

Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street NW., suite 700, Washington, DC.

(e) This amendment becomes effective on May 20, 1996.

Issued in Burlington, Massachusetts, on January 29, 1996.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

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14 CFR Part 39

[Docket No. 94-NM-179-AD; Amendment 39-9542; AD 96-06-05]

Airworthiness Directives; Boeing Model 727 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes two existing airworthiness directives (AD), applicable to certain Boeing Model 727 series airplanes, that currently require repetitive visual inspections to detect cracks of the elevator rear spar, and repair, if necessary. This amendment adds new inspections to detect cracks and loose brackets of the elevator rear spar; adds a new terminating modification for the inspections, and expands the applicability of the rules to include additional airplanes. This amendment is prompted by reports of cracking in the spar radii at the tab hinge location of the elevator rear spar on certain airplanes. The actions specified by this AD are intended to prevent cracking in elements of the elevator rear spar assembly, which could result in excessive free play of the elevator control tab and possible tab flutter.

DATES: Effective April 22, 1996.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 22, 1996.

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

FOR FURTHER INFORMATION CONTACT: Walter Sippel, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98055-4056; telephone (206) 227-2774; fax (206) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 84-22-02, amendment 39-4951 (49 FR 45743, November 20, 1984), and AD 87-24-03, amendment 39-5769 (52 FR 43742, November 16, 1987), both of which are applicable to Boeing Model 727 series airplanes, was published in the Federal Register as a supplemental notice of proposed rulemaking on September 19, 1995 (60 FR 47896). The action proposed to require repetitive visual inspections to detect cracks and loose brackets of the elevator rear spar, and various follow-on actions. The supplemental NPRM also proposed to require the installation of a modification of the elevator rear spar that would constitute terminating action for the repetitive inspections. Additionally, the supplemental NPRM proposed to expand the applicability of the existing proposed rules to include additional airplanes.

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

One commenter supports the proposal.

A discussion of other comments received follows:

Requests to Withdraw the Proposal

Two commenters request that the FAA withdraw the proposal. These commenters consider that the problem addressed is strictly a quality control problem and is not associated with airplanes on a fleet-wide basis.

The FAA does not concur. There have been at least 13 occurrences of cracking found in modified elevator rear spars on in-service airplanes. New information has revealed that the shear plate contacting the radius of the rear spar is not the only problem that is creating the addressed cracking. New data show that loose tee fittings attached to the rib may also contribute to cracking in the rear spar. In light of this, the FAA finds no reason to consider the unsafe condition to be limited to a few airplanes, nor a single operator's quality program.

Request To Allow Inspections With the Elevator Tab Installed

One commenter requests that the proposed rule be revised to allow the inspection of modified elevator rear spars to be accomplished with the elevator tab installed. This commenter, an operator, states that it has inspected all of its affected modified airplanes using this method and have not found any cracking of rear spars.

The FAA cannot concur with this commenter's request since no technical data were submitted that could demonstrate that this method of inspection would provide an acceptable level of safety (compared to the proposed inspection methods). Additionally, the reliability of the inspection method suggested by the commenter is not clear. (For example, would other operators obtain accurate results? Have the results of inspections performed with elevator tabs installed been compared those of inspections performed with elevator tabs not installed?) The FAA suggests that this commenter submit justifying data and apply for the approval of this inspection as an alternative method of compliance with the AD, in accordance with the provisions of paragraph (j) of the final rule.

Requests To Extend the Inspection Interval for Modified Airplanes

Several commenters request that the proposed rule be revised to extend the compliance time for accomplishing the visual inspection of modified airplanes. One commenter requests that it be extended from the proposed 4,000 flight hours to 3,000 flight cycles after the effective date of the final rule. This commenter, an operator, states that it modified its fleet of affected airplanes (in accordance with AD 84-22-02 and 87-24-03) between 1987 and 1992. This operator has been inspecting the subject area on these modified airplanes at every "C" check (approximately every 3,000 flight cycles) and has found no cracking to date. Other commenters request that the initial inspection be required at the next regularly scheduled "C" check scheduled for the airplane. These commenters assert that the work hours needed to accomplish this inspection and the complexity of this inspection require that it be accomplished at a main base facility and by maintenance personnel specifically trained for this task.

