



**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT**

BIWEEKLY 2001-12

This electronic copy may be printed and used in lieu of the FAA biweekly paper or microfiche copy.

U.S. Department of Transportation
Federal Aviation Administration
Regulatory Support Division
Airworthiness Programs Branch, AFS-610
P. O. Box 26460
Oklahoma City, OK 73125-0460
FAX 405-954-4104

FOR YOUR INFORMATION:

**Type Certificate Data Sheets (TCDS) issued by the FAA
may be accessed at the web site:
www.airweb.faa.gov/rgl**

NOTICE - NOTICE - NOTICE - NOTICE

**ALL AIRWORTHINESS DIRECTIVES ARE NOW AVAILABLE
ON THE INTERNET FOR FULL TEXT SEARCHING.**

THE DIRECT ADDRESS IS:

www.airweb.faa.gov/rgl

IF YOU HAVE ANY QUESTIONS CALL (405)954-6896

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information.			
Biweekly 2001-01			
2000-26-07		British Aerospace	BAe 146 and Avro 146-RJ Series
2000-26-08		British Aerospace	Jetstream 4101
2000-26-09		Dornier Luftfahrt	328-100 Series
2000-26-10		British Aerospace	ATP
2000-26-13		Dornier Luftfahrt	328-300 Series
2000-26-14		Airbus Industrie	A310 Series
2000-26-15	S 2000-07-02	McDonnell Douglas	MD-11 Series
2000-26-20		Gulfstream Aerospace	G-1159A (G-111) Series
Biweekly 2001-02			
2000-26-03	C S 99-27-10	Airbus Industrie	A310 Series, A300 B4-600, A300 B4-600R, and A300 F4-600R (A-300-600) Series
2001-01-01		BMW Rolls-Royce	Engine: BR700-710A1-10 and BR700-710A2-20
2001-01-02		British Aerospace	HP137 Mk1, Jetstream Series 200, and Jetstream 3101 and 3201
2001-01-03		British Aerospace	HP137 Mk1, Jetstream Series 200, and Jetstream 3101 and 3201
2001-01-05		Dassault Aviation	Falcon 10 Series and Mystere Falcon 50
2001-01-06	S 94-04-05	Airbus Industrie	A300 B2 and A300 B4 (A300), A300 B4-600, A300 B4-600R, and A300 F4-600R (A300-600) and A310 Series
2001-01-07		Airbus Industrie	A300 B2, A300 B4, A300 B4-600, A300 B4-600R, A300 F4-600R, and A310 Series
2001-01-08		British Aerospace	Jetstream 4101
2001-01-09	S 99-26-12	Airbus Industrie	A330-301, -321, and -322 Series and A340-211, -212, -213, -311, -312, and -313 Series
2001-01-10		Boeing	747-400, 747-400F, 767-200, and 767-300 Series
2001-01-12		Construcciones Aeronauticas	CN-235, CN-235-100, and CN-235-200 Series
2001-01-13		Boeing	737-300, -400, and -500 Series
2001-02-01		Boeing	737-300, -400, and -500 Series
2001-02-02		Bombardier	DHC-8-201, -202, -301, -311, and -315
2001-02-51	E	Empresa Brasileira	EMB-145 and EMB-135 Series
Biweekly 2001-03			
2000-25-51		Rolls-Royce Deutschland	Engine: BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30
2001-02-05	S 00-01-51	Bombardier	CL-600-2B16 Series (CL-604)
2001-02-06	S 97-26-06	Embraer	EMB-120 Series
2001-02-07		Boeing	767 Series
2001-02-08		Short Brothers	SD3-60 SHERPA, SD3-SHERPA, SD3-30, and SD3-60 Series
2001-02-09	S 97-06-04	Boeing	757-200 Series
2001-02-12		CFM International	Engine: CFM56-7B
2001-02-51		Embraer	EMB-145 and EMB-135 Series
2001-03-01		Israel Aircraft Industries	Galaxy Airplanes
2001-03-02		Pratt & Whitney Canada	Engine: PW306A and PW306B
2001-03-52	E	Bombardier	CL-600-2B16 (CL-604) Series
Biweekly 2001-04			
2001-03-04		Bombardier	CL-600-2B19 Series
2001-03-05		Learjet	45
2001-03-06		Raytheon Aircraft	MU-300, MU-300-10, 400, and 400A Series
2001-03-07		Airbus	A330 and A340 Series
2001-03-08	S 98-04-45	Bombardier	CL-600-2B19 Series
2001-03-09		Boeing	777 Series
2001-03-10		Boeing	747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, and 747SR Series
2001-03-11		British Aerospace	HP137 Mk1, Jetstream series 200, and Jetstream models 3101 and 3201
2001-03-12	S 99-26-18	British Aerospace	Jetstream 4101
2001-03-13		Boeing	707 Series
2001-03-14		Airbus	A300-B4-600, B4-600R, and F4-600R (Collectively Called A300-600) Series, and A300 B4 Series

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information.			
Biweekly 2001-04...cont'd			
2001-04-01		British Aerospace	BAe 146-100A, -200A, and -300A Series, and Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A Series
2001-04-02		Bombardier	DHC-8-100, -200, and -300 Series
2001-04-03		Embraer	EMB-145 Series
2001-04-04		Dornier Luftfahrt	228-100, 228-101, 228-200, 228-201, 228-202, and 228-212
Biweekly 2001-05			
2001-03-52		Bombardier	CL-600-2B16 (CL-604) Series
2001-04-05		Raytheon Aircraft	Beech Model 1900D
2001-04-06		CFM International	Engine: CFM56-3, -3B, and -3C Series Turbofan Engines
2001-04-08		Boeing	737-600, -700, -800, and -700C Series
2001-04-09		Boeing	767 Series
2001-04-10		Pratt & Whitney Canada	Engine: PW305 and PW305A Turbofan Engines
2001-04-11		Pratt & Whitney	Engine: JT9D-7R4D, -7R4D1, -7R4E, -7R4E1 (AI-500), -7, -7A, -7AH, -7H, -7F, and -20 Series Turbofan Engines
2001-04-15		McDonnell Douglas	DC-8-31, -32, -33, -41, -42, -43, -51, -52, -53, -55, -61, -61F, -62, -62F, -63, -63F, and DC-8F-54, DC-8F-55
2001-04-16	S 00-20-02	General Electric Company	Engine: CF6-50 Series Turbofan Engines
2001-05-05		Boeing	747 Series
Biweekly 2001-06			
99-18-18	R1	Dowty Aerospace Propellers	Propeller: R381/6-123-F/5
2001-05-06		BMW Rolls-Royce	Engine: BR700-710A1-10 and BR700-710A2-20
2001-05-07	S 00-25-06	Pratt & Whitney	Engine: PW4052, PW4056, PW4060, PW4060A, PW4062, PW4152, PW4156, PW4156A, PW4158, PW4164, PW4168, PW4168A, PW4460, and PW4462
2001-05-10		McDonnell Douglas	DC-10 Series, MD-11 Series, and KC-10A
2001-06-02	S 86-20-08	McDonnell Douglas	DC-8 Series
2001-06-03		Airbus	A330-301, -321, and -322 Series and A340 Series
2001-06-04		McDonnell Douglas	DC-8-33, -42, -55, and -61 Series
2001-06-07		Bombardier	CL-600-2B19 Series
2001-06-08		Boeing	737-600, -700, and -800 Series
Biweekly 2001-07			
2001-06-09	S 98-15-17	General Electric Company	Engine: CF6-80A3 Series
2001-06-10		Airbus Industrie	A300 B4-601, A300 B4-603, A300 B4-620, A300 B4-605R, A300 B4-622R, and A300 F4-605R
2001-06-11		Airbus Industrie	A330-301, -321, -322, -341, and -342 Series
2001-06-12		Boeing	767 Series
2001-06-13		Bombardier	DHC-8-100, -200, and -300 Series
2001-06-14		SAAB Aircraft	SAAB SF340A and SAAB 340B
2001-06-15		Boeing	737-600, -700, -700C, and -800 Series
2001-06-16	S 92-03-02	McDonnell Douglas	DC-9-81, -82, -83, and -87 Series and MD-88
2001-06-18	S 2001-02-06	Embraer	EMB-120 Series
2001-07-02		Airbus Industrie	A330-301, -321, -322, -341, and -342 Series and A340-211, -212, -213, -311, -312, and -313 Series
2001-07-03		Hartzell Propeller	Propeller: Y-shank Series
Biweekly 2001-08			
2000-23-04 R1		Aerospatiale	ATR42-500 Series
2001-07-04		Cessna Aircraft	750 Airplanes
2001-07-05		Boeing	767 Series
2001-07-06		SAAB Aircraft	SAAB 2000 Series
2001-07-07	S 99-20-07	Fokker Services B.V.	F.28 Mark 0070 and Mark 0100 Series
2001-07-08		McDonnell Douglas	MD-11 Series
2001-07-10		McDonnell Douglas	DC-9-81, -82, -83, and -87 Series and MD-88, and MD-90-30 Series

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information.			
Biweekly 2001-08...cont'd			
2001-07-11		Learjet	23, 24, 24A, 24B, 24B-A, 24C, 24D, 24D-A, 24E, 24F, 24F-A, 25, 25A, 25B, 25C, 25D, 25F, 28, 29, 31, 31A, 35, 35A (C-21A military), 36, 36A, 55, 55B, and 55C
2001-08-01		JanAero Devices	Appliance: 14D11 or 23D04 Fuel Regulator and Shutoff Valves installed with B-Series Combustion Heaters
2001-08-09	S 01-04-08	Boeing	737-600, -700, -800, and -700C Series
2001-08-51	E	CFM International	Engine: CFM56-5C
2001-08-52	E	Pratt & Whitney	Engine: PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650
Biweekly 2001-09			
2000-26-09	R1	Dornier Luftfahrt	328-100 Series
2001-08-02	S 86-11-06 & 92-03-12	Boeing	707 and 720 Series
2001-08-03		Boeing	777-200 Series
2001-08-05		Bombardier	DHC-7-100, -101, -102, and -103 Series
2001-08-06		Airbus	A300 B4-620, A310-203, A310-221, and A310-222 Series
2001-08-07	S 00-17-51	Boeing	737-200 and -300 Series
2001-08-11	S 97-26-19	Aerospatiale	ATR42-200, -300, and -320 Series
2001-08-12		Airbus	A340 Series
2001-08-13		Gulfstream Aerospace	G-1159, G-1159A, G-1159B, G-IV, and G-V Series
2001-08-15		Rolls-Royce Corporation	Engine: AE 3007A, AE 3007A1/1, AE 3007A1/2, AE 3007A1, AE 3007A1/3, AE 3007A1P, and AE 3007A3
2001-08-16		McDonnell Douglas	DC-8 Series
2001-08-17		McDonnell Douglas	DC-8-11, DC-8-12, DC-8-21, DC-8-31, DC-8-32, DC-8-33, DC-8-41, DC-8-42, DC-8-43, DC-8-51, DC-8-52, DC-8-53, DC-8-55, DC-8F-54, DC-8F-55, DC-8-61, DC-8-61F, DC-8-62, DC-8-62F, DC-8-63, and DC-8-63F Series
2001-08-18		McDonnell Douglas	DC-8 Series
2001-08-19		McDonnell Douglas	DC-8 Series
2001-08-20		McDonnell Douglas	DC-8 Series
2001-08-21		Lockheed	L-1011-385 Series
2001-08-22		Boeing	767-200 and -300 Series
2001-08-23		Boeing	767-200 Series
2001-08-24		Boeing	737 Series
2001-08-25		Airbus	A330-301, -321, -322, and -342 Series and A340 Series
2001-08-26		Airbus	A319 and A320 Series
2001-08-27		Lockheed	L-1011 Series
2001-08-28		Boeing	767-200 and -300 Series
2001-09-01		Boeing	757-200 Series and 757-300 Series
2001-09-02		Boeing	777-200 Series
2001-09-03		Airbus	A330 Series
2001-09-04		Dornier Luftfahrt	328-300 Series
2001-09-07	S 01-08-52	Pratt & Whitney	Engine: PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650
2001-09-10	S 01-07-08	McDonnell Douglas	MD-11 Series
2001-09-51	E	Boeing	737-600, -700, -700C, and -800 Series
Biweekly 2001-10			
2000-03-03	R1	General Electric	Engine: CF34-3A1 and -3B1 Series
2001-09-05		Airbus	A310-324, A310-325, and A300 B4-622R Series
2001-09-08		Construcciones Aeronauticas	CN-235 Series
2001-09-09		Airbus	A330-202, -223, -243, -301, -321, -322, -323, -341, -342, -343 and A340-211, -212, -213, -311, -312, -313
2001-09-12		Boeing	727-100, -100C, and -200 Series
2001-09-13		Boeing	767-200, -300, and -300F Series
2001-09-14		Airbus	A330-243, -341, -342, and -343 Series
2001-09-15	S 95-01-06 R1	Boeing	737-200 and -300 Series

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
--------	-------------	--------------	---------------

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information.

