

Supplemental Type Certificate

Number SA2167NM

This certificate, issued to

Precise Flight, Inc.
63120 Powell Butte Rd.
Bend, OR 97701

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part * of the * Regulations.

Original Product—Type Certificate Number:

*See attached FAA Approved Model List (AML)

Make:

No. SA2167NM for list of approved airplane models

Model:

and applicable airworthiness regulations

Description of the Type Design Change: Installation of Precise Flight, Inc. Stand-By Vacuum System (SVS) in accordance with the appropriate Precise Flight, Inc. Engineering Drawing listed on FAA Approved Model List No. SA2167NM, dated May 4, 2000, or later FAA approved revision.

NOTE: As a prerequisite to this change, the engine must be modified in accordance with Precise Flight, Inc. STC No. SE1779NM or SE1780NM, dated April 21, 2000, or later FAA approved revision. Also, modified aircraft must be equipped with a vacuum indicator.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this certificate, AML No. SA2167NM and the appropriate FAA Approved Flight Manual Supplement (AFMS) listed on AML No. SA2167NM must be maintained as part of the permanent records for the modified aircraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: October 31, 1983
Date of issuance: November 7, 1983

Date reissued:
Date amended: December 16, 1983; December 7, 1984;
August 17, 1989; May 4, 2000



By direction of the Administrator

(Handwritten Signature)

(Signature)

Acting Manager, Seattle Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

FAA APPROVED MODEL LIST (AML) NO. SA2167NM
PRECISE FLIGHT, INC.

For

INSTALLATION OF PRECISE FLIGHT STANDBY VACUUM SYSTEM

Issue Date: December 7, 1984

Item	Aircraft Make	Aircraft Model	Original Type Certificate Number	Certification Basis for Alteration	FAA Approved Airplane Flight Manual Supplement*	FAA Approved Drawing*		AML Amdt. Date
						Number	REV	
1	Piper Aircraft Corp.	L-14	760	CAR 4a	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev. -, dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
					Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev. -, dated 3/10/2000 Rev. -, dated 12/22/1999	
3	Piper Aircraft Corp.	PA-12, -12S	780	CAR 3	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev. -, dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
		PA-14	797	CAR 3				
		PA-15	800	CAR 3				
		PA-16, -16S	1A1	CAR 3				
		PA-17	805	CAR 3				
4	Piper Aircraft Corp.	PA-12, -12S	780	CAR 3	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev. -, dated 3/10/2000 Rev. -, dated 12/22/1999	5/4/2000
		PA-14	797	CAR 3				
		PA-15	800	CAR 3				
		PA-16, -16S	1A1	CAR 3				
		PA-17	805	CAR 3				

or later FAA Approved Revision

FAA APPROVED MODEL LIST (AML) NO. SA2167NM
 PRECISE FLIGHT, INC.

For

INSTALLATION OF PRECISE FLIGHT STANDBY VACUUM SYSTEM

Item	Aircraft Make	Aircraft Model	Original Type Certificate Number	Certification Basis for Alteration	FAA Approved Airplane Flight Manual Supplement*	FAA Approved Drawing*		AML Amdt. Date
						Number	REV	
5	Piper Aircraft Corp.	PA-18, -18A, -18S, -18-105 (SPECIAL), -18S-105 (SP), -18-125 (ARMY L-21A), -18AS-125, -18S-125, -18-135, -18A-135, -18AS-135, -18-150, -18A-150, -18AS-150, -18S-150, -19 (ARMY L-18C), -19S	1A2	CAR 3	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev., dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
6	Piper Aircraft Corp.	PA-18, -18A, -18S, -18-105 (SPECIAL), -18S-105 (SP), -18-125 (ARMY L-21A), -18AS-125, -18S-125, -18-135, -18A-135, -18AS-135, -18-150, -18A-150, -18AS-150, -18S-150, -19 (ARMY L-18C), -19S	1A2	CAR 3	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev., dated 3/10/2000 Rev., dated 12/22/1999	5/4/2000

* or later FAA Approved Revision

FAA APPROVED MODEL LIST (AML) NO. SA2167NM
PRECISE FLIGHT, INC.

For

INSTALLATION OF PRECISE FLIGHT STANDBY VACUUM SYSTEM

Issue Date: December 7, 1984

Item	Aircraft Make	Aircraft Model	Original Type Certificate Number	Certification Basis for Alteration	FAA Approved Airplane Flight Manual Supplement*	FAA Approved Drawing*		AML Amdt. Date
						Number	REV	
7	Piper Aircraft Corp.	PA-20, -20S, -20-115, -20S-115, -20-135	1A4	CAR 3	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev. -, dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
8	Piper Aircraft Corp.	PA-20, -20S, -20-115, -20S-115, -20-135	1A4	CAR 3	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev. -, dated 3/10/2000 Rev. -, dated 12/22/1999	5/4/2000
9	Piper Aircraft Corp.	PA-22, -22-108, -22-135, -22S-135, -22-150, -22S-150, -22-160, -22S-160	1A6	CAR 3	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev. -, dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
10	Piper Aircraft Corp.	PA-22, -22-108, -22-135, -22S-135, -22-150, -22S-150, -22-160, -22S-160	1A6	CAR 3	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev. -, dated 3/10/2000 Rev. -, dated 12/22/1999	5/4/2000

or later FAA Approved Revision

FAA APPROVED MODEL LIST (AML) NO. SA2167NM
PRECISE FLIGHT, INC.

