

**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):

**2020–19–06 McCauley Propeller Systems:**  
Amendment 39–21248; Docket No. FAA–2020–0320; Project Identifier 2019–CE–011–AD.

**(a) Effective Date**

This AD is effective November 3, 2020.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the McCauley Propeller Systems (McCauley) governors specified in paragraph (c)(1) or (2) of this AD and installed on airplanes, certificated in any category.

(1) Models listed in table 2 of McCauley Alert Service Bulletin No. ASB273C, dated January 30, 2019 (McCauley ASB273C) with a serial number from 170061 through 180501, excluding the serial numbers listed in table 1 of McCauley ASB273C; or

(2) Models listed in table 2 of McCauley ASB273C, with any serial number, that have an installation date after January 31, 2017, or an installation date that cannot be determined.

**(d) Subject**

Joint Aircraft System Component (JASC)/ Air Transport Association (ATA) of America Code 61, Propellers.

**(e) Unsafe Condition**

This AD was prompted by reports of an unapproved variant idler gear bearing, McCauley part number (P/N) A–20028, installed on governors. All models of McCauley governors have a bearing with P/N A–20028 installed; however, the unapproved variant can be identified with the part marking “BA 59.” The FAA is issuing this AD to prevent failure of the idler gear bearing. This failure could result in failure of the governor, loss of propeller pitch control, engine and propeller over speed, engine oil contamination, and loss of control of the airplane.

**(f) Compliance**

Unless already done, within 50 hours time-in-service after the effective date of this AD or within 24 months after the effective date of this AD, whichever occurs first, replace the governor with a governor eligible for installation.

**Note 1 to paragraph (f) of this AD:** Any model McCauley governor that is stamped with the letter B, as specified in the Accomplishment Instructions in McCauley ASB273C, has already complied with the requirements of this AD.

**(g) Definition**

For the purposes of this AD, a governor eligible for installation is defined as a governor that does not have an idler gear bearing with a part marking “BA 59” installed.

**(h) Parts Installation Prohibition**

As of the effective date of this AD, do not install on any airplane a McCauley governor unless it is a governor eligible for installation.

**(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Wichita 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 local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

For more information about this AD, contact Thomas Teplik, Aerospace Engineer, Wichita ACO Branch, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946–4196; fax: (316) 946–4107; email: [thomas.teplik@faa.gov](mailto:thomas.teplik@faa.gov) or [Wichita-COS@faa.gov](mailto:Wichita-COS@faa.gov).

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) McCauley Alert Service Bulletin No. ASB273C, dated January 30, 2019.

(ii) [Reserved]

(3) For McCauley Propeller Systems service information identified in this AD, contact McCauley Propeller Systems, One Cessna Boulevard, P.O. Box 7704, Wichita, Kansas 67277; telephone: (800) 621–7767 or (316) 831–4021; email: [productsupport@txtav.com](mailto:productsupport@txtav.com); internet: <https://mccauley.txtav.com>.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329–4148.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on September 4, 2020.

**Lance T. Gant,**

*Director, Compliance & Airworthiness Division, Aircraft Certification Service.*

[FR Doc. 2020–21440 Filed 9–28–20; 8:45 am]

BILLING CODE 4910–13–P

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

[Docket No. FAA–2020–0203; Product Identifier 2019–NM–142–AD; Amendment 39–21256; AD 2020–19–13]

**RIN 2120–AA64****Airworthiness Directives; Bombardier, Inc., Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model CL–600–1A11 (600), CL–600–2A12 (601), and CL–600–2B16 (601–3A, 601–3R, and 604 Variants) airplanes. This AD was prompted by a report that fast and easy access to the portable oxygen bottle may be prevented by the portable oxygen bottle installation’s upper bracket latch assembly catching on the pressure gauge tube or on the pressure gauge bezel of the portable oxygen bottle. This AD requires a check to identify the manufacturer and part number of the portable oxygen bottle installation, and, if necessary, modification of the portable oxygen bottle installation. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective November 3, 2020.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of November 3, 2020.

**ADDRESSES:** For service information identified in this final rule, 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](mailto: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. It is also available on the internet at

<https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0203.

