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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003–NM–101–AD; Amendment 39–13209; AD 2003–13–09]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 747 series airplanes. This action requires repetitive inspections for cracking of the upper skin of the outboard and center sections of the horizontal stabilizer and the rear spar structure, hinge fittings, terminal fittings, and splice plates; and repair if necessary. This action is necessary to find and fix such cracking, which could lead to reduced structural capability of the outboard and center sections of the horizontal stabilizer, and result in loss of controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective July 15, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 15, 2003.

Comments for inclusion in the Rules Docket must be received on or before August 29, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2003–NM–101–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227–1232. Comments may also be sent via the Internet using the following address: *9-anm-iarcomment@faa.gov.* Comments sent via fax or the Internet must contain ''Docket No. 2003–NM–101–AD'' in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124–2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tamara Anderson, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 917–6421; fax (425) 917–6590.

SUPPLEMENTARY INFORMATION:

Related AD

This AD is related to AD 2002–06–02, amendment 39–12678 (67 FR 12464, March 19, 2002). Boeing Alert Service Bulletin 747–55A2050, dated February 28, 2002, was referenced in that AD as the applicable source of service information for accomplishment of the required actions. That AD is applicable to all Boeing Model 747 series airplanes and requires repetitive inspections for cracking of the upper skin of the horizontal stabilizer center section and the rear spar upper chord, and repair if necessary. That AD was prompted by a report that a 3.5-inch crack was found in the upper skin of the horizontal stabilizer center section on a Boeing Model 747SR series airplane. The actions specified by that AD are intended to find and fix cracking of the upper skin of the horizontal stabilizer center section and the rear spar upper chord, which could lead to reduced structural capability of the horizontal stabilizer center section, and result in loss of controllability of the airplane.

Since the Issuance of That AD

The FAA has received 22 reports from two operators of cracking found on six Model 747 series airplanes with between 20,800 and 37,000 total flight cycles, and between 41,700 and 115,700 total flight hours. Of the 22 reports of cracking received, the cracking specified in 20 of the reports was in an area not covered by the Zone A inspections required by AD 2002–06–02. One operator reported finding two fractured and three cracked Maraging steel fasteners on an airplane with approximately 18,700 total flight cycles and 87,300 total flight hours. Such cracking, if not fixed, could lead to reduced structural capability of the outboard and center sections of the horizontal stabilizer, which could result in loss of controllability of the airplane.

Explanation of Relevant Service Information

We have reviewed and approved Boeing Alert Service Bulletin 747–55A2050, Revision 1, dated May 1, 2003, which describes procedures for repetitive inspections for cracking of the upper skin of the outboard and center sections of the horizontal stabilizer and the rear spar structure, hinge fittings, terminal fittings, and splice plates; and repair if necessary. The areas and inspection types are as follows:

- Zone A Inspections (inspections required by AD 2002–06–02): Part 1—Detailed inspections for cracking in the upper skin of the center section and rear spar upper chord. Part 2—High frequency eddy current (HFEC) inspections for cracking of the upper skin of the center section and rear spar upper chord. If no cracking is found, the service bulletin specifies either repeating the detailed inspection or the doing the Zone A—Part 2 inspection. If cracking is found, the service bulletin specifies doing the Zone B—Part 4 inspection and repairing any cracking. Following that inspection and repair, the service bulletin specifies either repeating the Zone A—Part 1 detailed inspection or doing the Zone A—Part 2 HFEC inspection.
- Zone B Inspections (inspections required by this AD):

Part 3—Nondestructive test (NDT) inspections for Groups 1, 2, and 3 airplanes: Includes an ultrasonic inspection for cracking of the outboard and center sections, rear spar upper

chords under the hinge fitting halves, upper skins under the splice plates, and the rear spar webs behind the terminal fittings; a HFEC inspection for cracking in the terminal fittings around the fasteners; a low frequency eddy current inspection for cracking in the splice plates around the fasteners; a surface HFEC inspection for cracking in the rear spar upper chords in the radius area above the terminal fittings and the lower surface of the horizontal flange; and a HFEC inspection for cracking in the rear spar webs in the exposed area above the terminal fittings.