The FAA does not concur with these commenters' request. The FAA has received reports of cracking in rear spars on several modified airplanes after approximately 4,000 flight hours (after

modification). In addition, a crack has been found on a new, modified one-piece spar that had accumulated approximately 4,000 flight hours. In light of these findings, the FAA has determined that the compliance time of 4,000 flight hours represents the maximum interval of time allowable for the affected airplanes to continue to operate prior to accomplishing the required inspection without compromising safety. The FAA does not consider a "C" check to be an appropriate inspection interval, since maintenance schedules for "C" checks may vary from operator to operator, and there would be no assurance that the inspection would be accomplished during the maximum interval of 4,000 flight hours. Further, the FAA does not consider 3,000 flight cycles to be an appropriate interval, since many fatigue cycles can occur per flight and the subject cracking is associated with fatigue. Consequently, an interval of "3,000 flight cycles" would result in a much longer time period than data show is acceptable.

Requests To Delete Calendar Time From Inspection Intervals

Several commenters request that the proposed rule be revised to delete the references to calendar time in the repetitive inspection intervals for both modified and unmodified spars. The proposal would require that, in those cases where no cracking is found, visual inspections be conducted every "1,600 flight hours or 18 months, whichever occurs first." The commenters contend that calendar time as an inspection interval is inappropriate in this case because the subject cracking is related to fatigue (which is associated with flight cycles or flight hours), and not to conditions such as corrosion (which is associated with calendar time or environmental conditions). These commenters request that the inspection interval be expressed only in flight cycles or flight hours.

The FAA concurs. Since the cracking addressed by this AD is the result of problems associated with fatigue, it is more appropriate that structure be inspected at intervals related to flight hours rather than calendar time. The final rule has been revised to delete the references to "18 months" in the compliance times for the repetitive inspections.

Requests To Delete Mandatory Terminating Action

Several commenters request that the proposed rule be revised to delete the requirement to accomplish the terminating modification within 5 years.

These commenters contend that continuing repetitive inspections of the area will provide an acceptable level of safety. One of these commenters, an operator, states that its existing inspection program, which has been carried out successfully in its fleet over the past 10 years, is adequate for finding and repairing cracks prior to the time that a serious cracking condition can develop. Another commenter states that it has continued to inspect its airplanes that previously have been modified and has not detected any cracking in the modified structure.

The FAA concurs that installation of the terminating modification need not be mandatory. The FAA has reconsidered the information it has received concerning the subject cracks that have been found on in-service airplanes. This information indicates that cracking has been found during the scheduled inspection periods, and before any cracking was able to propagate to critical lengths. Additionally, the FAA finds that inspections are easy to accomplish, since the area is easily accessible, and they are effective in finding cracks. Moreover, the cracking is easily detectable and the consequences of the cracking are not likely to be catastrophic. In light of this, the FAA has determined that continuing inspections will provide an acceptable level of safety, and that the terminating modification need not be mandatory. The final rule has been revised to provide for a program of repetitive inspections, in lieu of installation of the terminating modification, for airplanes on which no cracking is detected during the required inspections. The terminating modification will be provided as an optional installation for those airplanes.

Requests for On-Going Repetitive Inspections in Lieu of Terminating Action

Several commenters request that, if the proposed AD is revised to delete the requirement that would mandate installation of the terminating modification, then it should include a specific schedule of repetitive inspections of the affected airplanes. These commenters provide various suggestions for this inspection schedule:

1. One commenter requests that repetitive inspections of all airplanes be allowed at intervals of 4,000 flight hours. This commenter states that it is regularly conducting inspections of all of its affected airplanes at approximately 4,000 flight hour intervals and has found little cracking or other discrepancies.

2. Another commenter requests that continued repetitive inspections of unmodified two-piece spars and all modified spars all be allowed to be conducted at intervals of 4,000 flight hours. This commenter, an operator, conducts inspections of airplanes with these configurations in its fleet every 4,000 flight hours. In the last 18 months, 33 cracked spars have been found during 84 inspections of unmodified spars, and 4 cracked spars have been found during 36 inspections of modified spars. All cracks were found and repaired in a timely manner, and no flutter of the flight control surface was experienced. Based on this experience, this commenter considers 4,000-flight hour inspections to be both effective and economical.

3. One commenter requests that the inspections of unmodified spars (either one- or two-piece) be repeated at intervals of 1,600 flight hours or 13 months, whichever occurs later. The commenter considers the proposed inspection interval of "1,600 flight hours or 18 months, whichever occurs first" is far too restrictive. This commenter, an operator, states that its suggested interval would allow it to conduct the inspections during its regularly scheduled maintenance periods, without disrupting scheduling.

