



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a)).

1. Aircraft	Nationality and Registration Mark N2288Z	Serial No. 28-2196		
	Make Piper	Model PA28-180	Series	
2. Owner	Name (As shown on registration certificate) Guy Foreman		Address (As shown on registration certificate)	
			Address 17 Kincaid dr.	
			City Valparaiso	State IN
			Zip 46385	Country USA

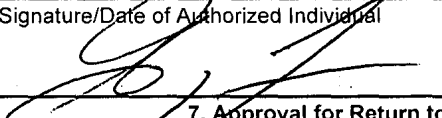
3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME		(As described in Item 1 above)	
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

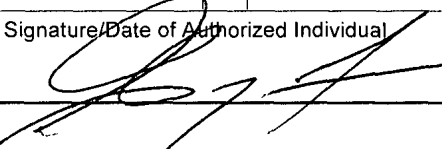
A. Agency's Name and Address		B. Kind of Agency		C. Certificate No. 2731944
Name Guy Foreman	Address 17 Kincaid dr. City Valparaiso State IN Zip 46385 Country USA	<input checked="" type="checkbox"/> U. S. Certificated Mechanic	Manufacturer	
		Foreign Certificated Mechanic		
		Certificated Repair Station		
		Certificated Maintenance Organization		

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual  02-01-2019
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	
Certificate or Designation No. 2731944		Signature/Date of Authorized Individual  02-01-2019		

1. Introduction

The purpose of this study is to investigate the effects of various factors on the growth of a certain plant species. The study was conducted over a period of six months, during which time the plants were grown under different conditions. The results of the study are presented in the following sections.

2. Materials and Methods

The plants used in this study were of the species *Arabidopsis thaliana*. They were grown in a controlled environment, with light and temperature being the primary factors manipulated. The plants were divided into three groups: a control group, a group receiving a certain treatment, and a group receiving a different treatment. The growth of the plants was measured by their height and the number of leaves they produced.

3. Results

The results of the study show that the plants in the control group grew significantly faster than those in the treatment groups. The plants in the treatment groups showed a marked reduction in growth, with some plants failing to produce any leaves at all. This suggests that the treatments used in this study have a negative effect on the growth of *Arabidopsis thaliana*. The results are summarized in the following table:

Group	Height (cm)	Number of leaves
Control	15.2	12
Treatment 1	8.5	5
Treatment 2	6.1	3

4. Discussion

The results of this study are consistent with previous research, which has shown that certain treatments can inhibit the growth of *Arabidopsis thaliana*. The findings of this study suggest that the treatments used in this study are particularly effective at reducing growth. Further research is needed to determine the exact mechanisms by which these treatments affect plant growth.

5. Conclusion

In conclusion, the study has shown that the treatments used have a significant negative effect on the growth of *Arabidopsis thaliana*. The results of the study are presented in the following table:

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.)

N2288Z

02-01-2019

Nationality and Registration Mark

Date

Removed the following equipment: Vacuum 215cc pump and hose, Vacuum Regulator and hoses, Precise stby Vacuum system, Attitude gyro & DG and hoses, TKMMX11 & TKM MX12 Comm/Nav, Suction gauge, clock, GPS CDI, (2) Altitude encoders, Apollo GPS, Apollo 2001 GPS, AT150 Transponder, KN-75 GS receiver, KI-209 Indicator.

Installed the following equipment: (2) Garmin G5's & stby battery, Garmin GTN650, King/Bendix KY-196, Garmin 335 Transponder, GAD29, GMU11.

Garmin GTN650 P/N 01-00813-50, S/N 1Z8016474 & Antenna GMA-35 antenna.

-Installed IAW Garmin Installation Manual # 190-01004-02 April 2018, Rev "R". STC# SA02019SE-D Dated: 03/18/2011.

-The GTN650 ground and flight evaluation confirmed performance as outlined in A.C. 20-138C.

-Weight and Balance was computed, and placed in the aircrafts P.O.H.

-Instructions for continued Airworthiness # 190-01007-A1 dated: 03/04/2011 Included in the Aircraft Documents.

-Equipment list revised, and flight manual supplement installed in aircraft P.O.H.

-FAA 337 form included in the aircraft documents.

Installed (2) Garmin G5's S/N 4JQ018896 & S/N 41Q018940. G5 Installation Kit # 010-12493-10. GMU11, S/N 56J007844. GAD29, S/N 5DL003190. IAW Garmin Master Drawing List 005-01112-01 Rev7 June, 2017 and FAA STC # SA01818WI. Aircraft Model is on the AML for this STC. Installed using Garmin STC Installation Manual 190-01112-10 Rev 7, Dated: June 2017.

-Installed G5 units in pilots instrument panel in place of removed air driven Attitude & DG. Configured the G5 using the speeds in the POH and per the STC Install Manual. G5 checked good per the post installation tests of the Installation Manual.

-Inserted G5 AFMS 190-01112-13 Rev2, Dated 4/28/2017 into POH supplements section.

-Instructions for Continued Airworthiness Dated: 4/28/2017 included in the aircraft documents.

-Updated weight and balance and equipment list. Filed FAA form 337 form.

Installed GTX335 transponder with ADS-B out functionality IAW FAA STC AML #SA01714WI Dated: Oct 18, 2016 and Master Drawing List # SA01714WI Dated: March 8, 2016. This aircraft model is listed on the AML for this STC.

-Interfaced the GTX335 to the GTN650 as approved GPS position source and for control/display of the GTX335.

Pressure altitude is provided by Garmin 011-03080-01 altitude encoder.

-The GTX335 was configured and tested per the installation manual and FAR 43 App E App C and F. transponder tested good. A copy of the configuration information has been placed with the aircraft permanent records.

- This installation was IAW Garmin GTX335 transponder TSO Installation manual # 190-01499-02 Dated: Dec, 2017 Rev10.

-FAA approved AFMS 190-00734-15, Rev 3. Dated: Dec 21, 2017 included in aircraft POH.

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.)

N2288Z

02-01-2019

Nationality and Registration Mark

Date

- Garmin 335 Pilot guide 190-01499-00, Rev. C. Dated Sept 2016 included in the aircraft.
 - Weight and balance and equipment list was updated. The owner was provided with the operating manual for the installed equipment.
 - Instructions for continued airworthiness: Other than for regularity periodic functional checks, maintenance of the GTX335 is "on condition" only. Periodic maintenance of the GTX335 is not required.
 - work was done IAW the STC Manuals as applicable and FAA AC43-13 1B/2B as applicable.
- Installed Bendix/King KY196 Com. The KY196 was mounted in the center radio stack. The KY196 is manufactured under TSO C36e, C40c, C37d, C37d, and C34e. The KY196 was installed IAW the Bendix/King Installation manual #006-00169-0003 Rev.3. Dated: Sept 1983.
- Instructions for continued airworthiness for the KY196 are unchanged from the airframe manufactures inspection program for panel mounted avionics equipment. The KY196 does not require any regular or scheduled maintenance.
 - Flight manual supplement was included in the aircraft POH, and the aircraft weight and balance was updated and included in the aircraft permanent records.
- The above equipment complies with the static loading of 43.13-2b, Chapter 1, Paragraph 2, section d. An electrical load analysis was performed and loading meets the requirements on AC43-13-1b chapter 2, paragraph 27, section d. Magnetic direction indicators were checked and compensated IAW AC43.13-1b chapter 2, paragraph 23, section f. fabrication of brackets of attachment complies with AC43.13-1b chapter 2, paragraph 25 and 26. Section a. Materials and practices comply with AC43.13-1b chapter 1, paragraph 4 through 12. A new weight and balance was computed, and entered in the aircraft records.

