

Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-216-AD; Amendment 39-12912; **AD 2002-21-06**]

RIN 2120-AA64

[Correction] Airworthiness Directives; McDonnell Douglas Model DC-9-81 (MD- 81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 Airplanes

PDF Copy (If Available):



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▼ Preamble Information

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; correction.

SUMMARY: This document corrects information in an existing airworthiness directive (AD) that applies to all McDonnell Douglas Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD- 87), and MD-88 airplanes. That AD currently requires revisions to the Airplane Flight Manual; installation of inspection aids on the wing upper surfaces; and, among other actions, installation of an overwing heater blanket system or primary upper wing ice detection system, and installation of a heater protection panel or an equipment protection device on certain overwing heater blanket systems. That AD also requires disabling the anti-ice systems for the upper wing surface on certain airplanes. This document corrects a reference to an incorrect paragraph. This correction is necessary to provide the correct paragraph reference.

DATES: Effective November 8, 2002.

The incorporation by reference of certain publications listed in the regulations was approved previously by the Director of the Federal Register as of November 8, 2002 (67

FR 65298, October 24, 2002).

The incorporation by reference of certain publications, as listed in the regulations, was approved previously by the Director of the Federal Register as January 17, 1992 (57 FR 2014, January 17, 1992).

The incorporation by reference of certain other publications, as listed in the regulations, was approved previously by the Director of the Federal Register as of May 7, 2001 (66 FR 17499, April 2, 2001).

DATES: Effective November 8, 2002.

FOR FURTHER INFORMATION CONTACT: *Technical Information:* Cheyenne Del Carmen, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5338; fax (562) 627-5210.

Other Information: Judy Golder, Airworthiness Directive Technical Editor/Writer; telephone (425) 687-4241, fax (425) 227-1232. Questions or comments may also be sent via the Internet using the following address: judy.golder@faa.gov. Questions or comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

SUPPLEMENTARY INFORMATION: On October 9, 2002, the Federal Aviation Administration (FAA) issued **AD 2002-21-06**, amendment 39-12912 (67 FR 65298, October 24, 2002), which applies to all McDonnell Douglas Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes. That AD requires revisions to the Airplane Flight Manual; installation of inspection aids on the wing upper surfaces; and, among other actions, installation of an overwing heater blanket system or primary upper wing ice detection system, and installation of a heater protection panel or an equipment protection device on certain overwing heater blanket systems. That AD also requires disabling the anti-ice systems for the upper wing surface on certain airplanes. The actions required by that AD are intended to prevent ice ingestion into one or both engines and consequent loss of thrust from one or both engines; and damage to the upper wing skin surface and its structure, due to prolonged short-circuit electrical arcing of certain anti-ice systems.

On December 23, 2002, the FAA issued **AD 2002-21-06** COR, amendment 39-12912 (68 FR 5, January 2, 2003), that corrected certain references that were transposed in two paragraphs.

Need for the Correction

After publication of that correction, the FAA received comments from two operators that point out the need for further correction. One commenter notes that, in the corrected AD, the statement at the beginning of the body advising that **AD 2002-21-06** supersedes AD 2001-06-16 COR, amendment 39-12163, is missing. The commenter states that adding that statement would clarify that AD 2001-06-16 has been superseded. Both commenters also note that in paragraph (l)(2)(i) of the originally corrected AD, having the heading of "Alternate Methods of Compliance (AMOC)," reference is made to installation of a non-skid, striped triangular symbol per option 5 of McDonnell Douglas Service Bulletin MD80-30-059, Revision 4 through Revision 7, as being approved as AMOCs with paragraphs (c) and (i)(2) of the originally corrected AD. The commenters point out that the correct reference should be "with paragraphs (c) and (i)(4) of the AD."

The FAA agrees with the commenters that clarification and correction are necessary and has determined a need for the issuance of a second correction of **AD 2002-21-06**. This correction adds the statement, which was inadvertently omitted, at the beginning of the AD advising that **AD 2002-21-06** supersedes AD 2001-06-16 COR. This correction will also revise paragraph (l)(2)(i) of the AD to reference the correct paragraphs, i.e., paragraphs (c) and (i)(4) of the AD.

Correction of Publication

This document corrects the errors and correctly adds the AD as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13).

The AD is reprinted in its entirety for the convenience of affected operators. The effective date of the AD remains November 8, 2002.

Since this action only adds clarifying information and corrects a typographical error in a paragraph reference, it has no adverse economic impact and imposes no additional burden on any person. Therefore, the FAA has determined that notice and public procedures are unnecessary.

List of Subjects in 14 CFR Part 39

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

Adoption of the Correction

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

PART 39--AIRWORTHINESS DIRECTIVES

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

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

Sec. 39.13 [Corrected]

2. Section 39.13 is amended by correctly adding the following airworthiness directive (AD):

▼ **Regulatory Information**

2002-21-06 McDonnell Douglas: Amendment 39-12912. Docket 2002-NM-216-AD. Supersedes AD 2001-06-16 COR, Amendment 39-12163.