**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-2020-0203; 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 final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Darren Gassetto, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7323; fax 516-794-5531; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2019-26, dated July 9, 2019 (also referred to as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-1A11 (600), CL-600-2A12 (601), and 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-2020-0203.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. The NPRM published in the **Federal Register** on March 23, 2020 (85 FR 16284). The NPRM was prompted by a report that fast and easy access to the

portable oxygen bottle may be prevented by the portable oxygen bottle installation’s upper bracket latch assembly catching on the pressure gauge tube or on the pressure gauge bezel of the portable oxygen bottle. The NPRM proposed to require a check to identify the manufacturer and part number of the portable oxygen bottle installation, and, if necessary, modification of the portable oxygen bottle installation. The FAA is issuing this AD to address the portable oxygen bottle installation’s upper bracket latch assembly catching on the pressure gauge tube or on the pressure gauge bezel of the portable oxygen bottle, which, if not detected and corrected, could prevent fast and easy access to the portable oxygen bottle in an emergency situation. See the MCAI for additional background information.

**Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comment received on the NPRM and the FAA’s response to each comment.

**Support for the NPRM**

An anonymous commenter had no objection to the NPRM.

**Request To Revise or Clarify the Applicability of Paragraph (i) of the Proposed AD**

NetJets requested that the FAA either revise the language in the first sentence of paragraph (i) of the proposed AD to clearly state that the paragraph applies to airplanes having a serial number of 6119 and below that is not listed in section 1.A. of the applicable Bombardier service information specified in figure 1 to paragraphs (g), (h), and (i) of the proposed AD, or that the FAA clarify paragraph (c)(3) of the proposed AD to state that all serial numbers are affected.

The FAA agrees to clarify. Paragraph (i) of the proposed AD is applicable to only airplanes having the serial numbers specified in paragraph (c) of this AD, but not listed in section 1.A. of the applicable Bombardier service information specified in figure 1 to paragraphs (g), (h), and (i) of this AD, and equipped with specified part

numbers of Scott (Avox/Zodiac) 5500 or 5600 series 11 cubic foot portable oxygen bottle(s). As such, any serial number not specified in paragraph (c)(3) of this AD for Bombardier Inc. Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes, is not affected by paragraph (i) of this AD. The FAA has not changed this AD in this regard.

**Conclusion**

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

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

Bombardier has issued the following service information:

- Bombardier Service Bulletin 600-0772, dated June 29, 2018;
- Bombardier Service Bulletin 601-0646, dated June 29, 2018;
- Bombardier Service Bulletin 604-35-006, dated June 29, 2018;
- Bombardier Service Bulletin 605-35-005, dated June 29, 2018; and
- Bombardier Service Bulletin 650-35-001, dated June 29, 2018.

This service information describes procedures for a check to identify the manufacturer and part number of the portable oxygen bottle installation, and, if necessary, modification of the portable oxygen bottle installation. These documents are distinct since they apply to different airplane models. 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.

**Costs of Compliance**

We estimate that this AD affects 188 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

**ESTIMATED COSTS FOR REQUIRED ACTIONS**

| Labor cost  | Parts cost                     | Cost per product               | Cost on U.S. operators      |
|---|--------------------------------|--------------------------------|-----------------------------|
| 3 work-hours × \$85 per hour = \$255 per installation ..... | \$1,530 per installation ..... | \$1,785 per installation ..... | \$335,580 per installation. |

### 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

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 this AD:

- (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.

### Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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):

**2020–19–13 Bombardier, Inc.:** Amendment 39–21256; Docket No. FAA–2020–0203; Product Identifier 2019–NM–142–AD.

#### (a) Effective Date

This AD is effective November 3, 2020.

#### (b) Affected ADs

None.

#### (c) Applicability

This AD applies to the Bombardier, Inc., airplanes identified in paragraphs (c)(1) through (3) of this AD, certificated in any category, equipped with Scott (Avox/Zodiac) 5500 or 5600 series 11 cubic foot portable oxygen bottle(s) with upper bracket part number (P/N) 36758–02, P/N 36758–12 or

P/N H3–2091–1 installed at the neck of the bottle(s).

(1) Model CL–600–1A11 (600) airplanes, serial numbers 1004 through 1085 inclusive.

(2) Model CL–600–2A12 (601) airplanes, serial numbers 3001 through 3066 inclusive.