For

INSTALLATION OF PRECISE FLIGHT STANDBY VACUUM SYSTEM

Issue Date: December 7, 1984

Item	Aircraft Make	Aircraft Model	Original Type Certificate Number	Certification Basis for Alteration	FAA Approved Airplane Flight Manual Supplement*	FAA Approved Drawing*		AML Amdt. Date
						Number	REV	
11	Piper Aircraft Corp.	PA-24, -24-250, -24-260, -24-400	1A15	CAR 3	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev.-, dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
12	Piper Aircraft Corp.	PA-24, -24-250, -24-260, -24-400	1A15	CAR 3	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev.-, dated 3/10/2000 Rev.-, dated 12/22/1999	5/4/2000
13	Piper Aircraft Corp.	PA-25, -25-235, -25-260	2A8	CAR 3	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev.-, dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
14	Piper Aircraft Corp.	PA-25, -25-235, -25-260	2A8	CAR 3	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev.-, dated 3/10/2000 Rev.-, dated 12/22/1999	5/4/2000

or later FAA Approved Revision

FAA APPROVED MODEL LIST (AML) NO. SA2167NM
PRECISE FLIGHT, INC.

For

INSTALLATION OF PRECISE FLIGHT STANDBY VACUUM SYSTEM

Issue Date: December 7, 1984

Item	Aircraft Make	Aircraft Model	Original Type Certificate Number	Certification Basis for Alteration	FAA Approved Airplane Flight Manual Supplement*	FAA Approved Drawing*		AML Amdt. Date
						Number	REV	
15	Piper Aircraft Corp.	PA-32-260, -32RT-300, -32RT-301T, -32-300, -32RT-300T, -32-301, -32S-300, -32R-301, -32-301T, -32R-300, -32R-301T	A3SO	CAR 3	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000	Rev.-, dated 3/10/2000	5/4/2000
						And Installation Report No. 50050	Rev. 25, dated 8/26/99	
16	Piper Aircraft Corp.	PA-32-260, -32RT-300, -32RT-301T, -32-300, -32RT-300T, -32-301, -32S-300, -32R-301, -32-301T, -32R-300, -32R-301T	A3SO	CAR 3	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000	Rev.-, dated 3/10/2000	5/4/2000
						And Installation Report No. 08072	Rev.-, dated 12/22/1999	

or later FAA Approved Revision

FAA APPROVED MODEL LIST (AML) NO. SA2167NM
 PRECISE FLIGHT, INC.

For

INSTALLATION OF PRECISE FLIGHT STANDBY VACUUM SYSTEM

Issue Date: December 7, 1984

Item	Aircraft Make	Aircraft Model	Original Type Certificate Number	Certification Basis for Alteration	FAA Approved Airplane Flight Manual Supplement*	FAA Approved Drawing*		AML Amdt. Date
						Number	REV	
17	Piper Aircraft Corp.	PA-28-140, -28-141, -28-150, -28-151, -28-160, -28-180, -28R-180, -28S-180, -28-235, -28-181, -28-161, -28R-200, -28R-201, -28R-201T, -28-236, -28RT-201, -28RT-201T, -28-201T	2A13-38	CAR 3	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev. , dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
18	Piper Aircraft Corp.	PA-28-140, -28-141, -28-150, -28-151, -28-160, -28-180, -28R-180, -28S-180, -28-235, -28-181, -28-161, -28R-200, -28R-201, -28R-201T, -28-236, -28RT-201, -28RT-201T, -28-201T	2A13-38	CAR 3	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev. , dated 3/10/2000 Rev. A, dated 12/22/1999	5/4/2000

or later FAA Approved Revision

FAA APPROVED MODEL LIST (AML) NO. SA2167NM
 PRECISE FLIGHT, INC.

For

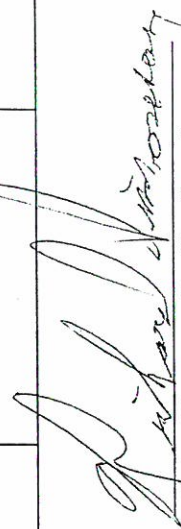
INSTALLATION OF PRECISE FLIGHT STANDBY VACUUM SYSTEM

Issue Date: December 7, 1984

Item	Aircraft Make	Aircraft Model	Original Type Certificate Number	Certification Basis for Alteration	FAA Approved Airplane Flight Manual Supplement*	FAA Approved Drawing*		AML Amdt. Date
						Number	REV	
19	Piper Aircraft Corp.	PA-36-285, -36-300, -36-375	A9SO	FAR 23	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev.-, dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
20	Piper Aircraft Corp.	PA-36-285, -36-300, -36-375	A9SO	FAR 23	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev.-, dated 3/10/2000 Rev.-, dated 12/22/1999	5/4/2000
21	Piper Aircraft Corp.	PA-38-112 PA-46-310P	A18SO A25SO	FAR 23 FAR 23	Supplemental Flight Manual for SA2167NM dated 8/11/99. (SVS III)	SVS III Engineering Drawing 000V0000 And Installation Report No. 50050	Rev.-, dated 3/10/2000 Rev. 25, dated 8/26/99	5/4/2000
22	Piper Aircraft Corp.	PA-38-112 PA-46-310P	A18SO A25SO	FAR 23 FAR 23	Supplemental Flight Manual for Push Operated Cable Valve dated 2/4/2000. (SVS V) OR Supplemental Flight Manual for Pull Operated Cable Valve dated 2/4/2000. (SVS V)	SVS V Engineering Drawing 000V0000 And Installation Report No. 08072	Rev.-, dated 3/10/2000 Rev.-, dated 12/22/1999	5/4/2000

* or later FAA Approved Revision

FAA Approved:



Acting Manager, Seattle Aircraft
 Certification Office

Amended: May 4, 2000

Supplemental Type Certificate

Number SE1779NM

This certificate, issued to

Precise Flight, Inc.
63120 Powell Butte Rd.
Bend, OR 97701

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 33 of the Federal Aviation Regulations.

