# N521RM 1977 Cessna 421C

# FAA Form 337s

MSN: 421C-0335



Prepared by the worldwide aviation specialists at RidgeAire, Inc.

US Department
of Transportation
Federal Aviation
Administration

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

Form Approved OMB No. 2120-0020 11/30/2007	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))

su	ch violati	on. (49 U.S.	C. §46	301(a	1))				, - (		. ,				,	
		Nationality	y and F	Regist	tration	n Mark				Serial						
			N521RM Make Cessna					M 421				421C	21C-0335			
1. A	ircraft	Make								Model	Model 421C			Series 421		
Name (As shown on registration certificate)						)				Address (As shown on registration certificate) Address 3341 Cr. 122						
2. O	wner	G&W	Av	iat	io	n LLC				City		cadi			State TX	
												507.3		ntry USA		
	····							3. F	or FAA Use	Only						
	4. Typ	oe ·	<del></del>	<del></del> -				5. U	Init Identifica	ation						
R	epair	Alteration		Unit			Mak	(e				Mode	el		Serial No.	
			AIRFI	RAME	=					(As d	escribe	ed in Ite	əm 1 a	bove)		
		$\square$	POW	ERPL	ANT	Cor	ntine	ntal		GTSIO-520-L			20-L	292177-R		
			PROF	PELLE	ĒR											
			APPL	IANC	F.	Type Manufacturer										
							6.	Cor	nformity Sta	ement						
A. A		lame and Ad						B. K	Kind of Agend							
Name		Aircraft, Lin		Partn	nersh	nip	— ļ	_						Manufacturer		
Addres City	™ <u>7505</u> Waco	Karl May D	Jrive			State Texas	— ļ	<del>,</del>	C-different d Descrip Challes					rtificate No.		
Zip	76708		<sub>untry</sub> U	Inited	Stat			<b>✓</b>	Certificated Repair Station Airfram  Certificated Maintenance Organization					ne Class III, Powerplant Class I VA1R551K		
D.	have be	en made in	accord	dance	with	on made to the the requirements the best of my	s of F	art 4	43 of the U.S	m 5 abo . Federal	ve and Aviation	d descr on Reg	ibed oulation	n the rev is and tha	verse or attachments hereto at the information	
Extended range fuel Signature/Date of Authorized Individual Per 14 CFR Part 43 App. B Greyson Leonard 05-28-2024						Bu	2~/	1/2	<u> Es</u>	m	aul					
						7.	Арр	rova	al for Return	10 Servi						
						ns specified be ninistration and i		the		ed in ite Approv		_	specte ejecte		e manner prescribed by the	
ву		A Fit. Stand pector	ards		Manı	ufacturer		Ma	intenance Or	ganizatio	n		Depart	ment of T	ed by Canadian ransport	
1 0	FA	A Designee		✓	Repa	ir Station		Ins	pection Auth	orization		Other	(Spe	pecify)		
	ficate or gnation N			18	Signa	ture/Date of Aut	horiz	ed Ir	ndividual	1	2			1	,	
	VA1R551K Greyson Leonard 05-28-2024															

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.

Description of Work Accomplished (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)
N521RM 05-28-2024
Nationality and Registration Mark Date
Engine modified per Drawing 1514, Rev. T, dated 4/20/10 or current revision per STC SE8338SW-D.
Relocated Turbo Oil Supply Line in accordance with RAM Drawing No. 1224, Rev. H, dated 11/18/03 or current revision per STC SE8338SW-D.
nstalled Bendix pressurized magnetos, P/N 10-349420-2 and 10-349460-2, in accordance with Dwg.1029, Rev. N, dated 02/12/02 or current revision per STC SE4591SW-D.
nstallation mechanic must complete Blocks 1 and 2 on reverse side and mail one copy to the Federal Aviation Administration, Aircraft Registration Branch AFS-750, P.O. Box 25504, Oklahoma City, Oklahoma 73125.
Negligible weight and balance change.
Customer furnished with FAA approved Overhaul and Parts Manual Supplements with Instructions for Continued Airworthiness for all alterations.
Pertinent details of the above installations are on file under Project No. 10950END
Additional Sheets Are Attached