Biweekly 2001-10...cont'd

2001-09-17	S 01-08-51	CFM International	Engine: CFM56-5C
2001-09-18	S 96-19-09	McDonnell Douglas	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) Series and MD-88
2001-10-01		Embraer	EMB-135 and EMB-145 Series
2001-10-02		Embraer	EMB-135 and -145 Series
2001-10-03		General Electric	Engine: CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1
2001-10-05		Bombardier	DHC-8-100, -200, and -300 Series
2001-10-07		General Electric	Engine: CF6-80C2 Series

Biweekly 2001-11

2001-07-03	COR	Hartzell Propellers	Propeller: Y-shank Series
2001-10-09		Honeywell	Appliance: Automatic Flight Control Systems (AFCS)
2001-10-10		McDonnell Douglas	DC-9-81, -82, -83, and -87 Series, and MD-88
2001-10-11		McDonnell Douglas	MD-90-30 Series
2001-10-12	S 00-01-09	GE Aircraft Engines	Engine: CJ610 Series and CF700 Series
2001-10-13		Britax Sell	Appliance: water boilers, coffee makers, and beverage makers
2001-10-14		Boeing	737, 747, 757, 767, and 777 Series
2001-10-15		Embraer	EMB-135 and -145 Series
2001-11-01		McDonnell Douglas	DC-9-32 Series

Biweekly 2001-12

85-21-51		Boeing	767-200
2001-06-16	C S 92-03-02	McDonnell Douglas	DC-9-81, -82, -83, -87 Series, and MD-88
2001-09-51		Boeing	737-600, -700, -700C, and -800 Series
2001-11-03		Raytheon	Beech F33A, A36, B36TC, 58/58A, C90A, B200, 1900D
2001-11-05		CFM International	Engine: CFM56-2, -2B, -3, -5B, -5C and -7B Series
2001-11-06	S 98-20-25	Boeing	747 Series
2001-11-07		Boeing	737, 757, and 767 Series
2001-11-08	S 99-18-16	Boeing	747-400, 747-400F, 757-200, 757-200CB, 757-200PF, 767-200, 767-300 and 767-300F Series
2001-11-09		Airbus	A330 and A340 Series
2001-11-10		Bombardier	DHC-8-400 Series
2001-11-11		Boeing	737, 747, and 777 Series
2001-12-02		Learjet	55 Series and 60
2001-12-03		Boeing	767-300 Series
2001-12-04		Dornier Luftfahrt	328-300 Series
2001-12-05		Boeing	747-100, 747-200, 747-300, and 747SR Series
2001-12-51	E	Boeing	737-800 Series

BW 2001-12

**BOEING
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

Final Rule Issued February 1986.

85-21-51 Boeing: Amendment 39-5232. Docket No. 85-NM-125-AD.

Applies to Boeing Model 767-200 airplanes, certificated in any category. To prevent loss of certain critical airframe self-locking nuts, accomplish the following, unless previously accomplished:

A. Within 35 landings or 10 days after the effective date of this AD, whichever occurs first, inspect the horizontal elevator self-locking nuts in accordance with Boeing Alert Service Bulletin 767-27A0064, dated October 25, 1985, or later FAA-approved revision. Self-locking nuts found to be insecure in accordance with the criteria specified in the service bulletin must be replaced before further flight with serviceable self-locking nuts.

B. Within 50 landings or 20 days after the effective date of this AD, whichever occurs first, inspect the inboard aft trailing edge flap self-locking nuts and the outboard wing spoiler actuator self-locking nuts in accordance with Boeing Alert Service Bulletin 767-27A0064, dated October 25, 1985, or later FAA-approved revision. Self-locking nuts found to be insecure in accordance with the criteria specified in the service bulletin must be replaced before further flight with serviceable self-locking nuts.

C. Alternate means of compliance which provide an acceptable level of safety may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to Boeing Commercial Airplane Company, P. O. Box 3707, Seattle, Washington 98124. This document may also be examined at FAA Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective February 24, 1986 as to all persons, except those persons to whom it was made immediately effective by telegraphic AD T85-21-51, issued October 25, 1985.

FOR FURTHER INFORMATION CONTACT: Mr. Richard Yarges, Airframe Branch, ANM-120S; telephone (206) 431-2925. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168..

Issued in Seattle, Washington, on January 28, 1986.

Wayne J. Barlow, Acting Director, Northwest Mountain Region

BW 2001-12

**MCDONNELL DOUGLAS
AIRWORTHINESS DIRECTIVE
CORRECTION
LARGE AIRCRAFT**

2001-06-16 MCDONNELL DOUGLAS: Amendment 39-12163. Docket 98-NM-326-AD. Supersedes AD 92-03-02, Amendment 39-8156.

Applicability: All Model DC-9-81, -82, -83, and -87 series airplanes; and Model MD-88 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 (i)(1) 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 ice accumulation on the wing upper surfaces, which could result in ingestion of ice into one or both engines and consequent loss of thrust from one or both engines, accomplish the following:

**RESTATEMENT OF REQUIREMENTS OF AD 92-03-02:
Airplane Flight Manual Revision**

(a) Within 10 days after January 17, 1992 (the effective date of AD 92-03-02, amendment 39-8156), revise the Limitations Section of the FAA-approved Airplane Flight Manual (AFM) to include the following. This may be accomplished by inserting a copy of this AD in the AFM.

"Ice on Wing Upper Surfaces

CAUTION

Ice shedding from the wing upper surface during takeoff can cause severe damage to one or both engines, leading to surge, vibration, and complete thrust loss. The formation of ice can occur on wing surfaces during exposure of the airplane to normal icing conditions. Clear ice can also occur on the wing upper surfaces when cold-soaked fuel is in the main wing fuel tanks, and the airplane is exposed to conditions of high humidity, rain, drizzle, or fog at ambient temperatures well above freezing. Often, the ice accumulation is clear and difficult to detect visually. The ice forms most frequently on the inboard, aft corner of the main wing tanks. [END OF CAUTIONARY NOTE]

The wing upper surfaces must be physically checked for ice when the airplane has been exposed to conditions conducive to ice formation. Takeoff may not be initiated unless the flight crew verifies that a visual check and a physical (hands-on) check of the wing upper surfaces have been accomplished, and that the wing is clear of ice accumulation when any of the following conditions occur:

- (1) When the ambient temperature is less than 50 degrees F and high humidity or visible moisture (rain, drizzle, sleet, snow, fog, etc.) is present;
- (2) When frost or ice is present on the lower surface of either wing;
- (3) After completion of de-icing.

When inspection aids (i.e. tufts, decals, mount pads, painted symbols, and paint stripes) are installed in accordance with McDonnell Douglas MD-80 Service Bulletin 30-59, the physical check may be made by assuring that all installed tufts move freely.

NOTE

This limitation does not relieve the requirement that aircraft surfaces are free of frost, snow, and ice accumulation, as required by Federal Aviation Regulations Sections 91.527 and 121.629. [END OF NOTE]"

AFM Configuration Deviation List Revision

(b) Within 10 days after January 17, 1992, revise the Configuration Deviation List (CDL) Appendix of the FAA-approved AFM to include the following. This may be accomplished by inserting a copy of this AD in the AFM.

"30-80-01 Triangular Decal and Tuft Assemblies

Up to two (2) decals or tufts per side may be missing, provided:

- a) At least one decal and tuft on each side is located along the aft spar line; and
- b) The tufts are used for performing the physical check to determine that the upper wing is free of ice by observing that the tufts move freely.

Up to eight (8) decals and/or tufts may be missing, provided:

- a) Takeoff may not be initiated unless the flight crew verifies that a physical (hands-on) check is made of the upper wing in the location of the missing decals and/or tufts to assure that there is no ice on the wing when icing conditions exist;

OR

- b) When the ambient temperature is more than 50 degrees F."

Installation of Inspection Aids

(c) Within 30 days after January 17, 1992, install inspection aids (i.e., tufts, decals, mount pads, painted symbols, and paint stripes) on the inboard side of the wings' upper surfaces, in accordance with McDonnell Douglas Service Bulletin 30-59, dated September 18, 1989; Revision 1, dated January 5, 1990; or Revision 2, dated August 15, 1990.

NEW REQUIREMENTS OF THIS AD:

Repetitive Tests and One-Time Inspection

(d) For airplanes on which an overwing heater blanket system was installed without installation of a heater protection panel (HPP) or an equipment protection device (EPD) prior to the effective date of this AD: Within 60 days after the effective date of this AD, accomplish the actions specified in paragraph (d)(1) or (d)(2) of this AD, as applicable.

(1) For airplanes on which the overwing heater blanket system was installed in accordance with McDonnell Douglas Service Bulletin MD80-30-071, Revision 02, dated February 6, 1996; or McDonnell Douglas Service Bulletin MD80-30-078, Revision 01, dated April 8, 1997: Accomplish paragraphs (d)(1)(i) and (d)(1)(ii) of this AD.

(i) Remove secondary access covers, and perform a one-time detailed visual inspection to detect discrepancies (mechanical damage or punctures in the upper skin of the blanket, prying damage on the panel, and fuel leakage) of the overwing heater blanket, in accordance with McDonnell Douglas Alert Service Bulletin MD80-30A087, dated September 22, 1997. And,

(ii) Accomplish paragraph (d)(1)(ii)(A) or (d)(1)(ii)(B) of this AD.

(A) Perform dielectric withstanding voltage and resistance tests in accordance with McDonnell Douglas Alert Service Bulletin MD80-30A087, dated September 22, 1997. Repeat the tests thereafter at intervals not to exceed 150 days, until installation of an HPP in accordance with paragraph (f)(1)(i) or (f)(1)(ii) of this AD, as applicable.

(B) Deactivate the overwing heater blanket system until accomplishment of dielectric withstanding voltage and resistance tests specified in paragraph (d)(1)(ii)(A). If the overwing heater blanket system is deactivated as provided by this paragraph, continue to accomplish the requirements of paragraphs (a), (b), and (c) of this AD.

Note 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(2) For airplanes on which the overwing heater blanket system was installed in accordance with TDG Aerospace, Inc., STC SA6042NM: Accomplish paragraphs (d)(2)(i) and (d)(2)(ii) of this AD.

(i) Remove secondary access covers, and perform a one-time detailed visual inspection to detect discrepancies (mechanical damage or punctures in the upper skin of the blanket, prying damage on the panel, and fuel leakage) of the overwing heater blanket, in accordance with McDonnell Douglas Alert Service Bulletin MD80-30A087, dated September 22, 1997. And,

(ii) Accomplish paragraph (d)(2)(ii)(A) or (d)(2)(ii)(B) of this AD.

(A) Perform dielectric withstanding voltage and resistance tests in accordance with McDonnell Douglas Alert Service Bulletin MD80-30A087, dated September 22, 1997. Repeat the tests thereafter at intervals not to exceed 150 days, until installation of an EPD in accordance with paragraph (f)(2)(i) of this AD.

(B) Deactivate overwing heater blanket system until accomplishment of dielectric withstanding voltage and resistance tests specified in paragraph (d)(2)(ii)(A). If the overwing heater blanket system is deactivated as provided by this paragraph, continue to accomplish the requirements of paragraphs (a), (b), and (c) of this AD.

Corrective Action

(e) If any discrepancy is detected during any inspection or test performed in accordance with paragraph (d) of this AD, prior to further flight, repair or replace the affected heater blanket, in accordance with McDonnell Douglas Alert Service Bulletin MD80-30A087, dated September 22, 1997; except as provided in paragraph (h) of this AD.

Note 3: McDonnell Douglas Alert Service Bulletin MD80-30A087, dated September 22, 1997, references TDG Aerospace Document E95-451, Revision B, dated January 31, 1996, as an additional source of service information for accomplishment of repair or replacement of the overwing heater blanket.

