



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

BIWEEKLY 2011-01

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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;			
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		



2010-17-18 R1 Air Tractor, Inc.: Amendment 39-16552; Docket No. FAA-2010-0827; Directorate Identifier 2010-CE-029-AD.

Effective Date

- (a) This AD is effective January 14, 2011.

Affected ADs

- (b) This AD revises AD 2010-17-18, Amendment 39-16412.

Applicability

- (c) This AD affects Air Tractor, Inc. Models AT-802 and AT-802A airplanes, serial numbers (SNs) -0001 through -0269, that are:

- (1) certificated in any category;
- (2) engaged in agricultural dispersal operations, including those airplanes that have been converted from fire fighting to agricultural dispersal or airplanes that convert between fire fighting and agricultural dispersal;
- (3) not equipped with the factory-supplied computerized fire gate (part number (P/N) 80540); and
- (4) not engaged in only full-time fire fighting.

Subject

- (d) Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57: Wings.

Unsafe Condition

- (e) This AD was prompted by our evaluation of a comment from David Ligon, Air Tractor, and our determination that we should reduce the applicability from the all serial numbers beginning with SN -0001 as required by the previous AD to SN -0001 through SN-0269. We are issuing this AD to detect and correct cracks in the wing main spar lower cap at the center splice joint, which could result in failure of the spar cap and lead to wing separation and loss of control of the airplane.

Compliance

- (f) Comply with this AD within the compliance times specified, unless already done.
- (g) To address this problem for Models AT-802 and AT-802A airplanes, SNs -0001 through -0091, you must do the following, unless already done:

Table 1—Actions, compliance, and procedures

Actions	Compliance	Procedures
(1) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps.	Initially inspect upon accumulating 1,700 hours time-in-service (TIS) or within the next 50 hours TIS after April 21, 2006 (the effective date of AD 2006-08-09), whichever occurs later, and repetitively thereafter at intervals not to exceed 800 hours TIS. If, before September 9, 2010 (the effective date of AD 2010-17-18), you installed the center splice plate and extended 8-bolt splice blocks, use the inspection compliance times found in paragraph (g)(5) of this AD.	Follow Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002.
(2) If you find any cracks as a result of any inspection required in paragraph (g)(1) of this AD, do the following actions:	Before further flight after the inspection where a crack was found. If, before the airplane reaches a total of 3,200 hours TIS, you repair your airplane following paragraph (g)(2)(i) of this AD, you must do the eddy current inspections following the compliance times found in paragraph (g)(5) of this AD. If, at 3,200 hours TIS or after, you repair your airplane following paragraph (g)(2)(i) of this AD, this repair terminates the inspection requirements of paragraph (g)(1) of this AD.	Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and Snow Engineering Co. Service Letter #240, dated September 30, 2004.
(i) For cracks that can be repaired, repair the airplane by doing the following actions:		
(A) Install center splice plate, P/N 20997-2, and extended 8-bolt splice blocks, P/N 20985-1 & -2, and cold-work the lower spar cap fastener holes; and		
(B) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (g)(1) of this AD.		
(ii) For cracks that cannot be repaired by incorporating the modification specified above, do the actions to replace the lower spar caps and associated parts listed following the procedures identified in paragraph (g)(3) of this AD.		

(3) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate. This replacement terminates the repetitive inspections required in paragraph (g)(1) of this AD.

(i) Do the replacement at whichever of the following compliance times occurs first:

(A) Before further flight when cracks are found that cannot be repaired by incorporating the modification in paragraph (g)(2)(i) of this AD; or

(B) Before or when the airplane reaches the wing main spar lower cap safe life of a total of 4,100 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later.

(ii) After this replacement the new spar safe life is 11,700 hours TIS. If, before September 9, 2010 (the effective date of AD 2010-17-18), an airplane main spar lower cap was replaced with P/N 21083-1/-2, the spar safe life for that P/N spar cap is 8,000 hours TIS until the main spar lower cap is replaced with P/N 21118-1/-2. The new spar safe life for P/N 21118-1/-2 is 11,700 hours.

(iii) To extend the initial 4,100 hours TIS safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the optional modification specified in paragraph (g)(4) of this AD.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(4) To extend the safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the following optional modification. This modification terminates the repetitive inspections required in paragraph (g)(1) of this AD, unless you performed the modification before the airplane reaches a total of 3,200 hours TIS to repair cracks:

(i) Install center splice plate, P/N 20997-2, and extended 8-bolt splice blocks, P/N 20985-1 & -2, and cold-work the lower spar cap fastener holes; and

(ii) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (g)(1) of this AD.

Modify at whichever of the following compliance times occurs first:

(A) Before further flight after any inspection required in paragraph (g)(1) of this AD where a crack is found. If you modify your airplane before the airplane reaches a total of 3,200 hours TIS to repair cracks as required in paragraph (g)(2)(i) of this AD, you must do the eddy current inspections following the compliance times found in paragraph (g)(5) of this AD.

(B) Between 3,200 hours TIS and 4,100 hours TIS.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and Snow Engineering Co. Service Letter #240, dated September 30, 2004.

(5) If, before September 9, 2010 (the effective date of AD 2010-17-18) or as a result of performing the repair for cracks following paragraph (g)(2) of this AD, you installed the center splice plate and extended 8-bolt splice blocks, use the following table for compliance times to do the eddy current inspections required in paragraph (g)(1) of this AD. If you find any cracks as a result of any inspection following the compliance times in the following table, you must do the replacement action in paragraph (g)(2)(ii) of this AD:

Table 2—Eddy current inspection compliance times

Condition of the Airplane	Initially Inspect	Repetitively Inspect Thereafter at Intervals Not to Exceed
(i) If the airplane has already had the center splice plate and extended 8-bolt splice blocks installed at or after 3,200 hours TIS but the fastener holes have not been cold worked, at any time you may cold work the fastener holes to terminate the repetitive inspection requirements of this paragraph.	When the airplane reaches a total of 2,400 hours TIS after the modification or within the next 100 days after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later.	1,200 hours TIS until the 8,000 hours TIS spar replacement time.
(ii) Before reaching 3,200 hours TIS, the airplane had the center splice plate and extended 8-bolt splice blocks already installed but the fastener holes have not been cold worked.	When the airplane reaches a total of 2,400 hours TIS after the modification or within the next 100 days after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later.	1,200 hours TIS. Upon reaching 4,800 hours TIS after the modification, inspect repetitively thereafter at intervals not to exceed 600 hours TIS until the 8,000 hours TIS spar replacement time.
(iii) Before reaching 3,200 hours TIS, the airplane had the center splice plate and extended 8-bolt splice blocks installed and the fastener holes have been cold worked.	When the airplane reaches a total of 4,800 hours TIS after the modification or within the next 100 days after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later.	600 hours TIS until the 8,000 hours TIS spar replacement time.

