

(a) Perform a high frequency eddy current (HFEC) inspection to detect cracking of the front spar web of the center section of the wing, in accordance with Boeing Alert Service Bulletin 747-57A2298, Revision 1, dated September 12, 1996, at the time specified in paragraph (a)(1) or (a)(2) of this AD, as applicable.

(1) For airplanes that have accumulated 12,000 to 17,999 total landings as of the effective date of this AD: Perform the initial inspection within 12 months after the effective date of this AD, unless previously accomplished within the last 12 months. Perform this inspection again prior to the accumulation of 18,000 total landings or within 1,400 landings, whichever occurs later; after accomplishing the initial inspection, and thereafter at intervals not to exceed 1,400 landings.

(2) For all other airplanes: Perform the initial inspection prior to the accumulation of 18,000 total landings or within 12 months after the effective date of this AD, whichever occurs later. Repeat this inspection thereafter at intervals not to exceed 1,400 landings.

(b) Except as provided by paragraph (c) of this AD, if any cracking is detected during an inspection required by paragraph (a) of this AD, prior to further flight, repair in accordance with paragraph (b)(1) or (b)(2) of this AD, as applicable. Thereafter repeat the HFEC inspection required by paragraph (a) of this AD at intervals not to exceed 1,400 landings.

(1) If any vertical crack is found that is less than 10 inches in length, repair in accordance with Boeing Alert Service Bulletin 747-57A2298, Revision 1, dated September 12, 1996.

(2) If any vertical crack is found that is 10 inches or greater in length; or if any crack is found that has extended in a diagonal direction (regardless of length); or if any crack is found that would affect an existing repair; repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

(c) In lieu of accomplishing the procedures specified in paragraph (b) of this AD: If a crack in the front spar web is detected during an HFEC inspection required by paragraph (a) of this AD, prior to further flight, operators may accomplish the procedures for an optional HFEC inspection to confirm cracking, as described in paragraph III.D.2. of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-57A2298, Revision 1, dated September 12, 1996.

(1) If this optional inspection is accomplished and cracking is not confirmed, thereafter repeat the HFEC inspection specified in paragraph (a) of this AD at intervals not to exceed 1,400 landings.

(2) If this optional inspection is accomplished and confirms cracking, prior to further flight, repair the cracking in accordance with paragraph (b)(1) or (b)(2) of this AD, as applicable.

(d) For airplanes that are required to perform an initial HFEC inspection in accordance with paragraph (a)(1) of this AD: Within 30 days after accomplishing the initial inspection, submit a report of inspection results, negative or positive, that

includes the information identified in paragraphs (d)(1) through (d)(5) of this AD, to the Manager, Seattle Aircraft Certification Office, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; fax (206) 227-1181. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*) and have been assigned OMB Control Number 2120-0056.

(1) Airplane serial number.

(2) Total number of landings accumulated.

(3) Total number of hours time-in-service accumulated.

(4) Location, size and orientation of each crack.

(5) Whether fuel leakage resulted from the crack.

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(g) The actions shall be done in accordance with Boeing Alert Service Bulletin 747-57A2298, Revision 1, dated September 12, 1996. 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.

(h) This amendment becomes effective on April 2, 1997.

Issued in Renton, Washington, on February 19, 1997.

James V. Devany,

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*  
[FR Doc. 97-4555 Filed 2-25-97; 8:45 am]

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## 14 CFR Part 39

[Docket No. 95-NM-51-AD; Amendment 39-9946; AD 97-05-02]

RIN 2120-AA64

### Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-120 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to certain EMBRAER Model EMB-120 series airplanes, that requires removal of the upper channel fairings and their shims; and rework of the riveting holes, the aileron sealing canvas (aerodynamic seals), and the protective covers of the trim tab hinge fittings of the aileron and elevator. This amendment is prompted by reports of binding of the aileron due to water freezing between the upper channel fairings and the surface of the leading edge of the aileron. The actions specified by this AD are intended to prevent water from freezing these areas, which could result in binding of the aileron and subsequent reduced controllability of the airplane.