-----END-----

 US Department of Transportation Federal Aviation Administration		MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		OMB No. 2120-0020 Exp: 5/31/2018	Electronic Tracking Number
		For FAA Use Only			

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark N2288Z	Serial No. 28-2196	
	Make Piper	Model PA-28-180	Series

2. Owner	Name (As shown on registration certificate) Guy Foreman	Address (As shown on registration certificate) Address 17 Kincaid dr.	
		City Valparaiso	State IN
		Zip 46385	Country USA

3. For FAA Use Only

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

VICTOR C.
LIBERATORE

Digitally signed by VICTOR C. LIBERATORE
Date: 2018.08.28 11:58:16 -05'00'

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	Piper	(As described in Item 1 above)	28-2196
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Time		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name Guy Foreman		<input checked="" type="checkbox"/> U. S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address 17 Kincaid dr.		<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City Valparaiso State IN		<input type="checkbox"/> Certificated Repair Station	2731944
Zip 46385 Country USA		<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B

☐

Signature/Date of Authorized Individual

8-27-18

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is

☒ Approved
 ☐ Rejected

BY	FAA Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	Inspection Authorization	

Certificate or Designation No.

2731944

Signature/Date of Authorized Individual

02-01-2019

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.)

N2288Z

08/27/2018

Nationality and Registration Mark

Date

General:

All work performed conforms to the parameters set forth in the FAR's and the recommendations and guidelines set forth in AC43.13-1B and AC43.13-2B.

FAA Advisory Circular 43.13-1B, Chapter 3, Fiberglass and Plastic.

FAA Advisory Circular 43.13-1B, Chapter 8, Aircraft Hardware, Control Cables, and Turnbuckles.

FAA Advisory Circular 43.13-1B, Chapter 10, Weight and Balance.

FAA Advisory Circular 43.13-1B, Chapter 1, Para. 100-114, Structural Data

FAA Advisory Circular 43.13-1B, Chapter 2, Para. 200-210, Radio Installations.

Installed the following:

A New Instrument Panel fabricated using 2024 T3, 0.080 Aluminum following the current layout of the Piper PA28 model. No Aircraft structural modifications were required to incorporate the new panel. Panel modification is being accomplished in conjunction with 337 dated 08-27-2018 for the installation of Garmin G5 under STC SA01818WI. The New Instrument Panel will be fastened to the existing panel's frame using nut pates, and structural screws.

Performed Maintenance Operation Check (MOC).

Performed Flight Test.

Updated Aircraft Weight and Balance.

Notes:

Logbook entries made per FAR requirements.

Instructions for Continued Airworthiness, New Instrument panel.

1. Introduction

As described above, this aircraft has been modified with a New Instrument Panel.

Purpose:

This document identifies the Instructions for Continued Airworthiness for the modification of the above aircraft by installation of a New Instrument Panel.

Applicability:

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.)

N2288Z

08/27/2018

Nationality and Registration Mark

Date

Applies to the aircraft by installation of a New Instrument Panel.

Definitions & Abbreviations:

None, N/A.

Precautions:

None, N/A.

Units of Measurements:

None, N/A.

Referenced Publications:

Piper Aircraft Maintenance Manual for the PA28 series aircraft.

Distribution:

This document should be a permanent aircraft record.

2. Description of the Alteration:

Installation of a New Instrument Panel. This panel is identical in design to the current Piper PA28 model aircraft and no special continued airworthiness requirements are required.

3. Control, Operation Information:

N/A.

4. Servicing Information:

N/A.

5. Maintenance Instructions:

Maintenance of the New Instrument panel, reference the Piper PA28 Maintenance manuals.

6. Troubleshooting:

N/A.

7. Removal and replacement Information:

For removal and installation of the New Instrument panel, reference the Piper PA28 Maintenance manuals.

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.)

N2288Z

08/27/2018

Nationality and Registration Mark

Date

8. Diagrams:

N/A.

9. Special Inspection Requirements:

N/A.

10. Application of protective Treatments:

N/A.

11. Data: relative to Structural Fasteners:

N/A.

12. Special Tools:

N/A.

13. This section is for the Commuter Category Aircraft Only:

N/A.

14. Overhaul Period:

No additional overhaul time limitations.

15. Airworthiness Limitation Section:

N/A.

16. Revision:

To revise this ICA, a letter must be submitted to the local FSDO with a copy of the revised FAA 337, and revised ICA. The FAA inspector accepts the change by signing Block 3 and including the following statement:

"The attached revised/new Instructions for Continued Airworthiness (date_____) for the above aircraft or component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness (date_____)."

*****Nothing Follows*****



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark United States / N2288Z	Serial No. 28-2196	
	Make Piper	Model PA28-180	Series PA28
2. Owner	Name (As shown on registration certificate) Moore Francis T.	Address (As shown on registration certificate) Address 2250 Ocean Shore Blvd Apt. 203	
		City Ormond Beach	State Fla
		Zip 32176	Country United States

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type _____ Manufacturer _____		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name Joshua S. Jackson		<input checked="" type="checkbox"/> U. S. Certified Mechanic	<input type="checkbox"/> Manufacturer
Address 17 WillowTrace Drive		<input type="checkbox"/> Foreign Certified Mechanic	C. Certificate No.
City Flagler Beach	State Fla	<input type="checkbox"/> Certified Repair Station	A&P 2703524
Zip 32136	Country United States	<input type="checkbox"/> Certified Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual 12/29/2010
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	X Inspection Authorization	Other (Specify)

Certificate or Designation No. A&P 2703524IA	Signature/Date of Authorized Individual 12/29/2010
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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.)

United States / N2288Z

Nationality and Registration Mark

12/29/2010

Date

Installed Rosen Sunvisors in accordance with Rosen Sunvisor Systems, LLC STC# SA00072SE.

Installed using manufacturer supplied instructions and hardware.

4- A10K80 Rivnuts

4- MS24693-C276B screws.

Installed on pilot and copilot sides, on the upper outboard section of the windshield eyebrow as specified in STC paperwork and installation instructions. Drilled holes and installed A10K80 (supplied) rivnuts.

