

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2002–NM–109–AD; Amendment 39–12727; AD 2002–08–52]

RIN 2120–AA64

**Airworthiness Directives; Boeing Model 737–600, –700, and –700C Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** This document publishes in the **Federal Register** an amendment adopting airworthiness directive (AD) 2002–08–52, that was sent previously to all known U.S. owners and operators of all Boeing Model 737–600, –700, and –700C series airplanes by individual notices. This AD requires revising the Airplane Flight Manual (AFM) to prohibit operating the airplane at speeds in excess of 300 knots indicated airspeed (KIAS) with speedbrakes extended. This AD also provides for optional terminating action for the AFM revision. This action is prompted by a report indicating that severe vibration of the horizontal stabilizer occurred on a Boeing Model 737–700 series airplane. The actions specified by this AD are intended to prevent severe vibration of the elevator and elevator tab assembly following deployment of the speedbrakes, which, if not corrected, could result in severe damage to the horizontal stabilizer, followed by possible loss of controllability of the airplane.

**DATES:** Effective May 1, 2002, to all persons except those persons to whom it was made immediately effective by emergency AD 2002–08–52, issued April 11, 2002, which contained the requirements of this amendment.

Comments for inclusion in the Rules Docket must be received on or before June 25, 2002.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2002–NM–109–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227–1232. Comments may also be sent via the Internet using the following address: *9-anm-*

*iarcomment@faa.gov*. Comments sent via fax or the Internet must contain “Docket No. 2002–NM–109–AD” in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

Information pertaining to this amendment may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

**FOR FURTHER INFORMATION CONTACT:**

Nancy H. Marsh, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–2028; fax (425) 227–1181.

**SUPPLEMENTARY INFORMATION:** On April 11, 2002, the FAA issued emergency AD 2002–08–52, which is applicable to all Boeing Model 737–600, –700, and –700C series airplanes.

**Background**

The FAA received a report indicating that severe vibration of the horizontal stabilizer occurred on a Boeing Model 737–700 series airplane. The airplane was operating at an altitude of 19,500 feet and an airspeed of 315 knots indicated airspeed (KIAS). The high frequency vibration was initiated by deployment of the speedbrakes during descent of the airplane. The vibration continued until the airspeed was reduced to 285 KIAS, even though the speedbrakes were retracted. The airplane landed without further incident. The FAA and the manufacturer have determined that the vibration was due to a “limit cycle oscillation” of the elevator and elevator tab assembly attached to the horizontal stabilizer. Such oscillation was caused by a buffeting flow over the surface of the horizontal stabilizer, which occurred following deployment of the speedbrakes.

Results of post-event analysis and investigation indicate that severe vibration of the elevator and elevator tab assembly following deployment of the speedbrakes, if not corrected, could result in severe damage to the horizontal stabilizer, followed by possible loss of controllability of the airplane.

**Other Similar Models**

The elevator tabs on Model 737–600 and –700C series airplanes are identical to those on Model 737–700 series airplanes. Therefore, those Model 737–600 and –700C series airplanes may be subject to the same unsafe

condition revealed on Model 737–700 series airplanes.

In addition, operators should note that modified elevator tabs have already been installed on Model 737–900 series airplanes.

**Other Relevant Rulemaking**

The FAA previously issued AD 2001–12–51, amendment 39–12294 (66 FR 34094, June 27, 2001), applicable to all Boeing Model 737–800 series airplanes. That AD was issued to ensure that the flight crew is advised of the potential hazard associated with extending the speedbrakes at speeds in excess of 300 KIAS. That AD requires revising the Airplane Flight Manual to prohibit operating the airplane at speeds in excess of 300 KIAS with speedbrakes extended. That AD also provides for optional terminating action for the AFM revision.

**FAA’s Conclusions**

In light of this information, the FAA finds that certain new limitations should be included in the FAA-approved Airplane Flight Manual (AFM) for Model 737–600, –700, and –700C series airplanes to prohibit operating the airplane at speeds in excess of 300 KIAS with speedbrakes extended. The FAA has determined that an airspeed of 300 KIAS provides an acceptable safety margin compared to the 315–KIAS airspeed at which the severe vibration occurred.

**Explanation of the Requirements of the Rule**

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of this same type design, this airworthiness directive is issued to require revising the AFM to prohibit operating the airplane at speeds in excess of 300 KIAS with speedbrakes extended. This AD also provides for optional terminating action for the AFM revision.

**Interim Action**

This AD is considered to be interim action. The specific details of the modification discussed previously are being developed, but are not yet available for dissemination to affected operators. Once the modification of the elevator tab assembly discussed previously is developed, approved, and available, the FAA may consider further rulemaking.

Since it was found that immediate corrective action was required, notice and opportunity for prior public comment thereon were impracticable and contrary to the public interest, and good cause existed to make the AD

effective immediately by individual notices issued on April 11, 2002, to all known U.S. owners and operators of Boeing Model 737-600, -700, and -700C series airplanes. These conditions still exist, and the AD is hereby published in the **Federal Register** as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective to all persons.

#### Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this 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 under the caption **ADDRESSES**. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the 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 AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NM-109-AD." The postcard will be date stamped and returned to the commenter.

#### Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not

have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, 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, Safety.

#### Adoption of the Amendment

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

#### PART 39—AIRWORTHINESS DIRECTIVES

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

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

#### § 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

**2002-08-52 Boeing:** Amendment 39-12727. Docket 2002-NM-109-AD.

**Applicability:** All Model 737-600, -700, -700C series airplanes, 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 request approval for an alternative method of compliance in accordance with paragraph (c) 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 ensure that the flight crew is advised of the potential hazard associated with extending the speedbrakes at speeds in excess of 300 knots indicated airspeed (KIAS), accomplish the following:

#### Airplane Flight Manual (AFM) Revision

(a) Within 24 clock hours after the effective date of this AD, revise the Limitations Section of the FAA-approved AFM to include the following information. This may be accomplished by inserting a copy of this AD into the Limitations Section of the AFM.

"Do not operate the airplane at speeds in excess of 300 KIAS with speedbrakes extended.

**Warning:** Use of speedbrakes at speeds in excess of 320 KIAS could result in a severe vibration, which, in turn, could cause extreme damage to the horizontal stabilizer."

#### Optional Terminating Action

(b) Modification or retrofit of the elevator tab assembly in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, constitutes terminating action for the AFM revision required by paragraph (a) of this AD. Following such modification or retrofit, that AFM revision may be removed from the AFM.

#### Alternative Methods of Compliance

(c) 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 ACO. Operators shall submit their requests through an appropriate FAA Principal Operations or Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

#### Effective Date

(d) This amendment becomes effective on May 1, 2002, to all persons except those persons to whom it was made immediately effective by emergency 2002-08-52, issued on April 11, 2002, which contained the requirements of this amendment.

Issued in Renton, Washington, on April 19, 2002.

**Lirio Liu-Nelson,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

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**BILLING CODE 4910-13-P**