Original Product—Type Certificate Number:

Make:

Model:

*See attached FAA Approved Model List (AML) No. SE1779NM for list of approved airplane models and applicable airworthiness regulations

Description of the Type Design Change: Installation of Precise Flight, Inc. Standby Vacuum System SVS III, in accordance with Engineering Drawing 000V0000, Revision -, dated March 10, 2000, and Installation Reprint No. 50050, Revision 25, dated August 26, 1999, or later approved revision. Or Installation of Precise Flight, Inc. SVS V, in accordance with Precise Flight, Inc. Engineering Drawing 000V0000, Revision -, dated March 10, 2000 and Installation Instructions 08072, Revision -, dated December 12, 1999, or later FAA approved revision.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this certificate, Addendum No. SE1779NM, and FAA approved AML No. SE1779NM, December 30, 1983, or later FAA approved revision, must be maintained as part of the permanent records for the modified aircraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: December 13, 1982

Date of issuance: December 28, 1982

Date reissued:

Date amended: December 30, 1983; January 31, 1985; July 25, 1990; January 31, 1991 April 21, 2000



By direction of the Administrator

[Handwritten Signature]
for _____
(Signature)

Acting Manager, Seattle Aircraft Certification Office
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SE1779NM

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SE1779NM

The conditions and limitations of Type Certificate Data Sheet as listed in the attached AML apply except where superseded by the following:

This Supplemental Type Certificate Data Sheet, which is part of STC SE1779NM, prescribes the conditions and limitations under which the product for which the STC was issued meets the airworthiness requirements of the Federal Aviation Regulations:

SUPPLEMENTAL TYPE CERTIFICATE HOLDER: Precise Flight, Inc.

Engines: Lycoming
Fuel: See Type Certificate Data Sheet
Engine Limits: See Type Certificate Data Sheet
Placards: Placards and Operating Limits on appropriate Type Certificate Data Sheet apply except as noted herein:

The following placard is mandatory on aircraft that are required to have POH/AFM's and must be located near instrument suction gauge in full view of pilot:

STANDBY VACUUM SYSTEM:
FOR OPERATING INSTRUCTIONS AND LIMITATIONS SEE SUPPLEMENT
IN OWNER'S MANUAL OR PILOT'S OPERATING HANDBOOK

NOTE: This STC covers modification of the engine only. Installation of this system in an aircraft requires aircraft installations approval and associated Airplane Flight Manual and Pilot Operating Handbook Supplement for the installation.

For those airplanes which do not have an AFM/POH, the placards provided in each Precise Flight, Inc. Installation Kit must be installed with the modification.

-END-

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

APPROVED MODEL LIST NO. SE1779NM
PRECISE FLIGHT STANDBY VACUUM SYSTEM
LIST OF ACTIVE PAGES

<u>PAGE</u>	<u>AMENDMENT DATE</u>
1	08/22/90
2	12/28/82
3	12/28/82

FAA Approved:

D. L. Riegin
for Assistant Manager, Seattle
Aircraft Certification Office

Amended: September 9, 1990

FOR

INSTALLATION OF STANDBY VACUUM SYSTEM (SVS)

ISSUE DATE: OCTOBER 31, 1989

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	FAA SEALED DRAWING/DRAWING LIST		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					NUMBER	REVISION NO. AND DATE		
1	LYCOMING	0-235 Series	E-223	CAR 13 and T.C. E-223	LYC. SVS 0010		12-28-82	4-11-83
2		0-290	E-229	CAR 13 and T.C. E-223	LYC. SVS 0010			
3		0-320	E-274	CAR 13 and T.C. E-274	LYC. SVS 0010			
4		10-320	1E12	CAR 13 and T.C. 1E12	LYC. SVS 0010			
5		0-340	E-277	CAR 13 and T.C. E-277	LYC. SVS 0010			
6		0-350	227	CAR 13 and T.C. 227	LYC. SVS 0010			
7		0-360 L10-360 10-360 L10-360	E-286 1E10	CAR 13 and T.C. E-286	LYC. SVS 0010			5-10-85
8		AE10-360	E1CE	CAR 13 and T.C. E1CE	LYC. SVS 0010			8-22-90
9		T10-360	E-16EA	CAR 13 and T.C. E-16EA	LYC. SVS 0010			
10		T0-360 LT0-360	E26EA	CAR 13 and T.C. E-26EA	LYC. SVS 0010			

PRECISE FLIGHT

FAA APPROVED MODEL LIST (AML) NO. SE 1779NM

FOR

INSTALLATION OF STANDBY VACUUM SYSTEM (SVS)

ISSUE DATE: OCTOBER 31, 1989

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	FAA SEALED DRAWING/DRAWING LIST		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					NUMBER	REVISION NO. AND DATE		
11	LYCOMING	O-43E 60-435	E-228	CAR 13 and T.C. E-228	LYC. SVS 0010		12-28-82	
12		GSO-435	E-276	CAR 13 and T.C. E-276	LYC. SVS 0010			
13		60-480, 1G0-480, GSO-480 O-480	E-275	CAR 13 and T.C. E-275	LYC. SVS 0010			
14		1GSO-480	E-284	CAR 13 and T.C. E284	LYC. SVS 0010			
15		O-540	E-295	CAR 13 and T.C. E-295	LYC. SVS 0010			
16		10-540	1E4	CAR 13 and T.C. 1E4	LYC. SVS 0010			
17		1G0-540	1E11	CAR 13 and T.C. 1E11	LYC. SVS 0010			
18		1GSO-540	1E7	CAR 13 and T.C. 1E7	LYC. SVS 0010			
19		O-540-9	E304	CAR 13 and T.C. E-304	LYC. SVS 0010			

PRECISE FLIGHT

FAA APPROVED MODEL LIST (AML) NO. SE1779NM

FOR

INSTALLATION OF STANDBY VACUUM SYSTEM (SVS)