Reinstalled forward section of headliner and interior trim.

Attached supplied sunvisors.

Performed operational check of sunvisor universal mounting brackets through the full range of motion. Operational check satisfactory.

☐ Additional Sheets Are Attached

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				Form Approved OMB No. 2120-0020 <hr/> For FAA Use Only <hr/> Office Identification <div style="font-size: 1.2em; font-family: cursive;">SO-FSDO-15</div>	
US Department of Transportation Federal Aviation Administration					
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 form 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-28-180	
	Serial No. 28-2196			Nationality and Registration Mark N2288Z	
2. Owner	Name (As shown on registration certificate) William K Foster			Address (As shown on registration certificate) PO Box 343 Deleon Springs, FL 32130	
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.
Sebastian Communication, Inc. 473 Manor Drive Merritt Island, FL 32952					OF4R412M
			U.S. Certified Mechanic		
			Foreign Certified Mechanic		
			X Certified Repair Station		
			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			Signature of Authorized Individual		
September 10, 2002			Carl E. Campbell <div style="font-size: 1.2em; font-family: cursive;">[Signature]</div>		
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization		Other (Specify)
	FAA Designee	X Repair Station	Person Approved by Transport Canadian Airworthiness Group		
Date of Approval or Rejection		Certificate or Designation No.		Signature of Authorized Individual	
09/10/2002		OF4R412M		Carl Campbell <div style="font-size: 1.2em; font-family: cursive;">[Signature]</div>	

NOTICE

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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: Turn Coordinator, Directional gyro.

INSTALLED: S-Tec System 30 Autopilot (consisting of Turn Coordinator / Roll Computer, Pitch Computer, Roll Servo, Pitch Servo, Altitude Transducer, & wiring harness) per STC SA09254AC-D, using procedures described in;

S-Tec Installation Bulletin ST-811

AC 43.13-1B, Chapter 11, Section's 4, 5, 6, 7, 8, 9, 10, 11, 12, 16

AC 43.13-2A, Chapter 2

Satisfactory ground checks were conducted.

Installation is in compliance with FAR 23.1301, 23.1309 and 23.1431.

Electrical load is within manufacturers specifications.

Instructions for Continued Airworthiness for the S-Tec autopilot are attached to this form.

Weight & Balance and Equipment List updated.

S-Tec system 30 Autopilot Flight Manual Supplement, p/n 891451, dated 07-07-1997, installed in Airplane Flight Manual.

----- E N D -----

 Additional Sheets Are Attached

**INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**

**S-TEC System 20/30, 30 ALT, 40/50, 40X/50X, 55/55X, 60-1, 60-2, PSS, 65 Autopilots
and Yaw Damper/Trim Systems**

1. Introduction

This modification was performed on **Piper models PA-28-140, PA-28-150, PA-28-160, PA-28-180, and PA-28-235**. The following information, in conjunction with the STC Installation Bulletin (S-TEC P/N) 811, Master Drawing List 921011, dated 11-19-01 and AFM Supplement(s) 891448, 891449, 891450, 891451, 891452, and 891453, dated 7-07-97 provide adequate guidance to determine that these systems are airworthy.

2. Description

This STC involves the installation of an S-TEC flight control system (System 20/30, 30ALT, 40/50, 40X/50X, 55/55X, 60-1, 60-2, PSS, 65 Autopilot and/or Yaw Damper/Trim Systems). The installation may include one or all of the following installations:

- Roll servo
- Pitch servo
- Trim servo (elevator)
- Yaw servo
- Panel or remotely mounted pitch/roll/yaw computers
- Panel mounted controllers, indicators, switches, and breakers
- Barometric pressure transducer/static source
- Flap motion sensor
- Optional systems (flight director/steering horizon, autotrim system, annunciator, altitude selector/alerter, GPSS converter (has separate ICAW), directional gyro, HSI, and/or other optional systems)

Servo installations utilize aluminum bracketry to secure the servos to the airframe. Attachment to the aircraft primary flight controls and trim systems is accomplished through cable, push-rod, and/or chain assemblies. Installation data for all components listed in the STC are included in the Installation Bulletin 811. Approved interconnections to navigation systems and heading systems are detailed in the Bulletin as well.

3. Controls, Operation Information

Operation of the autopilot and other systems is described in the FAA Approved Flight Manual Supplement(s) (S-TEC P/N) 891448, 891449, 891450, 891451, 891452, and 891453, dated 7-07-97. Specialized controls, annunciation, operation and interpretation are covered in this required document and in S-TEC Pilot's Operating Handbooks that supplement the approved AFMS.

4. Servicing Information

All servicing of items included in this STC must be accomplished by approved S-TEC dealers using S-TEC Dealer Maintenance Manuals and S-TEC Test Equipment. Locations and access to the components installed under this STC are described and depicted in the installation drawings and Installation Manual. Removal and replacement of components should be determined by functional checks indicated in the AFM Supplement and the Ground Checks and Flight Adjustment section of the Installation Bulletin for Model ST-711.



INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

**S-TEC System 20/30, 30 ALT, 40/50, 40X/50X, 55/55X, 60-1, 60-2, PSS, 65 Autopilots
and Yaw Damper/Trim Systems**

5. Maintenance Instructions

Condition and/or airworthiness inspections required under FAR Part 43, or other FAA approved programs, should include several items regarding the S-TEC autopilot System installed in the aircraft.

1. Perform functional checks indicated in the AFM Supplement and the Ground Checks and Flight Adjustment section of the Installation Bulletin for Model ST-711.
2. Component installations should be checked against Installation Bulletin for Model ST-711 to confirm integrity and condition.
3. In servo installations utilizing bridle cables, tension should be verified against values indicated on the Roll/Pitch/Trim/Yaw Servo Installation drawing(s) (found in the Bulletin Master Drawing List) 921011, dated 11-19-01. Check for frayed or misaligned bridle cables and excess wear or looseness of any associated idler pulleys.
4. Servo installations utilizing push-rod or chain actuation should be inspected for condition.

6. Trouble Shooting Information

Trouble-shooting this equipment should only be accomplished by authorized S-TEC Dealers with required test equipment and service data. System function should be determined through functional checks indicated in the AFM Supplement(s) 891448, 891449, 891450, 891451, 891452, and 891453, dated 7-07-97 and the Ground Checks and Flight Adjustment section of the Installation Bulletin for Model ST-711.

7. Removal and Replacement Information

All components can be removed with common tools and practices. Installation of components required for this alteration must be in accordance with the approved data contained in the Installation Bulletin for Model ST-711.

8. Diagrams

See Installation Bulletin for Model ST-711.

9. Special Inspection

N/A

10. Application of Protective Treatments

Servos, transducers, flap position sensors should be removed prior to application of corrosion (or other) treatments. Panel mounted components should not be exposed to these treatments.

