



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2014-0431; Directorate Identifier 2013-NM-041-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede Airworthiness Directive (AD) 2005-14-07, which applies to certain The Boeing Company Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes. AD 2005-14-07 currently requires repetitive inspections of the carriage attach fittings on the inboard and outboard foreflaps of each wing for cracking and other discrepancies, and corrective actions if necessary. Since we issued AD 2005-14-07, we received a report of broken inboard and outboard carriage attach fittings of the outboard foreflaps found during an inspection. This proposed AD would reduce certain repetitive inspection intervals for the inboard and outboard carriage attach fittings for the outboard foreflaps, require previously optional terminating actions which install improved outboard foreflap carriage attach fittings, and add new initial and repetitive inspections of those fittings and corrective actions if necessary. We are proposing 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:** We must receive comments on this proposed AD by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0431; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Chandraduth Ramdoss, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5239; fax: 562-627-5210; email [chandraduth.ramdoss@faa.gov](mailto:chandraduth.ramdoss@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include “Docket No. FAA-2014-0431; Directorate Identifier 2013-NM-041-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

On June 29, 2005, we issued AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), for certain Boeing Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes. AD 2005-14-07 requires repetitive inspections of the carriage attach fittings on the inboard and outboard foreflaps of each wing for cracking and other discrepancies, and corrective actions if necessary. For certain airplanes, AD 2005-14-07 also concurrently requires various other actions related to the subject area. AD 2005-14-07 also provides for an optional terminating action for the repetitive inspection requirements and for an optional replacement that defers the repetitive inspections. AD 2005-14-07 resulted from reports of damaged or failed outboard foreflaps with a cracked or failed carriage attach fitting of the foreflap sequencing carriage. We issued AD 2005-14-07 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.

**Actions Since AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005) Was Issued**

Since we issued AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), we received a report of broken inboard and outboard carriage attach fittings of the outboard foreflaps found during an inspection required by AD 2005-14-07. The airplane had 47,125 flight cycles. Boeing stated that the metallurgical analysis determined that the cause of the broken fittings is a suspected static overload condition.

**Relevant Service Information**

We reviewed Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA-2014-0431.

**FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

**Proposed AD Requirements**

This proposed AD would retain all requirements of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005). This proposed AD would reduce certain repetitive inspection intervals for the inboard and outboard carriage attach fittings of the outboard foreflaps, require previously optional terminating actions which install improved outboard foreflap carriage attach fittings, and add new initial and repetitive inspections of those fittings and corrective action if necessary. This proposed AD would also require accomplishing the actions specified in the service information described previously. This proposed AD would also add a reference to Figure 3 of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002, in paragraph (i)(2) of

this proposed AD that restates the requirements of paragraph (i) of AD 2005-14-07, to provide for further information on corrective actions.

The phrase “corrective actions” is used in this proposed AD. “Corrective actions” are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

**Change to AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005)**

This proposed AD would retain all requirements of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005). Since AD 2005-14-07 was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have been redesignated in this proposed AD, as listed in the following table:

### Revised Paragraph Designations

<b>Requirement in AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005)</b>	<b>Corresponding requirement in this proposed AD</b>
paragraph (f)	paragraph (g)
paragraph (g)	paragraph (h)
paragraph (h)	paragraph (i)(1)
paragraph (i)	paragraph (i)(2)
paragraph (j)	paragraph (j)(1)
paragraph (k)	paragraph (j)(2)
paragraph (l)	paragraph (j)(3)
paragraph (m)	paragraph (j)(4)
paragraph (n)	paragraph (k)
paragraph (o)	paragraph (l)
paragraph (p)	paragraph (r)(1)
paragraph (q)	paragraph (r)(2)

#### Costs of Compliance

We estimate that this proposed AD affects 98 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

### Retained Estimated Costs

Retained Action	Work Hours	Parts Cost	Cost	Cost on U.S. Operators
Inspections of the carriage attach fittings for all airplanes [retained actions from AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005)]	4	None	\$340 per airplane, per inspection cycle	\$33,320, per inspection cycle
Installation of guide blocks for certain airplanes [retained actions from AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005)]	32	\$0	\$2,720 per airplane	Up to \$266,560
Inspection of foreflap airload roller travel for certain airplanes [retained actions from AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005)]	4	None	\$340 per airplane	Up to \$33,320
Modification of the inboard jackscrews on the outboard flap for certain airplanes [retained actions from AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005)]	4	\$0	\$340 per airplane	Up to \$33,320
Inspection of the entire track and of the track rib faces for certain airplanes [retained actions from AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005)]	12	None	\$1,020 per airplane	Up to \$99,960