**DATES:** Effective April 2, 1997.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 2, 1997.

**ADDRESSES:** The service information referenced in this AD may be obtained from Embraer, Empresa Brasileira De Aeronautica S/A, Sao Jose Dos Campos, Brazil. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Small Airplane Directorate, Atlanta Aircraft Certification Office, Campus Building, 1701 Columbia Avenue, Suite 2-160, College Park, Georgia; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Curtis Jackson, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Small Airplane Directorate, Atlanta Aircraft Certification Office, Campus Building, 1701 Columbia Avenue, Suite 2-160, College Park, Georgia 30337-2748; telephone (404) 305-7358; fax (404) 305-7348.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal

Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain EMBRAER Model EMB-120 series airplanes was published in the Federal Register on May 22, 1995 (60 FR 27056). That action proposed to require removal of the upper channel fairings and their shims; and rework of the riveting holes, the aileron sealing canvas (aerodynamic seals), and the protective covers of the trim tab hinge fittings of the aileron and elevator.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

#### Request to Reference Additional Service Information

The only commenter, a U.S. operator, supports the proposal, but requests that it be revised to reference EMBRAER Service Bulletin 120-57-0021, Change 2, dated March 8, 1996, as an appropriate source of service information. This change to the service bulletin revises Change 1, which was referenced in the proposal, by including additional rework instructions and correcting a reference to the Structural Repair Manual.

The FAA concurs. The FAA finds that accomplishment of the actions in accordance with either Change 1 or Change 2 of the EMBRAER service bulletin will provide an acceptable level of safety and meet the intent of this AD action. The final rule has been revised to reference both service documents. Operators who already have accomplished the actions in accordance with Change 1 will not have to perform any additional work.

#### Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the change previously described. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

#### Cost Impact

The FAA estimates that 263 airplanes of U.S. registry will be affected by this AD, that it will take approximately 10 work hours per airplane to accomplish the required actions, and that the average labor rate is \$60 per work hour. The cost for required parts is expected to be negligible. Based on these figures, the cost impact of the AD on U.S.

operators is estimated to be \$157,800, or \$600 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

#### Regulatory Impact

The regulations adopted herein will not have substantial direct effects 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, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (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); and (3) 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it 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:

97-05-02 Embraer: Amendment 39-9946. Docket 95-NM-51-AD.

*Applicability:* Model EMB-120 series airplanes; as listed in EMBRAER Service

Bulletin No. 120-57-0021, Change 2, dated March 8, 1996; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

*Compliance:* Required as indicated, unless accomplished previously.

To prevent binding of the aileron and subsequent reduced controllability of the airplane, accomplish the following:

(a) Within 3,000 hours time-in-service after the effective date of this AD, remove the upper channel fairings and their shims; and rework the riveting holes, the aileron sealing canvas (aerodynamic seals), and the protective covers of the trim tab hinge fittings of the aileron and elevator; in accordance with EMBRAER Service Bulletin No. 120-57-0021, Change 1, dated September 10, 1993; or Change 2, dated March 8, 1996.

(b) As of the effective date of this AD, no person shall install any aileron sealing canvas having part number (P/N) 120-08130-001, 120-08131-001, or 120-08132-001, on any airplane unless that canvas has been reworked in accordance with EMBRAER Service Bulletin No. 120-57-0021, Change 1, dated September 10, 1993; or Change 2, dated March 8, 1996.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Atlanta Aircraft Certification Office (ACO), FAA, Small Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Atlanta ACO.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(e) The actions shall be done in accordance with EMBRAER Service Bulletin No. 120-57-0021, Change 1, dated September 10, 1993; or EMBRAER Service Bulletin No. 120-57-0021, Change 2, dated March 8, 1996. 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 Embraer, Empresa Brasileira De Aeronautica S/A, Sao Jose Dos Campos, Brazil. Copies may be inspected at the FAA,

Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Atlanta Aircraft Certification Office, Small Airplane Directorate, Campus Building, 1701 Columbia Avenue, Suite 2-160, College Park, Georgia; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on April 2, 1997.

Issued in Renton, Washington, on February 19, 1997.

