

Proposed Rules

Federal Register

Vol. 60, No. 179

Friday, September 15, 1995

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 94-NM-179-AD]

Airworthiness Directives; Boeing Model 727 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Supplemental notice of proposed rulemaking; reopening of comment period.

SUMMARY: This document revises an earlier proposed airworthiness directive (AD), which would have superseded an existing AD that is applicable to certain Boeing Model 727 series airplanes. The existing AD currently requires inspections to detect cracks of the elevator rear spar, and repair, if necessary; and provides for a terminating action for the inspections. The previously proposed action would have added a one-time inspection to verify that proper clearance exists between the shear plate and the radii of the elevator rear spar on airplanes on which the terminating action had been accomplished. This action revises the proposed rule by adding new inspections to detect cracks and loose brackets of the elevator rear spar; adding a new terminating modification for the inspections; and expanding the applicability of the rule to include additional airplanes. Additionally, it would supersede two previously issued AD's. The proposed actions 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: Comments must be received by October 12, 1995.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 94-NM-

179-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

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:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 94-NM-179-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 94-NM-179-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to add an airworthiness directive (AD), applicable to certain Model 727 series airplanes, was published as a notice of proposed rulemaking (NPRM) in the **Federal Register** on December 29, 1994 (59 FR 67238). That NPRM published as Docket 94-NM-179-AD, would have superseded AD 84-22-02, amendment 39-4951 (49 FR 45743, November 20, 1984) to continue to require repetitive visual inspections to detect cracks of the elevator rear spar, and repair, if necessary. That NPRM would have added a one-time inspection to verify that proper clearance exists between the shear plate and the radii of the elevator rear spar on airplanes on which the terminating action specified in AD 84-22-02 has been accomplished. That NPRM would have also provided for an improved modification or repair of the elevator rear spar, which, if accomplished, would have constituted terminating action for the repetitive visual inspection requirements. The proposed action was prompted by reports of cracking in the spar radii at the tab hinge location of the elevator rear spar on certain airplanes. Cracking in this area, if not corrected, could result in excessive free play of the elevator control tab and possible tab flutter.

The FAA issued another proposal, Docket No. 94-NM-197-AD, applicable to certain Boeing Model 727 series airplanes, which was published as a NPRM in the **Federal Register** on January 4, 1995 (60 FR 386). That NPRM proposed to supersede AD 87-24-03, amendment 39-5769 (52 FR 43742, November 16, 1987), and require actions essentially identical to those previously proposed in Docket No. 94-NM-179-AD. The only relevant differences are the specific affected airplanes and certain compliance times.

Since the issuance of those two NPRM's, the FAA has received several reports of cracking found in the elevator

rear spar on a number of Model 727 series airplanes. Investigation has revealed that this cracking occurred on these airplanes following accomplishment of inspections to ensure that proper clearance exists between the shear plate and the rear spar radii. Those inspections of this area would have been required by the two previously-issued NPRM's. The inspection procedure is described in Boeing Service Bulletin 727-55-0085 (which was referenced in Docket No. 94-NM-179-AD as the appropriate source of service information), and Boeing Service Bulletin 727-55-0087 (which was referenced in Docket No. 94-NM-197-AD as the appropriate source of service information). In light of this new cracking, the FAA has determined that these inspections to verify clearance, as proposed in Docket 94-NM-179-AD and Docket 94-NM-197-AD, do not adequately preclude fatigue cracking in the elevator rear spar; this condition could result in excessive free play of the elevator control tab and possible tab flutter.

The FAA has reviewed and approved Boeing Service Bulletin 727-55-0089, dated June 29, 1995. The service bulletin describes procedures for repetitive visual inspections to detect cracks and loose brackets of the elevator rear spar in the area along the upper and lower edges at the shear plate. This service bulletin also describes procedures for various follow-on actions, such as stop drilling and modification. The modification involves replacing the elevator rear spar with a one piece spar assembly and the tee fittings with two support fittings per tab hinge bracket. This modification will prevent fatigue cracks in the elevator rear spar. Accomplishment of the modification eliminates the need for the repetitive visual inspections.

Additionally, this service bulletin expands the effectivity listing to include additional airplanes, which were not previously addressed in Boeing Service Bulletins 727-55-0085 and 727-44-0087, but are subject to the addressed unsafe condition. (Operators should note that Boeing Service Bulletin 727-55-0089 supersedes Boeing Service Bulletins 727-55-0085 and 727-55-0087.)

