



**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS,
BALLOONS, & AIRSHIPS**

BIWEEKLY 2011-20

This electronic copy may be printed and used in lieu of the FAA biweekly paper copy.

U.S. Department of Transportation
Federal Aviation Administration
Regulatory Support Division
Delegation and Airworthiness Programs Branch, AIR-140
P. O. Box 26460
Oklahoma City, OK 73125-0460
FAX 405-954-4104

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;			
Biweekly 2011-01			
2010-17-18 R1	R	Air Tractor	AT-802 and AT-802A
2010-22-08	COR	Eurocopter France	Rotorcraft: AS 350 B, BA, B1, B2, B3, and D, and Model AS355 E, F, F1, F2, and N
2010-26-04		Piper	PA-28-161
2010-26-09		Sikorsky	Rotorcraft: S-76A, B, and C
2010-26-11		Kaman Aerospace	Rotorcraft: K-1200
2011-01-52	E	Schweizer	Rotorcraft: 269A, A-1, B, C, C-1, and Th-55 series
2011-01-53	E	Piaggio	P-180
	S 2011-01-51		
Biweekly 2011-02			
2010-24-05	COR	Pratt & Whitney Canada	Engine: PW305A and PW305B
2010-26-54		Cessna	LC41-550FG, LC42-550FG
2011-01-03		GROB-WERKE	G102 ASTIR CS, G102 CLUB ASTIR III, G102 CLUB ASTIR IIIb, G102 STANDARD ASTIR III
2011-01-04		Embraer	EMB-500
2011-02-04		M7 Aerospace LP	SA26-AT, SA26-T, SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT
Biweekly 2011-03			
2011-01-53	S 2011-01-51	Piaggio Aero Industries	P-180
2011-02-02	S 2008-19-06	Socata	TBM 700
2011-02-08		Aircraft Industries	Glider: L 23 Super Blanik
Biweekly 2011-04			
2011-01-14	S 2005-17-01	Pilatus	PC-6, PC-6-H1, PC-6-H2, PC-6/350, PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PC-6/A-H2, PC-6/B-H2, PC-6/B1-H2, PC-6/B2-H2, PC-6/B2-H4, PC-6/C-H2, and PC-6/C1-H2
2011-01-53	COR	Piaggio Aero Industries	P-180
	S 2011-01-51		
2011-03-04	S 2009-09-09	Cessna	LC40-550FG (300), LC41-550FG (400), and LC42-550FG (350)
2011-03-05	S 2007-11-03	Dornier Luftfahrt GmbH	Dornier 228-100, Dornier 228-101, Dornier 228-200, Dornier 228-201, Dornier 228-202, and Dornier 228-212
Biweekly 2011-05			
2010-17-18 R1		Air Tractor	AT-802 and AT-802A
2011-05-01		Piaggio Aero Industries	P-180
2011-05-02		Viking Air Limited	DHC-3
2011-05-06		Thielert	Engine: TAE 125-02-99 and TAE 125-02-114 reciprocating
2011-05-51	E	Turbomeca	Engine: 1E2, 1S, and 1S1 turboshaft
Biweekly 2011-06			
2010-26-51	S 2009-08-03	Bell Helicopter Textron Canada Limited	Rotorcraft: 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, 222, 222B, 222U, 230, 407, 427, and 430
2011-03-02		Eurocopter France	Rotorcraft: SA330F, SA330G, and SA330J
2011-03-03		Bell Helicopter Textron Canada Limited	Rotorcraft: 427
2011-03-06		Eurocopter France	Rotorcraft: AS-365N2, AS 365 N3, and SA-365N1
2011-05-07	S 2008-22-21	Allied Ag Cat Productions	G-164, G-164A, G-164B, G-164B with 73" wing gap, G-164B-15T, G-164B-20T, G-164B-34T, G-164C, G-164D, G-164D with 73" wing gap
2011-05-08	S 2011-05-51	Turbomeca	Engine: Arriel 1E2, 1S, and 1S1 turboshaft
2011-06-01		APEX Aircraft	CAP10 B and CAP10 B
2011-06-06	S 2008-24-07	Eclipse	EA500

