

## Testimony of the **Friends of NOAA Coalition**

Prepared on 9 May 2017 for the  
**U.S. Senate Committee on Appropriations**  
**Subcommittee on Commerce, Justice, Science, and Related Agencies**

Regarding the  
**National Oceanic and Atmospheric Administration**

### **Fiscal Year 2018 Budget Request**

As supporters, stakeholders, employees, and partners of the National Oceanic and Atmospheric Administration (NOAA), **Friends of NOAA strongly supports funding the agency at \$6.1 billion in FY18.**

NOAA is essential to America's economic growth, national security, public health, environmental management, and scientific innovation. From the heartland to the coasts, NOAA provides services that millions of Americans rely on every day.

More than half of all Americans live along our coasts, over 2.8 million jobs are in ocean-dependent industries, and the insured value of coastal property now exceeds \$10 trillion. These jobs, properties, and communities require NOAA data to maintain a healthy coast. Moreover, weather and climate sensitive industries account for an overwhelming majority of the U.S. GDP, and the value of daily weather forecasts is estimated at \$11.4 billion annually. When planning for drought, flood, tornadoes, blizzards, hurricanes, and beyond, we have NOAA to thank for continuing to improve accuracy, monitoring, and warning time when it matters most.

Americans need NOAA's range of oceanic and atmospheric data, products, and services now more than ever before. Investing in NOAA in a balanced manner not only strengthens our nation's capacity for science-based innovation, but also enables individuals, businesses, and government to better manage risk and optimize decision-making.

Investments in NOAA translate into an extensive list of benefits; the following items are only a few of the many contributions that NOAA makes to our nation and its citizens.

#### **Timely and Accurate National Weather Service Forecasts and Warnings**

Weather, water, and climate events cause an average of approximately 650 deaths and \$15 billion in damage per year. They are also responsible for around 90 percent of all presidentially-declared disasters. Additionally, about one-third of the U.S. economy - \$3 trillion - is weather and climate sensitive, which means that millions of people, businesses, and communities rely on National Weather Service (NWS) products every day. Sufficient funding for NWS will support the program's "Weather Ready Nation" campaign and the National Water Center, which help to build community resilience in the face of growing vulnerability to extreme weather events by increasing warning times, improving forecast communication, and providing decision support to emergency managers.

More specifically, strong support for NOAA will allow the agency to continue development of the Integrated Water Prediction (IWP) initiative, resulting in a new generation of flooding and drought forecasts. Continued funding is also required for NOAA to maintain its NEXRAD Weather Radars and Automated Surface Observing Systems, which are essential for critical tornado and severe weather warnings and in avoiding critical data gaps.

### **Environmental Data to Reduce Risk**

NOAA provides the essential data and information that people need to understand and prepare for climate variability and change. Long-term environmental data is essential to reducing risks and liabilities for our nation's households, industries, and ecosystems. Drought forecasts alone are worth up to \$8 billion per year to the farming, transportation, tourism, and energy sectors, and knowledge about the changing ocean helps protect coastal properties worth \$170 billion. Environmental risk also poses a national security issue. Studies have shown that a three-foot sea level rise would threaten 128 U.S. military bases, which would be forced to invest significant sums simply to remain operational.

Strong investments in NOAA are critical to support the long-term environmental monitoring and analysis that public and private stakeholders use to save time, money, and lives. Furthermore, robust funding is essential for updating NOAA's computing capacity and will also allow the agency to expand forecast outlooks to three to four weeks, which do not currently exist.

### **Maintenance and Sustainability of Healthy Oceans and Coasts**

NOAA's work in understanding our oceans and coasts is essential to our economic, ecological, and public health. A healthy ocean has drawn approximately half of all Americans to live on the coasts – and coastal counties alone contribute nearly \$6.6 trillion annually to the GDP. Sustained ocean research and observations are critical for managing harmful algal blooms, understanding how ocean acidification is already impacting shellfish and other marine industries, and responding to coastal emergencies like the Deepwater Horizon oil spill. As these types of issues continue to affect local economies, NOAA and other federal agencies play a key role in supporting state and regional partnerships such as those underway in the Northeast and Mid-Atlantic to improve ocean management.