(h) To address this problem for AT-802 and AT-802A airplanes, SNs-0092 through -0101, you must do the following, unless already done:

Table 3—Actions, compliance, and procedures

Actions	Compliance	Procedures
(1) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps.	Initially inspect upon accumulating 1,700 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later, and repetitively thereafter at intervals not to exceed 800 hours TIS. If the center splice plate, P/N 20994-2, is installed as specified in paragraph (h)(4) of this AD, do the repetitive inspections at intervals not to exceed 2,000 hours TIS.	Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; and Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002.
(2) If you find any cracks as a result of any inspection required by paragraph (h)(1) of this AD, do the following actions. This repair modification terminates the repetitive inspections required in paragraph (h)(1) of this AD:	Before further flight after the inspection where a crack was found. This repair modification in paragraph (h)(2)(i) of this AD extends the safe life of the wing main spar lower cap to a total of 8,000 hours TIS.	Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; and Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002, Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.
(i) For cracks that can be repaired, repair the airplane by doing the following actions:		
(A) Install the 9-bolt splice blocks and cold-work the lower spar cap fastener holes;		
(B) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the repair and is separate from the inspections required in paragraph (h)(1) of this AD; and		
(C) Install the center splice plate, P/N 20994-2, per paragraph (h)(4) if not already installed.		
(ii) For cracks that cannot be repaired by doing the actions in paragraph (h)(2)(i) of this AD, replace the lower spar caps and associated parts listed following the procedures identified in paragraph (h)(3) of this AD.		

(3) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate. This replacement terminates the repetitive inspections required in paragraph (h)(1) of this AD.

(i) Do the replacement at whichever of the following compliance times occurs first:

(A) Before further flight when cracks are found that cannot be repaired by incorporating the modification in paragraph (h)(2)(i) of this AD; or

(B) Before or when the airplane reaches the wing main spar lower cap safe life of a total of 4,100 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later.

(ii) To extend the initial 4,100 hours TIS safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the optional modification specified in paragraph (h)(4) of this AD.

(iii) After replacement of the old spar with the new lower spar cap, P/N 21118-1/-2, the new spar safe life is 11,700 hours TIS.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(4) To extend the safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the following optional modification:

(i) Install center splice plate, P/N 20994-2, if not already installed as part of a repair, and cold-work the lower spar cap fastener holes; and

(ii) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (h)(1) of this AD.

Before the airplane reaches a total of 4,100 hours TIS. After installation of the center splice plate, P/N 20994-2, do the repetitive inspections required in paragraph (h)(1) at intervals not to exceed 2,000 hours TIS. If as of September 9, 2010 (the effective date of AD 2010-17-18) you have already exceeded the 4,100 hours TIS threshold for extending the safe life to 8,000 hours TIS, you may be eligible for an alternative method of compliance following paragraph (n) in this AD.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A., dated January 7, 2009; and Snow Engineering Co. Service Letter #245, dated April 25, 2005.

(5) If you find any cracks as a result of any repetitive inspection required by paragraph (h)(4) of this AD, do the following actions. This repair modification terminates the repetitive inspections required in paragraph (h)(4) of this AD:

(i) For cracks that can be repaired, repair the airplane by doing the following actions:

(A) Install the 9-bolt splice blocks and cold-work the lower spar cap fastener holes; and

(B) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the repair and is separate from the inspections required in paragraph (h)(1) of this AD.

(ii) For cracks that cannot be repaired by doing the actions in paragraph (h)(5)(i) of this AD, replace the lower spar caps and associated parts listed following the procedures identified in paragraph (h)(3) of this AD.

Before further flight after the inspection where a crack was found.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; and Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002, Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.

(i) To address this problem for AT-802 and AT-802A airplanes, SNs -0102 through -0178, you must do the following, unless already done:

Table 4—Actions, compliance, and procedures

Actions	Compliance	Procedures
(1) Do an initial eddy current inspection for cracks of the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. After this initial inspection, you may do the optional cold-working of the lower spar cap fastener holes to increase the hours TIS between repetitive inspections required in paragraph (i)(2) of this AD.	Before the airplane reaches a total of 5,500 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later.	Follow Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Service Letter #245, dated April 25, 2005; and Snow Engineering Co. Service Letter #284, dated October 4, 2009.
(2) Repetitively eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps.	(i) <u>For fastener holes that are cold-worked</u> : After the initial inspection, repetitively thereafter inspect at intervals not to exceed 2,200 hours TIS. (ii) <u>For fastener holes not cold-worked</u> : After the initial inspection, repetitively thereafter inspect at intervals not to exceed 1,100 hours TIS.	Follow Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Service Letter #284, dated October 4, 2009; and (optional) Snow Engineering Co. Service Letter #245, dated April 25, 2005.

(3) If you find any cracks as a result of any inspection required by paragraphs (i)(1) and (i)(2) of this AD, do the following actions. This modification terminates the repetitive inspections required in paragraph (i)(1) and (i)(2) of this AD:

(i) For cracks that can be repaired, repair the airplane by doing the following actions:

(A) Install the 9-bolt splice blocks and cold-work the lower spar cap fastener holes; and

(B) Eddy current inspect for cracks the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps. This eddy current inspection is required as part of the repair and is separate from the inspections required in paragraphs (i)(1) and (i)(2) of this AD.

(ii) For cracks that cannot be repaired by doing the actions in paragraph (i)(3)(i) of this AD, replace the lower spar caps and associated parts listed following the procedures in paragraph (i)(4) of this AD.

Before further flight after the inspection where a crack was found.

Follow Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.

(4) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate. This replacement terminates the repetitive inspections required in paragraphs (i)(1) and (i)(2) of this AD.

(i) Do the replacement at whichever of the following compliance times occurs first:

(A) Before further flight when cracks are found that cannot be repaired by incorporating the repair in paragraph (i)(3)(i) of this AD; or

(B) Before or when the airplane reaches the wing main spar lower cap safe life of a total of 8,000 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later.

(ii) After this replacement the new spar safe life is 11,700 hours TIS.

Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(j) To address this problem for AT-802 and AT-802A airplanes, SNs -0179 through -0269, you must do the following, unless already done:

Table 5—Actions, compliance, and procedures

Actions	Compliance	Procedures
Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate.	By the 8,000 hours TIS safe-life or within the next 50 hours TIS after September 9, 2010 (the effective date of AD 2010-17-18), whichever occurs later. After this replacement the subsequent new spar safe life is 11,700 hours TIS.	Follow Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(k) Report any crack from any inspection required in paragraphs (g), (h), or (i) of this AD within 10 days after the cracks are found on the form in Figure 1 of this AD.

(1) Send your report to Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370.

(2) The Office of Management and Budget (OMB) approved the information collection requirements contained in this regulation under the provisions of the Paperwork Reduction Act and assigned OMB Control Number 2120-0056.

Special Permit Flight

(1) Under 14 CFR 39.23, we are allowing special flight permits for the purpose of compliance with this AD under the following conditions:

- (1) Only operate in day visual flight rules (VFR).
- (2) Ensure that the hopper is empty.
- (3) Limit airspeed to 135 miles per hour (mph) indicated airspeed (IAS).
- (4) Avoid any unnecessary g-forces.
- (5) Avoid areas of turbulence.
- (6) Plan the flight to follow the most direct route.

AD 2010-17-18 R1 INSPECTION REPORT (REPORT <u>ONLY</u> IF CRACKS ARE FOUND)	
<i>General Information</i>	
1. Inspection Performed By:	2. Phone:
3. Aircraft Model:	4. Aircraft Serial Number:
5. Engine Model Number:	6. Aircraft Total Hours TIS:
7. Wing Total Hours TIS:	8. Lower Spar Cap Hours TIS:
<i>Previous Inspection/Repair History</i>	
9. Has the lower spar cap been inspected (eddy-current, dye penetrant, magnetic particle, or ultrasound) before? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, an inspection has occurred: Date: _____ Inspection Method: _____ Lower Spar Cap TIS: _____ Cracks found? <input type="checkbox"/> Yes <input type="checkbox"/> No
10. Has there been any major repair or alteration performed to the spar cap? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, specify (Description and hours TIS):
<i>Inspection for AD 2010-17-18 R1</i>	
11. Date of AD inspection: Inspection Results:	11a. Cracks found: <input type="checkbox"/> Left Hand <input type="checkbox"/> Right Hand
11b. Crack Length: _____ Location: _____	11c. Does drilling hole to next larger size remove all traces of the crack(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No
12d. Corrective Action Taken:	

Send report (only if you find any cracks as a result of the inspection for AD 2010-17-18 R1) to: Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370

Figure 1

Paperwork Reduction Act Burden Statement

(m) 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.

Alternative Methods of Compliance (AMOCs)

(n)(1) The Manager, Fort Worth Airplane Certification Office, 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 2010-17-18 are approved as AMOCs for this AD.

Related Information

(o) For more information about this AD, contact Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370; e-mail: andrew.mcanaul@faa.gov.

Material Incorporated by Reference

(p)(1) You must use the service information contained in table 6 of this AD to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register previously approved the incorporation by reference of the service information contained in table 6 of this AD on the date specified in the column "Incorporation by Reference Approval Date" of Table 6.

Table 6 – Material incorporated by reference

Document	Revision	Date	Incorporation by reference approval date
(i) Snow Engineering Co. Service Letter #80GG.	Not Applicable	December 21, 2005	September 9, 2010 (75 FR 52255, August 25, 2010).
(ii) Snow Engineering Co. Service Letter #284	Not Applicable	October 4, 2009	September 9, 2010 (75 FR 52255, August 25, 2010).
(iii) Snow Engineering Co. Service Letter #281	Not Applicable	August 1, 2009	September 9, 2010 (75 FR 52255, August 25, 2010).

(iv) Snow Engineering Co. Service Letter #245	Not Applicable	April 25, 2005	September 9, 2010 (75 FR 52255, August 25, 2010).
(v) Snow Engineering Co. Service Letter #240	Not Applicable	September 30, 2004	April 21, 2006 (71 FR 19994, April 19, 2006).
(vi) Snow Engineering Co. Process Specification #197:			April 21, 2006 (71 FR 19994, April 19, 2006).
page 1	Not Applicable	June 4, 2002	April 21, 2006 (71 FR 19994, April 19, 2006).
pages 2 through 4	Not Applicable	February 23, 2001	April 21, 2006 (71 FR 19994, April 19, 2006).
page 5	Not Applicable	May 3, 2002	April 21, 2006 (71 FR 19994, April 19, 2006).
(vii) Snow Engineering Co. Drawing Number 20995:			September 9, 2010 (75 FR 52255, August 25, 2010).
Sheet 2	Rev. D	November 25, 2005	September 9, 2010 (75 FR 52255, August 25, 2010).
Sheet 3	Not Applicable	November 25, 2005	September 9, 2010 (75 FR 52255, August 25, 2010).
(viii) Snow Engineering Co. Drawing Number 20975, Sheet 4.	Rev. A	January 7, 2009	September 9, 2010 (75 FR 52255, August 25, 2010).

(2) For service information identified in this AD, contact Air Tractor, Inc., P.O. Box 485, Olney, Texas 76374; telephone: (940) 564-5616; fax: (940) 564-5612; E-mail: airmail@airtractor.com; Internet: www.airtractor.com.

(3) You may review copies of the service information 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.

(4) 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 December 16, 2010.

William J. Timberlake,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.



CORRECTION: [*Federal Register: December 22, 2010 (Volume 75, Number 245)*]; Page 80293-80294; www.access.gpo.gov/su_docs/aces/aces140.html]

2010-22-08 Eurocopter France: Amendment 39-16487; Docket No. FAA-2010-0611; Directorate Identifier 2009-SW-18-AD.

Applicability: Model AS 350 B, BA, B1, B2, B3, and D, and Model AS355 E, F, F1, F2, and N helicopters, with a main rotor or tail rotor servo-control identified in Table 1, installed, certificated in any category.

Table 1

Component	Part Number (P/N)	Serial Number (S/N)
Main rotor servo-control	P/N SC5083	S/N 270M, 272M, 409M, 423M, 452M, or 1573
	P/N SC5083-1	S/N 2902 through 2921, inclusive
	P/N SC5084	S/N 30, 84, 104, 186, 438, 575, or 695
	P/N SC5084-1	S/N 1462 through 1481, inclusive
Tail rotor servo-control	P/N SC5072	S/N 222M, 306M, or 309

Compliance: Required, as indicated.