Installation of Overwing Heater Blanket or Primary Upper Wing Ice Detection System

(f) Within 3 years after the effective date of this AD, do the requirements of either paragraph (f)(1) or (f)(2) of this AD.

(1) Do the actions specified in paragraph (f)(1)(i) or (f)(1)(ii) of this AD, as applicable.

(i) For airplanes listed in Group 1 in McDonnell Douglas Service Bulletin MD80-30-090, dated October 19, 1999: Install an overwing heater blanket system in accordance with McDonnell Douglas Service Bulletin MD80-30-071, Revision 02, dated February 6, 1996; and modify and reidentify the existing HPP in accordance with McDonnell Douglas Service Bulletin MD80-30-090. Modification of the existing HPP in accordance with this paragraph constitutes terminating action for the repetitive inspections required by (d)(1)(ii)(A) of this AD.

(ii) For airplanes listed in Group 2 in McDonnell Douglas Service Bulletin MD80-30-090, dated October 19, 1999: Install an overwing heater blanket system in accordance with McDonnell Douglas Service Bulletin MD80-30-078, Revision 01, dated April 8, 1997; and install an HPP and associated wiring in accordance with McDonnell Douglas Service Bulletin MD80-30-090. Installation of an HPP and associated wiring in accordance with this paragraph constitutes terminating action for the repetitive inspections required by (d)(1)(ii)(A) of this AD.

Note 4: For other airplanes, accomplishment of the requirements of paragraph (f)(1)(i) or (f)(1)(ii) of this AD may be acceptable per paragraph (i)(1) of this AD.

(2) Accomplish the actions specified in either paragraph (f)(2)(i), (f)(2)(ii), or (f)(2)(iii) of this AD.

(i) Install an overwing heater blanket system, and install an EPD that provides a circuit protection function to the overwing heater blanket, in accordance with a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA. Installation of an EPD in accordance with this paragraph constitutes terminating action for the repetitive inspections required by (d)(2)(ii)(A) of this AD.

Note 5: Installation of an overwing heater blanket system and installation of an EPD that provides a circuit protection function to the overwing heater blanket, in accordance with TDG Aerospace, Inc., SA6042NM, or TDG Master Drawing List (MDL) E93-104, Revision R, dated October 25, 2000; is an approved means of compliance with the requirements of paragraph (f)(2)(i) of this AD

(ii) Install an overwing heater blanket system in accordance with a method approved by the Manager, Los Angeles ACO.

Note 6: Installation of an overwing heater blanket system in accordance with AlliedSignal STC SA6061NM, is an approved means of compliance with the requirements of paragraph (f)(2)(ii) of this AD.

(iii) Install an FAA-approved primary upper wing ice detection system in accordance with a method approved by the Manager, Los Angeles ACO.

Note 7: Boeing (McDonnell Douglas) has received FAA approval of an acceptable primary upper wing ice detection system. This modification has been assigned a Boeing (McDonnell Douglas) service bulletin number but, at this time, no service bulletin is available.

AFM Revision

(g) Except as provided by paragraph (h) of this AD, prior to further flight after accomplishment of the installation required by paragraph (f)(1) or (f)(2) of this AD, revise the Limitations Section of the FAA-approved AFM to include the following. This may be accomplished by inserting a copy of this AD in the AFM. After accomplishment of the installation required by paragraph (f)(1) or (f)(2) of this AD and this AFM revision, the AFM revisions required by paragraphs (a) and (b) of this AD may be removed from the AFM, and the inspection aids required by paragraph (c) of this AD may be removed from the airplane.

"Ice on Wing Upper Surfaces

CAUTION

Ice shedding from the wing upper surface during takeoff can cause severe damage to one or both engines, leading to surge, vibration, and complete thrust loss. The formation of ice can occur on wing surfaces during exposure of the airplane to normal icing conditions. Clear ice can also occur on the wing upper surfaces when cold-soaked fuel is in the main wing fuel tanks, and the airplane is exposed to conditions of high humidity, rain, drizzle, or fog at ambient temperatures well above freezing. Often, the ice accumulation is clear and difficult to detect visually. The ice forms most frequently on the inboard, aft corner of the main wing tanks. [END OF CAUTIONARY NOTE]"

(h) An airplane may be operated with an inoperative overwing heater blanket or primary upper wing ice detection system for 10 days per the Master Minimum Equipment List (MMEL), provided that the actions specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD are done before further flight.

(1) Revise the Limitations Section of the FAA-approved AFM to include the following. This may be accomplished by inserting a copy of this AD in the AFM.

"Ice on Wing Upper Surfaces

CAUTION

The wing upper surfaces must be physically checked for ice when the airplane has been exposed to conditions conducive to ice formation. Takeoff may not be initiated unless the flight crew verifies that a visual check and a physical (hands-on) check of the wing upper surfaces have been accomplished, and that the wing is clear of ice accumulation when any of the following conditions occur:

- (1) When the ambient temperature is less than 50 degrees F and high humidity or visible moisture (rain, drizzle, sleet, snow, fog, etc.) is present;
- (2) When frost or ice is present on the lower surface of either wing;
- (3) After completion of de-icing.

When inspection aids (i.e. tufts, decals, mount pads, painted symbols, and paint stripes) are installed in accordance with McDonnell Douglas MD-80 Service Bulletin 30-59, the physical check may be made by assuring that all installed tufts move freely.

NOTE

This limitation does not relieve the requirement that aircraft surfaces are free of frost, snow, and ice accumulation, as required by Federal Aviation Regulations Sections 91.527 and 121.629. [END OF NOTE]"

(2) Revise the CDL Appendix of the FAA-approved AFM to include the following. This may be accomplished by inserting a copy of this AD in the AFM.

"30-80-01 Triangular Decal and Tuft Assemblies

Up to two (2) decals or tufts per side may be missing, provided:

- a) At least one decal and tuft on each side is located along the aft spar line; and
- b) The tufts are used for performing the physical check to determine that the upper wing is free of ice by observing that the tufts move freely.

Up to eight (8) decals and/or tufts may be missing, provided:

- a) Takeoff may not be initiated unless the flight crew verifies that a physical (hands-on) check is made of the upper wing in the location of the missing decals and/or tufts to assure that there is no ice on the wing when icing conditions exist;

OR

- b) When the ambient temperature is more than 50 degrees F."

(3) Install inspection aids (i.e., tufts, decals, mount pads, painted symbols, and paint stripes) on the inboard side of the wings' upper surfaces, in accordance with McDonnell Douglas Service Bulletin 30-59, dated September 18, 1989; Revision 1, dated January 5, 1990; or Revision 2, dated August 15, 1990.

Alternative Methods of Compliance

(i) (1) 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, Los Angeles ACO, FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

(2) The following alternative methods of compliance (AMOC) were approved previously per AD 92-03-02, amendment 39-8156, and are approved as AMOC's with the indicated paragraphs of this AD:

(i) Installation of a non-skid, striped triangular symbol per Option 5 of McDonnell Douglas Service bulletin MD80-30-059, Revision 4 through Revision 7, is approved as an AMOC with paragraph (b) of this AD.

(ii) Revision of the Configuration Deviation List (CDL) Appendix of the AFM by inserting a copy of CDL Appendix, Section I, Page 2A, dated March 10, 1993, into the AFM, is approved as an AMOC with paragraph (c) of this AD.

Note 8: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(j) 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.

Incorporation by Reference

(k) The actions required by paragraphs (c), (d), (e), (f)(1), and (h)(3) of this AD shall be done in accordance with the applicable service document identified in Table 1 of this AD.

Table 1: Referenced Service Documents.

Service Document	Revision Level	Date
McDonnell Douglas Service Bulletin 30-59	Original	September 18, 1989
McDonnell Douglas Service Bulletin 30-59	1	January 5, 1990
McDonnell Douglas Service Bulletin 30-59	2	August 15, 1990
McDonnell Douglas Alert Service Bulletin MD80-30A087	Original	September 22, 1997

Service Document	Revision Level	Date
McDonnell Douglas Service Bulletin MD80-30-090	Original	October 19, 1999
McDonnell Douglas Service Bulletin MD80-30-078	01	April 8, 1997
McDonnell Douglas Service Bulletin MD80-30-071	02	February 6, 1996

(1) The incorporation by reference of McDonnell Douglas Service Bulletin 30-59, dated September 18, 1989; McDonnell Douglas Service Bulletin 30-59, Revision 1, dated January 5, 1990; and McDonnell Douglas Service Bulletin 30-59, Revision 2, dated August 15, 1990; was approved previously by the Director of the Federal Register as of January 17, 1992 (57 FR 2014, January 17, 1992).

(2) The incorporation by reference of the remaining service bulletins listed in Table 1 of this AD, was approved previously by the Director of the Federal Register as of May 7, 2001 (66 FR 17499, April 2, 2001).

(3) Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(1) The effective date of this amendment remains May 7, 2001.

FURTHER INFORMATION CONTACT: Albert Lam, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5346; fax (562) 627-5210.

Issued in Renton, Washington, on May 30, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

BOEING AIRWORTHINESS DIRECTIVE FINAL RULE OF EMERGENCY LARGE AIRCRAFT

2001-09-51 BOEING: Amendment 39-12251. Docket 2001-NM-126-AD.

Applicability: Model 737-600, -700, -700C, and -800 series airplanes, line numbers 1 through 788 inclusive, 790 through 814 inclusive, 816, 819, 821, and 823, 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 (d) 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 freeplay in the tab control mechanism, which could result in elevator tab flutter, and consequent loss of controllability of the airplane, accomplish the following:

Inspection and Corrective Actions

(a) Within 10 days after the effective date of this AD, inspect the small jam nut on the elevator tab control rods to detect inspection putty and to determine its condition, per paragraph III.B. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1245, dated April 23, 2001.

(1) If inspection putty is found and it is intact, no further action is required by paragraph (a) of this AD.

(2) If inspection putty is missing or detached, prior to further flight, perform a torque check of the small and large jam nuts on the tab control rod, in accordance with paragraph III.B. of the alert service bulletin. Prior to further flight, perform corrective actions (including performing a detailed visual inspection of the threads on the rod end bearing for wear, measuring the diameter of the threads on the rod end bearing, replacing the rod end bearing and the threaded adjustment bushing, torquing the jam nuts, and applying inspection putty), as applicable, per paragraph III.B. of the alert service bulletin. If the tab control rod is disassembled and if no wear is found during accomplishment of the detailed visual inspection specified in this paragraph, measuring the diameter of the threads on the rod end bearing may be deferred until 250 flight cycles or 30 days after the effective date of this AD, whichever occurs first.

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(b) For any control rod jam nut on which the putty was found and was intact, as specified in paragraph (a)(1) of this AD: Within 250 flight cycles or 30 days after the effective date of this AD, whichever occurs first, perform a one-time inspection for torque of the small and large jam nuts on the tab control rods, per paragraph III.C. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1245, dated April 23, 2001. Prior to further flight, perform corrective actions (including performing a detailed visual inspection of the threads on the rod end bearing for wear, measuring the diameter of the threads on the rod end bearing, replacing the rod end bearing and the threaded adjustment bushing, torquing the jam nuts, and applying inspection putty), as applicable, per paragraph III.C. of the alert service bulletin.

Reporting Requirement

(c) Within 15 days after accomplishing the inspections required by paragraphs (a) and (b) of this AD, submit a report of inspection findings, positive or negative, to Boeing per paragraph I.C. of the Planning Information of Boeing Alert Service Bulletin 737-27A1245, dated April 23, 2001. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*) and have been assigned OMB Control Number 2120-0056.

Alternative Methods of Compliance

(d) 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. 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 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Incorporation by Reference

(e) The actions shall be done in accordance with Boeing Alert Service Bulletin 737-27A1245, dated April 23, 2001. 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.

Effective Date

(f) This amendment becomes effective on June 18, 2001, to all persons except those persons to whom it was made immediately effective by emergency AD 2001-09-51, issued on April 24, 2001, which contained the requirements of this amendment.

FOR FURTHER INFORMATION CONTACT: Kenneth J. Fairhurst, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1118; fax (425) 227-1181.

Issued in Renton, Washington, on May 25, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

**RAYTHEON AIRCRAFT COMPANY
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2001-11-03 RAYTHEON AIRCRAFT COMPANY: Amendment 39-12244; Docket No. 2000-CE-25-AD.

