

# Proposed Rules

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

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2009-0609; Directorate Identifier 2009-NM-037-AD]

RIN 2120-AA64

#### Airworthiness Directives; Bombardier Model DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, and DHC-8-202 Series Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for the products listed above. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

During a puncture voltage test of the aluminum-loaded paint on an in-service DHC-8 aircraft, conducted to validate an SFAR 88 [Special Federal Aviation Regulation No. 88] related task, Bombardier Aerospace (BA) discovered that the top wing fuel tank skin between Yw171.20 and Yw261.00 was painted with a non-aluminized enamel coating \* \* \*.

With this type of paint application, it is possible that, in the worst case scenario, a lightning strike could puncture the wing skin and create an ignition source in the fuel tank.

Ignition sources inside fuel tanks, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane. The proposed AD would require actions that are intended to address the unsafe condition described in the MCAI.

**DATES:** We must receive comments on this proposed AD by August 5, 2009.

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

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *Fax:* (202) 493-2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>.

You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

#### Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Kyle Williams, Aerospace Engineer, Systems and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7347; fax (516) 794-5531.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include "Docket No. FAA-2009-0609; Directorate Identifier

2009-NM-037-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

#### Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2009-05, dated January 29, 2009 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During a puncture voltage test of the aluminum-loaded paint on an in-service DHC-8 aircraft, conducted to validate an SFAR 88 [Special Federal Aviation Regulation No. 88] related task, Bombardier Aerospace (BA) discovered that the top wing fuel tank skin between Yw171.20 and Yw261.00 was painted with a non-aluminized enamel coating due to a misinterpretation of the painting instructions in the Structural Repair Manual (SRM).

With this type of paint application, it is possible that, in the worst case scenario, a lightning strike could puncture the wing skin and create an ignition source in the fuel tank.

Ignition sources inside fuel tanks, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane. Required actions include performing a functional check of the dielectric properties of the fuel tank skin for aluminum-loaded primer and aluminum-loaded enamel coating. For airplanes on which the aluminum-loaded primer and aluminum-loaded enamel coating have been properly applied, the required actions include restoring the protective finish on the areas where the surface finish was removed. For airplanes on which the aluminum-loaded primer and aluminum-loaded enamel coating have not been applied or have not been properly applied, the required actions include stripping the affected wing skin surfaces to bare metal and applying alodine coating to those areas,

performing a detailed visual inspection of the stripped areas for any sign of corrosion or deterioration of the protective alodine coating and re-applying the protective alodine coating, and painting the affected wing skin surfaces with aluminum-loaded primer and aluminum-loaded enamel coating. You may obtain further information by examining the MCAI in the AD docket.

The FAA has examined the underlying safety issues involved in fuel tank explosions on several large transport airplanes, including the adequacy of existing regulations, the service history of airplanes subject to those regulations, and existing maintenance practices for fuel tank systems. As a result of those findings, we issued a regulation titled "Transport Airplane Fuel Tank System Design Review, Flammability Reduction and Maintenance and Inspection Requirements" (66 FR 23086, May 7, 2001). In addition to new airworthiness standards for transport airplanes and new maintenance requirements, this rule included Special Federal Aviation Regulation No. 88 ("SFAR 88," Amendment 21-78, and subsequent Amendments 21-82 and 21-83).

Among other actions, SFAR 88 requires certain type design (*i.e.*, type certificate (TC) and supplemental type certificate (STC)) holders to substantiate that their fuel tank systems can prevent ignition sources in the fuel tanks. This requirement applies to type design holders for large turbine-powered transport airplanes and for subsequent modifications to those airplanes. It requires them to perform design reviews and to develop design changes and maintenance procedures if their designs do not meet the new fuel tank safety standards. As explained in the preamble to the rule, we intended to adopt airworthiness directives to mandate any changes found necessary to address unsafe conditions identified as a result of these reviews.

In evaluating these design reviews, we have established four criteria intended to define the unsafe conditions associated with fuel tank systems that require corrective actions. The percentage of operating time during which fuel tanks are exposed to flammable conditions is one of these criteria. The other three criteria address the failure types under evaluation: Single failures, single failures in combination with a latent condition(s), and in-service failure experience. For all four criteria, the evaluations included consideration of previous actions taken that may mitigate the need for further action.

The Joint Aviation Authorities (JAA) has issued a regulation that is similar to SFAR 88. (The JAA is an associated body of the European Civil Aviation Conference (ECAC) representing the civil aviation regulatory authorities of a number of European States who have agreed to co-operate in developing and implementing common safety regulatory standards and procedures.) Under this regulation, the JAA stated that all members of the ECAC that hold type certificates for transport category airplanes are required to conduct a design review against explosion risks.

