

109TH CONGRESS
1ST SESSION

H. R. 3336

To direct the Secretary of Transportation to issue a regulation requiring the installation of a second cockpit voice recorder and digital flight data recorder system that utilizes combination deployable recorder technology in each commercial passenger aircraft, currently required to carry each of those recorders.

IN THE HOUSE OF REPRESENTATIVES

JULY 19, 2005

Mr. DUNCAN (for himself, Mr. BAKER, Mr. GORDON, Mr. ROGERS of Kentucky, Mr. TERRY, Mr. ETHERIDGE, Mr. FORD, Mr. BOOZMAN, Mr. PRICE of North Carolina, Mr. CAPUANO, and Mr. PASCRELL) introduced the following bill; which was referred to the Committee on Transportation and Infrastructure

A BILL

To direct the Secretary of Transportation to issue a regulation requiring the installation of a second cockpit voice recorder and digital flight data recorder system that utilizes combination deployable recorder technology in each commercial passenger aircraft, currently required to carry each of those recorders.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Safe Aviation and
3 Flight Enhancement Act of 2005”.

4 **SEC. 2. FINDINGS.**

5 Congress finds the following:

6 (1) The events of September 11, 2001, dem-
7 onstrated that the United States needs to do more
8 to ensure the survivability and quick retrieval of crit-
9 ical flight data and cockpit voice recording units
10 aboard commercial aircraft.

11 (2) Increased national security threats to com-
12 mercial airliners demand that the United States do
13 everything possible to better secure the safety of our
14 passengers by ensuring the quick and complete re-
15 covery of critical flight data from commercial air dis-
16 asters for immediate analysis of potential terrorism
17 and to avoid unnecessary grounding of our commer-
18 cial air fleet.

19 (3) In light of new commercial aviation ad-
20 vances, including increased polar flights, increased
21 air traffic overwater, and the onset of free flight,
22 there is increased potential for more difficult loca-
23 tion and recovery of fixed flight recorder and cockpit
24 voice recorder units.

25 (4) Hundreds of millions of dollars are unneces-
26 sarily expended to locate and recover “black boxes”,

1 especially in underwater investigations, despite exist-
2 ing deployable recorder technology currently used by
3 the United States Armed Forces, which would allow
4 us to avoid such unnecessary and wasteful costs.

5 (5) It is in the public's best interest to accom-
6 plish these improvements by installing a second set
7 of cockpit voice and digital flight data recorders that
8 utilize a combined cockpit voice recorder, digital
9 flight data recorder, and emergency locator trans-
10 mitter system designed to eject from the rear of the
11 aircraft at the moment of an accident, so that the
12 system will avoid the direct impact forces of the
13 crash, avoid becoming ensnarled in the wreckage or
14 fire intensity of the crash site, and float indefinitely
15 on water.

16 (6) The Navy's successful experience since 1993
17 with deployable technology indicates that transfer of
18 the commercial version of this technology into the
19 commercial sector provides an obvious way to help
20 us meet our goals to increase the survivability and
21 retrieval of recorders while reducing the time and
22 cost of a mishap, investigation, search, rescue, and
23 recovery.

24 (7) Valuable time is lost searching for fixed
25 flight data recorders in the wreckage of a crash site,

1 especially at the bottom of the ocean, and critical
2 data is unnecessarily lost in incidents in which the
3 black boxes do not survive the crash circumstances,
4 as is evident in reviewing some of our most recent
5 and devastating air incidents, including the fol-
6 lowing:

7 (A) Neither the flight data or cockpit voice
8 recorder was recovered from American Airlines
9 Flight 11 and United Airlines Flight 175 that
10 were used in the World Trade Center attacks
11 on September 11, 2001.

12 (B) It took 3 days to recover the flight
13 data and cockpit voice recorders from American
14 Airlines Flight 77 that was used in the Pen-
15 tagon attack on September 11, 2001. In addi-
16 tion, the cockpit voice recorder was damaged
17 beyond repair, rendering no information.

18 (C) It took 13 days to locate the cockpit
19 voice recorder and 9 days to recover the flight
20 data recorder from the air disaster involving
21 Egypt Air Flight 990 in the vicinity of Nan-
22 tucket, Massachusetts, air disaster on October
23 31, 1999.

24 (D) With respect to Swiss Air Flight 111
25 International in Halifax, Canada, on September

1 2, 1998, it took search teams 9 days to locate
2 the cockpit voice recorder and 4 days to recover
3 the flight data recorder.