To prevent the distributor slide valve jamming in its sleeve, leading to reduced controllability of the rotors and subsequent loss of control of the helicopter, accomplish the following:

(a) Within the next 50 hours time-in-service (TIS), or when a "hard point" is detected in the flight controls, whichever occurs earlier, replace each installed servo control that has a serial number listed in Table 1 of this AD, with an airworthy servo control.

Note 1: Eurocopter EASB No. 01.00.58 and No. 01.00.53, both Revision 1, and dated April 19, 2007, which are not incorporated by reference, contain additional information about the subject 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, Rotorcraft Directorate, FAA, ATTN: J. R. Holton, Aviation Safety Engineer, Regulations and Policy Group, ASW-111, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-4964, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) The Joint Aircraft System/Component (JASC) Code is 6730: Rotorcraft Servo System.

(d) This amendment becomes effective on November 26, 2010.

2010-22-08 2

Note 2: The subject of this AD is addressed in European Aviation Safety Agency (France) Emergency AD No. 2007-0141-E, dated May 21, 2007.

Issued in Fort Worth, Texas, on October 12, 2010.

Kim Smith,
Manager, Rotorcraft Directorate,
Aircraft Certification Service.



2010-26-04 Piper Aircraft, Inc: Amendment 39-16543; Docket No. FAA-2010-1006; Directorate Identifier 2009-CE-057-AD.

Effective Date

(a) This AD is effective February 1, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Model PA-28-161 airplanes, all serial numbers, that are:

- (1) Equipped with Thielert Aircraft Engine GmbH (TAE) Engine Model TAE-125-01 installed per Supplemental Type Certificate (STC) No. SA03303AT; and
- (2) Certificated in any category.

Subject

(d) Air Transport Association of America (ATA) Code 72: Engine.

Unsafe Condition

(e) This AD results from an incident where an airplane experienced an in-flight engine shutdown caused by a momentary loss of electrical power to the FADEC. We are issuing this AD to prevent interruption of electrical power to the FADEC, which could result in an uncommanded engine shutdown. This failure could lead to a loss of engine power.

Compliance

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

Actions	Compliance	Procedures
(1) Modify the engine electrical system by installing a backup battery system and associated wiring and circuitry.	Within the next 100 hours time-in-service after February 1, 2011 (the effective date of this AD) or within 30 days after February 1, 2011 (the effective date of this AD), whichever occurs first.	Follow Thielert Aircraft Engines GmbH Service Bulletin TM TAE 651-0007, Revision 7, dated July 30, 2010.

(2) Revise the airworthiness limitations section to require repetitive replacement of the FADEC backup battery every 12 calendar months. Thereafter, except as provided in paragraph (g) of this AD, no alternative replacement times may be approved for this part.	Before further flight after doing the modification required in paragraph (f)(1) of this AD.	Incorporate Chapter 40-AMM-04-01 “Airworthiness Limitations, Revision 1”, dated January 25, 2010, of Thielert Aircraft Engines GmbH Supplement Airplane Maintenance Manual Piper PA28-161 TAE 125-01, Doc. No.: AMM-40-01 (US-Version) Version: 1/1, into TAE Airplane Maintenance Manual Supplement, Piper PA28/TAE 125-01, AMM-40-01 (US-Version), Rev. Issue 1, dated February 3, 2006.
(3) Incorporate Thielert Aircraft Engines GmbH Supplement Pilot’s Operating Handbook and FAA Approved Airplane Flight Manual, TAE-No.:40-0310-40042, issue 2, revision 0, dated June 1, 2010, into the pilot’s operating handbook.	Before further flight after doing the modification required in paragraph (f)(1) of this AD.	Not applicable.

Alternative Methods of Compliance (AMOCs)

(g)(1) 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. 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.

Related Information

(h) For more information about this AD, contact Don O. Young, Aerospace Engineer, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, Georgia 30337; telephone: (404) 474-5585; fax: (404) 474-5606; e-mail: don.o.young@faa.gov.

Material Incorporated by Reference

(i) You must use the service information contained in table 1 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 1 – All material incorporated by reference

Document	Revision	Date
Thielert Aircraft Engines GmbH Service Bulletin TM TAE 651-0007	7	July 30, 2010
Chapter 40-AMM-04-01 “Airworthiness Limitations, Revision 1”, of Thielert Aircraft Engines GmbH Supplement Airplane Maintenance Manual Piper PA28-161 TAE 125-01, Doc. No.: AMM-40-01 (US-Version) Version: 1/1	1	January 25, 2010
Thielert Aircraft Engines GmbH Supplement Pilot’s Operating Handbook and FAA Approved Airplane Flight Manual, TAE-No.:40-0310-40042, issue 2	0	June 1, 2010

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

(2) For service information identified in this AD, contact Thielert Aircraft Engines Service GmbH, Platanenstraße 14, 09350 Lichtenstein, Deutschland; telephone: +49 (37204) 696-0; fax: +49 (37204) 696-1910; Internet: <http://www.thielert.com/>.

(3) You may review copies of the service information 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.

(4) 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 December 13, 2010.
William J. Timberlake,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.



2010-26-09 Sikorsky Aircraft Corporation: Amendment 39-16548; Docket No. FAA-2010-1250; Directorate Identifier 2010-SW-075-AD. Supersedes EAD 2010-11-52; Directorate Identifier 2010-SW-059-AD.

Applicability: Model S-76A, B, and C helicopters, with LITEF LCR-100, Attitude Heading and Reference System (AHRS) Unit, part number (P/N) 145130-7100, installed, certificated in any category.

Compliance: Within 5 days, unless accomplished previously, and any time thereafter when installing a LITEF LCR-100, AHRS Unit, P/N 145130-7100.

To implement operating limitations based on an anomaly in the AHRS related to the 26-volt AC inverter that could result in a decoupling of both autopilots and to prevent loss of the helicopter during instrument meteorological conditions (IMC) and while operating under instrument flight rules (IFR) and night flight, do the following:

(a) By referencing the nameplate of the No. 1 and No. 2 AHRS unit, determine whether the modification (Mod) status is at "18." If the Mod status is "18" for either AHRS unit:

(1) Install instrument panel placards as shown in Figure 2 in the areas depicted in Figure 3 of Sikorsky Alert Service Bulletin No. 76-34-11, dated May 17, 2010 (ASB), and by following the Accomplishment Instructions, paragraph 3.A.(6)(c) through (d) of the ASB.

(2) Revise the "Minimum Flight Crew" section of the Operating Limitations section of the Rotorcraft Flight Manual (RFM) as follows: "For helicopters with an LCR-100 Mod Status '18' AHRS installed, two pilots are required for IFR and night flights."