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;			
Biweekly 2011-07			
2011-05-09		B-N Group Ltd	BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, and BN-2T-4R
2011-06-07		Eurocopter France	Rotorcraft: EC130 B4
2011-07-03	S 2007-02-12	Reims Aviation S.A.	F406
Biweekly 2011-08			
2011-06-10	S 99-15-04 R1	Piper Aircraft	PA-46-310P, PA-46-350P, and PA-46R-350T
2011-07-09		Thielert Aircraft Engines GmbH	Engine: TAE 125-01, TAE 125-02-99, and TAE 125-02-114 reciprocating
2011-07-13		CPAC, Inc	112, 112B, 112TC, 112TCA, 114, 114A, 114B, and 114TC
2011-08-01	S 2010-25-51	Bell Helicopter Textron	212
Biweekly 2011-09			
2011-06-02		Cessna	172F, 172G, 172H, 172I, 172K, 172L, 172M, F172F, F172G, F172H, F172K, F172L, F172M, 172N, 172P, F172N, F172P, 172R and 172S
2011-08-06		Honeywell International Inc	LTS101-600A-2, -3, -3A, LTS101-700D-2, LTS101-650B-1, LTS101-650C-3, LTS101-650C-3A, LTS101-750B-1, LTS101-750B-2, LTS101-750C-1, and LTS101-850B-2 turboshaft; and LTP101-600A-1A and LTP101-700A-1A turboprop
2011-09-08		Pacific Aerospace Limited	750XL
Biweekly 2011-10			
2011-04-02	COR	Hamilton Sundstrand Corporation	Propeller: 247F series
2011-09-16		DG Flugzeugbau GmbH	Gliders: DG-808C
2011-09-51	E	Piaggio Aero Industries S.p.A	P-180
Biweekly 2011-11			
2011-06-02	COR	Cessna	172F, 172G, 172H, 172I, 172K, 172L, 172M, F172F, F172G, F172H, F172K, F172L, F172M, 172N, 172P, F172N, F172P, 172R and 172S
2011-09-19		BURKHART GROB LUFT-UND	Glider: G 103 C Twin III SL
2011-09-51	COR	Piaggio Aero Industries S.P.A.	P-180
2011-10-09	S 2011-01-53 S 87-20-03 R2	Cessna	See AD
2011-10-11		Agusta S.p.A.	Rotorcraft: AB412
2011-10-12		Eurocopter France	Rotorcraft: AS350B, B1, B2, B3, BA, and EC130 B4
2011-10-13		Diamond Aircraft Industries GmbH	DA 42, DA 42-NG, and DA 42 M-NG
2011-11-01		British Aerospace	HP.137 Jetstream Mk.1, Jetstream Series 200, Jetstream Series 3101, and Jetstream Model 3201

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;			
Biweekly 2011-12			
2011-11-03		Various Aircraft	See AD
2011-11-04		L'Hotellier	Appliance: Portable Halon 1211 fire extinguisher
2011-11-07		Diamond Aircraft Industries GmbH	DA 42
2011-12-02		Viking Aircraft Limited	DHC-3 (Otter)
2011-12-03		Sikorsky Aircraft Corporation	Rotorcraft: S-92A
Biweekly 2011-13			
2011-12-04		BRP-Powertrain GmbH & Co. KG	Engine: 912 F3, 912 S2, 912 S3, 912, 914 F2, 914 F3, and 914 F4
2011-12-07		Eurocopter France	Rotorcraft: SA-365C, SA-365C1, SA-365C2, SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1
2011-12-08		Bell Helicopter Textron, Inc.	Rotorcraft: 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP
2011-12-10	S 2007-26-12	Robinson Helicopter	Rotorcraft: R22, R22 Alpha, R22 Beta, R22 Mariner, R44 and R44 II
Biweekly 2011-14			
2011-09-51	COR S 2011-01-53	Piaggio Aero Industries S.P.A.	P-180
2011-13-02		Costruzioni Aeronautiche Tecnam srl	P2006T
2011-13-03		Lycoming Engines and Teledyne Continental Motors	Engine: TSIO-520-BE, TSIO-360-MB, SB, TIO-540-AK1A, L/TSIO-360-RB, TIO-540-AE2A, TSIO-360-H, O-540-L3C5D, TSIO-520-T, L/TO-360-E1A6D, TIO-540-AG1A, TIO-540-AF1A, TIO-540-AF1B, TIO-540-AH1A, TIO-541-E1D4, TIO-541-E1C4, TIGO-541-E, GTSIO-520-F, GTSIO-520-K, GTSIO-520-D, GTSIO-520-H
Biweekly 2011-15			
2011-12-16	S 2011-01-52	Schweizer	Rotorcraft: 269A, A-1, B, C; C-1; and TH-55 series
2011-13-05		Turbomeca S.A.	Engine: ARRIEL 2B and 2B1 turboshaft
2011-14-05	S 2010-18-52	MD Helicopters, Inc.	Rotorcraft: MD900
2011-14-08		B/E Aerospace	Appliance: Continuous Flow Passenger Oxygen Mask Assembly
2011-14-09	S 2011-11-03	Various Aircraft	See AD
2011-15-05		Hawker Beechcraft	B300 and B300C (C-12W)
2011-15-51	E	Bell Helicopter Textron Canada	Rotorcraft: 407 and 427
Biweekly 2011-16			
None			
Biweekly 2011-17			
2011-15-10		Superior Air Parts and Lycoming Engines	Engine: See AD
2011-15-11		Cessna	337, 337A (USAF 02B), 337B, 337C, 337D, 337E, T337E, 337F, T337F, 337G, T337G, M337B, F 337E, FT337E, F 337F, FT337F, F 337G, and FT337GP