NOAA requires strong federal funding to continue to ensure the existence of clean beaches, healthy oceans, and sustainable coastal communities. With consistent support, NOAA can close critical gaps in ocean science to spur economic growth and support informed public and private sector decision-making that is essential to our economy and environment.

### **Informed and Productive Fishery Management**

Fishery stock assessments and data collection are essential for providing managers the information they need to sustain fishing opportunities while preventing overfishing. NOAA has rebuilt 40 stocks since 2000, resulting in overfishing numbers dropping to an all-time low in 2014.

Rebuilding all overfished stocks and harvesting them at their maximum sustainable yields will generate \$31 billion in sales impacts and support 500,000 jobs.

Investment in NOAA is vital to the implementation of catch limits that maintain productive fisheries, secure fishing opportunities, and support the economic vitality of coastal communities. Strong funding will allow the agency to combat global and domestic illegal, unreported, unregulated fishing; monitor endangered marine species; and provide crucial disaster assistance to fisheries.

### **Innovative and Cutting-edge Geostationary and Polar Satellite Systems**

All levels of government, public, industry, and military rely on NOAA satellites for weather forecasting, storm tracking, and long-term Earth observations that protect lives and infrastructure. NOAA's Search and Rescue Satellite-Aided Tracking System alone has saved 39,000 people worldwide. Stable funding is essential for efficient data retrieval, for minimizing total cost to taxpayers, and for ensuring that launch dates are not delayed, which would leave millions of Americans without detailed severe weather information they rely on every day.

Strong support for the agency will allow NOAA to maintain current launch and development schedules of both the GOES-R Satellite Series, JPSS, and Polar Follow On to ensure continuity of data and ability to forecast 3-5 days out. Robust funding for NOAA also translates into the continuation of exploring the potential of commercial data use in NOAA's modeling and forecasting, completing the development of COSMIC-2A ground stations and enhancing NOAA's capabilities in space weather forecasting and imaging as DSCOVR reaches the end of its projected mission life in 2022.

### **World Class Research and Development**

NOAA research has led to new technologies and scientific advances that have increased our understanding of the planet and improved our lives. NOAA research also engages students – the next generation's scientists - from around the country, helping to expand the agency's capacity and prepare for the future. Continuing this cutting-edge work, however, will require the comprehensive modernization of all of NOAA's observation and monitoring operational systems, including its oceanographic fleet of vessels, fleet of aircraft, suite of in-situ ocean and coastal sensors, and remote capabilities.

Without adequate investment, for example, the NOAA fleet will decline by 50 percent, with half of its vessels set to retire in the next 10-12 years. In addition, strong funding for NOAA will allow the agency to more efficiently transition the most promising research into operations, applications, and commercialization, as well as expand regional research to help manage climate risks and support climate assessment efforts.

FoNOAA urges Congress to support a balanced budget for NOAA. Our weather, climate, and ocean systems can't work independently of one another, and our understanding of these systems shouldn't either. From satellites and weather operations, to fisheries and coastal management,

every facet of NOAA serves a purpose essential to the nation. **Therefore, we strongly encourage you to recognize the unique role that NOAA plays in supporting our economy, national security, and environmental resiliency by funding the agency at \$6.1 billion in FY18.**

If Friends of NOAA can be of service or provide additional information, please contact [info@friendsofnoaa.org](mailto:info@friendsofnoaa.org). Thank you for your consideration of this request.

Sincerely,

## The Friends of NOAA Coalition

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American Geophysical Union  
American Geosciences Institute  
American Rivers  
American Weather and Climate Industry Association  
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