

Testimony of the **Friends of NOAA Coalition**
Prepared by Carissa Bunge, Senior Specialist

Prepared on 27 April 2018 for the
U.S. House Committee on Appropriations
Subcommittee on Commerce, Justice, Science, and Related Agencies

As supporters, stakeholders, employees, and partners of the National Oceanic and Atmospheric Administration (NOAA), **Friends of NOAA would like to thank you for your work in completing the FY18 appropriations process and providing a three percent funding increase for NOAA.** Thank you for recognizing the world-class economic, safety, and public health benefits NOAA contributes to our country and its citizens. We look forward to working with you in supporting and championing the agency through fiscal year 2019 (FY19) and beyond.

As such, Friends of NOAA strongly supports funding the agency at \$6.2 billion in FY19. As recommended by groups such as the [Innovation Imperative](#), NOAA should receive at least a four percent annual funding increase to maintain strong and competitive science and innovation. Robust and predictable science funding is critical for our nation to remain a world leader in atmospheric and oceanic science, research, and technology.

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, one out of every 45 jobs are in ocean-dependent industries, and the insured value of coastal property now exceeds \$13 trillion. These jobs, properties, and communities rely on NOAA data to maintain a healthy coast.

Moreover, one third of the U.S. economy - or about \$3 trillion - is sensitive to weather and climate, and the Department of Commerce estimates the annual value of daily weather forecasts at \$31.5 billion. When planning for drought, flood, tornadoes, blizzards, hurricanes, and beyond, NOAA is responsible for improving accuracy, monitoring, and warning time to save lives and money.

NOAA is the United States' oldest scientific agency, and its mission is rooted in a history of science, service, and stewardship. From the depths of the ocean to the reaches of space, NOAA supports our nation's economy, security, public health, and innovation. The following items are just a few examples of the countless benefits NOAA provides to the nation and its citizens.

Timely and Accurate National Weather Service Forecasts and Warnings

Weather, water, and climate events are responsible for an average of approximately 650 deaths, \$15 billion in damage, and 90 percent of presidentially-declared disasters each year. Additionally, the U.S. GDP fluctuates 3-6% each year due to weather variability, which means that millions of people, businesses, and communities rely on National Weather Service (NWS) products every day. Sufficient funding for NWS will support building a "Weather Ready Nation" 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 developing the next 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 data gaps. Finally, strong funding for NOAA will be necessary to implement the *Weather Research and Forecast Innovation Act of 2017* and to carry out the initiatives, goals, and policies outlined in the law.

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. 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 almost half of all Americans to live on the coasts – and coastal counties alone contribute nearly \$7.9 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. For example, establishment and funding of programs like the National Ocean and Coastal Security Fund present an important opportunity build on past efforts in enhancing regional resilience to ocean challenges.

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 41 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. Strong support for the agency will allow NOAA to maintain current launch and development schedules of the GOES-R Satellite Series, JPSS, and Polar Follow On to ensure continuity of data and the 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. 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.

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, will require a vibrant extramural research, observing, outreach, and education component as well as 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.

Friends of NOAA urges Congress to support a robust budget for NOAA. Our weather, climate, and ocean systems don't work independently of one another, and our understanding of these systems can'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 continue to support NOAA, and continue to recognize the agency's role in our economy, national security, and environmental resiliency by funding NOAA at \$6.2 billion in FY19.**

Thank you for your consideration of this request.

Sincerely,

The Friends of NOAA Coalition