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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-25173; Directorate Identifier 2006-NE-24-AD; Amendment 39-15453; AD 2008-08-01]

RIN 2120-AA64

Airworthiness Directives; McCauley Propeller Systems Propeller Model B5JFR36C1101/114GCA-0, C5JFR36C1102/L114GCA-0, B5JFR36C1103/114HCA-0, and C5JFR36C1104/L114HCA-0

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

ACTION: Final rule.

SUMMARY: The FAA is superseding three existing airworthiness directives (ADs) for McCauley Propeller Systems propeller models B5JFR36C1101/114GCA-0, C5JFR36C1102/L114GCA-0, B5JFR36C1103/114HCA-0, and C5JFR36C1104/L114HCA-0. Those ADs currently require fluorescent penetrant inspections (FPI) and eddy current inspections (ECI) of propeller blades for cracks, and if any crack indications are found, removing the blade from service. This AD requires the same initial inspections, but extends the compliance times and intervals, adds repetitive inspections, and mandates a life limit for the blades. This AD results from our determination that we must require repetitive inspections for cracks, and from reports of blunt leading edges of the propeller blades due to erosion. We are issuing this AD to detect cracks in the propeller blade that could cause failure and separation of the propeller blade and loss of control of the airplane, and to detect blunt leading edges on the propeller blades, which could cause airplane single engine climb performance degradation and could result in an increased risk of collision with terrain.

DATES: This AD becomes effective May 19, 2008. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of May 19, 2008.

ADDRESSES: You can get the service information identified in this AD from McCauley Propeller Systems, P.O. Box 7704, Wichita, KS 67277-7704, telephone (800) 621-7767.

The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

FOR FURTHER INFORMATION CONTACT: Jeff Janusz, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Small Airplane Directorate, 1801 Airport Road, Room 100, Wichita, KS 67209; e-mail: jeff.janusz@faa.gov; telephone: (316) 946-4148; fax: (316) 946-4107.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 by superseding AD 2003-15-01, Amendment 39-13243 (68 FR 42244, July 17, 2003); AD 2003-17-10, Amendment 39-13285 (68 FR 50462, August 21, 2003); and AD 2006-15-13, Amendment 39-14693 (71 FR 42258, July 26, 2006), with a proposed AD. The proposed AD applies to McCauley Propeller Systems propeller models B5JFR36C1101/114GCA-0, C5JFR36C1102/L114GCA-0, B5JFR36C1103/114HCA-0, and C5JFR36C1104/L114HCA-0. We published the proposed AD in the Federal Register on November 1, 2007 (72 FR 61824). That action proposed to require the same initial inspections as the three ADs being superseded, but to extend the compliance times and intervals, to add repetitive inspections, and to mandate a life limit for the blades.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office 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 Operations office (telephone (800) 647-5527) is provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the one comment received. The commenter supports the proposal. We also found we needed to clarify that blades that had crack inspections were no longer eligible for installation on any other airframe or in any other configuration. We clarified the AD on the point.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD will affect 22 propeller assemblies installed on airplanes of U.S. registry. We estimate that it will take about 47 work-hours per propeller to perform the required actions, and that the average labor rate is \$80 per work-hour. Required parts will cost about \$260 per propeller. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$88,440.

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 this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under 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 summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under **ADDRESS FOR SUMMARY**.

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 Federal Aviation Administration 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), 40112, 44701.

§ 39.13 [Amendment]

2. The FAA amends § 39.13 by removing Amendment 39-13243 (68 FR 42244, July 17, 2003), Amendment 39-13285 (68 FR 50462, August 21, 2003), and Amendment 39-14693 (71 FR 42258, July 28, 2006), and by adding a new airworthiness directive, Amendment 39-15453, to read as follows:



2008-08-01 McCauley Propeller Systems: Amendment 39-15453. Docket No. FAA-2006-25173; Directorate Identifier 2006-NE-24-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective May 19, 2008.

Affected ADs

(b) This AD supersedes AD 2003-15-01, Amendment 39-13243; AD 2003-17-10, Amendment 39-13285; and AD 2006-15-13, Amendment 39-14693.

