

[Floor Situation](#) | [Summary](#) | [Background](#) | [Cost](#) | [Staff Contact](#)

## [H.R. 1561, Weather Research and Forecasting Innovation Act of 2015, as amended](#)

### FLOOR SITUATION

On Tuesday, May 19, 2015, the House will consider [H.R. 1561](#), the *Weather Research and Forecasting Innovation Act of 2015, as amended*, under a suspension of the rules. H.R. 1561 was introduced on March 24, 2015, by Rep. Frank Lucas (R-OK) and was referred to the Committee on Science, Space, and Technology, which ordered the bill reported by voice vote on March 25, 2015.

### SUMMARY

H.R. 1561 authorizes \$240 million over the 2016 to 2017 period for the National Oceanic and Atmospheric Administration (NOAA) to focus on affordable and attainable advances in observational, computing, and modeling capabilities in an effort to deliver substantial improvement in weather forecasting and prediction of high impact weather events, such as those associated with hurricanes, tornadoes, droughts, floods, storm surges, and wildfires.

Public Safety Prioritization - The bill directs the Administrator of NOAA to prioritize weather-related activities to protect life and property and the enhancement of the national economy in all relevant offices.<sup>1</sup>

Weather Research Prioritization - The bill expands NOAA weather research activities, directing the agency to place “priority on developing more accurate, timely, and effective warnings and forecasts of high impact weather events that endanger life and property.”<sup>2</sup>

Tornado Warning Improvement and Extension Program - The bill creates a tornado research program in an effort to develop more accurate, effective, and timely tornado forecasts, predictions, and warnings, including the prediction of tornadoes beyond one hour in advance.<sup>3</sup>

Hurricane Warning Improvement Program - The bill creates a hurricane research program in an effort to “develop and extend accurate hurricane forecasts and warnings in order to reduce loss of life, injury, and damage to the economy.”<sup>4</sup>

<sup>1</sup> See [House Report 113-383](#) at 12.

<sup>2</sup> Id.

<sup>3</sup> Id.

Weather Research Planning - The bill directs the Office of Oceanic and Atmospheric Research (OAR), in coordination with the National Weather Service (NWS) and the National Environmental Satellite, Data, and Information Service (NESDIS), to annually develop and issue a prioritized weather research and development plan to restore U.S. world leadership in weather modeling, prediction, and forecasting.<sup>5</sup>

Improved Observing System Planning - The bill directs NOAA to systematically evaluate the combination of observing systems necessary to meet weather forecasting data requirements, and develop a range of options to address potential data gaps. The bill further specifies that one component of this planning effort shall include Observing System Simulation Experiments (OSSEs) to quantitatively assess the relative value and benefits of potential observing capabilities and systems.<sup>6</sup>

Observing System Simulation Experiments - The bill specifies that OSSEs shall be conducted prior to acquisition of government owned or leased operational observing systems. It also requires the Assistant Administrator for OAR to use OSSEs to assess the value of data from Global Positioning Systems (GPS) radio occultation and a geostationary hyperspectral sounder global constellation by December 31, 2015.

Computing Resources Prioritization Report - The bill requires that NOAA must issue an annual plan that explains how NOAA intends to pursue the newest, fastest, and most cost effective high performance computing technologies in support of its weather prediction mission.<sup>7</sup>

Commercial Weather Data - The bill clarifies that NOAA is permitted to buy private sector weather data and fly weather sensors on commercial satellites and requires the Secretary of Commerce to develop a strategy to do so within six months of enactment.<sup>8</sup>

Environmental Information Services Working Group - The bill directs the NOAA Science Advisory Board to maintain a standing working group on Environmental Information Services to provide advice for prioritizing weather research initiatives at NOAA to improve weather forecasting.<sup>9</sup>

Interagency Weather Research and Innovation Coordination - The bill directs the Director of the Office of Science and Technology Policy to establish an Interagency Committee for Advancing Weather Services to improve coordination in relevant weather research and forecast innovation activities across the Federal government. The bill also provides certain criteria for the membership of the Committee.<sup>10</sup>

## BACKGROUND

Extreme weather events pose significant risks to the safety of millions of Americans every year and have adverse effects on many aspects of the U.S. economy. Recent severe weather events in the United States have underscored the need for timely, accurate, and reliable weather forecasts. According to the NOAA, since 1980, the U.S. has sustained 178 weather and climate disasters costing more than \$1 billion each, with a total cost of over \$1 trillion.<sup>11</sup> Within NOAA, the National

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<sup>4</sup> Id.

<sup>5</sup> Id.

<sup>6</sup> Id.

<sup>7</sup> Id. at 13.

<sup>8</sup> Id.

<sup>9</sup> See Section 11 of the bill text.

<sup>10</sup> See Section 12 of the bill text.

<sup>11</sup> <https://www.ncdc.noaa.gov/billions/>

Weather Service (NWS), the Office of Oceanic and Atmospheric Research (OAR), and the National Environmental Satellite, Data, and Information Service (NESDIS) play important roles in developing and deploying U.S. weather forecasting capabilities.<sup>12</sup>

H.R. 1561 is similar to [H.R. 2413](#), which passed the House by voice vote on April 1, 2015.<sup>13</sup> The Senate did not act on the House-passed bill in the 113<sup>th</sup> Congress.

### **COST**

The Congressional Budget Office (CBO) [estimates](#) that implementing H.R. 1561 would cost \$240 million over the 2016 to 2020 period. The bill would not affect direct spending or revenues, therefore, pay-as-you-go procedures do not apply.

### **STAFF CONTACT**

For questions or further information please contact [John Huston](#) with the House Republican Policy Committee by email or at 6-5539.

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<sup>12</sup> See [House Report 113-383](#) at 7.

<sup>13</sup> See [CR H2759-2761](#).