We have determined that the actions identified in this AD are necessary to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

#### Relevant Service Information

Bombardier has issued Service Bulletin 8-57-46, Revision 'A,' dated February 6, 2009. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

#### FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

#### Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have proposed different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a Note within the proposed AD.

#### Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 22 products of U.S. registry. We also estimate that it would take about 24 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$80 per work-hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$42,240, or \$1,920 per product.

#### Authority for This Rulemaking

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

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

#### Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

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

**List of Subjects in 14 CFR Part 39**

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

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

**PART 39—AIRWORTHINESS DIRECTIVES**

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

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

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:

**Bombardier, Inc. (Formerly de Havilland, Inc.):** Docket No. FAA-2009-0609; Directorate Identifier 2009-NM-037-AD.

**Comments Due Date**

(a) We must receive comments by August 5, 2009.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Bombardier Model DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, and DHC-8-202 series airplanes; certificated in any category; serial numbers 003 through 663 inclusive.

**Subject**

(d) Air Transport Association (ATA) of America Code 57: Wings.

**Reason**

(e) The mandatory continuing airworthiness information (MCAI) states:

During a puncture voltage test of the aluminum-loaded paint on an in-service DHC-8 aircraft, conducted to validate an SFAR 88 [Special Federal Aviation Regulation No. 88] related task, Bombardier Aerospace (BA) discovered that the top wing fuel tank skin between Yw171.20 and Yw261.00 was painted with a non-aluminized enamel coating due to a misinterpretation of the painting instructions in the Structural Repair Manual (SRM).

With this type of paint application, it is possible that, in the worst case scenario, a lightning strike could puncture the wing skin and create an ignition source in the fuel tank.

Ignition sources inside fuel tanks, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane. Required actions include performing a functional check of the dielectric properties of the fuel tank skin for aluminum-loaded primer and aluminum-loaded enamel coating. For airplanes on which the aluminum-loaded primer and aluminum-loaded enamel coating have been properly applied, the required actions include restoring the protective finish on the areas where the surface finish was

removed. For airplanes on which the aluminum-loaded primer and aluminum-loaded enamel coating have not been applied or have not been properly applied, the required actions include stripping the affected wing skin surfaces to bare metal and applying alodine coating to those areas, performing a detailed visual inspection of the stripped areas for any sign of corrosion or deterioration of the protective alodine coating and re-applying the protective alodine coating, and painting the affected wing skin surfaces with aluminum-loaded primer and aluminum-loaded enamel coating.

**Actions and Compliance**

(f) Unless already done, do the following actions.

(1) For airplanes on which Bombardier Modification 8/0024 has not been done: Within 18 months after the effective date of this AD, perform a functional check of the dielectric properties of the fuel tank skin between Yw171.20 and Yw261.00 of the upper and lower wing for aluminum-loaded primer and aluminum-loaded enamel coating, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-57-46, Revision 'A', dated February 6, 2009.

(2) For airplanes on which Bombardier Modification 8/0024 has been done: Within 18 months after the effective date of this AD, perform a functional check of the dielectric properties of the fuel tank skin between Yw171.20 and Yw261.00 of the upper wing for aluminum-loaded primer and aluminum-loaded enamel coating, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-57-46, Revision 'A,' dated February 6, 2009.

(3) If the functional check required by paragraph (f)(1) or (f)(2) of this AD indicates that the aluminum-loaded primer and aluminum-loaded enamel coating have been properly applied, as defined in the Accomplishment Instructions of Bombardier Service Bulletin 8-57-46, Revision 'A,' dated February 6, 2009: Before further flight, restore the protective finish on the areas where the surface finish was removed for the functional check, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-57-46, Revision 'A,' dated February 6, 2009.

(4) If the functional check required by paragraph (f)(1) or (f)(2) of this AD indicates that the aluminum-loaded primer and aluminum-loaded enamel coating have not been applied or have not been properly applied, as defined in the Accomplishment Instructions of Bombardier Service Bulletin 8-57-46, Revision 'A,' dated February 6, 2009: Perform the actions required by paragraphs (f)(4)(i), (f)(4)(ii), and (f)(4)(iii) of this AD in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-57-46, Revision 'A,' dated February 6, 2009 ("the service bulletin").

(i) Before further flight, strip the affected wing skin surfaces to bare metal and apply alodine coating to those areas in accordance with the service bulletin.

(ii) Within 90 flight hours after performing the actions required by paragraph (f)(4)(i) of

this AD, and thereafter at intervals not to exceed 90 flight hours: Perform a detailed visual inspection of the stripped areas for any sign of corrosion or deterioration of the protective alodine coating, and re-apply the protective alodine coating, in accordance with the service bulletin.

