

## The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for Boeing Model 787 series airplanes.

1. Seats with Inflatable Lapbelts. It must be shown that the inflatable lapbelt will deploy and provide protection under crash conditions where it is necessary to prevent serious head injury. The means of protection must take into consideration a range of stature from a two year old child to a ninety-fifth percentile male. The inflatable lapbelt must provide a consistent approach to energy absorption throughout that range of occupants. In addition, the following situations must be considered:

- a. The seat occupant is holding an infant.
- b. The seat occupant is a child in a child restraint device.
- c. The seat occupant is a child not using a child restraint device.
- d. The seat occupant is a pregnant woman.

2. The inflatable lapbelt must provide adequate protection for each occupant regardless of the number of occupants of the seat assembly, considering that unoccupied seats may have active seatbelts.

3. The design must prevent the inflatable lapbelt from being either incorrectly buckled or incorrectly installed such that the inflatable lapbelt would not properly deploy. Alternatively, it must be shown that such deployment is not hazardous to the occupant, and will provide the required head injury protection.

4. It must be shown that the inflatable lapbelt system is not susceptible to inadvertent deployment as a result of wear and tear, or inertial loads resulting from in-flight or ground maneuvers (including gusts and hard landings), and other operating and environmental conditions (vibrations, moisture, *etc.*) likely to be experienced in service.

5. Deployment of the inflatable lapbelt must not introduce injury mechanisms to the seated occupant, or result in injuries that could impede rapid egress. This assessment should include an occupant who is in the brace position when it deploys and an occupant whose belt is loosely fastened.

6. It must be shown that inadvertent deployment of the inflatable lapbelt, during the most critical part of the flight, will either not cause a hazard to the airplane or its occupants, or it meets the requirement of § 25.1309(b).

7. It must be shown that the inflatable lapbelt will not impede rapid egress of

occupants 10 seconds after its deployment.

8. The system must be protected from lightning and HIRF. The threats specified in the certification basis regarding lightning, § 25.1316, and HIRF (special conditions) for the 787-8 airplane, are incorporated by reference for the purpose of measuring lightning and HIRF protection.

9. Inflatable lap belts, once deployed, must not adversely effect the emergency lighting system (*i.e.*, block proximity lights to the extent that the lights no longer meet their intended function).

10. The inflatable lapbelt must function properly after loss of normal airplane electrical power, and after a transverse separation of the fuselage at the most critical location. A separation at the location of the lapbelt does not have to be considered.

11. It must be shown that the inflatable lapbelt will not release hazardous quantities of gas or particulate matter into the cabin.

12. The inflatable lapbelt installation must be protected from the effects of fire such that no hazard to occupants will result.

13. There must be a means for a crewmember to verify the integrity of the inflatable lapbelt activation system prior to each flight or it must be demonstrated to reliably operate between inspection intervals. The FAA considers the loss of the airbag system deployment function alone (*i.e.*, independent of the conditional event that requires the airbag system deployment) is a major failure condition.

14. The inflatable material may not have an average burn rate of greater than 2.5 inches/minute when tested using the horizontal flammability test as defined in part 25, appendix F, part I, paragraph (b)(5).

Issued in Renton, Washington, on June 13, 2011.

### Ali Bahrami,

Manager, Transport Airplane Directorate,  
Aircraft Certification Service, ANM-100.

[FR Doc. 2011-15094 Filed 6-16-11; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2010-0853; Directorate Identifier 2010-NM-116-AD; Amendment 39-16720; AD 2011-12-13]

RIN 2120-AA64

### Airworthiness Directives; The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER Series Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD requires repetitive testing of the stabilizer takeoff warning switches, and corrective actions if necessary. This AD was prompted by reports that the warning horn did not sound during the takeoff warning system test of the S132 "nose up stab takeoff warning switch." We are issuing this AD to detect and correct a takeoff warning system switch failure, which could reduce the ability of the flightcrew to maintain the safe flight and landing of the airplane.