Part 4—Alternate open hole NDT inspection for Groups 1, 2, and 3 airplanes; recommended for Groups 4, 5, and 6 airplanes: Includes an open hole HFEC inspection for cracking of the splice plates, terminal fittings, hinge fitting halves, rear spar upper chords, rear spar webs, and upper skins; and a magnetic particle inspection or fluorescent penetrant inspection of the bolts for damage, if applicable. If no cracking or no damaged hole is found, the service bulletin specifies either repeating the Part 3 NDT inspections or doing the Part 4 open hole NDT inspection, as applicable. If cracking or a damaged hole is found, the service bulletin specifies repairing the cracking and the damaged hole and repeating the Part 3 NDT inspections or doing the Part 4 open hole NDT inspection, as applicable.

Accomplishment of the actions specified in the service bulletin is intended to adequately address the identified unsafe condition.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design, this AD is being issued to find and fix cracking of the upper skin of the outboard and center sections of the horizontal stabilizer and the rear spar structure, hinge fittings, terminal fittings, and splice plates. Such cracking could lead to reduced structural capability of the outboard and center sections of the horizontal stabilizer, and result in loss of controllability of the airplane. This AD requires accomplishment of the Zone B inspections for Groups 1, 2, and 3 airplanes as specified in Parts 3 and 4 of the service bulletin described previously, except as discussed in the ''Differences'' section below.

This AD does not supersede AD 2002–06–02; therefore, accomplishment of that AD is still required. Please note that as stated in the approval section of Boeing Alert Service Bulletin 747–55A2050, Revision 1, dated May 1, 2003, that bulletin has been approved as an alternative method of compliance to certain portions of AD 2002–06–02.

Interim Action

At this time the FAA is considering a separate rulemaking action to supersede this AD to address the procedures for repetitive inspections of Zone C to find additional cracking, and repair of any cracking found, as described in the service bulletin. That action would also mandate repetitive inspections of Zone B for Groups 4, 5, and 6 airplanes. Due to the urgency of the need to inspect the fleet and repair any cracking found, this AD will address only the sections in the service bulletin that pertain to inspections and repair of Zone B for Groups 1, 2, and 3 airplanes.

In addition to superseding this AD, that rulemaking action would also supersede AD 2002–06–02 to mandate long-term inspections of all affected zones specified in the referenced service bulletin for all 747 series airplanes. However, the planned compliance time for these actions is sufficiently long so that prior notice and time for public comment will be practicable.

Differences Between This AD and the Service Bulletin

The effectivity listing of the service bulletin identifies all Model 747 series airplanes, line number 1 and on, divided into 6 groups, as being subject to the actions described therein. However, only Model 747 series airplanes having line numbers 1 through 695 inclusive (Groups 1, 2, and 3 airplanes) are included in the applicability of this AD, as the required actions apply only to the Zone B inspections for those airplanes.

The service bulletin recommends accomplishing the initial Zone B inspections for Groups 1, 2, and 3 airplanes within 90 days (after the issue date of the service bulletin) for airplanes with 27,000 or more flight cycles or 117,000 or more flight hours. We have determined, however, that limiting the inspections to airplanes with 27,000 or more flight cycles or 117,000 or more flight hours would not address all affected airplanes, in light of the fact that the unsafe condition is likely to exist or develop on other Model 747 series airplanes. In developing an appropriate compliance time for all airplanes that are affected by this AD, the FAA considered not only the manufacturer's recommendation, but the degree of urgency associated with addressing the subject unsafe condition, the average utilization of the affected fleet, and the time necessary to perform the required inspections. In light of all of these factors, we find that a compliance time of the later of the following times is warranted for initiating the required inspections: (1) Before the accumulation of 27,000 total flight cycles or 117,000 total flight hours, whichever is first; and (2) within 90 days after the effective date of this AD. We find that this compliance time represents an appropriate interval of time allowable for affected airplanes to continue to operate without compromising safety.

The service bulletin specifies that the manufacturer may be contacted for disposition of certain repair conditions; however, this AD requires the repair of those conditions to be accomplished per a method approved by the FAA, or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle Aircraft Certification Office, to make such findings.

