



**Statement before the**  
**House Transportation and Infrastructure Committee**

***“Realigning Federal Infrastructure Policy to  
Mitigate and Adapt to Climate Change”***

A Testimony by:

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**February 26, 2019**

**HVC 210, Capitol Visitor Center**

Mr. Chairman and Members of the Committee, thank you for inviting me here today to discuss the ways in which Federal infrastructure policy can help mitigate and adapt to climate change. My name is Whitley Saumweber and I currently serve as the Director of the Stephenson Ocean Security Project at the Center for Strategic and International Studies (CSIS). This project is a new effort on behalf of CSIS to examine the links between ocean health, marine resource conflicts, and national security challenges.

Prior to joining CSIS, I held appointments as a Visiting Fellow at Stanford University and as Associate Director for Ocean and Coastal Policy in President Obama's White House Council on Environmental Quality. I have previously worked in the U.S. Senate for the late Senator Dan Inouye (D-Hawaii) and at the National Oceanic and Atmospheric Administration (NOAA) as an Advisor to the two previous Administrators. I also hold a Ph.D. in Biological Oceanography from the University of Rhode Island. Over the course of my career I have helped to develop, implement, and lead our National Ocean, Arctic, and Fisheries policies and it is this experience that my testimony today draws upon.

## **Introduction**

The second volume of the Fourth National Climate Assessment issued last year makes it clear that the impacts of climate change are being felt now and will be accelerating into the foreseeable future without significant changes to the global carbon economy. Climate change therefore serves as both a source of immediate challenge and strategic risk requiring a combination of immediate investment for adaptation and sustained investment to support the long-term resilience of affected systems. From a maritime perspective one of the most important and vital of these is our Marine Transportation System. The U.S. MTS accounts for 90% of our imported goods, supports \$4.6 trillion in economic activity, and sustains 23 million jobs. All of these are at risk if we do not provide appropriate investments to ensure resilience in our maritime infrastructure and to do so in a way that accounts for economic, environmental, and social values.

The U.S. Committee on the Marine Transportation System (CMTS) has identified three primary risks to the MTS associated with climate change: 1) Sea Level Rise (SLR); 2) increasing frequency and potency of coastal storms; and 3) the opening of the Arctic. They also identify an additional 29 factors that may be exacerbated by climate related impacts and which would put maritime infrastructure at risk. In responding to these risk factors, we should consider the National Academies of Science definition of resilience as, "the ability to prepare, resist, recover, and more successfully adapt to the impacts of adverse events," but also recognize that as we do so we must seek to account for continuously shifting baseline. For example, the sea level is rising but the rate at which it is doing so will both increase and be variable across regions. Similarly, in considering investments in port infrastructure to service relevant regional maritime industries, we should consider that the nature of these industries are likely to change as climate drives changes in regional economies. The port side needs of the fishing industry will change, for example as commercial stocks move poleward and the composition of local fleets change.

The most clear example of these shifts is in the Arctic where we may see an ice free pole within the next 10 – 20 years.

## **General Recommendations**

*Risk Assessment* – Invest in programs at the U.S. Coast Guard and NOAA that support a comprehensive risk assessment of major U.S. ports to the primary climate risk factors contained in the CMTS Risk Factors Matrix.

*Resiliency Standards* – Develop a set of standards for port infrastructure that map to regional predictions of sea level change under each of the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP) of green house gas emissions.

*Targeted Investment* – Consider the use of novel public/private partnerships, including funds such as the Harbor Maintenance Trust Fund, Oil Spill Liability Trust Fund, and National Coastal Resilience Fund to support investment in port adaptation programs that meet revised resiliency standards and are applied based on priority risk assessment needs.

## **Arctic Recommendations**

President Obama recognized that the Arctic would become increasingly important from both an economic and strategic perspective as the polar ice cap melts and new shipping lanes and opportunities for resource use and extraction emerged. To grapple with these emerging challenges his Administration developed the first National Strategy for the Arctic Region, and, in partnership with Canada, in 2016, proposed A New Model for Arctic Leadership. Both documents called for building a sustainable Arctic economy, supporting conservation, and supporting Arctic communities including through increased collaboration with indigenous communities and valuation of local and traditional knowledge. Needed investments in Arctic infrastructure should follow a similar model and make sure that local communities are engaged in decision making processes and that impacts on sensitive and changing ecosystems are considered. I list a number of these needs below which also broadly map to the CMTS' 10-year Arctic infrastructure priorities.

### *Maritime Domain Awareness and Readiness –*

- The USCG's National Security Cutter program should be fully funded and clearly supported in the developing USCG Arctic Strategy.
- The USCG Alaska Arctic Port Access Route Study (PARS) should be fully funded and completed in a timely manner that allows for appropriate consultation with local communities.

- Support for NOAA’s Office of the Coast Survey and National Geodetic Survey should be increased to accelerate Arctic surveying, charting, and National Geodetic Reference Frame updates.
- The US Army Corps of Engineers should complete their feasibility study for a deep water port in Northwest Alaska.
- Development of a deep water port should be pursued based on the recommendations of the USACE study and in consultation with local communities.
- Investment in additional oil spill and incident response infrastructure is critical including pre-positioning and transport planning for events on the North Slope.

*Communications* – Communication infrastructure to support both ship to ship and ship to shore networks is lacking on the North Slope. Investments are needed to support the expanded use of Automatic Identification Systems (AIS) and broadband communications.