms of HPC can be done in collaboration with cloud service providers in the private sector. With respect to the specific relationship—and I should add artificial intelligence (AI) applications are part of that whole set of HPC-based activities.

You specifically alluded to the relationship with DOE. I couldn't be prouder to point out to you that, this week, in partial celebration of Capitol Hill Ocean Week, I will be signing an MOA (memorandum of agreement) with the Department of Energy, part of which alludes to our joint activities in leveraging each other's high-performance computing capabilities.

Chairman MILLER. That's awesome. I love to hear that.

I am done with my questions, but I just want to say thank you and your team. We've had a great working relationship and a couple of calls, and I just really appreciate—I mean, we may never agree on every issue, and that's OK. I think we'd be kind of nuts if we did. But all in all, I just really appreciate you all working with our office and this Committee to work through these issues and to highlight your priorities and President Biden's priorities and his agenda and to see the differences. I really appreciate your time this morning. I yield back.

I'm now going to recognize Ms. Bonamici out of Oregon for 5 minutes of questions.

Ms. BONAMICI. Thank you, Chairman Miller and Ranking Member Ross.

Nice to see you Dr. Spinrad. Welcome back to the Committee.

Dr. SPINRAD. Thank you.

Ms. BONAMICI. You know, Administrator Spinrad, as an Oregonian, that I represent a significant portion of the magnificent Oregon coast. NOAA's Integrated Ocean Observing System, or IOOS, is a critical program to collect, process, and share ocean and coastal data, and that's used for navigation, weather forecasting, fisheries management, coastal hazard mitigation. Your budget request for Fiscal Year 2025 proposes a \$32.5 million cut, which is actually a 76 percent reduction in IOOS funding.

The Northwest Association of Networked Ocean Observing Systems, known as NANOOS, relies on this funding for their core activities. And the proposed *IRA*-funded—or *Inflation Reduction Act*-funded—projects to expand data collection and modeling including for ocean health, erosion management, and supporting tribal-led projects. But replacing base IOOS funding with *IRA* resources will threaten the long-term program needs and I'm concerned strain IOOS activities. The proposed cuts will actually require NANOOS to remove their buoy and glider observing assets and stop running models.

So, Administrator Spinrad, I'm concerned about some kind of budgetary cliff when *IRA* funds expire. So what are NOAA's plans to sustainably fund these critical IOOS programs?

Dr. SPINRAD. Thank you, Congresswoman Bonamici. Good to see you as well.

And I will share with you that IOOS, along with several other programs we've got, reflect the very difficult decisions that we had to make in this budget as a consequence in part of the *Fiscal Responsibility Act* and the constraints that we had there, but also our commitment to sustain current activities such as those for keeping the next generation of satellites in place and making sure our mission-essential functions were not compromised in any way.

Nonetheless, the reduction in funding in IOOS is in part being addressed by some of those *IRA* funds, but as your question implied, not one for one. And so I have taken it upon myself to sit down and meet with all of the IOOS regional directors. I did that a couple of weeks ago. I'll be meeting with the Pacific IOOS Director in Hawaii next week to understand exactly what these mean. We've directed that data management and cyber infrastructure be the specific activity that is sustained.

Ms. BONAMICI. Thank you. I want to get another question in, and I don't want to stop you, but I have a related question. And that has to do with tsunami mitigation.

Dr. SPINRAD. Yes.

Ms. BONAMICI. And I've heard from many of the coastal communities—and again, you know, as an Oregonian, that we have the Cascadia subduction zone and risk of tsunami. I've spoken with them about the NOAA Tsunami Hazard Mitigation Program. And that's used to raise awareness to prepare towns for disaster. Coastal Oregon towns like Bay City, Seaside, they rely on those high-quality models and timely alerts, and the residents know that the accuracy of NOAA's tsunami systems is really a matter of life and death.

So NOAA's budget proposes to eliminate funding for the Tsunami Hazard Mitigation Program and reallocate that funding to improve tsunami detection technology. So similar to the IOOS funds, how can NOAA work to maintain tsunami mapping research and education services and modernize its equipment without compromising one priority for the other?

Dr. SPINRAD. Yes, thank you for that question, and I share your concern with respect to tsunami response, especially for those kinds of tsunamis that the Cascadia 9.0 represents where the ability to respond quickly is important.

What we have chosen to do, what we will do with the tsunami program is provide a common framework, and that will enhance the ability of communities to respond. Right now, our Alaska-based and Hawaii-based tsunami offices, tsunami centers—warning centers operate with different systems, which means the warning we get to people is far from optimal. So by, if you will, providing the common framework, the kind of operational picture, the residents of the coastal communities in Oregon will get a better predictive product than they had before. That way, we're going to ensure continuity of operations.

Ms. BONAMICI. Thank you, Dr. Spinrad, and I look forward to working with you and NOAA on these really critical programs for coastal communities.

And, Mr. Chairman, as I yield back, I request unanimous consent to enter into the record a document that outlines Oregon NANOOS core activities and planned *IRA* projects that are at risk from this budget proposal and also a letter from the Oregon Coastal Caucus expressing concerns about the proposed cuts to both NOAA's National Tsunami Hazard Mitigation Program.

And with that, happy Capitol Hill Oceans Week, and I yield back.

Chairman MILLER. Without objection.

Thank you, Ms. Bonamici.

I now recognize Mr. Posey for 5 minutes of questions.

Mr. POSEY. Thank you very much, Mr. Chairman.

Dr. Spinrad, regarding the misguided East Coast vessel speed limit rule for the right whales, why did NOAA meet with several outside groups such as the Center for Biological Diversity, but not the National Marine Manufacturers Association, prior to the proposed rule being published?

Dr. SPINRAD. Thank you for the question. As you know, Congressman, the issue of vessel speed rule in North Atlantic right whales is paramount for us and trying to find a solution that addresses the concerns and the responsibilities that we've got with regard to protection of those species under the law and also balance the economic development issues associated with boating is critical. The rule right now is with OIRA (Office of Information and Regulatory Affairs) and OMB (Office of Management and Budget), so I won't get into very specific details.

But I want to address your question. And the question is really one of how did we engage and get comment and impact. And in fact, we, myself, the head of the National Marine Fisheries Service, have had discussions with that association. We also received over 90,000 public comments, including from the association on the proposed rule. And so I feel confident in telling you that we have addressed, accommodated, and listened to all of those comments and incorporated that thinking into the rule that is now under consideration at OMB.

Mr. POSEY. Yes, but the question was, why didn't you talk to the marine manufactures prior to that?

Dr. SPINRAD. Well, they were part of the discussion.

Mr. POSEY. Oh, they they have indicated they weren't before the rule was written. Am I correct, we're still talking about less than an average of one right whale death per year from strikes. Is that correct?

Dr. SPINRAD. Well, in fact, just this year alone, we've had four deaths, one from entanglements, three from strikes, two off Georgia, one off Florida, and that's just so far this year. And those are unquestionably attributable. I've got, in fact, an example of a whale strike off Georgia. These are happening this year. We have seen a considerable number. And the Canadians also have had similar.

Mr. POSEY. Any indication how many from the Northeast from the alternative power uses like the windmills and stuff?

Dr. SPINRAD. There's no indication that the offshore wind development has an adverse impact on the whales, on their migration or their health.

Mr. POSEY. OK. What specific topics were discussed at the May 22 Office of Information and Regulatory Affairs meeting, including any specific requests by outside groups or agency action and any NOAA responses provided? That was in a letter I sent you of April.

Dr. SPINRAD. Yes, we've got that letter. We're going to respond to that letter. I cannot comment on OIRA's behalf, but we'll certainly take that for response.

Mr. POSEY. Besides the May 22 Office of Information and Regulatory Affairs meeting, has NOAA met with any other outside groups prior to the rule being published?

Dr. SPINRAD. We had meeting—like I said, through the comment period and through discussions, we had quite a few meetings and discussions, yes.

Mr. POSEY. Can you identify some of them for me?

Dr. SPINRAD. We'd be glad to respond for the record with the list of those we've met with and commented.

Mr. POSEY. Are you aware of our April 26 letter which you just—

Dr. SPINRAD. Yes.

Mr. POSEY [continuing]. Acknowledged? And I'm just wondering when we might expect a response from it.

Dr. SPINRAD. We're working on it, sir. It's got to go through the top chain at the Department of Commerce. And I don't have a specific date for you, but I assure you, it's got our attention, and we are developing a response.

Mr. POSEY. So 6 months, a year? I mean, just ballpark it.

Dr. SPINRAD. I can't give you an estimate.

Mr. POSEY. So it could be never?

Dr. SPINRAD. No, we will respond to your letter.

Mr. POSEY. Is it going to be in 3 years?

Dr. SPINRAD. I cannot give you a response. I'm going to do everything in my capacity to ensure we get a timely response back to you.

Mr. POSEY. So it could possibly be 3 years?

Dr. SPINRAD. I don't think it would be. I think it would be much sooner than that.

Mr. POSEY. OK. Less than 2 years?

