



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

**BIWEEKLY 2010-16**

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Federal Aviation Administration  
Regulatory Support Division  
Delegation and Airworthiness Programs Branch, AIR-140  
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## 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;			
<b>Biweekly 2010-01</b>			
2009-26-05		Pilatus Aircraft Ltd	PC-7
2009-26-07	S 2009-12-51	Turbomeca	Engine: Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1
2009-26-08	S 2006-21-12	AeroSpace Technologies of Australia Pty Ltd	N22B, N22S, and N24A
2009-26-12	S 2008-19-05	Engine Components, Inc. (ECi)	See AD
<b>Biweekly 2010-02</b>			
2009-21-08 R1		PIAGGIO AERO INDUSTRIES S.p.A.	P-180
2010-01-03		Fire Fighting Enterprises Limited	See AD
2010-02-01		Turbomeca S.A	Arriel 1B, 1D, and 1D1
2010-02-51	E	AGUSTA S.p.A	A109A, A109A II, A109C, and A109K2
<b>Biweekly 2010-03</b>			
2009-19-51		Agusta S.p.A	AB139 and AW139
2009-26-11	S 2006-07-15	Thrush Aircraft, Inc.	See AD
2010-02-07		Eurocopter France	Rotorcraft: SE3160, SA315B, SA316B, SA316C, and SA319B
2010-02-08		Turbomeca	Engine: Turmo IV A and IV C
2010-03-01		Eurocopter France	Rotorcraft: AS332L1, AS332L2, and EC225LP
2010-03-02		Lifesaving Systems Corp.	Appliance
<b>Biweekly 2010-04</b>			
2009-23-51		Sikorsky Aircraft Corporation	Rotorcraft: S-92A
2010-03-03		Bell Helicopter Textron, Inc	Rotorcraft: 205B and 212
2010-03-04		PIAGGIO AERO INDUSTRIES S.p.A	P-180
2010-03-06		Turbomeca	Engine: Arriel 2B and 2B1
2010-03-09		Piaggio Aero Industries S.p.A	P-180
<b>Biweekly 2010-05</b>			
2010-04-05	S 2003-12-05	McCaughey Propeller Systems	Propeller: 1A103/TCM
2010-04-06		Thielert Aircraft Engines GmbH	Engine: TAE 125-01
2010-04-07		Turbomeca	Engine: Arriel 2S1
2010-04-11		Extra Flugzeugproduktions- und Vertriebs- GmbH	EA-300/200, EA-300/L
2010-04-14		Augustair, Inc	2150, 2150 <sup>a</sup> , 2180
2010-04-15		SCHEIBE-Flugzeugbau GmbH	Glider: SF 25C
2010-04-16		SICLI	Appliance: portable fire extinguishers
2010-05-02	S 2009-08-10	Pilatus Aircraft Ltd	PC-12/47E
2010-05-51	E	Eurocopter	Rotorcraft: EC120B
<b>Biweekly 2010-06</b>			
2010-05-10		Hawker Beechcraft	B300, B300C
2010-06-02		Hawker Beechcraft	G58

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<b>Biweekly 2010-07</b>			
2010-06-03		Eurocopter France	Rotorcraft: AS355E, AS355F, AS355F1, AS355F2, and AS355N
2010-06-06	S 99-16-13	MD Helicopters, Inc	Rotorcraft: MD-900
2010-06-07		Eurocopter France	Rotorcraft: AS 332 C, L, L1, and L2; AS 350 B3; AS355 F, F1, F2, and N; SA 365N and N1; AS 365 N2 and N3; SA 366G1; EC 130 B4; and EC 155B and B1
2010-06-08		Sikorsky Aircraft Corporation	Rotorcraft: S-76C
2010-06-11		Honeywell International Inc.	Engine: TFE731-2, TFE731-2A, TFE731-2C, TFE731-3, TFE731-3A, TFE731-3AR, TFE731-3B, TFE731-3BR, TFE731-3C, TFE731-3CR, TFE731-3D, TFE731-3DR, TFE731-3R, TFE731-4, TFE731-4R, TFE731-5, TFE731-5AR, TFE731-5BR, and TFE731-5R
2010-06-12		Thielert Aircraft Engines GmbH	Engine: TAE 125-01 and TAE 125-02-99
<b>Biweekly 2010-08</b>			
2009-08-08 R1	R 2010-08-08	Turbomeca S.A	Engine: Arriel 1B, 1D, and 1D1, Arriel 2B and 2B1
2010-07-02	S 2006-22-05	Honeywell, Inc	Appliance: See AD
2010-07-07		Socata	TBM 700
2010-07-08		Kelly Aerospace Energy Systems, LLC	Appliance: See AD
2010-08-01		Aircraft Industries a.s	Glider: L 23 Super Blanik
<b>Biweekly 2010-09</b>			
2009-08-05R1	R	Liberty Aerospace Incorporated	XL-2
2010-08-04	2007-10-14	British Aerospace Regional Aircraft	HP.137 Jetstream Mk.1, Jetstream Series 200, Jetstream Series 3101, and Jetstream Model 3201
2010-09-08		General Electric Company	Engine: GE CJ610 series turbojet and CF700
<b>Biweekly 2010-10</b>			
2010-05-51	FR	Eurocopter France	Rotorcraft: EC120B
2010-09-01		Eurocopter France	Rotorcraft: AS350B, BA, B1, B2, B3, C, D and D1; and AS 355E, F, F1, F2, N, and NP
2010-09-02		British Aerospace Regional Aircraft	Jetstream Series 3101 and Jetstream Model 3201
2010-09-04		Honeywell International Inc	Appliance: Primus EPIC and Primus APEX flight management systems (FMS)
2010-09-09		Piaggio Aero Industries S.p.A.	P-180
2010-09-13		Turbomeca	Engine: Makila 2A
2010-10-01	S 2009-05-01	GA 8 Airvan (Pty) Ltd	Glider: GA8 and GA8-TC320
<b>Biweekly 2010-11</b>			
2010-10-02		Sikorsky Aircraft Corporation	Rotorcraft: S-76A, B, and C
2010-10-03		Sikorsky Aircraft Corporation	Rotorcraft: S-92A
2010-10-09	S 2008-07-01	Turbomeca	Engine: 1B (that incorporate Turbomeca Modification (mod) TU 148), Arriel 1D, 1D1, and 1S1
2010-10-10		Hawker Beechcraft	390
2010-10-14		Eurocopter France	Rotorcraft: AS332L2
2010-10-15		Eurocopter France	Rotorcraft: AS332L1 and AS332L2
2010-11-51	E	Eurocopter France	Rotorcraft: AS350B, BA, B1, B2, C, D, and D1 helicopters and Model AS355E, F, F1, F2, and N
2010-11-52	E	Sikorsky Aircraft	Rotorcraft: S-76A, B, and C