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;			
Biweekly 2011-18			
2009-10-09 R2	R 2009-10-09 R1	Cessna Aircraft Company	150F, 150G, 150H, 150J, 150K, 150L, 150M, A150K, A150L, A150M, F150F, F150G, F150H, F150J, F150K, F150L, F150M, FA150K, FA150L, FA150L or FRA150L, FA150M or FRA150M, 152, A152, F152, FA152
2011-15-11		Cessna	337, 337A (USAF 02B), 337B, 337C, 337D, 337E, T337E, 337F, T337F, 337G, T337G, M337B, F 337E, FT337E, F 337F, FT337F, F 337G, and FT337GP
2011-16-05		Eurocopter France	Rotorcraft: SA-365N and SA-365N1
2011-17-01	S 2010-02-51	Agusta S.p.A.	Rotorcraft: A109A, A109A II, A109C, and A109K2
2011-17-06		SOCATA	TBM 700
2011-17-07		M7 Aerospace LP	SA226-T, SA226-T(B), SA226-TC, SA226-AT
2011-17-13		Eurocopter France	Rotorcraft: EC120B
2011-17-14		Agusta S.p.A.	Rotorcraft: A109A, A109AII
2011-17-15		Embraer	EMB-500
2011-18-51	E	Honeywell International	Engine: TPE331
2011-18-52	E	Agusta S.p.A.	Rotorcraft: AB139 and AW139
Biweekly 2011-19			
2011-18-19	S 2010-23-09	Austro Engine GmbH	Engine: E4 diesel piston
Biweekly 2011-20			
2011-18-07		Wytownia Sprzetu Komunikacyjnego (WSK) PZL-Rzeszow" Spolka Akcyjna (SA)	Engine: WSK PZL-10W series turboshaft
2011-18-09		Lycoming Engines	IO-720-A1B
2011-18-11	S 2011-05-02	Viking Air Limited	DHC-3
2011-20-51	E	Pratt & Whitney Canada	Engine: PT6A-15AG, -27, -28, -34, -34AG, -34B, and -36 series turboprop



**2011-18-07 WYTWORNIA SPRZETU KOMUNIKACYJNEGO (WSK) PZL–Rzeszow''
SPOLKA AKCYJNA (SA):** Amendment 39-16789; Docket No. FAA-2011-0760; Directorate Identifier 2011-NE-10-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 24, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to WSK PZL-10W series turboshaft engines with a fuel metering pump, part number ALRP-5, installed. These engines are installed on, but not limited to, PZL W-3A and PZL W-3AS helicopters.

Reason

(d) The MCAI states that:

An uncommanded engine in-flight shutdown of a PZL-10W has been recently reported. The investigation has shown that the uncommanded engine in-flight shutdown was due to excessive spline wear on the fuel metering pump shaft.

This condition, if not identified and corrected, may lead to further uncommanded in-flight engine shutdowns and consequent emergency landings of the affected helicopters.

We are issuing this AD to prevent uncommanded engine in-flight shutdown and risk to the helicopter.

