DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-1034; Project Identifier MCAI-2020-00951-T]

RIN 2120-AA64

Airworthiness Directives; Bombardier Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Bombardier Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. This proposed AD was prompted by a determination that certain airplanes have outdated magnetic variation (MagVar) tables inside navigation systems. This proposed AD would require revising the existing airplane flight manual (AFM) to update the Flight Management System (FMS) and Inertial Reference System (IRS) limitations. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://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: Deliver to Mail address above between 9 a.m. and 5 p.m.,
Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier, Inc., 200
Côte-Vertu Road West, Dorval, Québec H4S 2A3, Canada; North America toll-free
telephone: 1-866-538-1247 or direct-dial telephone: 1-514-855-2999; email:
ac.yul@aero.bombardier.com; Internet: https://www.bombardier.com. You may view this
service information at the FAA, Airworthiness Products Section, Operational Safety
Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of
this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov
by searching for and locating Docket No. FAA-2020-1034; or in person at Docket
Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
The AD docket contains this NPRM, any comments received, and other information. The
street address for Docket Operations is listed above. Comments will be available in the
AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Steven Dzierzynski, Aerospace
Engineer, Avionics and Electrical Systems Services Section, FAA, New York ACO
Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7367;
fax: 516-794-5531; email: 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about
this proposal. Send your comments to an address listed under the ADDRESSES section.
Include “Docket No. FAA-2020-1034; Project Identifier MCAI-2020-00951-T” at the
beginning of your comments. The most helpful comments reference a specific portion of
the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Steven Dzierzynski, Aerospace Engineer, Avionics and Electrical Systems Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7367; fax: 516-794-5531; email: 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2020-24, dated July 10, 2020 (referred to after this
as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. You may examine the MCAI in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-1034.

This proposed AD was prompted by a determination that certain airplanes have outdated MagVar tables inside navigation systems. The FAA is proposing this AD to address outdated MagVar tables inside navigation systems, which can affect the performance of the navigation systems and result in the presentation of misleading magnetic heading references on the Primary Flight Displays (PFDs) and Multi-Function Displays (MFDs), positioning the airplane outside of the terrain and obstacle protection provided by instrument flight procedures and flight route designs (e.g., outdated MagVar tables can lead to significantly inaccurate heading, course, and bearing calculations). See the MCAI for additional background information.

**Related Service Information under 1 CFR Part 51**

Bombardier has issued the following service information, which provides procedures for updating, among other systems, the FMS and IRS of the applicable AFM. These documents are distinct since they apply to different airplane configurations.


- Section 02-09, Navigation Systems Limitations, of Chapter 2 - LIMITATIONS, Bombardier Challenger CL-605 AFM, PSP 605-1, Revision 54, dated December 18, 2019.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.
FAA’s Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed Requirements of this NPRM

This proposed AD would require revising the existing AFM to update the FMS and IRS limitations of the applicable AFM.

Costs of Compliance

The FAA estimates that this proposed AD affects 39 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

<table>
<thead>
<tr>
<th>Estimated costs for required actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor cost Part cost Cost per product Cost on U.S. operators</td>
</tr>
<tr>
<td>1 work-hour X $85 per hour = $85</td>
</tr>
</tbody>
</table>

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.

The FAA is 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**

The FAA 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) Will not affect intrastate aviation in Alaska, 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.

**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 airworthiness directive (AD):
Bombardier, Inc.: Docket No. FAA-2020-1034; Project Identifier MCAI-2020-00951-T.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants), serial numbers 5301 through 5665 inclusive, and 5701 through 5988 inclusive, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 34, Navigation.

(e) Reason

This AD was prompted by a determination that certain airplanes have outdated magnetic variation (MagVar) tables inside navigation systems. The FAA is issuing this AD to address outdated MagVar tables inside navigation systems, which can affect the performance of the navigation systems and result in the presentation of misleading magnetic heading references on the Primary Flight Displays (PFDs) and Multi-Function Displays (MFDs), positioning the airplane outside of the terrain and obstacle protection provided by instrument flight procedures and flight route designs (e.g., outdated MagVar tables can lead to significantly inaccurate heading, course, and bearing calculations).

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.
(g) Airplane Flight Manual (AFM) Revision

Within 60 days after the effective date of this AD: Revise the existing AFM to incorporate the information specified in Section 02-09, Navigation Systems Limitations, of Chapter 2 - LIMITATIONS, of the applicable Bombardier Challenger AFM specified in figure 1 to paragraph (g) of this AD.

**Figure 1 to paragraph (g) – AFM Revisions**

<table>
<thead>
<tr>
<th>Bombardier Airplane Model/Serial Number</th>
<th>AFM Title</th>
<th>AFM Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL-600-2B16 (Variant 604) 5301 through 5665 inclusive</td>
<td>Bombardier Challenger CL-604 AFM, PSP 604-1</td>
<td>Revision 116, dated December 18, 2019</td>
</tr>
<tr>
<td>CL-600-2B16 (Variant 604) 5701 through 5988 inclusive</td>
<td>Bombardier Challenger CL-605 AFM, PSP 605-1</td>
<td>Revision 54, dated December 18, 2019</td>
</tr>
</tbody>
</table>

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method
approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.’s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2020-24, dated July 10, 2020, for related information. This MCAI may be found in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-1034.

(2) For more information about this AD, contact Steven Dzierzynski, Aerospace Engineer, Avionics and Electrical Systems Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7367; fax: 516-794-5531; email: 9-avs-nyaco-cos@faa.gov.

(3) For service information identified in this AD, contact Bombardier, Inc., 200 Côte-Vertu Road West, Dorval, Québec H4S 2A3, Canada; North America toll-free telephone: 1-866-538-1247 or direct-dial telephone: 1-514-855-2999; email: ac.yul@aero.bombardier.com; Internet: https://www.bombardier.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on November 19, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2020-26044 Filed: 11/25/2020 8:45 am; Publication Date: 11/27/2020]