

damage and subsequent failure of the rear spar fittings, which could result in loss of the wing. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by December 29, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2003-NM-154-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: *9-anm-nprmcomment@faa.gov*. Comments sent via fax or the Internet must contain "Docket No. 2003-NM-154-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in the proposed rule may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York.

FOR FURTHER INFORMATION CONTACT: Jon Hjelm, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256-7523; fax (516) 568-2716.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.

- For each issue, state what specific change to the proposed AD is being requested.

- Include justification (*e.g.*, reasons or data) for each request.

- Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2003-NM-154-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2003-NM-154-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

Transport Canada Civil Aviation (TCCA), which is the airworthiness authority for Canada, notified the FAA that an unsafe condition may exist on certain Bombardier Model DHC-8 series airplanes. TCCA has informed the FAA that discrepancies (chafing, wear damage, cracking) have been found on the rear spar fittings (part numbers (P/N) 85320053, 85322060, and 85334180), located between the flex shaft of the flap secondary drive and the wing-to-fuselage structure. These discrepancies are due to inadequate clearance between the fittings and the flex shaft of the flap secondary drive mechanism, caused by vibration of the flex drive during flap extension/retraction. Such discrepancies could affect the fatigue life of the fittings, which could result in failure of the fittings and consequent loss of the wing.

Explanation of Relevant Service Information

Bombardier has issued Service Bulletin 8-27-83, Revision 'A', dated February 8, 2002, which describes

procedures for repetitive inspections for discrepancies (chafing, wear damage, cracking) of certain rear spar fittings between the flex shaft of the flap secondary drive and the wing-to-fuselage structure, and corrective action if necessary. The service bulletin also provides procedures for an optional modification of the flex shaft, which would eliminate the need for the repetitive inspections. The inspections and corrective action are as follows:

- A visual inspection to determine the wear damage of each rear spar fitting, which includes the following actions:

If wear damage is found, measure the depth of the wear; and if wear depth is less than the limits specified in Table 1 of the service bulletin, continued operation is allowed for 4,000 flight cycles without blending out the wear; when 4,000 flight cycles have been accumulated, the wear damage must be blended out and must be within the limits specified in Table 3 of the service bulletin. After blending the fitting must be re-inspected (high frequency eddy current (HFEC) inspection) for any remaining discrepancies (wear, cracking). Discrepancies must be repaired before further flight. If no discrepancies are found the inspection is to be repeated at intervals not to exceed 12 months.

If the wear depth is outside the limits specified in Table 1 of the service bulletin, but is less than the limits specified in Table 2 of the service bulletin, temporary operation is allowed for 400 flight cycles without blending out the wear; when 400 flight cycles have been accumulated, the wear must be blended out and within the limits specified in Table 3. The inspection is to be repeated at intervals not to exceed 12 months.

If the wear depth is greater than the limits specified in Table 2, or after blending is greater than the limits specified in Table 3, or cracking is found after temporary operation, the fitting must be replaced before further flight.

- A HFEC inspection for cracking of damaged areas after continued operation and after blending out wear damage. If no cracking is found and the blended wear is within the limits specified in Table 3, permanent continued operation is allowed. If cracking is found or blended wear exceeds the limits specified in Table 3, the fitting must be replaced before further flight.

- Replacement of the rear spar fittings includes removal of the existing fittings, removal of old sealant, inspection of each hole through the rear spar and fuselage for damage, repair of any