

# PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

**CAA-AD-002/2000**

Datum vydání: 5. ledna 2000

## LETADLOVÉ ZAŘÍZENÍ - ZÁLOŽNÍ PODTLAKOVÝ SYSTÉM - KONTROLA/DOPLNĚNÍ LETOVÉ PŘÍRUČKY (AFM)

**Týká se:** záložních podtlakových systémů SVS III vyrobených firmou PRECISE FLIGHT, INC. Instalovaných na letadlech uvedených v FAA AD 99-24-10 (příloha tohoto PZZ) v části "Applicability" a nejen na těch.

**Důvod vydání:** na podkladě hlášených poruch člunkového ventilu a vadné funkce záložního podtlakového systému se požadují činnosti, které mají zjistit a napravit problémy u uvedeného záložního podtlakového systému před vznikem poruchy nebo vadné funkce a poskytnout pilotovi provozní postupy týkající se používání a omezení tohoto systému.

**Datum účinnosti:** 24. února 2000.

**Provést v termínech:** Jak je popsáno v FAA AD 99-24-10.

**Postup provedení prací:** Dle pokynů v FAA AD 99-24-10.

*Poznámky: Provedení tohoto PZZ musí být zapsáno do letadlové knihy. Případné dotazy týkající se tohoto PZZ adresujte na ÚCL technický inspektorát - Ing. K. Kračmer. Pokud to vyžaduje povaha tohoto PZZ musí být zpracováno do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla. Tento PZZ byl vypracován na základě FAA AD 99-24-10.*

**Ing. Pavel MATOUŠEK**  
**Ředitel technického inspektorátu**  
**Úřad pro civilní letectví**

**99-24-10 PRECISE FLIGHT, INC.:** Amendment 39-11434; Docket No. 98-CE-87-AD. Issued November 15, 1999.

Applicability: Model SVS III standby vacuum systems, installed on, but not limited to, the aircraft listed in the following chart. These systems can be installed either in accordance with the applicable supplemental type certificate (STC) or through field approval:

| Affected STC | Make and Model Airplanes  |
|--------------|---|
| SA2160NM     | Raytheon Beech Models 23, A23, A23A, A23-19, 19A, B19, B19A, A23-24, B23, C23, A24, A24R, B24R, C24R, 35, A35, B35, C35, D35, E35, F35, G35, 35R, H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, 36, A36, |

|          |   |
|----------|---|
|          | A36TC, B36TC, 4S(YT-34), A45(T-34A, B-45), D45(T-34B), and 77 Series  |
| SA2161NM | Raytheon Beech Model V35B   |
| SA2162NM | Cessna Models 120, 140, 140A, 150, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, A150L, 150M, 152, A152, A150K, A150M, 170, 170A, 170B, 172, 172A, 172B, 172C, 172D, 172E, 172F (USAFT-41A), 172G, 172H(USAFT-41A), 172I, 172K, 172L, 172M, 172N, 172P, 172Q, 175, 175A, 175B, 175C, P172D, R172E (USAFT-41B, USAFT41-3, and USAFT-41D), R172F (USAFT-41D and USAFT-41C), R172G (USAFT-41D), R172H (USAFT-41D), R172J, R172K, 172RG, 177, 177A, 177B, 177RG, 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K, 182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 182RG, T182, T182RG, T182R, 185, 185A, 185B, 185C, 185D, 185E, A185E, A185F, 188, 188A, 188B, A188, A188B, T188C, 206, P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TP206D. TP206E, U206-A, U206-B, U206-C, U206-D, U206-E, U206-F, U206G, TU206-A, TU206-B, TU206-C, TU206-D, TU206-E, TU206-F, TU206-G, 207, 207A, T207, T207A, 210, 210A, 210B, 210C, 210D, 210E, 210F, 210-5 (205), 210-5A (205A), T210F, 210G, T-210G, 210H, T-210H, 210J, 205P, T-210J, 210K, T-210K, T210L, 210L, 210M, T210M, 210N, P210N, T210N, 205T, 210R, P210R, 205U, T210R, 210-5, 210-5A, 305A (USAF 0-1A), 305C (USAF 0-1E), 305D (USAF 0-1F), 305F, 305B (USAF T0-1D), 305E (0-1D or 0-1F), and 321 (Navy 0E-2) |
| SA2163NM | Cessna Model U206G  |
| SA2164NM | Cessna Model 180Q   |
| SA2166NM | Cessna Model 177  |
| SA2167NM | The New Piper Aircraft, Inc. (Piper) Models L-14, PA-12, PA-12S, PA-14, PA-15, PA-16, PA-16S, PA-17, PA-18, PA-18A, PA-18S, PA-18-105 (Special), PA-18S-105(SP), PA-18-125 (Army L-21A), PA-18AS-125, PA-18S-125, PA-18-135, PA-18A-135, PA-18AS-135, PA-18S-135, PA-18-150, PA-18A-150, PA-18AS-150, PA-18S-150, PA-19 (Army L-18C), PA-19S, PA-20, PA-20S, PA-20-115, PA-20S-115, PA-20-135, PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22-160, PA-22S-160, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-25, PA-25-235, PA-25-260, PA-32-260, PA-32RT-300, PA-32RT-301T, PA-32-300, PA-32RT-300T, PA-32-301, PA-32S-300, PA-32R-301, PA-32-301T, PA-32R-300, PA-32R-301T, PA-28-140, PA-28-141, PA-28-  |