US Departm	ent

US Department of Transportation Federal Aviation Administration

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

Form Approved	Electronic Tracking Number
OMB No. 2120-0020	
	For FAA Use Only

Federal Aviation Administration 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)) Nationality and Registration Mark Serial No. 421CO335 N521RM 1. Aircraft Make Model Series 421C **CESSNA** 31 Name (As shown on registration certificate) Address (As shown on registration certificate) AMROAIR LLC Address 6547 LAKE CIRCLE DR 2. Owner City DALLAS Stat **TEXAS** 75214-3416 3. For FAA Use Only 5. Unit Identification 4. Type Unit Make Model Serial No. Repair Alteration AIRFRAME X (As described in Item 1 above) POWERPLANT **PROPELLER** Type **APPLIANCE** Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency Name NATHAN CLINE X U.S. Certificated Mechanic Manufacturer Address 133 POLK 52 Foreign Certificate Mechanic C. Certificate No. **MENA** City Stat AR Certificated Repair Station AP2960786 e 71953 USA Certificated Maintenance Organization Country 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 Signature/Date of Authorized-Individual per 14 CFR Part 43 App. B JUNE 16, 2021 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 FAA Flt. Standards Persons Approved by Canadian Manufacturer Maintenance Organization Inspector Department of Transport В Other (Specify) X FAA Designee Repair Station Inspection Authorization Signature/Date of Authorized Individual Certificate or Designation No. JUNE 16, 2021 AP2960786

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 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.)

N521RM JUNE 16, 2021
Nationality and Registration Mark Date

REMOVED THE FOLLOWING EQUIPMENT:

Description WAAS GPS/NAV/COM Manufacturer GARMIN Model Number GNS430W Part Number 011-01060-00 Location RADIO STACK

INSTALLED THE FOLLOWING EQUIPMENT:

Description Integrated Flight Display Manufacturer Avidyne

Model Number IFD 440

Part Number 700-00179-000

Location

RADIO STACK

REMOVED ABOVE LISTED PARTS.

Installed Avidyne IFD 440 to provide flight information to the Garmin G-600 PFD/MFD System.

APPROVED DATA

AVIDYNE IFD 440 STC SA00343BO

FAA AC 43.13-1B FAA AC43.13-2B

A copy of FMS, ICA's, pilots guides, AML's, STC's have been provided to aircraft owner for the Avidyne IFD 440

All work was performed IAW the data referenced above. Post installation ground test have been performed to assure proper operation of all affected systems. All affected system was tested accordingly to show compliance with 14 CFR 23.1309.

An Electrical Load Determination was performed IAW AC43.13-1B/Para 11-36. The changes in the electrical load were found to be within the limits established by the airframe manufacturer.

The Aircraft Equipment List and Weight and Balance Negligible.

US Department
of Transportation
Federal Aviation
Administration

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

Form Approved OMB No. 2120-0020 11/30/2007	Electronic Tracking Number
	or FAA Use Only

Federal Aviati Administratio		•		•		•				,				
instruction	TIONS: Print s and dispos tion. (49 U.S.	ition o	f this	form.	es. See Title 14 This report is re	CF equir	R	§43 d by	.9, Part 43 law (49 U.	Appendix B, ar S.C. §44701). Fa	nd AC	43.9-1 to repo	l (or sub rt can re	sequent revision thereof) for sult in a civil penalty for each
	Nationalit USA	y and l	Regis	tration	n Mark N52	1RN	۷l			Serial No. 421C0335	5			
1. Aircraft	Make CESS	NA.	<del></del> .			1		Model 421C				Series		
2. Owner	Name (As AMRC				ration certificate	)				Address (As s Address 6547 I City Dallas Zip 75214	AKE	CIRCL	E DR	certificate) State TX try USA
							3	. For	FAA Use	Only				· · ·
4. Ty	be	<u> </u>				****	5	5. Un	it Identific	ition				
Repair	Alteration		Unit			Ma	ke	e		Model				Serial No.
	X	AIRF	RAME	<b>=</b>						(As described in Item 1 above)				
□.		POW	/ERPL	ANT							-			
		PRO	PELLI	ER										
		APPI	LIANC	Œ	Type Manufacturer									
	ļ			j	·	6	. (	Conf	ormity Sta	tement				
A. Agency's	Name and A	ddress	3				_		nd of Ageni	~				-
	ne Aero, Inc						L			ated Mechanic				nufacturer
Address 2850 City Abile		l			State TX	_						C. Certificate No.		
zip 7960		untry L	JSA				ŕ	X Certificated Repair Station GSTR469E  Certificated Maintenance Organization					995	
have b	een made in	accor	dance	with	ion made to the the requirement the best of my	s of	Pa	art 43	3 of the U.S	em 5 above and . Federal Aviatio	desc on Rec	cribed o gulation	n the rev is and the	erse or attachments hereto at the information
Extended rai per 14 CFR I App. B				-	ture/Date of Au	thoriz	ze		lividual ituart Doug	ılas 🥌	St)	int	A/C	Jour/re
					7	. Ар	рr	rova	for Return	to Service				
					ns specified b			the		ied in item 5 v		nspecte Rejecte		e manner prescribed by the
	AA Flt. Stand spector	iards		Man	ufacturer						Persons Approved by Canadian Department of Transport			
	AA Designee	) 	х	Repa	air Station			Insp	ection Auth	orization	Othe	r (Spe	cify)	`
Certificate or Designation I				Signa	ature/Date of Au	thoriz	ze	ed Ind	lividual			=1		$\bigcap$
GSTR4	469E		ļ	Julv	12, 2021			S	tuart Doug	ılas		U	ast	2) Dendme

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.