Applicability

(c) This AD applies to McCauley Propeller Systems propeller models P5JFR36C1101/114GCA-0, C5JFR36C1102/L114GCA-0, B5JFR36C1103/114HCA-0, and C5JFR36C1104/L114HCA-0. These propellers are installed on BAE Systems (Operations Limited) Jetstream Model 4100 and 4101 series airplanes (Jetstream 41).

Unsafe Condition

(d) This AD results from our determination that we must require repetitive inspections for cracks, and from reports of blunt leading edges on propeller blades due to erosion. We are issuing this AD to detect cracks in the propeller blade that could cause failure and separation of the propeller blade and loss of control of the airplane, and to detect blunt leading edges on the propeller blades, which could cause airplane single engine climb performance degradation and could result in an increased risk of collision with terrain.

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.

Life Limit

(f) Remove all 114GCA-0, L114GCA-0, 114HCA-0, and L114HCA-0 propeller blades upon reaching 10,000 operating hours time-since-new.

Initial Propeller Blade Inspection

(g) Perform an initial fluorescent penetrant inspection and eddy current inspection of propeller blades. Use the Equipment Required and Accomplishment Instructions of McCauley Propellers Alert Service Bulletin ASB255, dated January 8, 2007, and the following compliance schedule:

Table 1. – Compliance Schedule

If the Propeller Blade:	Then Inspect the Propeller Blade:
(1) Has more than 2,400 operating hours time-since-new (TSN), time-since-last inspection (TSLI), or time-since-overhaul (TSO).	Within 100 operating hours time-in-service (TIS) after the effective date of this AD.
(2) Has 2,400 or fewer operating hours TSN, TSLI, or TSO.	Upon reaching 2,500 operating hours TSN, TSLI, or TSO.

Propeller Blades Found Cracked

(h) Remove from service propeller blades found with any crack indications. Blades found with crack indications are no longer eligible for installation in any configuration. Do not install them in any configuration on any airframe.

Repetitive Propeller Blade Inspection

(i) Thereafter, inspect the propeller blades within 2,500 operating hours TSLI or TSO. Use the Equipment Required and Accomplishment Instructions of McCauley Propeller Alert Service Bulletin ASB255, dated January 8, 2007.

Inspection for Blunt Erosion on the Leading Edge of the Propeller Blade

(j) Every time the propeller is removed for the inspection for cracks, inspect the blade for erosion and, if necessary, repair the erosion. The McCauley Propeller Systems Blade Overhaul Manual No., BOM 100, contains information on inspecting and repairing erosion on the propeller blade.

Reporting Requirements

(k) Within 10 calendar days of the inspection, use the Reporting Form for Service Bulletin 255 to report all inspection findings to McCauley Propeller Systems, P.O. Box 7704, Wichita, KS 67277-7704, telephone (800) 621-7777.

(l) The Office of Management and Budget (OMB) has approved the reporting requirements and assigned OMB control number 2120-0056.

Alternative Methods of Compliance

(m) The Manager, Wichita Aircraft Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Special Flight Permits

(n) Under 39.23, we are limiting the availability of special flight permits for this AD. Special flight permits are available only if:

- (1) The operator has not seen signs of external oil leakage from the hub; and
- (2) The operator has not observed abnormal propeller vibration or abnormal engine vibration; and
- (3) The operator has not observed any other abnormal operation from the propeller; and

(4) The operator has not made earlier reports of abnormal propeller vibration, abnormal engine vibration, or other abnormal propeller operations that have not been addressed.

Related Information

(o) Contact Jeff Janusz, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Small Airplane Directorate, 1801 Airport Road, Room 100, Wichita, KS 67209; e-mail: jeff.janusz@faa.gov; telephone: (316) 946-4148; fax: (316) 946-4107, for more information about this AD.

Material Incorporated by Reference

(p) You must use the McCauley Propellers Alert Service Bulletin ASB255, dated January 8, 2007, to perform the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact McCauley Propeller Systems, P.O. Box 7704, Wichita, KS 67271-7704, telephone (800) 621-7767, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA, 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/peer-locations.html>.

SUPERSEDED

Issued in Burlington, Massachusetts, on March 31, 2008.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. E8-7162 Filed 4-11-08; 8:45 am]