

119TH CONGRESS
2D SESSION

S. 5311

To improve the safety of the air supply on aircraft, and for other purposes.

IN THE SENATE OF THE UNITED STATES

AUGUST 6, 2026

Mr. BLUMENTHAL (for himself, Ms. DUCKWORTH, and Mr. MARKEY) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To improve the safety of the air supply on aircraft, 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 “Cabin Air Safety Act
5 of 2026”.

6 **SEC. 2. IMPROVEMENTS TO THE SAFETY OF THE AIR SUP-** 7 **PLY ON AIRCRAFT.**

8 (a) IN GENERAL.—Subpart III of part A of subtitle
9 VII of title 49, United States Code, is amended by adding
10 at the end the following new chapter:

1 **“CHAPTER 454—CABIN AIR QUALITY AND**
2 **SAFETY**

3 **“§ 45401. Definitions**

4 “In this chapter:

5 “(1) ADMINISTRATOR.—The term ‘Adminis-
6 trator’ means the Administrator of the Federal Avia-
7 tion Administration.

8 “(2) ENGINE OIL OR HYDRAULIC FLUID SMOKE
9 OR FUME EVENT.—The term ‘engine oil or hydraulic
10 smoke or fume event’ means an event in which there
11 is an atypical noticeable presence of suspected en-
12 gine oil or hydraulic fluid fumes or air contaminants
13 in the cabin, including, but not limited to, a smoke
14 event.

15 **“§ 45402. Training to respond to engine oil or hydrau-**
16 **lic fluid smoke or fume events on board**
17 **commercial aircraft**

18 “(a) IN GENERAL.—Not later than 180 days after
19 the date of the enactment of this section, the Adminis-
20 trator shall promulgate a notice of proposed rulemaking
21 requiring flight attendants, pilots, aircraft mechanics, and
22 airport first responders and emergency response teams to
23 receive training, not less frequently than annually, on how
24 to respond to engine oil or hydraulic fluid smoke or fume

1 events on board aircraft operating under part 121 of title
2 14, Code of Federal Regulations.

3 “(b) REQUIREMENTS.—The training required by sub-
4 section (a) shall include the dissemination of educational
5 and training materials, including manual pages and check-
6 lists, with respect to the following:

7 “(1) Sources and types of smoke and fumes on
8 board aircraft.

9 “(2) Odor, location, and phase of flight
10 descriptors to allow an individual to recognize the
11 suspected presence of engine oil and hydraulic fluid
12 fumes and to differentiate them from other types of
13 fumes, such as those relating to engine exhaust,
14 ground service vehicle exhaust, fuel, de-icing fluid,
15 electrical failures, and ozone.

16 “(3) The potential for acute or chronic impair-
17 ment to an individual relating to engine oil or hy-
18 draulic fluid fumes, and the types of aviation engine
19 oil, hydraulic fluid, or other additives that may in-
20 duce such impairment.

21 “(4) Procedures for recognizing and responding
22 to engine oil or hydraulic fluid smoke and fumes on
23 board aircraft.

24 “(5) An overview of the system for reporting
25 events of engine oil or hydraulic fluid smoke or

1 fumes on board aircraft established under section
2 45403(a).

3 “(6) Requirements relating to reporting events
4 of engine oil or hydraulic fluid smoke or fumes on
5 board aircraft to the Administrator under sections
6 45403 and 45405(b).

7 **“§ 45403. Reporting system for fume or smoke events**
8 **on board commercial aircraft**

9 “(a) IN GENERAL.—Not later than 180 days after
10 the date of the enactment of the FAA Reauthorization Act
11 of 2024, the Administrator shall develop a standardized
12 submission system for air carrier employees to voluntarily
13 report fume or smoke events on board passenger-carrying
14 aircraft operating under part 121 of title 14, Code of Fed-
15 eral Regulations.