ISSUE DATE: OCTOBER 31, 1989

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	FAA SEALED DRAWING/DRAWING LIST		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					NUMBER	REVISION NO. AND DATE		
20	LYCOMING	T10-540 LT10-540	E 14EA	CAR 13 and T.C. E 14EA	LYC. SVS 0010		12-28-82	
21		T10-541	E 10EA	CAR 13 and T.C. E 10EA	LYC. SVS 0010			
22		T10-541	E 19EA	CAR 13 and T.C. E 19EA	LYC. SVS 0010			
23		GS0-580	E-256	CAR 13 and T.C. E-256	LYC. SVS 0010			
24		S0-580	E-285	CAR 13 and T.C. E-285	LYC. SVS 0010			
25		10-720	E 15	CAR 13 and T.C. E 15	LYC. SVS 0010			





US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make PIPER	Model PA-28R-200
	Serial No. 28R-7635034	Nationality and Registration Mark U.S.A. N4389X
2. Owner	Name (As shown on registration certificate) Squier, William H.	Address (As shown on registration certificate) 3171 Wesley Rd. Bloomfield, NY 14469-9533

3. For FAA Use Only

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
William H. Squier 3171 Wesley Rd. Bloomfield, NY 14469-9533	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	128361590
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date 9/17/98	Signature of Authorized Individual <i>William H. Squier</i>
------------------------	--

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 9/18/98		Certificate or Designation No. B2ER144A	Signature of Authorized Individual <i>Jeffrey M. Boland</i>	

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Removed Prestolite starter.

Installed Sky-Tec M/N 149-12PM starter I/A/W manufacturer's installation instructions and S.T.C. # SE00218NY.

Tested per manufacturer's instructions: OK.

Aircraft Log Books, Equipment List and Weight & Balance Data Updated.

----- end -----

Additional Sheets Are Attached



MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020
For FAA Use Only
Office Identification
AEA-FSDO-23

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make PIPER	Model PA-28R-200
	Serial No. 28R-7635034	Nationality and Registration Mark U.S.A. N4389X
2. Owner	Name (As shown on registration certificate) Squier, William H.	Address (As shown on registration certificate) 3171 Wesley Rd. Bloomfield, NY 14469-9533

3. For FAA Use Only

The data identified herein complied with applicable airworthiness requirements and is approved only for the above described aircraft subject to conformity inspection by a person authorized in FAR-43.7.

This approval is only for this aircraft make, model and serial number.

DATE **JUN 08 1997** APPROVING INSPECTOR **AEA-FSDO-23**

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address William H. Squier 3171 Wesley Rd. Bloomfield, NY 14469-9533	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. 128361590
---	---	---

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date 6/8/97	Signature of Authorized Individual 128361590
-----------------------	--

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 6-8-97		Certificate or Designation No. QQJR698A	Signature of Authorized Individual 115440210	

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Removed: King model KT-76 transponder, mounting tray, antenna and antenna cable.

Installed: King model KT-76A transponder, s/n 113236, mounting tray, antenna cable, and King model KA-60, s/n 112606 antenna I/A/W manufacturer's Installation Manual, No. 006-00143-0005, Revision 5, Dated 4/15/94.

Removed: p/n H23-1 nav antenna coupler.

Installed: p/n H21-1 nav antenna coupler.

Installed Comant p/n CI-104 glide slope antenna I/A/W manufacturer's installation instructions.

I/A/W FAR 23.1301, the installation was checked and functionally tested per manufacturer's Installation Manual and found to operate as prescribed.

I/A/W FAR 23.1351, electrical system load was checked. Maximum continuous electrical load was found to be less than 80% of alternator rated maximum output.

I/A/W FAR 23.1431, all radios and electronic equipment were checked for interference. No equipment exhibited any symptom of interference from any other equipment.

The above installation was static load tested following AC 43.13 - 2A paragraphs 2 & 3 to the following:

Up:	3.0g
Down:	6.6g
Forward:	9.0g
Side-to-side:	1.5g

No permanent deformation of structure was evident.

Logbooks, equipment lists, weight and balance documents updated as necessary.

----- END -----

Additional Sheets Are Attached



US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only
Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make PIPER	Model PA-28R-200
	Serial No. 28R-7635034	Nationality and Registration Mark U.S.A. N4389X
2. Owner	Name (As shown on registration certificate) SQUIER, WILLIAM H.	Address (As shown on registration certificate) 3171 Wesley Road Bloomfield, New York 14469

3. For FAA Use Only

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				XX
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
William H. Squier 3171 Wesley Road Bloomfield, New York 14469	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	128361590
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date June 5, 1996	Signature of Authorized Individual <i>William H. Squier</i>
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7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection JUNE 7, 1996	Certificate or Designation No. B2E21442	Signature of Authorized Individual <i>Jeffrey M. Baskett</i>
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NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Removed Piper optional equipment EGT Gauge and Probe.
Installed Insight Instrument Corp. Model No. 602 Graphic Engine Monitor, P/N1261, S/N 9016 in accordance with Supplemental Type Certificate (STC) #SA157NE per manufacturer's Installation Manual, Ver. 2.2, Dated 4/15/94. Airplane Flight Manual Supplement #1, rev. 5/6/85, added to Airplane Flight Manual I/A/W STC.

I/A/W FAR 23.1301, the installation was checked and functionally tested per manufacturer's Installation Manual and found to operate as prescribed.

I/A/W FAR 23.1351, electrical system load was checked. Maximum continuous electrical load was found to be less than 80% of alternator rated maximum output.

I/A/W FAR 23.1431, all radios and electronic equipment were checked for interference. No equipment exhibited any symptom of interference from any other equipment.

The above installation was static load tested following AC 43.13-2A paragraphs 2 & 3 to the following:

Up:	3.0g
Down:	6.6g
Forward:	9.0g
Side-to-side:	1.5g

No permanent deformation of structure was evident.

Logbooks, equipment lists, weight and balance documents updated as necessary.

