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

M. ______ introduced the following bill; which was referred to the Committee on ________________

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 er Service shall maintain an aircraft-based observation
program (in this section referred to as the “program”)
to partner with the weather industry for the deployment
on aircraft of critical atmospheric sensors.

(b) Activities.—The program shall include activities that carry out the following:

(1) Procurement of weather data from commercial aircraft, including Mode S data, water vapor data, or data from Aircraft Meteorological Data Relay or Tropospheric Airborne Meteorological Data Reporting systems.

(2) Acquisition of additional vertical profile observations that provide the spatial and temporal density required for numerical weather prediction systems.

(c) Budget.—The Director of the National Weather Service shall, not less frequently than annually, submit to Congress a proposed budget corresponding with the activities described in subsection (b).

(d) Authorization of Appropriations.—There is authorized to appropriated to the Operations, Research, and Facilities account of the National Weather Service up to $10,000,000 for each fiscal years 2024 through 2028 to carry out this section.

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

SEC. 3. AVIATION WEATHER AND TURBULENCE FORECASTING COORDINATION.

(a) In General.—The Director of the National Weather Service shall include turbulence events or phenomena in the forecasting capabilities of the National Weather Service’s Aviation Weather Center, and deliver consistent, timely, and accurate weather and turbulence information for the world airspace system and the protection of lives and property.

(b) Coordination.—In carrying out subsection (a), the Director of the National Weather Service shall coordinate with the Administrator of the Federal Aviation Administration to improve weather and turbulence forecasting capabilities, including the following:

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

(2) Identifying current and future potential data gaps related to turbulence events or phenomena that can—
(A) identify or inform route specific flight planning; and

(B) be supplemented or filled by commercial aviation tools.

(3) Transitioning research initiatives and pilot programs, including a pilot program of instrumentation for observing greenhouse gases and other atmospheric factors deployed on commercial aircraft and supporting the evaluation of a sustained observing network using such platforms, into operations that improve the forecasting missions of the Aviation Weather Center.

SEC. 4. NEXT GENERATION AVIATION RESEARCH.

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

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

(2) by inserting after subparagraph (E) the following new subparagraph:

“(F) aviation weather, contrails, atmospheric composition, and turbulence events or phenomena to improve scientific understanding and forecast capabilities for the world airspace system;”.

June 2, 2023 (12:38 p.m.)