16 “(b) COLLECTED INFORMATION.—In developing the
17 system under subsection (a), the Administrator shall en-
18 sure that the system includes a method for submitting in-
19 formation about a fume or smoke event that allows for
20 the collection of the following information, if applicable:

21 “(1) Identification of the flight number, type,
22 and registration of the aircraft.

23 “(2) The date of the reported fume or smoke
24 event on board the aircraft.

1 “(3) Description of fumes or smoke in the air-
2 craft, including the nature, intensity, and visual con-
3 sistency or smell (if any).

4 “(4) The location of the fumes or smoke in the
5 aircraft.

6 “(5) The source (if discernible) of the fumes or
7 smoke in the aircraft.

8 “(6) The phase of flight during which fumes or
9 smoke first became present.

10 “(7) The duration of the fume or smoke event.

11 “(8) Any required onboard medical attention
12 for passengers or crew members.

13 “(9) Any additional factors as determined ap-
14 propriate by the Administrator or crew member sub-
15 mitting a report.

16 “(c) GUIDELINES FOR SUBMISSION.—The Adminis-
17 trator shall issue guidelines on how to submit the informa-
18 tion described in subsection (b).

19 “(d) CONFIRMATION OF SUBMISSION.—Upon submit-
20 ting the information described in subsection (b), the sub-
21 mitting party shall receive a duplicate record of the sub-
22 mission and confirmation of receipt.

23 “(e) USE OF INFORMATION.—The Administrator—

24 “(1) may not publicly publish any—

1 “(A) information specific to a fume or
2 smoke event that is submitted pursuant to this
3 section; and

4 “(B) information that may be used to
5 identify the party submitting such information;

6 “(2) may only publicly publish information sub-
7 mitted pursuant to this section that has been aggre-
8 gated if—

9 “(A) such information has been validated;
10 and

11 “(B) the availability of such information
12 would improve aviation safety;

13 “(3) shall maintain a database of such informa-
14 tion;

15 “(4) at the request of an air carrier, shall pro-
16 vide to such air carrier any information submitted
17 pursuant to this section that is relevant to such air
18 carrier, except any information that may be used to
19 identify the party submitting such information;

20 “(5) may not, without validation, assume that
21 information submitted pursuant to this section is ac-
22 curate for the purposes of initiating rulemaking or
23 taking an enforcement action;

1 “(6) may use information submitted pursuant
2 to this section to inform the oversight of the safety
3 management system of an air carrier; and

4 “(7) may use information submitted pursuant
5 to this section for the purpose of performing a study
6 or supporting a study sponsored by the Adminis-
7 trator.

8 **“§ 45404. Investigations**

9 “(a) IN GENERAL.—If a report is submitted to the
10 Administrator through the system for reporting engine oil
11 or hydraulic fluid smoke or fume events on board aircraft
12 established under section 45403(a), the Administrator—

13 “(1) subject to paragraph (2), shall have the
14 authority to, at the Administrator’s discretion, ini-
15 tiate an investigation described in subsection (b);
16 and

17 “(2) in the case where such report indicates
18 that 1 or more crew members or passengers had
19 symptoms related to the smoke or fume event that
20 required medical attention beyond first aid, shall ini-
21 tiate an investigation described in subsection (b) not
22 less than 7 days after the date of the submission of
23 such report.

1 “(b) REQUIREMENTS FOR INVESTIGATIONS.—An in-
2 vestigation described in this subsection shall include the
3 following:

4 “(1) Gathering factual and standardized infor-
5 mation from all flight attendants, pilots, aircraft me-
6 chanics, airport first responders, emergency response
7 teams, and medical doctors involved in the event.

8 “(2) Gathering any reports submitted under
9 section 45403 with respect to the event.

10 “(3) Gathering technical findings on any re-
11 placed, worn, missing, failed, or improperly serviced
12 components that may have resulted in the event.

13 “(4) Identifying the cause of the event, if pos-
14 sible.

15 “(5) Other elements determined appropriate by
16 the Administrator.