11. Structural Fasteners

See parts list in the Installation Bulletin for Model ST-711 for TSO, PMA, and standard hardware information.

12. Special Tools

N/A

13. The following additional information is being supplied (required for Commuter category airplanes):

Electrical loads are described in the Component Weights and Current Drain section of the Installation Bulletin for Model ST-711.



INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

**S-TEC System 20/30, 30 ALT, 40/50, 40X/50X, 55/55X, 60-1, 60-2, PSS, 65 Autopilots
and Yaw Damper/Trim Systems**

14. Overhaul Time Limitations

N/A

15. Airworthiness Limitations

None.

16. Revisions

The S-TEC Service Letter/Bulletin program will be utilized to inform aircraft operators of significant changes to this ICA. Contact S-TEC Corporation at 1-800-USA-STECC.

United States Of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number SA09254AC-D

This Certificate issued to S-TEC Corporation
One S-TEC Way
Mineral Wells Municipal Airport
Mineral Wells, TX 76067-9236

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.

Original Product Type Certificate Number: 2A13

Make: Piper

Model: PA-28-140, PA-28-150, PA-28-160, PA-28-180, and
PA-28-235

Description of Type Design Change:

Installation of S-TEC System 20/30 Single and Two Axis Automatic Flight Guidance Systems, Model ST-711-20/30, according to Bulletin No. 811, dated 7-01-97 and Master Drawing List No. 921011, dated 7-01-97 or later FAA Approved revisions of the above data (14 Volt System).

Limitations and Conditions:

1. Only eligible on Model PA-28-235, S/N 28-10001 Through S/N 28-11378 and S/N 28-7110001 Through S/N 28-7210023.
2. Also eligible on Model PA-28-235, S/N 28-10001 Through S/N 28-11378 and S/N 28-7110001 Through S/N 28-7210023 When Modified Per STC SA2143WE (Robertson STOL).

(See Continuation Sheet, Page 2, a part of this STC.)

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: 7-02-97

Date reassued:

Date of issuance: 7-07-97

Date amended:

By direction of the Administrator



William J. Thomas
(Signature)

William J. Thomas
DAS Staff Coordinator, DAS 5 SW

(Title)

Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number SA09254AC-D

Limitations and Conditions (con't.)

3. FAA/DAS Approved Pilot's Operating Handbook and/or Airplane Flight Manual Supplement, P/N 891448, dated 7-07-97 is required for Piper Models PA-28-140, PA-28-150, PA-28-160; and PA-28-180, S/N 28-1 Through S/N 28-7205318; and PA-28-235, S/N 28-10001 Through S/N 28-11378 and S/N 28-7110001 Through S/N 28-7210023 for S-TEC System 20 or later FAA Approved revisions of the above supplement.
4. FAA/DAS Approved Pilot's Operating Handbook and/or Airplane Flight Manual Supplement, P/N 891449, dated 7-07-97 is required for Piper Model PA-28-180, S/N 28-7305001 And Up for S-TEC System 20 or later FAA Approved revisions of the above supplement.
5. FAA/DAS Approved Pilot's Operating Handbook and/or Airplane Flight Manual Supplement, P/N 891450, dated 7-07-97 is required for Piper Model PA-28-235, S/N 28-10001 Through S/N 28-11378 and S/N 28-7110001 Through S/N 28-7210023 When Modified Per STC SA2143WE (Robertson STOL) for S-TEC System 20 or later FAA Approved revisions of the above supplement.
6. FAA/DAS Approved Pilot's Operating Handbook and/or Airplane Flight Manual Supplement, P/N 891451, dated 7-07-97 is required for Piper Models PA-28-140, PA-28-150, PA-28-160; and PA-28-180, S/N 28-1 Through S/N 28-7205318; and PA-28-235, S/N 28-10001 Through S/N 28-11378 and S/N 28-7110001 Through S/N 28-7210023 for S-TEC System 30 or later FAA Approved revisions of the above supplement.
7. FAA/DAS Approved Pilot's Operating Handbook and/or Airplane Flight Manual Supplement, P/N 891452, dated 7-07-97 is required for Piper Model PA-28-180, S/N 28-7305001 And Up for S-TEC System 30 or later FAA Approved revisions of the above supplement.
8. FAA/DAS Approved Pilot's Operating Handbook and/or Airplane Flight Manual Supplement, P/N 891453, dated 7-07-97 is required for Piper Model PA-28-235, S/N 28-10001 Through S/N 28-11378 and S/N 28-7110001 Through S/N 28-7210023 When Modified Per STC SA2143WE (Robertson STOL) for S-TEC System 30 or later FAA Approved revisions of the above supplement.
9. Compatibility of this modification with other previously approved modifications must be determined by the installer.



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

SO-FSDO-15

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 PA28-180
	Serial No. 28-2196	Nationality and Registration Mark N2288Z
2. Owner	Name (As shown on registration certificate) WILLIAM K FOSTER	Address (As shown on registration certificate) PO BOX 343 DeLEON SPRINGS, FL. 32130

3. For FAA Use Only

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	B. Kind of Agency	C. Certificate No.
Patrick S Elliott 2 Jib Drive South Daytona, Fl. 32119	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	A&P505601766IA
	<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 12-8-2000	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	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 12-8-2000		Certificate or Designation No. 505601766	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.)

Installed Aero Fabricators, Inc. Shoulder Harness and seat belt kit
IAW Aero Fabricators, Inc. STC SA00001CH and Instruction Installations
Sheet AF-44 Dated 1/12/93 Rev A Pages 1&2. Copy of STC and 337 placed
in A/C permanent records. A/C weight and balanced revised.

////////////////////////////////////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

SO-FSDO-15

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 PA28-180
	Serial No. 28-2196	Nationality and Registration Mark N2288Z
2. Owner	Name (As shown on registration certificate) WILLIAM K FOSTER	Address (As shown on registration certificate) PO BOX 343 DeLEON SPRINGS, FL. 32130

3. For FAA Use Only

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	B. Kind of Agency	C. Certificate No.
Patrick S Elliott 2 Jib Drive South Daytona, Fl. 32119	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	A&P505601766IA
	<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 12-8-2000	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	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	<input type="checkbox"/>	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 12-8-2000		Certificate or Designation No. 505601766	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.)

REPLACED Elevator trim tab SKINS Piper P/N 63586-800,
Horizontal Stabilizer leading edge skin Piper P/N
63573-001, Rudder skin Piper P/N 63396-002.
All work done IAW Piper SERIES SERVICE manual
and AC 43.13 1A & 2A using original rivet pattern
and rivet size.