-----END-----

Additional Sheets Are Attached

Department of Transportation — Federal Aviation Administration
Supplemental Type Certificate

Number SA157NE

This certificate, issued to Insight Instrument Corporation
Box 194, Ellicott Station
Buffalo, New York 14205-0194

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 3/23 of the Civil Air Regulations. Federal Aviation

Original Product — Type Certificate Number: See Master Eligibility List
Make:
Model: See STC Continuation Sheet, Page 3

Description of Type Design Change:

1. Installation of Graphic Engine Monitor (G.E.M.) System Model GEM-602 S/N 403 and subsequent in accordance with Insight Instrument Corporation (I.I.C.) Manual "Installing the G.E.M." dated September 1, 1982.
2. GEM-603, S/N 001126 and subsequent installed in accordance with I.I.C. Manual "Installing the G.E.M.", Drawing 8258, dated February 1, 1985.
3. Installation of GEM-602 and GEM-603 in accordance with I.I.C. Manual "Installing the G.E.M." Drawing 8258 version 2.1.

Limitations and Conditions:

1. Insight Instrument Corporation Airplane Flight Manual Supplement No. 1, Revision No. 3, FAA approved May 6, 1985, is required with this installation. Beech 33, 35 and 36 series aircraft may also use AFMS No. 1, FAA approved August 30, 1983.
2. This instrument is approved as optional equipment only and shall not replace any other required instrument. (See STC Continuation Sheet, Page 2)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: March 30, 1983

Date issued:

Date of issuance: June 4, 1983

Date amended: 8/30/83, 10/13/83, 6/14/85, 1/29/88
10/31/89



By direction of the Administrator

I. Brune
Irwin N. Brune (Signature)
Manager, New York Aircraft
Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SA157NE

Date amended: October 31, 1989

Limitations and Conditions: (continued)

3. Each aircraft installation shall be ground and flight checked, and calibrated in accordance with the requirements given on pages 4 and 5 of the I.I.C. "Installing the Graphic Engine Monitor" manual Drawing 8258 version 2.1.

4. This approval should not be incorporated in any aircraft of these specific models on which other approved modifications are incorporated, unless it is determined that the interrelationship between this change and any of those previously incorporated approved modifications will not introduce any adverse effect upon the airworthiness of the aircraft.

(See the following STC Continuations Sheets for Master Eligibility List)

. . . END . . .

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States of America
 Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
 (Continuation Sheet)

Number SA157NE

Date amended: October 31, 1989

Master Eligibility List

Insight Instrument Corporation Model 602 (Dwg. List 8200, 5/4/83) and Model 603 (Dwg. List 8260, 4/16/85)

Graphic Engine Monitor System Installation

<u>Make</u>	<u>Model</u>	<u>Type Certificate</u>
Cessna	310 - all	3A10
Cessna	320 - all	3A25
Cessna	336 - all	A2CE
Cessna	337 - all	A6CE
Cessna	340 - all	3A25
Cessna	401 - all	A7CE
Cessna	402 - all	A7CE
Cessna	404 - all	A25CE
Cessna	411 - all	A7CE
Cessna	414 - all	A7CE
Cessna	421 - all	A7CE
Cessna	425 - all	A7CE
Partenavia	P68C	A31EU
Piper	PA-18 - all	1A2
Piper	PA-23 - all	1A10
Piper	PA-24 - all	1A15
Piper	PA-28 - all	2A13
Piper	PA-30 - all	A1EA
Piper	PA-31 - all	A8EA
Piper	PA-32 - all	A3SO
Piper	PA-34 - all	1E10
Piper	PA-39 - all	A1EA
Piper	PA-44 - all	A23SO
Piper	PA-46 - all	A25SO
Piper	PA-60 - all	A17WE
Pitts	S1 - all	A8SO
Pitts	S2 - all	A8SO

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.



Transport Canada Transports Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:
Insight Instrument Corporation
Box 122, Fort Erie, Ontario
L2A 5M6 Canada

Number: SA03-35
Issue No.: 1
Approval Date: April 24, 2003
Issue Date: April 24, 2003

Responsible Office: Ontario
Aircraft/Engine Type or Model: See Eligibility List
Canadian Type Certificate or Equivalent: See Eligibility List
Description of Type Design Change: Installation of Graphic Engine Monitors, Model GEM-610 and GEMINI-1200

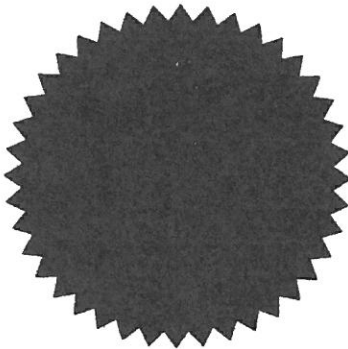
**Installation/Operating Data,
Required Equipment and Limitations:**

Installation of the Graphic Engine Monitor (G.E.M.) System Model GEM-610 and GEMINI-1200 must be in accordance with GEM Series Installation Manual, Drawing 8258, Version 3.0, dated May 1996.

Operation must be in accordance with Insight Instrument Corporation Flight Manual Supplement FMS610/1200, Revision "--", approved April 24, 2003, or later Transport Canada approved revision.

Maintenance must be in accordance with Insight Instrument Corporation Instructions for Continued Airworthiness Graphic Engine Monitor, Amendment N/C, accepted April 24, 2003, or later Transport Canada accepted revision.

(See continuation sheets)



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

Vladan Vujošević
For Minister of Transport

Canada



US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make <p style="text-align: center;">Piper</p>	Model <p style="text-align: center;">PA-28R-200</p>
	Serial No. <p style="text-align: center;">28R-7635034</p>	Nationality and Registration Mark <p style="text-align: center;">U.S.A. N4389X</p>
2. Owner	Name (As shown on registration certificate) <p style="text-align: center;">Squire, William H.</p>	Address (As shown on registration certificate) <p style="text-align: center;">3171 Wesley Rd. Holcomb, N.Y. 14469</p>

3. For FAA Use Only

The data identified herein compiled with applicable airworthiness requirements and is approved only for the above described aircraft subject to conformity inspection by a person authorized in FAR-43.7

This approval is only for the aircraft make, model and serial number.

