

**WRITTEN TESTIMONY OF  
REAR ADMIRAL NANCY HANN  
DIRECTOR, NOAA OFFICE OF MARINE and AVIATION OPERATIONS and  
DIRECTOR, NOAA COMMISSIONED OFFICER CORPS**

ON OVERSIGHT OF THE NATIONAL OCEANIC AND ATMOSPHERIC  
ADMINISTRATION  
BEFORE THE U.S. SENATE COMMITTEE ON  
COMMERCE, SCIENCE, AND TRANSPORTATION  
SUBCOMMITTEE ON OCEANS, FISHERIES, CLIMATE CHANGE, AND  
MANUFACTURING

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Chair Cantwell, Ranking Member Cruz, Subcommittee Chair Baldwin, and Subcommittee Ranking Member Sullivan, thank you for the opportunity to testify on the President's Fiscal Year (FY) 2024 Budget for the NOAA Commissioned Officer Corps and the Office of Marine and Aviation Operations (OMAO).

As both the Director of NOAA's Marine and Aviation Operations, and the Director of the NOAA Commissioned Officer Corps, I represent a unique part of NOAA that brings together five distinct personnel systems to manage and operate NOAA's fleet of 15 ships, 9 aircraft, and our Uncrewed Systems Operations Center. From these platforms, we monitor the oceans and atmosphere every day to provide the products and services that the Nation depends on. In FY 2024, NOAA's fleet will grow to 16 ships and 10 aircraft as long anticipated additions to these fleets come online. This will necessitate additional crew and shore-side support commensurate with our responsibility to operate these platforms in service of NOAA's broader missions.

Our diverse workforce of 1,252 professionals includes civilians to support our operations, acquisitions, maintenance, and administration; professional civilian mariners from five different unions to support our ships; NOAA Corps Officers; U.S. Public Health Service Officers who run our medical program; and visiting scientists and career professionals who sail on our ships or fly on our aircraft to conduct cutting edge research. From fisheries surveys and mapping the nation's Exclusive Economic Zone (EEZ), to deploying buoys for tsunami and El Niño/La Niña monitoring, to post hurricane mapping of harbors and ports to restart transoceanic trade, the services that OMAO

provides to the Nation are essential. OMAO works with all the NOAA line offices to help them achieve their missions. The data collected on our ships is critical to the products that NOAA produces. With Congressional support, we have invested in cutting edge technology to ensure the high-speed transmission of our data to scientists, as well as archiving it within the NOAA National Centers for Environmental Information to support retrospective and longitudinal research and management.

For FY 2024, the President's budget request for the NOAA Corps and OMAO is \$495,576,000 in discretionary and mandatory funds. Our funding request breaks into the following areas:

### **Marine Operations and Maintenance – \$224,148,000**

NOAA's current fleet of 15 research vessels, and the forthcoming NOAA Ship *Oceanographer*, are deployed throughout the U.S. and international waters to collect critical environmental observations for U.S. fisheries management and protected species assessments and conservation, mapping and charting data to ensure safe navigation, ocean exploration and other research expeditions, and atmospheric data to inform our climate and weather models. To operate these ships, OMAO relies on NOAA Corps officers, civilian mariners, shoreside support, and operational funds. As of July 12, 2023, OMAO has 356 civilian mariners – far short of our current requirement. OMAO faces civilian mariner shortages similar to other parts of the domestic and international maritime industry. We have worked aggressively to set up recruiting in key maritime areas around the country, and have offered recruiting and retention bonuses. OMAO uses direct hiring authority, a personnel team with mariner experience, and a web portal that makes it easier for mariners to apply. In addition, we have the ability to make conditional job offers to expedite hiring mariners into our workforce. The FY 2024 funding request supports the hiring of additional mariners, and OMAO will continue to aggressively recruit and improve retention.