Dr. SPINRAD. I can't answer that, sir.

Mr. POSEY. Yes, so it could be 2 years before you give me an answer.

Dr. SPINRAD. It's going to be answered as efficiently and effectively as we can.

Mr. POSEY. But not 3 years from now. You said no, but it could be as much as 2 years?

Dr. SPINRAD. I don't expect it would be 3 years. I can't give you an exact date.

Mr. POSEY. OK. But you can't say—it could be—

Dr. SPINRAD. I can't give you an exact date.

Mr. POSEY. Yes. Wow. Mr. Chairman, I'd like to, without objection, have, as a matter of the record, my letter to NOAA dated April 26.

Chairman MILLER. Without objection.

Mr. POSEY. I yield back. Thank you, sir.

Chairman MILLER. Thank you, Mr. Posey.

I now recognize Ms. Ross for 5 minutes of questioning.

Ms. ROSS. Dr. Spinrad, thank you again for being with us today.

For decades, climate change has been the subject of political attacks. Less than 2 weeks ago, a massive storm swept across the United States, claiming at least 22 lives. Windstorms, flooding, heat waves, and other severe weather have all been increasing in ferocity and frequency and not just in the United States. But every American sees it here with our own eyes, and yet some in the majority party continue to question the science of climate change and use it as an excuse to attack our premier client—climate science agency.

Dr. Spinrad, NOAA collects and disseminates publicly accessible environmental data and produces world-leading climate research and information. What processes and procedures does NOAA have in place to ensure that its science is reliable, accurate, and follows the highest of scientific standards?

Dr. SPINRAD. Thank you, Ranking Member Ross, for that very important question. As a science-based agency, we at NOAA pride ourselves on the scientific quality, accuracy, credibility, and integrity of the information we develop. So the first part of the answer to your question is we adhere to scientific standards, those that have been time-tested and are the same standards the highest-level academics and research laboratories around the world use, peer review being the most notable element of that kind of process.

We also established—and I'm proud to say I was the original author some 14 years ago—of NOAA's scientific integrity policy, a policy which makes clear what we expect of our scientists in terms of adhering to those standards, scientific standards. And of course, we have statute and legislation to abide by, not the least of which is the *Information Quality Act* by which we test, if you will, our information against the standards that Congress has established. So there's a variety of different tools, if you will, that keep us on the straight and true.

Ms. ROSS. Well, thank you very much for that answer.

My next question has to do with staffing. The National Weather Service is made up of talented employees who are responsible for issuing accurate and timely forecasts and warnings 24/7. And, as I said, I just visited one of my National Weather Service locations in my district. This year, we've already seen several life threatening severe-related weather events. This hurricane season, which officially started on June 1, is predicted to be an extremely active season.

The Fiscal Year 2024 budget cut about 100 National Weather Service positions. If the 2025 Weather Service staffing budget does not increase to at least inflation levels, this could increase the burden on an already strained workforce. Dr. Spinrad, how would an austere staffing budget impact the workforce of the National Weather Service and across other line offices in NOAA?

Dr. SPINRAD. Ranking Member Ross, thank you for addressing the issue of the people in the organization. We can lay claim to the best science, the best models, the best observational capabilities,

but at the end of the day, it's our forecasters in the weather forecast office like the one you visited a couple of weeks ago across the agency. Our ability to bring people onboard is not where I want it to be. And so, consequently, even though we hired 1,700—more than 1,700 people last year, we need to make sure that we are able to bring people into the organization and also retain them. It's one thing to recruit, but we want to make sure we are retaining folks.

So to do that, what we are doing is increasing our staffing and our Office of Human Capital services. The head of the National Weather Service, Ken Graham, is working aggressively to optimize the staffing plan because, quite honestly, the way we are staffing our weather forecast offices is a method that was established many decades ago. So we are trying to optimize how we are staffing.

And then the last part of this is making sure we have taken best advantage of those direct-hire authorities that we've got in the programs like Lapenta fellowships that give us visibility for the next generation of forecasters in the Weather Service.

Ms. ROSS. OK. My time is about to expire, but I am going to submit for the record a question about your backlog of deferred maintenance costs, which appear to be about \$1 billion. And the request is not anywhere near there. So hopefully in a written response we can find out what the priorities are and whether you need additional funds.

Thank you, Mr. Chairman, and I yield back.

Chairman MILLER. Thank you, Ranking Member Ross.

I would now like to recognize the gentleman, Mr. Collins out of Georgia, for 5 minutes questions.

Mr. COLLINS. Thank you, Mr. Chairman. Dr. Spinrad, NOAA's National Weather Service has had multiple transmission outages that have resulted in delays, warnings, and lapses in dataflows. And the outages, they've affected Georgia in particular in early January at an airport in Rome, Georgia. A data outage was so severe that it left pilots blind to weather events within 40 to 60 miles from the airports. But luckily, there were no weather events going on that day, but it could have been a disaster. And I'm just trying to get an update. How are you addressing this?

Dr. SPINRAD. Yes, thank you for that question. Obviously, I share the priority of making sure we have 24/7 365 weather services. I can assure you that, in every case, our backup systems are working effectively, but that's not adequate. And so part of what we're doing is making sure we've got the agreements in place and the resources with the providers, whether it be the internet service providers, data providers, or communications providers so that we do not have any failures in the system. And some of the resources that we've got through the *IRA* are helping us to address those shortfalls.

Mr. COLLINS. All right. The 2025 budget, how's it improved upon the existing partnerships with private and public weather data to improve our forecasting models?

Dr. SPINRAD. The—our reliance on the private sector and in fact the development of the commercial data buys is something that I have as a very important both personal and professional priority. I think you know that over the last several years we've engaged in some initial data buys with the private sector that give us thousands of profiles of vertical temperature and humidity. This is, in

my opinion, a successful pilot program. It's my intent to increase our capability for incorporation of private data into our portfolio of weather service products.

Mr. COLLINS. Thank you. Following up on some of what Mr. Posey was talking about, you know, you and I have had private conversations about the right whale issue and the \$80 billion industry that you're going to affect, the 63,000 vessels that are out there that you're going to affect with this 10-knot rule that you have proposed. And I guess my question is pretty simple. So you implement this thing. How do you plan on enforcing it?

Dr. SPINRAD. So I think you know that the National Marine Fishery Service has an Office of Law Enforcement. This will be part of their responsibility. We also work very closely with the U.S. Coast Guard, and none of the development of a rule like this is done without close collaboration and discussion with the Coast Guard.

The other part of enforcement is going to lie in technology and the use of technology to be able to understand where vessels are, what speed they're going. So it's a combination technology, our own resources, and then partnerships with other Federal and State agencies.

Mr. COLLINS. Thank you.

Mr. Chairman, I have no other further questions, and I yield back.

Chairman MILLER. Thank you, Mr. Collins.

I now recognize Mr. Frost out of Florida for 5 minutes of questions.

Mr. FROST. Thank you so much, Mr. Chair. Good morning, Dr. Spinrad.

Last month, NOAA predicted that this summer's hurricane season will be—will have the most named storms ever, so it'll be a bad hurricane season, as NOAA is predicting. NOAA's hurricane season forecast is an important reminder of the dangers that my constituents face, and it sets the tone for how they prepare for the storm season. How does the flat funding for the National Weather Service in NOAA's Fiscal Year 2025 budget request still reflect the importance of the National Hurricane Center's yearly hurricane season outlook?

Dr. SPINRAD. Thank you for the question, Congressman. I certainly appreciate the concern over what we see as a rather dramatic hurricane season coming down the line. The budget that we've got right now will ensure that we can sustain our capabilities. We are also optimizing some additional capabilities so your constituents, for example, will see new products like the cone of uncertainty that traditionally only gave those coastal inhabitants information about what was coming down the line will now give some of the inland inhabitants information as well. We're also going to be able to use AI applications on a test basis for translation of the watches and warnings into multiple languages. So I can assure you that not only will we sustain the products and services that you know and appreciate from the hurricane center and the Weather Service in general, but we will be able to expand some of those capabilities.

Mr. FROST. Would you say has technology allowed you to kind of keep the funding flat but still be able to do more? Is that the reasoning there?

Dr. SPINRAD. To a certain extent, yes, certainly things like AI. For example, right now if we do a translation of a forecast, it can typically take a half hour or 45 minutes for human intervention, but AI allows that to be done in just 3 to 5 minutes. So at no real additional cost, we can improve the service in that example.

Mr. FROST. NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) is responsible for real-time hurricane-related measurements, hurricane science, and maintaining the global ocean climate data record. A recent White House report states that this Florida-based lab is having trouble attracting and retaining scientific talent because it can no longer support cutting-edge science. Could you speak to NOAA's plan to address the aging research labs, including AOML?

Dr. SPINRAD. Yes, thank you very much. And I can tell you, having visited AOML just a few months back, I can appreciate the issues. There was some roof leakage and other problems going on there. We have over 600 facilities around the country, and so what we undertook a couple of years ago was, first of all, building a facilities and infrastructure strategic plan. How do we know if we got one more dollar if we can spend one more hour doing work on any of those facilities where we should spend that time and effort? So we built a mechanism for prioritizing and determining what that should be. That particular plan is about to be rolled out. We will use that facilities investment plan as the basis for making strategic decisions about all of our facilities, including at AOML.