17 “(c) PARTICIPATION OF AIR CARRIERS AND COLLEC-
18 TIVE BARGAINING REPRESENTATIVES.—In conducting an
19 investigation under this section, the Federal Aviation Ad-
20 ministration shall—

21 “(1) consult with the air carrier involved;

22 “(2) work in conjunction with the technical rep-
23 resentatives of the air carrier; and

1 “(3) seek the participation of the collective bar-
 2 gaining representative of employees of the air car-
 3 rier.

4 **“§ 45405. Air quality monitoring equipment**

5 “(a) REQUIREMENT TO INCLUDE ON AIRCRAFT.—
 6 Not later than 180 days after the date of the enactment
 7 of this section, any domestic or foreign air carrier oper-
 8 ating in the United States shall be required to—

9 “(1) install and operate onboard detectors and
 10 other air quality monitoring equipment that—

11 “(A) are situated in the air supply system
 12 to enable pilots and aircraft mechanics to iden-
 13 tify the location of the source or sources of air
 14 supply contamination, including carbon mon-
 15 oxide, in real time;

16 “(B) continuously monitor any relevant
 17 marker compound consistent with the presence
 18 of engine oil and hydraulic fluid fumes or
 19 smoke in the bleed air supply;

20 “(C) provide flight deck notification of the
 21 source and type of contamination to support
 22 pilot decision-making and isolation procedures,
 23 where necessary;

24 “(D) continuously monitor any relevant
 25 marker compound consistent with de-ice or

1 anti-ice fluid fume concentration in the aircraft
2 cabin or air supply system; and

3 “(E) are capable of operating continuously
4 when the aircraft is powered on, including
5 inflight and on the ground; and

6 “(2) have in place procedures to train pilots to
7 initiate standardized communication and source iso-
8 lation protocols, as soon as appropriate, with flight
9 attendants and air traffic controllers (as needed),
10 and to apply their professional judgement based on
11 onboard conditions, all in response to air quality
12 that is dangerous to human health.

13 “(b) AUTHORITY OF THE ADMINISTRATOR.—In addi-
14 tion to the requirements under subsection (a), the Admin-
15 istrator may promulgate regulations to require specific
16 maintenance measures intended to prevent or mitigate air
17 supply system contamination, as the Administrator deter-
18 mines is necessary to protect the health and safety of air
19 carrier crew members and passengers, in consultation
20 with—

21 “(1) the Director of the National Institute for
22 Occupational Safety and Health of the Centers for
23 Disease Control and Prevention;

24 “(2) the Assistant Secretary of Labor for Occu-
25 pational Safety and Health; and

1 “(3) the Administrator of the Environmental
2 Protection Agency.

3 “(c) INCLUSION OF INFORMATION RELATING TO AIR
4 QUALITY MONITORING EQUIPMENT IN AIRCRAFT MANU-
5 ALS.—Not later than 1 year after the date of the enact-
6 ment of this section, the Administrator shall finalize such
7 actions as are necessary, including promulgating regula-
8 tions, to require an aircraft manufacturer to include pro-
9 cedures for responding to indications from air quality
10 monitoring equipment required under subsection (a) dur-
11 ing normal and non-normal operations in the flight opera-
12 tor’s manual for each such aircraft produced by the manu-
13 facturer.

14 “(d) CONTINUING RESEARCH TO DEVELOP SENSORS
15 AND TECHNIQUES TO PREVENT AIR SUPPLY CONTAMI-
16 NATION.—The Administrator shall continue to research,
17 study, and identify emerging technologies suitable for pro-
18 viding reliable notification of cabin air contamination from
19 an aircraft bleed air system, including through investiga-
20 tion and research into sensors, filters, and maintenance
21 measures to prevent air supply system contamination with
22 engine oil or hydraulic fluid smoke or fumes.