DATE 12-20-95 APPROVING INSPECTOR *Janet S. Edinger*

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				XX
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
JAR-Tech Avionics Genesee County Airport East Saile Dr. Batavia, N.Y. 14020	<input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	QQJR698R

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date <p style="text-align: center;">12-12-95</p>	Signature of Authorized Individual <p style="text-align: center;"><i>Kurtis Stedman</i></p>
	115440210

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Flt. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection <p style="text-align: center;">12-20-95</p>		Certificate or Designation No. <p style="text-align: center;">QQJR698R</p>	Signature of Authorized Individual <p style="text-align: center;"><i>Kurtis Stedman</i> 115440210</p>	

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Installed Insight Strike Finder p/n 2000-021-009 s/n 4279 display unit.
Installed Strike Finder Sensor p/n 2000-022 s/n 4464 IAW the manufacturer's installation manual.
As per FAR 23.1351, electrical load was checked. Maximum continuous load does not exceed 80% of alternator output.

The above installation has been static load tested to the following:

- 3 g up
- 9 g forward
- 6 g down
- 1.5 g side-to-side

and was found to meet FAR 23.1561 requirements. No permanent deformation of structure was evident.

The above installation has been functionally checked in accordance with manufacturers instructions and found to meet FAR 23.1301 and FAR 23.1431 requirements.

All log books, equipment lists, weight and balance documents have been updated as needed.

+++++ END +++++

Additional Sheets Are Attached



MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make Piper	Model PA-28R-200
	Serial No. 28R-7635034	Nationality and Registration Mark N4389X
2. Owner	Name (As shown on registration certificate) William H. Squier	Address (As shown on registration certificate) 3171 Wesley Road Holcomb, N.Y. 14469

3. For FAA Use Only

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address Boshart Enterprises and Aircraft Services, Inc. Genesee County Airport Batavia, N.Y. 14020	B. Kind of Agency <input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. B2ER144J
---	---	--

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date October 8, 1994	Signature of Authorized Individual
--------------------------------	--

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

	FAA Flt. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
BY	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection October 8, 1994	Certificate or Designation No. B2ER144J	Signature of Authorized Individual
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NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Removed Hartzell Model HC-C2YK-1 and replaced with Hartzell HC-C2YK-1 and replaced with Hartzell HC-C3YK-1RF/F7282.

Work done I/A/W installation instructions #6. STC addendum added to aircraft flight manual and tachometer; re-labeled I/A/W instruction 4.

Weight and balance papers updated.

END

Additional Sheets Are Attached

United States of America
Department of Transportation — Federal Aviation Administration
Supplemental Type Certificate

Number SA4528NM

This certificate, issued to Hartzell Propeller, Inc.
One Propeller Place
Piqua, OH 45356-2634

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air

Regulations. See Type Certificate Data Sheet No. 2A13 for complete certification basis.

Original Product — Type Certificate Number: 2A13

Make: Piper

Model: PA-28R-180, PA-28R-200, PA-28R-201,
PA-28RT-201

Description of Type Design Change:

Installation of a Hartzell HC-C3YR-1RF/F7282 constant speed propeller and Hartzell 835-47(P) or 835-52(P) spinner, in accordance with either Robert A. Craner Installation Instructions No. 6, dated November 28, 1989 or Hartzell Instructions For Installation dated March 31, 1993, or later FAA approved revision.

Limitations and Conditions:

1. Compatibility of this design change with previously approved modifications must be determined by the installer.

(See Continuation Sheet Page 3 For Additional Limitations.)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: 7/5/88

Date issued: 12/21/92

Date of issuance: 1/26/89

Date amended: 12/14/89; 2/10/95;

7/24/96
By direction of the Administrator

Thaddeus D. Krolicki, Jr.
(Signature)

Thaddeus D. Krolicki, Jr.
Manager, Propulsion Branch

Chicago Aircraft Certification Office

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.



United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Date Amended: July 24, 1996 *Number* SA4528NM

LIMITATIONS AND CONDITIONS (continued):

2. Robert A. Craner Airplane Flight Manual Supplement No. 6, dated November 30, 1989, or Hartzell Airplane Flight Manual Supplement dated February 10, 1995, or later FAA approved revision is required with this installation.

3. Propeller and Propeller Limits:

Hartzell HC-C3YR-1RF/F7282 constant speed.
Hub Model: HC-C3YR-1RF
Blade Model: F7282

Diameter: 74" Maximum
73" Minimum

Pitch Settings at 30" Station

Low: PA-28R-180 11.8° ± 0.2°
PA-28R-200 12.5° ± 0.2°
PA-28R-201 12.5° ± 0.2°
PA-28RT-201 12.5° ± 0.2°
High: 30° ± 0.5°

4. Avoid continuous operation below 15 inches manifold pressure between 1950 and 2350 RPM.

5. Tachometer: Normal operating range
(Green Arc) 500 to 2700 RPM.
Maximum continuous power
(Red Radial) 2700 RPM.

Note 1. Noise Characteristics:

This modification did not increase the noise level and was not considered an "acoustical change" as defined in Paragraph 21.93(b), Amendment 21.63, of the Federal Aviation Regulations.

- END -

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

HARTZELL PROPELLER INC.

TOP PROP PERFORMANCE CONVERSIONS

One Propeller Place
Piqua, Ohio 45356-2634
U.S.A.
Phone: 937-778-4201

HARTZELL

Authorization For Use of STC Document

This Supplemental Type Certificate is the property of Hartzell Propeller, Inc. Hartzell Propeller, Inc. authorizes the use of the STC data only for the aircraft specified below. Any use of this STC beyond the aircraft specified below is a violation of proprietary laws and is subject to legal action.

Please keep the STC, installation instructions, Flight Manual Supplement, and this authorization sheet, in a secure location. There will be a charge for issuing replacement documents.