(3) Model CL–600–2B16 (601–3A, 601–3R, and 604 Variants) airplanes, serial numbers 5001 through 5194 inclusive, 5301 through 5665 inclusive, 5701 through 5988 inclusive, and 6050 through 6119 inclusive.

#### (d) Subject

Air Transport Association (ATA) of America Code 35, Oxygen.

#### (e) Reason

This AD was prompted by a report that fast and easy access to the portable oxygen bottle may be prevented by the portable oxygen bottle installation's upper bracket latch assembly catching on the pressure gauge tube or on the pressure gauge bezel of the portable oxygen bottle. The FAA is issuing this AD to address this condition, which, if not detected and corrected, could prevent fast and easy access to the portable oxygen bottle in an emergency situation.

#### (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

#### (g) Portable Oxygen Bottle Check

For airplanes with a serial number listed in Section 1.A. of the applicable Bombardier service information specified in figure 1 to paragraphs (g), (h), and (i) of this AD: Within 60 months after the effective date of this AD, check each portable oxygen bottle installation to determine the manufacturer and part number, in accordance with paragraph 2.B. of the Accomplishment Instructions of the applicable Bombardier service information specified in figure 1 to paragraphs (g), (h), and (i) of this AD.

**Figure 1 to paragraphs (g), (h), and (i) – Service Information References**

| <b>Airplane Model</b> | <b>Bombardier Service Information</b>                       |
|-----------------------|---|
| Model CL-600-1A11     | Bombardier Service Bulletin 600-0772, dated June 29, 2018   |
| Model CL-600-2A12     | Bombardier Service Bulletin 601-0646, dated June 29, 2018   |
| Model CL-600-2B16     | Bombardier Service Bulletin 601-0646, dated June 29, 2018   |
| Model CL-600-2B16     | Bombardier Service Bulletin 604-35-006, dated June 29, 2018 |
| Model CL-600-2B16     | Bombardier Service Bulletin 605-35-005, dated June 29, 2018 |
| Model CL-600-2B16     | Bombardier Service Bulletin 650-35-001, dated June 29, 2018 |

**(h) Bracket Modifications**

If, during the inspection specified in paragraph (g) of this AD, any portable oxygen bottle is found to be manufactured by Scott (Avox/Zodiac) and is a 5500 or 5600 series 11 cubic foot bottle, with upper bracket P/N 36758-02, 36758-12, or H3-2091-1 installed at the neck of the bottle: Modify the portable oxygen bottle brackets in accordance with paragraph 2.C. of the Accomplishment Instructions of the applicable Bombardier service information specified in figure 1 to paragraphs (g), (h), and (i) of this AD.

**(i) Portable Oxygen Bottle Check and Corrective Actions for Airplanes Not Listed in the Service Information**

For airplanes with a serial number that is not listed in section 1.A. of the applicable Bombardier service information specified in figure 1 to paragraphs (g), (h), and (i) of this AD: Within 60 months after the effective date of this AD, check each portable oxygen bottle installation to determine the manufacturer and part number and accomplish corrective actions in accordance with the procedures specified in paragraph (j)(2) of this AD.

**(j) 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 local Flight Standards District 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 local flight standards district office/certificate holding district 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.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2019-26, dated July 9, 2019, 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-2020-0203.

(2) For more information about this AD, contact Darren Gassetto, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7323; fax 516-794-5531; email [9-avs-nyacos@faa.gov](mailto:9-avs-nyacos@faa.gov).

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference

(IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 600-0772, dated June 29, 2018.

(ii) Bombardier Service Bulletin 601-0646, dated June 29, 2018.

(iii) Bombardier Service Bulletin 604-35-006, dated June 29, 2018.

(iv) Bombardier Service Bulletin 605-35-005, dated June 29, 2018.

(v) Bombardier Service Bulletin 650-35-001, dated June 29, 2018.

(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](mailto:ac.yul@aero.bombardier.com); internet <https://www.bombardier.com>.

(4) 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.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on September 10, 2020.

