

[Federal Register: August 15, 2008 (Volume 73, Number 159)]
[Rules and Regulations]
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[DOCID:fr15au08-3]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0864; Directorate Identifier 2008-NM-120-AD; Amendment 39-15644; AD 2008-17-06]

RIN 2120-AA64

Airworthiness Directives; Bombardier Model DHC-8-400 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD) that applies to certain Bombardier Model DHC-8-400 series airplanes. The existing AD currently requires revising the Limitations section of the airplane flight manual (AFM) to include procedures for pulling the "HYD PWR XFER" circuit breaker in the event of the loss of all hydraulic fluid in the No. 1 or No. 2 hydraulic system. This AD requires a revision to the AFM to include additional procedures for ensuring that the "PTU CNTRL" switch is Normal, the "PTU CNTRL ON" advisory light is out, and the "HYD PWR XFER" circuit breaker is pulled in the event of the illumination of the "2 HYD ISO VALVE" caution light. This AD resulted from low No. 2 hydraulic pressure in-flight, which caused the power transfer unit to overspeed, and the fluid flow within the No. 1 hydraulic system to increase. We are issuing this AD to prevent possible loss of both the No. 1 and No. 2 hydraulic systems, resulting in the potential loss of several functions essential for safe flight and landing of the airplane.

DATES: This AD becomes effective September 2, 2008.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of September 2, 2008.

On July 10, 2007 (72 FR 30968, June 5, 2007), the Director of the Federal Register approved the incorporation by reference of certain other publications.

We must receive any comments on this AD by September 15, 2008.

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 AD, contact Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada.

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 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: Fabio Buttitta, 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) 228-7303; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

On May 25, 2007, the FAA issued AD 2007-12-03, amendment 39-15081 (72 FR 30968, June 5, 2007). That AD applies to certain Bombardier Model DHC-8-400 series airplanes. That AD requires revising the airplane flight manual (AFM) to include procedures for pulling the "HYD PWR XFER" circuit breaker in the event of the loss of all hydraulic fluid in the No. 1 or No. 2 hydraulic system. That AD resulted from low No. 2 hydraulic pressure in-flight, which caused the power transfer unit (PTU) to overspeed, and the fluid flow within the No. 1 hydraulic system to increase. The actions specified in that AD are intended to prevent possible loss of both the No. 1 and No. 2 hydraulic systems, resulting in the potential loss of several functions essential for safe flight and landing of the airplane.

Actions Since AD Was Issued

Since we issued AD 2007-12-03, Transport Canada Civil Aviation (TCCA), which is the airworthiness authority for Canada, advises that it has received an additional report of loss of the No. 2 hydraulic system on a Model DHC-8-402 airplane, causing the PTU to overspeed, increasing the fluid flow within the No. 1 hydraulic system. Investigation revealed that, after the caution light for the No. 2 hydraulic system had illuminated, the PTU was left in the "ON" position. The flightcrew had followed AFM procedures, as specified in the AFM revision required by AD 2007-12-03, and did not pull the circuit breaker because the hydraulic fluid from the No. 2 system was not completely depleted.

Therefore, we find that the AFM revision required by AD 2007-12-03 does not adequately prevent possible loss of both the No. 1 and No. 2 hydraulic systems, resulting in the potential loss of several functions essential for safe flight and landing of the airplane. The hydraulic power transfer system on the Model DHC-8-400 and DHC-8-401 airplanes are similar to those on the affected Model DHC-8-402 airplanes. Therefore, all of the models are subject to the same unsafe condition.

Relevant Service Information

Bombardier has issued the temporary amendments specified in the following table (AD 2007-12-03 refers to Issue 1 of Bombardier Temporary Amendments 13, all dated July 14, 2005, as appropriate sources of service information for accomplishing the required AFM revision).