STC Number: SA4528NM

Aircraft Model: PA28R-200

Serial Number: 28R-7635034

Aircraft Registration: N4389X

Date Issued: 09/02/98

Issued by: Becky Drinnen



Sales Representative, Hartzell Top Prop
Performance Conversions

Hartzell Customer Reference: 9805510 / Banyan

11/5/97



US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only
Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make Piper	Model PA-28R-200
	Serial No. 28R-7635034	Nationality and Registration Mark N4389X
2. Owner	Name (As shown on registration certificate) William H. Squier	Address (As shown on registration certificate) 3171 Wesley Road Holcomb, N.Y. 14469

3. For FAA Use Only

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address Boshart Enterprises and Aircraft Services, Inc. Genesee County Airport Batavia, N.Y. 14020	B. Kind of Agency <input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. B2ER144J
---	---	--

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date October 8, 1994	Signature of Authorized Individual
--------------------------------	---

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection October 8, 1994	Certificate or Designation No. B2ER144J	Signature of Authorized Individual
---	---	---

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Install new Cooper battery Cables, battery contactor to starter contactor cable.
Starter contactor to starter cable and starter ground cable.

Parts supplied by Bogert Aviation I/A/W STC; SA3531NM.

Weight and balance updated.

END

Additional Sheets Are Attached

Department of Transportation — Federal Aviation Administration

Supplemental Type Certificate

Number SA3531NM

BOGERT AVIATION
Rt. 1 Box 1676
Prosser, WA 99350

This certificate, issued to Bogert Aviation

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part * of the *

Regulations.

Original Product — Type Certificate Number: * *See attached FAA Approved Model List (AML) No. SA3531NM for list of approved airplane models and applicable airworthiness regulations.
Make: *
Model: *

Description of Type Design Change: Installation of copper electrical cables in accordance with Bogert Aviation Installation Instructions as listed on AML No. SA3531NM, or later FAA approved revision.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this Certificate and FAA Approved Model List (AML) No. SA3531NM amended April 10, 1989, or later FAA approved revision, must be maintained as part of the permanent records for the modified aircraft.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: May 27, 1986

Date issued:

Date of issuance: July 15, 1986

Date amended: April 10, 1989

By direction of the Administrator



Blair E. Miller
(Signature)

Acting Assistant Manager, Seattle
Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

FAA APPROVED MODEL LIST (AML) NO. SA3531MH

BOGERT AVIATION

FOR

INSTALLING COPPER ELECTRICAL CABLES

Issue Date: July 15, 1986

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					NUMBER	REVISION NO. AND DATE		
1	Piper	PA34-200/-200T/ & PA34-220T	A7SO	FAR 23 and Amendments listed in TCDS A7SO	2-1	6/25/86	N/A	
2	Piper	PA28-140/-150/-160/-180/-235/-151/-161/-181/-236/-201T, and PA28R-180/-200/-201/-201T, and PA28RT-201/-201T	2A13	CAR 3 and Amendments listed in TCDS 2A13	2-2	6/25/86	N/A	9/9/86
3	Piper	PA-18 Series	1A2	CAR 3	2-3	7/23/86	N/A	9/9/86
4	Piper	PA-20 Series	1A4	CAR 3	2-3	7/23/86	N/A	9/9/86

Page 1 of 7

Issue Date: July 15, 1986

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					NUMBER	REVISION NO. AND DATE		
5	Piper	PA-22 Series	1A6	CAR 3 dated 11/1/49 & amendments 3-1 thru 3-6.	2-3	7/23/86	N/A	9/9/86
6	Piper	PA-24, PA-24-250/-260/-400	1A15	CAR 3 dated 11/1/49 & amendments 3-1 thru 3-12.	2-4	7/31/86	N/A	7/16/87
7	Piper	PA-32-300/-301/-301T, PA-32R-300/-301/-301T/ and PA-32RT-300/-300T	A3SO	CAR 3 dated 5/15/56 thru Amendment 3-8 & TCDS A3SO	2-10	9/20/86	N/A	7/16/87
8	Piper	PA-30	A1EA	CAR 3 dated 5/15/56 thru Amendment 3-6 dated 9/31/61, & Para. 3.705(a) of Amendment 3-7 dated 5/3/62. Also FAR 23.1557(e)(1) of Amendment 23-7 dated 9/14/69.	2-9	9/20/86	N/A	9/29/86

Page 2 of 7



MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make Piper	Model PA-28R-200
	Serial No. 28R-7635034	Nationality and Registration Mark N4389X
2. Owner	Name (As shown on registration certificate) William H. Squier	Address (As shown on registration certificate) 3171 Wesley Road Holcomb, N.Y. 14669

3. For FAA Use Only

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~			X	
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
Boshart Enterprises and Aircraft Services, Inc. Genesee County Airport Batavia, N.Y. 14020	<input type="checkbox"/> U.S. Certificated Mechanic	B2ER144J
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input checked="" type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date October 8, 1994	Signature of Authorized Individual
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection October 8, 1994	Certificate or Designation No. B2ER144J	Signature of Authorized Individual 		

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Remove left wing from aircraft. Disassemble, replace rib sta 49.25 and sta 69.24, replace upper and lower spar caps. Aft, inboard spar and inboard aft skin assemblies.

Riveting done using original manufacturers rivit size and spacing. Installation made using AC43.13-1A para 99 and 100 as guidelines.

Removed right wing from aircraft. Disassemble and replace rib sta 49.25, sta 69.24 and sta 86.03, replace aft inboard spar, aft inboard skins and bottom aft center skin.

Left fuel cell repaired by Skycraft, Inc. see 337 for repair.

Aircraft reassembled, painted and re-rigged I/A/W Piper Service Manual P/N 753-586

Landing gear installed, rigged and retraction test performed.

Aircrft was test flown I/A/W FAR 91.407 para(b).