|          |   |
|----------|---|
|          | 150, PA-28-151, PA-28-160, PA-28S-160, PA-28-180, PA-28R-180, PA-28S-180, PA-28-235, PA-28S-235, PA-28-181, PA-28-161, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28-236, PA-28RT-201, PA-28RT-201T, PA-28-201T, PA-36-285, PA-36-300, PA-36-375, PA-38-112, and PA-46-310P  |
| SA2168NM | Mooney Models M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20M, and M22  |
| SA2683NM | <p>Aerocar, Inc. Model I</p> <p>Aerodifusion, S.L. Model Jodel D-1190S</p> <p>Aeromere, S.A. Model Falco F.8.L.</p> <p>Aeronautica Macchi S.P.A. Models AL60, AL60-B, AL60-F5, and AL60-C5</p> <p>Aeronautica Macchi &amp; Aerfer Model AM-3</p> <p>Aeronca Inc. Models 15AC and S15AC</p> <p>Aerospatiale Model TB20 Trinidad</p> <p>Arctic Aircraft Co., Inc. Models S-1A, S-1A-65F, S-1A-85F, S-1A-90F, S-1B1(Army L-67 XL-6), and S-1B2</p> <p>Avions Mudry et Cie Model CAP 10B</p> <p>American Champion Models (Bellanca, Aeronca) 7AC, 7ACA, S7AC (L-16A), 7BCM (L-16B), 7CCM, 7DC, S7DC, 7EC, S7EC, 7ECA, 7FC, 7GC, 7GCA, 7GCCA, 7GCB, 7GCBA, 7GCBC, 7HC, 7JC, 7KC, 7KCAB, 8KCAB, 8GCBC, 11AC, S11AC, 11BC, S11BC, 11CC, and S11CC</p> <p>Bellanca Aircraft Corporation Models 14-9, 14-9L, 14-12F-3, 14-13, 14-13-2, 14-13-3, 14-13-3W, 14-19, 14-19-2, 14-19-3A, 17-30, 17-31, 17-31TC, 17-30A, 17-31A, and 17-31ATC</p> <p>Biemond, C. Model Teal CB1</p> <p>Board, G.R. Models Columbia XJL-1 and Bolkow Jr.</p> <p>Clark Aircraft, Inc. Models 12 and 1000</p> <p>Falcon Aircraft Corporation Model F-1</p> <p>Flug und Fahrzeugwerke AG Model AS 202/15 "Brand"</p> <p>Found Brothers Model FBA-2C</p> <p>Fuji Heavy Industries Models FA-200-160, FA-200-180, and FA-200-180AO</p> <p>Funk Aircraft Model Funk C</p> <p>Kearns, Edward Scott (Garcia, Henry S.) Model (Emigh) Trojan A-2</p> <p>Swift Museum Foundation, Inc. Model (Globe) GC-1A, GC-1B</p> <p>Goodyear Aircraft Model GA-22A</p> |

Great Lakes Aircraft Model 2T-1A-1 and 2T-1A-2 Grumman American Models G-164, G-164A, G-164B, AA-1, AA-1A, AA-1B, AA-1C, AA-5, AA-5A, and AA-5B

Commander Aircraft (Gulfstream) Models 112, (112A, 112B, 112TC, 112TCA, 114, and 114A

Helio Enterprises Models H-250, H-295 (USAF U-10D), H-391 (USAF YL-24), H-395 (SAF L-28A), H-395A, HT-295, and H-700

Prop-Jets, Inc. (Interceptor Corp., Aero Commander, Meyers) Models 200, 200A, 200B, 200C, and 200D

C. Itoh Aircraft Maintenance & Engineering Co. LTD. Model N-62

Jamieson Corporation Model J-2-L1B

Jodel, Avion Models D-140-B, DR-1050, D-1190, and 150

Lake Models C-1, C-2-IV, LA-4, LA-4-200, and LA-4-250

Luscombe Aircraft Corp. Models 8, 8A, 8B, 8C, 8D, 8E, 8F, T-8F, and 11A

Maule Aerospace Technology Corp. Models Bee Dee M-4, M-4, M-4C, M-4S, M-4T, M-4-180C, M-4-180S, M-4-210, M-4-201C, M-4-210S, M-4-210T, M-4-220S, M-4-220T, M-5-180C, M-5-200, M-5-210C, M-5-210TC, M-T-220C, M-5-235, M-5-235C, M-6-180, M-6-235, M-7-235, MX-7-180, MX-7-235

Messerschmitt-Bolkow Models BO-209-150 FV&RV, BO209-160 FV&RV, BO-209, and 150OFF

