Actions	Compliance	Procedures
(i) Contact the manufacturer for replacement parts at mailing address Eagle Aircraft, P.O. Box 1028, Pejabat Pos Besar, Melaka, Malaysia 75150; telephone: (606) 317–4105, facsimile: (606) 317–7213;		
(ii) Install the replacement parts.	Before further flight after the inspection required by paragraph (e)(1) of this AD.	Follow Eagle Aircraft Alert Service Bulletin SB 1123, dated August 8, 2004.

May I Request an Alternative Method of Compliance?

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19. Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Standards Office, Small Airplane Directorate, FAA. For information on any already approved alternative methods of compliance, contact Karl Schletzbaum, Aerospace Engineer, Small Airplane Directorate, ACE–112, 901 Locust, Rm 301, Kansas City, Missouri 64106; telephone: (816) 329–4146; facsimile: (816) 329–4149.

Is There Other Information That Relates to This Subject?

(g) DCA CAM AD 001–08–2004, dated August 12, 2004, also addresses the subject of this AD.

Does This AD Incorporate Any Material by Reference?

(h) You must do the actions required by this AD following the instructions in Eagle Aircraft Alert Service Bulletin SB 1123, dated August 8, 2004. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get a copy of this service information, contact Eagle Aircraft, P.O. Box 1028, Pejabat Pos Besar, Melaka, Malaysia, 75150; *telephone: 011 606 317 4105; facsimile: 011 606 317 7213.* To review copies of this service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html* or call (202) 741–6030. To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL–401, Washington, DC 20590–001 or on the Internet at *http://dms.dot.gov.* The docket number is FAA–2004–19222.

Issued in Kansas City, Missouri, on December 13, 2004.

James E. Jackson,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04–27814 Filed 12–21–04; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003–NM–97–AD; Amendment 39–13909; AD 2004–25–21]

RIN 2120–AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB–135 and –145 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Model EMB–135 and –145 series airplanes. This AD requires modification of the pitch trim system, which includes replacing certain components of the system with new or serviceable components, and upgrading certain software to a newer version. This action is necessary to prevent the temporary loss of the pitch trim command, which could result in reduced controllability of the airplane and consequent injury to the flightcrew and passengers. This action is intended to address the identified unsafe condition.

DATES: Effective January 26, 2005.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 26, 2005.

ADDRESSES: The service information referenced in this AD may be obtained from Empresa Brasileira de Aeronautica S.A. (EMBRAER), PO Box 343—CEP 12.225, Sao Jose dos Campos—SP, 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM–116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–1175; fax (425) 227–1149.

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 Model EMB–135 and –145 series airplanes was published in the **Federal Register** on February 6, 2004 (69 FR 5759). That action proposed to require modification of the pitch trim system, which includes replacing certain components of the system with new or serviceable components, and upgrading certain software to a newer version.

Comments

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 Include New Revision of Service Bulletin 145–31–0042

One commenter requests that we use EMBRAER Service Bulletin 145–31–0042, Revision 01, dated January 7, 2004, as the appropriate source of service information for replacing certain integrated computers (IC) in paragraph (b)(4) of the proposed AD. The commenter states that the ICs in this service bulletin are upgrades, and classified as optional replacements for the IC–600 computers referenced in EMBRAER Service Bulletin 145–31–0033, Revision 03, dated August 25, 2003, which is the appropriate source of service information for replacing certain IC–600 computers per paragraph (b)(4) of the proposed AD.

We partially agree with the commenter's request. We agree that EMBRAER Service Bulletin 145–31–0042, Revision 01, may be used as an optional source of service information for doing the actions in paragraph (b)(4)

of the AD. Additionally, the manufacturer has also issued Revision 02, dated June 23, 2004, and it may also be used as an optional source of service information. Since these revisions are not the only source of appropriate service information, operators may still choose to do the replacement in accordance with the service information in the proposed AD. Therefore, we have revised paragraph (b)(4) of this final rule to include EMBRAER Service Bulletin 145–31–0042, Revision 01 and Revision 02, as sources of service information for operators of airplanes listed in that service bulletin to choose as an optional way to replace the IC–600 computers as proposed in paragraph (b)(4). This optional replacement includes reidentifying IC–600 #1 and IC–600 #2, and loading a new configuration file to the IC–600 #1 and IC–600 #2 configuration modules.