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<b>Biweekly 2010-12</b>			
2007-19-09 R1 2010-10-16	R	Turbomeca Bell Helicopter Textron and Agusta S.P.A.	Engine: ARRIEL 2B1 Rotorcraft: 205A, 205A-1, 205B, 212, 412, 412EP, and 412CF and Agusta S.p.A. Model AB412, AB412EP
2010-11-04 2010-11-05	S 2009-24-52	Teledyne Continental Motors AVOX Systems and B/E Aerospace	Engine: 240, 346, 360, 470, 520, and 550 and IO-240 See AD
2010-11-06	S 97-11-12	AeroSpace Technologies of Australia Pty Ltd	N22B, N22S, and N24A
2010-11-07 2010-11-08 2010-11-10 2010-11-15 2010-12-51	S 2008-11-20    E	Quartz Mountain Aerospace, Inc Stemme GmbH & Co. KG Turbomeca: Socata Agusta S.p.A.	11E S10-VT Engine: Astazou XIV B and XIV H TBM 700 Rotorcraft: A119 and AW119 MKII
<b>Biweekly 2010-13</b>			
2010-10-12 2010-10-16	S 2005-04-09	Bell Helicopter Textron Canada Bell Helicopter Textron and Agusta S.P.A	Rotorcraft: 222, 222B, 222U, 230, 430 Rotorcraft: 205A, 205A-1, 205B, 212, 412, 412EP, and 412CF and Agusta S.p.A. Model AB412, AB412EP
2010-11-09 2010-12-01 2010-12-02 2010-12-04 2010-13-01	S 2009-24-13	Thielert Aircraft Engines GmbH Cessna Aircraft Company Turbomeca S.A. PILATUS Aircraft Ltd Microturbo	Engine: TAE 125-01 and TAE 125-02-99 525A Engine: Makila 1A and 1A1 PC-7 Appliance: See AD
<b>Biweekly 2010-14</b>			
2010-13-07 2010-13-08 2010-13-10	S 2006-08-09	Piper Aircraft Air Tractor Ontic Engineering and Manufacturing, Inc	PA-32R-301T, PA046-350P AT-802 and AT-802A Appliance: See AD
<b>Biweekly 2010-15</b>			
2010-14-12		See AD	Rotorcraft: AH-1G, AH-1S, HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P Helicopters; and Southwest Florida Aviation Model UH-1B (SW204 and SW204HP) and UH-1H (SW205)
2010-14-15 2010-14-20 2010-14-21 2010-15-51	   E	Aircraft Industries a.s. McCauley Propeller Systems Thielert Aircraft Engines GmbH Agusta S.p.A.	Glider: L-13 Blanik Propeller: 4HFR34C653/L106FA Engine: TAE 125-01 A119 and AW119 MKII
<b>Biweekly 2010-16</b>			
2010-13-07 2010-15-04 2010-15-05 2010-15-07	COR  S 2010-08-01	Piper Eurocopter France Aircraft Industries a.s Zakład Szybowcowy "Jeżów" Henryk Mynarski	PA-32R-301T, PA-46-350P Rotorcraft: EC225LP Glider: L 23 Super Blanik Sailplanes: PW-6U
2010-15-09 2010-15-10 2010-16-51	S 2009-23-11  E	Embraer Piper Eurocopter France	EMB-500 See AD Rotorcraft: SA330J



**CORRECTION:** [*Federal Register: July 26, 2010 (Volume 75, Number 142)*]; Page 43397-43398;  
[www.access.gpo.gov/su\\_docs/aces/aces140.html](http://www.access.gpo.gov/su_docs/aces/aces140.html)]

**2010-13-07 Piper Aircraft, Inc.:** Amendment 39-16338; Docket No. FAA-2010-0122; Directorate Identifier 2009-CE-067-AD.

**Effective Date**

(a) This AD becomes effective on July 28, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to the following airplane models and serial numbers that are certificated in any category:

<b>Model</b>	<b>Serial numbers</b>
PA-32R-301T	3257001 through 3257311.
PA-46-350P	4622001 through 4622200 and 4636001 through 4636341.

**Subject**

(d) Air Transport Association of America (ATA) Code 78: Engine Exhaust.

**Unsafe Condition**

This AD is the result of reports that spot-welded, V-band exhaust couplings are failing. We are issuing this AD to prevent failure of the V-band exhaust coupling, which could cause the exhaust pipe to detach from the turbocharger. This failure could result in release of high-temperature gases inside the engine compartment and possibly cause an in-flight fire. An in-flight fire could lead to loss of control.

**Compliance**

(e) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
(1) Replace V-band exhaust couplings, part number (P/N) Lycoming 40D21162-340M or Eaton/Aeroquip 55677-340M with an improved design Eaton/Aeroquip P/N NH1009399-10 or Lycoming P/N 40D23255-340M.	At the next regularly scheduled maintenance event after July 28, 2010 (the effective date of this AD) or within the next 25 hours time-in-service (TIS) after July 28, 2010 (the effective date of this AD), whichever occurs first.	Remove the spot welded V-band clamp(s) and discard. Then, do either of the following actions: (i) Install the new riveted clamp(s) and tighten to an initial torque of 40 in. lbs. Tap the V-band clamp(s) around its circumference with a rubber mallet to equalize band tension. Retorque the clamp(s) to 60 in. lbs. and again tap the clamp(s) around its circumference. Retorque the clamp(s) to a 60 in. lbs. final torque and re-safety wire the V-band coupling(s); or (ii) Install the new riveted clamp(s) follow Lycoming Service Instruction No. 1238B, dated January 6, 2010, and re-safety wire the V-band coupling(s).
(2) Do not install any Eaton/Aeroquip P/N 55677-340M or Lycoming P/N 40D21162-340M.	As of July 28, 2010 (the effective date of this AD).	Not applicable.

### Alternative Methods of Compliance (AMOCs)

(f) The Manager, Atlanta 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. Send information to ATTN: Darby Mirocha, Aerospace Engineer, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, Georgia 30337; telephone: (404) 474-5573; fax: (404) 474-5606. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

### Material Incorporated by Reference

(g) You must use Lycoming Service Instruction No. 1238B, dated January 6, 2010, or the procedures specified in paragraph (e)(1) of this AD 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 Lycoming, 652 Oliver Street, Williamsport, PA 17701; telephone: (570) 323-6181; fax: (570) 327-7101; Internet: <http://www.lycoming.com>.