Since this condition is likely to exist or develop on other products of this same type design, this supplemental NPRM would supersede AD's 84-22-02 and 87-24-03, and would require repetitive visual inspections to detect cracks and loose brackets of the elevator rear spar, and various follow-on actions. The supplemental NPRM would also require installation of a modification

that would constitute terminating action for the repetitive inspections. Additionally, the supplemental NPRM would expand the applicability of the existing proposed rule to include additional airplanes. These actions would be required to be accomplished in accordance with Boeing Service Bulletin 727-55-0089, described previously.

The FAA has determined that, in order to adequately address the unsafe condition presented by the problems associated with fatigue cracking in the subject areas, and to facilitate recordkeeping by affected operators, this proposed action (Docket 94-NM-179-AD) will combine the requirements (and applicability) that were previously proposed in two separate rulemaking actions. The FAA intends to withdraw Docket 94-NM-197-AD at a later time by means of a separate rulemaking action.

Since these changes expand the scope of the originally proposed rule, the FAA has determined that it is necessary to reopen the comment period to provide additional opportunity for public comment.

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 would be affected by this proposed AD.

The inspections would 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 total cost impact of the proposed inspections requirements on U.S. operators is estimated to be \$1,189,320, or \$1,020 per airplane, per inspection cycle.

The modification would take approximately 430 work hours per airplane to accomplish, at an average labor rate of \$60 per work hours. Required parts would cost approximately \$8,580 per airplane. Based on these figures, the total cost impact of the proposed modification requirements on U.S. operators is estimated to be \$40,087,080, or \$34,380 per airplane.

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

The FAA recognizes that the obligation to maintain aircraft in an

airworthy condition is vital, but sometimes expensive. Because AD's require specific actions to address specific unsafe conditions, they appear to impose costs that would not otherwise be borne by operators. However, because of the general obligation of operators to maintain aircraft in an airworthy condition, this appearance is deceptive. Attributing those costs solely to the issuance of this AD is unrealistic because, in the interest of maintaining safe aircraft, prudent operators would accomplish the required actions even if they were not required to do so by the AD.

A full cost-benefit analysis has not been accomplished for this proposed AD. As a matter of law, in order to be airworthy, an aircraft must conform to its type design and be in a condition for safe operation. The type design is approved only after the FAA makes a determination that it complies with all applicable airworthiness requirements. In adopting and maintaining those requirements, the FAA has already made the determination that they establish a level of safety that is cost-beneficial. When the FAA, as in this proposed AD, makes a finding of an unsafe condition, this means that the original cost-beneficial level of safety is no longer being achieved and that the proposed actions are necessary to restore that level of safety. Because this level of safety has already been determined to be cost-beneficial, a full cost-benefit analysis for this proposed AD would be redundant and unnecessary.

The regulations proposed herein would 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 proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this 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); and (3) if promulgated, 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 copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the

location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

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

PART 39—AIRWORTHINESS DIRECTIVES

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

Authority: 49 U.S.C. 106(g), 40101, 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendments 39-4951 (49 FR 45743, November 20, 1984) and 39-5769 (52 FR 43742, November 16, 1987), and by adding the following new airworthiness directive:

Boeing: 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 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 use the authority provided in paragraph (j) of this AD to request approval from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition; or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any airplane from the applicability of this AD.

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, accomplish paragraph (g) of this AD.

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

(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 any crack has been stop drilled in accordance with AD 84-22-02, accomplish paragraphs (b)(1)(i) and (b)(1)(ii) of this AD, in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995.

(i) Within 1,600 flight hours after stop drilling, accomplish paragraph (g) of this AD.

(ii) Notwithstanding paragraph (h) of this AD, within 3,200 flight hours after stop drilling, modify the elevator rear spar in accordance with Part II of the Accomplishment Instructions of the service bulletin.

(2) 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, and accomplish follow-on actions (i.e., stop drill, modify), in accordance with the Boeing Service Bulletin 727-44-0089, dated June 29, 1995. Repeat the inspection thereafter at intervals not to exceed 1,600 flight hours or 18 months, whichever occurs first. 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 727-44-0089, dated June 29, 1995.

(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, accomplish paragraph (g) of this AD.

(d) For airplanes on which the modification or repair described in Boeing Service Bulletin 727-55-087, 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 paragraph (g) of this AD, at the earliest of times specified in paragraph (d)(1), (d)(2), or (d)(3):

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

(1) 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

(2) 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

(3) 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 727-55-087, 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 any crack has been stop drilled in accordance with AD 87-24-03, accomplish paragraphs (e)(1)(i) and (e)(1)(ii) of this AD, in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995.

