[Federal Register: July 11, 2005 (Volume 70, Number 131)] [Rules and Regulations] [Page 39647-39651] From the Federal Register Online via GPO Access [wais.access.gpo.gov] [DOCID:fr11jy05-4]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-19679; Directorate Identifier 2003-NM-132-AD; Amendment 39-14184; AD 2005-14-07]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Boeing Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes. This AD requires repetitive inspections of the carriage attach fittings on the foreflaps of each wing for cracking and other discrepancies, and corrective actions if necessary. For certain airplanes, this AD also concurrently requires various other actions related to the subject area. This AD also provides for an optional terminating action for the repetitive inspection requirements and for an optional replacement that defers the repetitive inspections. This AD is prompted by reports of damaged or failed outboard foreflaps with a cracked or failed carriage attach fitting of the foreflap sequencing carriage. We are issuing this AD to detect and correct fatigue cracking of the attach fittings of the foreflap carriage of the wings, which could result in partial or complete loss of the foreflap and consequent loss of controllability of the airplane.

DATES: This AD becomes effective August 15, 2005.

The incorporation by reference of certain publications listed in the AD is approved by the Director of the Federal Register as of August 15, 2005.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

Docket: The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at *http://dms.dot.gov*, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the U.S. Department of Transportation, 400 Seventh Street, SW., room

PL-401, Washington, DC. This docket number is FAA-2004-19679; the directorate identifier for this docket is 2003-NM-132-AD.

FOR FURTHER INFORMATION CONTACT: Daniel F. Kutz; Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6456; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with an AD for certain Boeing Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes. That action, published in the Federal Register on November 24, 2004 (69 FR 68274), proposed to require repetitive inspections of the carriage attach fittings on the foreflaps of each wing for cracking and other discrepancies, and corrective actions if necessary. For certain airplanes, that action also proposed to concurrently require various other actions related to the subject area. That action also proposed an optional terminating action for the repetitive inspection requirements and an optional replacement that defers the repetitive inspections.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been submitted on the proposed AD.

Support for Proposed AD

One commenter, the airplane manufacturer, supports the proposed AD.

Request To Revise Applicability

One commenter requests that the applicability of the proposed AD refer to serial numbers (S/N) of the foreflap assembly rather than to the S/Ns of the affected airplanes. The commenter states that flight controls are often swapped from airplane to airplane to accommodate maintenance and overhaul requirements. The commenter believes that tracking the S/N of the foreflap assembly will ensure that all affected parts (including spares) are modified, reworked, or replaced.

We do not agree. The foreflap assembly is part of the type design for the affected Model 727 airplanes. Our general policy is that, when an unsafe condition has been identified, the AD is issued so that it is applicable to the type-certificated airplane, not to an item that is part of the type design. Making the AD applicable to the airplane model ensures that operators of those airplanes will be notified directly of the unsafe condition and the action required to correct it. While it is assumed that an operator will know the models of airplanes that it operates, there is a potential that the operator will not know or be aware of specific items, such as a foreflap assembly, that are installed on its airplanes. Therefore, calling out the airplane model as the subject of the AD prevents "unknowing non-compliance" on the part of the operator. We have made no change in this regard to the AD.

Request To Extend Compliance Time

One commenter requests that the compliance time specified in paragraph (h) of the proposed AD be revised from 3,500 flight cycles to 4,500 flight cycles. The commenter states that the modification instructions in paragraph G. of Part II of the Accomplishment Instructions of Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972 (referred to in paragraph (k) of the proposed AD as the appropriate source of service information for accomplishing concurrent requirements) involve part replacement, and in order to maintain a C-check schedule, a retrofit program must be put in place. This retrofit program would be costly and time consuming.

We do not agree. The commenter provides no technical justification for extending the compliance time for the inspection required by paragraph (h) of the AD. In developing an appropriate compliance time, we considered the safety issues as well as the recommendations of the airplane manufacturer, and the practical aspect of accomplishing the required actions within a period of time that corresponds to the normal scheduled maintenance for most affected operators. In light of these items, we have determined that the compliance time of within 3,500 flight cycles after the effective date of this AD in paragraph (h) of this AD is appropriate. However, paragraph (r) of this AD provides affected operators the opportunity to apply for an adjustment of the compliance time if the operator also presents data that justify the adjustment.

