FAA Airworthiness Concern Sheet

Date: December 30, 2010	
Full Name Gregory K. (Keith) Noles Title Engineer Organization Atlanta Aircraft Certification Department Airframe, ACE-117A Address 1701 Columbia Ave. City State ZIP College Park, GA 30337 Telephone Number 404-474-5551 E-mail gregory.noles@faa.gov	**Make, Model, Series, Serial No.:** Aircraft Parts and Development Corporation, FS2000/FS2001/FS2002/FS2003 Corp., Lavia Argentina S.A. (Laviasa), Piper, Maule and Taylorcraft aircraft with sealed wing lift struts (see below for more detail) **Reason for Airworthiness Concern:** Unsealing of Sealed Wing Lift Struts, especially by venting during powder coating process

FAA Description of Airworthiness Concern

The FAA has issued the Airworthiness Directives (ADs) in Table 1 requiring actions on the wing lift struts to reduce the potential for fatigue or corrosion leading to in-flight separation of the wing. Each AD requires installation of sealed struts or permanent sealing of vented struts as terminating action for their respective inspection requirements.

Table 1

AD	Type Certificate Holder
73-22-02	Aircraft Parts and Development Corporation
98-15-18	Maule Aerospace Technology Corp.
99-01-05	The New Piper Aircraft, Inc. FS2000/FS2001/FS2002/FS2003 Corp Lavia Argentina S.A. (Laviasa)
99-26-19	The New Piper Aircraft, Inc. (Piper)
2008-04-09	Taylorcraft, Inc. Taylorcraft 2000, LLC

Powder coating processes are used on certain aircraft parts to provide a protective coating. Sealed struts must be vented as part of the powder coat application, effectively violating the intent of the listed ADs to require either repetitive inspections or permanently sealed strut assemblies. The FAA has issued Safety Alert for Operators (SAFO) 10018 discussing the topic.

If undetected, venting of sealed lift struts could eventually lead to corrosion and / or cracking of the lift struts, and result in a potential safety of flight hazard such as wing separation.

The following is a reference-only list of affected aircraft models. See the ADs in Table 1 for further details on applicability.

- *Aircraft Parts and Development Corporation*: A-9 , A-9A, and A-9B
- *FS2000/FS2001/FS2002/FS2003 Corp.*: AE-1, HE-1, J5 series, L-4 series (Army), L-14, PA-12 series, PA-14
- *Lavia Argentina S.A. (Laviasa)*: PA-25 series
- *Maule*: Bee Dee M-4, M-4 series, M-5 series, M-6 series, M-7 series, M-8 series, MT-7 series, MX-7 series, MXT-7 series
- *Piper*: E-2, F-2, J2 series, J3C series, J3F series, J3L series, J4 series, L-18C (Army), L-21 series (Army), NE-1 and NE-2 (Navy), PA-11 series, PA-15, PA-16 series, PA-17, PA-18 series, PA-19 series, PA-20 series, PA-22 series, TG-8, XLNP-1
- *Taylorcraft*: 19, A, BC series, BCS series, BF series, BFS series, BL series, BLS series, F19, F21 series, F22 series, L-2 series (Army)

Request for Information (Proposed Alternate Inspection/Repair Procedures, Cost Impact, etc.):
The FAA is soliciting additional information from Associations and Type Clubs in accordance with the Small Airplane Directorate AD Manual Supplement. We are particularly interested in all powder coating processes or other actions that might be used on lift struts and cause them to be unsealed. We are also especially interested in documentation where the process has actually been used. This and any additional information such as service problems, proposed alternate inspection/repair procedures, cost impact, etc. should be returned in writing to the FAA (address listed above). All comments or replies need to be as detailed as possible and include specific examples to illustrate the comments/concerns.

This Airworthiness Concern Sheet (ACS) is intended as a means for FAA Aviation Safety Engineers to coordinate airworthiness concerns with aircraft owner/operators through associations and type clubs. At this time, the FAA has not made a determination on what type of corrective action (if any) should be taken. The resolution of this airworthiness concern could involve an AD action or an SAIB, or the FAA could determine that no action is needed at this time. The initial Risk Assessment for this concern does not indicate that an Airworthiness Directive would be considered, however, the existing AD could require revision or supersedure to ensure safety and proper compliance. The FAA's final determination will depend in part on the information received in response to this Airworthiness Concern Sheet.

The FAA endorses dissemination of this technical information to all manufacturers and requests association and type club comments.