23 “(e) RULE OF CONSTRUCTION.—Nothing in this sec-
24 tion may be construed to imply that an investigation under
25 section 45404 is not necessary or that crew members and

1 passengers have not been exposed to fumes or smoke if
 2 the alarm from any air quality monitoring equipment in-
 3 stalled on an aircraft is not activated.

4 **“§ 45406. Minimum equipment list for bleed air sys-**
 5 **tem**

6 “Not later than 180 days after the date of the enact-
 7 ment of this section, the Administrator shall finalize such
 8 actions as are necessary, including promulgating regula-
 9 tions, to require any transport category aircraft manufac-
 10 turer to include the air quality monitoring equipment re-
 11 quired under section 45405 in the master minimum equip-
 12 ment list for aircraft with a bleed air system certified
 13 under section 44704 or for which certification was dele-
 14 gated under section 44702(d).

15 **“§ 45407. Authorization of appropriations**

16 “There are authorized to be appropriated to the Ad-
 17 ministrator such sums as may be necessary to carry out
 18 this chapter.

19 **“§ 45408. Exclusion of rotorcraft**

20 “The provisions of this chapter shall not apply to
 21 rotorcraft.”.

22 (b) REVISIONS TO THE EXISTING REPORTING SYS-
 23 TEM FOR FUME OR SMOKE EVENTS ONBOARD COMMER-
 24 CIAL AIRCRAFT.—

1 (1) IN GENERAL.—Section 45403 of title 49,
2 United States Code (as added by section (a)), is
3 amended—

4 (A) in the section heading, by striking
5 “**fume or smoke events**” and inserting
6 “**engine oil or hydraulic fluid smoke**
7 **or fume events**”;

8 (B) in subsection (a), by striking “for air
9 carrier employees to voluntarily report fume or
10 smoke events on board passenger-carrying air-
11 craft” and inserting “for pilots, flight attend-
12 ants, and aircraft mechanics to report engine
13 oil or hydraulic fluid smoke or fume events on
14 board aircraft”;

15 (C) in subsection (b)—

16 (i) in the matter preceding paragraph
17 (1), by striking “a fume or smoke event”
18 and inserting “an engine oil or hydraulic
19 fluid smoke or fume event”;

20 (ii) in each of paragraphs (2) and (7),
21 by striking “fume or smoke event” and in-
22 serting “engine oil or hydraulic fluid
23 smoke or fume event”;

24 (iii) in paragraph (2), by inserting
25 “and time” after “date”;

1 (iv) in each of paragraphs (3), (4),
2 (5), and (6), by striking “fumes or smoke”
3 and inserting “engine oil or hydraulic fluid
4 smoke or fumes”;

5 (v) by amending paragraph (8) to
6 read as follows:

7 “(8) Any health complaints or required medical
8 attention for passengers or crew members arising
9 from the engine oil or hydraulic fluid fume or smoke
10 event.”;

11 (vi) by redesignating paragraph (9) as
12 paragraph (15); and

13 (vii) by inserting after paragraph (8)
14 the following new paragraphs:

15 “(9) A description of symptoms reported by
16 crew members and passengers.

17 “(10) The manufacturer, type, serial number,
18 and age of the engine or auxiliary power unit.

19 “(11) Information regarding any disruption to
20 the operation of the flight or subsequent flights.

21 “(12) Information about relevant maintenance
22 work conducted on the aircraft prior to and fol-
23 lowing the incident.

24 “(13) Relevant air monitoring data collected
25 during the flight.

1 “(14) The locations and types of air monitoring
2 sensors or cabin fume filters in use on the aircraft.”;

3 (D) in subsection (e)—

4 (i) by striking paragraph (1) and re-
5 designating paragraphs (2) through (7) as
6 paragraphs (1) through (6), respectively;
7 and

8 (ii) in paragraph (2), as so redesign-
9 ated, by inserting “and allow pilots, flight
10 attendants, aircraft mechanics, and their
11 collective bargaining representative to
12 search such a database for purposes of re-
13 viewing and monitoring incidents and as-
14 sisting with investigations conducted under
15 section 45404” before the semicolon at the
16 end; and

17 (E) by adding at the end the following new
18 subsection:

19 “(f) PUBLIC AVAILABILITY OF ENGINE OIL OR HY-
20 DRAULIC FLUID SMOKE AND FUME EVENT INFORMA-
21 TION.—”.

