

115TH CONGRESS  
1ST SESSION

# S. 1626

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

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## IN THE SENATE OF THE UNITED STATES

JULY 25, 2017

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

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## A BILL

To improve the safety of the air supply on commercial 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 2017”.

6       **SEC. 2. COMMERCIAL AIR CARRIER DEFINED.**

7       In this Act, the term “commercial air carrier” means  
8       an air carrier operating under part 121 or 135 of title  
9       14, Code of Federal Regulations.

1 **SEC. 3. TRAINING TO RESPOND TO SMOKE OR FUME INCI-**  
2 **DENTS ON AIRCRAFT.**

3 (a) IN GENERAL.—Not later than 180 days after the  
4 date of the enactment of this Act, the Administrator of  
5 the Federal Aviation Administration shall prescribe regu-  
6 lations requiring flight attendants, pilots, aircraft mainte-  
7 nance technicians, and airport first responders and emer-  
8 gency response teams to receive training, not less fre-  
9 quently than annually, on how to respond to incidents on  
10 board aircraft involving smoke or fumes.

11 (b) REQUIREMENTS.—The training required by sub-  
12 section (a) shall include the dissemination of educational  
13 materials with respect to the following:

14 (1) Sources and types of smoke and fumes on  
15 board aircraft.

16 (2) Odor and visual descriptors to allow an in-  
17 dividual to recognize the presence of oil and hydrau-  
18 lic fluid fumes and other potentially hazardous  
19 fumes, such as fumes relating to hydraulic fluid, en-  
20 gine exhaust, ground service vehicle exhaust, fuel,  
21 de-icing fluid, and ozone.

22 (3) The potential for acute or chronic impair-  
23 ment to an individual relating to such fumes.

24 (4) Procedures for recognizing and responding  
25 to smoke and fumes on board aircraft.

1           (5) An overview of the system for reporting in-  
2           cidents of smoke or fumes on board aircraft estab-  
3           lished under section 4(a)(2).

4           (6) Requirements relating to reporting incidents  
5           of smoke and fumes on board aircraft to the Federal  
6           Aviation Administration under sections 4 and 6(b).

7   **SEC. 4. REPORTING OF INCIDENTS OF SMOKE OR FUMES**  
8                           **ON BOARD AIRCRAFT.**

9           (a) IN GENERAL.—Not later than 180 days after the  
10          date of the enactment of this Act, the Administrator of  
11          the Federal Aviation Administration shall—

12               (1) develop a standardized form for flight at-  
13               tendants, pilots, and aircraft maintenance techni-  
14               cians to report incidents of smoke or fumes on board  
15               an aircraft operated by a commercial air carrier; and

16               (2) establish a system for reporting incidents of  
17               smoke or fumes on board aircraft that allows—

18                       (A) pilots, flight attendants, and aircraft  
19                       maintenance technicians to submit the form de-  
20                       veloped under paragraph (1) to the Federal  
21                       Aviation Administration; and

22                       (B) pilots, flight attendants, aircraft main-  
23                       tenance technicians, and commercial air carriers  
24                       to search the reported incidents database com-  
25                       piled by the Federal Aviation Administration

1           for the purposes of reviewing and monitoring  
2           incidents contained in the database and assist-  
3           ing with investigations conducted under section  
4           5.

5           (b) CONTENT OF FORMS.—The form developed under  
6 subsection (a)(1) for reporting an incident of smoke or  
7 fumes on board an aircraft shall include sections for the  
8 following information:

9           (1) Identification of the flight, the type of air-  
10          craft, the registration number of the aircraft, and  
11          the individual reporting the incident.

12          (2) Information about the smoke or a fire, if  
13          relevant, including a description of the nature and  
14          apparent source of the smoke or fire.

15          (3) Information about the fumes, including a  
16          description of the type, apparent source, smell, and  
17          visual consistency (if any) of the smoke or fumes.

18          (4) Information about the location of the smoke  
19          or fumes.

20          (5) Information about the engine manufacturer,  
21          engine type, the engine serial number, and the age  
22          of the engine.

23          (6) Information about the phase of flight dur-  
24          ing which smoke or fumes were present.

1           (7) Other observations about the smoke or  
2 fumes.

3           (8) A description of symptoms reported by crew  
4 members and passengers.

5           (9) Information with respect to whether crew  
6 members or passengers used, needed, or were admin-  
7 istered supplemental or emergency oxygen.

8           (10) Information regarding any effects on the  
9 operation of the flight.

10          (11) Information about maintenance work con-  
11 ducted on the aircraft following the incident.

12          (c) PUBLIC AVAILABILITY OF REPORTS.—

13           (1) IN GENERAL.—Not less frequently than  
14 quarterly and subject to paragraph (2), the Adminis-  
15 trator of the Federal Aviation Administration shall  
16 compile and make available to the public the forms  
17 developed under subsection (a)(1) and submitted to  
18 the Federal Aviation Administration.

19           (2) REDACTION.—Before making any forms  
20 available to the public under paragraph (1), the Ad-  
21 ministrator shall redact any personally identifiable  
22 information.