Attachments:
- ADs in Table 1 available at http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/Frameset?OpenPage
- SAFO 10018 available at http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo/all_safos/media/2010/SAFO10018.pdf
- Risk Assessment
- Contact List

For Further Information Contact:
Aircraft Parts and Development Corporation ***and*** *Taylorcraft*: Andrew McAnaul, Aerospace Engineer, Ft. Worth ACO, FAA San Antonio MIDO-43, 10100 Reunion Pl., San Antonio, TX 78216; phone: (210) 308-3365; fax: (210) 308-3370; email: andrew.mcanaul@faa.gov

Lavia Argentina S.A. (Laviasa): Sarjapur ("Naga") Nagarajan, Project Officer, FAA Central Regional Office, 901 Locust St., Room 301, Kansas City, MO 64106; phone: (816) 329-4145; fax: (816) 329-4090; email: sarjapur.nagarajan@faa.gov

FS2000/FS2001/FS2002/FS2003, ***and*** *Piper*: Gregory K. ("Keith") Noles, Aerospace Engineer, Atlanta ACO, 1701 Columbia Ave., College Park, GA 30337; phone: (404) 474-5551; fax: (404) 474-5606; email: gregory.noles@faa.gov

Maule: Cindy Lorenzen, Aerospace Engineer, Atlanta ACO, 1701 Columbia Ave., College Park, GA 30337; phone: (404) 474-5524; fax: (404) 474-5606; email: cindy.lorenzen@faa.gov

Attachments: *SDR(s)☐ *A/IDS☐ *SL(s)☐ *SAIB☐ *FAASR/*NTSBSR☐ *AD☐ *AMOC☐ *RA☒

Notification: FAA ☒ *AOPA ☒ *EAA ☒ Type Club ☒ *TC Holder ☒ Other: Repair Station groups

Response Requested 01/30/2011: Emergency (10 days) ☐ Alert (30 days) ☒ Information (90 days) ☐

*Service Difficulty Reports (SDRs); Accident/Incident Data System (A/IDS); Service Letter (SL); Special Airworthiness Information Bulletin (SAIB); Federal Aviation Administration (FAA)/National Transportation Safety Board (NTSB) Safety Recommendation (FAASR/NTSBSR); Airworthiness Directive (AD); Alternate Method of Compliance (AMOC); Risk Assessment (RA); Aircraft Owners & Pilots Association (AOPA); Experimental Aircraft Association (EAA); Type Certificate (TC)

Contact List
for
Airworthiness Concern Sheet on Unsealing of Sealed Wing Lift Struts
dated December 30, 2010

I. Type Clubs and Associations

General associations

1. **Aircraft Owners and Pilots Association**
   Ronald Hackman
   Senior Director-Regulatory Affairs
   421 Aviation Way
   Frederick, MD 21701
   (301) 695-2167
   (301) 695-2214
   http://www.aopa.org

2. **Experimental Aircraft Association**
   Sean Elliott
   VP-Regulatory Affairs
   EAA Aviation Center
   PO Box 3086
   Oshkosh, WI 54903-3086
   (920) 426-6522
   (920) 426-4828
   govt@eaa.org
   Web Site: http://www.eaa.org

3. **Aeronautical Repair Station Association**
   Craig Fabian
   VP-Regulatory Affairs
   121 North Henry Street
   Alexandria, VA 22314-2903 USA
   Telephone: 703 739 9543
   Fax: 703 739 9488
   Craig.Fabian@arsa.org

Piper groups (covers Laviasa and FS200x)

4. **Short Wing Piper Club**
   Frank P. Sperandeo, III
   President
   Short Wing Piper Club
   15841 Pear Circle
   Fayetteville, AR 72704-8021
   Phone: (479) 521-2609
   E-mail: miss_pearl@cox.net
   www.shortwing.org

   from EAA/VAA: Eleanor Mills
   2865 S. Ingram Mill, Unit D-202
   Springfield, MO 65804
   417-883-1457
   E-mail: membership@shortwing.org

   Old address:
   Tom Anderson
   5401 Crooked Tree Drive
   Mason, Ohio 45040
   (513) 398-2656
   Tanderson@sprintmail.com
   316.835.3307 (H);

   Old address:
   Michael Crowe
   2568 Old Snapping Shoals Rd.
   McDonough, GA 30252
   (770) 957-4225
   tripacer@bellsouth.net

5. **Short Wing Pipers**
   Steve Pierce
   196 Hwy. 380 East
   Graham, TX 76450
   940-549-6415
   www.shortwingpipers.org

6. **Piper Flyer Association**
   Jennifer Dellenbusch or Trevor Janz
   Waupaca Municipal Airport (PCZ)
   The Blue Hangar
   P.O. Box 381
   Waupaca, WI 54981-0381
   Phone: 920-867-2800
   Fax: 920-867-2805
   cavu@piperflyer.org
   Web Site: http://www.piperflyer.org/

7. **Piper Owner Society**
   Joe Jones
   P.O. Box 5000
   Iola, WI 54945
   866-697-4737
   715.445.5000 or 800.331.0038 Fax
   715.445.4053
   E-Mail: piper@piperowner.org
   Web Site: www.piperowner.org
   or Dan Weiler
   Piper Owner Society
   N7450 Aanstad Rd
   Iola, WI 54945