The FAA responds to these specific suggestions as follows:

As for Item 1, the FAA cannot concur with the suggestion that all airplanes, whether modified or unmodified, be inspected at the same interval, as one commenter suggested. Since reports indicate that cracking has been found on modified one-piece spars within 4,000 flight hours after modification, inspections every 4,000 flight hours are appropriate for these spars. However, because modified spars have certain reinforcements and less interference, they are less prone to the subject cracking than are unmodified spars; therefore, cracking could be expected to occur in unmodified spars earlier than it could develop in the modified spars. In light of this, inspection intervals of fewer flight hours will be more effective for detecting cracking in unmodified one-piece spars in a timely manner.

As for Item 2, the FAA concurs that a repetitive inspection interval of 4,000 flight hours for unmodified two-piece spars and all modified spars is acceptable. In-service reports have shown that the 4,000 flight hour inspection interval is effective and appropriate for detecting cracking in a timely manner.

As for Item 3, the FAA does not agree with the suggestion that an inspection interval of 1,600 flight hours or 13

months, whichever is later, is appropriate for two-piece unmodified spars. First, as discussed previously, a calendar time (i.e., "13 months") is inappropriate in addressing problems associated with fatigue (such as the cracking addressed by this AD action). Second, while 1,600 flight hours is appropriate for unmodified one-piece spars, it is not appropriate for unmodified two-piece spars. The configuration of two-piece spars makes them inherently less prone to cracking than the one-piece spars, and the inspections that have been accomplished in accordance with AD 87-24-03 at the 4,000 flight hour interval have been shown to be effective in controlling cracking. Therefore, the FAA finds that the 4,000-flight hour interval for inspections of the unmodified two-piece spars is suitable.

In light of the information presented by commenters to this supplemental NPRM, as well as the reports of inspection findings, the FAA has determined that a different specific repetitive inspection interval for each of the various configurations of spars is appropriate. Taking this into account, the FAA has revised the final rule as follows:

For airplanes equipped with unmodified one-piece spars: If no cracking is found, the inspections are to be repeated every 1,600 flight hours. (This interval is unchanged from that previously required by AD 84-22-02.)

For airplanes equipped with modified one-piece spars: If no cracking is found, the inspections are to be repeated every 4,000 flight hours.

For airplanes equipped with unmodified two-piece spars: If no cracking is found, the inspections are to be repeated every 4,000 flight hours. (This interval is unchanged from that previously required by AD 87-24-03.)

For airplanes equipped with modified two piece spars: If no cracking is found, the inspections are to be repeated every 4,000 flight hours.

For all configurations: If cracking is found during any inspection and subsequently is stop-drilled, the inspection is repeated within 1,600 flight hours after stop-drilling, and the terminating modification is required to be accomplished within 3,200 flight hours after stop-drilling. (This provision is not changed from what was proposed in the notice.)

The FAA has determined that this change—providing for continuing inspections in lieu of mandatory terminating action—will not compromise safety, since the quality and timeliness of the repeated inspections will ensure that cracking

will be detected before it can propagate to critical levels. Additionally, the FAA has determined that this change represents merely an optional method of compliance with the rule as it was originally proposed. The optional procedures will not impose an additional burden on any operator. They are a logical outgrowth of the notice that do not necessitate providing an additional opportunity for public comment.

Correction of Typographical Errors

The FAA has been advised that, in certain sections of the notice, the numbers of the applicable service bulletins were incorrectly cited. The FAA acknowledges these typographical errors and has revised the final rule to specify the correct Boeing Service Bulletin numbers of: 727-55-0087 and 727-55-0089.

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 previously described. 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 1,631 Model 727 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 1,166 airplanes of U.S. registry will be affected by this proposed AD.

The inspections will take approximately 17 work hours per airplane to accomplish (this includes the time required to gain access, remove parts, inspect, install, and perform functional testing), at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the inspection requirements of this AD on U.S. operators is estimated to be \$1,189,320, or \$1,020 per airplane, per inspection cycle.

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.

For operators who elect to install the optional terminating modification, it will take approximately 430 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Required parts will cost approximately \$8,580 per airplane.

Based on these figures, the cost impact of the optional modification is estimated to be \$34,380 per airplane.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) Is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 USC 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-4951 (59 FR 45743, November 20, 1984), and amendment 39-5769 (52 FR 43742, November 16, 1987), and by adding a new airworthiness directive (AD), amendment 39-9542, to read as follows:

96-06-05 Boeing: Amendment 39-9542.

Docket 94-NM-179-AD. Supersedes AD 84-22-02, amendment 39-4951; and AD 87-24-03, amendment 39-5769.

Applicability: Model 727 series airplanes, line numbers 1 through 1832 inclusive; certificated in any category.

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

Compliance: Required as indicated, unless accomplished previously.

