

The Weather Act Reauthorization Act of 2023

Executive Summary

Background

In April of 2017, Chairman Lucas' *Weather Research and Forecasting Innovation Act* (the Weather Act) was signed into law and became the first comprehensive weather policy authorization in over two decades. The Weather Act set forth specific goals and guidance to improve the National Oceanic and Atmospheric Administration's (NOAA) weather research through advances in observational, computing, and modeling capabilities, and support substantial improvement in weather forecasting and prediction of high impact weather events.

Many of the authorizations were short-term, lasting only through FY 2018, which required the *National Integrated Drought Information System Reauthorization Act of 2018* to include extensions of authorizations for many Weather Act programs until FY 2023. Therefore, this bill would be the first comprehensive reauthorization of the Weather Act.

The Weather Act has resulted in numerous accomplishments to date, including development of promising technologies and techniques of hurricane forecast performance; efforts to achieve the goal of tornado prediction beyond 1-hour; and improvements in 2-week to 2-year forecasts known as subseasonal and seasonal forecasting. Yet with severe weather events constantly evolving, more communities facing new threats, and programs set to expire, the need for the Weather Act Reauthorization is paramount.

Summary of Legislation

Modernizes Critical Research

The bill modifies, modernizes, and extends critical research programs including tools related to hurricanes, tornadoes, tsunamis, and other severe weather events through the use of uncrewed vehicles, high performance computing, and satellite observation systems.

Ensures America's Global Leadership in Weather Forecasting

The bill establishes and codifies new programs to improve our tools for weather forecasting, modeling, and prediction. It includes research and development programs related to the next generation of radar, atmospheric rivers, coastal flooding & storm surges, aviation weather, and weather observation gaps.

Improves Efficiency in Weather Data Acquisition

The bill builds off the Weather Act by expanding NOAA's authority to contract with the private sector to acquire commercial weather data. It codifies the Commercial Data Program and enables NOAA to move beyond acquiring satellite data to seek to acquire *any* surface-based, airborne-based, space-based, or coastal- and ocean-based data, metadata, or service for operational use. It also establishes a pilot program for data providers to test their data with NOAA and for NOAA to validate such data when incorporated into their models and forecasts.

Strengthens Emergency Preparedness

The bill improves how weather or water events are communicated to the public through watches, warnings, and emergency information. It ensures that all research related to modeling and forecasting is coupled with social, behavioral, risk, communication, and economic sciences to best protect lives and property by ensuring the public fully understands extreme weather threats and how to take action.

Advances Tools for Farmers, Ranchers, and Resource Managers

The bill improves the tailored products and services offered to the agriculture and water management sectors related to weather forecasting and prediction. Specifically, it authorizes the continuation of key public tools like the National Integrated Drought Information System, the National Mesonet Program, the National Coordinated Soil Moisture Monitoring Network, and the National Water Center.