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on June 14, 2010.  
Sandra J. Campbell,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.



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**2010-15-04 EUROCOPTER FRANCE:** Amendment 39-16370. Docket No. FAA-2010-0721; Directorate Identifier 2009-SW-57-AD.

**Effective Date**

- (a) This AD becomes effective on August 11, 2010.

**Other Affected ADs**

- (b) None.

**Applicability**

- (c) This AD applies to Model EC225LP helicopters, except those that have been modified with MOD 0743718, certificated in any category.

**Reason**

(d) The mandatory continuing airworthiness information (MCAI) AD states there have been a "few" reports of cracks and failure of the main rotor hub (MRH) cone restrainer support lugs at their attachment points on the reinforcement ring where the dome fairing is secured. Also, cracks on the dome fairing support have been reported. Failure of the cone restrainer support or the dome fairing support attachment lugs may lead to loss of the dome fairing, damage to the rotor blades, and subsequent loss of control of the helicopter.

**Actions and Compliance**

- (e) Required as indicated:

- (1) Within 15 hours time-in-service (TIS), unless already done, and thereafter at intervals not to exceed 15 hours TIS, visually inspect for a crack in the area of the attachment points on the MRH reinforcement ring of the lugs securing the cone restrainer support and also of the lugs securing the dome fairing support as depicted in Figures 1 and 2 of Eurocopter Emergency Alert Service Bulletin No. 05A003, Revision 2, dated February 3, 2009 (EASB No. 05A003) and by following the Accomplishment Instructions, paragraph 2.B.1, of EASB No. 05A003.

Note: The one EASB No. 05A003 applies to two different model helicopters: Eurocopter Model EC225LP helicopters that are type-certificated in the United States and Eurocopter Model EC725AP military helicopters that are not type-certificated in the United States.

- (2) If a crack is found in the area of any of the lugs of the cone restrainer support or the dome fairing support, as depicted in Figures 1 and 2 of EASB No. 05A003, before further flight, modify the

MRH by replacing both the cone restrainer support and the dome fairing support assembly by following the Accomplishment Instructions, paragraphs 2.B.1. and 2.B.2., reidentify the cone restrainer support and dome fairing assembly by following paragraph 2.D., and if removed, track and balance the main rotor blades by following paragraph 3.B.3. of Eurocopter Service Bulletin No. 62-007, Revision 1, dated July 10, 2009.

(f) Replacing and reidentifying both the cone restrainer support and the dome fairing support assembly in accordance with paragraph (e)(2) of this AD constitutes terminating action for the requirements of this AD.

### **Differences Between this AD and the MCAI AD**

(g) We do not specify dates because the dates are already passed nor do we specify the time in days but rather only in hours TIS. We also use a different initial compliance time. Also, we use inspect rather than check when referring to an action required by a mechanic as opposed to a pilot.

### **Other Information**

(h) Alternative Methods of Compliance (AMOCs): The Manager, Safety Management Group, ATTN: DOT/FAA Southwest Region, Gary Roach, ASW-111, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Guidance Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5130, fax (817) 222-5961, has the authority to approve AMOCs for this AD, if requested, using the procedures found in 14 CFR 39.19.

(i) A special flight permit may be issued to ferry the helicopter to a location where the modification can be done, provided the dome fairing and its attachment screws are removed. When allowing flight with the dome fairing removed, the special flight permit must contain information that alerts the flight crew that when flying without the dome fairing, the lateral vibrations of the helicopter significantly increase at speeds of 70 to 120 knots. These lateral vibrations do not affect flight safety.

### **Related Information**

(j) European Aviation Safety Agency (EASA) Airworthiness Directive No. 2009-0024, dated February 20, 2009, contains related information.

### **Joint Aircraft System/Component (JASC) Code**

(k) The JASC Code is 6220: Main Rotor Head.

### **Material Incorporated by Reference**

(l) You must use the specified portions of Eurocopter Emergency Alert Service Bulletin No. 05A003, Revision 2, dated February 3, 2009, and Eurocopter Service Bulletin No. 62-007, Revision 1, dated July 10, 2009, to do the actions required.

(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 American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, TX 75053-4005, telephone (800) 232-0323, fax (972) 641-3710, or at <http://www.eurocopter.com>.

(3) You may review copies at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Fort Worth, Texas, 76137; 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 Fort Worth, Texas, on July 13, 2010.

Mark R. Schilling,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



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**2010-15-05 Aircraft Industries a.s.:** Amendment 39-16371; Docket No. FAA-2010-0457; Directorate Identifier 2010-CE-019-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective August 30, 2010.

**Affected ADs**

- (b) This AD supersedes AD 2010-08-01, Amendment 39-16256.

**Applicability**

- (c) This AD applies to Aircraft Industries a.s. Model L 23 Super Blanik Gliders, all serial numbers, certificated in any category.

**Subject**

- (d) Air Transport Association of America (ATA) Code 55: Stabilizers.

**Reason**

- (e) The mandatory continuing airworthiness information (MCAI) states:

Cracks on the stabilizer elevator inner hinges of seven L 23 SUPERBLANÍK sailplanes have been detected during an inspection.

This condition, if not corrected, could result in no longer retaining the elevator in place and in jamming of the Pilot's elevator control system, and subsequent loss of elevator control.

For the reasons stated above, this Emergency AD requires the inspection of the elevator inner hinges, and the accomplishment of the relevant corrective actions as necessary.

**Actions and Compliance**

- (f) Unless already done, do the following actions:

- (1) Before further flight as of April 6, 2010 (the effective date of AD 2010-08-01), inspect the elevator inner hinges on the stabilizer following paragraphs A.1., A.2., and A.4. of Aircraft Industries, a.s. Mandatory Bulletin MB No.: L23/052a, dated March 2, 2010.

(2) Repetitively thereafter at intervals not to exceed every 1,000 hours time-in-service, inspect the elevator inner hinges on the stabilizer following paragraphs A.1., A.2., and A.4. of Aircraft Industries, a.s. Mandatory Bulletin MB No.: L23/052a, dated March 2, 2010.

(3) If, as a result of the inspection required by paragraph (f)(1) or (f)(2) of this AD, you find any elevator inner hinge on the elevator is cracked or damaged, before further flight, replace it following paragraphs A.3. and A.4. of Aircraft Industries, a.s. Mandatory Bulletin MB No.: L23/052a, dated March 2, 2010.

### **FAA AD Differences**

Note: This AD differs from the MCAI and/or service information as follows: No differences.

### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Greg Davison, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4130; fax: (816) 329-4090. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

### **Related Information**

(h) Refer to MCAI EASA Emergency AD No.: 2010-0037-E, dated March 8, 2010; and Aircraft Industries, a.s. Mandatory Bulletin MB No.: L23/052a, dated March 2, 2010, for related information.

### **Material Incorporated by Reference**

(h) You must use Aircraft Industries, a.s. Mandatory Bulletin MB No.: L23/052a, dated March 2, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

(1) On April 26, 2010 (75 FR 17295, April 6, 2010), the Director of the Federal Register previously approved the incorporation by reference of Aircraft Industries, a.s. Mandatory Bulletin MB No.: L23/052a, dated March 2, 2010.

(2) For service information identified in this AD, contact Aircraft Industries, a.s.- Nazáhonech1177, 686 04 Kunovice, Czech Republic; telephone: +420 572 817 660; fax: +420 572 816 112; e-mail: ots@let.cz; Internet: <http://www.let.cz>.

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on July 15, 2010.

Kim Smith,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.



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**2010-15-07 Zakład Szybowcowy "Jeźów" Henryk Mynarski:** Amendment 39-16373; Docket No. FAA-2010-0729; Directorate Identifier 2010-CE-032-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective August 16, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to the following Zakład Szybowcowy "Jeźów" Henryk Mynarski Model PW-6U sailplanes, certificated in any category:

- (i) Serial numbers (S/Ns) 78.00.00 through 78.03.07 equipped with an automatic elevator control connection installed in accordance with Zakład Szybowcowy "Jeźów" Henryk Mynarski Bulletin BS-78-02-04;
- (ii) S/Ns 78.03.08 through 78.03.10; and
- (iii) S/Ns 78.04.01 and subsequent S/Ns.

**Subject**

- (d) Air Transport Association of America (ATA) Code 27: Flight Controls.

**Reason**

- (e) The mandatory continuing airworthiness information (MCAI) states:

Cracks on the lug of the rear attachment fitting of the horizontal stabilizer have been detected during the inspection of two PW-6U gliders operated by the same user.

This condition, if not corrected, could result in no longer retaining the horizontal stabilizer in place and consequent loss of control of the aeroplane.

For the reasons described above, this AD requires immediate and periodic inspections of the horizontal stabilizer rear attachment fitting and the accomplishment of the relevant corrective actions as necessary.

## **Actions and Compliance**

(f) Unless already done, do the following actions.

(1) Before further flight after the effective date of this AD, repetitively thereafter at intervals not to exceed 50 hours time-in-service, and, in addition, before further flight anytime the sailplane experiences a "hard landing," visually inspect the rear attachment fitting of the horizontal stabilizer for cracks and damage. Do the inspections following Zakład Szybowcowy "Jeżów" Henryk Mynarski Mandatory Bulletin BO-78-10-10, dated June 7, 2010, except use a 10X magnifier.

(2) If any crack or damage is found during any inspection required in paragraph (f)(1) of this AD, before further flight after the inspection in which a crack or damage is found, contact Zakład Szybowcowy "Jeżów" Henryk Mynarski, ul. Długa 93, 58-521 Jeżów Sudecki, Poland, telephone/fax: +48 75 713 21 59 or +48 33 829 33 72; e-mail: szdjezow.com.pl, to obtain an FAA-approved repair scheme and incorporate the repair scheme.

## **FAA AD Differences**

Note: This AD differs from the MCAI and/or service information as follows. The service information requires a visual inspection with a 5X magnifier. For the inspection, we are requiring a 10X magnifier to detect cracks and damage that may go undetected using only a 5X magnifier.

## **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Greg Davison, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4130; fax: (816) 329-4090. Before using any approved AMOC on any sailplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

## **Related Information**

(h) Refer to MCAI EASA AD No. 2010-0108-E, dated June 8, 2010, and Zakład Szybowcowy "Jeżów" Henryk Mynarski Mandatory Bulletin BO-78-10-10, dated June 7, 2010, for related information.

## Material Incorporated by Reference

(i) You must use Zakład Szybowcowy "Jeżów" Henryk Mynarski Mandatory Bulletin BO-78-10-10, dated June 7, 2010, 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 Zakład Szybowcowy "Jeżów" Henryk Mynarski, ul. Długa 93, 58-521 Jeżów Sudecki, Poland, telephone/fax: +48 75 713 21 59 or +48 33 829 33 72; e-mail: szdjezow.com.pl; Internet: <http://www.szdjezow.com.pl/>.

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri on July 15, 2010.

Kim Smith,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.



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**2010-15-09 Empresa Brasileira de Aeronáutica S.A. (EMBRAER):** Amendment 39-16375;  
Docket No. FAA-2010-0733; Directorate Identifier 2010-CE-038-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective August 12, 2010.

**Affected ADs**

- (b) This AD supersedes AD 2009-23-11; Amendment 39-16085.

**Applicability**

(c) This AD applies to the following Empresa Brasileira de Aeronáutica S.A. (EMBRAER) Model EMB-500 airplanes, all serial numbers, certificated in any category:

- (i) Group 1 Airplanes (retains the actions and applicability from AD 2009-23-11): Airplanes for which service bulletin (SB) 500-27-0003 has not been accomplished or that do not have an equivalent modification that was incorporated in the production line; and
- (ii) Group 2 Airplanes: Airplanes for which SB 500-27-0003 has been accomplished or have an equivalent modification that was incorporated in the production line.

**Subject**

- (d) Air Transport Association of America (ATA) Code 30: Ice and Rain Protection.

**Reason**

- (e) The mandatory continuing airworthiness information (MCAI) states:

It has been found the possibility of heating deactivation of Air Data System (ADS) sensors due to its inadequate automatic logic, when ADS/AOA knob is on AUTO position associated with the following messages:

- DC BUS 1 OFF displayed on Crew Alerting System–CAS in conjunction with STBY HTR FAIL (which means loss of power on DC BUS 1); or
- EMER BUS OFF displayed on CAS (which means loss of power on EMERGENCY BUS); or
- ELEC EMERGENCY displayed on CAS (which means Electrical Emergency).

The loss of airplane air data sensors heating may cause ice buildup on their surfaces, which in turn may cause wrong pressure acquisitions resulting in erroneous flight parameters indication to the flight crew. Since this condition may occur in other airplanes of the same type and affects flight safety, an immediate corrective action is required. Thus, sufficient reason exists to request compliance with this AD in the indicated time limit.

This AD action requires inserting information into the Abnormal Procedures section of the FAA-approved airplane flight manual (AFM).

### **Actions and Compliance**

(f) Group 1 Airplanes: unless already done, before further flight after December 2, 2009 (the effective date retained from AD 2009-23-11), incorporate into the AFM the following procedures section revisions. You may insert a copy of this AD into the appropriate sections of the AFM to comply with the requirements of this AD.