To prevent excessive free play of the elevator control tab and possible tab flutter, accomplish the following:

(a) For airplanes on which the modification or repair described in Boeing Service Bulletin 727-55-0085, dated August 31, 1984 (specified as terminating action in AD 84-22-02, amendment 39-4951), has not been accomplished and the repetitive inspections required by AD 84-22-02 have not been initiated: Prior to the accumulation of 8,000 total flight hours since date of manufacture, or within 300 flight hours after the effective date of this AD, whichever occurs later, perform a visual inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995. Then accomplish the follow-on actions (i.e., repetitive inspections, stop-drilling, modification) in accordance with that service bulletin, at the times specified as follows.

Note 2: AD 84-22-02 pertains to the one-piece elevator rear spar.

(1) Repeat the visual inspection thereafter at intervals not to exceed 1,600 flight hours.

(2) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (g) of this AD at the times specified in that paragraph.

(b) For airplanes on which the modification or repair described in Boeing Service Bulletin 727-55-0085, dated August 31, 1984 (specified as terminating action in AD 84-22-02, amendment 39-4951), has not been accomplished and the repetitive inspections required by AD 84-22-02 have been initiated: Accomplish either paragraph (b)(1) or (b)(2) of this AD, as applicable.

(1) If no crack has been detected as a result of inspections required by AD 84-22-02: Within 1,600 flight hours after the last inspection required by that AD, perform a visual inspection to detect cracks and loose brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with the Boeing Service Bulletin 727-55-0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspection, stop-drilling, modification) in accordance with that service bulletin, at the times specified as follows:

(i) Repeat the visual inspection thereafter at intervals not to exceed 1,600 flight hours.

(ii) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (g) of this AD at the times specified in that paragraph.

(2) If any crack has been stop-drilled in accordance with AD 84-22-02, accomplish the requirements of paragraph (g) of this AD at the times specified in that paragraph.

(c) For airplanes on which the modification or repair described in Boeing Service Bulletin 727-55-0085, dated August 31, 1984 (specified as terminating action in AD 84-22-02, amendment 39-4951), has been accomplished: Within 4,000 flight hours after the effective date of this AD, perform a visual inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspections, stop-drilling, modification) in accordance with that service bulletin, at the times specified as follows:

(1) Repeat the visual inspection thereafter at intervals not to exceed 4,000 flight hours.

(2) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (g) of this AD at the times specified in that paragraph.

(d) For airplanes on which the modification or repair described in Boeing Service Bulletin 727-55-0087, dated June 20, 1986 (specified as terminating action in AD 87-24-03, amendment 39-5769), has not been accomplished and the repetitive inspections required by AD 87-24-03 have not been initiated: Accomplish the requirements of paragraph (d)(1) of this AD at the earliest of the times specified in paragraph (d)(2).

Note 3: AD 87-24-03 pertains to the two-piece elevator rear spar.

(1) Perform a visual inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, at the earliest of the times specified in paragraph (d)(2) of this AD, and in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspection, stop-drilling, modification) in accordance with that service bulletin, at the times specified as follows:

(i) Repeat the visual inspection thereafter at intervals not to exceed 4,000 flight hours.

(ii) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (g) of this AD at the times specified in that paragraph.

(2) Accomplish the initial visual inspection required by paragraph (d)(1) of this AD at the earliest of the following times:

(i) Prior to the accumulation of 27,000 total flight hours since date of manufacture, or within 4,000 flight hours after December 24, 1987 (the effective date of 87-24-03, amendment 39-5769), whichever occurs later; or

(ii) Prior to the accumulation of 12,000 total flight hours since date of manufacture, or within 4,000 flight hours after the effective date of this AD, whichever occurs later; or

(iii) Prior to the accumulation of 27,300 total flight hours since date of manufacture, or within 300 flight hours after the effective date of this AD, whichever occurs later.

(e) For airplanes on which the modification or repair described in Boeing Service Bulletin 727-55-0087, dated June 20, 1986 (specified as terminating action in AD 87-24-03, amendment 39-5769), has not been accomplished and the repetitive inspections required by AD 87-24-03 have been initiated: Accomplish either paragraph (e)(1) or (e)(2) of this AD, as applicable.

(1) If no crack has been detected as a result of inspections required by AD 87-24-03: Within 4,000 flight hours after the last inspection required by that AD, perform a visual inspection to detect cracks and loose brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspection, stop-drilling, modification) in accordance with that service bulletin, at the times specified as follows:

(i) Repeat the visual inspection thereafter at intervals not to exceed 4,000 flight hours.