EMBRAER Service Bulletin 145–31–0042 references Honeywell Service Bulletin 7017000–22–6102, dated November 25, 2003, as an additional source of service information for accomplishing the upgrade and re-identification. EMBRAER Service Bulletin 145–31–0042 also contains other procedures that are not applicable to the IC–600 upgrade, but these actions are not required by this final rule.

EMBRAER Service Bulletin 145–31–0042 specifies that the following service bulletins must be accomplished previously, as applicable, on the airplanes listed in these service bulletins:

- EMBRAER Service Bulletin 145–31–0020, Change 03, dated July 30, 2002, which contains procedures for replacing the IC–600 #1 and IC–600 #2, and the data acquisition unit (DAU); and for upgrading the engine indicating and crew alerting system (EICAS) to version 17.
- EMBRAER Service Bulletin 145–25–0210, dated March 30, 2001, which describes procedures for removing and/or replacing certain placards in the cockpit. These placards are related to the EICAS.
- EMBRAER Service Bulletin 145–45–0003, dated July 5, 2000, which describes procedures for modifying and re-identifying the central maintenance computer (CMC). This service bulletin refers to Vibro-Meter Service Bulletin 145–45–0503, dated March 20, 2000, as an additional source of service information for modifying and re-identifying the CMC. The Vibro-Meter service bulletin is included with EMBRAER Service Bulletin 145–45–0003.

Request To Include New Revision of Service Bulletin 145LEG–27–0002

Another commenter requests that we refer to EMBRAER Service Bulletin 145LEG–27–0002, Revision 01, dated April 15, 2003, as the appropriate source of service information for accomplishing the actions in paragraphs (b)(1) and (b)(7) of the proposed AD on Model EMB–135BJ series airplanes. The commenter advises that this is the latest revision of the service bulletin with the most current information.

We agree with the commenter. The new revision of the service bulletin identifies two new and improved horizontal stabilizer control units (HSCU), and reduces the number of airplanes to which this service bulletin applies. We have revised the applicability section, paragraphs (b)(1) and (b)(7), and Table 1 of the final rule to include references to EMBRAER Service Bulletin 145LEG–27–0002, Revision 01. We have also revised Table 2 of the final rule to include a reference to the original issue of EMBRAER Service Bulletin 145LEG–27–0002, dated February 5, 2003. EMBRAER Service Bulletin 145LEG–27–0002 is applicable to Model EMB–135BJ series airplanes, and describes procedures for replacing the HSCU with a new unit having improved features. This service bulletin also describes procedures for connecting the HSCU and the DAU (including the replacement of the pitch trim system circuit breakers with new circuit breakers sized for the new system load capacity, as applicable).

Request To Extend Compliance Time

One commenter, an airplane operator, requests that the compliance time for accomplishing the seven actions in paragraph (b) of the proposed AD be extended to better accommodate the commenter's existing maintenance program. The compliance time, as proposed, is: ''Within 18 months or 5,000 flight hours after the effective date of this AD, whichever occurs first.'' The commenter requests that the statement be revised to say, ''Within 18 months or 5,000 flight hours after the effective date of this AD, whichever occurs later,'' or, ''Within 36 months or 5,000 flight hours after the effective date of this AD, whichever occurs first.'' The commenter states that 5,000 flight hours work better with its existing maintenance program, and that 36 months is approximately equivalent to 5,000 flight hours for its operation. The commenter requests the extension in order to comply with the requirements of the proposed AD in a smooth and effective manner, and to reduce the time and effort to the commenter and the FAA in requesting and addressing alternative methods of compliance (AMOCs).

We do not agree with the commenter's request to extend the compliance time. The commenter provides no technical justification that extending the compliance time will still maintain an appropriate level of safety. In developing an appropriate compliance time for this proposed AD, we considered safety issues as well as the recommendations of the manufacturer and the Departmento de Aviacao Civil, (which is the airworthiness authority for Brazil), the availability of necessary parts, and the practical aspects of accomplishing the required actions within an interval of time that corresponds to the normal maintenance schedules of most affected operators. We do not find it necessary to change this proposal in this regard; however, the commenter still may apply for approval of an AMOC to extend the compliance time.