(iii) Within 3 months after performing the actions required by paragraph (f)(1) or (f)(2) of this AD, as applicable: Paint the affected wing skin surfaces with aluminum-loaded primer and aluminum-loaded enamel coating in accordance with the service bulletin.

(5) Accomplishment of the actions required by paragraph (f)(1) or (f)(2) of this AD, as applicable, before the effective date of this AD in accordance with Bombardier Service Bulletin 8-57-46, dated September 29, 2008, is acceptable for compliance with the corresponding requirements of this AD.

**FAA AD Differences**

**Note 1:** This AD differs from the MCAI and/or service information as follows: No differences.

**Other FAA AD Provisions**

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

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, New York Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Kyle Williams, Aerospace Engineer, Systems and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7347; fax (516) 794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

(3) *Reporting Requirements:* For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

**Related Information**

(h) Refer to Canadian Airworthiness Directive CF-2009-05, dated January 29, 2009, and Bombardier Service Bulletin 8-57-46, Revision 'A,' dated February 6, 2009, for related information.

Issued in Renton, Washington, on June 25, 2009.

Stephen P. Boyd,

Acting Manager, Transport Airplane  
Directorate, Aircraft Certification Service.

[FR Doc. E9-15810 Filed 7-2-09; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2009-0608; Directorate  
Identifier 2008-NM-215-AD]

RIN 2120-AA64

#### Airworthiness Directives; Boeing 747- 200C and -200F Series Airplanes

**AGENCY:** Federal Aviation  
Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking  
(NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all Boeing 747-200C and -200F series airplanes. This proposed AD would require a high frequency eddy current inspection for cracks of certain fastener holes, and corrective action if necessary. This proposed AD would also require repetitive replacements of the upper chords, straps (or angles), and radius fillers of certain upper deck floor beams, and, for any replacement that is done, detailed and open-hole HFEC inspections for cracks of the modified upper deck floor beams, and corrective actions if necessary. This proposed AD results from a report from the manufacturer that the accomplishment of certain existing inspections, repairs, and modifications is not adequate to ensure the structural integrity of the affected 7075 series aluminum alloy upper deck floor beam upper chords on airplanes that have exceeded certain thresholds. We are proposing this AD to prevent cracking of the upper chords and straps (or angles) of the floor beams, which could lead to failure of the floor beams and consequent loss of controllability, rapid decompression, and loss of structural integrity of the airplane.

**DATES:** We must receive comments on this proposed AD by August 20, 2009.

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

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- *Fax:* 202-493-2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M-

30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

• *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1, fax 206-766-5680; e-mail [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

#### Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Ivan Li, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6437; fax (425) 917-6590.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include "Docket No. FAA-2009-0608; Directorate Identifier 2008-NM-215-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to [http://](http://www.regulations.gov)

[www.regulations.gov](http://www.regulations.gov), including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

#### Discussion

We have received reports that operators have found cracks in the upper chords and straps (or angles) of the upper deck floor beams. The airplanes had accumulated between 16,264 and 23,561 total flight cycles. In addition, we received a report from the manufacturer that the accomplishment of certain existing inspections, repairs, and modifications is not adequate to ensure the structural integrity of the affected 7075 series aluminum alloy upper deck floor beam upper chords on airplanes that have exceeded certain thresholds. Cracks in the upper chords or straps (or angles) of an upper deck floor beam that are not found and repaired could become large and fully sever the floor beam. A severed floor beam can lead to large deflection or deformation of the floor and of the adjacent body skin, frames, and stringers, and could result in damage and unintended inputs to the wire bundles and control cables routed through the floor beams which could affect airplane controllability. If not corrected, adjacent severed floor beams could result in consequent loss of controllability, rapid decompression, and loss of structural integrity of the airplane.

#### Related ADs

As a result of these reports of cracks, Boeing issued Alert Service Bulletin 747-53A2439, dated July 5, 2001. Boeing Alert Service Bulletin 747-53A2439 provides procedures for an open-hole high frequency eddy current (HFEC) or surface HFEC inspection to find fatigue cracking in the upper chord of the upper deck floor beams, and applicable related investigative and corrective actions. The actions in Boeing Alert Service Bulletin 747-53A2439, dated July 5, 2001, are required by AD 2006-08-02, amendment 39-14556 (71 FR 18618, April 12, 2006).

In addition, Boeing has received many reports of cracks in the upper chords and straps (or angles) of the affected floor beams at the fastener locations where the upper chords attach to the body frames. As a result of these reports of cracks, Boeing issued Alert Service Bulletin 747-53A2420, dated March 26, 1998; and Boeing Alert Service Bulletin 747-53A2429, dated March 22, 2001. Boeing Alert Service Bulletin 747-53A2420 provides procedures for detailed and open-hole HFEC