(ii) If any crack is detected and stop-drilled as a result of any inspection required by paragraph (e)(1) of this AD, accomplish the requirements of paragraph (g) of this AD at the times specified in that paragraph.

(2) If any crack has been detected and stop-drilled in accordance with AD 87-24-03, accomplish the requirements of paragraph (g) of this AD at the times specified in that paragraph.

(f) For airplanes on which the modification or repair described in Boeing Service Bulletin 727-55-0087, dated June 20, 1986 (specified as terminating action in AD 87-24-03, amendment 39-5769), has been accomplished: Within 4,000 flight hours after the effective date of this AD, perform a visual inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995. Accomplish follow-on actions (i.e., repetitive inspection, stop-drilling, modification) in accordance with the service bulletin, at the times specified as follows:

(1) Repeat the visual inspection thereafter at intervals not to exceed 4,000 flight hours.

(2) If any crack is detected and stop-drilled as a result of any inspection required by this paragraph, accomplish the requirements of paragraph (g) of this AD at the times specified in that paragraph.

(g) If any crack is detected and stop-drilled in accordance with paragraph (a)(2), (b)(1)(ii), (b)(2), (c)(2), (d)(1)(ii), (e)(1)(ii), (e)(2), or (f)(2) of this AD, accomplish the following:

(1) Within 1,600 flight hours after stop-drilling, perform a visual inspection to detect cracks and loose hinge brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate, and accomplish follow-on actions (i.e., stop-drilling, modification) in accordance with the service bulletin. If any crack growth is detected after stop-drilling, prior to further flight, modify the elevator rear spar in accordance with Part II of the

Accomplishment Instructions of Boeing Service Bulletin 727-55-0089, dated June 29, 1995. Accomplishment of this modification constitutes terminating action for the repetitive inspection requirements of this AD.

(2) Within 3,200 flight hours after stop-drilling, modify the elevator rear spar in accordance with Part II of the Accomplishment Instructions of Boeing Service Bulletin 727-55-0089, dated June 29, 1995. Accomplishment of this modification constitutes terminating action for the repetitive inspection requirements of this AD.

(h) Modification of the elevator rear spar in accordance with Part II of the Accomplishment Instructions of Boeing Service Bulletin 727-55-0089, dated June 29, 1995, constitutes terminating action for the requirements of this AD.

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

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

Note 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(k) The actions shall be done in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(l) This amendment becomes effective on April 22, 1996.

Issued in Renton, Washington, on March 12, 1996.

James V. Devany,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 96-6391 Filed 3-20-96; 8:45 am]

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14 CFR Part 39

[Docket No. 95-NM-22-AD; Amendment 39-9543; AD 96-06-06]

Airworthiness Directives; Boeing Model 747-100, -200, -300, and SP Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 747-100, -200, -300, and SP series airplanes, that requires revising the Airplane Flight Manual (AFM) to prohibit the use of the autoland function. This amendment also requires installation of a diode and a marker on certain shelves and making wiring changes to the flight mode annunciator of the autopilot/flight director system, which terminates the requirements for the AFM limitation. This amendment is prompted by a report that the flightcrew was unaware of the configuration of the autoland system during landing. The actions specified by this AD are intended to ensure flightcrew awareness of the configuration of the autoland system in the event of a change from fail-operational to fail-passive mode.

DATES: Effective April 22, 1996.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 22, 1996.

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

FOR FURTHER INFORMATION CONTACT: Hania Younis, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (206) 227-2764; fax (206) 227-1181.

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 Boeing Model 747-100, -200, -300, and SP series airplanes was published in the Federal Register as a supplemental notice of

proposed rulemaking on January 23, 1996 (61 FR 1722). That action proposed to require:

1. revising the Airplane Flight Manual (AFM) to prohibit the use of the autoland function;
2. installing a diode and a marker on shelves;
3. making wiring changes to the flight mode annunciator (FMA) of the autopilot/flight director system, which would terminate the requirements for the AFM revision; and
4. conducting follow-on operational tests.

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

The commenter supports the proposed rule.

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

There are approximately 179 Boeing Model 747-100, -200, -300, and SP series airplanes of the affected design in the worldwide fleet. The FAA estimates that 12 airplanes of U.S. registry will be affected by this AD.

It will take approximately 1 work hour per airplane to accomplish the required revision to the AFM, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$720, or \$60 per airplane.

It will take approximately 10 work hours per airplane to accomplish the required installation and operational test, at an average labor rate of \$60 per work hour. Required parts will cost approximately \$613 per airplane. Based on these figures, the cost impact of these requirements on U.S. operators is estimated to be \$14,556, or \$1,213 per airplane.

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

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.