END

Additional Sheets Are Attached



MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only
Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make <p style="text-align: center;">PIPER</p>	Model <p style="text-align: center;">PA- 28R-201</p>
	Serial No. <p style="text-align: center;">28R-76 35034</p>	Nationality and Registration Mark <p style="text-align: center;">USA N4389X</p>
2. Owner	Name (As shown on registration certificate)	Address (As shown on registration certificate)

3. For FAA Use Only

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~			X	
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address KENNETH MARSCKE RR#2, BOX 418B BORDENTOWN, NJ 08505	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. <p style="text-align: center;">2237013</p>
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date <p style="text-align: center;">12-7-92</p>	Signature of Authorized Individual
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7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	X	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection <p style="text-align: center;">12-7-92</p>		Certificate or Designation No. <p style="text-align: center;">2237013</p>		Signature of Authorized Individual 	

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure conformity with the applicable airworthiness requirements.

NOTICE

8. Description of Work Accomplished (If more space is required, attach additional sheets, identify with aircraft nationality and registration mark and date work completed.)

OPENED ONE ~~OR TWO~~ TANKS BY REMOVING PERIMETER RIVETS, CLEANED & INSPECTED TANKS. REPAIRS AND/OR REPLACEMENT OF PARTS AS DETAILED BELOW IF NECESSARY. RESEALED & RIVETED SKIN AND BULKHEAD USING MIL-S-8802D, CLASS A-2 SEALER (PRC 1422 A2) & MS20426 OR 470A-5 MS20426AD4-4.5 RIVETS AS ORIGINAL.

ALL METAL WORK PERFORMED IN ACCORD WITH AC43.13-1A, CHAP. 2, SEC. 3 & CHAP. 14, SEC. 2, PAR 710. TANKS ARE COMPONENT PARTS, NOT INSTALLED BY THIS AGENCY. NO WEIGHT CHANGE. OUR S/N 4827L----- STAMPED ON SKIN & BULKHEAD.

INSTALLING AGENCY TO COMPLETE BLOCK #1 & #2, MAKE ENTRY IN AIRCRAFT LOG & COMPLETE THE FOLLOWING:

TANKS INSTALLED IN A/C BY:

SIGNATURE _____

CERTIFICATE # _____

DATE _____ T.A.T. _____

NOTHING FOLLOWS.

Additional Sheets Are Attached



US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make Piper	Model PA 28-200R
	Serial No. 28R-7635034	Nationality and Registration Mark USA N-4389X
2. Owner	Name (As shown on registration certificate) Artisan Flying Club, Inc.	Address (As shown on registration certificate) P.O. Box 15482 Rochester NY 14615

3. For FAA Use Only

The data identified herein complied with applicable airworthiness requirements and is approved only for the above described aircraft subject to conformity inspection by a person authorized in FAR 43.7.

This approval is only for this aircraft make, model and serial number.

DATE 09-17-91

APPROVING INSPECTOR

Janet Eslinger
AEA-FSD-23

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				XX
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address Greenleaf Flight Serv. Inc. 274 Mill Road Rochester NY 14626	B. Kind of Agency <input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. GFPR498-K
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date September 10, 1991	Signature of Authorized Individual <i>Robert R. Greening</i>
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7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection 9-19-91	Certificate or Designation No. GFPR 498K	Signature of Authorized Individual <i>Robert R. Greening</i>
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NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

ALTITUDE REPORTER

INSTALL NARCO AR-850 ENCODER, UNIT MOUNTED BEHIND
INSTRUMENT PANEL ON BRACKET ON FIRE WALL .

UNIT INSTALLED AND CONNECTED TO ELECT SYSTEM PER.
MFGS. INSTRUCTIONS.

INSTALLATION CONFORMS TO A.C.43-13-2A PARA 2D 12 & 21.

FUSES & SWITCHES FOR UNIT PLACARDED AS TO FUNCTIONS &
RATINGS.

STATIC SYSTEM LEAK TEST SATISFACTORY. DATE

W & B UPDATED PER THIS INSTALLATION.

ENCODER REQUIRES CALIBRATION PER F.A.R 217-B

- a.) encoder disabled by removing and tying back elect plug
- b.) encoder not to be used until correspondence check test completed.
- c.) encoder placarded "do not use ".

Additional Sheets Are Attached

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

NOTICE

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Installed the following equipment

1. King glide slope receiver M/N KN-75, pn 066-1063-00, sn 15119.

2. King Vor/loc converter and glide slope indicator M/N KI-209, pn 066-3056-01, sn 19219.

3. Wiring harness and coax cable.

Installed equipment in the space provided on the left center side of instrument panel and tail area Sta. 59.5, Sta. 189.4 and Sta. 124.45.

Aircraft equipped with one (1) 60 amp alternator.

The maximum continuous load with standard and optional equipment installed is well within 100% of normal output.

The above installation were static load tested with 3 g up, 9 g forward, 6.6 g down and 1.5 g side loads, and were found to meet FAR 23.561 (or 25.561) requirements. No permanent deformation of structure was evident.

The above installations have been functionally checked in accordance with manufacturer's instructions and found to meet FAR 23.1301 (or 25.1301) requirements.

All work was accomplished according to AC 43.13-1A and AC 43.13-2.

The weight and balance and equipment list have been altered to reflect the above changes.

ADDITIONAL SHEETS ARE ATTACHED

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

NOTICE

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

1. Install Trans Cal Encoder.
2. All installation methods and techniques are in accordance with AC 43.13-2A and have been static loaded as per Chapter #1 Paragraph #2 of AC 43.13-2A. After these loads were applied there was no evidence of distortion or permanent set in this installation.
3. Wire size, protective devices, routing and security of the electrical system are in accordance with applicable paragraphs of Chapter #11 of AC 43.13-1A.
4. Total continuous current draw does not exceed 80% of the load factor.
5. This equipment has been functionally & flight tested and performs in accordance with manufacturer's specifications.
6. Weight & Balance Data is entered in Log Book.

ADDITIONAL SHEETS ARE ATTACHED