PRECISE FLIGHT, INC.

AIRPLANE FLIGHT MA[redacted] SUPPLEMENT

FOR Pip[redacted] MODEL PA-28-181

REG. NO. N4384F
SER. NO. 28-7790026

This supplement must be attached to the FAA Approved Flight Manual when the airplane is modified by the installation of Precise Flight Inc. Standby Vacuum System in accordance with STC Number SA2167NM. The information contained herein supplements or supersedes the basic manual only in those areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic Airplane Flight Manual.

FAA Approved D.L. Riggin
Manager, Seattle Aircraft Certification Office
Northwest Mountain Region

Date December 7, 1984

STANDBY VACUUM SYSTEM (SVS) OPERATING INSTRUCTIONS

I. LIMITATIONS

1. The Standby Vacuum system is for emergency or standby use only and not for dispatch purposes.
2. Vacuum powered and/or Vacuum gyro directed auto pilot operation may be unreliable when the SVS is sole source of vacuum. Vacuum powered or vacuum gyro directed auto pilot should be OFF when operating with failed primary vacuum system.
3. The SVS is not designed to operate pneumatic de-ice systems. DO NOT operate this type de-ice system when operating with a failed primary vacuum system.
4. Above 10,000 feet pressure altitude, engine power settings may have to be significantly reduced to provide adequate vacuum power for proper gyro instrument operation.

II. EMERGENCY PROCEDURES

1. In the event of (warning light) primary vacuum system failure, pull the standby vacuum knob out (ON) and reduce throttle setting as required to maintain adequat[redacted]acuum power (suction gauge reading in green arc). If necessary descend to a lower altitude to obtain a larger differential between atmospheric pressure and engine manifold pressure. Vacuum power must be closely monitored by checking vacuum gauge frequently.
2. CONTINUED IFR FLIGHT IS NOT RECOMMENDED AND IMMEDIATE ACTION SHOULD BE TAKEN TOWARD VFR CONDITION OR LANDING.
3. If descent is impracticable:
   a. Periodically reduce power as required to "spool up" the gyros.
   b. Reapply power as required while comparing vacuum driven gyros against the turn and bank, turn coordinator, VSI, and other flight instruments.
   c. When an obvious discrepancy is noted between the vacuum driven instrument and the other flight instrument REPEAT the above "spool up" procedure as needed.

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STC_____

II. NORMAL PROCEDURES

1. Before starting engine push standby vacuum knob IN/OFF.
2. During run-up idle engine at low speed and momentarily pull standby vacuum knob out (ON) and check vacuum gauge. Normally, the vacuum reading will be slightly higher. After checking system push vacuum system control knob in (OFF).
3. Regularly check vacuum gauge for proper vacuum system operation.
4. After landing turn Standby Vacuum System OFF.

Approx. Standby Vacuum Available - Altitude - Power Chart for Aircraft with C.S. Prop. - Max. Cont. RPM

Press. Alt.	RPM	Man. Press.	SVS Vacuum In.Hg. Min.
2000	Max. cont.		
4000	Max. cont.		
6000	Max. cont.		
8000	Max. cont.		
10000	Max. cont.		

Approx. Standby Vacuum Available - Altitude - Power Chart for Aircraft with Fixed Pitch Prop

Press. Alt.	RPM	SVS Vacuum In.Hg. Min.
2000		
4000		
6000		
8000		
10000		

IV. PERFORMANCE

No Change.

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