This FY 2024 request will also support our vessel maintenance program. The average age of NOAA's research vessels is 30 years old. Typically, ships are built with a 25-30 year service life. Five of NOAA's ships were acquired from the U.S. Navy or Coast Guard at the end of their service life. We currently have three ships operating that are over 55 years old, almost twice as long as their expected service life. Therefore, having a robust maintenance program is critical for the continued successful operations of our fleet. With Congressional support, we have strategically improved our maintenance practices, systematically reducing our maintenance backlog through a regular cadence of repair packages to ensure the operation of the fleet.

## **Marine and Aviation Capital Investments – \$106,500,000**

NOAA's Mapping and Charting vessels on the West Coast and Pacific started sailing in 1968, predating NOAA's creation by two years. NOAA's WP-3D "Hurricane Hunters," which fly repeatedly into hurricanes every season to collect crucial scientific data, started flying in 1975. While NOAA has upheld the highest standards of maintenance, inspection, and service to its vessel and aircraft fleets, service life cannot continue to be extended while maintaining safety and cost effectiveness. In 2022, NOAA updated its Aircraft Recapitalization Plan and is currently working on an update to its Fleet Recapitalization Plan.

Congressional support for much-needed recapitalization efforts have been critical. Congress provided funds to support replacement of the aging G-IV jet. With the FY 2024 budget request, we plan to bring the G-550 jet on-line in 2025 to assume, and expand upon, the critical work the G-IV currently provides during hurricane and atmospheric river seasons. Furthermore, Congress has appropriated approximately \$75 million annually for vessel recapitalization since 2016. That has allowed us to contract for the construction of two new vessels for oceanographic monitoring, exploration, and atmospheric research, and we recently announced an award for new Charting and Mapping vessels. We were also able to commence a mid-life repair for NOAA Ship Ronald H. Brown which will extend the life of the ship by 15 years. The FY24 budget will continue these efforts to recapitalize NOAA's aging aircraft and vessels and increase our capability to collect critical environmental data.

## **Aviation Operations and Aircraft – \$43,372,000**

NOAA currently operates a fleet of 9 aircraft. With our FY 2024 request, NOAA will provide 6,283 flight hours to support monitoring of hurricanes, atmospheric rivers, air chemistry, coastal changes and disaster impacts, and protected species. The FY 2024 budget is responsive to the increased demand for NOAA's services in these mission areas, largely driven by the rapidly changing climate. Your support is especially critical as we add a tenth plane, an additional King Air, to the aircraft fleet to support NOAA's missions in the Arctic. Previously, NOAA's deployment to Alaska had been limited due to a pressing need in emergency response throughout the lower 48 states. With this new King Air, NOAA will have an improved capacity to predict flooding and monitor protected species in remote Alaskan communities. Improving our data collection efforts underpins our ability to ensure the nation is climate ready.

## **Autonomous Uncrewed Technology Operations – \$14,560,000**

OMAO, in coordination with other NOAA line offices, is increasingly operationalizing NOAA-owned and operated uncrewed systems to support our aviation and ship-based assets. Our Uncrewed Systems Operations Center has been working to stand up field offices in Gulfport, MS, Lakeland, FL, and Newport, OR. We have collaborated across the NOAA line offices to support testing and operationalization of uncrewed systems to augment NOAA's charting, mapping, and fisheries and protected species surveys, where possible. For instance, right now, the NOAA Ship *Oscar Dyson* is conducting a pilot on how to operate the Drix uncrewed maritime platform in coordination with the North Pacific pollock survey. The information obtained from this pilot will help us best determine how we can use the Drix and other uncrewed systems with our fisheries surveys in the future.

FY 2024 is a pivotal year for NOAA's uncrewed systems. NOAA's Uncrewed Systems Operations Center has supported nine projects in partnership with NOAA line offices and NOAA Cooperative Institutes since FY 2021. This year, with your support, we will start transitioning these projects from research to operations.