**DATES:** This AD is effective July 22, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of July 22, 2011.

**ADDRESSES:** For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

### Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is

Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:**

Jeffrey W. Palmer, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue, SW., Renton, Washington 98057-3356; phone: 425-917-6472; fax: 425-917-6590; e-mail: jeffrey.w.palmer@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to the specified products. That NPRM published in the **Federal Register** on September 14, 2010 (75 FR 55691). That NPRM proposed to require repetitive testing of the stabilizer takeoff warning switches, and corrective actions if necessary.

**Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and the FAA's response to each comment.

**Support for the NPRM**

Continental Airlines, Delta Air Lines, and the Air Line Pilots Association (ALPA), International, support the NPRM.

**Requests To Revise Costs of Compliance Section of the NPRM**

American Airlines (AA) requested that we revise the Cost of Compliance section of the NPRM to show a more accurate cost to operators. Delta Air Lines noted that the actual cost to operators will be more than what is described in the Costs of Compliance section given in the NPRM.

AA explained that the Costs of Compliance estimate provided in the NPRM specifies 1 work-hour per product at an average labor rate of \$85 per hour. However, AA stated that Boeing Service Bulletin 737-27-1289, dated April 7, 2010, estimates 4.25 hours to accomplish the test of the switches and an additional 2.25 hours each to replace the switches. AA asserted that Boeing Service Bulletin 737-27-1289, dated April 7, 2010, estimates a cost to operators of \$361.25 to \$743.75 per product.

We agree to provide clarification of the Costs of Compliance section in this final rule. Since the issuance of the

NPRM, Boeing has issued Service Bulletin Information Notice 737-27-1289 IN 02, dated September 27, 2010, which provides revised work-hours for testing (1 work-hour) and the on-condition replacement (2 work-hours) of the switches. We have revised the Costs of Compliance section of this final rule to reflect the latest cost information provided by the manufacturer.

**Request To Add Terminating Action for Repetitive Inspections**

ALPA requested that we revise the NPRM to include a terminating action for the repetitive inspections proposed by the NPRM. AA stated that the lack of a terminating action for the repetitive inspections proposed by the NPRM places pressure on the operator because it is required to continue the repetitive inspections at intervals of 750 flight cycles for the affected airplanes.

We disagree to include a terminating action in the final rule. The manufacturer has advised that extensive modifications would be required to eliminate the repetitive inspections. No terminating action is currently available. However, if a modification that addresses the unsafe condition addressed by this AD is developed, approved, and available, operators could request approval of an alternative method of compliance (AMOC) to this AD for doing that modification. No change has been made to the final rule in regard to this issue.

**Request To Allow Repair of Switch Before Replacing**

AA questioned why operators could not attempt to repair a failed switch before being required to replace the failed switch. AA explained that the NPRM and Boeing Service Bulletin 737-27-1289, dated April 7, 2010, require the switch to be replaced if it fails the test. AA reasoned that the switches are adjustable per "AMM 31-51-02—Stabilizer Takeoff Warning Switches—Adjustment/Test."

From these statements, we infer that AA is requesting that we revise the NPRM to allow operators to repair a failed switch. We disagree. The intent of the test specified in paragraph (g) of the final rule is to find and, if necessary, replace switches that fail to electrically open or close properly regardless of adjustment [within the switch's allowable range of adjustment], not switches that are simply out of adjustment. For switches that are out of adjustment, it is acceptable to attempt to adjust a switch that fails the test, prior to replacing the switch. However, the allowable range of adjustment is limited. If the switch continues to fail

the test within the switch's allowable range of adjustment, it must be replaced. To preclude test failures due to an out-of-adjustment switch, the manufacturer recommends doing the test with stabilizer trim set at least one unit outside the green band. Doing the test according to the manufacturer's recommendation will ensure that any test failures are due to a malfunctioning switch, not due to a switch that is simply out of adjustment. No change has been made to the final rule in regard to this issue.