(3) Revise the "Airspeed Limits" section of the Operating Limitations section of the RFM as follows: "For helicopters with an LCR-100 Mod Status '18' AHRS installed, airspeed is limited to 120 knots indicated airspeed (KIAS) when both autopilots are uncoupled and operating at night or in IMC."

(4) When present, remove and discard the following Active Temporary Revisions from the Operating Limitations section of the RFM for each affected helicopter:

Table 1

Model	RFM Document No.	Active Temporary Rev. No.
S-76A	SA-4047-76-1	T-Revision 3
S-76B	SA 4047-76B-1	T-Revision 3
S-76C (TurboMeca Arriel 1S1 engines installed)	SA 4047-76C-1	T-Revision 3
S-76C (TurboMeca Arriel 2S1 engines installed)	SA 4047-76C-10	T-Revision 4
S-76C (TurboMeca Arriel 2S1 engines installed and s/n 760511 and subsequent)	SA 4047-76C-14	T-Revision 4

S-76C (TurboMeca Arriel 2S2 engines installed)	SA 4047-76C-15	T-Revision 1
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(5) Revise the Operating Limitations section of the RFM by inserting a copy of this AD into the appropriate section of the RFM.

(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, Boston Aircraft Certification Office, FAA, Attn: Tony Pigott, Aviation Safety Engineer, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7158, fax (781) 238-7170.

(c) The Joint Aircraft System/Component (JASC) Code is 3420: Navigation.

(d) Installing the placards shall be done by following the specified portions of Sikorsky Alert Service Bulletin No. 76-34-11, dated May 17, 2010. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, CT, telephone (203) 383-4866, e-mail address tsslibrary@sikorsky.com, or at <http://www.sikorsky.com>. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas, 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/code_of_federal_regulations/ibr_locations.html.

(e) This amendment becomes effective on January 12, 2011.

Issued in Fort Worth, Texas, on December 13, 2010.

Lance T. Gant,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.



2010-26-11 Kaman Aerospace Corporation: Amendment 39-16550; Docket No. FAA-2010-1253; Directorate Identifier 2010-SW-084-AD.

Effective Date

(a) This AD is effective on January 5, 2011.

Other Affected ADs

(b) None.

Applicability

(c) This AD applies to Model K-1200 helicopters.

Unsafe Condition

(d) This AD was prompted by an accident and the subsequent discovery of cracks in the main rotor blade (blade) spars. We are issuing this AD to prevent blade failure and subsequent loss of control of the helicopter.

Compliance

(e) Before further flight, unless already done:

(1) Revise the Limitations section of the Instructions for Continued Airworthiness by establishing a life limit of 8,000 hours time-in-service (TIS) for each blade set. Remove each blade set with 8,000 or more hours TIS.

(2) Replace each specified serial-numbered blade set with an airworthy blade set in accordance with the following table:

Blade-Set Serial Number	Replace within
101, 403, 408, 409, 411, and 415	400 hours TIS
417 and 419	700 hours TIS
405	1000 hours TIS

Subject

(f) Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code: 6210 Main Rotor Blades.

Alternative Methods of Compliance (AMOCs)

(g) The Manager, Boston Aircraft Certification Office, 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 "Additional Information" section of this AD.

Note: Before using any approved AMOC, we request that you notify your principal inspector or if you have no principal inspector, your local Flight Standards District Office.

Additional Information

(h) For more information about this AD, contact Nicholas Faust, Aerospace Engineer, Boston Aircraft Certification Office, FAA, 12 New England Executive Park; telephone: 781-283-7763; fax: 781-238-7170; e-mail: nicholas.faust@faa.gov.

Issued in Fort Worth, Texas, on December 14, 2010.
Bruce Cain,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.



FAA
Aviation Safety

EMERGENCY AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/

DATE: December 20, 2010

AD #: 2011-01-52

Background

This emergency AD is prompted by a locknut working loose on the tailboom aft cluster fitting strut. Further investigation revealed that the locknut installed on the expandable bolt did not have the proper threads. This condition, if not corrected, could result in the strut and driveshaft separating from the helicopter and subsequent loss of control of the helicopter.

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 helicopters of these same type designs.

AD Requirements

This AD requires, before further flight, unless accomplished previously, removing the locknut, part number MS21043-3. Reinstalling the locknut while determining the locknut drag torque is then required. If the drag torque is a minimum of 2 in-lbs, retorquing the locknut to 23 in-lbs is required. If the drag torque is not at least 2 in-lbs, replacing the locknut with an airworthy locknut is required.

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.

Pursuant to this Authority delegated to me by the Administrator, we are hereby issuing this Emergency Airworthiness Directive (AD).

2011-01-52 SCHWEIZER AIRCRAFT CORPORATION: Directorate Identifier 2010-SW-111-AD.

Effective Date

(a) This Emergency AD is effective upon receipt.

Affected Ads

(b) None.

Applicability

(c) This AD applies to Model 269A, A-1, B, C, C-1, and Th-55 series helicopters, that have an Aft Cluster Fitting Modification Kit, part number SA-269K-106, installed; Model 269C helicopters, serial numbers 1846 and larger; and Model 269C-1 helicopters, serial numbers 0156 and larger, certificated in any category.

Unsafe Condition

(d) This AD is prompted by a locknut working loose on the tailboom aft cluster fitting strut. Further investigation revealed that the locknut installed on the expandable bolt did not have the proper threads. This condition, if not corrected, could result in the strut and driveshaft separating from the helicopter and subsequent loss of control of the helicopter.

Compliance

(e) Required before further flight, unless accomplished previously, remove the locknut, part number MS21043-3. Reinstall the locknut while determining the locknut drag torque. If the drag torque is a minimum of 2 in-lbs, retorque the locknut to 23 in-lbs. If the drag torque is not at least 2 in-lbs, replace the locknut with an airworthy locknut.

Special Flight Permit

(f) Special flight permits will not be issued.

Alternative Methods of Compliance (AMOCs)

(g) The Manager, New York Aircraft Certification Office (NYACO), 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 NYACO, send it to the attention of the Continued Operational Safety program manager.

Note: Before using any approved AMOC, we request that you notify your appropriate principal inspector, or lacking a principal inspector, your local Flight Standards District Office.

Other Information

(h) For further information about this AD, contact: Stephen Kowalski, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, 1600 Stewart Ave., suite 410, Westbury, New York 11590, telephone (516) 228-7327, fax (516) 794-5531.

Subject

(i) The Joint Aircraft System Component (JASC) Code is 5302: Rotorcraft Tailboom.

Issued in Fort Worth, Texas, on December 20, 2010.