Actions and Compliance

(e) Within the compliance time indicated in Table 1 of this AD, perform a one time inspection of spline teeth on the fuel metering pump shaft for excessive wear Use WSK Obligatory Bulletin no. E-19W147B/DOA/2010 (this bulletin has no issue date) to do the inspection.

Table 1

Engine configuration at the effective date of this AD	Compliance time for the inspection
(1) Engine fitted with a fuel metering pump that has accumulated greater than or equal to 1 000 hours of engine operation since new or since last overhaul.	Within 25 hours of engine operation after the effective date of this AD.

(2) Engine fitted with a fuel metering pump that has accumulated less than 1 000 hours since new or since last overhaul.	Before accumulating 1,000 hours of engine operation since new or since last overhaul, or within 25 hours of engine operation after the effective date of this AD, whichever is later.
--	---

(3) Do not operate any aircraft with an engine fuel metering pump that fails the inspection required by paragraph (e) of this AD.

(4) After the effective date of this AD, do not install any ALRP-5 fuel pump on an engine unless it passes the inspection required by paragraph (e) of this AD.

FAA AD Differences

(f) This AD doesn't require reporting.

Other FAA AD Provisions

(g) The following provisions also apply to this AD:

Alternative Methods of Compliance (AMOCs)

(1) The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Paperwork Reduction Act Burden Statement

(2) For any reporting requirement in this AD, a federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

Related Information

(h) Refer to MCAI Airworthiness Directive 2011-0030, dated February 25, 2011.

(i) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA,

Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; phone: (781) 238-7176; fax: (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(j) You must use WYTWORNIA SPRZETU KOMUNIKACYJNEGO Obligatory Bulletin No. E-19W147B/DOA/2010 (this bulletin has no issue date), to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact WYTWORNIA SPRZETU KOMUNIKACYJNEGO PZL-Rzeszow" S.A. Hetmanska 120 35-078 RZESZOW; Poland; phone: (0-17) 8546100, 8546200, fax: (0-17) 8620750.

(3) 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/ibr-locations.html>.

Issued in Burlington, Massachusetts on August 18, 2011.

Peter A. White,
Manager, Engine and Propeller Directorate,
Aircraft Certification Service.



2011-18-09 Lycoming Engines (formerly Textron Lycoming Division, AVCO Corporation):
Amendment 39-16791; Docket No. FAA-2011-0604; Directorate Identifier 2011-NE-21-AD.

Effective Date

(a) This AD is effective September 29, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Lycoming Engines reciprocating engines, model IO-720-A1B, serial number L-1457-54A and serial number L-1458-54A. These engines were last known to be installed in a Beech U-8F (Queen Air) N51779 and operating in the southern U.S. and Mexico.

Unsafe Condition

(d) This AD was prompted by the failure of a crankshaft due to incorrect parts installed. We are issuing this AD to prevent engine crankshaft failure and damage to the airplane.

Compliance

(e) Comply with this AD before further flight after the effective date of this AD, unless already done.

Crankshaft Inspection

(f) Remove the four cylinders from one side of the engine. Guidance on removing the cylinders can be found in the Lycoming Engines Overhaul Manual.

(g) Each counterweight has two rollers that should be held in place by washers, Lycoming part number (P/N) 71907. The washers can be identified as having three holes each, with a diameter of 0.185 inch. These washers are located at the front and rear of each counterweight for a total of four P/N 71907 washers per counterweight. The eight counterweights are located at the top and bottom of each crankshaft cheek, totaling 32 washers per crankshaft.

(h) Rotate the crankshaft to inspect the holes in washers at the front and rear of each counterweight as well as the top and bottom of each cheek.

(i) If each hole, in each of the 32 washers, measures 0.185 inch, then no further action is required. Reinstall the cylinders and test the engine. Guidance on reinstalling and testing can be found in the Lycoming Engines Overhaul Manual.

(j) If any of the 32 washers have one or more holes that do not measure 0.185 inch, then remove the crankshaft assembly and replace it with a serviceable crankshaft assembly. Scrap the non-conforming crankshaft.

Special Flight Permits

(k) Special flight permits are authorized only if the engine has less than 400 hours time since overhaul.

Alternative Methods of Compliance (AMOCs)

(l) The Manager, New York Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(m) For more information about this AD, contact Norm Perenson, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine & Propeller Directorate, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7337; fax: 516-794-5531; e-mail: Norman.perenson@faa.gov.

Material Incorporated by Reference

(n) None.