(a) What airplanes are affected by this AD? This AD affects the following airplanes that are certificated in any category:

Model	Serial Numbers
Beech F33A	CE-1050 through CE-1791
Beech A36	E-2205 through E-3217
Beech B36TC	EA-443 through EA-628
Beech 58/58A	TH-1436 through TH-1883
Beech C90A	Do not have the EFIS-84 System Installation equipped with factory installed KLN-88 LORAN: LJ-1278, LJ-1288, LJ-1293, LJ-1299, LJ-1314, AND LJ-1315
Beech C90A	Equipped with Collins EFIS-84 System: LJ-1306, LJ-1316, LJ-1318, LJ-1320 through LJ-1334, LJ-1340 through LJ-1592
Beech B200 1900D	BB-1314, BB-1449 through BB-1692 equipped with Collins EFIS-84 System UE-1 through UE-401

(b) Who must comply with this AD? Anyone who wishes to operate any of the above airplanes must comply with this AD.

(c) What problem does this AD address? The actions specified by this AD are intended to protect the blower motor circuit and reduce the possibility of the emission of smoke or a burning odor in the cockpit or passenger compartment as a result of a failed or seized blower motor.

(d) What actions must I accomplish to address this problem for Beech Models F33A, A36, B36TC, and 58/58A airplanes? To address this problem, you must accomplish the following actions:

Actions	Compliance	Procedures
(1) Inspect for an installed and properly working KA-33 cooling blower, unless already accomplished.	Within the next 600 hours time-in-service (TIS) after July 20, 2001 (the effective date of this AD) or within the next 6 calendar months after July 20, 2001 (the effective date of this AD), whichever comes first.	Do this action following Raytheon Mandatory Service Bulletin SB 34-3267, Issued: March, 1999.
(2) If the aircraft has a KA-33 cooling blower, install a 1 ampere circuit breaker, part number (P/N) 7277-2-1, in place of the factory installed 3 ampere/5 ampere circuit breakers.	Before further flight after the inspection required in paragraph (d)(1) of this AD.	Do this action following Raytheon Mandatory Service Bulletin SB 34-3267, Issued: March, 1999.

Actions	Compliance	Procedures
(3) Do not install, on any affected airplane, any 3 ampere/5 ampere circuit breakers to protect the KA-33 Cooling Blower.	As of July 20, 2001 (the effective date of this AD).	Not Applicable.

(e) What actions must I accomplish to address this problem for Beech Model C90A airplanes? To address this problem, you must accomplish the following actions:

Actions	Compliance	Procedures
(1) Install the in-line fuse holder, P/N HHJ-A, and install the 1-ampere slow-blow fuse, P/N MDL1, in the fuse holder, unless already accomplished.	Within the next 600 hours TIS after July 20, 2001 (the effective date of this AD) or within the next 6 calendar months after July 20, 2001 (the effective date of this AD), whichever comes first.	Do these actions following Raytheon Mandatory Service Bulletin SB 34-3269, Revision 1, Revised: October, 2000.
(2) Doing this action following Raytheon Mandatory Service Bulletin SB 34-3269, Issued: January 2000, is considered an alternative method of compliance with this AD.	Within the next 600 hours TIS after July 20, 2001 (the effective date of this AD) or within the next 6 calendar months after July 20, 2001 (the effective date of this AD), whichever comes first.	Use the procedures in Raytheon Mandatory Service Bulletin SB 34-3269, Issued: January 2000, if you use this alternative method of compliance.

(f) What actions must I accomplish to address this problem for Beech Model B200 airplanes? To address this problem, you must accomplish the following actions:

Actions	Compliance	Procedures
(1) Install the in-line fuse holder, P/N HHJ-A, and install the 1-ampere slow-blow fuse, P/N MDL1, in the fuse holder, unless already accomplished.	Within the next 600 hours TIS after July 20, 2001 (the effective date of this AD) or within the next 6 calendar months after July 20, 2001 (the effective date of this AD), whichever comes first.	Do these actions following Raytheon Mandatory Service Bulletin SB 34-3269, Revision 1, Revised: October, 2000.
(2) Remove the P/N GMW-1 fuse and install the new P/N GMW-3 fuse in the Avionics Junction Box, unless already accomplished.	Within the next 600 hours TIS after July 20, 2001 (the effective date of this AD) or within the next 6 calendar months after July 20, 2001 (the effective date of this AD), whichever comes first.	Do these actions following Raytheon Mandatory Service Bulletin SB 34-3269, Revision 1, Revised: October, 2000.
(3) Doing this action following Raytheon Mandatory Service Bulletin SB 34-3269, Issued: January 2000, is considered an alternative method of compliance with this AD.	Within the next 600 hours TIS after July 20, 2001 (the effective date of this AD) or within the next 6 calendar months after July 20, 2001 (the effective date of this AD), whichever comes first.	Use the procedures in Raytheon Mandatory Service Bulletin SB 34-3269, Issued: January 2000, if you use this alternative method of compliance.

(g) What actions must I accomplish to address this problem for Beech Model 1900D airplanes? To address this problem, you must accomplish the following actions:

Actions	Compliance	Procedures
Install the in-line fuse holder, P/N HHJ-A, in wire J51500E-J039002, and install the 1-ampere slow-blow fuse, P/N MDA1, in the fuse holder, unless already accomplished.	Within the next 600 hours TIS after July 20, 2001 (the effective date of this AD), or within the next 6 calendar months after July 20, 2001 (the effective date of this AD), whichever comes first.	Do these actions following Raytheon Mandatory Service Bulletin SB 34-3268, Issued: April, 2000.

(h) Can I comply with this AD in any other way? You may use an alternative method of compliance or adjust the compliance time if:

(1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Wichita Aircraft Certification Office (ACO), approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

Note: This AD applies to each airplane with a KA-33 cooling blower identified in paragraph (a) of this AD, 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 (h) 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 you have not eliminated the unsafe condition, specific actions you propose to address it.

(i) Where can I get information about any already-approved alternative methods of compliance? Contact Todd Dixon, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4152; facsimile: (316) 946-4407.

(j) What if I need to fly the airplane to another location to comply with this AD? The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(k) Are any service bulletins incorporated into this AD by reference? Actions required by this AD must be done in accordance with Raytheon Mandatory Service Bulletin SB 34-3267, Issued: March, 1999, Raytheon Mandatory Service Bulletin SB 34-3268, Issued: April, 2000, Raytheon Mandatory Service Bulletin SB 34-3269, Issued: January 2000, and Raytheon Mandatory Service Bulletin SB 34-3269, Revision 1, Revised: October, 2000. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You can get copies from the Raytheon Aircraft Company, P.O. Box 85, Wichita, Kansas 67201-0085. You can look at copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(l) When does this amendment become effective? This amendment becomes effective on July 20, 2001.

FOR FURTHER INFORMATION CONTACT: Todd Dixon, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4152; facsimile: (316) 946-4407.

Issued in Kansas City, Missouri, on May 21, 2001.

Michael Gallagher, Manager, Small Airplane Directorate, Aircraft Certification Service.

BW 2001-12

**CFM INTERNATIONAL
AIRWORTHINESS DIRECTIVE
ENGINE
LARGE AIRCRAFT**

2001-11-05 CFM International: Amendment 39-12246. Docket 2001-NE-18-AD.

Applicability

This airworthiness directive (AD) is applicable to CFM International CFM56-2, -2B, -3, -5B, -5C and -7B series turbofan engines with a No. 4 bearing, part number (P/N) 305-355-717-0, that has a serial number (SN) listed in Table 1 of this AD installed. These engines are installed on, but not limited to Airbus Industrie A319, A320, A321 and A340 series airplanes, Boeing 737 and KC135 series airplanes, and McDonnell Douglas DC8 series airplanes.

Note 1: This AD applies to each engine 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 engines 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 (h) 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

Compliance with this AD is required as indicated, unless already done.

To prevent bearing failures, which could cause an engine failure, do the following:

Number of Hours until Number of Engines Must Be Limited

(a) Limit the number of engines with a suspect No. 4 bearing that has a SN listed in the following Table 1 of this AD to one on each airplane within 300 hours time-in-service (TIS) after the effective date of this AD, but no later than July 1, 2001, whichever occurs earlier:

Table 1. CFM56 Engines with Suspect No. 4 Bearings

Part Number	Part Serial Number	Engine Model	Engine Serial Number
305-355-717-0	DB387598-C	2B	714172
305-355-717-0	DB387670-5	2	692251
305-355-717-0	DB387608-F	3	725109
305-355-717-0	DB387612-8	3	720493
305-355-717-0	DB387614-4	3	721253
305-355-717-0	DB387625-H	3	720383
305-355-717-0	DB387647-Y	3	857594
305-355-717-0	DB387650-6	3	721237
305-355-717-0	DB387651-5	3	726245
305-355-717-0	DB387661-K	3	856671

Part Number	Part Serial Number	Engine Model	Engine Serial Number
305-355-717-0	DB387604-K	5B	779783
305-355-717-0	DB387605-J	5B	779784
305-355-717-0	DB387603-L	5B	779785
305-355-717-0	DB387590-5	5B	779786
305-355-717-0	DB387591-4	5B	779787
305-355-717-0	DB387634-3	5B	779796
305-355-717-0	DB387658-D	5B	779798
305-355-717-0	DB387654-2	5B	779799
305-355-717-0	DB387683-G	5B	779802
305-355-717-0	DB387648-W	5B	779803
305-355-717-0	DB387660-L	5B	779804
305-355-717-0	DB387606-H	5B	779960
305-355-717-0	DB387618-O	5B	779961
305-355-717-0	DB387599-B	5C	741948
305-355-717-0	DB387609-Y	7B	876395
305-355-717-0	DB387611-7	7B	876399
305-355-717-0	DB387615-3	7B	876400
305-355-717-0	DB387601-N	7B	876401
305-355-717-0	DB387594-1	7B	876403
305-355-717-0	DB387592-3	7B	876405
305-355-717-0	DB387610-8	7B	876406
305-355-717-0	DB387600-P	7B	876410
305-355-717-0	DB387649-V	7B	876421
305-355-717-0	DB387678-C	7B	876423
305-355-717-0	DB387652-4	7B	876424
305-355-717-0	DB387659-C	7B	876429
305-355-717-0	DB387693-1	7B	876431
305-355-717-0	DB387655-1	7B	876432
305-355-717-0	DB387684-F	7B	876434
305-355-717-0	DB387588-V	7B	876727
305-355-717-0	DB387657-E	7B	876729
305-355-717-0	DB387653-3	7B	876730
305-355-717-0	DB387597-D	7B	877404
305-355-717-0	DB387602-M	7B	877408
305-355-717-0	DB387589-U	7B	877427
305-355-717-0	DB387656-O	7B	875232
305-355-717-0	DB387671-4	7B	874219

Replacement of Suspect No. 4 Bearings

(b) For engines that have a suspect No. 4 bearing that has a SN listed in Table 1 of this AD, replace the No. 4 bearing with a serviceable part within 2,000 hours TIS, after the effective date of this AD, but no later than December 31, 2001, whichever occurs earlier.

Installation of Suspect No. 4 Bearings

(c) After the effective date of this AD, do not install any No. 4 bearing that has a SN listed in Table 1 of this AD.

(d) After the effective date of this AD, do not install any engine that has a No. 4 bearing with a serial number listed in Table 1 of this AD.

Initial Inspections for Chip Detector Indications

(e) For engines that have a suspect No. 4 bearing that has a SN listed in Table 1 of this AD, inspect for magnetic chip indications within in the specified times, and if necessary, disposition as follows:

(1) For CFM56-5B engines, check electronic magnetic chip detector (EMCD) visual indicator within 50 to 75 hours TIS after the effective date of this AD.

(2) For CFM56-5C engine (741948), check for class 2 Electronic Centralized Aircraft Monitor (ECAM) message "MAGNETIC CHIP DETECTED" before further flight.

(3) For CFM56-7B engines equipped with Debris Monitoring System (DMS) option, check Flight Management Computer – Master Control Display Unit (FMC-MCDU) for message 79-2114 before further flight.

(4) For CFM56-7B engines equipped with classic magnetic chip detectors (MCD), inspect aft sump MCD within 50 to 75 hours TIS after the effective date of this AD.

(5) For CFM56-2, -2B, and -3 engines, inspect aft sump MCD within 50 to 75 hours TIS after the effective date of this AD.

(6) If bearing particles are found, remove engine from service before further flight.

Repetitive Inspections for Chip Detector Indications

(f) Thereafter, inspect for chip indications in accordance with the specified time-since-last-inspection (TSLI), and if necessary, disposition as follows:

(1) For CFM56-5B engines, check EMCD visual indicator every 50-75 hours TSLI.