Mr. FROST. Along with my colleague, Congressman Daniel Webster—he also sits on this Committee—we introduced the bipartisan Fixing Gaps in *Hurricane Preparedness Act*. It would direct NOAA to study shortcomings as it relates to severe weather preparedness for populations like seniors and folks with disabilities. As you probably know, seniors make up the vast majority of hurricane-related deaths. Will NOAA's requested increase in the National Weather Service dissemination funding reflect the need to better protect seniors and folks with disabilities from severe weather today?

Dr. SPINRAD. Well, first, I have to say, Congressman, I resemble that remark. I appreciate your calling attention to providing services, especially for underserved or unserved communities. I think you know this Administration has put a premium on developing just that. And so, consequently, we are focusing on providing those kinds of services. Just last month, we rolled out, with our colleagues at the Centers for Disease Control, a heat risk tool, for example, which will now allow those vulnerable communities to be able to know am I at risk from a heat event? If so, what do I need to do? Who do I need to call? How should I prepare? And that tool is intended to provide people with something like 3 to 5 days' lead time. So you'll know that you need to find a cooling center. You may not even know where a cooling center is right now. So that's an example of the kind of thing to—things that we are doing. Same thing on drought and flooding as well.

Mr. FROST. And last question, with an \$8 million decrease in funding for the Office of Oceanic and Atmospheric Research, how

does the NOAA's Fiscal Year 2025 budget address the need for CO₂ removal from the oceans?

Dr. SPINRAD. So part of this is in making sure that we've got good collaboration with our partners, and marine carbon dioxide removal as an important element with respect to addressing atmospheric carbon dioxide is something we are engaging with our partners at DOE on. We're going to work toward what is right now an administration-wide—an interagency approach toward reducing carbon dioxide through marine approaches.

Mr. FROST. So you have the \$8 million decrease in there because there's going to be more shared responsibility on this with other agencies?

Dr. SPINRAD. In part. I mean, as I indicated earlier, some very tough cuts that we had to make, especially on the research side of the house, were a consequence of the prioritization of keeping our mission essential functions up and running and adhering to the statutes and limitations of the *Fiscal Responsibility Act*.

Mr. FROST. Thank you so much. I yield back.

Chairman MILLER. Thank you, Mr. Frost.

I now would like to recognize Mr. Amo out of Rhode Island for 5 minutes of questions.

Mr. AMO. Thank you so much, Mr. Chairman.

Dr. Spinrad, good to see you again. I know that we had the opportunity last month to break ground together in Newport, Rhode Island, for the future home of NOAA's Marine Operations Center—Atlantic. And due to the efforts of my great colleagues in the congressional delegation, especially our leadership on the Senate side and Senator Jack Reed, we were able to make that happen. So I'm grateful for your continued support, and I look forward to a ribbon cutting in our future.

This facility is really important to us. It will support good-paying union jobs in my district, and it's going to mean economic growth, that are a return on the investment of the Federal Government. It will—the facility will feature a pier fit for four large vessels, a floating dock for smaller vessels, a space for repairs, a building for shoreside support, and a warehouse. Supporting NOAA's fleet of ships in the Atlantic as they collect data critical to understanding climate change, protecting marine ecosystems, and keeping mariners safe will further solidify Rhode Island's leadership in the blue economy.

So, Dr. Spinrad, if you could briefly, please expand on how the Marine Operation Center—Atlantic's new location in Newport will support NOAA's efforts to conduct climate and oceanic research.

Dr. SPINRAD. Thank you, Congressman Amo. Good to see you again as well. That was certainly a great celebration.

Just as a quick personal note, being able for my boss to go back to her home State as well was a good opportunity.

This facility in Newport will serve as a homeport facility for several of our ships, meaning we will be able to conduct operations out of Newport effectively and efficiently. The colocation if you will with our colleagues at Navy and Coast Guard is an added benefit. And I would add, having that proximity to some of the most premier ocean research institutions like University of Rhode Island, Woods Hole Oceanographic, University of Connecticut, and others

is a real added benefit so that for any number of reasons, we see this as a real plus for the agency.

Mr. AMO. Wonderful. And I'm glad that you mentioned the Navy. Of course, we've got longstanding historical ties there, and I'm hopeful that that proximity will yield great collaboration across NOAA and the Navy, which will yield some growth in our innovation economy, our blue economy locally in Rhode Island.

I wanted to ask about another issue that's important to my constituents. I've actually received letters from third-graders on this topic. And this is the North Atlantic right whale, one of the most endangered whales in the world. As you know, it's on the verge of extinction with fewer than 340 remaining. Vessel strikes have remained the most significant cost—cause, rather, of human-driven mortality for the right whales. If the current rate of population decline continues, the species will go extinct by 2037.

Dr. Spinrad, can you explain what NOAA is doing to protect the endangered right whale? And I know we heard briefly about it, but could you talk about the relationship between saving the North Atlantic right whale and the vessel speed rule to expand mandatory speed restrictions?

Dr. SPINRAD. Thank you, Congressman Amo. The protection of the North Atlantic right whale is something that we are legally bound to do. And I want to make a strong point of that because this is not something we think would be nice to do. We have to do this by dictate, if you will, from the *Endangered Species Act* and the *Marine Mammal Protection Act*. And, in fact, it's a zero-loss kind of situation in that because we have so many—so small a population of these whales, including only about 70 reproducing females, that it is incumbent on us by law to ensure that any man-made causes of their demise are addressed.

The two main causes are vessel strike, and in this this year already, we've had three whales that we know of that have been killed by vessel strike and entanglement in fishing gear. And we know that there's been one loss. I would also say the numbers are higher because in a couple of those cases these were cows if you will, mother whales that had calves associated with them. We've not been able to find the calves.

So what we are trying to do is establish through careful study of the science and the economics what is an appropriate vessel speed, for what size vessels do we need to impose, what times of year, and what areas are most appropriate? We'd like to be able to apply this in a way that is both supportive of economic development, but at the same time reflective of our need to protect these whales from vessel strike. That rule right now is at OIRA and OMB, and we hope that we can start implementing accordingly and protecting this species from extinction.

Mr. AMO. Well, I appreciate your consideration and balancing the many interests, and I look forward to working with you to make sure that we do everything we can to protect the whales.

With that, I yield back my time.

Chairman MILLER. Thank you, Mr. Amo.

I just, in closing, would like to thank all the witnesses and you, Dr. Spinrad, for your valuable testimony and the Members for their questions on the Committee. The record will remain open for 2

weeks for additional comments and written questions from Members.

And once again, I just wanted to let you know how much we appreciate you in this hearing this morning. One of the things I love about this Committee is it's more bipartisan than not so we can actually get real work done. So I appreciate every Member up here.

And the hearing is adjourned.

[Whereupon, at 12:12 p.m., the Subcommittee was adjourned.]

Appendix I

ANSWERS TO POST-HEARING QUESTIONS

ANSWERS TO POST-HEARING QUESTIONS

Responses by Dr. Rick Spinrad

**House Committee on Science, Space and Technology - Environment Subcommittee
June 4, 2024, Hearing: Overview of the NOAA FY25 Budget Proposal
Questions for the Record for The Honorable Dr. Rick Spinrad**

Questions submitted by Representative Rick Crawford

1. **Dr. Spinrad, as we wait for the implementation of the Radar Next Program, do you believe small, gap-filling radar, which has already been deployed in at least 30 communities across the Southeast and Midwest, is a useful and beneficial technology to supplement the current NEXRAD system? Do you think it would be beneficial for the NWS to contract with small, gap-filling radar companies to deploy their systems where needed throughout the U.S.?**

NOAA Response:

NOAA is currently examining that very question through agreements across the different line offices with industry. The availability of industry radar capabilities is still quite limited. NOAA's National Severe Storms Laboratory has a Cooperative Research and Development Agreement (CRADA) with a private sector weather radar data provider. The purpose of this endeavor is to examine the quality and timeliness of this data for potential use in the NSSL/NWS radar mosaicking system called Multi-Radar Multi-Sensor System (MRMS). MRMS is used to initialize a number of NWS numerical modeling systems and provides decision support products to NWS forecasters to aid in severe weather and flash flood warnings as well as other forecast and warning applications. The NWS also has an agreement with the company to support the evaluation of the company radar data for a subset of field offices. Preliminary analysis indicates small, gap-filling radars do provide benefit in detecting some types of weather events, but not all. Strong thunderstorms and heavy rainfall often reduce the detection capability of these small radars, but NOAA remains open to exploring commercially available gap-filling radar solutions for inclusion into operations, when feasible.