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8. **Cub Club**
   John Bergeson, Chairman
   Cub Club
   6438 W. Millbrook Rd.
   Remus, MI 49340
   517.561.2393 Fax 517.561.5101

   from EAA/VAA
   Steve Krog
   Cub Club
   1002 Heather Lane
   Hartford, WI 53027-9045
   262-966-7627
   sskrog@cubclub.org
   www.cubclub.org

9. **L-4 Grasshopper Wing**
   Bill Collins, Editor/Publisher
   L-4 Grasshopper Wing
   RR 2, Box 619
   Gould, AR 71643-9714
   870.263.4668

10. **Super Cub Pilots Association**
    Jim Richmond, Founder/Director
    Super Cub Pilots Association
    P.O. Box 9823
    Yakima, WA 98909
    p. 509.248.9491
    f. 509.248.1421
    E-Mail: answers@cubcrafters.com
    Web Site: www.cubcrafters.com
    or
    Cub Crafters, Inc.
    1918 South 16th Avenue
    Yakima, WA 98903

11. **Super Cub**
    Supercub.org
    Straight & Level Productions, Inc
    P.O. Box 150
    Waldron, MO 64092
    816-200-2827
    www.supercub.org

Taylorcraft groups

12. **Taylorcraft Owner's Club**
    Steve Krog
    Taylorcraft Owner's Club
    1002 Heather Lane
    Hartford, WI 53027
    920-272-7627
    sskrog@gmail.com
    www.taylorcraft.org
    or
    Bruce Bixler II, President
    Taylorcraft Owner's Club
    12809 Greenbower, N.E.
    Alliance, OH 44601
    330.823.9748

13. **Virginia/Carolinas Taylorcraft Owner's Club**
    Tom Pittman, President
    Virginia/Carolinas Taylorcraft Owner's Club
    Rt. 6, Box 189
    Appomatox, VA 24522
    804.352.5128

Maule groups

14. **Maule Aircraft Association**
    Dave Neumeister, Publisher
    Maule Aircraft Association
    5630 South Washington Road
    Lansing, MI 48911-4999
    (800) 594-4634
    (800) 596-8341

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II. *Type Certificate Holders*

1. **Aircraft Parts and Development Corporation**
   P. O. Box 1849
   Laredo, Texas 78041

2. **FS 2000 Corp.**
   709 Dupont Street, P.O. Box 1678
   Bellingham, WA 98227-1678
   or
   William Robert Mitchell or John Leslie Mitchell
   145 Tyee Dr 1198
   Point Roberts, WA 98281

3. **FS 2001 Corp.**
   709 Dupont Street, P.O. Box 1678
   Bellingham, WA 98227-1678

4. **FS 2002 Corp.**
   709 Dupont Street, P.O. Box 1678
   Bellingham, WA 98227-1678

5. **FS 2003 Corp.**
   709 Dupont Street, P.O. Box 1678
   Bellingham, WA 98227-1678

6. **Lavia Argentina S.A. (Laviasa)**
   Avenida Colón 412, P.B. Dpto B
   C.P. 5500, Mendoza
   República Argentina

7. **Maule Aerospace Technology Corp**
   2099 Georgia Highway 133 South
   Moultrie, Georgia 31768

8. **The New Piper Aircraft, Inc.**
   Jack W. Mill, ODA Administrator
   The New Piper Aircraft, Inc.
   2926 Piper Drive
   Vero Beach, FL 32960

9. **Taylorcraft, Inc.**
   Connellsville Airport
   Connellsville, Pennsylvania 15425

10. **Taylorcraft 2000, LLC**
    2618 Park Street
    Lake Worth, FL 33460

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III. *Miscellaneous Others*

Cindy Lorenzen, Program Manager, ACE-102A
Atlanta Aircraft Certification Office
1701 Columbia Ave.
College Park, GA 30337

Jeff Morfitt, Engineer, ANM-100S
Federal Aviation Administration
Northwest Mountain Regional Office
1601 Lind Avenue, SW
Renton, WA 98057

Andrew McAnaul, Engineer, ASW-150
Federal Aviation Administration
Ft. Worth ACO
FAA San Antonio MIDO-43
10100 Reunion Pl.
San Antonio, TX 78216

Sarjapur Nagarajan, Project Officer, ACE-112
FAA Central Regional Office
901 Locust St., Room 301
Kansas City, MO 64106

Gregory K. Noles, Engineer, ACE-117A
Atlanta Aircraft Certification Office
1701 Columbia Ave.
College Park, GA 30337

David Showers, COS Manager, ACE-113
FAA Central Regional Office
901 Locust St., Room 301
Kansas City, MO 64106