(2) For CFM56-5C engine (741948), check for class 2 ECAM message "MAGNETIC CHIP DETECTED" after every flight.

(3) For CFM56-7B engines equipped with DMS option, check FMC-MCDU for message 79-2114 once per day.

(4) For CFM56-7B engines equipped with classic MCD, inspect aft sump MCD every 50-75 hours TSLI.

(5) For CFM56-2, -2B, and -3 engines, inspect aft sump MCD every 50-75 hours TSLI.

(6) If bearing particles are found, remove engine from service before further flight.

Terminating Action

(g) Replacement of a No. 4 bearing that has a SN listed in Table 1 of this AD with a No. 4 bearing that does not have a SN listed in Table 1 of this AD is terminating action for the repetitive inspection requirements specified in paragraph (f) of this AD.

Alternative Methods of Compliance

(h) 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, Engine Certification Office. Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

Special Flight Permits

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

Effective Date of This AD

(j) This amendment becomes effective on June 11, 2001.

FOR FURTHER INFORMATION CONTACT: James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7152, fax (781) 238-7199.

Issued in Burlington, Massachusetts, on May 24, 2001.

Thomas A. Boudreau, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

BW 2001-12

**BOEING
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2001-11-06 BOEING: Amendment 39-12248. Docket 98-NM-283-AD. Supersedes AD 98-20-25, Amendment 39-10791.

Applicability: Model 747 series airplanes, line numbers (L/N) 1 through 1254 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 request approval for an alternative method of compliance in accordance with paragraph (j)(1) 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 detect and correct fatigue cracking of the skin, splice fittings, bulkhead web, and outer chord of the body station (BS) 1480 bulkhead at the overwing longeron splice, which could result in reduced structural integrity of the fuselage and the inability to carry limit load, accomplish the following:

RESTATEMENT OF REQUIREMENTS OF AD 98-20-25:

Repetitive Inspections and Repair

(a) For Model 747-100 series airplanes, L/N 1 through 87 inclusive: Prior to the accumulation of 10,000 total flight cycles, or within 45 days after October 7, 1998 (the effective date of AD 98-20-25, amendment 39-10791), whichever occurs later, accomplish either paragraph (a)(1) or (a)(2) of this AD.

Note 2: Inspections per Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000; have been approved as an alternative method of compliance for the actions in paragraphs (a)(1) and (a)(2) of this AD.

(1) Perform a detailed visual inspection to detect cracking of the longeron splice fitting at BS 1480, the forward side of the outer chord of the BS 1480 bulkhead at the longeron splice fitting attachment bolts, and the aft side of the outer chord of the BS 1480 bulkhead within two inches above the outer chord splice fitting, on both the left and right sides of the airplane.

Note 3: Figure 5 of Boeing Alert Service Bulletin 747-53A2390, dated July 31, 1997, and Revision 1, dated July 6, 2000, provides an exploded view of the structural components of the splice area for the purpose of parts identification. (However, paragraph (a)(1) of this AD does not require the inspection described in Figure 5.)

Note 4: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(i) If any cracking is detected, prior to further flight, repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative (DER) who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

(ii) Repeat the detailed visual inspection thereafter at intervals not to exceed 250 flight cycles, until the initial inspection required by paragraph (a)(2) or (d) of this AD is accomplished.

(2) Perform detailed visual, ultrasonic, and open hole high frequency eddy current (HFEC) inspections to detect cracking of the upper and lower bulkhead, bulkhead outer chord, web, skin, splice components, and lower bulkhead/stringer interface, in accordance with Figures 5 and 8 of Boeing Alert Service Bulletin 747-53A2390, dated July 31, 1997. Additionally, for airplanes on which the inspection in "Plan B" of the service bulletin is accomplished, modify the skin splice plate, the outer chord splice fitting, and the stringer interface of the lower bulkhead, in accordance with the Accomplishment Instructions of the service bulletin. Accomplishment of these actions constitutes terminating action for the repetitive inspection requirements of paragraph (a)(1) of this AD.

(i) If any cracking is detected, prior to further flight, repair in accordance with the service bulletin, except as provided by paragraph (b) of this AD.

(ii) Repeat the inspections thereafter in accordance with the flight safety inspection program specified in Figures 1 and 3 of the service bulletin.

(b) Where the service bulletin specifies that the manufacturer may be contacted for disposition of certain repair conditions, repair in accordance with a method approved by the Manager, Seattle ACO; or in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company DER who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

NEW REQUIREMENTS OF THIS AD:

Groups 1 Through 3: Splice Area Work (Compliance Times)

Note 5: Airplanes inspected in accordance with paragraph (a)(2) of this AD are not required to be inspected in accordance with paragraphs (c) and (d) of this AD.

Note 6: Accomplishment of the actions specified in paragraphs (d)(1), (e), (e)(2), (g)(1), and (i) of this AD; in accordance with the original issue of Boeing Alert Service Bulletin 747-53A2390, dated July 31, 1997; is acceptable for compliance with those paragraphs.

(c) For airplanes listed in Groups 1 through 3 in Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000; on which the requirements of paragraph (a)(2) of this AD have NOT been accomplished prior to the effective date of this AD: Accomplish paragraph (d) of this AD at the applicable time specified in paragraph (c)(1), (c)(2), or (c)(3) of this AD.

(1) For airplanes on which the inspection specified in Boeing Service Bulletin 747-53-2333 has not been accomplished: Inspect prior to the accumulation of 10,000 total flight cycles, or within 1,000 flight cycles after the effective date of this AD, whichever occurs later.

(2) For airplanes on which the inspection specified in Boeing Service Bulletin 747-53-2333 has been accomplished, but the full modification specified in that service bulletin has not been accomplished: Inspect at the later of the times specified in paragraphs (c)(2)(i) and (c)(2)(ii) of this AD.

(i) Prior to the accumulation of 10,000 total flight cycles, or within 2,000 flight cycles after accomplishment of the last inspection in accordance with Boeing Service Bulletin 747-53-2333, whichever occurs first.

(ii) Within 1,000 flight cycles after the effective date of this AD.

(3) For airplanes on which the full modification specified in Boeing Service Bulletin 747-53-2333 has been accomplished: Inspect at the later of the times specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this AD.

(i) Prior to the accumulation of 16,000 total flight cycles, or within 6,000 flight cycles after accomplishment of the full modification in accordance with Boeing Service Bulletin 747-53-2333, whichever occurs first.

(ii) Within 1,000 flight cycles after the effective date of this AD.

Groups 1 Through 3: Splice Area Work (Inspections)

(d) For airplanes listed in Groups 1 through 3 in Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000; on which the requirements of paragraph (a)(2) of this AD have NOT been accomplished prior to the effective date of this AD: At the applicable time specified in paragraph (c) of this AD, accomplish paragraph (d)(1) or (d)(2) of this AD. Accomplishment of the requirements of this paragraph constitutes terminating action for the repetitive inspection requirements specified in paragraph (a)(1) of this AD, or, for the upper bulkhead splice area ONLY, for the inspection requirements specified in paragraph (a)(2) of this AD.

(1) *Plan "A"*: Perform detailed visual, ultrasonic, and HFEC inspections to detect cracking of the splice area, in accordance with Plan "A" and Figure 5, as defined in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000. Repeat the inspections thereafter in accordance with the flight safety inspection program as specified under Plan "A" and Figure 1 of the service bulletin.

(2) *Plan "B"*: Modify the skin splice plate and outer chord splice fitting in accordance with Plan "B," as defined in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000. Perform HFEC inspections and modification, then accomplish repeat open hole HFEC inspections, in accordance with the after-modification inspection program, as specified under Plan "B" and Figure 1 of the service bulletin. Accomplishment of the modification and inspections in accordance with this paragraph terminates the repetitive inspection requirements in paragraph (d)(1) of this AD.

Groups 4 Through 22: Splice Area Work (Compliance Time and Inspections)

(e) For airplanes listed in Groups 4 through 22 in Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000: Prior to the accumulation of 16,000 total flight cycles, or within 1,000 flight cycles after the effective date of this AD, whichever occurs later, perform detailed visual and ultrasonic inspections to detect cracking of the bulkhead forward flange in accordance with Figure 7 of the service bulletin, and accomplish the requirements of either paragraph (e)(1) or (e)(2) of this AD.

(1) *Plan "A"*: Perform open hole HFEC inspections to detect cracking of the splice area, in accordance with Plan "A" and Figure 6, as defined in the Accomplishment Instructions of the service bulletin. Repeat the inspections thereafter in accordance with the flight safety inspection program as specified under Plan "A" and in Figure 2 of the service bulletin.

(2) *Plan "B"*: Perform open hole HFEC inspections and modification of the upper bulkhead, bulkhead outer chord, web, skin, and splice components; in accordance with Plan "B," as defined in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000. Thereafter, repeat the open hole HFEC inspections in accordance with the after-modification inspection program as specified under Plan "B" and Figure 2 of the service bulletin. Accomplishment of the modification and inspections in accordance with this paragraph terminates the repetitive inspection requirements specified in paragraph (e)(1) of this AD.

All Airplanes: Lower Bulkhead/Stringer Interface Work (Compliance Times)

(f) For all airplanes (L/N 1 through 1254 inclusive): At the applicable time specified in paragraph (f)(1) or (f)(2) of this AD, accomplish paragraph (g) of this AD.

(1) For airplanes on which an inspection of the lower bulkhead has NOT been accomplished prior to the effective date of this AD in accordance with paragraph (a)(2) of this AD: Inspect prior to the accumulation of 20,000 total flight cycles, or within 1,000 flight cycles after the effective date of this AD, whichever occurs later.

(2) For airplanes on which an inspection of the lower bulkhead HAS been accomplished prior to the effective date of this AD in accordance with paragraph (a)(2) of this AD: Inspect prior to the accumulation of 20,000 total flight cycles, or at the time of the next scheduled inspection of the lower bulkhead in accordance with paragraph (a)(2)(ii) of this AD, whichever occurs later.

All Airplanes: Lower Bulkhead/Stringer Interface Work (Inspections)

(g) For all airplanes (L/N 1 through 1254 inclusive): At the applicable time specified in paragraph (f) of this AD, accomplish paragraph (g)(1) or (g)(2) of this AD. For airplanes having L/N 1 through 87 inclusive, accomplishment of the requirements of this paragraph constitutes terminating action for the inspection requirements specified in paragraph (a)(2) of this AD for the lower bulkhead/stringer interface area ONLY.

(1) *Plan "A"*: Perform detailed visual and either ultrasonic or open hole HFEC inspections, as applicable, to detect cracking of the lower bulkhead/stringer interface area, in accordance with Plan "A" and Figure 8, as defined in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000. Repeat the inspections thereafter in accordance with the flight safety program as specified under Plan "A" and Figures 3 and 8 of the service bulletin.

(2) *Plan "B"*: Except as provided by paragraph (h) of this AD, perform open hole HFEC inspections and modification of the lower bulkhead/stringer interface area, in accordance with Plan "B" and Figure 19, as defined in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000. Thereafter, repeat the detailed visual and either ultrasonic or open hole HFEC inspections, as applicable, in accordance with the after-modification inspection program as specified under Plan "B" and Figures 3 and 8 of the service bulletin. Accomplishment of the modification and inspections in accordance with this paragraph terminates the repetitive inspection requirements specified in paragraph (g)(1) of this AD.

Airplanes Modified With Original Service Bulletin: Post-Modification Work

(h) For any airplane (L/N 1 through 1254 inclusive) on which the modification specified in paragraph (g)(2) was accomplished prior to the effective date of this AD in accordance with the original issue of Boeing Alert Service Bulletin 747-53A2390, dated July 31, 1997: Prior to the accumulation of 20,000 total flight cycles, or within 2,000 flight cycles after the effective date of this AD, whichever occurs later, accomplish post-modification work in accordance with Figure 26 of Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000.

Repair

(i) Except as provided by paragraph (a)(1)(i) or (b) of this AD, if any cracking is detected during any inspection required by this AD, prior to further flight, repair in accordance with Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000. If any damage is found that is beyond the limits specified in the service bulletin, prior to further flight, repair in accordance with a method approved by the Manager, Seattle ACO; or in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company DER who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

Alternative Methods of Compliance

(j) (1) 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 Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) Alternative methods of compliance, approved previously in accordance with AD 98-20-25, amendment 39-10791, are approved as alternative methods of compliance with paragraph (a) of this AD.