2. **What specific progress has been made towards the planning and implantation of the Radar Next Program, and do you have an estimate for what it will cost?**

NOAA Response:

Consistent with DOC's acquisition planning process, a program lifecycle cost estimate and schedule will be first baselined in Milestone 2 in the 2028 timeframe after a full alternatives analysis is completed. Radar Next planning began in the Fall of FY23, leveraging Inflation Reduction Act (IRA) provided funding (\$2M in FY23 and \$4M in FY24) to initiate formulation activities. The program is following the Department of Commerce's DOC Scalable Acquisition Project Management Guidebook. In April 2023, the Program achieved Milestone 0 (MS0) approval and formally entered the initiation phase of the DOC Acquisition Framework. The program achieved MS1 in Q1, FY25 to formally enter the planning phase. In preparing for the MS1 milestone review, the Program has developed key products required by the Framework; including:

- a. Mission Need Statement
- b. Stakeholder Management Plan
- c. Risk Management Plan and Report
- d. Resource Management Plan
- e. Initial Work Breakdown Structure (WBS) and Delivery Roadmap

**House Committee on Science, Space and Technology - Environment Subcommittee
June 4, 2024, Hearing: Overview of the NOAA FY25 Budget Proposal
Questions for the Record for The Honorable Dr. Rick Spinrad**

f. Rough Order of Magnitude (ROM) Program Cost Estimate Range

The Program has also established a Standing Review Board to evaluate technical and programmatic aspects of the program. In order to continue planning for the next phase of the acquisition, the Program has started to draft Requests for Information (RFIs) and Broad Agency Announcements (BAAs) to engage industry and academic partners.

In FY 2025, the Radar Next Program will continue the technical and acquisition planning and preparation for industry engagement that was initiated with Inflation Reduction Act funding. In the long term, this acquisition will procure, deploy, and operate a radar capability to cover the United States, including underserved communities. In the near term, resources will be required beginning in FY 2025/FY 2026 to engage with industry through mechanisms such as Broad Agency Announcements to gain an understanding of emerging radar technologies and market capabilities that could improve coverage and provide greater capability in detecting and warning for severe weather. An Analysis of Alternatives is projected to be completed by CY 2027, which is expected to inform the initial acquisition of a prototype and/or risk reduction procurement in FY 2028/FY 2029. It is anticipated that the program life cycle costs and schedule will be baselined in this same timeframe.

- 3. The Infrastructure Investment and Jobs Act (IIJA) provided nearly \$3 billion for NOAA to take action over 5 years in the areas of habitat restoration, coastal resilience, and weather forecasting infrastructure. Do you believe it is a good use of those funds to pay for needed weather infrastructure and technology improvements, including gap-filling radar, especially considering the extreme weather that has plagued many parts of the country? If so, what weather infrastructure and technology improvements have you already applied IIJA dollars towards and what future improvements do you plan and foresee IIJA funds being used for?**

NOAA Response:

It is necessary to update and refresh equipment to extend the life of many observing systems. Therefore, this is a much-needed component of our vital weather infrastructure to continue to provide safety to life and property. Some of the infrastructure investments include:

- a) Flood Inundation Mapping (\$492 million in IIJA funding): Flood inundation mapping is used to translate analysis and forecasts of streamflow into operational maps that communicate impact by showing where flooding may occur. We will have 30 percent coverage of the U.S. population at the end of this fiscal year. By the end of the program in 2026, we will have 100 percent coverage of the CONUS along with Hawaii, Puerto Rico, and parts of southern Alaska.
- b) Soil Moisture and Snowpack Pilot Program and study (\$1 million in IIJA funding): The Upper Missouri River Basin and the states of North and South Dakota, Montana, Wyoming and Nebraska will add or replace equipment on 540 monitoring stations, including soil moisture sensors with the U.S. Army Corps of Engineers' assistance, to have observations to improve lifesaving forecasts. NWS has

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established contracts with the 5 state mesonets to purchase the data, which is delivered to an ingest and dissemination system being built by a separate contractual effort with the IJA funding. Data buys from the stations will run through the end of fiscal year 2027, as the stations come online.

- c) Wildfire (\$50 million in IJA funding): A number of infrastructure, technology, and forecast model advancements have been made in the arena of wildfire forecasting and response, and more are underway. New mobile radars, mobile and stationary atmospheric observing stations, and new uncrewed aerial systems will be built to improve the ability to observe conditions near and around fires to improve products that aid fire weather forecasts and warnings. A Fire Weather Testbed was established to test and improve new experimental forecast tools and bring together NWS forecasters, NOAA researchers, and forestry and emergency managers to evaluate the latest information and graphics to bring those decisions to an improved and collaborative process. Improvements to forecast models include a focus on not only the prediction of wildfire ignition and spread, but also the dispersion of smoke. Additionally, fundamental improvements to the NWS data and communication infrastructure have made weather data more accessible to forecasters and emergency responders in the field.
- d) Ocean and Coastal Observing Systems (\$150 million in IJA funding):
 - i) Critical ocean observing assets are being recapitalized to ensure the long-term sustainability of the U.S. ocean observing enterprise and to support the New Blue Economy. NOAA is modernizing the Tropical Atmosphere Ocean (TAO) array in the equatorial Pacific to address obsolescence of the aging equipment impacting NOAA's ability to sustain the systems and the observations data. NOAA is recapitalizing and modernizing the TAO buoys that includes providing additional capability to measure key weather and ocean parameters in real-time at the optimal vertical resolution based on the best science available. At the end of 2024, 10% of the TAO buoy deployments were completed. In 2025 NOAA anticipates 40% and in 2026, 70% of the array. Completion of the recapitalization and modernization of the TAO array is on track for completion in FY2027.
 - ii) Global and Great Lakes observing system assets are being recapitalized to ensure and improve quality products, services, and capabilities at NOAA, DOD and forecast centers around the world. This investment will enhance high-priority NOAA global ocean and Great Lakes buoys; bolster NOAA's ocean carbon observing infrastructure; partially restore depleted stocks of profiling Argo floats; develop uncrewed systems (UxS) research and application capabilities; and update select obsolescent sensors across the system. These global and Great Lakes observations are used to improve weather and climate predictions, fisheries management, and coastal resilience. For example, the development of "OneArgo," a new and improved design for the instrument array, includes floats that can measure biogeochemical conditions in two key regions that are ecologically and economically important to the U.S. — the Gulf of Mexico and the California Current Ecosystem. The funding will also support efforts to increase our knowledge of the Arctic and the Tropical Pacific Ocean, where data collection has been sparse.

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- iii) Equipment in the Deep-ocean Assessment and Reporting of Tsunamis (DART) Ocean Observing System network is being recapitalized and replaced to modernize and enhance the systems to improve the availability and reliability of data, and increase tsunami detection capability for improved tsunami warnings, forecast of intensity and arrival times, and prediction for community inundation. System network has begun with award of a contract in FY2024 and delivery and subsequent deployment of the new systems is expected to begin in 2026, with recapitalization of the DART network completed in 2028.
 - iv) Research and development on the groundbreaking Airborne Phased Array Radar (APAR) technology will continue. APAR is a developing technology that has potential to replace legacy airborne weather surveillance radars used for research and operational monitoring of tropical storms and other severe weather. The vision for APAR is to provide critical real-time, high resolution, three-dimensional, atmospheric observations needed to improve weather research and operational forecasts and understanding of tropical cyclone intensity and structure, extreme precipitation, and severe convection. APAR will feature removable, Dual-Doppler C-band radars mounted on C-130 aircraft used for weather surveillance.
 - e) Research High Performance Computing is being expanded by the NOAA Environmental Security Computing Center (NESCC) as a critical resource in the research to operations pipeline for weather model development. IJA funding (\$40M) will contribute to adapting the latest data center technologies through the use of Modular Data Centers (MDC) that house HPC. This HPC expansion for NOAA will be awarded in Q4 FY2024 and will incorporate significant GPU compute that will afford NOAA scientists internal resources for AI/ML development. The MDCs will reside on a pad outside of the NESCC that was funded through BIL supplemental with sufficient capacity to operate eight HPCs systems outside the building to add to the two inside.
- 4. With some research showing that smaller X-band radar may be more useful in tracking wildfires than larger S-band radar, what are your thoughts on deploying X-band systems in communities vulnerable to wildfires?**

NOAA Response:

X-Band radars can provide a higher resolution and better lower-level coverage than the NWS' S-band NEXRAD system over a much smaller area. However, they have a much lower range (less than half of NEXRAD) and are highly susceptible to interference (attenuation) from heavy precipitation. While they could offer some utility in tracking wildfire and smoke, along with post-fire precipitation estimates, deploying the scale of network required to provide coverage to the number of communities vulnerable to wildfires would be costly. NOAA has already improved our fire detection and tracking with our newest generation of Geostationary Operational Environmental Satellites- R Series (GOES-R Series). Not only do these satellites have a channel specifically designed to identify hot spots and wildfire ignitions, but the Geostationary Lightning Mapper (GLM) instrument can also provide our scientists with near real-time information on where lightning strikes

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may be a focus for wildfire ignition. We have seen the utility of these functions along with our current NEXRAD system, in many recent large, impactful wildfires, such as the Marshall Fire in Colorado, and the Smokehouse Creek Fire in Texas. Wildfire utility will also be a component in the development of our Radar Next Program.