Request To Revise Service Bulletin

One commenter requests that Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972, be revised to include figures illustrating all dimensions to ensure accuracy and consistency with existing airplane maintenance manual (AMM) procedures. The commenter notes that in paragraph A.1. of Part I of the Accomplishment Instructions of the service bulletin, Chapter 27-51-0 of the AMM is specified as the source of service information for the "X dimension." The commenter states that the AMM lists the dimension as "X2-X1," but not as "X dimension." The commenter further states that there is no Boeing master AMM, and each operator's AMM is a little different from the other operators' AMMs; therefore, consistency has a big part to play in carrying out the service bulletin instructions.

We do not agree. Chapter 27-51-0 of the AMM does illustrate "X dimension" in multiple locations (figures and tables). It also defines "X1 dimension" as "X dimension" for flaps in the up position and "X2 dimension" as "X dimension" for each flap position other than flaps up. We find no change is necessary to the AD in this regard.

The same commenter also requests that Figure 1 of Boeing Service Bulletin 727-27-133 show the airload support roller in relation to the foreflap track for clarity purposes. The commenter states that illustrating the airload support roller with the track will help operators to better visualize the area while accomplishing paragraph H, of Part I of the Accomplishment Instructions of the service bulletin.

We do not agree. Although additional details in Figure 1 would be helpful to operators, the service bulletin contains the necessary information for accomplishing the required actions. In addition, Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002, which is also referenced in this AD as an appropriate source of service information, shows the location of the airload support rollers. Therefore, we have made no change to the AD in this regard.

Changes to Delegation Authority

Boeing has received a Delegation Option Authorization (DOA). We have revised this final rule to delegate the authority to approve an alternative method of compliance for any repair required by this AD to the Authorized Representative (AR) for the Boeing DOA Organization rather than the Designated Engineering Representative (DER).

In addition, we inadvertently omitted from paragraph (k)(1)(ii) of the proposed AD the following sentence: "For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically reference this AD." This language was included elsewhere in the proposed AD for accomplishing certain conditions in one of the following ways:

• Using a method that we approve; or

• Using data that meet the certification basis of the airplane, and that have been approved by an AR for the Boeing DOA Organization who has been authorized by the FAA to make those findings. Therefore, we have revised paragraph (k)(1)(ii) of the AD accordingly.

Conclusion

We have carefully reviewed the available data, including the comments that have been submitted, 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 1,292 airplanes of the affected design in the worldwide fleet. We estimate that 855 airplanes of U.S. registry will be affected by this AD. The average labor rate is \$65 per work hour. The following table provides the estimated costs for U.S. operators to comply with this AD.

ESTIMATED COSTS					
For—	Action	Work	Parts	Cost	
		hours	cost		
All airplanes	Inspections of the carriage attach	4	None	\$222,300, or \$260 per airplane,	
	fittings			per inspection cycle.	
Certain	Installation of guide blocks	32	Free	\$2,080 per airplane.	
airplanes					
Certain	Inspection of foreflap airload	4	None	\$260 per airplane.	
airplanes	roller travel				
Certain	Modification of the inboard	4	Free	\$260 per airplane.	
airplanes	jackscrews on the outboard flap.				
Certain	Inspection of the entire track and	12	None	\$780 per airplane.	
airplanes	of the track rib faces.				

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

We have determined that 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); 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

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):

AIRWORTHINESS DIRECTIVE

AND STREAM

Aircraft Certification Service Washington, DC

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR) as 39.30.

2005-14-07 Boeing: Amendment 39-14184. Docket No. FAA-2004-19679; Directorate Identifier 2003-NM-132-AD.

Effective Date

(a) This AD becomes effective August 15, 2005.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Boeing Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes, as listed in Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002; certificated in any category.

Unsafe Condition

(d) This AD was prompted by reports of damaged or failed outboard foreflaps with a cracked or failed carriage attach fitting of the foreflap sequencing carriage. We are issuing this AD to detect and correct fatigue cracking of the attach fittings of the foreflap carriage of the wings, which could result in partial or complete loss of the foreflap and consequent loss of controllability of the airplane.