M. Monica Merritt,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.



DATE: December 20, 2010

AD #: 2011-01-53

Emergency airworthiness directive (AD) 2011-01-53 supersedes AD 2011-01-51, issued December 18, 2010, which was sent previously to all known U.S. owners/operators of PIAGGIO AERO INDUSTRIES S.p.A (Piaggio) Model PIAGGIO P-180 airplanes.

Background

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, is considered the State of Design for the Piaggio Model P-180 airplanes. A reported occurrence of the flight controls jamming on Piaggio Model P-180 airplane prompted EASA to issue AD No. 2007-0025, dated February 1, 2007, and the FAA followed with AD 2007-24-15, Amendment 39-15321 (72 FR 67843, December 3, 2007). That AD required correcting the fuselage drain system and ensuring that the drain lines of the environmental unit condenser were not clogged.

Since AD 2007-24-15 became effective, the FAA received information on two additional incidences where Piaggio Model P-180 airplanes had water accumulation in the belly of the fuselage that froze and caused the flight controls to jam. We issued emergency AD 2011-01-51 on December 18, 2010, to require an immediate functional test of the fuselage drain holes and a report of the results to the FAA. It also allows, with noted exceptions, for the return/position of the airplane to a home base, hangar, maintenance facility, etc.

Since AD 2011-01-51 was issued, we were notified that we inadvertently omitted the figure 2 in Appendix 1. This emergency AD retains the actions from AD 2011-01-51, adds figure 2 to Appendix 1, and corrects other minor typographical errors.

The FAA is working with EASA and Piaggio on this unsafe condition. Due to the nature of the immediate safety of flight situation, the FAA is working this AD concurrently with EASA instead of waiting for EASA, as the State of Design, to issue an AD. Thus, this action is considered unilateral AD action.

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.

AD Requirements

This AD requires an immediate functional test of the fuselage drain holes and a report of the results to the FAA. It also allows for the return/position of the airplane to a home base, hangar, maintenance facility, etc.

Interim Action

We consider this AD interim action.

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.

2011-01-53 Piaggio Aero Industries S.p.A (Piaggio): Directorate Identifier 2010-CE-070-AD.

Effective Date

(a) This emergency AD is effective upon receipt.

Affected Ads

(b) This AD supersedes emergency AD 2011-01-51, issued December 18, 2010, which was sent to owners/operators of Piaggio Model P-180 airplanes. AD 2007-24-15, Amendment 39-15321 (72 FR 67843, December 3, 2007) is related to this subject and remains in effect.

Applicability

(c) This AD applies to Piaggio Model P-180 airplanes, all serial numbers, certified in any category.

Subject

(d) Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

Unsafe Condition

(e) This emergency AD was prompted by three incidents of the flight controls jamming on Piaggio Model P-180 airplanes. Water or fluid accumulating and freezing when the aircraft reaches and holds altitudes where the temperature is below the freezing point may cause the flight controls to jam with consequent loss of control.

Compliance

(f) Comply with this AD within the compliance times specified.

Inspection and Corrective Actions

(g) Unless already done in compliance with emergency AD 2011-01-51, before further flight, do the following actions using the instructions in Appendix 1 of this AD.

- (1) Remove the central floor panels in the cabin and inspect the fuselage belly; and
- (2) Functional test the fuselage drain holes.

Reporting Requirement

(h) Unless already done, within 24 hours after complying with the actions required in paragraph (g) of this AD, fill out the reporting form provided in Appendix 2 of this AD and send to the FAA at one of the addresses (facsimile, email) referenced in the Related Information section, paragraph (l) of this AD.

(i) For the 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.

Provision to Return to Home Base

(j) For the actions of paragraph (g) of this AD, you may return/position the airplane to a home base, hangar, maintenance facility, etc., provided the following are adhered to:

- (1) A water drain hole test is done immediately before the repositioning flight and the airplane passes this test. The instructions for this test are included in Appendix 3 of this AD. If the airplane does not pass this test, then the actions of paragraph (g) of this AD must be done without a repositioning flight, unless a special flight permit is granted;
- (2) This repositioning flight does not exceed a total of 5 hours time-in-service; and
- (3) Use of autopilot is prohibited.

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Standards Office, Small Airplane Directorate, 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 Standards Office, send it to the attention of one of the people 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.

Related Information

(1) For further information about this AD, contact one of the following:

(1) Sarjapur Nagarajan, Aerospace Engineer, Small Airplane Directorate, FAA, 901 Locust, Kansas City, MO 64106; phone: (816) 329-4145; fax: (816) 329-4090; e-mail: sarjapur.nagarajan@faa.gov.

(2) Peter Rouse, Aerospace Engineer, Small Airplane Directorate, FAA, 901 Locust, Kansas City, MO 64106; phone: (816) 329-4135; fax: (816) 329-4090; e-mail: peter.rouse@faa.gov.

(3) Mike Kiesov, Aerospace Engineer, Small Airplane Directorate, FAA, 901 Locust, Kansas City, MO 64106; phone: (816) 329-4144; fax: (816) 329-4090; e-mail: mike.kiesov@faa.gov.

Appendix 1 to Emergency AD 2011-01-53

Functional Test of the Fuselage Drain Holes

1. Remove the electrical power (Ref. AMM Chapter 24-00-00).
2. Remove the carpet from the aisle in the passenger compartment: The carpet is installed on the aircraft with Velcro; remove it by hand.
3. Remove the aisle floor panels 231 ALF, 231 FLF, 231 MLF, and 231 QLF (Ref. AMM Chapter 06-00-00).
4. Inspect the fuselage belly for presence of fluid or ice. Inspect the lateral bays through the lightening holes.
 - a. If fluid is found in the belly, drain it and collect. Take note of the amount of fluid removed from the belly, and in which bay the fluid was trapped.
 - b. If ice is found in the belly, thaw it, then drain and collect. Take note of the amount of fluid removed from the belly, and in which bay the ice was trapped.

NOTE: BEFORE THAWING THE ICE, PUT A SUITABLE CONTAINER BELOW THE EXTERNAL DRAIN HOLES TO COLLECT THE FLUID.