Note 7: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(k) 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.

Incorporation by Reference

(l) Except as provided by paragraphs (a)(1), (a)(1)(i), (a)(1)(ii), (b), and (i) of this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 747-53A2390, dated July 31, 1997; or Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000; as applicable.

(1) The incorporation by reference of Boeing Alert Service Bulletin 747-53A2390, Revision 1; including Appendices A, B, C, and D; dated July 6, 2000; is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Boeing Alert Service Bulletin 747-53A2390, dated July 31, 1997, was approved previously by the Director of the Federal Register as of October 7, 1998 (63 FR 50508, September 22, 1998).

(3) 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.

Effective Date

(m) This amendment becomes effective on July 16, 2001.

FOR FURTHER INFORMATION CONTACT: Rick Kawaguchi, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1153; fax (425) 227-1181.

Issued in Renton, Washington, on May 25, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

**BOEING
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2001-11-07 BOEING: Amendment 39-12249. Docket 98-NM-298-AD.

Applicability: Model 737, 757, and 767 series airplanes, certificated in any category, as listed in the following Boeing Service Bulletins:

Table 1. Effectivity.

Boeing Service Bulletin	Date	Affected Models/Series
737-29A1073, Revision 3	December 2, 1999	Model 737-100, -200, -300, -400, and -500
737-29A1081	December 2, 1999	Model 737-600, -700, and -800
757-29A0048, Revision 3	December 2, 1999	Model 757-200
757-29A0051	December 2, 1999	Model 757-300
767-29A0083, Revision 4	September 28, 2000	Model 767

Note 1: Only motor operated hydraulic shutoff valves manufactured by Circle Seal Controls that are installed in the locations specified in the applicable alert service bulletin listed in the table above are subject to this AD.

Note 2: 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 prevent failure of the motor operated hydraulic shutoff valves, which could result in leakage of hydraulic fluid to the engine fire zone, reduced ability to retract the landing gear, loss of backup electrical power or other combinations of failures, and consequent reduced controllability of the airplane, accomplish the following:

Repetitive Operational Checks/Corrective Action

(a) Within 6 months after the effective date of this AD: Perform an operational check to detect malfunctioning of any Circle Seal Controls motor operated hydraulic shutoff valve in a “sensitive system” application (as defined in the applicable service bulletin) having a part number specified in the “Existing Part Number” column (including parts marked with the suffix “R” after the serial number), of Paragraph 2.E. of Boeing Alert Service Bulletins 737-29A1073, Revision 3 (for Model 737-100, -200, -300, -400, and -500 series airplanes), 737-29A1081 (for Model 737-600, -700, and -800 series airplanes), 757-29A0048, Revision 3 (for Model 757-200 series airplanes), or 757-29A0051 (for Model 757-300 series airplanes); all dated December 2, 1999; or Boeing Service Bulletin 767-29A0083, Revision 4, dated September 28, 2000 (for Model 767 series airplanes); as applicable; in accordance with the applicable service bulletin.

(1) If any malfunction of any valve is detected, prior to further flight, replace the valve with a new or serviceable Whittaker Controls or Circle Seal Controls valve in accordance with the applicable service bulletin. Repeat the operational check thereafter at intervals not to exceed 6 months until accomplishment of the terminating action required by paragraph (b) of this AD on all subject valves.

(2) If no malfunction of any valve is detected, repeat the operational check thereafter at intervals not to exceed 6 months until accomplishment of the terminating action required by paragraph (b) of this AD on all subject valves.

Note 3: Operational checks done before the effective date of this AD per Boeing Alert Service Bulletin 737-29A1073, Revision 2 (for Model 737 series airplanes), or 757-29A0048, Revision 2 (for Model 757 series airplanes), both dated July 1, 1999; or 767-29A0083, Revision 2, dated July 15, 1999 (for Model 767 series airplanes); as applicable; is acceptable for compliance with paragraph (a) of this AD.

Terminating Action

(b) Within 3 years after the effective date of this AD, accomplish the replacement of any Circle Seal Controls valve in a “sensitive system” application (as defined in the applicable service bulletin) having a P/N specified in the “Existing Part Number” column (including parts marked with the suffix “R” after the serial number), of Paragraph 2.E. of Boeing Alert Service Bulletin 737-29A1078 (for Model 737-100, -200, -300, -400, and -500 series airplanes), 737-29A1082 (for Model 737-600, -700, and -800 series airplanes), 757-29A0049 (for Model 757-200 series airplanes), 757-29A0052 (for Model 757-300 series airplanes), or 767-29A0090 (for Model 767 series airplanes); all dated December 7, 2000; as applicable. Replace an existing part with a new Whittaker Controls valve having a P/N specified in the “New Part Number” column of Paragraph 2.E. of the applicable service bulletin; or with a new Circle Seal Controls valve having P/N S270T010-10, -11, -12, -13, -14, or -15; as applicable. Do the replacement in accordance with the applicable alert service bulletin. Accomplishment of this replacement constitutes terminating action for the repetitive operational checks required by this AD.

Note 4: Replacement of Circle Seal Controls valves done before the effective date of this AD per Boeing Alert Service Bulletin 737-29A1073, Revision 2 (for Model 737 series airplanes), or 757-29A0048, Revision 2 (for Model 757 series airplanes), both dated July 1, 1999; or 767-29A0083, Revision 2, dated July 15, 1999 (for Model 767 series airplanes); as applicable; is acceptable for compliance with paragraph (b) of this AD.

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 Aircraft Certification Office (ACO), FAA. 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 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(d) 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.

Incorporation by Reference

(e) The actions shall be done in accordance with Boeing Alert Service Bulletin 737-29A1073, Revision 3, dated December 2, 1999; Boeing Alert Service Bulletin 737-29A1081, dated December 2, 1999; Boeing Alert Service Bulletin 757-29A0048, Revision 3, dated December 2, 1999; Boeing Alert Service Bulletin 757-29A0051, dated December 2, 1999; Boeing Service Bulletin 767-29A0083, Revision 4, dated September 28, 2000; Boeing Alert Service Bulletin 737-29A1078, dated December 7, 2000; Boeing Alert Service Bulletin 737-29A1082, dated December 7, 2000; Boeing Alert Service Bulletin 757-29A0049, dated December 7, 2000; Boeing Alert Service Bulletin 757-29A0052, dated December 7, 2000; or Boeing Alert Service Bulletin 767-29A0090, dated December 7, 2000; as applicable. This incorporation by reference was

2001-11-07 3

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.

Effective Date

(f) This amendment becomes effective on July 16, 2001.

FOR FURTHER INFORMATION CONTACT: Kenneth W. Frey, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2673; fax (425) 227-1181.

Issued in Renton, Washington, on May 25, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

BOEING AIRWORTHINESS DIRECTIVE LARGE AIRCRAFT

2001-11-08 BOEING: Amendment 39-12250. Docket 99-NM-350-AD. Supersedes AD 99-18-16, Amendment 39-11282.

Applicability: Model 747-400, 747-400F, 757-200, 757-200CB, 757-200PF, 767-200, 767-300, and 767-300F series airplanes; equipped with either a warning electronics unit (WEU) or a modular avionics warning electronic assembly (MAWEA) power supply having part number (P/N) 285T0035-201; 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 (h)(1) 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 failure of the WEU or MAWEA power supplies, which could result in loss of visual, aural, and tactile alerts to the flightcrew (the absence of which could result in the flightcrew being unaware that an immediate or appropriate action should be taken in the event of an unsafe condition), accomplish the following:

PARTIAL RESTATEMENT OF REQUIREMENTS OF AD 99-18-16:

Model 747-400 Series Airplanes: EICAS Status Page Checks

(a) For Model 747-400 and 747-400F series airplanes having line number (L/N) 1121 through 1177 inclusive: Within 15 days after September 16, 1999 (the effective date of AD 99-18-16, amendment 39-11282), check the status page of the engine indication and crew alerting system (EICAS) for any MAWEA failure. Thereafter, repeat the EICAS status page check before each flight until the requirements of paragraph (c) or (f) of this AD have been accomplished.

Model 757-200, 767-200, and 767-300 Series Airplanes: Checks and Functional Tests

(b) For Model 757-200, -200CB, and -200PF series airplanes having L/N 761 through 828 inclusive; and Model 767-200, -300, and -300F series airplanes having L/N 668 through 723 inclusive: Within 15 days after September 16, 1999, check the status page of the EICAS for any WEU failure; and perform the Work Instructions in Section 3, Part 1, of Boeing Service Bulletin 757-31-0066, Revision 1, dated December 17, 1998, or Revision 2, dated November 18, 1999 (for Model 757-200, -200CB, and -200PF series airplanes); or Boeing Service Bulletin 767-31-0106, Revision 1, dated December 17, 1998, or Revision 2, dated November 18, 1999 (for Model 767-200, 767-300, and 767-300F series airplanes); as applicable; to detect loss of any visual, aural, or tactile alert. Thereafter, repeat the EICAS status page check before each flight, and the Work Instructions in Section 3, Part 1, of the applicable service bulletin at intervals not to exceed every "A" check or 45 days, whichever occurs first, until the requirements of paragraph (c) or (f) of this AD have been accomplished. After the effective date of this AD, only Revision 2 of the applicable service bulletin shall be used.

Corrective Action

(c) If any failure of the MAWEA or WEU, as applicable, or the loss of any visual, aural, or tactile alert is detected during any test required by either paragraph (a) or (b) of this AD, prior to further flight, accomplish paragraph (c)(1), (c)(2), or (c)(3) of this AD; as applicable.

(1) For Model 747-400 or -400F series airplanes equipped with a MAWEA power supply having P/N 285T0035-201: Replace the power supplies of the MAWEA with new or modified power supplies having P/N 285T0035-202 Mod A, in accordance with either Boeing Service Bulletin 747-31-2288, dated December 17, 1998, or Revision 1, dated January 28, 1999; or with new, modified, or serviceable power supplies having P/N 285T0035-202 Mod A, P/N 285T0035-10, or P/N 285T0035-11, in accordance with Boeing Service Bulletin 747-31-2288, Revision 2, dated November 18, 1999. Such replacement constitutes terminating action for the requirements of this AD. After the effective date of this AD, only Revision 2 of the applicable service bulletin shall be used.

Note 2: Page 59 of Boeing Service Bulletin 747-31-2288, Revision 1, dated January 28, 1999, incorrectly references the Boeing 767 AMM as the appropriate source of service information for accomplishment of the removal and installation of the power supply. However, the correct reference is the Boeing 747 AMM.

(2) For Model 757-200, -200CB, and -200PF series airplanes equipped with a MAWEA power supply having P/N 285T0035-201: Replace the power supplies of the WEU with new or modified power supplies having P/N 285T0035-202 Mod A, in accordance with Boeing Service Bulletin 757-31-0066, Revision 1, dated December 17, 1998; or with new, modified, or serviceable power supplies having P/N 285T0035-202 Mod A, P/N 285T0035-9, P/N 285T0035-10, or P/N 285T0035-11, in accordance with Boeing Special Attention Service Bulletin 757-31-0066, Revision 2, dated November 18, 1999. Such replacement constitutes terminating action for the requirements of this AD. After the effective date of this AD, only Revision 2 of the service bulletin shall be used.

(3) For Model 767-200, -300, and -300F series airplanes: Replace the power supplies of the WEU with new or modified power supplies having P/N 285T0035-202 Mod A, in accordance with Boeing Service Bulletin 767-31-0106, Revision 1, dated December 17, 1998; or with new, modified, or serviceable power supplies having P/N 285T0035-202 Mod A, P/N 285T0035-9, P/N 285T0035-10, or P/N 285T0035-11, in accordance with Boeing Special Attention Service Bulletin 767-31-0106, Revision 2, dated November 18, 1999. Such replacement constitutes terminating action for the requirements of this AD. After the effective date of this AD, only Revision 2 of the applicable service bulletin shall be used.

NEW REQUIREMENTS OF THIS AD:

Note 3 Boeing Component Service Bulletin 285T0035-31-07, dated December 17, 1998, describes procedures for modifying WEU or MAWEA power supplies having P/N 28T0035-201 to 285T0035-202 Mod A.

Repetitive Checks : Model 747-400 and -400F

(d) For Model 747-400 and -400F series airplanes equipped with a MAWEA power supply having P/N 28T0035-201, other than those airplanes identified in paragraph (a) of this AD: At the next "A" check or within 45 days, whichever occurs first, check the status page of the EICAS for any MAWEA failure.

