

118TH CONGRESS
1ST SESSION

H. R. 4069

To increase observations, understanding, and forecasting of coastal flooding and storm surge events, to address weather observation gaps in highly vulnerable areas, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 13, 2023

Mr. KEAN of New Jersey introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To increase observations, understanding, and forecasting of coastal flooding and storm surge events, to address weather observation gaps in highly vulnerable areas, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Protecting Coasts and
5 Cities from Severe Weather Act”.

1 **SEC. 2. COASTAL FLOODING AND STORM SURGE FORECAST**
2 **IMPROVEMENT PROGRAM.**

3 (a) **IN GENERAL.**—The Under Secretary, in collabo-
4 ration with the Integrated Ocean Observing System, the
5 National Integrated Flood Information System, the
6 United States weather industry, and academic partners,
7 shall establish a coastal flooding and storm surge forecast
8 improvement program (in this section refer to as the “pro-
9 gram”).

10 (b) **GOAL.**—The goal of the program shall be to re-
11 duce through the development and extension of accurate,
12 effective, and actionable forecasts and warnings the loss
13 of life and economic losses from coastal flooding and storm
14 surge events.

15 (c) **PRIORITY.**—In implementing the program, the
16 Under Secretary shall prioritize activities that carry out
17 the following:

18 (1) Improve understanding and capacity for
19 real-time prediction of the ocean’s role in coastal
20 flooding and storm surge events.

21 (2) Improve the capacity to mitigate or prevent
22 the impacts of coastal flooding and storm surge
23 events.

24 (3) Utilize distributed sensors to easily incor-
25 porate data into models.

1 (d) INNOVATIVE OBSERVATIONS.—The Under Sec-
2 retary shall ensure the program periodically examines,
3 tests, and evaluates the value of incorporating innovative
4 observations, such as acoustic or infrasonic measurements,
5 observations from crewed or uncrewed vehicles, and obser-
6 vations from coastal, ocean, and inland water observation
7 networks, or other emerging technologies, with respect to
8 the improvement of coastal flooding and storm surge fore-
9 casts, predictions, and warnings.

10 (e) PROGRAM PLAN.—Not later than 180 days after
11 the date of the enactment of this Act, the Assistant Ad-
12 ministrator for Oceanic and Atmospheric Research, in co-
13 ordination with the Director of the National Weather
14 Service, shall develop a plan that details the specific re-
15 search, development, data acquisition, and technology
16 transfer activities, as well as corresponding resources and
17 timelines, necessary to achieve the goal of the program
18 under subsection (b).

19 (f) ANNUAL BUDGET FOR PLAN SUBMITTAL.—After
20 the development of the plan pursuant to subsection (e),
21 the Under Secretary, acting through the Assistant Admin-
22 istrator for Oceanic and Atmospheric Research, and in co-
23 ordination with the Director of the National Weather
24 Service, shall, not less frequently than annually, submit

1 to Congress a proposed budget corresponding with the ac-
2 tivities identified in such plan.

3 (g) DEFINITION.—In this section, the term “Under
4 Secretary” has the meaning given such term in section
5 2 of the Weather Research and Forecasting Innovation
6 Act of 2017 (15 U.S.C. 8501).

7 **SEC. 3. DATA GAPS IN HIGHLY VULNERABLE AREAS OF THE**
8 **UNITED STATES.**

9 (a) IN GENERAL.—The Under Secretary, in coordi-
10 nation with the Director of the National Weather Service
11 and Administrator of the Federal Emergency Manage-
12 ment Agency, and in consultation with academic partners,
13 shall carry out activities to ensure equal and complete
14 weather observation coverage and emergency information
15 sharing in the United States, including relating to the fol-
16 lowing:

17 (1) Reviewing areas in the continental United
18 States and the territories that are considered under-
19 observed for weather phenomenon, and identifying
20 associated challenges.

21 (2) Increasing observations and developing new
22 observational capabilities with respect to under-ob-
23 served regions, including urban regions.

24 (3) Establishing or supporting testbeds to de-
25 velop and integrate within the urban canopy new ob-

1 servation or information sharing tools, such as next
2 generational compact radars for observations.

3 (4) To the maximum extent practicable, ad-
4 vancing weather forecasting and climate modeling
5 capabilities for urban scales.

6 (5) Undertaking workforce development efforts
7 for emergency management officials and meteorolo-
8 gists in highly vulnerable and under-observed areas
9 of the United States.

10 (b) PILOT PROGRAM.—In carrying out this section,
11 the Under Secretary, acting through the Director of the
12 National Weather Service and the Administrator of the
13 Federal Emergency Management Agency, shall establish
14 an interagency partnership to support pilot projects that
15 accelerate coordination and use of localized weather data
16 in infrastructure and emergency management decisions by
17 Federal, State, and local officials.

18 (c) PRIORITY.—At least one pilot project under sub-
19 section (b) shall address key science challenges to using
20 mesonet data in local decision making and development
21 of new tools and training for operators of infrastructure,
22 such as dams, energy generation and distribution facili-
23 ties, nuclear power plants, and transportation networks.

24 (d) DEFINITION.—In this section, the term “Under
25 Secretary” has the meaning given such term in section

1 2 of the Weather Research and Forecasting Innovation
2 Act of 2017 (15 U.S.C. 8501).

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