James V. Devany,

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 97-4553 Filed 2-25-97; 8:45 am]

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#### 14 CFR Part 39

[Docket No. 97-CE-07-AD; Amendment 39-9947; AD 97-05-03]

RIN 2120-AA64

#### **Airworthiness Directives; AlliedSignal Avionics, Inc. Models GNS-XLS or GNS-XL Flight Management Systems**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that applies to all owners/operators of aircraft equipped with AlliedSignal Avionics Inc. (AlliedSignal) Models GNS-XLS or GNS-XL global positioning systems (GPS) Flight Management Systems. This action requires inserting a limitation into the Airplane Flight Manual (AFM) or Flight Manual Supplement Limitations Section prohibiting the use of these AlliedSignal GPS units on previously published non-precision approaches. This action is prompted by recent reports of flight course deviations because of erroneous information provided by the GPS Flight Management System. The actions specified by this AD are intended to prevent deviation from an intended flight path during a non-precision approach to an airport.

**DATES:** Effective March 18, 1997.

Comments for inclusion in the Rules Docket must be received on or before April 18, 1997.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket 97-CE-07-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

**FOR FURTHER INFORMATION CONTACT:** Mr. Jose Flores, Aerospace Engineer, FAA, Wichita Aircraft Certification Office,

1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4133, facsimile (316) 946-4407.

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

AlliedSignal recently notified the FAA that their global positioning system (GPS) Flight Management System Models GNS-XLS and GNS-XL are malfunctioning. The AlliedSignal Models GNS-XLS and GNS-XL are used to determine the flight course of an airplane for previously published non-precision approaches to an airport. The GPS flight management system is integrated into the software of the flight management system recorder (black box) in the airplane. These GNS-XLS and GNS-XL GPS can be installed on, but are not limited to the following airplanes:

Manufacturer	Models
British Aerospace, Ltd. (BAe).	146-100A and 146-200A.
Cessna Aircraft Corporation.	525, 550, and 560.
Dausault Aviation .....	Mystere-Falcon 20 and 50.
Avions Marcel Dassault .....	Falcon 10.
Gulfstream Aerospace .....	G-1159 (G-II) and G-1159A (G-III).
Raytheon Corporate Jets ...	Hawker 800.
Israel Aircraft Industries, Ltd.	1124.
Sabreliner Corporation .....	NA-65.
Learjet Inc .....	35.
Jetstream Aircraft Ltd .....	4101.

Problems arose with these GPS flight management systems units after an installation of a GNS-XLS unit for certification in a Cessna Model 550 airplane. During this flight certification, the AlliedSignal Model GNS-XLS GPS provided erroneous information to the Flight Management System which caused the airplane to deviate from the previously published non-precision approach. Further investigation with flight tests on other airplane models confirmed this software malfunction. The manufacturer conducted bench tests on these models, and was also successful in duplicating the deviation occurring within the GPS flight management software while it is used in a previously published non-precision approach situation. The tests also showed that this malfunction is only randomly occurring approximately 20 percent of the time.

##### **The FAA's Determination**

After examining the circumstances and reviewing all available information

related to the incidents described above, including the relevant service information, the FAA has determined that AD action should be taken to prevent deviation of an intended flight path during a non-precision approach to an airport.

##### **Explanation of the Provisions of the AD**

Since an unsafe condition has been identified that is likely to exist or develop in other AlliedSignal Models GNS-XLS and GNS-XL GPS Flight Management Systems of the same type design, this AD requires inserting the following limitation into the Operations Limitations Section of the AFM or Flight Manual Supplement:

##### **Operating Limitations**

The GNS-XL (or GNS-XLS) is not approved for non-precision approaches.

##### **Note**

The GNS-XL (or GNS-XLS) may generate misleading information during non-precision GPS or Overlay approaches due to software limitations.

The FAA and AlliedSignal are currently working together toward an approved revision to the software problem on these GPS Flight Management System units.

##### **Compliance Time of this AD**

The compliance time of this AD is in calendar time instead of hours time-in-service (TIS). The average daily usage of the affected airplanes will have different ranges throughout the fleets. For example, one owner may operate the airplane 5 hours TIS in one day, while another operator may operate the airplane 5 hours TIS in one week. In order to ensure that all of the owners/operators of the affected airplanes have the chance to insert the limitation into the operating limitations of their Airplane Flight Manual or Flight Manual Supplement within a reasonable amount of time, the FAA is setting a compliance time of within the next 5 days after the effective date of this AD.

##### **Determination of the Effective Date of the AD**

Since a situation exists (misleading flight course information to the pilot during non-precision approaches) that requires the immediate adoption of this regulation, it is found that notice and opportunity for public prior 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