**Gaetano A. Sciortino,**

*Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.*

[FR Doc. 2020–21420 Filed 9–28–20; 8:45 am]

BILLING CODE 4910–13–P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA–2020–0853; Project Identifier AD–2020–00588–E; Amendment 39–21260; AD 2020–20–04]

RIN 2120–AA64

#### **Airworthiness Directives; Rolls-Royce Corporation (Type Certificate Previously Held by Allison Engine Company) Turboprop Engines**

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

**ACTION:** Final rule; request for comments.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Rolls-Royce Corporation (RRC) AE 2100D3 model turboprop engines. This AD requires revising the airworthiness limitations section (ALS) of the RRC AE 2100D3 Maintenance Manual and the operator's approved continuous airworthiness maintenance program. This AD was prompted by a report of a propeller gearbox (PGB) development test in which high vibration occurred due to a fatigue crack that initiated in the propeller shaft. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective October 14, 2020.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 14, 2020.

The FAA must receive comments on this AD by November 13, 2020.

**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:* 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 final rule, contact Rolls-Royce Corporation, 450 South Meridian Street, Mail Code NB–01–06, Indianapolis, IN 46225; phone: 317–230–1667; email: [CMSEindyOSD@rolls-royce.com](mailto:CMSEindyOSD@rolls-royce.com); internet: [www.rolls-royce.com](http://www.rolls-royce.com). You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781–238–7759. It is also available on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA–2020–0853.

#### **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–2020–0853; 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 final rule, any comments received, and other information. The street address for the Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Kyri Zaroyiannis, Aerospace Engineer, Chicago ACO, FAA, 2300 E Devon Ave., Des Plaines, IL 60018; phone: (847) 294–7836; fax: (847) 294–7834; email: [kyri.zaroyiannis@faa.gov](mailto:kyri.zaroyiannis@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

The FAA was informed by the manufacturer that a PGB development test was stopped due to high vibration caused by a fatigue crack that initiated in the PGB shaft and carrier assembly. The fatigue crack initiated in a broach slot of the PGB shaft. The manufacturer determined the need to apply life limits to the PGB shaft and carrier assembly, which has not previously been a life-limited part. To track these parts, the manufacturer determined the need to assign usage hours to PGB shaft and carrier assemblies that already have time in service.

An examination by the manufacturer of Material Review Board records also identified two PGB shaft and carrier assemblies that were accepted with reduced material properties prior to their reclassification as a life limited part requiring reduced lives. The manufacturer applied reduced life limits to these PGB shaft and carrier

assemblies. In addition, a review of shop repair records by the manufacturer identified a number of PGB shaft and carrier assemblies that received a keylock stud repair introducing unacceptable unused “keyslots” that can cause stress concentration and reduced life. The manufacturer requires either rework or removal of these PGB shaft and carrier assemblies.

The FAA determined that updating the ALS of the RRC AE 2100D3 Maintenance Manual and the continued airworthiness maintenance program for the affected RRC 2100D3 model turboprop engines is the most effective way to address the unsafe condition pertaining to fatigue cracks in the PGB shaft and carrier assembly. These ALS updates apply life limits to PGB shaft and carrier assemblies installed on RRC AE 2100D3 model turboprop engines. Certain part numbered PGB shaft and carrier assemblies with reduced material properties were assigned reduced life limits. To track these parts, the ALS updates require assignment of usage hours to the PGB shaft and carrier assembly no later than the next engine shop visit for all RRC AE model turboprop engines. Depending on the part and serial number of the PGB shaft and carrier assembly, the updates to the ALS requires reidentification or removal of the PGB shaft and carrier assembly.

This condition, if not addressed, could result in loss of the propeller, damage to the engine, and damage to the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

#### **FAA's Determination**

The FAA is issuing this AD because the agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Related Service Information Under 1 CFR Part 51**

The FAA reviewed Task 05–11–00–800–801, dated June 20, 2018 of the Airworthiness Limitations System Description Section-801, RRC AE 2100D3 Maintenance Manual (“Task 05–11–00–800–801”) and Task 05–12–11–800–802, dated June 1, 2020 of the Propeller Gearbox System Component Life Limits Systems Description Section-802, RRC AE 2100D3 Maintenance Manual (“Task 05–12–11–800–802”).

Task 05–11–00–800–801 specifies: (1) Assignment of usage hours to the PGB shaft and carrier assemblies; (2) reworking confirmed blind hole configured PGB shaft and carrier