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Questions submitted by Representative Rich McCormick

- I. *Dr. Spinrad, it is no secret that the commercial market can innovate and fund that innovation faster than Federal programs. According to NOAA's NSOSA report, "For a large government satellite program, it typically takes 10-15 years from an initial satellite program concept to the first satellite reaching orbit."*

This year, the President requested \$1.3 billion for the National Environmental Satellite, Data and Information Service. Furthermore, in May 2020, NOAA informed Congress that it was adding nearly \$1 billion to the estimated life cycle costs for GOES-R, bringing the LCC total to nearly \$12 billion. If NOAA had more information about current and near-future commercial capabilities, wouldn't the agency be able to align budgets and data architecture plans to avoid competing with or duplicating commercial solutions?

- a. **What is NOAA doing to better prepare for acquisitions of novel data sources and data streams from commercial providers?**

NOAA Response:

NOAA's NESDIS Commercial Data Program (CDP) has made progress since 2016 to engage with the aerospace sector to obtain commercial space-based data that help meet NOAA's observing system objectives. The CDP is an important part of NOAA's overall strategy to source space-based data that meets its operational requirements. At the present time, these commercially-acquired data complement data obtained from NOAA's satellite missions Geostationary Earth Orbit (GEO), Low Earth Orbit (LEO), or Space Weather Observations (SWO) satellites. During the mission formulation process, NOAA undertakes assessments of what the commercial sector can provide and leverages that capability into its plans. NOAA also works to understand the long-term viability of potential commercial assets, to understand how the current capabilities can be factored into our long-term observing system sustainability planning. Commercially-acquired data supplement and complement the foundational data that NOAA provides from its missions, and data that are leveraged from U.S. and international partners. Without these foundational LEO data, NOAA would not be able to run its numerical weather prediction models.

Starting in 2016, CDP conducted a number of piloting activities to assess whether commercially available RO data could be used operationally in NOAA numerical weather prediction models. In FY 2020, NOAA awarded its first contracts to purchase commercially available global navigation satellite system radio occultation (GNSS RO) data for use in NOAA's operational weather forecasts, and NOAA began using these commercial RO data in operational NWP models beginning in May 2021. Building on those early experiences, and with FY 2024 enacted appropriations and planned in the President's FY 2025 Budget request, NOAA is using commercially sourced RO observations to provide atmospheric sounding information today; we are investigating, through requests for information and Industry Days with the commercial sector, whether multiple other observations, including space weather, soil moisture, ocean winds, microwave sounding, can support NOAA's weather, environmental, and extreme event observational mission. We consider not only the current or near term expected commercial asset performance, but the likelihood of long term sustained delivery of each commercial system.

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2. *The number of orbital space objects has continued to grow exponentially. According to U.S. Space Command, the number of objects in Low Earth Orbit alone jumped 22% from 2019 to 2021¹. In a 2022 GAO report, they estimated another 58,000 satellites will be launched by 2030, spurred by fleets of new, large 'constellations' of communications satellites.*

As Earth's orbit gets crowded, it is going to be very important for the U.S. to be prepared with a solution. Space Traffic coordination is inevitable. It is important that the U.S. leads the effort to set international standards. Dr. Spinrad, Does NOAA Office of Space Commerce have the proper resources to manage this large task of coordination among commercial space entities?

NOAA Response:

NOAA's Office of Space Commerce (OSC) is continuing to develop the Traffic Coordination System for Space (TraCSS). The OSC is developing TraCSS to provide basic space situational awareness (SSA) information and space traffic coordination (STC) services to space operators for spaceflight safety. TraCSS is a modern, cloud-based IT system that will combine SSA data from the Department of Defense and commercial sources to provide basic STC alerts and warnings.

OSC is following an agile software development process for TraCSS, with the initial version released to beta users in September 2024. The FY25 President's Budget includes \$75.6 million for OSC and this request will fund the completion of Phase 1, which entails the integration of commercial SSA data and services, of the operational deployment of TraCSS.

3. **Can you provide an update on the Office of Space Commerce's engagement with commercial partners' products to jump-start their space traffic coordination system without starting from scratch, which is costly and time-consuming?**

NOAA Response:

Partnership with industry is a cornerstone of the Traffic Coordination System for Space (TraCSS) program. Since fiscal year 2023, the Office of Space Commerce (OSC) has funded multiple commercial space situational awareness (SSA) pilots and pathfinders to prepare both NOAA and the commercial SSA industry for future partnerships in the operational TraCSS program. In these pilots and pathfinders, OSC has established new collaboration and acquisition processes, evaluated commercial capabilities, and learned lessons that will avoid roadblocks and accelerate integration of commercial SSA capabilities into TraCSS while also supporting spaceflight safety and providing the best value to the taxpayer. In FY23, OSC ran a Geostationary Earth Orbit (GEO)/Medium Earth Orbit (MEO) Pilot that used commercial data and analytics to evaluate industry's ability to provide space traffic coordination in MEO

¹ Copp, T. (2021, August 26). Number of objects in low Earth orbit jumps 22% in 2 years: Space Operations Command. Defense One. <https://www.defenseone.com/threats/2021/08/number-objects-low-earth-orbit-jumps-22-2-years-space-operations-command/184837/>

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and GEO.

Initiated in January 2024, the Consolidated Pathfinder project was a limited-term effort focused on evaluating how to provide certain SSA services for the Low Earth Orbit (LEO) regime in collaboration with several commercial SSA data and service providers. In May 2024, OSC extended the Consolidated Pathfinder by a month, increasing the project's total investment in commercial SSA data and services to \$15.5 million. The project concluded in August 2024. The findings from the Consolidated Pathfinder are informing OSC's strategy for integrating commercial SSA data, acquiring data quality monitoring services, and considerations for LEO catalog maintenance. In addition, OSC was able to gain some insight and experience with metrics for use in future acquisitions and TraCSS operations.

In September 2024, OSC initiated a commercial pathfinder project on satellite owner/operator (O/O) ephemerides [position and trajectory information on a space object]. This project is examining the efficacy and logistics of improving the quality of satellite owners/operator (O/O's) provided ephemerides, using commercial SSA capabilities. The commercial SSA companies will assess the quality of satellite O/O provided information, and where needed, improve the quality of the ephemerides. The results of this pathfinder project will accelerate OSC's ability to leverage commercial SSA capabilities and inform acquisitions planning. For the project, OSC placed orders on the Global Data Marketplace from 3 U.S. commercial SSA firms for the provision of SSA data services in LEO and GEO.

In March 2024, NOAA awarded a \$15.5 million contract to Parsons Corporation to serve as the TraCSS system integrator, responsible for developing the software backbone and integrating commercial components into the platform. In September 2024, NOAA held an industry day on the TraCSS System Integrator 2.0 acquisition approach. OSC has also made good progress on the third major element of TraCSS: a public-facing user interface. In FY23, the team issued the Presentation Layer Request for Information, and in FY24, issued a draft Request for Proposal and conducted over 25 demonstrations with commercial vendors.

OSC has also signed a no-exchange-of-funds Cooperative Research and Development Agreement (CRADA) with SpaceX to study the automated collision avoidance system used in SpaceX's Starlink constellation for potential application to TraCSS.

4. Do you believe that this task would be more manageable if the Office of Space Commerce were its own agency or bureau?

NOAA Response:

At a time when the Office of Space Commerce (OSC) is ramping up considerable operational responsibility for the Traffic Coordination System for Space (TraCSS), another rapid organizational restructuring would be significantly disruptive and add risk to the timeline of the Phase 1 TraCSS full deployment and migration of users from the Department of Defense to TraCSS by Q4 2025. OSC experienced disruptions when it was reorganized in FY23 and had to rebuild the support functions

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(HR, contracting, etc.) previously provided by a parent line office, NESDIS. Any additional change in organizational structure should be planned over multiple years to minimize the impact to schedule.

5. **Dr. Spinrad, there has been lots of talk about how the federal government should interact with our commercial space partners to ensure safety while spurring innovation. Do you believe under the current framework that some of the missions of the Office of Space Commerce are duplicative of other agencies' work?**

NOAA Response:

Current statute authorizes the Office of Space Commerce, and its Commercial Remote Sensing Regulatory Affairs division, to coordinate space commerce policy within the Department of Commerce, advocate for the interests of the commercial space industry, and regulate private remote sensing space systems. We do not view these functions as duplicative of other agencies.

OSC's Traffic Coordination System for Space (TraCSS) program maintains a high level of interaction with commercial space partners to ensure safety of spaceflight while spurring innovation. OSC is harnessing existing commercial innovation for use within TraCSS, through data buys and acquisitions of commercial software and services. At the same time, OSC is setting boundaries between the safety services that TraCSS will provide for free and the value-added services that will be left to the private sector, in order to stimulate market development and innovation.