END

Additional Sheets Are Attached



U.S. 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

SO-FSDO-15

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 PA28-180
	Serial No. 28-2196	Nationality and Registration Mark N2288Z
2. Owner	Name (As shown on registration certificate) WILLIAM K FOSTER	Address (As shown on registration certificate) PO BOX 343 DeLEON SPRINGS, FL. 32130

3. For FAA Use Only

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				XX
POWERPLANT	Lycoming	O-360 A3A	L-7778-36A		XX
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
Patrick S Elliott 2 Jib Drive South Daytona, Fl. 32119	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	A&P505601766IA
	<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 12-8-2000	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	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 12-8-2000		Certificate or Designation No. 505601766	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.)

A. The following components were installed:

Precise Flight Standby Vacuum System, Model SVS III, P/N 4051
IAW Engine STC LYCOMING SE1779 NM and STC SA2167NM

B. The unit was installed in the engine compartment (fire wall) according to instructions in the PRECISE FLIGHT INSTALLATION MANUAL STANDBY VACCUUM SYSTEM MODEL SVSIII, P/N 50050 dated 08/26/96 and guidance in FAA Advisory Circulars 43.13-1A, chapter 11, and 43.13-2A, chapter 1&2.

C. Complete ground and flight operational tests were performed according to the PRECISE FLIGHT STANDBY VACCUUM SYSTEM MODEL SVS III INSTALLATION MANUAL P/N50050 dated 8/26/96. The equipment performed satisfactorily and did not adversely affect existing components or systems in the aircraft, as required by FAR 23.1431. The operating placard was filled out and placed on the aircraft instrument panel next to the control cable.

D. The aircraft equipment list was revised to reflect these changes weight and balance data was revised and placed in the aircraft records. APrecise Flight Inc. Standby Vacuum System Aircraft Flight Manual Supplement dated 1/3/92 was placed in the aircraft.

-----END-----



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
SO-FSDO-15

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 PA28-180
	Serial No. 28-2196	Nationality and Registration Mark N2288Z
2. Owner	Name (As shown on registration certificate) WILLIAM K FOSTER	Address (As shown on registration certificate) PO BOX 343 DeLEON SPRINGS, FL. 32130

3. For FAA Use Only

The alteration identified herein complies with the 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 does NOT support duplication of this alteration.

SO-FSDO-15

DEC 13 2000

GEORGE E. LITTLEFIELD

4. Unit Identification

PRINCIPAL AIRWORTHINESS INSPECTOR Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				
POWERPLANT	Lycoming	O-360 A3A	L-7778-36A		XX
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address Patrick S Elliott 2 Jib Drive South Daytona, Fl. 32119	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. A&P505601766IA
---	--	---

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 12-13-2000	Signature of Authorized Individual <i>Patrick S. Elliott</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	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection DEC 13 2000		Certificate or Designation No. 505601766	Signature of Authorized Individual <i>Patrick S. Elliott</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.)

Converted O-360- A3A to O-360- A4A, by
Installing solid crankshaft P/N 05K22805
Serial No. V537910762 .

— 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

SO-FSD0-15

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 PA28-180
	Serial No. 28-2196	Nationality and Registration Mark N2288Z
2. Owner	Name (As shown on registration certificate) WILLIAM K FOSTER	Address (As shown on registration certificate) PO BOX 343 DeLEON SPRINGS, FL. 32130

3. For FAA Use Only

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

SO-FSD0-15

GEORGE E. LITTLEFIELD

PRINCIPAL AIRWORTHINESS INSPECTOR

3/25/99

4. Unit Identification

5. Type

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

6. Conformity Statement

A. Agency's Name and Address PATRICK S ELLIOTT 2 JIB DRIVE SOUTH DAYTONA, FL. 32119	B. Kind of Agency	C. Certificate No. A&P505601766IA
	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certified 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 3-25-99	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 Flt. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 3-25-99		Certificate or Designation No. 505601766IA	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.)

Removed existing mixture control cable. Enlarged instrument panel control Cable hole to 3/4". Replaced mixture control cable with Alcor VCW-2 P/N 93882 Vernier mixture control cable IAW Alcor Installation instruction sheet 59108AW Rev. M 12/06/96. Cable installed has red knob & spiked contour to identify as mixture. Connection of cable to carburetor made by using existing hardware. No change in weight and balance. FAA / PMA Approved

////////////////////////////////////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
ASO-FSDO-15

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 PA28-180
	Serial No. 28-2196	Nationality and Registration Mark N2288Z
2. Owner	Name (As shown on registration certificate) FOSTER, WILLIAM K.	Address (As shown on registration certificate) P.O. BOX 343 DE LEON, FLORIDA 32130-0343

3. For FAA Use Only

The data/alteration herein complies 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

MAR 29 1999

Date

Signature

ASO-FSDO-15

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 QUEST AVIONICS, INC. P.O. BOX 770028 OCALA, FL 34477-0028	B. Kind of Agency	C. Certificate No. QVNR604L
	<input type="checkbox"/> U.S. Certificated Mechanic	
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input checked="" type="checkbox"/> Certificated Repair Station	
	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 Jan. 19, 1999	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 3/31/99		Certificate or Designation No. QVNR604L	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.)

SUPPLEMENTAL FORM 337 FOR GPS IFR ENROUTE, TERMINAL, AND
NON-PRECISION APPROACH APPROVAL.
SUPPLEMENT TO EXISTING FORM 337 DATED SEPTEMBER 9, 1998.

INSTALLED SYSTEMS:

- 1 EA. II MORROW 2001GPS SYSTEM WITH 360 MAP MOVING MAP SYSTEM.
- 1 EA. MID-CONT. MD40-65L CDI/ANNUNCIATOR.
- 1 EA. TCI IA-RS232C-S SERIALIZER.

INSTALLATION COMPLIES WITH FAR 23.1301 AND 23.1431.
THE II MORROW 2001GPS APPROVED FOR VFR AND IFR ENROUTE, TERMINAL, AND
NON-PRECISION APPROACH NAVIGATION AND WAS INSTALLED AND TESTED IN
ACCORDANCE WITH AC20-138, PARAGRAPH 8.c.(2). ~~NOT OF FAW~~

FAA APPROVED FLIGHT MANUAL SUPPLEMENT (FMS) INSTALLED IN AIRCRAFT'S
APPROVED FLIGHT MANUAL (AFM).

AIRCRAFT PLACARDED "GPS APPROVED FOR VFR AND IFR ENROUTE, TERMINAL, AND
NON-PRECISION APPROACHES".

----- 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
ASO-FSDO-15

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 PA28-180
	Serial No. 28-2196	Nationality and Registration Mark N2288Z
2. Owner	Name (As shown on registration certificate) WILLIAM K FOSTER	Address (As shown on registration certificate) PO BOX 343 DeLeon SPRINGS, FL. 32130

3. For FAA Use Only

4. Unit Identification

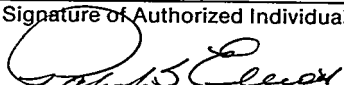
5. Type

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

6. Conformity Statement

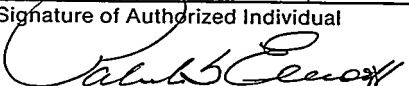
A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
Patrick S Elliott 2 Jib Drive South Daytona, Fl. 32119	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	A&P505601766IA
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair 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 11/09/98	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	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 11/09/98		Certificate or Designation No. A&P505601766IA	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.)