Compliance

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

Inspections

(f) Except as provided by paragraph (o) of this AD: Within 1,000 flight cycles after the effective date of this AD, and thereafter at intervals not to exceed 1,000 flight cycles, inspect as specified in paragraphs (f)(1) and (f)(2) of Table 1 of this AD in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002. Table 1 is as follows:

Requirements—	Description—		
(1) Area to inspect	The two carriage attach fittings on the inboard and outboard foreflaps of		
	each wing.		
(2) Type of inspections	(i) A detailed inspection to detect cracks and surface deviations on all		
	edges, surfaces, and lug attachment fastener holes.		
	(ii) A high frequency eddy current (HFEC) inspection to detect cracks at		
	the lug attachment fastener holes.		

TABLE 1.—INSPECTION REQUIREMENTS

Crack or Surface Deviation Findings: Replacement

(g) If any crack is detected or if any surface deviation beyond the limits specified in the service bulletin is detected during any inspection required by paragraph (f) of this AD, before further flight, replace the carriage attach fitting with a new, improved fitting or a new fitting having the same part number as the existing fitting, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002.

Measurement and Associated Corrective Action(s)

(h) Within 3,500 flight cycles after the effective date of this AD, inspect for interference between the carriage attach fitting and the carriage lug fitting, and do other related investigative actions by accomplishing all the actions specified in paragraph 3.C. and Figure 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002. Do the actions in accordance with the service bulletin.

(i) If any discrepancy is found during any action required by paragraph (h) of this AD, before further flight, accomplish applicable corrective action(s) (e.g., adding a shim or reworking the carriage attachment lug assembly) in accordance with paragraph 3.C. and Figure 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002. Where the service bulletin specifies to contact the manufacturer if rework of the improved fitting is required: Before further flight, rework in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, or in accordance with data meeting the type certification basis of the airplane approved by an Authorized Representative (AR) for the Boeing Delegation Option Authorization (DOA) Organization who has been authorized by the FAA to make such findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically reference this AD.

Concurrent Requirements

(j) For Model 727 airplanes listed in Boeing 727 Service Bulletin 57-59, Revision 1, dated September 27, 1965: Before or at the same time with the requirements of paragraph (h) of this AD, install guide blocks and bushings in the midflap ribs in accordance with the Accomplishment Instructions of the service bulletin.

(k) For Model 727 airplanes listed in Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972: Before or at the same time with the requirements of paragraph (h) of this AD, do the actions specified in paragraphs (k)(1) and (k)(2) of this AD, as applicable.

(1) For Groups I and II airplanes identified in the service bulletin: Do a one-time inspection of the airload support roller for travel on the foreflap track in accordance with Part I of the Accomplishment Instructions of the service bulletin.

(i) If the airload support roller travels within the limits specified in the service bulletin, modify the control drum of the inboard flap and inboard jackscrews of the outboard flap, in accordance with Part II of the Accomplishment Instructions of the service bulletin.

(ii) If the airload support roller travels beyond the limits specified in the service bulletin, repair in accordance with a method approved by the Manager, Seattle ACO, FAA; or in accordance with data meeting the type certification basis of the airplane approved by an AR for the Boeing DOA Organization who has been authorized by the FAA to make such findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically reference this AD.

(2) For Group III airplanes identified in the service bulletin: Modify the inboard jackscrews of the outboard flap (i.e., replacing the down stop at the inboard jackscrews of the outboard flap) in accordance with Part II of the Accomplishment Instructions of the service bulletin.

(1) For Model 727 airplanes listed in Boeing 727 Service Bulletin 57-72, dated September 21, 1966: Before or at the same time with the requirements of paragraph (h) of this AD, do the actions specified in paragraphs (l)(1) through (l)(4) of this AD.

(1) Chamfer the upper and lower flanges at the aft end of the foreflap tracks in accordance with the Accomplishment Instructions of the service bulletin.

(2) Do a standard magnetic particle inspection of the entire foreflap tracks for cracks in accordance with the Accomplishment Instructions of the service bulletin. If any crack is detected, before further flight, repair in accordance with a method approved by the Manager, Seattle ACO, FAA; or in accordance with data meeting the type certification basis of the airplane approved by an AR for the Boeing DOA Organization who has been authorized by the FAA to make such findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically reference this AD.