(1) If no MAWEA failure is detected: Thereafter, repeat the EICAS status page check before each flight, until the requirements of paragraph (f) of this AD are accomplished.

(2) If any MAWEA failure is detected: Prior to further flight, replace MAWEA power supplies having P/N 285T0035-201 with new or modified power supplies having P/N 285T0035-202 Mod A, or new, modified, or serviceable power supplies having P/N 285T0035-10 or P/N 285T0035-11; in accordance with Boeing Service Bulletin 747-31-2288, Revision 2, dated November 18, 1999. Such replacement constitutes terminating action for the requirements of this AD.

Repetitive Checks and Functional Tests : Model 757 and 767

(e) For Model 757-200, 757-200CB, 757-200PF, 767-200, 767-300, and 767-300F series airplanes equipped with a WEU power supply having P/N 28T0035-201, other than those airplanes identified in paragraph (b) of this AD: At the next "A" check or within 45 days, whichever occurs first, check the status page of the EICAS for any WEU failure; and perform the Work Instructions in Section 3, Part 1, of Boeing

Special Attention Service Bulletin 757-31-0066, Revision 2, dated November 18, 1999; or Boeing Special Attention Service Bulletin 767-31-0106, Revision 2, dated November 18, 1999; as applicable; to detect loss of any visual, aural, or tactile alert.

(1) If no failure of the WEU or loss of any visual, aural, or tactile alert is detected: Thereafter, repeat the EICAS status page check before each flight, and accomplish the Work Instructions in Section 3, Part 1 of the applicable service bulletin at intervals not to exceed every "A" check or 45 days, whichever occurs first, until the requirements of paragraph (f) of this AD are accomplished.

(2) If any failure of the WEU or loss of any visual, aural, or tactile alert is detected: Prior to further flight, replace WEU power supplies having P/N 285T0035-201, with new or modified power supplies having P/N 285T0035-202 Mod A; or new, modified, or serviceable power supplies having P/N 285T0035-9, P/N 285T0035-10, or P/N 285T0035-11; in accordance with the applicable service bulletin. Such replacement constitutes terminating action for the requirements of this AD.

Replacement

(f) Within 1 year after the effective date of this AD, replace WEU or MAWEA power supplies having P/N 285T0035-201, with new or modified power supplies having P/N 285T0035-202 Mod A; or new, modified, or serviceable power supplies having P/N 285T0035-9, P/N 285T0035-10, or P/N 285T0035-11; in accordance with Boeing Service Bulletin 747-31-2288, dated December 17, 1998, Revision 1, dated January 28, 1999, or Revision 2, dated November 18, 1999 (for Model 747-400 and 747-400F series airplanes); Boeing Service Bulletin 757-31-0066, Revision 1, dated December 17, 1998, or Revision 2, dated November 18, 1999 (for Model 757-200, 757-200CB, and 757-200PF series airplanes); or Boeing Service Bulletin 767-31-0106, Revision 1, dated December 17, 1998, or Revision 2, dated November 18, 1999 (for Model 767-200, 767-300, and 767-300F series airplanes); as applicable. After the effective date of this AD, only Revision 2 of the applicable service bulletin shall be used. Such replacement constitutes terminating action for the requirements of this AD.

Spares

(g) As of the date specified in paragraph (g)(1) or (g)(2) of this AD, as applicable, no person shall install a WEU or MAWEA power supply having Boeing P/N 285T0035-201 on any airplane.

(1) For Model 747-400 series airplanes, line numbers 1121 through 1177 inclusive; Model 757-200, -200CB, and -200PF series airplanes, line numbers 761 through 828 inclusive; and Model 767-200, 767-300, and -300F series airplanes, line numbers 668 through 723 inclusive: As of September 16, 1999 (the effective date of AD 99-18-16, amendment 39-11282).

(2) For airplanes other than those identified in paragraph (g)(1) of this AD: As of the effective date of this AD.

Alternative Methods of Compliance

(h) (1) 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. Operators shall submit their requests through an appropriate FAA Principal Avionics Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) Alternative methods of compliance, approved previously by the FAA in accordance with AD 99-18-16, amendment 39-11282, are approved as alternative methods of compliance with this AD.

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

Special Flight Permits

(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.

Incorporation by Reference

(j) Except for the EICAS status page checks required by paragraphs (a), (b), (d), (d)(1), (e), and (e)(1) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 747-31-2288, dated December 17, 1998; Boeing Service Bulletin 747-31-2288, Revision 1, dated January 28, 1999; Boeing Service Bulletin 747-31-2288, Revision 2, including Appendix A, dated November 18, 1999; Boeing Service Bulletin 757-31-0066, Revision 1, dated December 17, 1998; Boeing Special Attention Service Bulletin 757-31-0066, Revision 2, including Appendix A, dated November 18, 1999; Boeing Service Bulletin 767-31-0106, Revision 1, dated December 17, 1998; or Boeing Special Attention Service Bulletin 767-31-0106, Revision 2, including Appendix A, dated November 18, 1999; as applicable.

(1) The incorporation by reference of Boeing Service Bulletin 747-31-2288, Revision 2, including Appendix A, dated November 18, 1999; Boeing Special Attention Service Bulletin 757-31-0066, Revision 2, including Appendix A, dated November 18, 1999; and Boeing Special Attention Service Bulletin 767-31-0106, Revision 2, including Appendix A, dated November 18, 1999; is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Boeing Service Bulletin 747-31-2288, dated December 17, 1998; Boeing Service Bulletin 747-31-2288, Revision 1, dated January 28, 1999; Boeing Service Bulletin 757-31-0066, Revision 1, dated December 17, 1998; and Boeing Service Bulletin 767-31-0106, Revision 1, dated December 17, 1998; was approved previously by the Director of the Federal Register as of September 16, 1999 (64 FR 47653, September 1, 1999).

(3) 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.

Effective Date

(k) This amendment becomes effective July 16, 2001.

FOR FURTHER INFORMATION CONTACT: Sheila I. Mariano, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2675; fax (425) 227-1181.

Issued in Renton, Washington, on May 25, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

**AIRBUS INDUSTRIE
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2001-11-09 AIRBUS INDUSTRIE: Amendment 39-12252. Docket 2001-NM-135-AD.

Applicability: Model A330 and A340 series airplanes, certificated in any category, equipped with a trimmable horizontal stabilizer actuator (THSA) part number 47172, and on which Airbus Modification 45299 has been performed.

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 (d) 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 degraded operation of the THSA due to the entrance of water into the ball nut, and consequent reduced controllability of the airplane, accomplish the following:

Repetitive Inspections

(a) Within 150 flight hours from the effective date of this AD, perform a detailed visual inspection to detect discrepancies in the THSA (including distortion of the transfer tubes, disconnection of the tubes, and distortion of the collar of the ball nut), in accordance with All Operators Telex (AOT) A330-27A3088 (for Model A330 series airplanes) or A340-27A4093 (for Model A340 series airplanes), both dated April 5, 2001, as applicable. If any discrepancy, as defined in paragraph 4-2-2/Rejection Criteria of the applicable AOT, is detected, prior to further flight, replace the THSA with a serviceable one, per the applicable AOT.

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(b) At intervals not to exceed 150 flight hours, repeat the inspection mandated in paragraph (a) of this AD.

Report of Inspection Findings

(c) Submit a report of inspection findings (both positive and negative) to Airbus; at the applicable time specified in paragraph (c)(1) or (c)(2) of this AD. The report must include the inspection results, a description of any discrepancies found, the airplane serial number, and the number of landings and flight hours on the airplane. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

(1) For airplanes on which the inspection is accomplished after the effective date of this AD: Submit the report within 10 days after performing the inspection required by paragraph (a) or (b) of this AD.

(2) For airplanes on which the inspection has been accomplished prior to the effective date of this AD: Submit the report within 10 days after the effective date of this AD.

Alternative Methods of Compliance

(d) 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, International Branch, ANM-116, Transport Airplane Directorate, FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(e) 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.

Incorporation by Reference

(f) The inspections and replacement shall be done in accordance with Airbus All Operators Telex A330-27A3088, dated April 5, 2001; or Airbus All Operators Telex A340-27A4093, dated April 5, 2001; as applicable. 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 Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. 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.

NOTE 4: The subject of this AD is addressed in French airworthiness directives 2001-141(B) and 2001-140(B), both dated April 18, 2001.

Effective Date

(g) This amendment becomes effective on June 26, 2001.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2125; fax (425) 227-1149.

Issued in Renton, Washington, on May 25, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

**BOMBARDIER, INC.
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2001-11-10 BOMBARDIER, INC.: Amendment 39-12253. Docket 2001-NM-144-AD.

Applicability: Model DHC-8-400 series airplanes, serial numbers 4002 and subsequent, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent landing with the main landing gear (MLG) up due to failure of the downlock proximity sensors of the MLG, accomplish the following:

Airplane Flight Manual (AFM) Revision

(a) Within 14 days after the effective date of this AD, revise the Normal and Abnormal Sections of the FAA-approved AFM by inserting the following into Section 4.21, opposite page 4.21.1. This may be accomplished by inserting a copy of this AD in the AFM.

“CAUTION

If illumination of LEFT gear safe (green), and LEFT gear unsafe (red), and landing gear handle (amber) advisory lights with the landing gearhandle in the up position.

Or

Illumination of RIGHT gear safe (green), and RIGHT gear unsafe (red), and landing gear handle (amber) advisory lights with the landing gear handle in the up position.

1. Perform an Alternate Landing Gear extension, See paragraph 4.21.

WARNING

Selection of the gear down without following the Alternate Landing Gear Extension procedure may result in the affected gear being trapped inside the nacelle.

2. Visually inspect Main Landing Gear to confirm that it has been extended.

WARNING

A down and locked indication of the affected main landing gear is not a valid indication of the gear position.

3. Insert hydraulic pump handle in socket and operate for a minimum of 12 full strokes and ensure resistance to pump handle movement.

4. Observe the LEFT gear safe (green) and RIGHT gear safe (green) advisory lights are illuminated and the LEFT gear unsafe (red) and RIGHT gear unsafe (red) and the landing handle (amber) advisory lights are extinguished.”

Alternative Methods of Compliance

(b) 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, New York Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York ACO.

NOTE 1: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the New York ACO.

Special Flight Permits

(c) 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.

NOTE 2: The subject of this AD is addressed in Canadian airworthiness directive CF-2001-16, dated April 11, 2001.

Effective Date

(d) This amendment becomes effective on June 21, 2001.

FOR FURTHER INFORMATION CONTACT: Dan Parillo, Aerospace Engineer, Systems and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256-7505; fax (516) 568-2716.

Issued in Renton, Washington, on May 25, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

**BOEING
AIRWORTHINESS DIRECTIVE
LARGE AIRCRAFT**

2001-11-11 BOEING: Amendment 39-12254. Docket 2000-NM-156-AD.

Applicability: Model 737, 747, and 777 series airplanes; certificated in any category; as specified in the Boeing service bulletins listed in Table 1. below:

Table 1. Applicability

For Model 737 series airplanes:	737-25-1371, Revision 2, dated December 9, 1999;
For Model 737 series airplanes:	737-25-1407, dated December 9, 1999;
For Model 747 series airplanes:	747-25-3196, Revision 1, dated May 13, 1999; or
For Model 777 series airplanes:	777-25-0111, Revision 1, dated May 13, 1999.

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 (b) 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 unrestrained movement of the passenger seats during high forward deceleration of the airplane, which could result in injury to the passengers or crew members during an emergency landing, accomplish the following:

Replacement

(a) Within 18 months after the effective date of this AD: Replace all the seat track fittings on all the passenger seats with new, improved fittings, in accordance with the Accomplishment Instructions specified in Boeing Service Bulletin 737-25-1371, Revision 2; or 737-25-1407, both dated December 9, 1999 (for Model 737 series airplanes); Boeing Service Bulletin 747-25-3196, Revision 1, dated May 13, 1999 (for Model 747 series airplanes); or Boeing Service Bulletin 777-25-0111, Revision 1, dated May 13, 1999 (for Model 777 series airplanes); as applicable.

Alternative Methods of Compliance

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

Special Flight Permits

(c) 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.