 - c. Evaluate the amount of fluid collected:
 - i. If water is found only in the bottom of the belly (i.e., undrainable within the keel beams), go to step 6. Step 5 does not need to be accomplished at this time.
 - ii. If water is found in excess of item above (4-c-i), do step 5.
5. Add 6.3 mm draining holes as per attached figure 1 (additional drain holes on keel beam webs) connecting the lateral bays to the center ones or, as alternative, apply Piaggio Aero Industries Service Bulletin 80-0291. Then proceed with step 6.
6. Inspect the fuselage belly for presence of dirt/debris. Take note of dirt/debris found and of its location (which bay).
7. Inspect the fuselage belly for signs of previous fluid pooling (waterlines or similar). Take note of any sign found.
8. Inspect the six (6) flapper valves (two near FR 20, FR 32, and FR 36) to verify if they are clogged, stuck to the fuselage skin, or laying against the skin for their entire length.
 - a. Clean any clogged flapper valve. Take note of any clogged flapper valve and its position.
 - b. Carefully free any stuck flapper valve. Take note of any stuck flapper valve and its position.
 - c. If – after cleaning and repositioning – the rubber flap is still laying against the skin for its entire length, cut off the rubber flap. Replace it at the next A check.
9. Inspect the six (6) external drain holes:
 - a. Verify if they are clogged. If any drain hole is clogged, clean it.
 - b. Check for proper dimension (3.2 mm). Rework to nominal dimension any external drain hole that is found undersized. Protect the reworked drain hole by means of Alodyne. Take note of any drain hole found clogged and/or reworked, and its position.
10. Clean the fuselage belly, removing debris. A vacuum cleaner may be used.
11. If possible, identify clues of potential source of fluid, such as wet carpets, blue lavatory water, etc.

Appendix 1 to Emergency AD 2011-01-53 (Continued)
Functional Test of the Fuselage Drain Holes

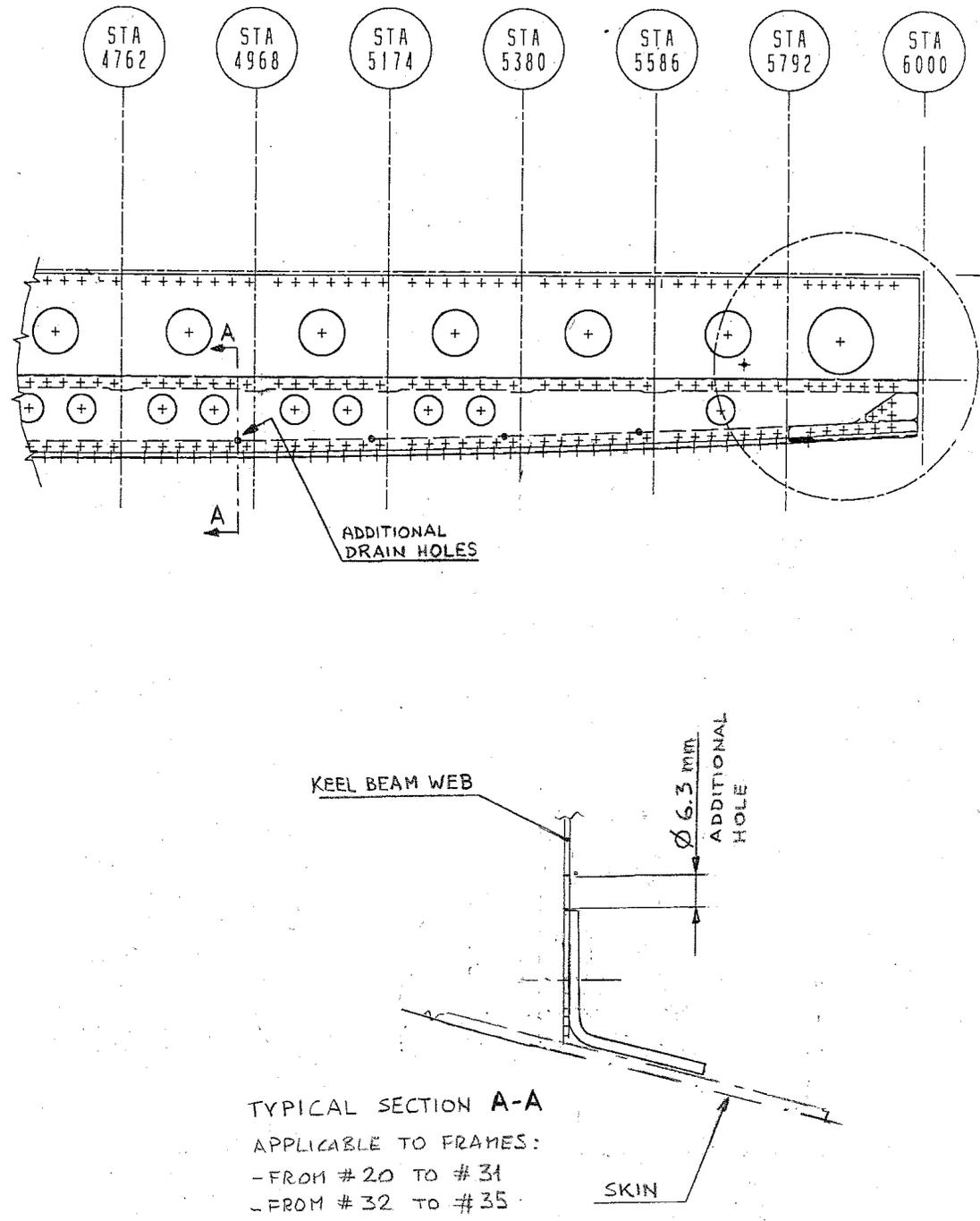


Figure 1. Additional drain holes on keel beam webs

Appendix 1 to Emergency AD 2011-01-53 (Continued)
Functional Test of the Fuselage Drain Holes

12. Test the valves and drain holes as described:

a. Place an adequate amount of water in each bay between FR 19 and FR 36 (See figure 2) to verify that the water is conveyed in the central bays and that it is drained. Use at least ½ gallon (approximately 2 liters).

NOTE: TAKE CARE NOT TO COME IN CONTACT WITH ELECTRICAL CONNECTORS WHILE POURING WATER.

b. A steady stream of water should be observed coming from the external drain holes. If not, the flapper valve does not drain properly. Cut off the rubber flap and replace the flapper valve at next A check. Take note of any cut rubber flap and its position.

13. Dry the fuselage belly.

14. Install the aisle floor panels 231ALF, 231 FLF, 231 MLF, and 231 QLF (Ref. AMM Chapter 06-00-00).

15. Re-install the carpet:

a. Make sure that the floor is clean and free of objects.

b. Make sure that the Velcro is well fixed and cleaned.

c. Put the carpet in position on the floor and fix it with the Velcro.

16. Collect information on total time flown in the last 6 months. Specify if the aircraft was exposed to heavy rain conditions while parked or during flights.

