

National Oceanic and Atmospheric Administration

This memo outlines key ways to establish and restore the principles of scientific integrity, as well as repair and rebuild scientific capacity, during the next presidential term, including specific priorities and steps the agency can take to effectively act on these issues in 2021.

One of the nation's premier science agencies, the National Oceanic and Atmospheric Administration (NOAA) plays a critical role in scientific research and services related to climate change, forecasting natural disasters, understanding atmospheric processes, coastal and ocean environments, and the conservation and management of marine resources. NOAA laboratories and offices are located throughout the country and its data, products, and services are used widely in every state. Some NOAA scientists also play key roles in numerous international diplomacy, research, resource management, and development efforts. All of these roles need to be fully recognized, authorized, and funded by Congress and championed by the administration. Set in the Department of Commerce, NOAA has, at times, failed to receive attention and political support for its mission from departmental leadership. Today, in an era of climate change and promotion of preserving and protecting marine resources in the "blue economy," NOAA and the Department of Commerce have a historic opportunity to connect business development and international trade to low-carbon green (climate-friendly) and blue (ocean-based) economic development.

Top Priorities

- **Restore commitment to scientific integrity and rebuild scientific capacity.** NOAA's mission is rooted in conducting unbiased science that supports transparent decisionmaking and that should be reflected in the agency's scientific integrity (SI) policy and staff capacity. While NOAA has a strong existing SI policy, it could be significantly improved by providing full accountability up to the Department of Commerce secretariat and through robust training, communication, and implementation, making it a model agency for scientific integrity in government.

NOAA has lost many senior scientific staff members and suffered violations of its SI policy and should commit to rebuilding its scientific integrity and capacity in an inclusive and equitable manner.

- **Provide robust and accessible climate change services and leadership.** NOAA should be directed to prioritize climate change mitigation and adaptation services so that it can lead the nation in providing critical information to federal, state, and local governments and small and large businesses nationwide on a sustained and authoritative basis about how to respond and adapt to climate change.
- **Advance partnerships in ocean science and technology.** NOAA should work with other federal agencies, Congress, oceanographic academic institutions, philanthropies, nongovernmental organizations, and businesses to coordinate and fill gaps in our understanding of the ocean, while ensuring the availability of data to the public and ocean stakeholders.

Key Appointment Positions

- Under Secretary of Commerce for Oceans and Atmosphere (NOAA Administrator)
- Assistant Secretary of Commerce for Environmental Observation and Prediction
- Assistant Administrator for NOAA Fisheries
- Chief Scientist
- NOAA Chief of Staff

Day-One Actions

- Make a strong endorsement of the principles and actions needed to support scientific integrity and end political manipulation and censorship of science and scientists. *(See Priority 1 below for more detail.)*

- Issue an executive order or declaration of intent for the federal government to become a critical information resource for states, tribes, local communities, and businesses on climate change, and designate NOAA as a lead information agency. *(Priority 2)*

Actions in the First Year

- NOAA should announce a plan for integrating principles of diversity, equity, and inclusion in its recruitment and hiring processes, including any modifications to existing or new fellowship or training programs or other innovative initiatives to foster a diverse and robust scientific capacity across the agency. *(Priority 1)*

Priority 1: Restore Commitment to Scientific Integrity and Rebuild Scientific Capacity

Science and scientific values are mission critical to NOAA given its role providing accurate weather and climate data, managing ocean and coastal resources, and supporting the scientific mission of multiple other agencies. NOAA and the Department of Commerce should become a model for strengthening and implementing SI policy. While NOAA's existing SI policy is considered strong, it doesn't include full accountability up the chain of authority to the Department of Commerce secretariat. The policy should protect NOAA science and scientists even if political interference comes from the department level or originates from outside NOAA proper, and any investigation of such complaints should be able to be conducted in full in a transparent manner.

Under the Trump administration, and due to the demographics of agency staff, NOAA has lost many senior scientists and has been slow to recruit young, diverse talent. It is critical to encourage talented scientists to take up public service and to promote principles of diversity, equity, and inclusion in recruitment and hiring.

Administrative Actions

- NOAA should become the model agency for scientific integrity in government by: expanding to provide full accountability up the chain of authority to the Department of Commerce secretariat; allowing full public access to science experts and expertise; ensuring that science is not censored or manipulated for political purposes; and fully involving scientists in the policy process. All political appointees as well as career staff should be fully trained

to understand the purpose, function, and details of the policy. This initiative should guarantee whistleblower protection for NOAA personnel reporting violations of the agency's scientific integrity policy and a fully staffed independent mechanism for the investigation of complaints and enforcement. Such provisions would make it harder to censor NOAA scientists or otherwise prevent them from speaking with the public. This renewed effort should fully incorporate and be responsive to the findings of the multiple investigations of the so-called Sharpie-Gate incident.