Request To Shorten Compliance Time

Another commenter supports the proposal and requests that the compliance time for accomplishing the proposed actions be shortened substantially. The commenter states that the unsafe condition is severe enough to warrant a more immediate compliance time. In addition, the commenter understands that the parts necessary to complete the modification are readily available and, therefore, the parts should be available to accomplish the proposed actions more quickly.

We do not agree that the unsafe condition is severe enough to justify shortening the compliance time substantially. The proposed compliance time was determined to be appropriate in consideration of the safety implications, the average utilization rate of the affected fleet, the practical aspects of modifications during regular maintenance periods, and the availability of required modification parts. We do agree with the commenter that parts are available to accomplish the actions in the allotted time in the original NPRM. We have not revised the proposal to shorten the compliance time.

Request To Remove ''Interim Action''

Another commenter, the airplane manufacturer, requests that we remove the section of the NPRM that describes this proposal as ''interim action.'' The commenter states that the corrective action in the proposal completely addresses the specific unsafe conditions identified during the development of the Brazilian airworthiness directive

and the FAA NPRM. In addition, the commenter states that recent pitch trim failures induced by airspeed miscompares will be addressed by a new HSCU that is under development. Therefore, the commenter believes that it is not appropriate to label this proposal as ''interim action.''

We agree that the NPRM was issued to correct the stated known unsafe condition. In stating that the proposal is ''interim action,'' we are advising the public that rulemaking on this subject may be issued in the future. This additional rulemaking could include a new HSCU that is under development. We have not changed the proposal to remove the reference to ''interim action.''

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 changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 365 airplanes of U.S. registry affected by this AD.

For all affected airplanes, we estimate that it will take approximately 1 work hour per airplane to replace the HSCU, and that the average labor rate is $65 per work hour. The manufacturer will provide replacement parts at no cost. Based on these figures, the cost impact of this replacement on U.S. operators is estimated to be $23,725, or $65 per airplane.

For airplanes subject to EMBRAER Service Bulletin 145–27–0091, we estimate that it will take approximately 6 work hours per airplane to replace the horizontal stabilizer actuator, and that the average labor rate is $65 per work hour. The manufacturer will provide replacement parts at no cost. Based on these figures, the cost impact of this replacement is estimated to be $390 per airplane.

For airplanes subject to EMBRAER Service Bulletin 145–31–0028, we estimate that it will take approximately 2 work hours per airplane to replace the aural warning unit, and that the average labor rate is $65 per work hour. Required parts will cost approximately $1,100 per airplane. Based on these figures, the cost impact of this replacement is estimated to be $1,230 per airplane.

For airplanes subject to EMBRAER Service Bulletin 145LEG–31–0001 or 145–31–0033; or on which the optional action in EMBRAER Service Bulletin 145–31–0042 is done, we estimate that it will take between 1 and 6 work hours per airplane to install the new EICAS/electronic flight information system, and that the average labor rate is $65 per work hour. Required parts will cost between $10 and $25 per airplane. Based on these figures, the cost impact of this action is estimated to be between $75 and $415 per airplane.

For airplanes subject to EMBRAER Service Bulletin 145LEG–27–0004 or 145–27–0096, we estimate that it will take between 4 and 5 work hours per airplane to replace the yoke pitch trim switch, and that the average labor rate is $65 per work hour. Required parts will cost between $1,042 and $1,056 per airplane. Based on these figures, the cost impact of this action is estimated to be between $1,302 and $1,381 per airplane.

For airplanes subject to EMBRAER Service Bulletin 145–27–0073, we estimate that it will take approximately 3 work hours per airplane to replace the pitch trim back-up control switch, and that the average labor rate is $65 per work hour. Required parts will cost approximately $371 per airplane. Based on these figures, the cost impact of this replacement is estimated to be $566 per airplane.

