

118TH CONGRESS
1ST SESSION

H. R. 3915

To improve the National Weather Service’s forecasting of turbulence and acquisition of aviation weather data, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 7, 2023

Mr. McCORMICK introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To improve the National Weather Service’s forecasting of turbulence and acquisition of aviation weather data, 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 “Aviation Weather Im-
5 provement Act”.

6 **SEC. 2. AVIATION WEATHER AND DATA INNOVATION.**

7 (a) PROGRAM.—The Director of the National Weath-
8 er Service shall maintain an aircraft-based observation
9 program (in this section referred to as the “program”)

1 to partner with the weather industry for the deployment
2 on aircraft of critical atmospheric sensors.

3 (b) ACTIVITIES.—The program shall include activi-
4 ties that carry out the following:

5 (1) Procurement of weather data from commer-
6 cial aircraft, including Mode S data, water vapor
7 data, or data from Aircraft Meteorological Data
8 Relay or Tropospheric Airborne Meteorological Data
9 Reporting systems.

10 (2) Acquisition of additional vertical profile ob-
11 servations that provide the spatial and temporal den-
12 sity required for numerical weather prediction sys-
13 tems.

14 (c) BUDGET.—The Director of the National Weather
15 Service shall, not less frequently than annually, submit to
16 Congress a proposed budget corresponding with the activi-
17 ties described in subsection (b).

18 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
19 authorized to appropriated to the Operations, Research,
20 and Facilities account of the National Weather Service up
21 to \$10,000,000 for each fiscal years 2024 through 2028
22 to carry out this section.

23 (e) DEFINITION.—In this section, the term “weather
24 industry” has the meaning given such term in section 2

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

3 **SEC. 3. AVIATION WEATHER AND TURBULENCE FORE-**
4 **CASTING COORDINATION.**

5 (a) IN GENERAL.—The Director of the National
6 Weather Service shall include turbulence events or phe-
7 nomena in the forecasting capabilities of the National
8 Weather Service’s Aviation Weather Center, and deliver
9 consistent, timely, and accurate weather and turbulence
10 information for the world airspace system and the protec-
11 tion of lives and property.

12 (b) COORDINATION.—In carrying out subsection (a),
13 the Director of the National Weather Service shall coordi-
14 nate with the Administrator of the Federal Aviation Ad-
15 ministration to improve weather and turbulence fore-
16 casting capabilities, including the following:

17 (1) Establishing within the Federal Government
18 an interagency working group to determine weather
19 and environmental data or observation requirements,
20 needs, and potential solutions related to aviation
21 weather and turbulence forecasting.

22 (2) Identifying current and future potential
23 data gaps related to turbulence events or phenomena
24 that can—

1 (A) identify or inform route specific flight
2 planning; and

3 (B) be supplemented or filled by commer-
4 cial aviation tools.

5 (3) Transitioning research initiatives and pilot
6 programs, including a pilot program of instrumenta-
7 tion for observing greenhouse gases and other at-
8 mospheric factors deployed on commercial aircraft
9 and supporting the evaluation of a sustained observ-
10 ing network using such platforms, into operations
11 that improve the forecasting missions of the Aviation
12 Weather Center.

13 **SEC. 4. NEXT GENERATION AVIATION RESEARCH.**

14 Paragraph (3) of section 102(b) of the Weather Re-
15 search and Forecasting Innovation Act of 2017 (15 U.S.C.
16 8512(b)), is amended—

17 (1) by redesignating subparagraphs (F) and
18 (G) as subparagraphs (G) and (H), respectively; and

19 (2) by inserting after subparagraph (E) the fol-
20 lowing new subparagraph:

21 “(F) aviation weather, contrails, atmos-
22 pheric composition, and turbulence events or
23 phenomena to improve scientific understanding

1 and forecast capabilities for the world airspace
2 system;”.

○