

### SUBCOMITTEE ON ENVIRONMENT

#### **HEARING CHARTER**

"An Overview of the National Oceanic and Atmospheric Administration Budget Proposal for Fiscal Year 2024"

Thursday, May 11, 2023 10:00 a.m. 2318 Rayburn House Office Building

## Purpose

The purpose of the hearing is to examine the President's Fiscal Year (FY) 2024 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

• Dr. Rick Spinrad, Administrator, National Oceanic and Atmospheric Administration.

### **Overarching Questions**

- How will the FY24 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 Fiscal Year (FY) 2024 budget request for NOAA is \$6.8 billion, a \$407 million increase from the FY 2023 enacted level. The request seeks to build a climate-ready nation and ensure NOAA's climate products and services are accessible and useful to all Americans.

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.<sup>2</sup>
- National Marine Fisheries Service (NMFS), responsible for stewardship of living marine resources through the conservation, management, and promotion of healthy ecosystems.<sup>3</sup>
- 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.
- National Weather Service (NWS), responsible for weather forecasts and warnings.<sup>5</sup>
- 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.<sup>6</sup>
- Office of Marine and Aviation Operations (OMAO), manages a variety of specialized ships and aircraft for collection of oceanographic, atmospheric, hydrographic, and fisheries data.<sup>7</sup>

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

<sup>&</sup>lt;sup>1</sup> National Oceanic and Atmospheric Administration, *FY 2024 Budget Summary*, NOAA.GOV (May 2023), https://www.noaa.gov/sites/default/files/2023-05/NOAA Blue Book 2024.pdf.

<sup>&</sup>lt;sup>2</sup> National Oceanic and Atmospheric Administration, *About National Ocean Service*, NOAA.GOV, https://oceanservice.noaa.gov/about/ (last visited May 4, 2023).

<sup>&</sup>lt;sup>3</sup> National Oceanic and Atmospheric Administration, *About NOAA Fisheries*, NOAA.GOV, https://www.fisheries.noaa.gov/about-us (last visited May 4, 2023).

<sup>&</sup>lt;sup>4</sup> National Oceanic and Atmospheric Administration, *About NOAA Research*, NOAA.GOV, https://research.noaa.gov/About-Us (last visited May 4, 2023).

<sup>&</sup>lt;sup>5</sup> National Oceanic and Atmospheric Administration, *About National Weather Service*, WEATHER.GOV, https://www.weather.gov/about/ (last visited May 4, 2023).

<sup>&</sup>lt;sup>6</sup> 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 4, 2023).

<sup>&</sup>lt;sup>7</sup> National Oceanic and Atmospheric Administration, *About Office of Marine and Aviation Operations*, NOAA.GOV, https://www.omao.noaa.gov/about (last visited May 4, 2023).

**Table 1:** NOAA FY 2024 Budget Request (dollars in millions)<sup>8</sup>

Account	FY 22 Enacted	FY 23 Enacted	FY 24 Request	FY24 Request versus FY23 Enacted	
National Ocean Service	\$681M	\$827M	\$714M	-\$113M	16%
National Marine Fisheries Service	\$1,081M	\$1,261M	\$1,287M	+\$26M	2%
Oceanic and Atmospheric Research	\$614M	\$782M	\$786M	+\$4M	1%
National Weather Service	\$1,204M	\$1,364M	\$1,380M	+\$16M	1%
National Environmental Satellite Data Information Service	\$1,516M	\$1,708M	\$2,074M	+\$366M	18%
Mission Support	\$345M	\$555M	\$605M	+\$50M	8%
Office of Marine and Aviation Operations	\$406M	\$497M	\$495M	-\$2M	0.4%
Total	\$5,514M	\$6,488M	\$6,895M	+\$407M	6%

## **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 FY24 request for NOS is \$714 million, a 16% (\$113 million) decrease from the FY23 enacted level.<sup>9</sup>

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

<sup>&</sup>lt;sup>8</sup> National Oceanic and Atmospheric Administration, *FY 2024 Congressional Justification*, NOAA.GOV (May 2023), https://www.noaa.gov/sites/default/files/2023-04/NOAA FY24 CJ.pdf.