For airplanes subject to the requirements in EMBRAER Service Bulletin 145–27–0083, we estimate that it will take approximately 38 hours to accomplish the modifications, and that the average labor rate is $65 per work hour. Required parts will cost approximately $448. Based on these figures, the cost impact of these modifications is estimated to be $2,918 per airplane.

For airplanes subject to the requirements in EMBRAER Service Bulletin 145–31–0020, we estimate that it will take between 9 and 56 hours to accomplish the proposed upgrade, and that the average labor rate is $65 per work hour. Required parts will cost between $3 and $5,100. Based on these figures, the cost impact of this action is estimated to be approximately between $588 and $8,740 per airplane.

For all affected airplanes, we estimate that it will take between 1 and 3 hours per airplane to accomplish the connection between the HSCU and the DAU specified in EMBRAER Service Bulletin 145LEB–27–0002, and that the average labor rate is $65 per work hour. Required parts will cost between $3 and $52 per airplane. Based on these figures, the cost impact of this action is estimated to be between $24,820 and $90,155, or between $68 and $247 per airplane.

The cost impact figures discussed above are 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. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

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.

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:

2004–25–21 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39–13909. Docket 2003–NM–97–AD.

Applicability: Model EMB–135 and –145 series airplanes, as listed in EMBRAER Service Bulletin 145LEG–27–0002, Revision 01, dated April 15, 2003; EMBRAER Service Bulletin 145–27–0084, Revision 04, dated October 21, 2003; and EMBRAER Service Bulletin 145–27–0096, Revision 03, dated September 2, 2003; certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent the temporary loss of the pitch trim command, which could result in reduced controllability of the airplane and consequent injury to the flightcrew and passengers, accomplish the following:

Prior or Concurrent Requirements

(a) Prior to the accomplishment of the actions in paragraph (b) of this AD, accomplish any applicable prior or concurrent requirement listed in paragraph (a)(1) or (a)(2) of this AD.

(1) For airplanes listed in EMBRAER Service Bulletin 145–31–0020, Change 03, dated July 30, 2002, that are equipped with engine indicating and crew alerting system/electronic flight information system (EICAS/EFIS) software version 16.5 or earlier: Upgrade to software version 17 of the EICAS/EFIS software, in accordance with the Accomplishment Instructions of the service bulletin.

(2) For airplanes listed in EMBRAER Service Bulletin 145–27–0083, Change 04, dated November 27, 2002: Install electrical provisions for the new pitch trim system in accordance with the Accomplishment Instructions of the service bulletin.

Modification of the Pitch Trim System: Replacement, Installation, and Connection

(b) Within 18 months or 5,000 flight hours after the effective date of this AD, whichever occurs first, but following any applicable prior or concurrent requirement listed in paragraph (a)(1) or (a)(2) of this AD: Modify the pitch trim system for the affected airplanes by accomplishing the actions in paragraphs (b)(1), (b)(2), (b)(3), (b)(4), (b)(5), (b)(6), and (b)(7), as applicable. Accomplish the actions in the sequence specified in this AD.

(1) For all airplanes: Replace the horizontal stabilizer control unit (HSCU) with a new unit with improved features, and having a new part number, in accordance with paragraph 3.J. (Part I) of EMBRAER Service Bulletin 145LEG–27–0002, Revision 01, dated April 15, 2003 (for Model EMB–135BJ series airplanes); or paragraph 3.J. (Part I) of EMBRAER Service Bulletin 145–27–0084, Revision 04, dated October 21, 2003 (for Model EMB–135ER, –135LR, –135KE, and –135KL series airplanes; and Model EMB–145, –145ER, –145MR, –145LR, –145XR, –145MP, and –145EP series airplanes); as applicable.

(2) For airplanes listed in EMBRAER Service Bulletin 145–27–0091, Change 02, dated November 27, 2002: Replace the horizontal stabilizer actuator (HSA) with a new HSA having a new part number in accordance with the Accomplishment Instructions of the service bulletin.

(3) For airplanes listed in EMBRAER Service Bulletin 145–31–0028, Change 04, dated December 20, 2002: Replace the aural warning unit (AWU) with an AWU having improved features and a new part number in accordance with the Accomplishment Instructions of the service bulletin.