		•	USA N521RM	07/1:	2/2003
			Nationality and Registration	on Mark	Date
Configured to aircraft a The Installed ADS-B or	and Ground Tested I	IAW M/M	4AK and Install Manual 00	040-17001-01 (	
91.227.					
•					
				•	,
		•			•
•				•	
		,			
		•			
		<b>~</b> .	•		
					•
		•			
			•		
					•
				•	
		•	•		
		•	•		
•	1.	(		•	
					•

U.S. Department
of Transportation
Federal Aviation
Administration

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

orm Approved MB No. 2120-0020 1/30/2007	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)) Nationality and Registration Mark Serial No. N521RM 421c0335 1. Aircraft Make Model Series CESSNA 421c Address (As shown on registration certificate) Name (As shown on registration certificate) AMROAIR LLC 6547 LAKE CIRCLE DR 2. Owner DALLAS, TX 75214-3416 USA 3. For FAA Use Only 4. Type 5. Unit Identification Alteration Repair Unit Make Model Serial No. **AIRFRAME** (As described in Item 1 above) X **POWERPLANT PROPELLER APPLIANCE** Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency FLITE ELECTRONICS, INC. U. S. Certificated Mechanic Manufacturer Foreign Certificated Mechanic C. Certificate No. 4786 AIRPORT PKWY ADDISON, TX RADIO CLASS 1-2-3 Certificated Repair Station DG2R767K 75001-3363 Certificated Maintenance Organization 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. Signature/Date of Authorized Individual Extended range fuel **MARK PLEDGER** per 14 CFR Part 43 09-June-2020 App. B 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 X Approved Rejected FAA Fit. Standards Persons Approved by Canadian Maintenance Organization Manufacturer Inspector Department of Transport Other (Specify) BY **FAA Designee** X Repair Station Inspection Authorization Certificate or Signature/Date of Authorized Individual MARK PLEDGER Designation No. Mark DG2R767K 09-June-2020

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	c completed.)
N521RM	Jun-09-2020
Nationality and Registration Mark	c Date
Installed Garmin FlightStream 210 Bluetooth Gateway p/n 011-03257-40.	
FlightStream 210 was installed as per Garmin Install manual p/n 190-00356-03 Rev M 6/201	.7 and SA01933LA-D
Continued Airworthiness for FlightStream 210 installation should be performed as per att Instructions for Continued Airworthiness.	ached
A copy has been provided the aircraft owner/operator for inclusion into the aircraft maintenance program.	
Revised weight, balance and equipment list.	
END	
·	
M ADDITIONAL SHEETS ARE ATTACHED	

# 400W Series Instructions for Continued Airworthiness

Document Number 190-00356-65 Rev. D

Garmin International, Inc. 1200 E. 151st Street Olathe, Kansas 66062 USA

#### **Record of Revision**

Rev.	Date	Description of Change
1	10-19-06	Initial Release
Α	11-03-06	Revision for STC Issuance
В	07-30-09	Add the "-D" to STC number when reissued under ODA
С	02-28-13	Revise to support software version 5.02. Clarify inspections. Add electrical bonding check.
D	11-20-14	Revise to support software version 5.20 with Flight Stream 210.
ł l		



#### **Table of Contents**

1.	INTRODU	JCTION	. 3
	1.1	PURPOSE	. 3
	1.2	Scope	. 3
	1.3	Document Control	. 3
	1.4	Airworthiness Limitations Section	. 3
	1.5	Permission to Use Certain Documents	. 3
	1.6	Definitions	. 4
2.	INSTRUC	CTIONS FOR CONTINUED AIRWORTHINESS	. 4
	2.1	Introduction	. 4
	2.2	Description of Alteration	. 5
	2.3	Control, Operating Information	. 5
	2.4	Servicing Information	. 5
	2.5	Periodic Maintenance Instructions	. 5
	2.6	Troubleshooting Information	. 7
	2.7	Removal and Replacement Information	. 8
	2.8	Diagrams	. 11
	2.9	Special Inspection Requirements	. 11
	2.10	Application of Protective Treatments	. 11
	2.11	Data Relative to Structural Fasteners	. 12
	2.12	Special Tools	. 12
	2.13	Additional Instructions	. 12
	2.14	Overhaul Period	. 12
	2.15	ICA Revision and Distribution	. 12
	2.16	Assistance	. 12
	2 17	Implementation and Record Keeping	12

#### 1. INTRODUCTION

#### 1.1 PURPOSE

This document is designed for use by the installing agency of the Garmin Model 400W Series GPS/WAAS Nav/Com as Instructions for Continued Airworthiness in response to Federal Aviation regulation (FAR) Part 23.1529, and Part 23 Appendix G. The ICA includes information required by the operator to adequately maintain the Garmin Models 400W series installed under Approved Model List (AML) STC SA01933LA-D.