(3) Do a general visual inspection of the track rib faces at the front and rear spars to verify if the opening in the spars is flush with or clear of the plane of the rib faces, in accordance with the Accomplishment Instructions of the service bulletin. If the opening is not flush or clear with the plane, before further flight, rework the spar opening in accordance with the Accomplishment Instructions of the service bulletin.

(4) Do a general visual inspection of the head or shank of bolts by securing the foreflap links to the foreflap tracks to verify if they protrude beyond the edge of the track flange in accordance with the Accomplishment Instructions of the service bulletin. If the head or shank of the bolts protrude beyond the edge of the track flange, before further flight, rework in accordance with the Accomplishment Instructions of the service bulletin.

Note 1: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

(m) For airplanes other than those identified in the service bulletins specified in paragraphs (j) through (l) of this AD: Before or at the same time with the requirements of paragraph (h) of this AD, do an inspection to verify if any of the parts listed in the "Spares Affected" paragraph of each service bulletin referenced in paragraphs (j) through (l) of this AD are installed on the airplane. If any part identified in that paragraph is found installed, before further flight, do the applicable corrective and investigative action(s) specified in paragraphs (j) through (l) of this AD.

Optional Terminating Actions

(n) Replacement of the two carriage attach fittings on the inboard and outboard foreflaps of each wing with new, improved fittings, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002; and accomplishment of the actions specified in paragraphs (j) through (m) of this AD, as applicable, before or concurrently with the replacement; constitutes terminating action for the requirements of this AD.

Optional Deferral of Inspection

(o) Replacement of the two carriage attach fittings on the inboard and outboard foreflaps of each wing with new fittings having the same part number as the existing fittings, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002; and accomplishment of the actions specified in paragraphs (j) through (m) of this AD, as applicable, before or concurrently with the replacement; defers the next inspection required by paragraph (f) of this AD for 10,000 flight cycles after the replacement. Thereafter, repeat the inspections required by paragraph (f) of this AD at intervals not to exceed 1,000 flight cycles.

Credit for Previously Accomplished Service Bulletins

(p) Installations accomplished before the effective date of this AD in accordance with Boeing 727 Service Bulletin 57-59, dated September 2, 1965, are acceptable for compliance with the requirements of paragraph (j) of this AD.

(q) Inspections and modifications accomplished before the effective date of this AD in accordance with Boeing Service Bulletin 727-27-133, dated October 7, 1971, are acceptable for compliance with the requirements of paragraph (k) of this AD.

Alternative Methods of Compliance (AMOCs)

(r)(1) In accordance with 14 CFR 39.19, the Manager, Seattle ACO, FAA, is authorized to approve alternative methods of compliance 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 an AR for the Boeing DOA Organization who has been authorized by the FAA to make such findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically reference this AD.

Material Incorporated by Reference

(s) You must use the service bulletins identified in Table 2 of this AD to perform the actions that are required by this AD, unless the AD specifies otherwise. Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972, contains the following list of effective pages:

Page number	Revision level shown on page	Date shown on page
1, 12, 14–18, 27	1	May 9, 1972.
2-11, 13, 19-26, 28	Original	October 7, 1971.

Boeing 727 Service Bulletin 57-59, Revision 1, dated September 27, 1965, contains the following list of effective pages:

Page number	Revision level date shown on page	Date shown on page
1, 4, 6	1	September 27, 1965.
2, 3, 5	Original	September 2, 1965.

The Director of the Federal Register approves the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get copies of the service information, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. To view the AD docket, go to the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., room PL-401, Nassif Building, Washington, DC. To review copies of the service information on the availability of this material at the NARA, call (202) 741-6030, or go to *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

TABLE 2.—MATERIAL INCORPORATED BY REFERENCE				
Service bulletin	Revision	level Date		
Boeing Alert Service Bulletin 727–57A0135	3	June 27, 2002.		
Boeing Service Bulletin 727–27–133	1	May 9, 19 <mark>7</mark> 2.		
Boeing 727 Service Bulletin 57–59	1	September 27, 1965.		
Boeing 727 Service Bulletin 57–72	Original	September 21, 1966.		
Issued in Renton, Washington, on June 29, 200 Kevin M. Mullin, Acting Manager, Transport Airplane Directorate, A [FR Doc. 05-13434 Filed 7-8-05; 8:45 am] BILLING CODE 4910-13-P	5. ircraft Certific	vation Service.		