22 “(1) IN GENERAL.—Not less frequently than
23 quarterly and subject to paragraph (2), the Adminis-
24 trator shall compile, and make available to the pub-
25 lic, statistics regarding the information reported to

1 the Administrator under the system under this sec-
2 tion.

3 “(2) WEBSITE.—The Administrator shall de-
4 velop a publicly available internet website that in-
5 cludes the aggregate data reported under such sys-
6 tem and a searchable database for the events re-
7 ported to the Administrator under such system that
8 includes the following variables for each event:

9 “(A) Date.

10 “(B) Tail number.

11 “(C) Aircraft type.

12 “(D) Air carrier.

13 “(E) Phase of flight.

14 “(F) Location of fumes or smoke in the
15 aircraft.

16 “(G) Description of the fumes or smoke,
17 including relation to air supply vents and the
18 nature and intensity of the odor.

19 “(H) Engine or auxiliary power unit type.

20 “(I) Engine oil or hydraulic fluid type, in-
21 cluding product name.

22 “(J) De-identified narrative.

23 “(K) Relevant maintenance information.

24 “(L) Such other criteria as the Adminis-
25 trator considers appropriate.

1 “(3) REDACTION.—Before making either indi-
2 vidual event information or aggregate data available
3 to the public under paragraph (1) or (2), the Admin-
4 istrator shall redact any personally identifiable infor-
5 mation.

6 “(4) SYMPTOM INFORMATION.—Information
7 about symptoms or other health data shall only be
8 shared as aggregated data.”.

9 (2) REPEAL OF DUPLICATE PROVISION.—Sub-
10 sections (b) and (d) of section 362(b) of the FAA
11 Reauthorization Act of 2024 (49 U.S.C. 40101 note)
12 is repealed.

13 (3) CONFORMING AMENDMENT.—Section
14 362(c)(2)(B) of the FAA Reauthorization Act of
15 2024 (49 U.S.C. 40101 note) is amended by insert-
16 ing “, including as such system is amended by the
17 provisions of the Cabin Air Safety Act of 2026” be-
18 fore the period at the end.

19 (4) APPLICATION.—Not later than 180 days
20 after the date of enactment of this section, the Ad-
21 ministrator of the Federal Aviation Administration
22 shall revise the system described in section 45403 of
23 title 49, United States Code (as added by section
24 (a)), to comply with the amendments made by para-

1 graph (1), including the implementation of sub-
 2 section (f) of such section 45403.

3 (c) CONFORMING AMENDMENTS.—

4 (1) TABLE OF CONTENTS.—The table of con-
 5 tents of subpart III of part A of subtitle VII of title
 6 49, United States Code, is amended by inserting
 7 after the item relating to chapter 453 the following:

“CHAPTER 454—CABIN AIR QUALITY AND SAFETY

“45401. Definitions.

“45402. Training to respond to engine oil or hydraulic fluid smoke or fume
 events on board commercial aircraft.

“45403. Reporting system for engine oil or hydraulic fluid smoke or fume events
 on board commercial aircraft.

“45404. Investigations.

“45405. Air quality monitoring equipment.

“45406. Minimum equipment list for bleed air system.

“45407. Authorization of appropriations.

“45408. Exclusion of rotorcraft.”.

8 (2) CONFORMING REPEAL.—Section 326 of the
 9 FAA Reauthorization Act of 2018 (49 U.S.C. 40101
 10 note) and the item relating to that section in the
 11 table of contents under section 1(b) of that Act are
 12 repealed.

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