#### 1.2 Scope

This document identifies the Instruction for Continued Airworthiness for the modification of the aircraft for installation of the Garmin Models 400W series GPS/WAAS Nav/Com installed under Approved Model List (AML) STC SA01933LA-D. This includes the optional accessory to the GNS 400W, the Flight Stream 210.

#### 1.3 Document Control

This document shall be released, archived, and controlled in accordance with the Garmin document control system. When this document is revised, refer to Section 2.15 for information on how to gain FAA acceptance or approval and how to notify customers of changes.

#### 1.4 Airworthiness Limitations Section

There are no additional Airworthiness Limitations as defined in 14 CFR § 23, Appendix G. G23.4 that result from this modification.

The Airworthiness Limitations section is FAA approved and specifies maintenance required under §43.16 and §91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

**FAA APPROVED** 

Michael Warren

Date

**ODA STC Unit Administrator** 

ODA-240087-CE

#### 1.5 Permission to Use Certain Documents

Permission is granted to any corporation or person applying for approval of a Garmin Model 400W Series to use and reference appropriate STC documents to accomplish the Instructions for Continued Airworthiness and show compliance with STC engineering data. This permission does not construe suitability of the documents. It is the responsibility of the applicant to determine the suitability of the documents for the ICA.

20-NOV-2014

#### 1.6 Definitions

The following terminology is used within this document:

- 1) AC: Advisory Circular
- 2) ACO: Aircraft Certification Office
- 3) AEG: Aircraft Evaluation Group
- 4) BIT: Built in Test
- 5) CFR: Code of Federal Regulations
- 6) DER: Designated Engineering Representative
- 7) FAA: Federal Aviation Administration
- 8) IAW: In Accordance With
- 9) ICA: Instructions for Continued Airworthiness
- 10) MFD: Multi-Function Display unit
- 11) **ODA:** Organization Designation Authorization
- 12) PED: Portable Electronic Device
- 13) PMI: Primary Manufacturing Inspector
- 14) POI: Primary Operations Inspector
- 15) STC: Supplemental Type Certificate
- 16) TC: Type Certification or Type Certificate
- 17) TSO: Technical Standard Order

#### 2. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

#### 2.1 Introduction

Content, Scope, Purpose and Arrangement: This document identifies the Instructions for

Continued Airworthiness for the modification of the aircraft by installation of the Garmin Models 400W

Series GPS/WAAS Nav/Com.

Applicability: Applies to aircraft altered by installation of the

Garmin Model 400W Series GPS/WAAS Nav/Com.

Definition of Abbreviations: See Section 1.6

Precautions: None

Units of measurement: None

Referenced publications: 190-00356-02 Rev. K 400W Series Installation

Manual or later revision

005-C0221-00 Rev. J 400W Series STC Master

Data List or later revision

Retention: This document, or the information contained within,

will be included in the aircraft's permanent records.



#### 2.2 Description of Alteration

The Garmin Model 400W Series GPS/WAAS Nav/Com unit is a 6 ¼ inch wide panel mounted unit with all the interface connections behind the instrument panel. Installation of the Garmin Model 400W Series GPS/WAAS Nav/Com system interfaces, specific for the aircraft installation, is documented in the GNS 400W Series Post-Installation Checkout Log that is retained as part of the aircraft's permanent records. The 400W Series units combine a large number of easily acceptable controls to use the color multi-function display, Nav and Com transceiver, GPS/WAAS navigator in a single unit.

The Flight Stream 210 brings Bluetooth connectivity to the cockpit, allowing portable electronics to stream data to and from the installed avionics.

The Flight Stream 210 interfaces to the GNS 400W via RS-232. The Flight Stream 210 may also interface to the GDL 88 through RS-422 and the GDL 69 through RS-232. The Flight Stream unit is a remote mount LRU that may be located in a variety of places around the aircraft. The suggested locations are in the cabin/cockpit area, or in the forward or aft avionics bay. See Section 3.10 in the 400W Series Installation Manual, 190-00356-02 for suggested locations and mounting information.

#### 2.3 Control, Operating Information

See the 400W Series Installation Manual, listed under the reference documentation in paragraph 2.1 of this document, for system operation and self-test information.

#### 2.4 Servicing Information

None. In the event of system failure, return the unit to the manufacturer or an approved Garmin repair station.