Incorporation by Reference

(d) The replacement shall be done in accordance with Boeing Service Bulletin 737-25-1371, Revision 2, dated December 9, 1999; Boeing Service Bulletin 737-25-1407, dated December 9, 1999; Boeing Service Bulletin 747-25-3196, Revision 1, dated May 13, 1999; or Boeing Service Bulletin 777-25-0111, Revision 1, dated May 13, 1999; as applicable. 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.

Effective Date

(e) This amendment becomes effective on July 16, 2001.

FOR FURTHER INFORMATION CONTACT: Jan Risheim, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington; telephone (425) 227-1675; fax (425) 227-1181.

Issued in Renton, Washington, on May 25, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

LEARJET AIRWORTHINESS DIRECTIVE LARGE AIRCRAFT

2001-12-02 LEARJET: Amendment 39-12257. Docket 2000-NM-128-AD.

Applicability: Model 55 series airplanes, serial numbers 55-003 through 55-147 inclusive, and Model 60 airplanes, serial numbers 60-002 through 60-189 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 request approval for an alternative method of compliance in accordance with paragraph (b) 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 bottoming of the valve components before contact of the brake valve lever with the stop, which could result in loss of all hydraulic fluid and consequent loss of normal braking; accomplish the following:

Replacement of Brake Valve Lever Stop Switch

(a) Within 300 flight hours or one year after the effective date of this AD, whichever occurs first, accomplish the actions specified in paragraph (a)(1), (a)(2), or (a)(3), as applicable.

(1) For Learjet Model 60 airplanes having serial numbers 60-002 through 60-093 inclusive, and 60-095 through 60-188 inclusive: Replace the existing brake valve lever stop switch with a new brake valve lever stop switch, and replace the brake valve adjustment screws with new improved screws, per Bombardier Service Bulletin 60-32-10, Revision 1, dated June 22, 2000.

(2) For Learjet Model 60 airplanes having serial number 60-094 or 60-189: Replace the brake valve adjustment screws with new improved screws, per Bombardier Service Bulletin 60-32-10, Revision 1, dated June 22, 2000.

(3) For Learjet Model 55 series airplanes having serial numbers 55-003 through 55-147 inclusive: Replace the existing brake valve lever stop with a new brake valve lever stop, and replace the brake valve adjustment screws with new improved screws, per Bombardier Service Bulletin 55-32-14, dated November 9, 1999.

Alternative Methods of Compliance

(b) 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, Wichita Aircraft Certification Office, FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

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

Special Flight Permits

(c) 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.

Incorporation by Reference

(d) The actions shall be done in accordance with Bombardier Service Bulletin 60-32-10, Revision 1, dated June 22, 2000; and Bombardier Service Bulletin 55-32-14, dated November 9, 1999; as applicable. 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 Learjet, Inc., One Learjet Way, Wichita, Kansas 67209-2942. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(e) This amendment becomes effective on July 18, 2001.

FOR FURTHER INFORMATION CONTACT: Shane Bertish, Aerospace Engineer, Systems and Propulsion Branch, ACE-116W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4156; fax (316) 946-4407.

Issued in Renton, Washington, on June 4, 2001.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

BOEING AIRWORTHINESS DIRECTIVE LARGE AIRCRAFT

2001-12-03 BOEING: Amendment 39-12258. Docket 2000-NM-268-AD.

Applicability: Model 767-300 series airplanes, as listed in Boeing Alert Service Bulletin 767-33A0085, Revision 2, dated December 7, 2000, 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 (b) 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 damage to the wires in certain wire bundles due to contact between the bundles and the adjacent ceiling support bracket, which could result in electrical arcing, smoke, or fire in the cabin, and failure of certain systems essential to safe flight and landing of the airplane, accomplish the following:

One-Time Inspection/Corrective Actions

(a) Accomplish the requirements in paragraphs (a)(1) and (a)(2) of this AD, as applicable, at the times specified.

(1) Within 6 months after the effective date of this AD: Do a one-time general visual inspection to find chafing and determine adequate clearance of the wire bundles above the F4/G2 galley, per Figure 1 or Figure 3, as applicable, of the Accomplishment Instructions of Boeing Alert Service Bulletin 767-33A0085, Revision 2, dated December 7, 2000.

Note 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to find obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

(2) If chafing and/or inadequate clearance is found: Before further flight, repair or replace damaged wires in the wire bundles; install a bracket assembly on the wire bundle support bracket; install nut spacer plates; and re-route the wire bundles away from the ceiling support bracket, as applicable, as specified by and per Figure 2 or Figure 3, as applicable, of the Accomplishment Instructions of the alert service bulletin.

Note 3: Accomplishment of the one-time inspection and corrective actions before the effective date of this AD per Boeing Alert Service Bulletin 767-33A0085, dated May 11, 2000; or Revision 1, dated August 31, 2000, is considered acceptable for compliance with paragraph (a) of this AD.

Alternative Methods of Compliance

(b) 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. 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.

Special Flight Permits

(c) 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.

Incorporation by Reference

(d) The actions shall be done in accordance with Boeing Alert Service Bulletin 767-33A0085, Revision 2, dated December 7, 2000. 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.

Effective Date

(e) This amendment becomes effective on July 18, 2001.

FOR FURTHER INFORMATION CONTACT: Elias Natsiopoulou, Aerospace Engineer, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1279; fax (425) 227-1181.

Issued in Renton, Washington, on June 4, 2001.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

DORNIER LUFTFAHRT GMBH AIRWORTHINESS DIRECTIVE LARGE AIRCRAFT

2001-12-04 DORNIER LUFTFAHRT GMBH: Amendment 39-12259. Docket 2000-NM-386-AD.

Applicability: Model 328-300 series airplanes, serial numbers 3105 to 3175 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 request approval for an alternative method of compliance in accordance with paragraph (b) 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 a crack in the hydraulic line, leading to heavy leakage in hydraulic system "B," which could impair the functioning of the airplane's flaps, roll spoilers, inner ground spoilers, and nose wheel steering, accomplish the following:

Replacement

(a) Within 45 days from the effective date of this AD: Remove the hydraulic hose having part number (P/N) 001D291A2050010 between the main pump 50DA and the pulsation damper, and replace it with a new hose having P/N 001D291A1102000, in accordance with Dornier Service Bulletin SB-328J-29-040, dated June 8, 2000.

Alternative Methods of Compliance

(b) 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, International Branch, ANM-116, Transport Airplane Directorate, FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(c) 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.

Incorporation by Reference

(d) The actions shall be done in accordance with Dornier Service Bulletin SB-328J-29-040, dated June 8, 2000. 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 FAIRCHILD DORNIER, DORNIER Luftfahrt GmbH, P.O. Box 1103, D-82230 Wessling, Germany. 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.

NOTE 3 The subject of this AD is addressed in German airworthiness directive 2000-378, dated December 14, 2000.

Effective Date

(e) This amendment becomes effective on July 18, 2001.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2125; fax (425) 227-1149.

Issued in Renton, Washington, on June 4, 2001.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

BOEING AIRWORTHINESS DIRECTIVE LARGE AIRCRAFT

2001-12-05 BOEING: Amendment 39-12260. Docket 2001-NM-118-AD.

Applicability: Model 747-100, 747-200, 747-300, and 747SR series airplanes, certificated in any category, powered by General Electric CF6-45/50 series engines, or Pratt & Whitney JT9D-70 series engines.

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 (d) 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 detect and correct heat damage to the diagonal brace, which could cause cracking or fracture of the diagonal brace, and possible loss of the diagonal brace load path and consequent separation of the strut and engine from the airplane, accomplish the following:

Verification

(a) Within 90 days after the effective date of this AD, do the actions required by paragraph (a)(1) or (a)(2) of this AD, as applicable.

(1) If an operator's maintenance records verify that, during the accomplishment of AD 95-13-07, amendment 39-9287, the seal backup plates were restored and BMS 5-63 high-temperature sealant was used in that restoration, no further action is required by this AD.

(2) If an operator's maintenance records do not verify that the actions specified in paragraph (a)(1) were accomplished, do the actions required by paragraph (b) of this AD.

Inspections and Corrective Actions

(b) Within 90 days after the effective date of this AD, do the inspections and applicable corrective actions specified by paragraphs (b)(1) and (b)(2) of this AD per the Accomplishment Instructions of Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001. Thereafter, repeat the inspections at intervals not to exceed 6 months, except as provided by paragraph (c) of this AD.

Outboard Strut Diagonal Brace

(1) Do a detailed visual inspection of the forward 20 inches of the outboard strut diagonal brace, including all areas of the forward clevis lugs and brace body, for signs of heat damage or cracks, per Part 1 of the Accomplishment Instructions of the service bulletin.

(i) If no sign of heat damage or cracking is found, repeat the detailed visual inspection at intervals not to exceed 6 months per the service bulletin, until accomplishment of paragraph (c) of this AD.

(ii) If any primer discoloration is found, before further flight, do a non-destructive test (NDT) inspection of the area to determine if the diagonal brace has heat damage per Part 1 of the Accomplishment Instructions of the service bulletin.

(A) If no heat damage is found during the NDT inspection, and no cracking is found during the detailed visual inspection, repeat the detailed visual inspection specified by paragraph (b)(1) of this AD at intervals not to exceed 6 months.

(B) If any heat damage is found during the NDT inspection, or any cracking is found during the detailed visual inspection, before further flight, do the action specified in paragraph (c)(2) of this AD. Thereafter, repeat the detailed visual inspection specified by paragraph (b)(1) of this AD at intervals not to exceed 6 months.

Firewall Openings of the Strut Aft Bulkhead

(2) Do a detailed visual inspection of the firewall openings of the strut aft bulkhead to verify installation of seal backup plates and condition of the sealant application per Part 1 of the Accomplishment Instructions of the service bulletin.

(i) If no discrepancy (including damaged or missing seal backup plates, or damaged or missing sealant) is found, repeat the detailed visual inspection specified by paragraph (b)(1) of this AD at intervals not to exceed 6 months.

(ii) If the seal backup plates are not installed, before further flight, install the seal backup plates and apply heat-resistant sealant, BMS 5-63, per Part 2 of the Accomplishment Instructions of the service bulletin. Accomplishment of this action terminates the repetitive inspections required by this AD.

(iii) If the seal backup plates are installed, but the sealant application is damaged or missing, before further flight, remove any existing sealant and apply heat-resistant sealant, BMS 5-63, per Part 3 of the Accomplishment Instructions of the service bulletin. Accomplishment of this action terminates the repetitive inspections required by this AD.

Note 2: Because it is difficult to distinguish between BMS 5-95 and BMS 5-63 sealants, removal and replacement of the existing sealant is required to ensure that the correct heat-resistant sealant, BMS 5-63, is used.

Optional Terminating Action

(c) Accomplishment of the inspections required by paragraphs (b)(1) and (b)(2) of this AD and the actions specified by paragraphs (c)(1), (c)(2), and (c)(3) of this AD, as applicable, constitutes terminating action for the requirements of this AD.

(1) Before further flight following the inspections required by paragraphs (b)(1) and (b)(2) of this AD, if no cracking or heat damage is found and the seal backup plates are installed, remove any existing sealant and apply heat-resistant sealant, BMS 5-63, per Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001.

(2) If any sign of heat damage or cracking is found during the inspections required by paragraph (b) of this AD, before further flight, do the actions specified by either paragraph (c)(2)(i) or (c)(2)(ii) of this AD.

(i) Replace the diagonal brace per Part 4 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001; OR

(ii) Repair per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

(3) If the seal back-up plates are missing, before further flight, do the actions required by paragraph (b)(2)(ii) of this AD.

Alternative Methods of Compliance

(d) 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 Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(e) 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.

Incorporation by Reference

(f) Except as provided by paragraph (c)(2)(ii) of this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001. 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.

Effective Date

(g) This amendment becomes effective on June 27, 2001.

FOR FURTHER INFORMATION CONTACT: Tamara L. Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2771; fax (425) 227-1181.

Issued in Renton, Washington, on June 4, 2001.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BW 2001-12

**BOEING
AIRWORTHINESS DIRECTIVE
EMERGENCY
LARGE AIRCRAFT**

2001-12-51 BOEING: Docket No. 2001-NM-193-AD.

Applicability: All Model 737-800 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:

(a) Within 24 clock hours after receipt of this AD, revise the Limitations Section of the FAA-approved Airplane Flight Manual (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.”

(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.

2001-12-51 2

(d) AD 2001-12-51, issued on June 13, 2001, becomes effective upon receipt.

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.

Issued in Renton, Washington, on June 13, 2001.

Original signed by:

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.