### Estimated costs for New Proposed Actions

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection and functional check of outboard foreflap installation for all airplanes [new proposed action]	3 work-hours X \$85 per hour = \$255 per inspection cycle	None	\$255, per inspection cycle	\$24,990, per inspection cycle
Replacement of carriage attach fitting on outboard foreflap for certain airplanes [new proposed action]	2 work-hours X \$85 per hour = \$170	\$18,000	\$18,170 per airplane	Up to \$1,780,660

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

#### On-condition costs

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Replacement of sequence carriage slider or sidewall rubstrips	2 work-hours X \$85 per hour = \$170	Up to \$175	Up to \$345

#### **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 proposed 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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

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

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

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 removing Airworthiness Directive (AD) 2005-14-07, Amendment 39-14184 (70 FR 39647, July 22, 2005), and adding the following new AD:

**The Boeing Company:** Docket No. FAA-2014-0431; Directorate Identifier 2013-NM-041-AD.

#### **(a) Comments Due Date**

The FAA must receive comments on this AD action by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

#### **(b) Affected ADs**

This AD supersedes AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005).

#### **(c) Applicability**

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

#### **(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

#### **(e) Unsafe Condition**

This AD was prompted by a report of broken carriage attach fittings of the inboard and outboard foreflaps found during an inspection and an additional report of broken inboard and outboard carriage attach fittings of the outboard foreflaps found during an inspection. 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.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Inspections**

This paragraph restates the requirements of paragraph (f) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with revised service information and new compliance time. Except as provided by paragraph (l) of this AD: Within 1,000 flight cycles after August 15, 2005 (the effective date of AD 2005-14-07) or within 6 months after the effective date of this AD, whichever occurs first, and thereafter at intervals not to exceed 1,000 flight cycles, except as required by paragraph (m) of this AD (for outboard foreflaps), inspect as specified in paragraphs (g)(1) and (g)(2) of this AD in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002; or Revision 4, dated September 26, 2012. As of the effective date of this AD, use only Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012. Accomplishing the actions of paragraph (m) or (o) of this AD terminates the inspections required by this paragraph for outboard foreflaps only.

(1) A detailed inspection to detect cracks and surface deviations on all edges, surfaces, and lug attachment fastener holes on the two carriage attach fittings on the inboard and outboard foreflaps of each wing.

(2) A high frequency eddy current (HFEC) inspection to detect cracks at the lug attachment fastener holes on the two carriage attach fittings on the inboard and outboard foreflaps of each wing.

**(h) Retained Requirement for Crack or Surface Deviation Findings: Replacement**

This paragraph restates the requirements of paragraph (g) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with revised service information. If any crack is detected or if any surface deviation beyond the limits specified in Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002; or Revision 4,

dated September 26, 2012; is detected during any inspection required by paragraph (g) or (m) 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; or Revision 4, dated September 26, 2012. As of the effective date of this AD, use only Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012.

**(i) Retained Measurement and Associated Corrective Action(s)**

(1) This paragraph restates the requirements of paragraph (h) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with revised service information. Within 3,500 flight cycles after August 15, 2005 (the effective date of AD 2005-14-07), 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; or paragraph 3.B.3 and Figure 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012. Do the actions in accordance with Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002; or Revision 4, dated September 26, 2012. As of the effective date of this AD, use only Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012.

(2) Paragraphs (i)(2)(i) and (i)(2)(ii) of this AD restate the requirements of paragraph (i) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with revised service information.

(i) If any discrepancy is found during any action required by paragraph (i)(1) 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 or 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002; or paragraph 3.B.3. and Figure 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012; except as required by paragraph (i)(2)(ii) of this AD. As of the effective date of this AD, use only Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012.

(ii) Where Boeing Alert Service Bulletin 727-57A0135, Revision 3, dated June 27, 2002; or Revision 4, dated September 26, 2012; specify 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), or Los Angeles 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, or using a method approved in accordance with the procedures specified in paragraph (s) of this AD. 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. As of the effective date of this AD, any new repair approval must be done using a method approved in accordance with the procedures specified in paragraph (s) of this AD.

