

**AMENDMENT IN THE NATURE OF A SUBSTITUTE
TO H.R. 3915
OFFERED BY MR. McCORMICK OF GEORGIA**

Strike all after the enacting clause and insert the following:

1 SECTION 1. SHORT TITLE.

2 This Act may be cited as the “Aviation Weather Im-
3 provement Act”.

4 SEC. 2. AVIATION WEATHER AND DATA INNOVATION.

5 (a) PROGRAM.—The Director of the National Weath-
6 er Service shall maintain an airborne observation program
7 (in this section referred to as the “program”) for the ac-
8 quisition of atmospheric sensor data and the deployment,
9 in partnership with the weather enterprise, of critical at-
10 mospheric sensors.

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

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

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

1 (3) Analysis of procured data when incor-
2 porated into the National Oceanic and Atmospheric
3 Administration's unified forecast system in order to
4 provide improved forecast information for aircraft.

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

11 (d) AUTHORIZATION OF APPROPRIATIONS.—From
12 amounts made available to Operations, Research, and Fa-
13 cilities of the National Oceanic and Atmospheric Adminis-
14 tration, there is authorized to be appropriated up to
15 \$10,000,000 for each of fiscal years 2024 through 2028
16 to carry out this section.

17 (e) DEFINITION.—In this section, the term “weather
18 enterprise” has the meaning given such term in section
19 2 of the Weather Research and Forecasting Innovation
20 Act of 2017 (15 U.S.C. 8501).

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

23 (a) IN GENERAL.—The Director of the National
24 Weather Service shall include turbulence events or phe-
25 nomena, icing conditions, or other phenomena in the fore-

1 casting capabilities of the National Weather Service's
2 Aviation Weather Center, and deliver operational forecasts
3 with consistent, timely, and accurate weather and turbu-
4 lence information for the airspace system and the protec-
5 tion of lives and property.

6 (b) COORDINATION.—In carrying out subsection (a),
7 the Director of the National Weather Service shall—

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

12 (2) improve weather and turbulence forecasting
13 capabilities by—

14 (A) designating or establishing within the
15 Federal Government an interagency working
16 group to determine weather and environmental
17 data or observation requirements, needs, and
18 potential solutions related to aviation weather
19 and turbulence modeling or forecasting;

20 (B) identifying current and future poten-
21 tial data gaps related to turbulence events or
22 phenomena that can—

23 (i) identify or inform route specific
24 flight planning; and

1 (ii) be supplemented or filled by com-
2 mercial aviation tools;

3 (C) transitioning research initiatives and
4 pilot programs, including a pilot program of in-
5 strumentation for observing greenhouse gases
6 and other atmospheric factors deployed on com-
7 mercial aircraft and supporting the evaluation
8 of a sustained observing network using such
9 platforms, into operations that improve the
10 forecasting missions of the Aviation Weather
11 Center;

12 (D) developing and deploying improved
13 probabilistic aviation weather forecast guidance
14 technology; and

15 (E) updating interagency agreements, as
16 appropriate, including to address reimbursable
17 agreements.

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

19 Paragraph (3) of section 102(b) of the Weather Re-
20 search and Forecasting Innovation Act of 2017 (15 U.S.C.
21 8512(b)), is amended—

22 (1) by redesignating subparagraphs (F) and
23 (G) as subparagraphs (G) and (H), respectively; and

24 (2) by inserting after subparagraph (E) the fol-
25 lowing new subparagraph:

1 “(F) aviation weather phenomena, includ-
2 ing atmospheric composition and turbulence, to
3 improve scientific understanding and forecast
4 capabilities for the airspace system;”.