#### 2.5 Periodic Maintenance Instructions

The 400W Series units are designed to detect internal failure. A thorough self-test is executed automatically upon application of power to the units, and built-in test is continuously executed. Detected errors are indicated on the equipment via failure annunciations and maintenance is on-condition.

Operation of the 400W Series unit is not permitted unless an inspection as described in this section has been completed within the preceding 12 calendar months. Conduct a visual inspection on the 400W series unit, its wire harness, and the Flight Stream 210 (if installed) to insure installation integrity:

1. Inspect the 400W and Flight Stream units for security of attachment. If the Flight Stream 210 is installed and screws are not securely attached, tighten any loose Flight Stream 210 mounting screws as necessary to snug plus ¼ turn. If required, re-torque bonding strap hardware to 12-15 in-lbs.



#### CAUTION

Care should be taken when tightening the mounting screws of the Flight Stream 210. Excessive tightening may damage the mounting flange.

- 2. Inspect for signs of corrosion.
- 3. Inspect all knobs and buttons for legibility.
- 4. Inspect condition of wiring, shield terminations, routing and attachment/clamping.



5. Inspect electrical bonding components. Perform bonding check, if due (see Section 2.5.4).

#### 2.5.1 Cleaning the Front Panel

The front bezel, keypad, and display can be cleaned with a soft cotton cloth dampened with clean water. DO NOT use any chemical-cleaning agents. Care should be taken to avoid scratching the surface of the display.

#### 2.5.2 Display Backlight

The display backlight lamp is rated by the manufacturer as having a usable life of 20,000 hours. This life may be more or less than the rated time depending on the operating conditions of the 400W series unit. Over time, the backlight lamp may dim and the display may not perform as well in direct sunlight conditions. The user must determine by observation when the display brightness is not suitable for its intended use. Contact the Garmin factory repair station when the backlight lamp requires service.

#### 2.5.3 Battery Replacement

The 400W series has an internal keep-alive battery that will last about 10 years. The battery is used for GPS system information. Regular planned replacement is not necessary. The 400W series will display a 'low battery' message when replacement is required. Once the low battery message is displayed, the battery should be replaced within 1 to 2 months.

If the battery is not replaced and becomes totally discharged, the 400W series unit will remain fully operational, but the GPS signal acquisition time may be increased. This acquisition time can be reduced by entering a new seed position each time the unit is powered on. There is no loss of function or accuracy of the 400W series unit with a dead battery.

The battery must be replaced by the Garmin factory repair station or factory authorized repair station.

#### 2.5.4 Bonding Check (IFR-certified aircraft only)

Every 2000 flight hours or ten (10) years, whichever is first, perform an electrical bonding check on the GNS 400W Series Unit and if installed, the Flight Stream 210. If a bonding check was not done during the initial installation, it must be done to support electromagnetic interference and lightning compliance.

#### 2.5.4.1 GNS 400W Series Unit in Metallic or Tube/Fabric Aircraft

Perform an electrical bonding check as follows:

- 1. Remove the 400W unit from the mounting rack.
- 2. Remove the backplate assembly from the rack.
- 3. Measure the resistance between the mounting rack and nearby exposed portion of aircraft metallic structure and verify it is less than 10 milliohms.
  - In the event of bonding test failure, remove the 400W rack and clean the attachment points with a bonding brush at both the 400W rack and the aircraft and reattach the rack to the rails in the panel. Verify the resistance between the mounting rack and nearby exposed portion of aircraft metallic structure is less than 2.5 milliohms.
- 4. Reinstall the backplate assembly and reinstall the 400W in the mounting rack.



#### 2.5.4.2 GNS 400W Series Unit in Composite Aircraft

Perform an electrical bonding check as follows:

- 1. Remove the 400W unit from the mounting rack.
- 2. Remove the backplate assembly from the rack.
- 3. Measure the resistance between the mounting rack and the instrument panel, verify it is less than 10 milliohms.

In the event of bonding test failure, remove the 400W rack and clean the attachment points with a bonding brush at both the 400W rack and the aircraft and reattach the rack to the rails in the panel. Verify the resistance between the mounting rack and the instrument panel is less than 5 milliohms.

4. Reinstall the backplate assembly and reinstall the 400W in the mounting rack.

#### 2.5.4.3 Flight Stream 210 in Metallic or Tube/Fabric Aircraft

- Disconnect the shield terminations from the Flight Stream 210 connector backshell.
- 2. Measure the resistance between the connector and nearby exposed portion of aircraft metallic structure and verify that it is less than or equal to 20 milliohms.

In the event of bonding test failure, remove the Flight Stream 210 connector bonding strap from the aircraft ground plane and clean the attachment point with a bonding brush. Re-attach the bonding strap to the aircraft ground plane, torque to 12-15 in-lbs. Verify the resistance between the Flight Stream 210 connector and aircraft structure is less than or equal to 10 milliohms. If cleaning the far side of the strap is not enough, remove, clean, and re-attach the Flight Stream 210 side.