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Questions submitted by Representative Suzanne Bonamici

Sea Grant:

1. *I am concerned that NOAA's FY25 budget proposes a 10 percent cut to the Sea Grant College Program and elimination of the Sea Grant Aquaculture Research program. These cuts would reduce state-based support that is critical to coastal, marine, and Great Lakes communities and economic resilience. In Oregon, Sea Grant works closely with our fishing and aquaculture communities to sustain and support new and existing businesses. For example, Oregon Sea Grant helps the oyster industry by researching the effects of the mud blister worm; conducts research to combine kelp forest restoration with sea urchin ranching for market; and identifies new uses of growing red seaweeds to improve economic and energetic efficiency. **How is NOAA planning to mitigate these risks with the FY25 funding levels requested?***

NOAA Response:

Oregon Sea Grant (ORSG) has been a leader among the 34 Sea Grant network programs embedded within our Nation's coastal states and territories. Through ORSG's funding allocated through the Sea Grant Aquaculture PPA, ORSG has been able to address a number of high-priority issues that are important Oregon citizens, such as oyster and seaweed aquaculture, coastal community resilience, tsunami research and planning, and marine education to name a few.

The development of the FY25 budget request required some tradeoffs and ensuring our mission-essential functions were not compromised was of the utmost priority. NOAA is well-positioned to continue our support for the communities we serve, particularly those most vulnerable to climate change and its impacts. OAR is exploring avenues to mitigate any impacts resulting from these reductions, including the consideration of other funding avenues supporting these high-priority projects. The FY 2025 budget continues to support our Nation's coastal communities, strengthening our Nation's environmental resilience.

2. *With the development of offshore wind energy in California, and now Oregon, the need for Sea Grant's experienced approach to community engagement, collaborative research with coastal communities and industries, workforce development, and community education is increasing. **Oregon's fishing communities, Tribes, and other coastal constituencies need more help and capacity. With reduced funding for the Sea Grant College Program, what is NOAA's strategy to continue this community-based support for coastal stakeholders?***

NOAA Response:

Sea Grant has been a critical component of NOAA's place-based research, extension and education efforts—with nearly 1000 state-affiliated extension personnel engaged with and providing support for coastal constituencies across the nation, including those in Oregon. This network is strengthened by internal (among Sea Grant programs) and external (e.g., with FEMA, DOE, DOI and EPA) partnerships, as well as through the engagement of world-class university-based researchers, all coming together to solve many of the on-the-ground issues affecting our Nation's diverse communities—from Tribal nations, to small towns, to large cities—and challenging our vital private and public sector entities. Through

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Sea Grant program initiatives such as their long-term community planning and disaster recovery efforts, NOAA will continue addressing these critical issues.

Marine Carbon Dioxide Removal (CDR):

In 2023, NOAA's Oceanic Partnership Program (NOPP) announced \$24.3 million in funding to advance research in marine carbon dioxide removal (CDR), the first large-scale public and multi-partner investment of research specifically focused on a suite of marine CDR approaches. An additional \$10 million was provided by NOAA's Ocean Acidification Program and Global Ocean Monitoring and Observing Program. Marine CDR is a promising scientific method that could make the ocean a key player in long-term decarbonization. Federal funding in research and development would improve our understanding of its potential benefits and any associated ecological risks. Dr. Spinrad –

Note from NOAA, only \$3.15 M was provided by NOAA (OAP, GOMO, and NOPP appropriations); not the \$10 M indicated in the section. Also, the \$3.15 M provided by NOAA was included within the \$24.3 M, not in addition to it.

3. How is NOAA continuing to facilitate partnerships among federal agencies, academia, and industry to advance ocean science research for ocean-based CDR?

NOAA Response:

NOAA has led two rounds of funding through the National Oceanographic Partnership Program (NOPP) for marine carbon dioxide removal research. Not only does the NOPP structure require multiple federal funding partners, but also allows for funding collaborations between the government and philanthropic organizations, which was leveraged in the marine carbon dioxide removal funding rounds. In addition, NOPP funding opportunities require that applicants are collaborative and eligible teams must comprise at least two of the federal government, academia, and industry. NOAA, through supplemental IRA funding and line office appropriations, has provided the bulk of the funds for these projects, has led the coordination between the various partners, and the management of the multi-sector portfolio.

NOAA is also a co-chair of the Fast Track Action Committee (FTAC) on marine carbon dioxide removal, which convened representatives from across the federal government to produce the [National Marine Carbon Dioxide Removal Research Strategy to advance safe and effective research on the benefits, risks and tradeoffs of marine carbon dioxide removal](#). This Federal strategy enables research that answers urgent questions about marine carbon dioxide removal. The strategy 1) establishes a comprehensive marine carbon dioxide removal research agenda, 2) clarifies regulations and the permitting process that applies to marine carbon dioxide removal research, including field trials, and 3) proposes ways to improve coordination among Federal government agencies and with invested communities in carrying out a marine carbon dioxide removal research agenda. The FTAC solicited input from the public, marine carbon dioxide removal invested communities and experts, Tribes, and local communities to inform the development of this safe and responsible marine carbon dioxide removal research strategy.

NOAA and the Department of Energy collaborate closely via the NOPP and the FTAC,

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and recently signed a Memorandum of Agreement to further clarify each agency's role in marine carbon dioxide removal research and to facilitate continued partnership. Additionally, this year the National Sea Grant College Program placed a Knauss Fellow with a dual appointment at NOAA and DOE to facilitate deeper coordination on marine carbon dioxide removal specifically. Similarly, NOAA works with researchers and the EPA to ensure relevant permitting processes are clearly understood and adhered to.

Finally, NOAA is a leader in the national and international partnerships and collaborations that provide global and regional monitoring of carbon dioxide in marine waters. Such measurements are a critical component of understanding both the efficacy and the impacts of marine carbon dioxide removal technologies and techniques and contribute to overall climate monitoring and modeling.

4. How will NOAA balance its research, development, and demonstration of ocean-based CDR's potential to address the climate crisis with the risks that marine CDR may pose to ocean environments?

NOAA Response:

The Earth and its ecosystems are under high risk from the impacts of climate change due to elevated and climbing levels of carbon and other greenhouse gases in the atmosphere. While there are risks associated with any emerging strategies to draw down carbon from the atmosphere, there are also increasing risks from climate change itself. Expanding research efforts into this new field can help reduce the risks of implementing these strategies so we can make informed decisions about climate change mitigation. NOAA is ready and stands at the forefront of supporting this research.

NOAA takes its charge of protecting and preserving oceans and marine species seriously. Most of the marine carbon dioxide removal methods are currently in their infancy; a key uncertainty in marine carbon dioxide removal research is the impact of various techniques on the marine environment. Much of NOAA's research and that of the scientists it funds focuses on building this knowledge, through laboratory experiments and carefully controlled, limited, and monitored field experiments. It is important to note that NOAA and its grantees are not deploying any large-scale marine carbon dioxide removal, and NOAA's research on marine carbon dioxide removal does not mean the agency endorses any particular marine carbon dioxide removal strategies or techniques. Instead, NOAA and its grantees are conducting studies to establish the effectiveness and impacts of the proposed techniques on ecosystems and the carbon cycle. All studies are subject to established permitting processes and environmental reviews before they can be conducted.

Blue Carbon:

Healthy blue carbon ecosystems, like mangroves, tidal marshes, seagrasses, and kelp forests, can remove carbon dioxide from the atmosphere and store it for centuries to millennia in stems, branches, leaves, roots, and soils. According to the High-Level Panel for a Sustainable Ocean Economy, the protection and restoration of blue carbon ecosystems could prevent approximately one gigaton of carbon dioxide from entering the atmosphere by 2050. These ecosystems also

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provide habitat for fisheries, protect shorelines from storms and sea level rise, and improve water quality. Despite their value, coastal blue carbon ecosystems are disappearing at an unsustainable rate.

- 5. Dr. Spinrad, what is NOAA's current range of coastal blue carbon mapping and restoration activities, and how would filling any funding gaps expand this work and make it more effective?**

NOAA Response:

Our restoration work in coastal blue carbon habitats include our fisheries habitat restoration and place-based conservation programs and priorities. Specifically, blue carbon work is done through NOAA Fisheries Office of Habitat Conservation and National Ocean Services' Office of National Marine Sanctuaries and Office of Coastal Management, including National Estuarine Research Reserves System (NERRS). In addition, the enactment of BIL and IRA also provided funding and technical expertise to support the restoration and recovery of these critical, carbon sequestering habitats. These supplemental funds will no longer be available to support this work in FY 2027.

The National Ocean Service (NOS) recently released a nationwide high-resolution (1 m) map of coastal habitats that could be leveraged to support blue carbon mapping, however, there is no dedicated funding to conduct this further analysis so NOAA is working to find partners to at least initiate this work. Currently, the NERRS is working on this blue carbon mapping analysis in collaboration with the Smithsonian with some funding provided by the NASA Carbon Monitoring System. NESDIS has also demonstrated the use of satellite imagery for blue carbon habitat mapping, and more comprehensive funding would allow for further refinement and expansion of these methods. Finally, NOS researchers at the National Centers for Coastal Ocean Science (NCCOS) are evaluating coastal blue carbon at historical restoration sites to ensure effective restoration projects moving forward.