**Request To Allow Additional Replacement Switch**

Delta Air Lines (the commenter) requested that we revise the NPRM to allow switch part number (P/N) 35EN27-4 to be an additional acceptable replacement switch for failed switches. The commenter explained that paragraph (h) of the NPRM specifies that a stabilizer takeoff warning switch which fails the required test must be replaced with a new switch prior to further flight, in accordance with Boeing Service Bulletin 737-27-1289, dated April 7, 2010. The commenter further explained that "Section 3.B 'Work Instructions'" of this service information does not specify replacement switches by part number. The commenter also explained that replacement switch part numbers are found in "Section 2.C.2 'Parts and Materials Supplied by the Operator' of the SB," and that this section lists only three part numbers. The commenter expressed that it is aware of an additional switch, which is not listed in Boeing Service Bulletin 737-27-1289, dated April 7, 2010.

We do not agree to allow switch P/N 35EN27-4 to be an additional acceptable replacement switch. This part has not been validated as an acceptable replacement part at this time. The manufacturer is currently assessing the acceptability of this part as a replacement part and might revise the service information at a later time to include this part number. If this part number is found to be acceptable at a later date, its use might be approved as an AMOC to this AD. No change has been made to the final rule in regard to this issue.

**Effect of This AD on AD 88-22-09**

Paragraph (b) ("Affected ADs") of this AD has been revised to note that this AD affects AD 88-22-09, Amendment 39-6054 (Docket No. 88-NM-132-AD; 53 FR 41313, October 21, 1988). In addition, we have revised paragraph (g) of this AD to state that accomplishment of the repetitive tests required by this

AD terminates the operational and functional checks of the takeoff configuration warning system required by paragraph A., required item 3 (“Elevator out of Green Band switches”) of AD 88–22–09 for the airplanes affected by this new AD.

**Conclusion**

We reviewed the relevant data, considered the comments received, and

determined that air safety and the public interest require adopting the AD as proposed.

**Costs of Compliance**

We estimate that this AD would affect 963 airplanes of U.S. registry. We also estimate that it would take about 1 work-hour per product to comply with this AD. The average labor rate is \$85 per work-hour. Based on these figures,

we estimate the cost of this AD to the U.S. operators to be \$81,855, or \$85 per product, per inspection cycle.

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this replacement:

**ON-CONDITION COSTS**

| Action                                     | Labor cost        | Parts cost | Cost per product |
|--|-------------------|------------|------------------|
| 2 work-hours × \$85 per hour = \$170 ..... | Replacement ..... | \$0        | \$170            |

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

**Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

*For the reasons discussed above, I certify that this AD:*

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

**PART 39—AIRWORTHINESS DIRECTIVES**

■ 1. The authority citation for part 39 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2011–12–13 The Boeing Company:**  
Amendment 39–16720; Docket No. FAA–2010–0853; Directorate Identifier 2010–NM–116–AD.

**Effective Date**

(a) This AD is effective July 22, 2011.

**Affected ADs**

(b) This AD affects AD 88–22–09, Amendment 39–6054 (Docket No. 88–NM–132–AD). This AD does not supersede the requirements of AD 88–22–09.

**Applicability**

(c) This AD applies to The Boeing Company Model 737–600, –700, –700C, –800, –900, and –900ER series airplanes,

certificated in any category; as identified in Boeing Service Bulletin 737–27–1289, dated April 7, 2010.

**Subject**

(d) Air Transport Association (ATA) of America Code 27: Flight Controls.

**Unsafe Condition**

(e) This AD was prompted by reports that the warning horn did not sound during the takeoff warning system test of the S132 “nose up stab takeoff warning switch.” The Federal Aviation Administration is issuing this AD to detect and correct a takeoff warning system switch failure, which could reduce the ability of the flightcrew to maintain the safe flight and landing of the airplane.

**Compliance**

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**Test**

(g) Within 6 months after the effective date of this AD, test the stabilizer takeoff warning switches, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737–27–1289, dated April 7, 2010. Repeat the test thereafter at intervals not to exceed 750 flight hours. Accomplishment of the repetitive tests required by paragraph (g) of this AD terminates the operational and functional checks of the takeoff configuration warning system required by paragraph A., required item 3 (“Elevator out of Green Band switches”) of AD 88–22–09.