Changes to 14 CFR part 39/Effect on the AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. Because we have now included this material in part 39, we no longer need to include it in each individual AD; however, this AD identifies the office authorized to approve alternative methods of compliance.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption **ADDRESSES.** All communications received on or before

the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

• Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.

• For each issue, state what specific change to the AD is being requested.

• Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 2003–NM–101–AD.'' The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a ''significant regulatory action'' under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES**.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

■ Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:

2003–13–09 Boeing: Amendment 39–13209. Docket 2003–NM–101–AD.

Applicability: Model 747 series airplanes, line numbers 1 through 695 inclusive; certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To find and fix cracking of the upper skin of the outboard and center sections of the horizontal stabilizer and the rear spar structure, hinge fittings, terminal fittings, and splice plates, which could lead to reduced structural capability of the outboard and center sections of the horizontal stabilizer, and result in loss of controllability of the airplane; accomplish the following:

Repetitive Inspections

(a) At the time specified in paragraph (b) of this AD, do the Zone B inspections for Groups 1, 2, and 3 airplanes, as required by either paragraph (a)(1) or (a)(2) of this AD, per the Work Instructions of Boeing Alert Service Bulletin 747–55A2050, Revision 1, dated May 1, 2003. Repeat the applicable inspection at the applicable time specified in Sheet 2 of Figure 1 of the service bulletin.

(1) Do nondestructive test (NDT) inspections for cracking of the upper skin of the outboard and center sections of the horizontal stabilizer and the rear spar structure, hinge fittings, terminal fittings, and splice plates, per Part 3 of the service bulletin. The inspections include an ultrasonic inspection of the outboard and center sections, rear spar upper chords under the hinge fitting halves, upper skins under the splice plates, and the rear spar webs behind the terminal fittings; a high frequency eddy current (HFEC) inspection of the terminal fitting around the fasteners; a low frequency eddy current inspection of the splice plates around the fasteners; a surface HFEC inspection of the rear spar upper chords in the radius area above the terminal fitting and the lower surface of the horizontal flange; and an HFEC inspection of the rear spar webs in the exposed area above the terminal fitting.

(2) In lieu of the inspections required by paragraph (a)(1) of this AD: Do an alternate open hole HFEC inspection for cracking of the splice plates, terminal fittings, hinge fitting halves, rear spar upper chords, rear spar webs, and upper skins; and a magnetic particle inspection or fluorescent penetrant inspection for fracture or cracking of the bolts, if applicable; per Part 4 of the service bulletin.

(b) Do the inspections required by paragraph (a) of this AD at the later of the times specified in paragraphs (b)(1) and (b)(2) of this AD.

(1) Before the accumulation of 27,000 total flight cycles or 117,000 total flight hours, whichever is first.

(2) Within 90 days after the effective date of this AD.

Repair

(c) If any discrepancy (cracking or damage) is found during any inspection per paragraph (a) of this AD: Before further flight, repair per the Work Instructions of Boeing Alert Service Bulletin 747–55A2050, Revision 1, dated May 1, 2003. Where the service bulletin specifies contacting the manufacturer for a repair method: Before further flight, repair per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Alternative Methods of Compliance

(d)(1) In accordance with 14 CFR 39.19, the Manager, Seattle ACO, is authorized to approve alternative methods of compliance (AMOC) for this AD.

(2) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings.

Incorporation by Reference

(e) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 747–55A2050, Revision 1, dated May 1, 2003. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124–2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(f) This amendment becomes effective on July 15, 2003.

Issued in Renton, Washington, on June 18, 2003.

Kalene Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–15855 Filed 6–27–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003–CE–25–AD; Amendment 39–13208; AD 2003–13–08]

RIN 2120–AA64

Airworthiness Directives; Goodrich Avionics Systems, Inc. TAWS8000 Terrain Awareness Warning System

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to all Goodrich Avionics Systems, Inc. (Goodrich) TAWS8000 terrain awareness warning systems (TAWS) that are installed on airplanes. This AD requires you to inspect the TAWS installation and remove any TAWS where both the TAWS and any other device are connected to the same baro set potentiometer. This AD also prohibits future installation of any TAWS8000 TAWS that incorporates hardware ''Mod None'', ''Mod A'', or ''Mod B''. This AD is the result of a test that showed that TAWS8000 TAWS cause altitude errors in other instruments. The actions specified by this AD are intended to prevent the loading of the baro set potentiometer, which could result in an unacceptable attitude error. Such a condition could cause the pilot to make flight decisions that put the airplane in unsafe flight conditions.

