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***NOAA'S BLUE ECONOMY INITIATIVE:  
SUPPORTING COMMERCE IN AMERICAN OCEANS AND GREAT LAKES***

**COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION  
SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES, AND COAST GUARD  
U.S. SENATE**

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Good afternoon. It's a pleasure to be here today to focus on one of my favorite topics: the blue economy.

I want to thank Chairman Sullivan for his leadership and foresight in hosting this hearing. Alaska is a key contributor to the nation's ocean economy, thanks to Alaska's fishing, shipping, tourism, energy development and other industries tied to the ocean. Many Alaska communities also have strong subsistence economies that depend on ocean resources. The unique relationship that Alaska has with the sea has long made Alaska a leading voice on ocean policy matters. I look forward to discussing how we can grow the blue economy to the benefit of Alaskan communities and the entire nation.

Coastal regions are home to 40% of the U.S. population and the U.S. ocean economy contributes \$320 billion to our GDP. Under the Department of Commerce, the National Oceanic and Atmospheric Administration (NOAA) supports the sustainable use, management and conservation of our ocean and coastal resources through research, observations and environmental forecasts. You cannot manage what you cannot measure. So we measure quite a bit at NOAA - from ocean conditions at the bottom of the sea, to the abundance of fish in the pelagic zone, to atmospheric carbon dioxide concentrations, to solar wind.

In June, the President issued a proclamation to mark National Ocean Month that states the following:

“To harness the vast resources of the EEZ [Exclusive Economic Zone], we will develop and deploy new technologies in partnership with American academic institutions and innovators. We will streamline regulations and administrative practices to promote

economic growth, while protecting our marine environment for current and future generations. We will also create new opportunities for American products in the global marketplace, including through continued support of our commercial fisheries and promotion of domestic aquaculture.

To advance America's economic, security, and environmental interests, it is also critical that we explore, map, and inventory our Nation's waters and pursue advanced observational technologies and forecasting capabilities. By exploring, developing, and conserving the ocean resources of our great Nation, we will augment our economic competitiveness, enhance our national security, and ensure American prosperity.”

This proclamation clearly sets the stage for how NOAA will address and prioritize the blue economy in this Administration. In particular, I will highlight how NOAA's work on fisheries management, aquaculture production, maritime transportation, and energy production and mineral extraction while protecting important marine resources supports our nation's blue economy.

The United States leads the world in sustainable fisheries management and our domestic fisheries management system has produced great economic and environmental success stories. However, seafood is traded globally, and our domestic fishermen are rarely allowed to compete on a level playing field. The Trump Administration is working to reduce, eliminate, and streamline regulations on our commercial fishermen so that they can fish up to the maximum sustainable yield. We are also working to end the importation of illegal, unreported, and unregulated seafood. We should take great pride in our achievements in ending overfishing domestically and our global leadership in protecting fishery resources on the high seas. As this committee knows all too well, we cannot turn a blind eye to nefarious fishing practices that threaten our domestic industry and the long-term viability of fish stocks globally. This committee introduced and considered all of the key legislative tools that enable both domestic and international marine resource protection – the Magnuson Stevens Fishery Conservation and Management Act, the Marine Mammal Protection Act, the Oil Pollution Act, and the High Seas Driftnet Fishery Enforcement Act, to name just a few.

While NOAA is working to expand fishing opportunities and access to foreign markets for our wild-caught fishing industry, we must also do more to develop a viable domestic aquaculture industry. The fact that the U.S. has one of the largest EEZs in the world, but ranks 17th in worldwide aquaculture production, is shocking. One-half of the global seafood supply is farmed, but in the U.S. less than 10% of our seafood is from aquaculture. NOAA, as well as the Department of Commerce as a whole, is looking to change that dramatically - while keeping a sharp eye to protect our wild-caught stocks and expand export markets for wild-caught fish. NOAA has been scaling up our aquaculture research efforts so we can grow the aquaculture

industry wisely and sustainably. However, to do so this will also require a change in the regulatory regime to reduce confusion which has to date deterred investment in federal waters. To date, the United States has been exporting our aquaculture science and expertise, rather than farmed seafood. That needs to change as the global population approaches 10 billion and the world looks to the ocean for protein. Seafood production via aquaculture can be a resource-efficient way to produce protein and has already helped improve nutrition and food security in many parts of the world.