Installed BA-104, D.N 6485710 Brackett air filter assembly as per
Brackett Aircraft Co., Inc STC-SA693CE Instruction sheet part No.
BA-104-03 Dated Rev. 8-23-88.

-----END-----

☐ Additional Sheets Are Attached



U.S. 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
ASO-FSDO-15

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 28-180
	Serial No. 28-2196	Nationality and Registration Mark N2288Z
2. Owner	Name (As shown on registration certificate) FOSTER, WILLIAM K.	Address (As shown on registration certificate) P.O. BOX 343 DE LEON, FLORIDA 32130-0343

3. For FAA Use Only

The data/alteration herein complies 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

SEP 21 1998
Date

Signature

ASO-FSDO-15

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 QUEST AVIONICS, INC. P.O. BOX 770028 Ocala, FL 34477	B. Kind of Agency <input type="checkbox"/> U.S. Certificated Mechanic <input checked="" type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. QVNR604L
---	--	---------------------------------------

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 Sept. 9, 1998	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	Inspection Authorization	Other (Specify)
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 9/23/98		Certificate or Designation No. QVNR604L	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.)

INSTALLED

- 1 EA. II MORROW 2001GPS SYSTEM WITH 360MAP MOVING MAP SYSTEM.
- 1 EA. MID-CONT. MD40-65L CDI.
- 1 EA. TCI IA-RS232C-S SERIALIZER.

SYSTEMS INSTALLED IN ACCORDANCE WITH AC43.13-1A, CHAPTER 5, sec.1, CHAPTER 11, sec. 2,3,4,5,&7, AC43.13-2A, CHAPTERS 2&3, AND AC20-138, app. 1, para.1.

INSTALLATION WAS MADE IN REFERENCE WITH MANUFACTURER'S INSTALLATION MANUALS, p/n560-0161-00, 560-0124-01, rev B, IA-RS232C-S, AND DIAGRAM 2010056-65.

SYSTEM INSTALLED SIMILAR TO PREVIOUSLY APPROVED SUPPLEMENTAL TYPE CERTIFICATE (STC) NUMBER SA00328SE, dated 5/14/96.

RECEIVER MOUNTED IN CENTER RADIO PANEL AT STATION 62.0 AS PER PARAGRAPH 23 OF AC43.13-2A. ANTENNA MOUNTED ON TOP AT STATION 104.0 AS PER PARAGRAPH 38 OF AC43.13-2A. CDI AND 360MAP MOUNTED IN PANEL AT STATION 62.0 AS PER PARAGRAPH 23 OF AC43.13-2A. SERIALIZER MOUNTED FORWARD OF COPILOT'S PANEL AT STATION 52.0 AS PER PARAGRAPH 25 OF AC43.13-2A.



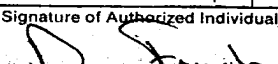
INSTALLATION COMPLIES WITH FAR 23.1301 AND 23.1431.

EQUIPMENT LIST AND WEIGHT AND BALANCE DATA WERE REVISED TO REFLECT THESE CHANGES.

THE II MORROW 2001GPS APPROVED FOR VFR USE ONLY.

AIRCRAFT PLACARDED "GPS FOR VFR USE ONLY".

☐ 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 SC-500-15	
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 Serial No. 28-2196		Model PA-28-180 Nationality and Registration Mark N2288Z		
	Name (As shown on registration certificate) OWENS, WILLIAM JR RIDGE, ROBERT		Address (As shown on registration certificate) PO BOX 8855 MADEIRA BEACH, FL 33738		
3. For FAA Use Only					
4. Unit Identification					
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in Item 1 above)				XX
POWERPLANT					
PROPELLER					
APPLIANCE	Manufacturer				
6. Conformity Statement					
A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
FLIGHT CONTROL SERVICES 351 8TH AVE SE HANGER 3 ST PETERSBURG, FL 33701		<input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer		OFHR414L	
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 06/30/94		Signature of Authorized Individual  CHIEF INSPECTOR			
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)	
	FAA Designee XX	Repair Station	Person Approved by Transport Canada Airworthiness Group		
Date of Approval or Rejection 06/30/94		Certificate or Designation No. OFHR414L	Signature of Authorized Individual  CHIEF INSPECTOR		

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.)

The following installation conforms to acceptable methods using previously approved data supplied by the FAA and manufacturer's as described below, listed by item:

UNIT INSTALLED: TKM MX-11 COM UNIT

1. INSTALLATION

The unit was supplied with mounting tray and connector. Installation was performed using approved materials and data provided by manufacturer. Circuit breaker installed in space provided for avionics breakers, labeled RADIO, and tied into power buss. Harness fabricated using approved material, and tied into aircraft audio system as outlined in manufacturers installation manual. Com unit installed in radio stack. Connection to com antenna. Unit firmly bonded to airframe ground. All wires tied away from controls. No other connections or interfacing attempted.

2. APPROVAL:

Installation conforms with articles in AC 43.13 1A Chapter 15 sections 1,2,4,5,6. Chapter 5 section 1. Chapter 11 sections 2,3,4,5,7. Chapter 13 paragraphs 659 & 662. And AC 43.13 2A Chapter 1 paragraphs 4,5,6,9,10,11,12. Chapter 2 paragraphs 21,22,23,24,27. Additional approval data obtained from FAR PART 23. Additional data from previously approved data supplied by the manufacturer.

3. This system was ground and bench tested, and found not to be a source of objectionable electromagnetic interference, and is functioning properly and safely and operates in accordance with manufacturers specifications. This installation was inspected by this agency for safety of mounting and is approved for return to service.

4. Weight and balance has been recomputed and entered as a permanent record in the proper section of flight manual. Equipment list has been revised. A logbook entry has been made.

-----END-----

APPROVED FOR RELEASE


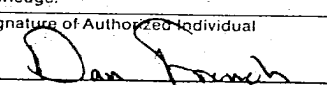
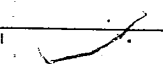
APPROVED FOR RELEASE

APPROVED FOR RELEASE

☐ Additional Sheets Are Attached

APPROVED FOR RELEASE

MAR 25 1994

 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 ASO-FSDO-15	
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 Serial No. 28-2196		Model PA-28-180 Nationality and Registration Mark N2288Z	
2. Owner		Name (As shown on registration certificate) OWENS, WILLIAM JR RIDGE, ROBERT		Address (As shown on registration certificate) PO BOX 8855 MADEIRA BEACH, FL 33738	
3. For FAA Use Only					
4. Unit Identification					
Unit	Make	Model	Serial No.	5. Type	
AIRFRAME	(As described in Item 1 above)			Repair	Alteration
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				
6. Conformity Statement					
A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
FLIGHT CONTROL SERVICES 351 8TH AVE SE HANGER 3 ST PETERSBURG, FL 33701		<input type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer		OFHR414L	
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		Signature of Authorized Individual			
03/18/94		 CHIEF INSPECTOR			
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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> 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		Certificate or Designation No.	Signature of Authorized Individual		
03/18/94		OFHR414L	 CHIEF INSPECTOR		

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.)