**(j) Retained Concurrent Requirements**

(1) This paragraph restates the requirements of paragraph (j) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with new paragraph reference. 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 (i) or (o) of this AD, install guide blocks and bushings in the midflap ribs in accordance with

the Accomplishment Instructions of Boeing 727 Service Bulletin 57-59, Revision 1, dated September 27, 1965.

(2) This paragraph restates the requirements of paragraph (k) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with new paragraph reference. 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 (i) or (o) of this AD, do the actions specified in paragraphs (j)(2)(i) and (j)(2)(ii) of this AD, as applicable.

(i) For Groups I and II airplanes identified in Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972: 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 Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972.

(A) If the airload support roller travels within the limits specified in Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972, 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 Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972.

(B) If the airload support roller travels beyond the limits specified in Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972, repair in accordance with a method approved by the Manager, Seattle ACO, or Los Angeles 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, or using a method approved in accordance with the procedures specified in paragraph (s) of this AD. 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.

As of the effective date of this AD, any new repair approval must be done using a method approved in accordance with the procedures specified in paragraph (s) of this AD.

(ii) For Group III airplanes identified in Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972: 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 Boeing Service Bulletin 727-27-133, Revision 1, dated May 9, 1972.

(3) This paragraph restates the requirements of paragraph (l) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with new paragraph reference. 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 (i) or (o) of this AD, do the actions specified in paragraphs (j)(3)(i) through (j)(3)(iv) of this AD.

(i) Chamfer the upper and lower flanges at the aft end of the foreflap tracks in accordance with the Accomplishment Instructions of Boeing 727 Service Bulletin 57-72, dated September 21, 1966.

(ii) Do a standard magnetic particle inspection of the entire foreflap tracks for cracks in accordance with the Accomplishment Instructions of Boeing 727 Service Bulletin 57-72, dated September 21, 1966. If any crack is detected, before further flight, repair in accordance with a method approved by the Manager, Seattle ACO, or Los Angeles 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, or using a method approved in accordance with the procedures specified in paragraph (s) of this AD. 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. As of the effective date of this AD, any new repair

approval must be done using a method approved in accordance with the procedures specified in paragraph (s) of this AD.

(iii) 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 Boeing 727 Service Bulletin 57-72, dated September 21, 1966. 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 Boeing 727 Service Bulletin 57-72, dated September 21, 1966.

(iv) 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 Boeing 727 Service Bulletin 57-72, dated September 21, 1966. 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 Boeing 727 Service Bulletin 57-72, dated September 21, 1966.

(v) 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.”

(4) This paragraph restates the requirements of paragraph (m) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with a new paragraph identifier. For airplanes other than those identified in the service information specified in paragraphs (j)(1) through (j)(3) of this AD: Before or at the same time with the requirements of paragraph (i) or (o) of this AD, do an inspection to verify if any of the parts listed in the “Spares Affected” paragraph of each service information referenced in paragraphs (j)(1) through (j)(3) 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)(1) through (j)(3) of this AD.

**(k) Retained Optional Terminating Actions**

This paragraph restates the requirements of paragraph (n) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with no changes. 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)(1) through (j)(4) of this AD, as applicable, before or concurrently with the replacement; constitutes terminating action for paragraphs (g) through (j) of this AD and paragraph (l) of this AD for those replaced fittings on the outboard and inboard foreflaps.

**(l) Retained Optional Deferral of Inspection**

This paragraph restates the optional deferral of paragraph (o) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with no changes. 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)(1) through (j)(4) of this AD, as applicable, before or concurrently with the replacement; defers the next inspection required by paragraph (g) of this AD for 10,000 flight cycles after the replacement. Thereafter, repeat the inspections required by paragraph (g) of this AD at intervals not to exceed 1,000 flight cycles, except as required by paragraph (m) of this AD.

**(m) New Requirement of this AD: Detailed and HFEC Inspections of Outboard Foreflaps, with Reduced Repetitive Intervals**

Within 1,000 flight cycles after the most recent accomplishment of the inspections required by paragraph (g) of this AD, do a detailed inspection to detect cracks and surface deviations on all edges, surfaces, and lug attachment fastener holes, and a HFEC inspection to detect cracks at the lug attachment fastener holes, on the two carriage attach fittings on the outboard foreflaps of each wing, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012, and do all applicable corrective actions required by paragraph (h) of this AD. Repeat the inspections thereafter at intervals not to exceed 200 flight cycles until the requirements of paragraph (o) of this AD is accomplished. Accomplishing the requirements of this paragraph terminates the requirements of paragraph (g) of this AD for the outboard foreflaps only.