(1) Revise the AFM by replacing the ELECTRICAL EMERGENCY procedures in AFM section 4-08, Abnormal Procedures, with Figure 1:

## ELECTRICAL EMERGENCY

Reset both generators.

If message persists:

LAND AS SOON AS POSSIBLE.

ADS/AOA Knob..... ON

Exit and avoid icing conditions.

Confirm that IESI has reverted. If not, select ADSTBY on PFD.

PRESSURIZATION MODE Selector.... MAN

CABIN ALT Switch..... AS REQUIRED

Airspeed..... 250 KIAS  
MAXIMUM

Altitude..... 25000 ft  
MAXIMUM

**CAUTION:** BATTERIES DURATION IS 45 MINUTES MAXIMUM.

When landing maintain airspeed according to the following:

FLAPS POSITION	MINIMUM AIRSPEED
0	$V_{REF FULL} + 30$ KIAS
1	$V_{REF FULL} + 15$ KIAS
2	$V_{REF FULL} + 5$ KIAS
3 and FULL	$V_{REF FULL}$

**NOTE:** - If flaps stop between two positions, use the minimum airspeed associated to the next retracted position and the  $V_{FE}$  associated to the next extended position.

- Disregard green circle indication, as it may indicate slower speeds.

During landing run:

Emergency/Parking Brake..... APPLY

**CAUTION:** WHEN APPLYING EMERGENCY BRAKES, PULL THE HANDLE PROGRESSIVELY, MONITORING THE EMERGENCY/PARKING BRAKE LIGHT.

**NOTE:** The emergency/parking brake accumulator allows 6 actuations.

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**CAUTION:** TO DETERMINE THE MINIMUM SUITABLE LANDING DISTANCE, MULTIPLY THE UNFACTORED LANDING DISTANCE FOR FLAPS FULL BY ONE OF THE FACTORS BELOW:

FLAPS POSITION	CORRECTION FACTOR
0	2.25
1	1.75
2	1.65
3 and FULL	1.50

If a go-around is required, maintain the minimum airspeed presented in the applicable flaps configuration from the table above, until the acceleration altitude is reached.

The list below presents the relevant inoperative equipment. Items marked with an asterisk have dedicated failure procedures, which may have to be performed, at pilot's discretion:

- ADC 1 and 2 (\*)
- AHRS 2 (\*)
- Air Conditioning
- Anti-Ice/De-Ice Systems
- Audio Panel 2 (\*)
- Autopilot (\*)
- DMEs
- Flap System (\*)
- FMS Panel
- GIA 2 (\*)
- GPS 2/VOR 2/ILS 2
- Landing/Taxi Lights
- Main Brake (\*)
- PFD 2
- Pitch Trim (Main) (\*)
- Pressurization Auto (\*)
- Roll Trim
- Stick Pusher (\*)
- TCAS
- Transponder 2
- VHF 2
- Windshield Heater (\*)
- WX Radar
- Yaw Damper
- Yaw Trim

**Figure 1 – AFM Section 4-08, ELECTRICAL EMERGENCY**

(2) Revise the AFM by replacing the DC BUS 1 OFF procedure in AFM section 4-08, Abnormal Procedures, with Figure 2:

**DC BUS 1 OFF**

ADS/AOA Knob..... ON  
 Icing Conditions..... EXIT/AVOID

For landing procedures:  
 - Maintain airspeed according to the following:

FLAPS POSITION	MINIMUM AIRSPEED	
	NO ICING	IN ICING/WITH ICE
0	V <sub>REF FULL</sub> + 25 KIAS	V <sub>REF FULL</sub> + 40 KIAS
1	V <sub>REF FULL</sub> + 15 KIAS	V <sub>REF FULL</sub> + 35 KIAS
2	V <sub>REF FULL</sub> + 5 KIAS	V <sub>REF FULL</sub> + 30 KIAS
3 and FULL	V <sub>REF FULL</sub>	V <sub>REF FULL</sub> + 25 KIAS

**NOTE:** - If flaps stop between two positions, use the minimum airspeed associated to the next retracted position and V<sub>FE</sub> associated to the next extended position.  
 - Disregard green circle indication, as it may indicate slower speeds.

**CAUTION:** TO DETERMINE THE MINIMUM SUITABLE LANDING DISTANCE, MULTIPLY THE UNFACTORED LANDING DISTANCE FOR FLAPS FULL BY ONE OF THE FACTORS BELOW:

FLAPS POSITION	CORRECTION FACTOR	
	NO ICING	IN ICING/WITH ICE
0	1.40	1.70
1	1.20	1.60
2	1.10	2.00
3 and FULL	1.00	1.95

The list below presents the relevant inoperative equipment. Items marked with an asterisk have dedicated failure procedures, which may have to be performed, at pilot's discretion:

- ADC 1 (\*)
- Cockpit FCISOV
- De-Ice System (\*)
- DME 1
- Engine 1 Anti-Ice (\*)
- Engine 1 Flowmeter
- Flap System (\*)
- Left Landing/Taxi Light
- Roll Trim
- Stick Pusher (\*)
- VHF 2
- Windshield Heater 1 (\*)
- WX Radar
- Yaw Trim

**Figure 2 – AFM Section 4-08, DC BUS 1 OFF**

(3) Revise the AFM by replacing the EMERGENCY BUS OFF procedure in AFM section 4-08, Abnormal Procedures, with Figure 3:

<b>EMERGENCY BUS OFF</b>	
ADS/AOA Knob.....	ON
Airspeed .....	250 KIAS MAXIMUM
Altitude.....	25000 ft MAXIMUM
<p>The list below presents the relevant inoperative equipment. Items marked with an asterisk have dedicated failure procedures, which may have to be performed, at pilot's discretion:</p>	
- AHRS 1 (*)	- LDG Indication/Warning
- Audio Panel 1 (*)	- Red Beacon
- Autopilot (*)	- Oxygen Transducer
- EFCU 1	- Pax Mask Deploy (Auto)
- Engines Fire Detection (*)	- PFD 1
- Flight Director 1	- Pitch Trim (Back-Up) (*)
- AFCS Control Unit	- PRSOV 1 & 2
- Fuel Booster Pumps	- Transponder 1
- Fuel Shutoff Valves	- Stick Pusher (*)
- Fuel Transfer Valve (*)	- Stall Warning
- GIA 1 (*)	- WOW (*)
- GPS 1/VOR 1/ILS 1	- Yaw Damper

**Figure 3 – AFM Section 4-08, EMERGENCY BUS OFF**

(g) Group 2 Airplanes: Unless already done, before further flight after August 12, 2010 (the effective date of this AD), incorporate into the AFM the following procedures section revisions. You may insert a copy of this AD into the appropriate sections of the AFM to comply with the requirements of this AD.