- NOAA should rebuild scientific capacity with a diverse staff by employing new recruitment mechanisms, fellowship programs, term-length and rotating assignments from universities and industry (such as those at the National Science Foundation), and other innovative initiatives. NOAA can be a leader in this regard through its Sea Grant programs and fellowships, the José E. Serrano Educational Partnership Program with Minority Serving Institutions, and HBCU (historically Black colleges and universities) and joint/cooperative institute relationships.

Priority 2: Provide Robust and Accessible Climate Change Services and Leadership

NOAA should be directed to prioritize climate change mitigation and adaptation services so that it can lead the nation in providing critical information to federal, state, and local governments and small and large businesses nationwide about how to respond and adapt to climate change. All NOAA line offices have leadership and implementation roles to play in making sure that NOAA is a primary, credible, and expert source of climate information necessary for other agencies, state and local decisionmakers, and private sector partners who require the best scientific information available to make critical decisions. NOAA should prioritize climate services that include data collection and dissemination, long-term monitoring, forecasting, evaluation, and analysis, and public information campaign tools to meet critical national needs.

Administrative Actions

- Issue an executive order or declaration of intent for the federal government to become a critical information and technical resource for the states, tribes, local communities, and businesses on climate change mitigation and adaptation with NOAA serving as the lead information agency.

- The secretary of commerce should spearhead a voluntary initiative to guide and incentivize businesses in directly confronting the challenges of climate change mitigation and adaptation, facilitating their connection to the full power of NOAA science and services. This should include both green and blue economic components.
- Direct NOAA's Ocean and Fisheries Services to review guidance, policy, and regulation associated with the implementation of resource conservation and management statutes such as the Magnuson-Stevens Fisheries Conservation and Management Act, the Marine Mammal Protection Act, and the Endangered Species Act, among others, to ensure that forward-looking approaches are being employed that maximize climate mitigation and adaptation responses.
- Institutionalize better processes for including end users of ocean data and information in the early stages of research and project development. Ocean observations and biological data are increasingly important to people who rely on the data every day to estimate risk and opportunity, supporting ocean-dependent jobs in coastal and inland communities and safeguarding marine ecosystems. Connecting those people to researchers early in the research planning process is a substantial challenge, yet, when executed, it will help ensure these projects have a greater likelihood of creating lasting and useful products.

Priority 3: Advance Partnerships in Ocean Science and Technology

Ocean science and technology partnerships can help address some of today's most pressing challenges in ocean management. NOAA should work with other federal agencies, oceanographic academic institutions, philanthropies, nongovernmental organizations, and businesses to coordinate and fill gaps in our understanding of the ocean (including development of a sustained and operational coastal ocean observing system), while ensuring the availability of data to the public and ocean stakeholders. NOAA has an opportunity to advance these collective efforts while also building on historical NOAA data collections, harnessing the collective research that is happening in the ocean. Seamless historic and contemporary data will enable the science community to identify important changes in ocean conditions and health over many decades and predict future change, informing decisions that can help to manage fishery resources, wildlife, and habitats.

Administrative Actions

- NOAA should establish clear best practices in data collection through partnerships with academia, industry, and the federal government. These efforts should be fully responsive to the leadership role on climate change science that NOAA must embrace. These best practices and data collection efforts should ensure new data are comparable to historic data and that they are available in a single location.

Budgetary Actions

- NOAA should increase funding for data management, reviewing all its data programs, grants, and contracts and, where appropriate, allocating at least 10 percent of project budgets, or those of its contractors or awardees, toward data management. Data programs should develop budgets for at least one full-time data manager. Congress, in consultation with NOAA and data stewards, should make policy changes to ensure that this goal is met. Congress should also increase funding to account for data and staffing needs without compromising baseline funding for other NOAA activities while accounting for the 10 percent across-the-board increase.
- NOAA should increase funds used for data acquisition, data hosting, and access to computational resources, and make this data publicly available. Regional Ocean Partnerships, for example, operate in regions across the country to promote sustainability through science-based management, the usage of publicly available regional ocean data portals, and the provision of a common venue for convening stakeholders. Additionally, the Regional Ocean Partnerships provide a coordinating ground for states, federal agencies, and other regional organizations. Increased funding for NOAA programs such as the Regional Ocean Partnerships will help NOAA address gaps and problems in ocean data, while ensuring effective coordination between federal agencies, states, academia, and stakeholders.
- NOAA should increase funding for the National Marine Fisheries Service Science Centers, whose offices are responsible for the stewardship of the nation's fisheries and living marine resources as well as their habitats. The Science Centers provide scientific, technical, and research

support for fish stock assessments, ecosystem-based management, living marine resources, and various regulatory mandates such as the Marine Mammal Protection Act. Since 2009, a fundamental erosion of science has occurred at these Science Centers due to funding limitations. This decline has occurred during a time of great change in our oceans, when resource managers and users

are most in need of timely and complete data to make responsible and business-friendly management decisions. Increasing this funding would ensure more robust and timely scientific surveys that support fish stock assessments, baseline data for national climate assessments, and vital information for environmental impact reviews for offshore renewable energy siting.

ENDORSED BY

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