Revised AFM Temporary Amendments

For Model -	Use Bombardier Temporary Amendment -	Issue -	Dated -	To Bombardier Dash 8 Q400 Airplane Flight Manual -
DHC-8-400 airplanes	13	3	June 9, 2008	PSM 1-84-1A
DHC-8-401 airplanes	13	3	June 9, 2008	PSM 1-84-1A
DHC-8-402 airplanes	13	3	June 9, 2008	PSM 1-84-1A

The procedures specified in Issue 3 for addressing the loss of all hydraulic fluid in the No. 1 and No. 2 hydraulic systems are identical to those specified in Issue 1. Issue 3 has been revised to include procedures for ensuring that the PTU is disabled when the fluid level in the No. 2 hydraulic system falls to a value where the PTU becomes a hazard to the No. 1 hydraulic system. This is achieved by ensuring that the "PTU CNTRL" switch is Normal, the "PTU CNTRL ON" advisory light is out, and the "HYD PWR XFER" circuit breaker is pulled in the event of the illumination of the "2 HYD ISO VALVE" caution light. TCCA previously mandated Issue 1 ("or later") of the service information and issued Canadian airworthiness directive CF-2006-08, dated April 26, 2006 (referred to after this as "the MCAI"), to ensure the continued airworthiness of these airplanes in Canada.

FAA's Determination and Requirements of this 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.

Therefore, we are issuing this AD to supersede AD 2007-12-03. This new AD retains the requirements of the existing AD. This AD also requires a revision to the Normal and Abnormal Procedures section of the AFM to include procedures for ensuring that the "PTU CNTRL" switch is Normal, the "PTU CNTRL ON" advisory light is out, and the "HYD PWR XFER" circuit breaker is pulled in the event of the illumination of the "2 HYD ISO VALVE" caution light.

In addition, AD 2007-12-03 specifies to revise the Limitations section of the AFM; however, this AD specifies to revise the Normal and Abnormal Procedures section.

Interim Action

We consider this AD interim action. The manufacturer is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

FAA's Justification and Determination of the Effective Date

Fluid loss in the No. 2 hydraulic system causing a PTU overspeed and increased fluid flow in the No. 1 hydraulic system could cause the loss of several functions essential for safe flight and landing of the airplane. Because of our requirement to promote safe flight of civil aircraft, and thus the critical need to ensure the proper functioning of the No.1 and No. 2 hydraulic systems and the short compliance time involved with this action, this AD must be issued immediately.

Because an unsafe condition exists that requires the immediate adoption of this AD, we find that notice and opportunity for prior public comment hereon are impracticable and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2008-0864; Directorate Identifier 2008-NM-120-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of 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 AD.

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

For the reasons discussed above, I certify that the 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 AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

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

PART 39—AIRWORTHINESS DIRECTIVES

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

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

§ 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by removing amendment 39-15081 (72 FR 30968, June 5, 2007) and adding the following new AD:



2008-17-06 Bombardier, Inc. (Formerly de Havilland, Inc.): Docket No. FAA-2008-0864;
Directorate Identifier 2008-NM-120-AD; Amendment 39-15644.

Effective Date

- (a) This AD becomes effective September 2, 2008.

Affected ADs

- (b) This AD supersedes AD 2007-12-03.

Applicability

- (c) This AD applies to Bombardier Model DHC-8-400, DHC-8-401, and DHC-8-402 airplanes, certificated in any category; serial numbers 4001 and 4003 and subsequent.

Unsafe Condition

- (d) This AD results from low No. 2 hydraulic pressure in-flight, which caused the power transfer unit to overspeed, and the fluid flow within the No. 1 hydraulic system to increase. We are issuing this AD to prevent possible loss of both the No. 1 and No. 2 hydraulic systems, resulting in the potential loss of several functions essential for safe flight and landing of the airplane.

Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Requirements of AD 2007-12-03

Airplane Flight Manual (AFM) Revision

- (f) Within 14 days after July 10, 2007 (the effective date of AD 2007-12-03), revise the Limitations section of the applicable AFM to include the information in the applicable Bombardier temporary amendment specified in Table 1 of this AD, as specified in the temporary amendment. These temporary amendments introduce procedures for pulling the "HYD PWR XFER" circuit breaker in the event of the loss of all hydraulic fluid in the No. 1 or No. 2 hydraulic system. Operate the airplane according to the limitations and procedures in the applicable temporary amendment.

