The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for the Boeing Model 747–8 airplanes.

In addition to the provisions of 14 CFR part 25, the following special conditions are proposed:

1. The extendable escape slide must receive TSO–C69c or latest TSO authorization published at the time of TSO application for the Door 1 Slide.

2. In addition to the requirements of § 25.810(a)(1)(iii) for usability in conditions of landing gear collapse, the deployed escape slide in the extended mode must demonstrate an evacuation rate of 45 persons per minute per lane at the sill height corresponding to activation of the extension.

3. In lieu of the requirements of § 25.810(a)(1)(iv), the escape slide with the extendable section activated must be capable of being deployed in 22-knot winds directed from the critical angle, with the airplane on all its landing gear, with the assistance of one person on the ground. Two deployment scenarios must be addressed as follows:

   (a) Extendable section is activated during the inflation time of the basic slide and,

   (b) Extendable section is activated after the basic slide is completely inflated.

4. Pitch sensor tolerances and accuracy must be taken into account when demonstrating compliance with § 25.1309(a) for the escape slide in both extended and unextended modes.

5. (a) There must be a “slide extension” warning such that the cabin crew is immediately made aware of the need to deploy the extendable section of the slide. The ability to provide such a warning must be available for ten minutes after the airplane is immobilized on the ground.

   (b) There must be a positive means for the cabin crew to determine that the extendable portion of the slide has been fully erected.

6. Whenever passengers are carried on the main deck of the airplane, there must be a cabin crewmember stationed on each side of the airplane located near each Door 1 Exit. This special condition must be included in the airplane flight manual as a limitation.
specified products. The NPR states: 

We have considered the following differences are highlighted in a Note within the proposed AD.

**Costs of Compliance**

We estimate that this proposed AD will affect 101 products of U.S. registry. We estimate that 85 products of U.S. registry would require the modification and that it would take about 9.5 work-hours per product to comply with the modification requirements of this proposed AD. The average labor rate is $85 per work-hour. Required parts would cost about $1,550 per product.

Based on these figures, we estimate the cost of the modification requirement of the proposed AD on U.S. operators to be $200,387.50, or $2,357.50 per product.

We estimate that 101 products of U.S. registry would require an inspection for sealant application. We estimate it would take .5 hours to comply with the inspection requirements of this proposed AD.

Based on these figures, we estimate the cost of the inspection for the sealant application requirement of the proposed AD on U.S. operators to be $4,292.50, or $42.50 per product.

In addition, we estimate that any necessary follow-on actions would take about 1.5 work-hours and require parts costing $50, for a cost of $177.50 per product. We have no way of determining the number of products that may need these actions.

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

**Regulatory Findings**

We 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 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. Will not have a significant
economic impact, positive or negative,
on a substantial number of small entities
under the criteria of the Regulatory
Flexibility Act.

We prepared a regulatory evaluation
of the estimated costs to comply with
this proposed AD and placed it in the
AD docket.

List of Subjects in 14 CFR Part 39
Air transportation, Aircraft, Aviation
safety, 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 adding
the following new AD:

Embraer—Empresa Brasileira de
Aeronautica S.A.: Docket No. FAA–
2011–0086; Directorate Identifier 2010–
CE–072–AD.

Comments Due Date
(a) We must receive comments by June 24,
2011.

Affected ADs
(b) None.

Applicability
(c) This AD applies to the following
airplanes, certificated in any category:
(1) Group I airplanes

Group I includes Empresa Brasileira de
Aeronautica S.A. (EMBRAER) EMB–500
airplanes, serial numbers 50000005 through
50000017, 50000219 through 50000221, and
50000226.

Note 1: In-production effectiveness—Empresa
Brasileira de Aeronautica S.A. (EMBRAER)

EMB–500 airplanes, serial numbers
500000218, 50000222 through 50000225, and
50000227, and on, have incorporated the
proposed actions of this AD at the factory
and are not included in the applicability of
this AD.

Subject
(d) Air Transport Association of America

Reason
(e) The mandatory continuing
airworthiness information (MCAI) states:
It has been found that moisture may
accumulate and freeze, under certain
conditions, in the gap between the AOA vane
base assembly and the stationary ring of the
sensor’s body. If freezing occurs both AOA
sensors may get stuck and the Stall Warning
Protection System (SWPS) will be no longer
effective without alerting. This may result in
inadvertent aerodynamic stall and loss of
controllability of the airplane.

Since this condition may occur in other
airplanes of the same type and affects flight
safety, a corrective action is required. Thus,
sufficient reason exists to request compliance
with this AD in the indicated time limit.

The MCAI requires replacement of both
Angle of Attack (AOA) sensors and cover
plates, inspection of the sensor area, and, if
needed, application of sealant between the
AOA covers and the AOA sensors.

Actions and Compliance
(f) Unless already done, do the following
actions:

(1) For Group I airplanes: Within 300 hours
time-in-service (TIS) after the effective date
of this AD or within 12 months after the
effective date of this AD, whichever comes
first, do the following actions following part
I of PHENOM Service Bulletin SB No.: 500–
27–0006, Revision No.: 02, dated January 14,
2011;

(i) Replace the left hand (LH) and the right
hand (RH) AOA sensors P/N C–100117–2
with LH and RH AOA sensors P/N C–
100117–3.

(ii) Replace the LH cover plate P/N 500–
01702–401 and the RH cover plate P/N 500–
01702–402 with LH and RH AOA sensors P/N 500–
01702–404.