Note 1: EMBRAER Service Bulletin 145–31–0028 references Grimes Aerospace Company Service Bulletin 80–0694–33–SB01, dated January 1, 2002, as an additional source of service information for accomplishment of the replacement. The Grimes Aerospace service bulletin is included in the EMBRAER service bulletin.

(4) Replace the IC–600 units in accordance with paragraph (b)(4)(i) or (b)(4)(ii) of this AD.

(i) For airplanes listed in EMBRAER Service Bulletin 145LEG–31–0001, dated August 19, 2002 (for Model EMB–135BJ series airplanes); or EMBRAER Service Bulletin 145–31–0033, Revision 03, dated August 25, 2003 (for Model EMB–135ER, –135LR, –135KE, and –135KL series airplanes; and Model EMB–145, –145ER, –145MR, –145LR, –145XR, –145MP, and –145EP series airplanes): Replace any IC–600 units having part numbers (P/N) 7107000–82407, –82407 MODS–B, –82427, –83407, and –83407 MODS–B, with new IC–600 MOD AB units having P/Ns 7107000–82428 or –83428, as applicable; and install a new software version 18.5 (phase 8.5) of the EICAS/EFIS system for all IC–600 MOD AB hardware. Accomplish the actions in accordance with the Accomplishment Instructions of the applicable service bulletin.

(ii) For airplanes listed in EMBRAER Service Bulletin 145–31–0042, Revision 01, dated January 7, 2004: Replace any IC–600 units having P/N 7107000–82428 and –82438 with new IC–600 units having P/Ns 7017000–82430 or –83430, in accordance with EMBRAER Service Bulletin 145–31–0042, Revision 01, dated January 7, 2004, or Revision 02, dated June 23, 2004. Prior to or concurrently with the actions specified in Revision 01 or 02 of EMBRAER Service Bulletin 145–31–0042, remove or replace certain placards in the cockpit in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 145–25–0210, dated March 30, 2001; and modify and re-identify the central maintenance computer in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 145–45–0003, dated July 5, 2000.

Note 2: EMBRAER Service Bulletins 145LEG–31–0001 and 145–31–0033 reference Honeywell Service Bulletin 7017000–22–6089, Revision 003, dated October 16, 2003, as an additional source of service information for accomplishment of the replacement and installation. EMBRAER Service Bulletin 145–31–0042 references Honeywell Service Bulletin 7017000–22–6102, dated November 25, 2003, as an additional source of service information for accomplishment of the replacement with P/Ns 7017000–82430 or –83430.

(5) For airplanes listed in EMBRAER Service Bulletin 145LEG–27–0004, dated January 21, 2003 (for Model EMB–135BJ series airplanes); or EMBRAER Service Bulletin 145–27–0096, Revision 03, dated September 2, 2003 (for Model EMB–135ER, –135LR, –135KE, and –135KL series airplanes; and Model EMB–145, –145ER, –145MR, –145LR, –145XR, –145MP, and –145EP series airplanes): Replace the control yoke pitch trim switch with a new switch having a new part number; and replace the placard around the switch knob, as applicable, with a new placard having a new part number in accordance with the Accomplishment Instructions of the applicable service bulletin.

(6) For airplanes listed in EMBRAER Service Bulletin 145–27–0073, Change 02, dated February 26, 2002: Replace the pitch trim back-up control switch with a new switch having a new part number (including reidentifying the trim control panel) in accordance with the Accomplishment Instructions of the service bulletin.

(7) For all airplanes: Connect the HSCU and the data acquisition unit (DAU) (including the replacement of the pitch trim system circuit breakers with new circuit breakers sized for the new system load capacity, as applicable) in accordance with paragraph 3.K. (Part II) of EMBRAER Service Bulletin 145LEG–27–0002, Revision 01, dated April 15, 2003 (for Model EMB–135BJ series airplanes); or paragraphs 3.K., 3.L., 3.M., and 3.N. (Parts II, III, IV, and V) of EMBRAER Service Bulletin 145–27–0084, Revision 04, dated October 21, 2003 (for Model EMB–135ER, –135LR, –135KE, and –135KL series airplanes; and Model EMB–145, –145ER, –145MR, –145LR, –145XR, –145MP, and –145EP series airplanes).