Connect the shield terminations to the Flight Stream 210 connector backshell.

#### 2.5.4.4 Flight Stream 210 in Composite Aircraft

- 1. Disconnect the shield terminations from the Flight Stream 210 connector backshell.
- 2. Measure the resistance between the connector and instrument panel (or other aircraft ground) and verify that it is less than or equal to 20 milliohms.

In the event of a bonding test failure, remove the Flight Stream 210 connector bonding strap from the aircraft ground plane and clean the attachment point with a bonding brush. Re-attach the bonding strap to the aircraft ground plane, torque to 12-15 in-lbs. Verify the resistance between the Flight Stream 210 connector and aircraft ground is less than or equal to 10 milliohms. If cleaning the far side of the strap is not enough, remove, clean, and re-attach on the Flight Stream 210 side.

3. Connect the shield terminations to the Flight Stream 210 connector backshell.

#### 2.6 Troubleshooting Information

If error indications are displayed on the 400W series unit, consult the Troubleshooting section contained in the 400W Series Installation Manual, listed under reference documentation in paragraph 2.1 of this document. The same troubleshooting section also contains troubleshooting information for the Flight Stream 210. The 400W Series Post-Installation Checkout Log' in the aircraft permanent records includes the configuration information for the installation. (See Section 5 in the 400W Series Installation Manual for a sample Log).



#### 2.7 Removal and Replacement Information

#### 2.7.1 GNS 400W

If the 400W series unit is removed and reinstalled, verify that the 400W series unit power-up self-test sequence is successfully completed and no failure messages are annunciated.

If the 400W series unit is removed for repair and reinstalled, or if the 400W unit is removed and replaced with a different 400W series unit, then follow 'Post Installation Configuration & Checkout Procedures' contained in the 400W Series Installation Manual listed in Section 2.1 of this document, and verify the 400W unit power-up self-test sequence is successfully completed and no failure messages are annunciated.

If any work has been done on the aircraft that could affect the system wiring, antenna cable, or any interconnected equipment, verify the 400W series unit power-up self-test sequence is successfully completed and no failure messages are annunciated.

To remove the 400W series unit from the mounting rack, insert a 3/32-inch hex drive tool into the access hole at the bottom of the unit face. Rotate the hex tool counterclockwise until the unit is forced out about 3/8 inches and can be freely pulled from the rack.

The 400W unit is installed in the rack by sliding it straight in until it stops, about 1 inch short of the final position. Insert the hex drive tool into the access hole at the bottom of the unit face. Rotate the hex tool clockwise while pressing on the left side of the bezel until the unit is firmly seated in the rack.

Note: There are no special handling requirements for the 400W series units.



#### 2.7.2 Flight Stream 210 (If Installed)

See Figure 1 when performing the following steps:

#### Removal

- 1. Locate and open the BT Link circuit breaker.
- 2. Unscrew the two jackscrews on the Flight Stream 210 connector. Remove connector.
- 3. Remove the four #6 mounting screws to remove the Flight Stream 210.

#### Reinstallation

- 1. Check that the BT Link circuit breaker is open.
- 2. Reinstall the Flight Stream 210 using the four previously removed #6 mounting screws.
- 3. Tighten fasteners until snug, plus an additional 1/4 turn.

Note: Ensure that the Flight Stream 210 is mounted with the arrow pointing in the direction of flight.

- 4. Attach the connector, tightening the two jackscrews.
- 5. Close the B/T Link circuit breaker.
- Complete the interface checkout procedures contained in Section 5.5.7 of the 400W Series Installation Manual.

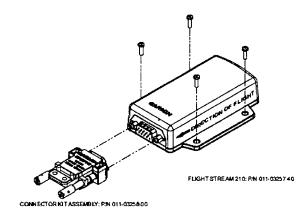


Figure 1. Flight Stream 210 Assembly Overview (Bonding Strap Not Shown)



#### 2.7.3 Flight Stream 210 Bonding Strap

The following removal and replacement steps are provided as guidance for replacing the Flight Stream 210 bonding strap. The bonding strap assembly drawing is shown in Figure 2.

**Note:** Aircraft structure side of bonding strap may be mounted using a nut in lieu of a nut plate. If a nut was used in lieu of a nut plate, further disassembly of the aircraft may be required to gain access to the nut.

#### Removal

- 1. Disconnect one end of the bonding strap from the aircraft ground location.
- Disconnect the other end of the bonding strap from the shield block on the Flight Stream 210 connector backshell.
- Remove the bonding strap.

#### Replacement

**Note:** The Flight Stream 210 bonding strap should be as short as practical. When installed, the bonding strap must not loop back on itself.