(iii) If, before the effective date of this AD,
the replacement actions required in
paragraphs (f)(1)(i), and (ii) of this proposed
AD have already been done following
PHENOM Service Bulletin SB No.: 500–27–
0006, dated September 2, 2010, and/or
PHENOM Service Bulletin SB No.: 500–27–
0006, Revision No. : 01, dated November 29,
2010, we will allow “unless already done”
credit for corrective actions already done.

(4) For group I and group II airplanes:
Within 300 hours TIS after the effective date
of this AD or within 12 months after the
effective date of this AD, whichever comes
first, inspect the interface between the AOA
covers and the AOA sensors, and, if the
sealant is missing, clean the areas and apply
new sealant following part II of PHENOM
Service Bulletin SB No.: 500–27–0006,
Revision No.: 02, dated January 14, 2011.

FAA AD Differences

Note 2: This AD differs from the MCAI
and/or service information as follows: No
differences.

Other FAA AD Provisions
(g) The following provisions also apply to
this AD:

(1) Alternative Methods of Compliance
(AMOCs): The Manager, Standards Office,
FAA, has the authority to approve AMOCs
for this AD, if requested using the procedures
found in 14 CFR 39.19. Send information to
Attn: Jim Rutherford, Aerospace Engineer,
FAA, Small Airplane Directorate, 901 Locust,
Room 301, Kansas City, Missouri 64106;
telephone: (816) 329–4165; fax: (816) 329–
4090. Before using any approved AMOC on
any airplane to which the AMOC applies,
notify your appropriate principal inspector
(PI) in the FAA Flight Standards District
Office (FSIDO), or lacking a PI, your local
FSDD.

(2) Airworthy Product: For any requirement
in this AD to obtain corrective actions from
a manufacturer or other source, use these
actions if they are FAA-approved. Corrective
actions are considered FAA-approved if they
are approved by the State of Design Authority
(or their delegated agent). You are required
to assure the product is airworthy before it is
returned to service.

(3) Reporting Requirements: For any
reporting requirement in this AD, a federal
agency may not conduct or sponsor, and a
person is not required to respond to, nor
shall a person be subject to a penalty for
failure to comply with a collection of
information subject to the requirements of
the Paperwork Reduction Act unless that
collection of information displays a current
valid OMB Control Number. The OMB
Control Number for this information
collection is 2120–0056. Public reporting for
this collection of information is estimated to
be approximately 5 minutes per response,
including the time for reviewing instructions,
completing and reviewing the collection of
information. All responses to this collection of
information are mandatory. Comments
concerning the accuracy of this burden and
suggestions for reducing the burden should
be directed to the FAA at: 800 Independence
Ave., SW., Washington, DC 20591, Attn:
Information Collection Clearance Officer,
AES–200.

Related Information

(h) Refer to Agencia Nacional de Aviação
Civil—Brazil (ANAC), NPR/AD 2011–500–
02, dated March 31, 2011; MCAI Agência
Nacional De Aviação Civil—Brazil (ANAC),
AD No.: 2010–11–01, dated December 20,
2010; and PHENOM Service Bulletin SB No.:
500–27–0006, Revision No.: 02, dated
January 14, 2011; for related information. For
service information related to this AD,
contact EMBRAER Empresa Brasileira de
The proposed AD would require actions that are intended to address the unsafe condition described in the MCAI.

DATES: We must receive comments on this proposed AD by June 24, 2011.

ADDRESSES: You may send comments by any of the following methods:

- Fax: (202) 493–2251.

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–2011–0389; Directorate Identifier 2007–NM–189–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 based on these 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 December 20, 1989, we issued AD 90–01–10, Amendment 39–6448 (55 FR 261, January 4, 1990). That AD required actions intended to address an unsafe condition on the products listed above.

Since we issued AD 90–01–10, Airbus has refined the inspection program for cracking at areas of the fuselage defined in AD 90–01–10 as “special areas” (paragraph A.1. of AD 90–01–10), “standard areas” (paragraph A.2. of AD 90–01–10), and “modified or repaired areas” (paragraph A.3. of AD 90–01–10). The new inspection program is designed to allow airplanes to reach their limit of validity (LOV). Certain compliance times are reduced and certain other compliance times are extended.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2007–0091, dated April 10, 2007, and corrected June 23, 2008 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

This Airworthiness Directive (AD) is issued in order to prevent cracks development in sections 13 to 18 of the fuselage between rivets of longitudinal lap joints between frames 16 and 80 which could affect the structural integrity of the fuselage if not corrected.

This new AD:

- Retains the requirements of DGAC AD 1989–061–092[B]R4 [which corresponds to FAA AD 90–01–10], which is cancelled;
- Takes into account a new inspection program as detailed in AIRBUS Service Bulletin (SB) A300–53–0211 Revision 7, which will allow A300 aircraft to reach the Limit of Validity (LOV).

This AD has been republished to correctly refer to SB A300–53–0211 in Note 2 of the Compliance section.

The inspection program consists of repetitive detailed inspections for disbonding and cracking of the fuselage inner doubler; eddy current and ultrasonic inspections of the fuselage longitudinal lap joints for cracking; and repair if necessary (i.e., repairing any cracking or disbonding, or contacting Airbus for repair instructions and doing the repair). You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Airbus has issued Service Bulletin A300–53–229, Revision 5, dated April 8,