

**H.R. 3915, Aviation Weather Improvement Act**

As reported by the House Committee on Science, Space, and Technology on September 21, 2023

By Fiscal Year, Millions of Dollars	2024	2024-2029	2024-2034
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	4	83	not estimated
Increases <i>net direct spending</i> in any of the four consecutive 10-year periods beginning in 2035?	No	Statutory pay-as-you-go procedures apply?	No
		<b>Mandate Effects</b>	
Increases <i>on-budget deficits</i> in any of the four consecutive 10-year periods beginning in 2035?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No

H.R. 3915 would authorize appropriations for a National Weather Service (NWS) program to deploy atmospheric sensors for collecting data. The bill also would require the NWS (which is within NOAA, the National Oceanic and Atmospheric Administration) to improve its forecasting of events that affect airplanes, such as turbulence, icing conditions, and other phenomena.

The costs of the legislation, detailed in Table 1, fall within budget function 300 (natural resources and environment).

CBO assumes that the bill will be enacted near the middle of fiscal year 2024 and that the authorized and necessary amounts will be available each year. On that basis, CBO estimates that implementing the bill would cost \$83 million over the 2024-2029 period.

Section 2 would authorize the appropriation of \$10 million annually from 2024 through 2028 for the NWS to collect data from atmospheric sensors. The data would be used to support the aviation industry's weather-forecasting system. Based on historical spending patterns for similar activities, CBO estimates that implementing the provision would cost \$46 million over the 2024-2029 period and \$4 million after 2029, assuming appropriation of the authorized amounts.

See also

[CBO's Cost Estimates Explained](#), [CBO Describes Its Cost-Estimating Process](#), [Glossary](#)



**Table 1.  
Estimated Increases in Spending Subject to Appropriation Under H.R. 3915**

	By Fiscal Year, Millions of Dollars						2024-2029
	2024	2025	2026	2027	2028	2029	
Section 2							
Authorization	10	10	10	10	10	0	50
Estimated Outlays	3	7	9	10	10	7	46
Section 3							
Estimated Authorization	2	8	8	8	8	8	42
Estimated Outlays	1	5	7	8	8	8	37
Total Changes							
Estimated Authorization	12	18	18	18	18	8	92
Estimated Outlays	4	12	16	18	18	15	83

Using information from NOAA, CBO estimates that implementing section 3 would cost \$37 million over the 2024-2029 period, assuming appropriation of the estimated amounts, for the following activities.

- The bill would require the NWS to modify its research initiatives and pilot programs to improve the Aviation Weather Center’s forecasts. CBO estimates that the cost of that requirement, including the purchase of additional equipment, would be \$15 million over the 2024-2029 period.
- The bill also would require the NWS to improve the data it collects related to turbulence events. CBO expects the NWS would collect real-time temperature and wind data by installing water vapor sensors on aircraft. CBO estimates that the cost of those activities would be \$20 million over the 2024-2029 period.
- Finally, the bill would establish an interagency working group to identify the data necessary to predict turbulence. CBO expects that the NWS would need two full-time employees, at an annual cost of \$350,000, to coordinate that group’s activities with other agencies. After accounting for anticipated inflation, CBO estimates that the cost would be \$2 million over the 2024-2029 period.

The CBO staff contact for this estimate is Kelly Durand. The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.

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