- 1. Construct a bonding strap no longer than 20" by attaching clean terminal lugs to both ends of clean braid (See Table 1 for parts required).
- 2. Clean the attachment locations with a bonding brush.
- Secure each end of the bonding strap to the previously installed locations. Ensure that the strap
  does not loop back on itself and that the hardware is as shown in Figure 2. The washers must
  seat fully against the aircraft metallic structure without overhang or interference with other
  hardware.
- 4. Using a milliohm meter, verify that the resistance between the connected structure is less than 10 milliohms.
  - In the event of a bonding test failure, remove the bonding strap from the aircraft ground point and clean the attachment points with a bonding brush. Re-install the bonding strap and perform the electrical bonding test in accordance with Section 2.5.4.
- 5. Replace any damaged hardware, otherwise hardware may be reused.

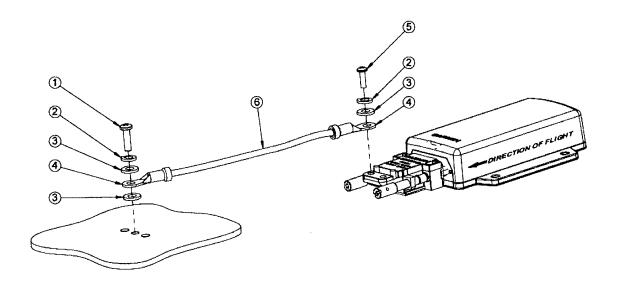


Figure 2. Flight Stream 210 Bonding

Table 1. Flight Stream 210 Bonding Hardware

See Figure 2	Hardware	P/N
1	Screw	MS35206 (AN515) #8 Pan Head Screw
2	Lock Washer	MS35338-42 #8 Lock Washer
3	Flat Washer	NAS1149FN832P (AN960-8) #8 Washer
4	#8 Ring Terminal	MS25036 #8 Ring Terminal
5	Screw	MS51957-42 #6 Screw
6	Braid	QQB575R36T0250 or larger

#### 2.8 Diagrams

Refer to the 400W Series Installation Manual (listed under reference documentation in section 2.1 of this document) for drawings applicable to this installation. Point to point wiring diagrams are in Appendix H of the 400W Series Installation Manual. Refer to the GNS 400W Series Post-Installation Checkout Log retained in the aircraft permanent records for a list of the interfaced equipment. The antenna cables are routed between the 400W series unit and the antenna with disconnects at each unit. The antenna cable typically is routed behind interior panels in the fuselage.

#### 2.9 Special Inspection Requirements

None, N/A.

#### 2.10 Application of Protective Treatments

None, N/A.



#### 2.11 Data Relative to Structural Fasteners

None, N/A.

#### 2.12 Special Tools

A milliohm meter with an accuracy of +/- 0.1 milliohms ohms (or better) is required to measure the electrical bonding between the 400W system components and aircraft ground.

No special tools are required for system checkout. See 400W Series Installation Manual listed in reference documentation in section 2.1 of this document.

#### 2.13 Additional Instructions

None.

#### 2.14 Overhaul Period

The system does not require overhaul at a specific time period. Power on self-test and continuous BIT will monitor the health of the 400W series unit. If the unit indicates an internal failure, the unit may be removed and replaced. See troubleshooting section contained in the 400W Series Installation Manual, listed under reference documentation in paragraph 2.1 of this document.

#### 2.15 ICA Revision and Distribution

To revise this ICA, Garmin will follow the Garmin ODA Procedures Manual SOP-0055/ACP-0016 for Instructions for Continued Airworthiness. The latest revision of this ICA document is available on the Garmin website (<a href="www.garmin.com">www.garmin.com</a>). A Garmin Service Bulletin describing ICA revision will be sent to Garmin dealers if a revision is determined to be significant.

#### 2.16 Assistance

Flight Standards Inspectors or the certificate holder's PMI have the required resources to respond to questions regarding this ICA. In addition, the customer may refer questions regarding this equipment and its installation to the manufacturer, Garmin. Garmin customer assistance may be contacted during normal business hours via telephone 913-397-8200 or email from the Garmin web site at www.garmin.com.

#### 2.17 Implementation and Record Keeping

Modification of an aircraft by this Supplemental Type Certificate obligates the aircraft operator to include the maintenance information provided by this document in the operator's aircraft maintenance manual and/or the operator's aircraft scheduled maintenance program.