4 (E) In the case of Valuejet Flight 592,
5 which crashed on its way back to the Miami,
6 Florida, airport on May 11, 1996, it took 15
7 days to recover the cockpit voice recorder, and
8 2 days to recover the flight data recorder from
9 such flight because the underwater locator bea-
10 con failed.

11 (F) With respect to TWA Flight 800
12 which exploded and crashed in the ocean in the
13 vicinity of Moriches, New York, on July 17,
14 1996, it took 7 days to recover the cockpit voice
15 recorder and flight data recorder.

16 **SEC. 3. REGULATIONS REQUIRING DEPLOYABLE RECORD-**
17 **ERS AND OTHER PURPOSES.**

18 (a) IN GENERAL.—Chapter 447 of title 49, United
19 States Code is amended by adding at the end the fol-
20 lowing:

21 **“§ 44729. Installation of additional flight recorders**

22 “(a) REGULATIONS.—

23 “(1) IN GENERAL.—Not later than 90 days
24 after the date of enactment of this section, the Sec-
25 retary of Transportation shall issue regulations that

1 require in accordance with this section all commer-
2 cial aircraft that must carry both a cockpit voice re-
3 corder and digital flight data recorder to be
4 equipped with a second recorder system that utilizes
5 deployable combination cockpit voice and digital
6 flight data recording technology. This system shall
7 be in addition to the current mandated fixed cockpit
8 voice recorder and digital flight data recorder units
9 on commercial aircraft. This second deployable re-
10 corder system shall be mounted as far rear on the
11 airframe as practicable.

12 “(2) MINIMUM CAPABILITIES.—The deployable
13 recording system shall be—

14 “(A) capable of recording all mandatory
15 data parameters covering the previous 25 hours
16 of operation and all cockpit audio, including
17 controller-pilot data link messages for the pre-
18 vious 2 hours of operation;

19 “(B) powered by the electrical bus to pro-
20 vide the maximum reliability for operation with-
21 out jeopardizing service to essential or emer-
22 gency loads; and

23 “(C) provided with an independent power
24 source that is located with the combination re-
25 corder and that automatically engages and pro-

1 vides 10 minutes of operation whenever normal
2 aircraft power ceases.

3 “(b) SCHEDULE FOR INSTALLATION OF SECOND
4 COMBINED SYSTEM.—The regulations shall require the
5 installation of the deployable combination recorder system
6 required under this section on commercial aircraft that are
7 ordered by an air carrier on or after January 1, 2007.

8 “(c) DEFINITIONS.—In this section, the following
9 definitions apply:

10 “(1) COMMERCIAL AIRCRAFT.—The term ‘com-
11 mercial aircraft’ means—

12 “(A) a jet aircraft with 10 or more seats
13 or greater than 12,500 pound maximum takeoff
14 weight; and

15 “(B) a propeller driven aircraft with great-
16 er than 19 seats or greater than 19,000 pound
17 maximum takeoff weight.

18 “(2) DEPLOYABLE RECORDER SYSTEM.—The
19 term ‘deployable recorder system’ means a digital
20 flight data recorder, cockpit voice recorder and
21 emergency locator transmitter housed as one unit
22 within an assembly that is designed to be mounted
23 conformal to the surface of the airframe, eject from
24 the aircraft upon accident and fly away from the
25 crash site, and float indefinitely on water.”.

1 (b) CONFORMING AMENDMENT.—The analysis for
2 such chapter is amended by adding at the end the fol-
3 lowing:

“44729. Installation of additional flight recorders.”.

4 **SEC. 4. PURCHASE OF FIXED AND DEPLOYABLE RECORDER**
5 **SYSTEMS.**

6 The Secretary of Transportation shall purchase and
7 make available, at no cost, to an air carrier (as defined
8 in section 40102 of title 49, United States Code) such
9 deployable recorder systems as may be necessary for the
10 air carrier to comply with the regulations issued under sec-
11 tion 44729 of such title.

12 **SEC. 5. REIMBURSEMENT OF AIRCRAFT MANUFACTURERS.**

13 The Secretary of Transportation shall reimburse air-
14 craft manufacturers owned or controlled by a citizen of
15 the United States (as defined in section 40102 of title 49,
16 United States Code) for engineering, certification, and in-
17 stallation costs they incur in developing and installing
18 deployable recorder systems to comply with the regulations
19 issued under section 44729 of such title.

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