NOAA Marine Debris Program:

Plastic continues to threaten coastal ecosystems and the communities and wildlife that depend on them. The NOAA Marine Debris Program received supplemental funding from the Bipartisan Infrastructure Law – with funds leveraged from the Inflation Reduction Act – but these are targeted funds for specific purposes, cannot be used for regular program operations, and have an expiration date. This vital program has funded more than 45 [Pacific Northwest](#) projects since its start and has funded cleanups that have removed thousands of pounds of marine debris across the country in 2023 alone. Unfortunately, the Marine Debris Program has never received its full authorization of \$15 million – the amount needed for basic program operations. Dr. Spinrad –

- 6. What is NOAA's plan to make sure that funding from the Bipartisan Infrastructure Law will not supplant regular appropriations for the Marine Debris Program?**

NOAA Response:

Bipartisan Infrastructure Law (BIL) funding was provided to the Marine Debris Program for FY 2022 - 2026 (\$150 million), however this funding is supplemental, time-limited in nature, and supports larger projects that are regional and/or national in scale. This

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additional funding demonstrates the scale, reach, and impact the Marine Debris Program is able to provide with increased levels of funding.

In FY 2022, NOAA was appropriated \$5.8 million for its Marine Debris Program (Division B, CJS and Related Agencies, p. 23). This was a reduction of \$3.3 million (or 37%) from the FY 2021 enacted, and as a result impacted core program priority including, community-based competitive grants, the implementation of requirements in the Save Our Seas 2.0 Act (Public Law 116-224), as well as research investments. NOAA's plan is to continue working to rebuild the Marine Debris Program base budget to ensure continuity of prevention, removal and research projects to benefit our coasts and Great Lakes, including the Pacific Northwest is maintained. Currently, the FY 2024 enacted budget for the Marine Debris Program is \$6.4 million.

7. What could a fully funded Marine Debris Program – at its authorized level of \$15 million – do to prevent and remove marine debris, including in Oregon?

NOAA Response:

A Marine Debris Program at its authorized level of \$15 million would advance national efforts to investigate and prevent the adverse impacts of marine debris.

At the authorized level of \$15 million, the Marine Debris Program would resume offering extramural competitive grant funding for prevention and removal projects. Prevention projects would actively engage and educate a target audience in hands-on programming that encourages and supports changes in behaviors to ensure the long-term prevention of marine debris. Locally driven, community-based marine debris removal projects would target and remove medium to large-scale debris. Both prevention and removal project grants would range from \$50,000 to \$300,000 per project. These Marine Debris Program competitive grants have historically served as a mechanism for partners to complete actions in NOAA Regional or State Marine Debris Action Plans, and have provided funding support for discrete projects that do not fit the criteria for the BIL funding opportunities.

The Save Our Seas 2.0 Act provides additional mandates and authorities for NOAA to enhance the domestic marine debris response. The Act established a Marine Debris Foundation to augment NOAA's work to assess, prevent, reduce, and remove marine debris and directed the Department of Commerce to establish a Genius Prize for Save Our Seas Innovation. At the authorized level of funding, the Marine Debris Program would enable NOAA to fully support the Foundation, and implement the Genius Prize as envisioned by Congress.

Additional at the authorized funding level, the Marine Debris Program would also be able to advance work to quantify impacts to the economy, and better understand the long-term impacts of marine debris to ecosystem services and coastal resilience. The work of the Marine Debris Program creates and fosters natural and economic resilience along our coasts through support, expertise, and robust, on-the-ground partnership and place-based conservation activities. It also aligns with efforts by the Administration and Congress to

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address plastic pollution, including the negotiation and launch of a global legally binding agreement to address plastic pollution.

At the authorized funding level, benefits would be realized across the project areas discussed above for local and regional partners, such as those in the Pacific Northwest. This level of funding would increase the work of the Marine Debris Program with stakeholders across the nation to address the persistent and pervasive marine debris pollution issue.

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Questions submitted by Representative Deborah Ross

1. **NOAA's facilities are expected to have a backlog of approximately \$1 billion in deferred maintenance costs by 2028. Despite this estimate, only \$90 million is requested for the Construction activity under the Mission Support portfolio. Dr. Spinrad, what maintenance and construction activities are prioritized in the 2025 budget request? How does NOAA set these priorities and ensure that all facilities are fully operational such that the agency's objectives are met?**

NOAA Response:

NOAA has an annual facilities prioritization process along with the NOAA Facilities Strategic Plan that sets the priorities for facilities across the portfolio. NOAA plans to allocate the FY 2025 request as follows.

- Deferred Maintenance and Repair projects (\$35M)
- Leasehold Improvement projects (\$21M)
- Planning documentation to advance priority capital investment projects including Strategic Initiatives in the Northeast region and Southeast region (\$4.5M)
- Design efforts for various projects including Strategic Initiatives in the Seattle, WA area, Northwest region, and Pacific Islands (\$20M)
- Outfitting/Occupancy costs associated with new furnishings, fixtures, and normal equipment associated with a new construction, renovated, repaired, or newly leased facility project and the need to relocate or move equipment, furnishing, and IT system(s) (\$5.5M)
- La Jolla Judgment Fund (\$4M)

2. *I am concerned about proposed cuts to the Sea Grant College Program. Noting that NOAA's outlook indicates an 85% chance of an above-normal hurricane season this year, it is clear that our coastal communities and environments are becoming increasingly impacted by extreme weather events. The need for the support Sea Grant provides to coastal communities has only been growing over these past few decades. Reducing Sea Grant's ability to provide direct, on-the-ground support in the community—particularly around coastal resilience—means we are less prepared for the next natural disaster. Are you concerned that the cost—both in money and in human lives—may be greater when we're not sufficiently prepared for a disaster than when we've done the preparation, which Sea Grant helps us do?*

NOAA Response:

NOAA's investments in science and place-based engagement is an important component of our work, which has positive impacts on human, community and economic health. North Carolina Sea Grant (NCSG) has been a leader within the Sea Grant network of 34 programs embedded in all of the coastal and Great Lakes states of the U.S. and the territories of Guam and Puerto Rico. Through core program funding to NCSG and competitive funding allocated through the Sea Grant Aquaculture PPA, NCSG has been able to address a number of issues of high priority to the citizens of North Carolina. These include oyster aquaculture, coastal community hazard reduction and resilience, coastal tourism research and planning, and marine education (to name a few).

**House Committee on Science, Space and Technology - Environment Subcommittee
June 4, 2024, Hearing: Overview of the NOAA FY25 Budget Proposal
Questions for the Record for The Honorable Dr. Rick Spinrad**

The FY 2025 request will prioritize investments in the critical operational and infrastructure activities that support NOAA's ability to carry out its mission. NOAA's weather forecasts and climate projections and information will be reliably delivered to users to inform decision making. The request includes a total of \$139.5M for Weather and Air Chemistry Research, which will support advances in weather research, improve our understanding of severe storms such as tornadoes and hurricanes, and support the transition of new technologies into operational use by the National Weather Service. Weather forecasting remains a priority and is a critical component of what we do at NOAA to better prepare communities ahead of weather-related disasters.

- 3. We know NOAA is investing in commercial data sources to expedite access to observations and networks. What is NOAA's vision to leverage LiDAR data as a service, such as HALAS, for upper air observations?**

NOAA Response:

Some state and private networks provide LiDAR data via the National Mesonet Program and that will continue to be a potential area of growth. NWS also has a CRADA with a LiDAR provider of HALAS for exploring the utility of this data in the context of our federal observing systems.

Appendix II

ADDITIONAL MATERIAL FOR THE RECORD

LETTERS SUBMITTED BY REPRESENTATIVE SUZANNE BONAMICI



Northwest Association of Networked Ocean Observing System

Memorandum

To: Congresswoman Bonamici, Oregon District 1

From: Dr. Jan Newton, NANOOS Executive Director

Date: 3 June 2024

Re: Oregon-based NANOOS core activities and Inflation Reduction Act (IRA) plans

Below please find a brief summary of core activities in Oregon that NANOOS supports through IOOS core funds, and what we proposed to do with our IRA funds. These efforts together serve coastal climate data, protect human health, and produce decision-ready information aiding environmental sustainability and safe economic development. Our IRA funds will be used to increase equitable service delivery, involving a more diverse and inclusive NANOOS community.

Harmful Algal Blooms (HABS): There is much activity regarding HABS in Oregon enabled via NANOOS Core funds. The [PNW HAB Bulletin](#) is funded by IOOS as part of the nation's HAB Observing Network. It is produced by a collective of scientists from academia, NOAA, state agencies, and tribes, including beach sampling for analysis of toxins and HAB cells by Oregon Department of Fish and Wildlife. The highly valued Bulletin, with its easily accessible "stop-light" red-yellow-green assessment of risk is used by state and tribal managers to either close or open beaches, safeguarding human health and minimizing economic losses.