DATES: This AD becomes effective on July 21, 2003.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation as of July 21, 2003.

The Federal Aviation Administration (FAA) must receive any comments on this rule on or before August 29, 2003.

ADDRESSES: Submit comments to FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2003–CE–25–AD, 901 Locust, Room 506, Kansas City, Missouri 64106. You may view any comments at this location between 8 a.m. and 4 p.m., Monday through Friday, except Federal holidays. You may also send comments electronically to the following address: *9-ACE-7-Docket@faa.gov.* Comments sent electronically must contain ''Docket No. 2003–CE–25–AD'' in the subject line. If you send comments electronically as attached electronic files, the files must be formatted in Microsoft Word 97 for Windows or ASCII text.

You may get the service information referenced in this AD from Goodrich Avionics Systems, Inc., 5353 52nd Street, SE., Grand Rapids, Michigan 49512–9704; telephone: (616) 949–6600; facsimile: (616) 977–6898. You may view this information at FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2003–CE–25–AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Brenda S. Ocker, Aerospace Engineer, FAA, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Des Plaines, Illinois 60018; telephone: (847) 294–7126; facsimile: (847) 294–7834.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? The manufacturer has reported that the TAWS8000 TAWS causes altitude errors in other instruments when both the TAWS and any other device are connected to the same baro set potentiometer. The unsafe condition was discovered during the installation of a TAWS8000 TAWS in a Cessna 500 series airplane. The TAWS8000 TAWS was connected to the baro set potentiometer output of a Honeywell (Sperry) BA–141 altimeter that was also connected to a Honeywell AZ–241 Air Data Computer. The altimeter showed that the aircraft was 60 feet higher than the actual altitude. This unsafe condition was confirmed with the laboratory test of a TAWS8000 TAWS installation.

What are the consequences if the condition is not corrected? This condition, if not corrected, could cause the pilot to make flight decisions that put the airplane in unsafe flight conditions.

Is there service information that applies to this subject? Goodrich has issued Service Memo SM #134, dated May 2, 2003.

What are the provisions of this service information? The service memo specifies the following information:

- The TAWS8000 should not be connected to a baro set potentiometer if that potentiometer is also connected to any other device; and
- In existing installations where both the TAWS and any other device are connected to the same baro set potentiometer, the TAWS8000 should be removed from the aircraft.

The FAA's Determination and an Explanation of the Provisions of This AD

What has FAA decided? The FAA has reviewed all available information, including the service information referenced above; and determined that:

- The unsafe condition referenced in this document exists or could develop on type design airplanes equipped with a Goodrich TAWS8000 TAWS that incorporates hardware ''Mod None'', ''Mod A'', or ''Mod B'';
- Any airplane with one of these TAWS8000 TAWS units should have the actions specified in the above service memo incorporated; and
- AD action should be taken in order to correct this unsafe condition.

What does this AD require? This AD:

- Requires inspection of the TAWS8000 TAWS to determine if both the TAWS8000 TAWS and any other device are connected to the same baro set potentiometer;
- Requires removal of any TAWS8000 TAWS with such an installation configuration, which includes capping and stowing the connecting wires; and
- Prohibits the future installation of any TAWS8000 TAWS that incorporates hardware ''Mod None'', ''Mod A'', or ''Mod B'.

In preparation of this rule, we contacted type clubs and aircraft operators to obtain technical information and information on operational and economic impacts. We did not receive any information through these contacts. If received, we would have included, in the rulemaking docket, a discussion of any information that may have influenced this action.

How does the revision to 14 CFR part 39 affect this AD? On July 10, 2002, FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs FAA's AD system. This regulation now includes material that relates to special flight permits, alternative methods of compliance, and altered products. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Will I have the opportunity to comment prior to the issuance of the rule? Because the unsafe condition