Applicability: All Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and 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 (l)(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 damage to the upper wing skin surface and its structure, due to prolonged short-circuit electrical arcing of the anti-ice system; accomplish the following:

Restatement of Requirements of AD 2001-06-16 COR

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.

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 May 7, 2001 (the effective date of 2001-06-16 COR, amendment 39-12163): Within 60 days after May 7, 2001, 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 May 7, 2001, 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.

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

Note 6: Boeing (McDonnell Douglas) has received FAA approval of a primary upper wing ice detection system that is considered to be an alternative method of compliance (AMOC) with the requirements of paragraph (f)(2)(iii) of this AD. Information

concerning such AMOCs may be obtained from the Los Angeles ACO.

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]".

MMEL Provision

(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.

New Requirements of This AD

Note 7: The Honeywell Anti-Ice System specified in paragraphs (i), (j), and (k) of this AD, is also known and specified as an overwing heater blanket system installed in

accordance with AlliedSignal Supplemental Type Certificate (STC) STC SA6061NM.

For Airplanes Equipped With a Honeywell Anti-Ice System Installed per STC SA6061NM

(i) For airplanes equipped with a Honeywell Anti-Ice System installed per STC SA6061NM: Accomplish the actions specified in paragraphs (i)(1), (i)(2), (i)(3), and (i)(4) of this AD, at the times specified in those paragraphs.

(1) Within 72 hours after the effective date of this AD, disable the Honeywell Anti-Ice System installed per STC SA6061NM, per Honeywell Alert Service Bulletin 109XXXX-30-38, dated August 8, 2002.

(2) Within 72 hours after the effective date 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):

"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

(3) Within 72 hours after the effective date of this AD, 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."

Installation of Inspection Aids

(4) Within 30 days after the effective date of this AD, 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.

Note 8: Operators should note that certain AMOCs have been approved as acceptable methods of compliance with paragraph (i)(4) of this AD. Information concerning such AMOCs may be obtained from the Manager, Los Angeles ACO.

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

- (j) For airplanes equipped with disabled Honeywell Anti-Ice Systems installed per STC

SA6061NM: Within 3 years after May 7, 2001, accomplish the requirements of paragraph (j)(1), (j)(2), or (j)(3) of this AD.

(1) 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 ACO, FAA.

Note 9: 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 (j)(1) of this AD.

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

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

Note 10: Boeing (McDonnell Douglas) has received FAA approval of an acceptable primary upper wing ice detection system, which is considered to be an acceptable method of compliance with the requirements of paragraph (j)(3) of this AD when accomplished in accordance with a method approved by the Manager, Los Angeles ACO.

AFM Revision

(k)(1) For airplanes equipped with a disabled Honeywell Anti-Ice Systems installed per STC SA6061NM: Prior to further flight after accomplishment of the installation required by paragraph (j)(1),(j)(2), or (j)(3) 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):

"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]"

(2) After accomplishment of the installation required by paragraph (j)(1) of this AD and

this AFM revision, the AFM revisions and CDLs required by paragraphs (i)(2) and (i)(3) of this AD may be removed from the AFM, and the inspection aids required by paragraph (i)(4) of this AD may be removed from the airplane.

Alternative Methods of Compliance (AMOCs)

(1)(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 AMOCs were approved previously per AD 92-03-02, amendment 39-8156, and are approved as AMOCs 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 paragraphs (c) and (i)(4) of this AD; and

(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 paragraphs (b) and (i)(3) of this AD.

Note 11: 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

(m) 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

(n) Unless otherwise specified in this AD, the actions shall be done in accordance with the applicable service document identified in the following table:

Service document	Revision level	Date
Honeywell Alert Service Bulletin 109XXXX-30-38	Original	August 8, 2002
McDonnell Douglas Alert Service Bulletin MD80-30A087	Original	September 22, 1997
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 Service Bulletin MD80-30-071	02	February 6, 1996
McDonnell Douglas Service Bulletin MD80-30-078	01	April 8, 1997
McDonnell Douglas Service Bulletin MD80-30-090	Original	October 19, 1999

(1) The incorporation by reference of Honeywell Alert Service Bulletin 109XXXX-30-38, dated August 8, 2002, was approved previously by the Director of the Federal Register as of November 8, 2002 (67 FR 65298, October 24, 2002).

(2) 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).

(3) 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).

(4) 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

(o) The effective date of this amendment remains November 8, 2002.

Footer Information

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Ali Bahrami,

Acting Manager, Transport Airplane Directorate,
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▼ Comments

CORRECTIONS:

[Federal Register: January 2, 2003 (Volume 68, Number 1); Page 5-10]

[Federal Register: March 18, 2003 (Volume 68, Number 52); Page 12802-12806]

[www.access.gpo.gov/su_docs/aces/aces140.html] Go to the attached "pdf" for full correction text. This copy reflects the correction.