EQUIPMENT REMOVAL:

The below-listed equipment was removed by this agency from this aircraft.

NARCO MARK 12 WITH POWER UNIT AND INDICATOR.

EXISTING TRANSPONDER MOVED TO CENTER STACK.

All work is in accordance with appropriate FAR's, manufacturers specifications and AC 43.13 1A chapter 15 sections 1,2,4,5 and 6. Additional approval data from AC 43.13 2A chapter 2.

A log entry, plus weight and balance revision have been made to reflect this change.

-----FID-----

☐ Additional Sheets Are Attached

FEDERAL AVIATION AGENCY APPLICATION FOR AIRWORTHINESS CERTIFICATE			FORM APPROVED BUDGET BUREAU NO. 04-R058.1
INSTRUCTIONS: Please print or type. Submit this form, original only, to an authorized Federal Aviation Agency Representative. Use attachments or extra sheets as necessary.			
PART I AIRCRAFT DESCRIPTION	1. AIRCRAFT IDENTIFICATION NO. N 2288Z	2. AIRCRAFT MAKE Piper	3. AIRCRAFT MODEL PA 28-180
	4. AIRCRAFT SERIAL NUMBER 28-2196	5. ENGINE MAKE Lycoming	6. ENGINE MODEL O-360-A3A
	7. NUMBER OF ENGINES One	8. PROPELLER MAKE Sensenich	9. PROPELLER MODEL M76EMMS60
PART II CERTIFICATION REQUESTED	1. APPLICATION IS HEREBY MADE FOR: A. <input checked="" type="checkbox"/> ORIGINAL ISSUANCE OF CERTIFICATE (AIRCRAFT <input checked="" type="checkbox"/> NEW <input type="checkbox"/> USED <input type="checkbox"/> IMPORT) (CAR 1) B. <input type="checkbox"/> AMENDMENT OF CURRENT CERTIFICATE (CAR 1.62) C. <input type="checkbox"/> MULTIPLE CERTIFICATE (REF. CAR 1 AND 8) D. <input type="checkbox"/> OTHER _____ (Specify)		
	2. AIRWORTHINESS CLASSIFICATION (Check appropriate item(s)) It is requested that an Airworthiness Certificate be issued to permit operation of the above described aircraft in the following classification(s): A. <input checked="" type="checkbox"/> STANDARD (NORMAL, UTILITY, ACROBATIC, TRANSPORT CATEGORIES) (REF. SUBD FAR 21.183 (a)) B. <input type="checkbox"/> LIMITED (REF. CAR 9) C. <input type="checkbox"/> RESTRICTED (REF. CAR 8) (Check operation(s) to be conducted) (1) <input type="checkbox"/> AGRICULTURAL AND PEST CONTROL (2) <input type="checkbox"/> AERIAL ADVERTISING (3) <input type="checkbox"/> AERIAL SURVEYING (4) <input type="checkbox"/> PATROLLING (5) <input type="checkbox"/> FOREST AND WILDLIFE CONSERVATION (6) <input type="checkbox"/> WEATHER CONTROL (7) <input type="checkbox"/> OTHER _____ (Specify) D. <input type="checkbox"/> EXPERIMENTAL (REF. CAR 1) (Check operation(s) to be conducted) (1) <input type="checkbox"/> AMATEUR-BUILT (2) <input type="checkbox"/> EXPERIMENT (RESEARCH AND DEVELOPMENT) (3) <input type="checkbox"/> EXHIBITION (4) <input type="checkbox"/> RACING (5) <input type="checkbox"/> TO SHOW COMPLIANCE WITH CAR _____ E. <input type="checkbox"/> (OTHER) _____ (Specify)		
	3. HAS THE APPLICANT PREVIOUSLY BEEN DENIED AN AIRWORTHINESS CERTIFICATE FOR THIS AIRCRAFT? <input type="checkbox"/> YES (Explain) <input checked="" type="checkbox"/> NO		
PART III INSPECTION AGENCY VERIFICATION (Not applicable to newly manufactured aircraft)	1. IN ACCORDANCE WITH CAR 1.67(d) THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: A. <input type="checkbox"/> AIRCRAFT MANUFACTURER (Name of Firm) _____ B. <input type="checkbox"/> CERTIFICATED DOMESTIC REPAIR STATION, CERTIFICATE NO. _____ C. <input type="checkbox"/> CERTIFICATED AIR CARRIER, CERTIFICATE NO. _____ D. <input type="checkbox"/> CERTIFICATED MECHANIC (Inspection Authorization) NO. _____ DATE _____ SIGNATURE OF AUTHORIZED INDIVIDUAL _____ TITLE _____		
	I hereby certify that the aircraft described above has been inspected and is airworthy and eligible for the classification(s) requested. I further certify that I am the registered owner (or his agent) of this aircraft which is registered* with the Federal Aviation Agency, as required by the Federal Aviation Act of 1958 and the applicable Federal Aviation Regulations and Regulations of the Administrator and that the following evidence of registration is displayed in the aircraft. (Check and complete appropriate item(s); this includes completion of items 1 and 2 on the reverse side of this form.) 1. <input type="checkbox"/> CERTIFICATE OF REGISTRATION, FAA FORM 500 (PART A) DATE OF ISSUE _____ 2. <input checked="" type="checkbox"/> APPLICATION FOR REGISTRATION, FAA FORM 500 (PART A) PA FORM 500 FORWARDED TO _____ FAA AIRCRAFT REGISTRATION BRANCH ON (Date) 2-19-65 3. <input type="checkbox"/> DEALER'S AIRCRAFT REGISTRATION CERTIFICATE, FAA FORM 1707 (Expiration date) _____ 4. REGISTERED OWNER'S FULL NAME AND PERMANENT MAILING ADDRESS (No., Street, City, Zone and State) Safeway Airways, Inc. P. O. Box 1199, Merrill Field Anchorage, Alaska *In order to be eligible for registration an aircraft must be owned by a citizen of the United States as defined by Section 101(13) of the Federal Aviation Act of 1958. 5. SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT Wayland R. Medlin 6. DATE 2-19-65 7. TITLE Chief Inspector 8. ATTACHMENTS (Check which) A. <input type="checkbox"/> FAA FORM 337 C. <input type="checkbox"/> WEIGHT AND BALANCE REPORT E. <input type="checkbox"/> OTHER (List separately) B. <input type="checkbox"/> FAA FORM 317 D. <input type="checkbox"/> DATA, DRAWINGS, PHOTOGRAPHS, ETC. (List separately)		

FEDERAL AVIATION AGENCY
AIRCRAFT INSPECTION REPORT

(Items 1 and 2 will be verified and all other applicable items will be completed by an authorized FAA representative.)