Table 1 - AFM Temporary Amendments

For Model -	Use Bombardier Temporary Amendment -	Issue -	Dated -	To Bombardier Dash 8 Q400 Airplane Flight Manual -
DHC-8-400 airplanes	13	1	July 14, 2005	PSM 1-84-1A
DHC-8-401 airplanes	13	1	July 14, 2005	PSM 1-84-1A
DHC-8-402 airplanes	13	1	July 14, 2005	PSM 1-84-1A

Note 1: This may be done by inserting a copy of the applicable temporary amendment into the applicable AFM. When the applicable temporary amendment has been included in general revisions of the AFM, the general revisions may be inserted into the AFM, provided the relevant information in the general revisions is identical to that in the temporary amendment.

New Requirements of This AD

AFM Revision

(g) Within 14 days after the effective date of this AD, revise the applicable AFM Normal and Abnormal Procedures section to include the information in the applicable Bombardier temporary amendment specified in Table 2 of this AD, as specified in the temporary amendment. These temporary amendments introduce additional procedures for ensuring that the "PTU CNTRL" switch is Normal, the "PTU CNTRL ON" advisory light is out, and the "HYD PWR XFER" circuit breaker is pulled in the event of the illumination of the "2 HYD ISO VALVE" caution light. After accomplishing the AFM revision, the AFM limitation required by paragraph (f) in this AD may be removed from the AFM.

Table 2 - AFM Temporary Amendments

For Model -	Use Bombardier Temporary Amendment -	Issue -	Dated -	To Bombardier Dash 8 Q400 Airplane Flight Manual -
DHC-8-400 airplanes	13	3	June 9, 2008	PSM 1-84-1A
DHC-8-401 airplanes	13	3	June 9, 2008	PSM 1-84-1A
DHC-8-402 airplanes	13	3	June 9, 2008	PSM 1-84-1A

Alternative Methods of Compliance (AMOCs)

(h) The Manager, New York Aircraft Certification Office, ANE-170, 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: Fabio Buttitta, 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) 228-7303; fax (516) 794-5531. Before using any approved AMOC on

any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Related Information

(i) Canadian airworthiness directive CF-2006-08, dated April 26, 2006, also addresses the subject of this AD.

Material Incorporated by Reference

(j) You must use the applicable temporary amendment identified in Table 3 of this AD to perform the actions that are required by this AD, unless the AD specifies otherwise. (Only the last pages of the temporary amendments identified in Table 4 of this AD contain the issue date, no other pages of those documents are dated.)

Table 3 – All Material Incorporated by Reference

Bombardier Temporary Amendment -	Issue -	Dated -	To Bombardier Dash 8 Q400 Airplane Flight Manual -
13	1	July 14, 2005	Model 400 PSM 1-84-1A
13	1	July 14, 2005	Model 401 PSM 1-84-1A
13	1	July 14, 2005	Model 402 PSM 1-84-1A
13	3	June 9, 2008	Model 400 PSM 1-84-1A
13	3	June 9, 2008	Model 401 PSM 1-84-1A
13	3	June 9, 2008	Model 402 PSM 1-84-1A

(1) The Director of the Federal Register approved the incorporation by reference of the temporary amendments identified in Table 4 of this AD in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

Table 4 – New Material Incorporated by Reference

Bombardier Temporary Amendment -	Issue -	Dated -	To Bombardier Dash 8 Q400 Airplane Flight Manual -
13	3	June 9, 2008	Model 400 PSM 1-84-1A
13	3	June 9, 2008	Model 401 PSM 1-84-1A
13	3	June 9, 2008	Model 402 PSM 1-84-1A

(2) On July 10, 2007 (72 FR 30968, June 5, 2007), the Director of the Federal Register approved the incorporation by reference of the temporary amendments identified in Table 5 of this AD.

Table 5 – Previously Approved Material Incorporated by Reference

Bombardier Temporary Amendment -	Issue -	Dated -	To Bombardier Dash 8 Q400 Airplane Flight Manual -
13	1	July 14, 2005	Model 400 PSM 1-84-1A
13	1	July 14, 2005	Model 401 PSM 1-84-1A
13	1	July 14, 2005	Model 402 PSM 1-84-1A

(3) Contact Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada, for a copy of this service information. You may review copies at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on July 31, 2008.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E8-18683 Filed 8-14-08; 8:45 am]