(1) Revise the AFM by replacing the ELECTRICAL EMERGENCY procedures in AFM section 4-08, Abnormal Procedures, with Figure 4:

## ELECTRICAL EMERGENCY

Reset both generators.

If message persists:  
 LAND AS SOON AS POSSIBLE.  
 ADS/AOA Knob..... ON

Exit and avoid icing conditions.  
 Confirm that IESI has reverted. If not, select ADSTBY on PFD.

PRESSURIZATION MODE Selector.... MAN

CABIN ALT Switch..... AS REQUIRED

Airspeed..... 250 KIAS  
 MAXIMUM

Altitude..... 25000 ft  
 MAXIMUM

**CAUTION:** BATTERIES DURATION IS 45 MINUTES MAXIMUM.

When landing maintain airspeed according to the following:

FLAPS POSITION	MINIMUM AIRSPEED
0	$V_{REF FULL} + 30$ KIAS
1	$V_{REF FULL} + 15$ KIAS
2 and 3	$V_{REF FULL} + 5$ KIAS
FULL	$V_{REF FULL}$

**NOTE:** - If flaps stop between two positions, use the minimum airspeed associated to the next retracted position and the  $V_{FE}$  associated to the next extended position.  
 - Disregard green circle indication, as it may indicate slower speeds.

During landing run:  
 Emergency/Parking Brake..... APPLY

**CAUTION:** WHEN APPLYING EMERGENCY BRAKES, PULL THE HANDLE PROGRESSIVELY, MONITORING THE EMERGENCY/PARKING BRAKE LIGHT.

**NOTE:** The emergency/parking brake accumulator allows 6 actuations.

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**CAUTION:** TO DETERMINE THE MINIMUM SUITABLE LANDING DISTANCE, MULTIPLY THE UNFACTORED LANDING DISTANCE FOR FLAPS FULL BY ONE OF THE FACTORS BELOW:

FLAPS POSITION	CORRECTION FACTOR
0	2.25
1	1.75
2 and 3	1.65
FULL	1.50

If a go-around is required, maintain the minimum airspeed presented in the applicable flaps configuration from the table above, until the acceleration altitude is reached.

The list below presents the relevant inoperative equipment. Items marked with an asterisk have dedicated failure procedures, which may have to be performed, at pilot's discretion:

- ADC 1 and 2 (\*)
- AHRS 2 (\*)
- Air Conditioning
- Anti-Ice/De-Ice Systems
- Audio Panel 2 (\*)
- Autopilot (\*)
- DMEs
- Flap System (\*)
- FMS Panel
- GIA 2 (\*)
- GPS 2/VOR 2/ILS 2
- Landing/Taxi Lights
- Main Brake (\*)
- PFD 2
- Pitch Trim (Main) (\*)
- Pressurization Auto (\*)
- Roll Trim
- Stick Pusher (\*)
- TCAS
- Transponder 2
- VHF 2
- Windshield Heater (\*)
- WX Radar
- Yaw Damper
- Yaw Trim

**Figure 4 – AFM Section 4-08, ELECTRICAL EMERGENCY**

(2) Revise the AFM by replacing the DC BUS 1 OFF procedure in AFM section 4-08, Abnormal Procedures, with Figure 5:

**DC BUS 1 OFF**

ADS/AOA Knob..... ON  
 Icing Conditions..... EXIT/AVOID

For landing procedures:  
 - Maintain airspeed according to the following:

FLAPS POSITION	MINIMUM AIRSPEED	
	NO ICING	IN ICING/WITH ICE
0	V <sub>REF FULL</sub> + 25 KIAS	V <sub>REF FULL</sub> + 40 KIAS
1	V <sub>REF FULL</sub> + 15 KIAS	V <sub>REF FULL</sub> + 35 KIAS
2 and 3	V <sub>REF FULL</sub> + 5 KIAS	V <sub>REF FULL</sub> + 30 KIAS
FULL	V <sub>REF FULL</sub>	V <sub>REF FULL</sub> + 25 KIAS

**NOTE:** - If flaps stop between two positions, use the minimum airspeed associated to the next retracted position and V<sub>FE</sub> associated to the next extended position.  
 - Disregard green circle indication, as it may indicate slower speeds.

**CAUTION:** TO DETERMINE THE MINIMUM SUITABLE LANDING DISTANCE, MULTIPLY THE UNFACTORED LANDING DISTANCE FOR FLAPS FULL BY ONE OF THE FACTORS BELOW:

FLAPS POSITION	CORRECTION FACTOR	
	NO ICING	IN ICING/WITH ICE
0	1.40	1.70
1	1.20	1.60
2 and 3	1.10	2.00
FULL	1.00	1.95

The list below presents the relevant inoperative equipment. Items marked with an asterisk have dedicated failure procedures, which may have to be performed, at pilot's discretion:

- ADC 1 (\*)
- Cockpit FCISOV
- De-Ice System (\*)
- DME 1
- Engine 1 Anti-Ice (\*)
- Engine 1 Flowmeter
- Flap System (\*)
- Left Landing/Taxi Light
- Roll Trim
- Stick Pusher (\*)
- VHF 2
- Windshield Heater 1 (\*)
- WX Radar
- Yaw Trim

**Figure 5 – AFM Section 4-08, DC BUS 1 OFF**

(3) Revise the AFM by replacing the EMERGENCY BUS OFF procedure in AFM section 4-08, Abnormal Procedures, with Figure 6:

**EMERGENCY BUS OFF**

ADS/AOA Knob..... ON

Airspeed ..... 250 KIAS  
MAXIMUM

Altitude..... 25000 ft  
MAXIMUM

The list below presents the relevant inoperative equipment. Items marked with an asterisk have dedicated failure procedures, which may have to be performed, at pilot's discretion:

<ul style="list-style-type: none"> <li>- AHRS 1 (*)</li> <li>- Audio Panel 1 (*)</li> <li>- Autopilot (*)</li> <li>- EFCU 1</li> <li>- Engines Fire Detection (*)</li> <li>- Flight Director 1</li> <li>- AFCS Control Unit</li> <li>- Fuel Booster Pumps</li> <li>- Fuel Shutoff Valves</li> <li>- Fuel Transfer Valve (*)</li> <li>- GIA 1 (*)</li> <li>- GPS 1/VOR 1/ILS 1</li> </ul>	<ul style="list-style-type: none"> <li>- LDG Indication/Warning</li> <li>- Red Beacon</li> <li>- Oxygen Transducer</li> <li>- Pax Mask Deploy (Auto)</li> <li>- PFD 1</li> <li>- Pitch Trim (Back-Up) (*)</li> <li>- PRSOV 1 &amp; 2</li> <li>- Transponder 1</li> <li>- Stick Pusher (*)</li> <li>- Stall Warning</li> <li>- WOW (*)</li> <li>- Yaw Damper</li> </ul>
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**Figure 6 – AFM Section 4-08, EMERGENCY BUS OFF**

**FAA AD Differences**

Note: This AD differs from the MCAI and/or service information as follows: No differences.

**Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to Attn.: Karl Schletzbaum, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4146; fax: (816) 329-4090. Before using any approved AMOC on any airplane to which the AMOC applies,

notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et.seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

### **Related Information**

(i) Refer to MCAI ANAC, AD No.: 2009-10-01R2, dated July 28, 2010, for related information.

Issued in Kansas City, Missouri, on July 16, 2010.

Kim Smith,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.



**2010-15-10 Piper Aircraft, Inc.:** Amendment 39-16376; Docket No. FAA-2009-1015; Directorate Identifier 2009-CE-039-AD.

**Effective Date**

(a) This AD becomes effective on August 31, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to the following airplane models and serial numbers that are certificated in any category:

<b>Models</b>	<b>Serial Nos.</b>
PA-28-140	28-20001 through 28-26946 and 28-7125001 through 28-7725290
PA-28-150	28-03; 28-1 through 28-4377; and 28-1760A
PA-28-160	28-03; 28-1 through 28-4377; and 28-1760A
PA-28-180	28-03; 28-671 through 28-5859; and 28-7105001 through 28-7205318
PA-28S-160	28-1 through 28-1760 and 28-1760A
PA-28S-180	28-671 through 28-5859 and 28-7105001 through 28-7105234
PA-28-235	28-10001 through 28-11378; 28-7110001 through 28-7210023; 28E-11 and 28-7310001 through 28-7710089
PA-28-236	28-7911001 through 28-8611008 and 2811001 through 2811050
PA-28-151	28-7415001 through 28-7715314
PA-28-161	2841001 through 2841365; 28-7716001 through 28-8216300; 28-8316001 through 28-8616057; 2816001 through 2816109; 2816110 through 2816119; and 2842001 through 2842305
PA-28-180	28-E13 and 28-7305001 through 28-7505260
PA-28-181	28-7690001 through 28-8690056; 28-8690061; 28-8690062; 2890001 through 2890205; 2890206 through 2890231; and 2843001 through 2843672
PA-28-201T	28-7921001 through 28-7921095

PA-28R-180	28R-30002 through 28R-31270 and 28R-7130001 through 28R-7130013
PA-28R-200	28R-35001 through 28R-35820; 28R-7135001 through 28R-7135229; and 28R-7235001 through 28R-7635545
PA-28R-201	28R-7737002 through 28R-7837317; 2837001 through 2837061; and 2844001 through 2844138
PA-28R-201T	28R-7703001 through 28R-7803374 and 2803001 through 2803012
PA-28RT-201	28R-7918001 through 28R-7918267 and 28R-8018001 through 28R-8218026
PA-28RT-201T	28R-7931001 through 28R-8631005 and 2831001 through 2831038
PA-32-260	32-03; 32-04; 32-1 through 32-1297; and 32-7100001 through 32-7800008
PA-32-300	32-15; 32-21; 32-40000 through 32-40974; and 32-7140001 through 32-7940290
PA-32S-300	32S-15; 32S-40000 through 32S-40974; and 32S-7140001 through 32S-7240137
PA-32R-300	32R-7680001 through 32R-7880068
PA-32RT-300	32R-7885002 through 32R-7985106
PA-32RT-300T	32R-7787001 and 32R-7887002 through 32R-7987126
PA-32R-301 (SP)	32R-8013001 through 32R-8613006; 3213001 through 3213028; and 3213030 through 3213041
PA-32R-301 (HP)	3213029; 3213042 through 3213103; 3246001 through 3246217; 3246219; 3246223; 3246218; 3246220 through 3246222; and 3246224 through 3246244
PA-32R-301T	32R-8029001 through 32R-8629008 and 3229001 through 3229003
PA-32-301	32-8006002 through 32-8606023; 3206001 through 3206019; 3206042 through 3206044; 3206047; 3206050 through 3206055; and 3206060
PA-32-301T	32-8024001 through 32-8424002
PA-32R-301T	3257001 through 3257483
PA-32-301FT	3232001 through 3232074
PA-32-301XTC	3255001 through 3255014; 3255026, 3255015 through 3255025; 3255027; and 3255051
PA-34-200	34-E4 and 34-7250001 through 34-7450220
PA-34-200T	34-7570001 through 34-8170092
PA-34-220T	34-8133001 through 34-8633031; 3433001 through 3433172; 3448001 through 3448037; 3448038 through 3448079; 3447001 through 3447029; and 3449001 through 3449377
PA-44-180	44-7995001 through 44-8195026; 4495001 through 4495013; and 4496001 through 4496251

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 PA-44-180T      44-8107001 through 44-8207020
 

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### Unsafe Condition

(d) This AD results from two field reports of incorrectly assembled control wheel shafts. We are issuing this AD to detect and correct any incorrectly assembled control wheel shafts. This condition, if left uncorrected, could lead to separation of the control wheel shaft, resulting in loss of pitch and roll control.

### Compliance

(e) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
(1) Inspect the pilot and copilot control wheel columns for correct control wheel shaft installation.	Within 100 hours time-in-service after August 31, 2010 (the effective date of this AD), or within the next 12 months after August 31, 2010 (the effective date of this AD), whichever occurs first.	Follow Piper Aircraft, Inc. Mandatory Service Bulletin No. 1197A, dated September 1, 2009; or Piper Aircraft, Inc. Mandatory Service Bulletin No. 1197B, dated May 3, 2010.
(2) If during the inspection required in paragraph (e)(1) of this AD an incorrectly installed control wheel shaft is found, replace the appropriate shaft with a new shaft.	Before further flight after the inspection where incorrect installation of the control wheel shaft is found.	Follow Piper Aircraft, Inc. Mandatory Service Bulletin No. 1197A, dated September 1, 2009; or Piper Aircraft, Inc. Mandatory Service Bulletin No. 1197B, dated May 3, 2010.
(3) Inspect the universal joint and all other control wheel parts when doing the action required in (e)(2) of this AD and, if any deterioration, excessive wear, or damage is found, replace the universal joint and/or other control wheel parts with a new universal joint and/or other applicable new control wheel parts as necessary.	Before further flight after the inspection where incorrect installation of the control wheel shaft is found.	Follow Piper Aircraft, Inc. Mandatory Service Bulletin No. 1197A, dated September 1, 2009; or Piper Aircraft, Inc. Mandatory Service Bulletin No. 1197B, dated May 3, 2010.