Parts Installation

(c) As of the effective date of this AD, no person may install, on any airplane, a part unless it has been modified in accordance with the applicable paragraph of the affected service bulletins listed in Table 1 of this AD.

TABLE 1.—PARTS INSTALLATION PARAGRAPHS

EMBRAER service bulletin	Parts installation paragraph
145–27–0084, Revision 04, dated October 21, 2003	1.C.(1)(a).
145LEG–27–0002, Revision 01, dated April 15, 2003	1.C.(1)(a).
145–27–0091, Change 02, dated November 27, 2002	1.C.(1)(a).
145–31–0028, Change 04, dated December 20, 2002	1.C.(a).
145–31–0033, Revision 03, dated August 25, 2003	1.C.(1).

Actions Accomplished Previously in Accordance With Certain Service Bulletins

(d) Actions accomplished before the effective date of this AD in accordance with the service bulletins listed in Table 2 of this AD are considered acceptable for compliance with the corresponding actions specified in this AD.

TABLE 2.—PREVIOUS ISSUES OF SERVICE BULLETINS

EMBRAER service bulletin	Change/revision level	Date
145–27–0083	Original	October 4, 2001.
145–27–0083	01	March 15, 2002.
145–27–0083	02	April 11, 2002.
145–27–0083	03	July 16, 2002.
145–27–0084	01	December 20, 2002.
145–27–0084	02	February 25, 2003.
145–27–0084	03	July 15, 2003.
145–27–0096	01	April 7, 2003.
145–27–0096	02	July 1, 2003.
145–31–0028	Original	December 13, 2001.
145–31–0028	01	January 22, 2002.
145–31–0028	02	April 2, 2002.
145–31–0028	03	August 22, 2002.
145–31–0033	02	April 17, 2003.
145LEG–27–0002	Original	February 5, 2003.

Alternative Methods of Compliance

(e) In accordance with 14 CFR 39.19, the Manager, International Branch, ANM–116, FAA, Transport Airplane Directorate, is authorized to approve alternative methods of compliance for this AD.

Incorporation by Reference

(f) Unless otherwise specified in this AD, the actions shall be done in accordance with the service bulletins in Table 3 of this AD.

TABLE 3.—MATERIAL INCORPORATED BY REFERENCE

EMBRAER service bulletin	Page No.	Change/revision level	Date
145–25–0210	1–12	Original	March 30, 2001.
145–27–0073	1, 2	02	February 26, 2002.
	3, 4	01	August 29, 2000.
	5–9	Original	June 30, 2000.
145–27–0083	1, 2	04	November 27, 2002.
	3–8, 15–30, 33–54	01	March 15, 2002.
	9–12	03	July 16, 2002.
	13, 14, 31, 32	02	April 11, 2002.
145–27–0084	1–4, 6, 11, 12, 15	04	October 21, 2003.
	5, 7–10, 13, 14, 16–40	03	July 15, 2003.
145–27–0091	1, 2	02	November 27, 2002.
	3–11	Original	February 8, 2002.
145–27–0096	1–2	03	September 2, 2003.
	3, 5–8, 12, 14, 15, 17–22	Original	December 18, 2002.
	4, 13, 16	02	July 1, 2003.
	9–11	01	April 7, 2003.
145–31–0020	1–81	03	July 30, 2002.
145–31–0028	1–17	04	December 20, 2002.
145–31–0033	1–5, 9–11, 15, 16, 21–24, 56–58	03	August 25, 2003.
	6–8, 12–14, 17–20, 25-55, 59	02	April 17, 2003.
145–31–0042	1–114	01	January 7, 2004.
145–31–0042	1–10, 21–24, 99, 100	02	June 23, 2004.
	11–20, 25–98, 101–114	01	January 7, 2004.
145LEG–27–0002	1, 5	01	April 15, 2003.
	2–4, 6–15	Original	February 5, 2003.
145–45–0003	1–15	Original	July 5, 2000.
145LEG–27–0004	1–16	Original	January 21, 2003.