### **NOAA Commissioned Officer Corps – \$70,381,000**

The key to implementing our operational missions has always been our NOAA Commissioned Officer Corps. We are a unique uniformed service of 333 officers, the majority of whom have a science, technology, engineering, or math background, with more than half possessing an advanced graduate degree. NOAA Corps officers operate and command NOAA's fleet of ships and aircraft. Officers also serve in positions of leadership and command across the Federal government, including in additional roles in NOAA and the Department of Commerce, with the U.S. Coast Guard, Congressional offices, and the Combatant Commands. NOAA Corps officers may also be transferred to the armed forces during times of war or national emergency.

The 2024 Budget proposes to increase the NOAA Corps by 13 officers for a total of 353. These additional officers will decrease extended deployments and the need to pull officers from shore-side duty to operational assignments. This is the maximum NOAA predicts it can grow in FY 2024.

Similar to other uniformed services, the competitive hiring environment has made it challenging to retain our pilots. Our specially trained pilots operate our aircraft in various uniquely challenging conditions, such as hurricanes, atmospheric rivers, mountainous regions, and tornadoes. Therefore, they must undergo specialized and rigorous training in these environments to safely carry out these missions. Recruiting new officers, especially for aviation, is critical to our mission. During Hurricane Ian in 2022, OMAO

conducted 24-hour operations on our three hurricane aircraft for six straight days with only six pilots, who accumulated over 120 flight hours in that time. Followed by the rapid succession of Hurricanes Earl, Fiona, and Ian, each of these pilots agreed to sign waivers to exceed the recommended safety limit of 120 hours per 30 days. Our pilots and crew are dedicated to collecting critical data to inform hurricane forecasts, in order to protect life and property. Growing the NOAA Corps reduces the likelihood that NOAA will exceed these limits in the future and will better meet the growing demand for NOAA Corps services.

### **Inflation Reduction Act and 2023 Disaster Supplemental Appropriation**

Finally, I wanted to report on our implementation of the Inflation Reduction Act (IRA) and the 2023 Disaster Supplemental Appropriation. We appreciate Congress' support for the acquisition of the first plane for the recapitalization of NOAA's WP-3Ds in the FY 2023 disaster supplemental. The \$328 million we received was consistent with the Administration's request, and we are developing a contract to begin procurement of one plane with the option for three additional planes. The 2022 Aircraft Recap Plan reflects the benefits improved forecasts provide to protect life and property, monitoring of atmospheric rivers which contribute to 90% of all flood damage in West Coast states, and continuing missions surveying tornadoes, calibrating satellite instrumentation, and collecting air chemistry data. We are committed to working with you through the budget process to ensure NOAA has the aircraft needed to meet our mission requirements.

NOAA allocated \$98 million in funding from the IRA to support acquisition of the next generation of Charting and Mapping vessels. We recently awarded the contract, which used both IRA funds and annual appropriations for these vessels. These vessels will replace our aging ships in the Pacific and are scheduled to come online in 2027 and 2028. We will also utilize funding from the IRA to provide \$85 million for NOAA Ship *Oscar Dyson* to extend the life of this fisheries survey vessel, which provides critical data to managers for North Pacific fisheries and associated ecosystems. This will be the first of the mid-life repairs for the five NOAA fisheries survey vessels, which will take place over the next decade.

With the FY 2024 budget request, in addition to the funding provided through the IRA, NOAA will continue the acquisition of a second G-550 for its high-altitude jet program. A second high altitude jet allows redundancy in our aircraft fleet as required by the Weather Act of 2017. Thus, if one plane needs maintenance, NOAA can continue to provide vital data on hurricanes or with two fully operational planes provide forecasting on concurrent storms, and fully support the atmospheric rivers season. With the addition of another aircraft, we will significantly increase our capabilities and mission readiness.

Finally, we are leveraging funding in the IRA to provide \$99 million for the Newport, RI pier which will serve as the new Marine Operations Center for the Atlantic, and \$35 million for a dedicated pier for Charleston, SC. Modern shoreside infrastructure with shore power supports the safe operation and docking of our vessels and crew.

**Summary**

Thank you for the opportunity to testify today on the FY 2024 President's budget and the operational status of the Office of Marine and Aviation Operations. I look forward to answering any questions you may have.