### Alternative Methods of Compliance (AMOCs)

(f) The Manager, Atlanta 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. Send information to ATTN: Hector Hernandez, Aerospace Engineer, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, GA 30337; telephone: (404) 474-5587; fax: (404)

474-5606. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

### **Related Information**

(g) To get copies of the service information referenced in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; fax: (772) 978-6573; Internet: <http://www.newpiper.com/company/publications.asp>. To view the AD docket, go to U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, or on the Internet at <http://www.regulations.gov>.

### **Material Incorporated by Reference**

(h) You must use Piper Aircraft, Inc. Mandatory Service Bulletin No. 1197A, dated September 1, 2009, or Piper Aircraft, Inc. Mandatory Service Bulletin No. 1197B, dated May 3, 2010, 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 Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; fax: (772) 978-6573; Internet: <http://www.newpiper.com/company/publications.asp>.

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on July 16, 2010.

Kim Smith,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.



**DATE: July 20, 2010**

**AD #: 2010-16-51**

This Emergency Airworthiness Directive (AD) is prompted by a rotor burst of the main gearbox (MGB) oil cooling fan assembly (fan). Investigation of the incident has shown that some fan rotor blades interfered with the upper area of the guide vane bearing housing of the fan. The blades detached from the rotor, struck the MGB compartment environment, and punctured holes in the transmission deck. This interference was due to internal degradation of the bearings of the fan rotor shaft. This condition, if not corrected, could lead to fan rotor burst, damage to the hydraulic pipes and flight controls, and subsequent loss of control of the helicopter.

The FAA has reviewed Eurocopter Emergency Alert Service Bulletin No. 05.96, dated July 12, 2010 (EASB), for Model SA330J helicopters and for non-FAA type-certificated Model SA330Ba, Ca, Ea, L, Jm, S1, and Sm helicopters. The EASB specifies checking for a minimum play of 0.2 millimeters (mm) between a fan blade and the guide vane bearing housing using a locally manufactured tool. If the minimum play is not complied with, the EASB specifies replacing the two bearings of the fan rotor shaft.

The European Aviation Safety Agency (EASA), the airworthiness authority for France, notified the FAA that an unsafe condition may exist on these helicopter models. EASA advises of a case of rotor burst of a fan. Investigation has shown that some fan rotor blades interfered with the upper area of the guide vane bearing housing of the fan. The blades detached from the rotor, impacted the MGB compartment environment, and punctured holes in the transmission deck. This interference was due to internal degradation of the bearings of the fan rotor shaft. This condition, if not corrected could lead to fan rotor burst and possibly result in damage to hydraulic pipes and flight controls located nearby the MGB cooling fan. EASA classified the EASB as mandatory and issued AD No. 2010-0147-E, dated July 14, 2010, to ensure the continued airworthiness of these helicopters.

This helicopter model is manufactured in France and is type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, EASA has kept the FAA informed of the situation described above. The FAA has examined the findings of EASA, reviewed all available information, and determined that AD action is necessary for helicopters of this type design that are certificated for operation in the United States.

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD requires, within 10 hours time-in-service (TIS), using a 0.2 mm (0.008 inch) feeler gauge attached to a rigid rod, inspecting for a gap between a fan rotor blade and the upper section of the guide vane bearing housing over the entire width of the blade. If the feeler gauge can be inserted between the blade and the housing (a gap greater than or equal to 0.2 mm), no further action is required. If the feeler gauge cannot be inserted between the blade and the housing (a gap less than 0.2 mm), replace the two fan rotor shaft bearings with two airworthy bearings. Reinspect to ensure compliance with this AD after installing airworthy bearings. The actions must be accomplished by following specified portions of the EASB described previously. This AD differs

from EASA Emergency AD No. 2010-0142-E in that we use the term “hours time-in-service” rather than “flight hours.” Also, for clarification, we specified inspecting for a “gap” rather than checking for “play.”

This rule is issued under 49 U.S.C. Section 44701 pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this emergency AD.

**2010-16-51 EUROCOPTER FRANCE:** Directorate Identifier 2010-SW-072-AD.

Applicability: Model SA330J helicopters, certificated in any category.

Compliance: Required as indicated.

To prevent rotor burst of the main gearbox (MGB) oil cooling fan assembly (fan), damage to the hydraulic pipes and flight controls, and subsequent loss of control of the helicopter, do the following:

(a) Within 10 hours time-in-service (TIS), unless accomplished previously, and thereafter at intervals not to exceed 10 hours TIS, using a 0.2 millimeter (mm) (0.008 inch) feeler gauge attached to a rigid rod, inspect for a minimum gap of 0.2 mm between a fan rotor blade and the upper section of the guide vane bearing housing over the entire width of the blade as depicted in Figure 1 and as shown in Figure 2 of Eurocopter Emergency Alert Service Bulletin No. 05.96, dated July 12, 2010 (EASB), and by following the Accomplishment Instructions, paragraph 3.B., of the EASB.

(1) If the feeler gauge can be inserted between the blade and the housing (a gap greater than or equal to 0.2 mm), no further action is required.

(2) If the feeler gauge cannot be inserted between the blade and the housing (a gap less than 0.2 mm), as depicted in Figure 3 of the EASB, before further flight, replace the two fan rotor shaft bearings, with two airworthy bearings, part number 704A33651114. Reinspect to ensure compliance with paragraph (a) of this AD after installing airworthy bearings. **Replacing the two fan rotor shaft bearings does not constitute terminating action for the inspection requirements of this AD.**

(b) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, ATTN: Rao Edupuganti, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-4389, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) The Joint Aircraft System/Component (JASC) Code is 6322: Main gearbox oil cooler fan.

(d) Copies of the applicable service information may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, TX 75053-4005, telephone (800) 232-0323, fax (972) 641-3710, or at <http://www.eurocopter.com>.

(e) Emergency AD 2010-16-51, issued July 19, 2010, becomes effective upon receipt.

Note: The subject of this AD is addressed in European Aviation Safety Agency No. 2010-0147-E, dated July 14, 2010.

FOR FURTHER INFORMATION CONTACT: Rao Edupuganti, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-4389, fax (817) 222-5961.

Issued in Fort Worth, Texas, on July 19, 2010.

Mark. R. Schilling,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.