17. Make an appropriate entry in the airplane logbook to show compliance with this emergency AD.

Appendix 1 to Emergency AD 2011-01-53 (Continued) Functional Test of the Fuselage Drain Holes

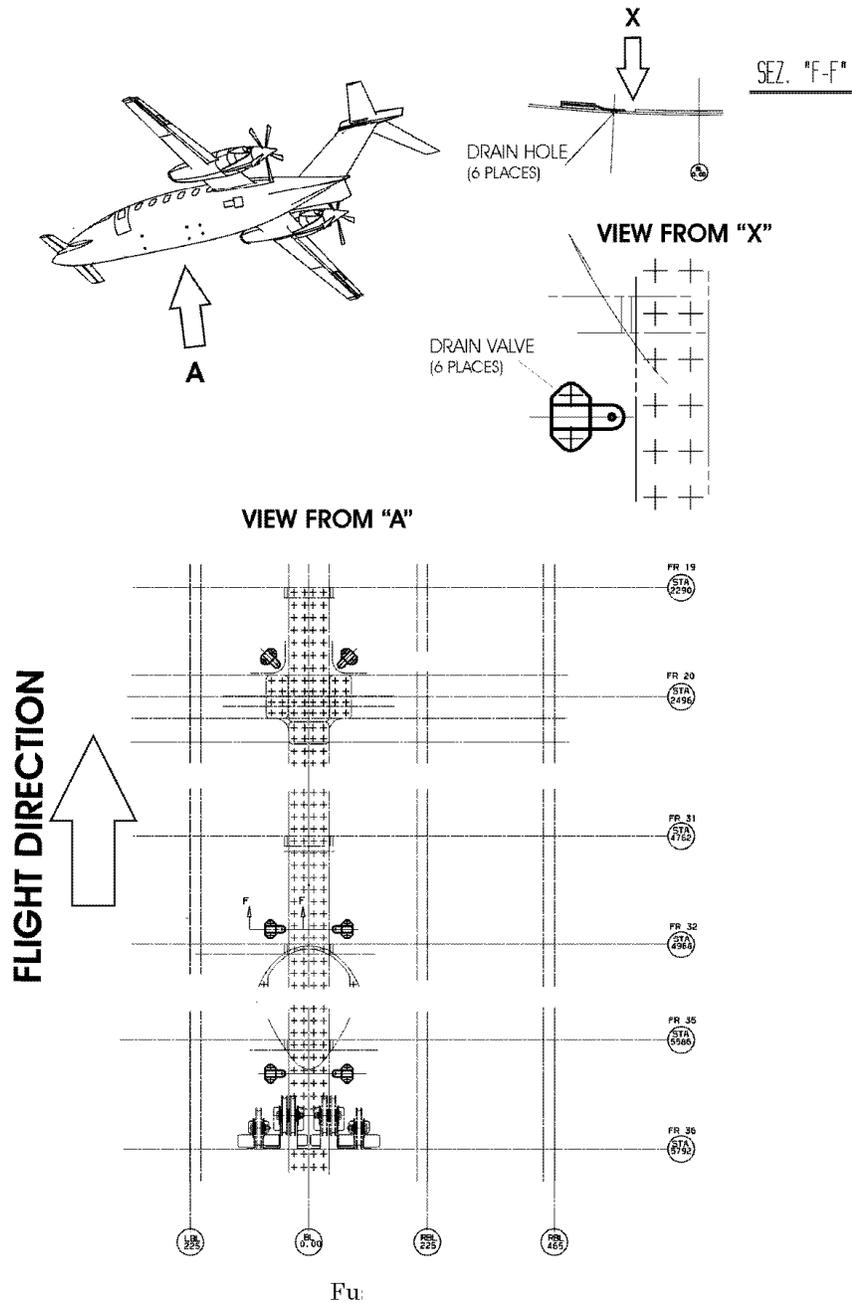


Figure 2. Fuselage Drain Holes

**Appendix 2 to Emergency AD 2011-01-53
Reporting Form**

A/C S/N:	A/C Flight Hours:	A/C Registration:
Step 4a – water collected in the belly [YES] [NO]	If YES, specify amount and location:	
Step 4b – ice collected in the belly [YES] [NO]	If YES, specify amount and location:	
Step 5 – added drain holes [YES] [NO]	If YES, specify work performed:	
Step 6 – debris / dirt in the belly [YES] [NO]	If YES, specify amount and location:	
Step 7 – signs of previous fluid pooling [YES] [NO]	If YES, specify amount and location:	
Step 8 – flapper valves inspection	Specify, if any, which flapper valve was found clogged or stuck and, if any, which rubber flap was cut off.	
Step 9 – drain holes inspection	Specify, if any, which drain hole was found clogged. Specify, if any, which drain hole was found undersized.	
Step 11 – clues of potential source of fluid.		
Step 12 – drain test	Specify, if any, which flapper valve does not have a steady stream of water.	
Step 16 – Total time flown in the last 6 months. Specify if the aircraft was exposed to heavy rain conditions while parked or during flights.		

**Appendix 2 to Emergency AD 2011-01-53 (Continued)
Reporting Form**

Date:	Accomplished by:
Signature	

Send report to one of the following:

- Sarjapur Nagarajan, Aerospace Engineer, Small Airplane Directorate, FAA, 901 Locust, Kansas City, MO 64106; phone: (816) 329-4145; fax: (816) 329-4090; e-mail: sarjapur.nagarajan@faa.gov.
- Peter Rouse, Aerospace Engineer, Small Airplane Directorate, FAA, 901 Locust, Kansas City, MO 64106; phone: (816) 329-4135; fax: (816) 329-4090; e-mail: peter.rouse@faa.gov.
- Mike Kiesov, Aerospace Engineer, Small Airplane Directorate, FAA, 901 Locust, Kansas City, MO 64106; phone: (816) 329-4144; fax: (816) 329-4090; e-mail: mike.kiesov@faa.gov.

Appendix 3
Water Drain Hole Test

1. Put a container under the fuselage external drain holes.
2. Insert a plastic or wooden stick (or similar tool), minimum length 3 inches (7.5 cm), diameter 0.1 inch (2.5 mm) in each of the 6 fuselage external drain holes.
3. Verify the stick may enter freely in the drain hole.
4. If the stick does not enter freely, repositioning flight is not allowed.
5. If more than 1 cup (250 ml) of water is drained from 2 drain holes at each station while inserting the stick, repositioning flight is not allowed.

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Issued in Kansas City, Missouri, on December 20, 2010.
Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.