U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Opening Statement

Ranking Member Zoe Lofgren (D-CA)

Subcommittee on Environment Hearing
Reauthorizing the Weather Act: Data and Innovation for Predictions

March 28, 2023

Good morning. Thank you to Chairman Miller and Ranking Member Ross for holding this hearing, and thank you to the witnesses for your testimony.

California has experienced 12 atmospheric rivers since late December. Damage to homes, communities, and infrastructure is widespread across California. Flooding in my district has been devastating. Last week we experienced another type of powerful storm known as a bomb cyclone. Dozens of people have died as a result of these unusually intense and frequent storms.

Atmospheric rivers are not a new phenomenon. In fact, they serve a critical role in the western United States in bringing water to replenish reservoirs and snowpack in the winter months. But too much rain in a short amount of time can have devastating effects on communities. Climate change means that this past winter may presage a new normal for flooding-related catastrophic damage in California. Researchers have already established that the warmer climate is causing more intense rainfall - and specifically wetter, larger, and more frequent atmospheric rivers.

Atmospheric rivers have characteristics that make them particularly difficult to forecast. Satellites are a valuable tool for looking at weather forming over the oceans, but satellites generally can't see through clouds and heavy precipitation - both characteristic features of atmospheric rivers. Satellites are also more limited in their ability to penetrate the lowest layers of the Earth's atmosphere, which is where atmospheric rivers hang. However, the Interagency Atmospheric River Reconnaissance, which includes NOAA's aircraft, has the capability to gather data from within the storm and has proven beneficial in filling that data gap. This data has led to significant improvements in atmospheric river forecasting. But due to aging aircraft, NOAA is unable to cover the full atmospheric river season. Increasing NOAA's aircraft fleet to fly these storms during the winter months is critical to the safety of Californians and others affected by these powerful storms.

For NOAA to carry out its mission to protect life and property, it must be well funded to maintain a backbone of weather and climate data from a range of data collection tools, including airplanes, weather balloons, ocean buoys, and land-based observatories. The commercial data sector can help contribute to NOAA's data collection efforts in a complementary manner, and I look forward to hearing from the witnesses on your ideas of

specifically how commercial data can augment our atmospheric river forecasting capabilities. In addition, academia has to be supported in their efforts to advance fundamental understanding of the science and innovations in weather modeling. I look forward to a discussion of the role of each of these partners in the weather enterprise, and what mechanisms Congress can support to increase and expand these partnerships.

I understand this is the first in a series of hearings on the Weather Act Reauthorization. There is a lot more that can be done across-the-board to improve weather forecasting. As we enter the appropriations season here in Congress, I'll just note that the importance of providing the National Weather Service with the resources it needs to improve the availability of high-quality data streams for weather forecasting cannot be understated.

Thank you to our committee members and witnesses for joining us today to engage in this important and timely discussion.

I yield back.