(i) Within 1,600 flight hours after stop drilling, accomplish paragraph (g) of this AD.

(ii) Notwithstanding paragraph (h) of this AD, within 3,200 flight hours after stop drilling, modify the elevator rear spar in accordance with Part II of the Accomplishment Instructions of the service bulletin.

(2) 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, and accomplish follow-on actions (i.e., stop drill, modify), in accordance with Boeing Service Bulletin 727-44-0089, dated June 29, 1995. Repeat the inspection thereafter at intervals not to exceed 1,600 flight hours or 18 months, whichever occurs first. 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 727-44-0089, dated June 29, 1995.

(f) For airplanes on which the modification or repair described in Boeing Service Bulletin 727-55-087, 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, accomplish paragraph (g) of this AD.

(g) At the time specified in paragraphs (a), (b)(1)(i), (c), (d), (e)(1)(i), and (f), as applicable, 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., re-inspect, stop drill, modify) in accordance with Boeing Service Bulletin 727-55-0089, dated June 29, 1995, at the time specified in 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 the modification constitutes terminating action for the repetitive inspection requirements of this AD.

(h) Within 5 years after accomplishing the initial inspection required by this AD, 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 the modification constitutes terminating action for the repetitive inspection 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.

Issued in Renton, Washington, on September 11, 1995.

D.L. Riggins,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 95-22969 Filed 9-14-95; 8:45 am]

BILLING CODE 4910-13-U

14 CFR Part 39

[Docket No. 93-CE-02-AD]

Airworthiness Directives; Glasflugel, Model Mosquito Sailplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes to adopt a new airworthiness directive (AD) that would apply to Glasflugel, model Mosquito sailplanes. The proposed action would require modifying the mounting studs on the lifting/tilting frame of the canopy system, repetitively inspecting the mounting stud, and incorporating flight manual revisions that specify a warning on emergency canopy deployment failure. Canopy system problems discovered during routine checks and periodic inspections of these sailplanes prompted the proposed action. The actions specified in this proposed AD are intended to prevent canopy system failure, which could result in loss of control of the sailplane.

DATES: Comments must be received on or before November 17, 1995.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Assistant Chief Counsel,

Attention: Rules Docket No. 93-CE-02-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

Service information that applies to the proposed AD may be obtained from Glasflugel, c/o Hansjorg Streifeneder, Glasfer-Flugzeug Service, Hofener Weg, D 72582 Grabenstetten, Germany, telephone number 49.73.82.10.32. This information also may be examined at the Rules Docket at the address above.

FOR FURTHER INFORMATION CONTACT: Mr. Herman C. Belderok, Project Officer, Gliders, Small Airplane Directorate, Aircraft Certification Service, FAA, 1201 Walnut, suite 900, Kansas City, Missouri 64106; telephone (816) 426-6932; facsimile (816) 426-2169.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 93-CE-02-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 93-CE-02-AD, Room

1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Discussion

The Luftfahrt-Bundesamt (LBA), which is the airworthiness authority for Germany, recently notified the FAA that an unsafe condition may exist on certain Glasflugel mode Mosquito sailplanes. The LBA reports: (1) considerable wear to the mounting studs on the canopy lifting/tilting frame caused by the guide bracket on either side of the fuselage; and (2) possible emergency deployment failure of the canopy caused by the "Pip" pin not being engaged.

Glasflugel has issued the following Technical Note (TN) 303-18, dated March 1, 1991, which specifies repetitively inspecting the mounting studs on the canopy lifting/tilting frame for wear caused by the guide bracket on either side of the fuselage and modifying the mounting studs if they are less than a specified diameter.

Glasflugel also issued Technical Note 303-9, dated June 22, 1979, which specifies incorporating a flight manual revision to include a warning regarding the emergency canopy deployment system.

In order to assure the continued airworthiness of these sailplanes in Germany, the LBA classified the above-referenced technical notes as mandatory, and also issued LBA AD 91-111. The LBA classifying a technical note as mandatory is the same for sailplanes registered in Germany as the FAA issuing an AD for sailplanes registered in the United States.

This sailplane model is manufactured in Germany and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement between Germany and the United States. Pursuant to this bilateral airworthiness agreement, the LBA has kept the FAA informed of the situation described above. The FAA has examined the findings of the LBA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Since an unsafe condition has been identified that is likely to exist or develop in other Glasflugel Mosquito sailplanes of the same type design, the proposed AD would require the following:

- Within the next 30 calendar days, after the effective date of this AD, inspect the mounting studs on the canopy lifting/tilting frame for wear, repetitively inspecting the mounting