New in the last several years is an effort based out of OSU, the "Cooperative Fisheries Plankton Research," working with commercial fishermen, including charter boats, trained to collect seawater samples that are preserved for analyses in the lab, with the data going to support the PNW HAB Bulletin. **IRA funds** would be used to expand the spatial scale of Cooperative Fisheries Plankton Research program. We also would purchase an autonomous surface vehicle to sample Oregon waters for HABS near a known HAB generation site, off Heceta Bank. This has been used successfully in Washington.

Hypoxia and Ocean Acidification (OA): Coastal Oregon, with its strong winds encounters ocean upwelling during the summer. Upwelling brings nutrient-rich waters to the surface, stimulating algal blooms that feed the food web. However, low-oxygen and low pH waters are brought up as well. Changes in the climate (heat, winds, currents) and increasing ocean acidification from carbon dioxide emissions make the potential for hypoxic (severe lack of oxygen) or corrosive (very low pH) waters to be present. NANOOS Core funds are used to measure ocean conditions using autonomous gliders and buoys operated by OSU that record data and telemeter it to shore where the public and managers can monitor conditions. Real-time data transmission on moorings in the South Slough National Estuarine Research Reserve also are funded by NANOOS Core funds in collaboration with the state and Confederated Tribes

of the Coos, Lower Umpqua and Siuslaw Indians. The data is viewable on the [NANOOS Visualization System](#) and used by managers, shellfish growers, and fishers.

IRA funds would outfit the OSU glider with pH and nutrient sensors and will be used to improve the reliability of the mooring system in South Slough. New sensors are being purchased for the OSU buoy using funds from the Bipartisan Infrastructure Law.

Tuna fishers: Data from land-based high-frequency radars that measure surface currents and a computer model that simulates water conditions like temperature, both operated by OSU with NANOOS Core funding, support our highly popular "[Tuna Fishers App](#)" that allows fishers to see water temperature, currents, and other conditions in order to keep their sea journeys safe and successful.

IRA funds would be used to support improvements to the model for better accuracy. The radars are being refreshed using funds from the Bipartisan Infrastructure Law.

Shoreline surveys for erosion: With NANOOS Core funds, DOGAMI conducts seasonal surveys for beach profiles and OSU surveys for nearshore bathymetry. Both data sets are used for coastal planning and response to natural disasters (e.g. tsunami runup, storms).

IRA funds would fund modernization of data processes, new product development using existing data, and expansion of the spatial scale of the surveys to places that have not been assessed for many years.

Columbia River observations and modeling: Using NANOOS Core funds, the Columbia River Inter-Tribal Fish Commission (CRITFC) monitors water conditions at several locations within the estuary and in the offshore plume to gain data used for navigation safety, ecosystem assessment, and evaluation of conditions relevant to salmon. Their model, the Virtual Columbia River, also makes a powerful contribution of data to aid in these applications.

IRA funds would fund product development improvements from the existing observations and model data by CRITFC. In addition, a new wave and currents forecasting model would be optimized by OSU for the mouth of the Columbia River, one of the most dangerous bars in the world, in close co-design and collaboration with the Columbia River Bar Pilots and others.

Community-led wave observations: **IRA funds** would be used to implement a successful program, Backyard Buoys, using small wave buoys that can be stewarded by communities, including tribes in Oregon, to inform on boating safety.

Thank you for your time and leadership.

Sincerely,



Jan Newton, Ph.D.
NANOOS Executive Director

Northwest Association of Networked Ocean Observing Systems

Applied Physics Laboratory, University of Washington; 1013 NE 40th Street; Seattle, WA 98105



Oregon Coastal Caucus

Rep. David Gomberg, Chair
 Sen. Dick Anderson, Vice Chair
 Sen. David Brock Smith
 Sen. Suzanne Weber
 Rep. Boomer Wright
 Rep. Cyrus Javadi
 Rep. Court Boice

May 27, 2024

Representative Suzanne Bonamici
 2231 Rayburn House Office Building
 Washington, DC 20515

Dear Representative Bonamici,

As the elected members of the Oregon Legislature representing the Oregon Coast, we write to support the critical Federal funding of the Oregon Department of Geology and Mineral Industries (DOGAMI)'s state tsunami program, which is directed to DOGAMI via the National Oceanic and Atmospheric Administration (NOAA). The state tsunami program encompasses tsunami mapping, alert, public education, and warning systems.

We are extremely troubled by NOAA's recent FY2024 budget which envisions severe cuts, including the total elimination of the National Tsunami Hazard Mitigation Program (NTHMP). The elimination of the NTHMP could lead to the severe curtailing or total elimination of local warning and preparation systems which are critical to the safety of coastal residents and visitors.

In the past, the NTHMP has provided funding for mapping of tsunami hazards, exposure analysis, outreach, and education to coastal residents and those who recreate at the Oregon Coast. The program continues to provide critical education to countless Oregonians.

We urge you to strongly voice your support for the continued funding of the National Tsunami Hazard Mitigation program in any budget going forward and stand ready to assist you in any way possible to ensure the NTHMP continues to provide the critical services that Oregonians need.

Thank you for your attention to this matter, and we look forward to continuing to work together to advance the interests of our coastal constituents.

Sincerely,

Rep. David Gomberg, Chair

Sen. Dick Anderson, Vice Chair

Sen. David Brock Smith

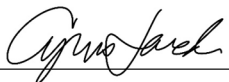
Sen. Suzanne Weber

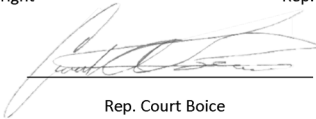


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LETTER SUBMITTED BY REPRESENTATIVE BILL POSEY

Congress of the United States
Washington, DC 20515

April 26, 2024

The Honorable Richard W. Spinrad, Ph.D.
Administrator
National Oceanic and Atmospheric Administration
1401 Constitution Avenue, NW
Washington, D.C. 20230

Dear Administrator Spinrad:

We are writing to seek clarification on the rulemaking process used by the National Oceanic and Atmospheric Administration (NOAA) for the North Atlantic Right Whale Vessel Strike Reduction rule. Specifically, the meetings and organizations that NOAA met with prior to publishing the proposed rule on August 1, 2022.¹

At an Environment Subcommittee of the House Science, Space and Technology Committee hearing on May 11, 2023, when questioned about how NOAA worked with all stakeholders concerning the marine vessel strike proposed rule, including the commercial and recreational fishermen, you responded that NOAA is "...following the procedures associated with rulemaking that are dictated to us."²

When asked specifically whether NOAA consulted with the National Marine Manufacturers Association (NMMA) before the proposed rule was published, you responded, "Actually, I believe the [NMMA] did provide a comment during the public comment period." When asked again if consultation occurs before the rule is published, you stated, "the process is one where we open up the public comment period after that [proposed rulemaking]."³

According to the Office of Information and Regulatory Affairs (OIRA), NOAA met with several outside groups on May 6, 2022, to discuss the proposed vessel strike rule.⁴ The list of outside groups includes: 1) Whale and Dolphin Conservation; 2) Oceana; 3) Conservation Law Foundation; 4) Defenders of Wildlife; and 5) Center for Biological Diversity.

¹ See <https://www.federalregister.gov/documents/2022/08/01/2022-16211/amendments-to-the-north-atlantic-right-whale-vessel-strike-reduction-rule> Last accessed on April 26, 2024.

² See <https://science.house.gov/2023/5/environment-subcommittee-hearing-an-overview-of-the-national-oceanic-and-atmospheric-administration-budget-proposal-for-fiscal-year-2024> Last accessed on April 26, 2024.

³ *Id.*

⁴ See <https://www.reginfo.gov/public/do/viewEO12866Meeting?viewRule=true&rin=0648-B188&meetingId=134123&acronym=0648-DOC/NOAA> Last accessed on April 26, 2024.

The Honorable Richard W. Spinrad, Ph.D.
April 26, 2024
Page 2

Your responses to questions at the May 2023 hearing leads to the need for further questions based on the OIRA meeting information. We are requesting a response to the following questions:

1. Regarding working with all stakeholders concerning the proposed rule, what was "dictated" to NOAA and by whom concerning the procedure associated with this rulemaking?
2. How does the May 2022 OIRA meeting with the outside groups identified comply with your answer that the agency has a process to seek public comments after the proposed rule is published?
3. What specific topics were discussed at the May 2022 OIRA meeting, including any specific requests by the outside groups for agency action, and any NOAA responses provided?
4. Besides the May 2022 OIRA meeting, has NOAA met with any other outside groups prior to the rule being published? If so, please identify each group or individual and when the meeting occurred.
5. Provide all records of the May 2022 meeting and for any other meeting NOAA held with outside groups prior to the rule being published.

Please provide a response by May 7, 2024. Thank you for your service and attention to this matter.

Sincerely,



Bill Posey
Member of Congress



Mike Collins
Member of Congress



C. Scott Franklin
Member of Congress



Daniel Webster
Member of Congress