1. AIRCRAFT CERTIFICATION BASIS		
The aircraft described in PART 1 on the reverse of this form has been inspected and found to conform to the following:		
A. <input checked="" type="checkbox"/> AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET NO. 2A13	REVISION NO. 11	
B. <input type="checkbox"/> AIRCRAFT LISTING, PAGE NO. (S)		
C. <input checked="" type="checkbox"/> AIRWORTHINESS DIRECTIVE SUMMARY 1963	[YEAR] THROUGH CARD NO. 65-3	
D. <input type="checkbox"/> SUPPLEMENTAL TYPE CERTIFICATE NO. (S)		
E. <input type="checkbox"/> OTHER	— (Specify)	
2. AIRCRAFT AND ENGINE OPERATING RECORDS		
A. <input checked="" type="checkbox"/> AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY		
B. <input checked="" type="checkbox"/> COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED		
C. <input type="checkbox"/> AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF _____ HOURS		
D. <input checked="" type="checkbox"/> ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:		
SERIAL NO. L-7778-36A	TOTAL HOURS	TIME SINCE OVERHAUL
SERIAL NO.	TOTAL HOURS	TIME SINCE OVERHAUL
SERIAL NO.	TOTAL HOURS	TIME SINCE OVERHAUL
SERIAL NO.	TOTAL HOURS	TIME SINCE OVERHAUL
3. AIRWORTHINESS DOCUMENTATION		
A. <input type="checkbox"/> CURRENT OPERATING RESTRICTIONS (LIMITATIONS), COPY ATTACHED		
B. <input type="checkbox"/> CURRENT OPERATING RESTRICTIONS (LIMITATIONS), AVAILABLE IN AIRCRAFT		
C. <input checked="" type="checkbox"/> CURRENT APPROVED AIRCRAFT FLIGHT MANUAL, AVAILABLE IN AIRCRAFT		
D. <input checked="" type="checkbox"/> CURRENT WEIGHT AND BALANCE INFORMATION, AVAILABLE IN AIRCRAFT		
E. <input checked="" type="checkbox"/> THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS		
F. <input type="checkbox"/> FAA FORM 337, MAJOR REPAIR AND ALTERATION, (ATTACH WHEN REQUIRED)		
G. <input type="checkbox"/> FAA FORM 317, STATEMENT OF CONFORMITY, (ATTACH WHEN REQUIRED)		
H. <input type="checkbox"/> WEIGHT AND BALANCE REPORT, (ATTACH WHEN REQUIRED)		
I. <input type="checkbox"/> DATA, DRAWINGS, PHOTOGRAPHS, ETC., (ATTACH WHEN REQUIRED)		
J. <input checked="" type="checkbox"/> AIRWORTHINESS CERTIFICATE, FAA FORM 1362, ISSUED IN ACCORDANCE WITH 23-1183 (a)		
K. <input type="checkbox"/> PREVIOUS FAA FORM 1362, ISSUED IN ACCORDANCE WITH CAR _____		
BY _____ (Name of Issuing Representative) _____ (Designation Number)		
4. FAA REPRESENTATIVE CERTIFICATION		
I have inspected the aircraft described on the reverse and, on the basis of the application and the foregoing, find it conforms to its type certificate and that it is in condition for safe operation.		
5. REGISTRATION INDICATED ON REVERSE IS PROPERLY DISPLAYED IN AIRCRAFT <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (Explain)		
6. DESIGNEE'S SIGNATURE Wayland R. Medlin	DESIGNATION NO. DMIR-6070	DATE 2-19-65
7. FAA INSPECTOR'S SIGNATURE William H. Tarpe	FAA DISTRICT OFFICE NO. FAA-SC EMDO-43	DATE FEB 20 1965
8. REMARKS		A. <input checked="" type="checkbox"/> ACCEPTED B. <input type="checkbox"/> REINSPECTED C. <input type="checkbox"/> SPOT CHECKED
9. ATTACHMENT(S) IN ADDITION TO THOSE LISTED ON REVERSE (List separately)		
1. Copy of Form FAA-1362B		

UNITED STATES OF AMERICA FEDERAL AVIATION AGENCY		
CERTIFICATE OF AIRWORTHINESS		
1. NATIONALITY AND REGISTRATION MARKS	2. AIRCRAFT AIRWORTHINESS CLASSIFICATION	
N2288Z	Standard - Normal	
<p>3. This Certificate of Airworthiness is issued pursuant to the Federal Aviation Act of 1958. The aircraft identified hereon is considered airworthy when maintained and operated in accordance with the Civil Air Regulations and applicable aircraft Operation Limitations.</p> <p>4. This Certificate will remain in effect as long as the aircraft is maintained in accordance with Part 43 of the Civil Air Regulations unless surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Agency.</p>		
5. DATE OF ISSUANCE	6. FAA REPRESENTATIVE	7. DESIGNATION NO.
2-19-65	<i>Wayland E. Madlin</i> Wayland E. Madlin	DMR-6070
<p>8. Any alteration or misuse of this Certificate is punishable by a fine of not exceeding \$1,000 or imprisonment not exceeding 3 years, or both.</p>		

FAA AIRCRAFT REGISTRY
CAMERA NO. 111 DATE: 5-26-83



MICRO



DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				FOR FAA USE ONLY	
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.				OFFICE IDENTIFICATION	
1. AIRCRAFT	MAKE	Piper		MODEL	PA-28-180
	SERIAL NO.	28-2196		NATIONALITY AND REGISTRATION MARK	N 2288Z
2. OWNER	NAME (As shown on registration certificate)			ADDRESS (As shown on registration certificate)	
	Leslie E. Dhabelt			P. O. Box 153 King Salmon, Alaska 99613	
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.
Cutter Aviation, Inc. P. O. Box 20306 Phoenix, Arizona 85036			<input type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		Repair Station 4261 Airframe Class 1 & II
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			SIGNATURE OF AUTHORIZED INDIVIDUAL		
June 28, 1972			<i>John L. ...</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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION		OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION		CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL		
June 28, 1972		Inspector	<i>John L. ...</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.)

June 28, 1972

N 2288Z

Installed Remote Compass AN-5730-1, Model 350-319 as per manufacturer instructions. Indicator installed in existing panel hole. Transmitter and Inverter mounted on radio shelf aft of shear web. # 18 gauge wire used with 5 amp circuit breaker switch. Log entry & weight & balance reflect these changes.

- END -

☐ ADDITIONAL SHEETS ARE ATTACHED