Nardi S.A. Model FN-333

Jimmie Thompson Enterprise (Navion Rangemaster Aircraft Corporation) Models Navion (L-17A) Navion A (L-17B, L-17C), Navion B, D, E, F, G, and H

White International Ltd. Models (Pitts) S-1S, S-1T, S-2, and S-2A

Procaer S.P.A. Models F 15/B, F 15/C, and F 15/E

Gulfstream Aerospace Corporation (Rockwell) Models 111, 112, 112B, 112TC, 112TCA, and 114

Aermacchi S.p.A Models S.205, S.205-18F, S.205-18/R, S.205-20/F, S.205-20/R, S.205-22/R, S.208, S.208A, F.260, and F.260B

Socata – Groupe Aerospatiale Models Rallye Series MS880B, MS885, MS892-A-150, MS892E-150, MS893A, MS893E, MS894A, MS894E, TB9, TB10, and TB21

Stinson Models 108-2 and 108-3

Sud Aviation Models Gardan GY.80-1500, GY.80-160, and GY.80-180

Taylorcraft Aircraft Company Models F19, F21, and F21A

Univair Aircraft Corporation (Forney) Models F-1, F-1A, (ERCO)E, 415D, (ALON)A-2, A20a, (Mooney)M10, (Mooney) (ERCO) 415-C, and 415-CD

Augustair, Inc. (Varga Aircraft Corporation) Models 2150, 2150A, and 2180

NOTE 1: The above list includes the aircraft where the Precise Flight, Inc. Model SVS III standby vacuum systems could be installed through STC. This list is not meant to be exhaustive nor does it include all aircraft with the systems installed through field approval.

NOTE 2: This AD applies to any aircraft with a standby vacuum system installed that is identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For aircraft that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required as indicated in the body of this AD, unless already accomplished.

To detect and correct problems with the standby vacuum system before failure or malfunction and to provide operating procedures for the pilot regarding the use and limitations of this system, accomplish the following:

(a) Within the next 30 calendar days after the effective date of this AD, accomplish whichever (paragraph (a)(1) or (a)(2) below) of the following that applies:

(1) For airplanes with the affected standby vacuum system installed in accordance with the applicable STC, incorporate the applicable Precise Flight, Inc. Airplane Flight Manual Supplement (AFMS) for Standby Vacuum Systems (each document corresponds with the applicable STC as presented in the chart below) into the Airplane Flight Manual (AFM), including installing all placards specified in these AFMS's; or insert a copy of the [Appendix](#) to this AD into the AFM, including installing all placards specified in the [Appendix](#):

| <b>Applicable STC</b> | <b>AFMS Date</b>   |
|-----------------------|--------------------|
| SA2160NM              | May 7, 1998        |
| SA2161NM              | August 6, 1998     |
| SA2162NM              | August 6, 1998     |
| SA2163NM              | August 6, 1998     |
| SA2164NM              | August 6, 1998     |
| SA2166M               | August 6, 1998     |
| SA2167NM              | August 6, 1998     |
| SA2168NM              | August 6, 1998     |
| SA2683NM              | August 6, 1998; or |

(2) For airplanes with the affected standby vacuum system installed through field approval, insert the [Appendix](#) to this AD into the AFM, including installing all placards specified in the [Appendix](#).

(b) Within the next 12 calendar months after the effective date of this AD, and thereafter at intervals specified in the following paragraphs, inspect the push-pull cable, vacuum lines, saddle fittings, and shuttle valve for correct installation and damage (wear, chafing, deterioration, etc.). Accomplish these inspections in accordance with Precise Flight Instructions for Continued Airworthiness (Section 3.3 of Installation Report No. 50050), Revision 25, dated August 26, 1996.

(1) Reinspect the push-pull cable, vacuum lines, and saddle fittings at intervals not to exceed 12 calendar months; and

(2) Reinspect the shuttle valve at intervals not to exceed 24 calendar months.

(c) Prior to further flight after each inspection required by paragraph (b) of this AD, accomplish the following in accordance with Precise Flight Instructions for Continued Airworthiness (Section 3.3 of Installation Report No. 50050), Revision 25, dated August 26, 1996.

(1) Correct any discrepancy found; and

(2) Conduct a function test of the vacuum system and assure proper function.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(e) An alternative method of compliance or adjustment of the initial or repetitive compliance times that provides an equivalent level of safety may be approved by the Manager, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue, SW, Renton, Washington 98055-4065. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(f) The inspections, corrections, and test required by this AD shall be done in accordance with Precise Flight Instructions for Continued Airworthiness (Section 3.3 of Installation Report No. 50050), Revision 25, dated August 26, 1996. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Precise Flight, Inc., 63120 Powell Butte Road, Bend, Oregon 97701. Copies may be inspected at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(g) This amendment becomes effective on January 14, 2000.

FOR FURTHER INFORMATION CONTACT: Ms. Dorothy Lundy, Aerospace Engineer, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW, Renton, Washington 98055-4065; telephone: (425) 227-2260; facsimile: (425) 227-1181.