NOAA is committed to streamlining the use of existing authorities to expand aquaculture in federal waters. We look forward to working with Senator Wicker to clarify the statutory authorities and provide the regulatory certainty required to develop a robust domestic aquaculture industry. Whether it be a wild-caught salmon from Bristol Bay, or a farmed oyster from the Chesapeake Bay near where I now live, American consumers should have great faith and pride in the fact that all U.S. seafood is healthy, sustainable and safe to enjoy.

Human civilization sprung up along our coasts for access to food, but also for access to transportation. Today, perhaps more than ever, coastal communities and ports play a vital role in the transport of goods in the global marketplace. Earlier this year, Secretary Ross highlighted NOAA's investments to improve the efficiency and safety in our nation's port facilities in his Senate testimony on infrastructure. Few Americans realize that 99% of U.S. overseas trade moves through our ports. Billions of tons of product valued in the trillions of dollars move through our ports annually, so even small improvements in our ports efficiencies have tremendous economic impact. For example, NOAA installed precision navigation products in the port of Long Beach, where a combination of high resolution bathymetric surveys of the sea floor and real-time oceanographic and meteorological data on swells, tides, currents, wind, temperature, and salinity increased the allowable draft for cargo ships to enter the port. The result was that vessels could carry up to \$2 million in extra product per foot of allowable draft per transit. Given that there are thousands of ships that enter U.S. ports every day, the potential return on investment for such precision navigation products could be very advantageous to the U.S. economy. We are looking to expand these products and services to more ports across the nation.

Goods are transported on top of the water, seafood is harvested from the water column, and there is tremendous value beneath the seabed. NOAA has a role to play in promoting energy production and mineral extraction, while meeting our statutory obligations to protect subsistence resources, the marine environment and protected species. We can do so in a few ways. First, we can do more to explore and characterize our ocean and coastal resources. We import almost all of our nation's critical minerals, which help build modern infrastructure from jet engines, to power plants and cell phones. Relying on foreign sources of critical minerals is a national security vulnerability that NOAA can help address through ocean exploration. The United States

has mapped the moon and Mars to a better resolution than our own seafloor. Thus, NOAA is examining ways to expand activities related to the mapping of our EEZ. The advancement of autonomous vehicles and remote sensing technologies will facilitate the characterization of our EEZ which will aid navigation and identify sources of valuable minerals, energy and, potentially, pharmaceuticals.

Second, we are looking for opportunities to advance research on underwater acoustics to reduce uncertainties around the impact of noise on marine mammals. Better knowledge will help NOAA protect marine mammals while also facilitating the safe exploration of offshore energy sources. I believe we have great opportunities to work with Alaska Natives, industry, foundations and NGOs to expand our underwater acoustic observations, improve our understanding of how sound impacts mammals, and develop reasonable mitigation measures to protect threatened species. NOAA sees the cooperative process used by the Alaska Eskimo Whaling Commission and the oil industry to ensure offshore exploration does not adversely impact subsistence hunting for bowhead whales as a great example of how the blue economy can move forward.

Life began in the ocean, and humans, including myself, are intrinsically drawn to the sea. We go there for recreation, we go there for relaxation, and we go there for inspiration and reflection. NOAA works every day to ensure our ocean, coasts and beaches are clean, safe and productive. NOAA conserves and protects the marine environment through its statutory authorities, ranging from the Marine Debris Act, to the Endangered Species Act, to the Marine Sanctuaries Act, to the Marine Mammal Protection Act, to coastal management through the Coastal Zone Management Act, to protecting essential fish habitat and managing recreational fisheries through the Magnuson-Stevens Fishery Conservation and Management Act. NOAA also consults with other agencies regarding the Endangered Species Act and Essential Fish Habitat. Thus, NOAA's work to support a healthy and productive marine environment is fundamental to supporting the blue economy.

Ultimately, a vibrant U.S. economy depends on healthy ocean, coastal, and Great Lakes resources. The science and management to conserve and sustainably use these resources is at the heart of NOAA's mission. I look forward to answering your questions about our efforts to sustainably utilize our EEZ for the benefit of this and future generations.