TABLE 3.—MATERIAL INCORPORATED BY REFERENCE—Continued

EMBRAER service bulletin	Page No.	Change/revision level	Date
145LEG–31–0001	1–12	Original	August 19, 2002.

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 Empresa Brasileira de Aeronautica S.A. (EMBRAER), PO Box 343—CEP 12.225, Sao Jose dos Campos—SP, Brazil. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

Note 3: The subject of this AD is addressed in Brazilian airworthiness directive 2003–03–01, dated April 3, 2003.

Effective Date

(g) This amendment becomes effective on January 26, 2005.

Issued in Renton, Washington, on December 6, 2004.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003–NE–67–AD; Amendment 39–13914; AD 2004–26–02]

RIN 2120–AA64

Airworthiness Directives; GE Aircraft Engines (GE) CF34–3A, CF34–3A2, CF34–1A, CF34–3A1, CF34–3B, and CF34–3B1 Series Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for GE CF34–3A, CF34–3A2, CF34–1A, CF34–3A1, CF34–3B, and CF34–3B1 series turbofan engines. This AD requires removal from service of certain high pressure compressor (HPC) forward spools, at the first piece-part level exposure after 6,000 cycles since new (CSN); but not later than 20,000 CSN for CF34–3B engines, and not later than 22,000 CSN for CF34–3A, CF34–3A2, CF34–1A, CF34–3A1, and CF34–3B1 engines. This AD results from an updated low-cycle fatigue (LCF) analysis performed on certain HPC forward spools. We are issuing this AD to prevent LCF cracks and failure of the HPC forward spool, which could result in an uncontained engine failure and damage to the airplane.

DATES: This AD becomes effective January 26, 2005.

ADDRESSES: You may examine the AD docket at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Robert Grant, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803–5299; telephone (781) 238–7757; fax (781) 238–7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to GE CF34–3A, CF34–3A2, CF34–1A, CF34–3A1, CF34–3B, and CF34–3B1 series turbofan engines. We published the proposed AD in the **Federal Register** on May 18, 2004 (69 FR 28093). That action proposed to require removal from service of certain HPC forward spools, at the first piece-part level exposure after 6,000 CSN, but not later than 20,000 CSN for CF34–3B engines and not later than 22,000 CSN for CF34–3A, CF34–3A2, CF34–1A, CF34–3A1, and CF34–3B1 engines. That action results from GE updating the LCF analysis for these HPC forward spools.

Examining the AD Docket

You may examine the AD Docket (including any comments and service information), by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. *See* **ADDRESSES** for the location.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the one comment received.

Request for Definition Clarification of Serviceable HPC Forward Spool

One commenter requests that we clarify the definition of a serviceable HPC forward spool. The commenter states that a clarification would ensure that operators are not led to believe that HPC forward spools installed in their engines are not serviceable based on the AD's definition of a serviceable HPC forward spool.

We partially agree. As written in the proposal, the compliance requires replacing certain HPC forward spools with a serviceable HPC forward spool at next piece-part level exposure, and then defines what a serviceable HPC forward spool is and what it is not. We agree that this definition could cause confusion. We do not agree that a clarification to the existing definition is the best approach to ensure that the AD is understandable. For clarification, we have rewritten the compliance in the final rule to require operators to remove certain specific spools from service. We have also added a paragraph in the final rule to clarify that after the effective date of this AD, do not install any HPC forward spool, P/N 6078T56P03. We have also clarified the requirement that after the effective date of this AD, do not install any HPC forward spool, P/N 6078T56P04, with more than 0 CSN. We have also deleted from the final rule the definition which described serviceable spools.

Conclusion

We have carefully reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

There are about 2,681 GE CF34–3A, CF34–3A2, CF34–1A, CF34–3B and CF34–3B1 series turbofan engines of the affected design in the worldwide fleet. We estimate that 1,826 engines installed on airplanes of U.S. registry would be affected by this AD. We also estimate that 59% of the replacements will not be done at piece-part exposure, and will require approximately 650 work hours per engine to perform the actions, and that the average labor rate is $65 per work hour. Required parts will cost about $16,000 per engine (a prorated cost of the unused spool life to the original life). Based on these figures, we estimate the total cost of the AD to U.S. operators to be $74,420,000.