

Union Calendar No. 171

118TH CONGRESS
1ST SESSION

H. R. 3915

[Report No. 118-211]

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

SEPTEMBER 21, 2023

Additional sponsor: Ms. STEVENS

SEPTEMBER 21, 2023

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italics]

[For text of introduced bill, see copy of bill as introduced on June 7, 2023]

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 Weather*
8 *Service shall maintain an airborne observation program*
9 *(in this section referred to as the “program”) for the acqui-*
10 *sition of atmospheric sensor data and the deployment, in*
11 *partnership with the weather enterprise, of critical atmos-*
12 *pheric sensors.*

13 (b) *ACTIVITIES.—The program shall include activities*
14 *that carry out the following:*

15 (1) *Procurement of weather data available from*
16 *commercial aircraft, as determined by the Director of*
17 *the National Weather Service.*

18 (2) *Acquisition of additional vertical profile ob-*
19 *servations that provide spatial and temporal density,*
20 *as determined by the Director.*

21 (3) *Analysis of procured data when incorporated*
22 *into the National Oceanic and Atmospheric Adminis-*
23 *tration’s unified forecast system in order to provide*
24 *improved forecast information for aircraft.*

1 (c) *BUDGET.*—*The Director of the National Weather*
2 *Service shall, not less frequently than annually, submit to*
3 *Congress a proposed budget corresponding with the activi-*
4 *ties described in subsection (b), including an analysis of*
5 *such activities that can be complemented by National Oce-*
6 *anic and Atmospheric Administration aircraft.*

7 (d) *AUTHORIZATION OF APPROPRIATIONS.*—*From*
8 *amounts made available to Operations, Research, and Fa-*
9 *cilities of the National Oceanic and Atmospheric Adminis-*
10 *tration, there is authorized to be appropriated up to*
11 *\$10,000,000 for each of fiscal years 2024 through 2028 to*
12 *carry out this section.*

13 (e) *DEFINITION.*—*In this section, the term “weather*
14 *enterprise” has the meaning given such term in section 2*
15 *of the Weather Research and Forecasting Innovation Act*
16 *of 2017 (15 U.S.C. 8501).*

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

19 (a) *IN GENERAL.*—*The Director of the National*
20 *Weather Service shall include turbulence events or phe-*
21 *nomena, icing conditions, or other phenomena in the fore-*
22 *casting capabilities of the National Weather Service’s Avia-*
23 *tion Weather Center, and deliver operational forecasts with*
24 *consistent, timely, and accurate weather and turbulence in-*

1 *formation for the airspace system and the protection of lives*
2 *and property.*

3 (b) *COORDINATION.*—*In carrying out subsection (a),*
4 *the Director of the National Weather Service shall—*

5 (1) *give consideration to recommendations from*
6 *the Administrator of the Federal Aviation Adminis-*
7 *tration in furtherance of section 44720 of title 49,*
8 *United States Code; and*

9 (2) *improve weather and turbulence forecasting*
10 *capabilities by—*

11 (A) *designating or establishing within the*
12 *Federal Government an interagency working*
13 *group to determine weather and environmental*
14 *data or observation requirements, needs, and po-*
15 *tential solutions related to aviation weather and*
16 *turbulence modeling or forecasting;*

17 (B) *identifying current and future potential*
18 *data gaps related to turbulence events or phe-*
19 *nomena that can—*

20 (i) *identify or inform route specific*
21 *flight planning; and*

22 (ii) *be supplemented or filled by com-*
23 *mercial aviation tools;*

24 (C) *transitioning research initiatives and*
25 *pilot programs, including a pilot program of in-*

1 *strumentation for observing greenhouse gases and*
2 *other atmospheric factors deployed on commer-*
3 *cial aircraft and supporting the evaluation of a*
4 *sustained observing network using such plat-*
5 *forms, into operations that improve the fore-*
6 *casting missions of the Aviation Weather Center;*

7 *(D) developing and deploying improved*
8 *probabilistic aviation weather forecast guidance*
9 *technology; and*

10 *(E) updating interagency agreements, as*
11 *appropriate, including to address reimbursable*
12 *agreements.*

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 (G)*
18 *as subparagraphs (G) and (H), respectively; and*

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

21 *“(F) aviation weather phenomena, includ-*
22 *ing atmospheric composition and turbulence, to*
23 *improve scientific understanding and forecast*
24 *capabilities for the airspace system;”.*

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