<sup>&</sup>lt;sup>9</sup> FY 2024 Budget Summary, supra note 1, p. 25.

sustaining long-term use and promoting the health of coastal and marine ecosystems. The FY24 request for NMFS is \$1.29 billion, a 2% (\$26 million) increase from FY23 enacted level. <sup>10</sup>

Broadly, NMFS is tasked with assessing and predicting the status of fish stocks, sets catch limits, ensures compliance with fisheries regulations, and reduces 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 FY24 budget request for OAR is \$786 million, a 1% (\$4 million) increase from the FY23 enacted level. 11

OAR operates through a national network of ten laboratories, 16 Cooperative Institutes, 34 Sea Grant College Programs, and specialized programs. <sup>12</sup> 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 FY24 request for NWS is \$1.38 billion, a 1% (\$16 million) increase from the FY23 enacted level. <sup>13</sup>

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. <sup>14</sup> 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 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 FY24 request for NESDIS is \$2.074

<sup>&</sup>lt;sup>10</sup> FY 2024 Budget Summary, supra note 1, p. 33.

<sup>&</sup>lt;sup>11</sup> FY 2024 Budget Summary, supra note 1, p. 43.

<sup>&</sup>lt;sup>12</sup> National Oceanic and Atmospheric Administration, *NOAA Research Laboratories*, NOAA.GOV, https://research.noaa.gov/Labs-Programs/OAR-Labs (last visited May 4, 2023).

<sup>&</sup>lt;sup>13</sup> FY 2024 Budget Summary, supra note 1, p. 51.

<sup>&</sup>lt;sup>14</sup> About National Weather Service, supra note 5.

billion, a 18% (\$366 million) increase from the FY23 enacted level and the largest requested line office increase. 15

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. 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. 17

## Office of Marine and Aviation Operations (OMAO)

OMAO maintains the ships and aircrafts 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 FY24 request for OMAO is \$495 million, a 0.4% (\$2 million) decrease from the FY23 enacted level.<sup>18</sup>

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. <sup>19</sup> NOAA is currently authorized for up to 500 NOAA Corps officers, excluding flag officers. <sup>20</sup>

### **Mission Support** (MS)

The Mission Support line office (previously called "Program Support") 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 FY24 request for MS is \$605 million, a 8% (\$50 million) increase from the FY23 enacted level.<sup>21</sup>

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<sup>&</sup>lt;sup>15</sup> FY 2024 Budget Summary, supra note 1, p. 57.

<sup>&</sup>lt;sup>16</sup> National Oceanic and Atmospheric Administration, *Current Satellite Missions*, NOAA.GOV, https://www.nesdis.noaa.gov/current-satellite-missions/currently-flying (last visited May 4, 2023).

<sup>&</sup>lt;sup>17</sup> National Oceanic and Atmospheric Administration, *Geostationary Extended Observations*, NOAA.GOV, https://www.nesdis.noaa.gov/next-generation/geostationary-extended-observations-geoxo (last visited May 4, 2023). <sup>18</sup> *FY 2024 Budget Summary, supra* note 1, p. 73.

<sup>&</sup>lt;sup>19</sup> National Oceanic and Atmospheric Administration, *About the NOAA Fleet*, NOAA.GOV, https://www.omao.noaa.gov/ao/about (last visited May 4, 2023).

<sup>&</sup>lt;sup>20</sup> National Oceanic and Atmospheric Administration, *About the NOAA Corps*, NOAA.GOV, https://www.omao.noaa.gov/noaa-corps/about-noaa-corps (last visited May 4, 2023).

<sup>&</sup>lt;sup>21</sup> FY 2024 Budget Summary, supra note 1, p. 67.

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.<sup>22</sup> 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.

## **Additional 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.<sup>23</sup>

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.<sup>24</sup>

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.<sup>25</sup>

<sup>&</sup>lt;sup>22</sup> National Oceanic and Atmospheric Administration, *About AGO*, NOAA.GOV, https://www.noaa.gov/acquisition-grants/about-ago (last visited May 4, 2023).

<sup>&</sup>lt;sup>23</sup> Infrastructure Investment and Jobs Act, P.L. 117-58, p. 927-929.

<sup>&</sup>lt;sup>24</sup> *Inflation Reduction Act*, P.L. 117–169, p. 211-213.

<sup>&</sup>lt;sup>25</sup> Consolidated Appropriations Act, 2023, P.L. 117-328, Division N, p. 747.