Issued in Burlington, Massachusetts, on August 18, 2011.
Peter A. White,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.



2011-18-11 Viking Air Limited (Type Certificate No. A-815 Formerly Held by Bombardier Inc. and de Havilland, Inc.): Amendment 39-16793; Docket No. FAA-2011-0597; Directorate Identifier 2011-CE-019-AD.

(a) Effective Date

This airworthiness directive (AD) is effective October 3, 2011.

(b) Affected ADs

This AD supersedes AD 2011-05-02, Amendment 39-16611 (76 FR 10220, February 24, 2011).

(c) Applicability

This AD applies to Viking Air Limited (type certificate No. A-815 formerly held by Bombardier Inc. and de Havilland, Inc.) Model DHC-3 airplanes, all serial numbers, that are certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Unsafe Condition

This AD results from an evaluation of revisions to the manufacturer's maintenance manual that adds new repetitive inspections to the elevator control tabs. To require compliance with these inspections for U.S. owners and operators we are mandating these inspections through the rulemaking process. We are issuing this AD to add new repetitive inspections of the elevator control tabs. If these inspections are not done, excessive free-play in the elevator control tabs could develop. This condition could lead to loss of tab control linkage and severe elevator flutter. Such elevator flutter could lead to possible loss of control.

(f) Compliance

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

Actions	Compliance	Procedures
(1) Inspect the elevator control tabs for discrepancies.	<p>(i) <u>For airplanes previously affected by AD 2011-05-02</u>: Initially within the next 50 hours time-in-service (TIS) after March 31, 2011 (the effective date retained from AD 2011-05-02).</p> <p>(ii) <u>For airplanes not previously affected by AD 2011-05-02</u>: Initially within the next 50 hours time-in-service (TIS) after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD).</p> <p>(iii) <u>For all affected airplanes</u>: Repetitively thereafter inspect at intervals not to exceed 100 hours TIS.</p>	Following Viking DHC-3 Otter Maintenance Manual Temporary Revisions No. 18, No. 19, and No. 20, all dated December 5, 2008.
(2) If any discrepancies are found during any inspection required in paragraph (f)(1) of this AD, take necessary corrective actions to bring all discrepancies within acceptable tolerances.	<u>For all affected airplanes</u> : Before further flight after any inspection required in paragraph (f)(1) of this AD in which discrepancies are found.	Following Viking DHC-3 Otter Maintenance Manual Temporary Revisions No. 18, No. 19, and No. 20, all dated December 5, 2008.
(3) If, during any inspection required in paragraph (f)(1) of this AD, the total maximum free play of the elevator servo tab and trim tab relative to the elevator exceeds 1.0 degree (this is equal to a maximum displacement of 0.070” at the trailing edge), report the results of the inspection to the FAA.	<u>For all affected airplanes</u> : Within 30 days after the inspection or within the next 10 days after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), whichever occurs later. <u>For airplanes previously affected by AD 2011-05-02</u> : We are collecting these inspection results for 24 months after March 31, 2011 (the effective date retained from AD 2011-05-02). <u>For airplanes not previously affected by AD 2011-05-02</u> : We are collecting these inspection results for 24 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD). The reporting requirements of this AD are no longer required after that time.	Use the form (figure 1 of this AD) and submit it to FAA, Small Airplane Directorate, Attn: Jim Rutherford, 901 Locust, Room 301, Kansas City, Missouri 64106.

AD 2011-18-11	
Airplane Serial Number:	
Time-in-Service (TIS) of Airplane:	
Airplane Engine Type/Model Number/ Series Number:	
TIS of Airplane When Current Engine was Installed:	
Date When Current Engine was Installed:	
STC Number that Installed Current Engine (if applicable):	
Out of Tolerance Recording:	
Corrective Action Taken:	
Any Additional Information (Optional):	
Name:	
Telephone and/or Email Address:	
Date:	

Send report to: Jim Rutherford, Aerospace Engineer, FAA, Small Airplane
Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; facsimile: (816) 329-4090;
email: jim.rutherford@faa.gov

Figure 1

(g) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5

minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave., SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, New York Aircraft Certification Office (ACO), 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 ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your Principal Maintenance Inspector or Principal Avionics Inspector, as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

(3) AMOCs approved for AD 2011-05-02 (76 FR 10220, February 24, 2011) are approved as AMOCs for this AD.