23          (d) WEBSITE.—The Administrator shall develop a  
24 publicly available Internet website that contains a publicly  
25 searchable database of information on incidents of smoke

1 or fumes on board aircraft operated by commercial air car-  
2 riers that includes—

3 (1) the materials required to be made available  
4 to the public under subsection (c)(1);

5 (2) materials for training crew members under  
6 section 3; and

7 (3) statistics with respect to such incidents,  
8 which shall be disaggregated by air carrier, aircraft  
9 type, engine type, oil type, cause, and such other cri-  
10 teria as the Administrator considers appropriate.

11 **SEC. 5. INVESTIGATIONS.**

12 (a) IN GENERAL.—Not later than 180 days after the  
13 date of the enactment of this Act, the Administrator of  
14 the Federal Aviation Administration shall prescribe regu-  
15 lations requiring the Federal Aviation Administration to  
16 conduct an investigation described in subsection (b), after  
17 a report is submitted to the Administration through the  
18 system for reporting incidents of smoke or fumes on board  
19 aircraft established under section 4(a)(2) and before the  
20 date that is 7 days after the incident.

21 (b) REQUIREMENTS FOR INVESTIGATIONS.—An in-  
22 vestigation described in this subsection shall include the  
23 following:

24 (1) Gathering factual and standardized infor-  
25 mation from all flight attendants, pilots, aircraft

1 maintenance technicians, airport first responders,  
2 emergency response teams, and medical doctors in-  
3 volved in the incident.

4 (2) Gathering any reports submitted under sec-  
5 tion 4 with respect to the incident.

6 (3) Gathering technical findings on any re-  
7 placed, worn, missing, failed, or improperly serviced  
8 components that may have resulted in the incident.

9 (4) Identifying the cause of the incident, if pos-  
10 sible.

11 (c) PARTICIPATION OF AIR CARRIERS AND COLLEC-  
12 TIVE BARGAINING REPRESENTATIVES.—In conducting an  
13 investigation under this section, the Federal Aviation Ad-  
14 ministration shall—

15 (1) consult with the commercial air carrier in-  
16 volved;

17 (2) work in conjunction with the technical rep-  
18 resentatives of the air carrier; and

19 (3) invite the participation of the collective bar-  
20 gaining representative of employees of the air car-  
21 rier.

22 **SEC. 6. BLEED AIR MONITORING EQUIPMENT.**

23 (a) REQUIREMENT TO INCLUDE ON COMMERCIAL  
24 AIRCRAFT.—Not later than 180 days after the date of the  
25 enactment of this Act, the Administrator of the Federal

1 Aviation Administration shall prescribe regulations requir-  
 2 ing a commercial air carrier to install and operate, by not  
 3 later than one year after the regulations are published in  
 4 the Federal Register, a carbon monoxide detector on each  
 5 bleed air stream in locations on the aircraft that include  
 6 the cockpit, the cabin, crew rest areas, and each crew gal-  
 7 ley of each aircraft operated by the air carrier—

8           (1) to continuously monitor carbon monoxide  
 9 levels in the aircraft air supply system when the air-  
 10 craft is in flight; and

11           (2) to alert the pilot and flight attendants in  
 12 the event that carbon monoxide exceeds limits set  
 13 forth in the national primary ambient air quality  
 14 standards under section 50.8 of title 40, Code of  
 15 Federal Regulations (or any corresponding similar  
 16 regulation or ruling), adjusted for application at alti-  
 17 tude.

18       (b) REQUIREMENT FOR A PILOT TO REPORT AN  
 19 ALARM.—The regulations prescribed under subsection (a)  
 20 shall require a pilot to submit a form through the system  
 21 for reporting incidents of smoke or fumes on board air-  
 22 craft established under section 4(a)(2) if the alarm in a  
 23 carbon monoxide detector activates during flight.

24       (c) INCLUSION OF INFORMATION RELATING TO CAR-  
 25 BON MONOXIDE DETECTORS IN AIRCRAFT MANUALS.—



1 Not later than one year after the date of the enactment  
2 of this Act, the Administrator of the Federal Aviation Ad-  
3 ministration shall prescribe regulations requiring an air-  
4 craft manufacturer that manufactures aircraft for com-  
5 mercial air carriers to include procedures for responding  
6 to alarms from carbon monoxide detectors during normal  
7 and nonstandard operations in the flight operator's man-  
8 ual for each such aircraft produced by the manufacturer.

9 (d) CONTINUING RESEARCH TO DEVELOP SENSORS  
10 AND TECHNIQUES TO MONITOR BLEED AIR QUALITY.—  
11 The Federal Aviation Administration shall continue to re-  
12 search, study, and identify emerging technologies suitable  
13 to provide reliable warning of bleed air contamination, in-  
14 cluding through investigation and research into specific  
15 sensors, methods, and operational techniques to prevent  
16 fume events.

17 (e) RULE OF CONSTRUCTION.—Nothing in this sec-  
18 tion may be construed to imply that an investigation under  
19 section 5 is not necessary or that crew members and pas-  
20 sengers have not been exposed to fumes if the alarm in  
21 a carbon monoxide detector installed on an aircraft is not  
22 activated.

1   **SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

2           There are authorized to be appropriated to the Fed-  
3   eral Aviation Administration such sums as may be nec-  
4   essary to carry out this Act.

5   **SEC. 8. EXCLUSION OF HELICOPTERS.**

6           The provisions of this Act do not apply to helicopters.

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