**(n) New Requirement of this AD: Inspection and Check of Outboard Foreflap Installation and Corrective Action**

Within 200 flight cycles or 6 months after the effective date of this AD, whichever occurs first, do a general visual inspection and function check for damage and incorrect operation of the outboard foreflap installations, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012. Do the applicable

corrective actions before further flight. Thereafter, repeat the inspection and check at intervals not to exceed 500 flight cycles.

**(o) New Requirement of this AD: Replacement of Previously Un-replaced (or “Original Configuration”) Carriage Attach Fittings on the Outboard Foreflap**

For airplanes on which any production carriage attach fitting is still installed on the outboard foreflap: Within 3,000 flight cycles or 3 years after the effective date of this AD, whichever occurs first, replace all production carriage attach fittings with new, improved carriage attach fittings, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012, and do all applicable concurrent actions required by paragraph (k) of this AD. Accomplishing the requirements of this paragraph terminates the requirements of paragraphs (g) and (m) of this AD for outboard foreflaps only.

**(p) New Requirement of this AD: Inspection, Corrective Action and Replacement of Fittings Replaced In Accordance With Paragraph (l) of this AD**

For airplanes on which a new carriage attach fitting with the original part number on the outboard foreflap was installed in accordance with paragraph (l) of this AD: Do the actions specified in paragraphs (p)(1) and (p)(2) of this AD.

(1) Within 1,000 flight cycles after the effective date of this AD, do a detailed inspection for cracks and surface deviation on all edges surfaces, and lug attachment fastener holes, and a HFEC inspection for cracks at the lug attachment fastener holes, on the carriage attach fittings for the outboard foreflaps, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012. Repeat the inspection at intervals not to exceed 200 flight cycles. Do all applicable corrective actions before further flight.

(2) Within 3,000 flight cycles or 3 years after the effective date of this AD, replace the fitting with a new, improved fitting in accordance with the Accomplishment

Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012. Accomplishing the requirements of this paragraph terminates the requirements of paragraphs (g), (m), and (p)(1) of this AD for that outboard foreflap only.

**(q) New Requirement of this AD: Inspection and Corrective Actions on Fittings Replaced According to Paragraph (k), (o), or (p) of this AD on Outboard Foreflaps**

For airplanes on which a new, improved carriage attach fitting on the outboard foreflap was replaced in accordance with the requirements of paragraph (k), (o), or (p) of this AD: Within 20,000 flight cycles after installing that fitting, do a detailed inspection for cracks and surface deviation on all edges surfaces, and lug attachment fastener holes, and a HFEC inspection for cracks at the lug attachment fastener holes, on the carriage attach fittings for the outboard foreflaps, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 727-57A0135, Revision 4, dated September 26, 2012. Do all applicable corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed 1,400 flight cycles. Accomplishing the requirements of this paragraph terminates the requirements of paragraph (g) of this AD for outboard foreflaps only.

**(r) Retained Credit for Previously Accomplished Service Bulletins**

(1) This paragraph restates the credit provided by paragraph (p) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with no changes. Installations accomplished before August 15, 2005 (the effective date of AD 2005-14-07), in accordance with Boeing 727 Service Bulletin 57-59, dated September 2, 1965, are acceptable for compliance with the requirements of paragraph (j)(1) of this AD.

(2) This paragraph restates the credit provided by paragraph (q) of AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), with no changes. Inspections and modifications accomplished before August 15, 2005 (the effective date of AD 2005-14-07), in accordance with Boeing Service Bulletin 727-27-133, dated

October 7, 1971, are acceptable for compliance with the requirements of paragraph (j)(2) of this AD.

**(s) Alternative Methods of Compliance (AMOCs)**

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

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

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved for AD 2005-14-07, Amendment 39-14184 (70 FR 39647, July 11, 2005), are approved as AMOCs for the corresponding provisions of this AD.

**(t) Related Information**

(1) For more information about this AD, contact Chandraduth Ramdoss, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5239; fax: 562-627-5210; email chandraduth.ramdoss@faa.gov.

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

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**John P. Piccola,**  
*Acting Manager,*  
*Transport Aircraft Directorate,*  
*Aircraft Certification Service.*

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