(i) Related Information

For more information about this AD, contact George Duckett, Aerospace Engineer, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 228-7325; fax: (516) 794-5531; email: george.duckett@faa.gov.

(j) Material Incorporated by Reference

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information on the date specified:

(2) Viking DHC-3 Otter Maintenance Manual Temporary Revision No. 18, Viking DHC-3 Otter Maintenance Manual Temporary Revision No. 19, and Viking DHC-3 Maintenance Manual Temporary Revision No. 20, all dated December 5, 2008, approved for IBR March 31, 2011 (76 FR 10220, February 24, 2011).

(3) To get information about the revisions to the maintenance program identified in this AD, contact Viking Air Ltd., 9574 Hampden Road, Sidney, BC Canada V8L 5V5; telephone: (800) 663-8444; Internet: www.vikingair.com.

(4) You may review copies of the referenced revisions at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Kansas City, Missouri, on August 19, 2011.

John Colomy,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.



DATE: September 15, 2011

AD #: 2011-20-51

Emergency airworthiness directive (AD) 2011-20-51 is sent to owners and operators of Pratt & Whitney Canada PT6A-15AG, -27, -28, -34, -34AG, -34B, and -36 series turboprop engines.

Background

This emergency AD was prompted by failures of certain first stage reduction sun gears, manufactured by Timken Alcor Aerospace Technologies, Inc. These gears are manufactured under a part manufacturer approval (PMA) as replacement parts for installation in propeller reduction gearbox assemblies of Pratt & Whitney Canada PT6A-15AG, -27, -28, -34, -34AG, -34B, and -36 series turboprop engines. About 80 of these sun gears are suspect for having a manufacturing anomaly. About half of the suspect sun gears have already been taken out of service. This condition, if not corrected, could result in failure of the shaft portion of the sun gear, which will result in an engine in-flight shut down, possible uncontained engine failure, aircraft damage, and serious injuries.

FAA's Determination

We are issuing this AD because we 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. The FAA has found that the risk to the flying public justifies issuing this AD on an emergency basis.

AD Requirements

This AD requires the removal of affected PMA replacement Timken Alcor Aerospace Technologies, Inc. first stage reduction sun gear and the interacting planet gears, from the propeller reduction gearbox assembly, within 15 operating hours or 15 days after receipt of this AD, whichever occurs first.

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.

Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2011-20-51 Pratt & Whitney Canada PT6A-15AG, -27, -28, -34, -34AG, -34B, and -36 Series

Turboprop Engines: Directorate Identifier 2011-NE-31-AD.

Effective Date

(a) This Emergency AD is effective upon receipt.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Pratt & Whitney Canada PT6A-15AG, -27, -28, -34, -34AG, -34B, and -36 series turboprop engines that have had maintenance done to the power section module involving first stage reduction sun gear replacement since February 3, 2010, and having a Timken Alcor Aerospace Technologies, Inc. (TAATI) part manufacturer approval (PMA) replacement first stage reduction sun gear, part number (P/N) E3024765, serial numbers (S/Ns) PC5-091 through PC5-176, installed.

Unsafe Condition

(d) This AD was prompted by failures of the affected PMA replacement first stage reduction sun gears, manufactured by TAATI. We are issuing this AD to prevent failure of the shaft portion of

the sun gear, which would result in an engine in-flight shut down, possible uncontained engine failure, aircraft damage, and serious injuries.

Compliance

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

(f) For affected engines, remove the PMA replacement TAATI first stage reduction sun gear and the interacting planet gears from the propeller reduction gearbox assembly within 15 operating hours or 15 days after receipt of this AD, whichever occurs first.

Installation Prohibition

(g) Upon receipt of this AD, do not install on any airplane, any engine or power section module with a TAATI PMA replacement first stage reduction sun gear, P/N E3024765, S/Ns PC5-091 through PC5-176.

Alternative Methods of Compliance (AMOCs)

(h) The Manager, Los Angeles Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(i) For further information about this AD, contact: Paul Craig, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, 3960 Paramount Blvd., Suite 100, Lakewood, CA 90712; phone: 562-627-5252; fax: 562-627-5210; e-mail: paul.craig@faa.gov.

Issued in Burlington, Massachusetts, on September 15, 2011.

Peter A. White,

Manager Engine & Propeller Directorate,

Aircraft Certification Service.