

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2002–NM–126–AD]

RIN 2120–AA64

**Airworthiness Directives; Bombardier Model DHC–8–101, –102, –103, –106, –201, –202, –301, –311, and –315 Airplanes****AGENCY:** Federal Aviation Administration, DOT.**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to all Bombardier Model DHC–8–101, –102, –103, –106, –201, –202, –301, –311, and –315 airplanes. This proposal would require a detailed inspection of the wing leading edge de-icer boots to determine if they comply with the patch size and/or patch number limits in the Aircraft Maintenance Manual; and corrective action, if necessary. This action is necessary to prevent reduced aerodynamic smoothness of the wing leading edge de-icer boots and possible reduced stall margin, which could result in a significant increase in stall speeds, leading to a possible stall prior to activation of the stall warning. This action is intended to address the identified unsafe condition.

**DATES:** Comments must be received by January 20, 2004.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 2002–NM–126–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](mailto:9-anm-nprmcomment@faa.gov). Comments sent via fax or the Internet must contain “Docket No. 2002–NM–126–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:** Ezra Sasson, 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) 256–7520; 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 2002–NM–126–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. 2002–NM–126–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–8–101, –102, –103, –106, –201, –202, –301, –311, and –315 airplanes. The manufacturer has revised the Aircraft Maintenance Manual (AMM) to tighten the limit on the size and number of repair patches on the de-icer boots in the wing critical zone to avoid any adverse effect to the aerodynamic stall margins. The new limits are based on the airplane aerodynamic characteristics and the smoothness of the boots. Reduced aerodynamic smoothness of the wing leading edge de-icer boots, and possible reduced stall margin, if not corrected, could result in a significant increase in stall speeds, leading to a possible stall prior to activation of the stall warning.

**Explanation of Relevant Service Information**

Bombardier has issued revisions to the AMM, listed in the following table, which describe procedures for a detailed inspection of the wing leading edge de-icer boots for damage and to determine if they comply with the patch size and/or patch number limits in the critical zone as defined in the AMM. The AMM revisions also describe procedures for replacement of non-compliant de-icer boots with new de-icer boots, if necessary.