**Replacement and Re-test**

(h) If any stabilizer takeoff warning switch fails the test required in paragraph (g) or (h) of this AD, replace the stabilizer takeoff warning switch with a new switch and test the new switch before further flight, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737–27–1289, dated April 7, 2010. Within 750 flight hours after replacement of any switch, test the replaced switch, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737–27–1289, dated April 7, 2010; and repeat this test on the replaced

switch thereafter at intervals not to exceed 750 flight hours.

#### Special Flight Permit

(i) Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

#### Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: [9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-Requests@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

#### Related Information

(k) For more information about this AD, contact Jeffrey W. Palmer, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue, SW., Renton, Washington 98057-3356; *phone*: 425-917-6472; *fax*: 425-917-6590; *e-mail*: [jeffrey.w.palmer@faa.gov](mailto:jeffrey.w.palmer@faa.gov).

#### Material Incorporated by Reference

(l) You must use Boeing Service Bulletin 737-27-1289, dated April 7, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Boeing Service Bulletin 737-27-1289, dated April 7, 2010, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; *phone*: 206-544-5000, extension 1; *fax*: 206-766-5680; *e-mail*: [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet: <https://www.myboeingfleet.com>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on June 3, 2011.

Ali Bahrami,

Manager, Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2011-14344 Filed 6-16-11; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2011-0588; Directorate Identifier 2010-SW-074-AD; Amendment 39-16717; AD 2011-12-10]

RIN 2120-AA64

#### Airworthiness Directives; Robinson Helicopter Company Model (Robinson) R22, R22 Alpha, R22 Beta, R22 Mariner, R44, and R44 II Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD) for the specified Robinson model helicopters that currently requires a visual inspection for skin separation along the leading edge of blade skin aft of the skin-to-spar bond line on the lower surface of each main rotor blade (blade) and in the tip cap area. The existing AD also requires a "tap test" for detecting a separation or void in both bonded areas and repainting any exposed area of the blades. If any separation or void is detected, the AD requires, before further flight, replacing the blade. Thereafter, before each flight, the existing AD also requires checking for any exposed (bare) metal along the skin-to-spar bond line on the lower surface of each blade near the tip. If any bare metal is found, that AD requires an inspection by a qualified mechanic. This amendment contains the same requirements but expands the applicability to include all serial-numbered model helicopters and limits the applicability to specific blade part numbers. This amendment also requires a repetitive inspection of the blade and any necessary rework. This amendment is prompted by a fatal accident in Israel. We have also included responses to comments objecting to the recording requirements in the current AD relating to the pilot checks before each flight and to comments that the burden of the before-each-flight pilot check exceeds the benefit. We have concluded that a check before the first flight of each day is sufficient for aviation safety. The

actions specified by this AD are intended to provide more specific AD actions, to relieve the burdens associated with the before-each-flight check by changing it to a daily check, to detect blade skin debond, and to prevent blade failure and subsequent loss of control of the helicopter.

**DATES:** Effective July 5, 2011.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 5, 2011.

We must receive comments on this AD by August 16, 2011.

**ADDRESSES:** Use one of the following addresses to comment on this AD.

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *Fax:* (202) 493-2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from Robinson Helicopter Company, 2901 Airport Drive, Torrance, CA 90505, telephone (310) 539-0508, fax (310) 539-5198, or at <http://www.robinsonheli.com/serve/lib.htm>.

*Examining the Docket:* You may examine the docket that contains the AD, any comments, and other information on the Internet at <http://www.regulations.gov>, or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Eric D. Schrieber, Aviation Safety Engineer, telephone (562) 627-5348, fax (562) 627-5210 (regarding Model R22 helicopters), or Fred Guerin, Aviation Safety Engineer, telephone (562) 627-5232, fax (562) 627-5210 (regarding Model R44 helicopters).

**SUPPLEMENTARY INFORMATION:** On December 17, 2007, we issued AD 2007-26-12, Amendment 39-15314 (73 FR 397, January 3, 2008). That AD requires a one-time visual inspection for skin