US Department
of Transportation
Federal Aviation
Administration

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

OMB No. 2120-0020 11/30/2007	Electronic Tracking Number
F	or 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)) Nationality and Registration Mark

### MSQIRM Serial No. 42100335 1. Aircraft Make Cessha Name (As shown on registration certificate) Address (As shown on registration certificate Address 3511 Silver Side Ro 2. Owner Drake Air 11 LLC City minaton R10-4902 Country 3. For FAA Use Only 4. Type 5. Unit Identification Repair Alteration Unit Make Model Serial No. AIRFRAME (As described in Item 1. above) **POWERPLANT Teledyne Continental Motors** GTSIO-520-L 604003 **PROPELLER** APPLIANCE Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency RAM Aircraft, Limited Partnership U. S. Certificated Mechanic Manufacturer Address 7505 Karl May Drive Foreign Certificated Mechanic C. Certificate No. Waco State Texas Certificated Repair Station Airframe Class III, Powerplant Class I **United States** 76708 Certificated Maintenance Organization VA1R551K 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 Signature/Date of Authorized Individual per 14 CFR Part 43 Арр. В Daniel L. Bailey 05/29/07 7. Approval for Return to Service Pursuant to the authority given persons specified below, the unit identified in item 5 inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ✓ Approved Rejected FAA Fit. Standards Persons Approved by Canadian Manufacturer Maintenance Organization Inspector Department of Transport Other (Specify) FAA Designee Repair Station Inspection Authorization Certificate or Signature/Date of Authorized Individual Designation No. **VA1R551K** Daniel L. Bailey 05/29/07 FAA Form 337 (10-06)

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 nation	nality and registration mark and date	e work completed.)
	N521RM	05/29/07
	Nationality and Registration Mark	Date
Engine modified per Dwg. 1514, Rev. R dated 6/29/05 I/A/W STC SE83	338SW.	•
Relocated Turbo Oil Supply Line I/A/W RAM Dwg. No. 1224, Rev. H, dastuds I/A/W Dwg. 1517, Rev. F dated 3/9/05 per STC SE8338SW.	ated 11/18/03 and installed lock	nuts on cylinder attachment
Installed Bendix pressurized magnetos p/n BL-349420-2R and BL-3494 A/W STC SE4591SW.	460-2R per DWG. 1029, Rev. N	, dated 02/12/02. Installed I/
Installation mechanic must complete Block 1 and 2 on reverse side and Aircraft Registration Branch AFS-750, P. O. Box 25504, Oklahoma City	I mail one copy to the Federal A , Oklahoma 73125.	viation Administration,
Negligible weight and balance change.		
Customer furnished with FAA approved Overhaul and Parts Manual Su all alterations.	applement(s) with instructions for	r continued airworthiness for
Pertinent details of the above installations are on file under project no. 3		
	_	
·		
]		
Additional Sheet:	s Are Attached	

<b>2</b>	
U.S. Department	
of Transportation	
Federal Aviation	
Administration	

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

Form Approved   Electronic Tracking Numb DMB No.2120-0020 2/28/2011	OMB No.2120-0020	Electronic Tracking Numb
---	------------------	--------------------------

For FAA Use Only

Federal A Administ			(MIII)	diii	, rowerplant, ri	υþ	<b>T</b>	ier, or Ap	plialicej				
and dis	positio	n of this forr 6301(a)).	n. This repo	rt is re	equired by law (49 U.S				ure to report can res			sion thereof) for instructions ty for each such violation	
Nationality and Registration Mark N521RM					Serial No. 421C0335								
1. Air	craft		VI										
		Make Cessna							Model 421C			Series	
		Name (A	s shown on re	ristratic	on certificate)			_	Address (As shown	on registrat	on certif	icate)	
2. O	wner		Name (As shown on registration certificate)  Drake Air II LLC						Address 3511 S	ilverside			
		1											
					3. Fo	r F	A	Vse Only	<u> </u>				
												: ,	
	4. Ty	ре			5. Un	it k	de	ntification		<del></del>			
Rep	air /	Alteration	Unit		Make	1			Model			Serial No.	
X			AIRFRAME						(As described in item 1 above)				
			POWERPLA	NT									
			PROPELLE	₹									
			APPLIANCE Manufacturer						,				
			1		6. Co	onfo	_	mity State					
		Name and				Ļ	. T	B. Kind of		,			
Name Address		ony R. Saxto 99 Airport Rd			<del></del>	-   <u>×</u>	+	U.S. Certifica	<del></del>			Manufacturer	
Address City		ance	•		State OH	-	+	<u>-</u>	icated Mechanic			Certificate No.	
Zip	435		Country (	JSA `		$\vdash$	+	Certificated R Certificated M	epair Station laintenance Organizatio	<u> </u>	AP3	253746IA	
h: in	ereto h format	ave been r ion fumish	nade in acc ed herein is	ordan true a	ce with the requirem and correct to the be	ent st o	de s of n	ntified in ite of Part 43 on ny knowled	em 5 above and dea	scribed on		verse or attachments ons and that the	
		fuel per App. B	Signa	ture/[	Date of Authorized In	divi	idı	tany	Antho	ny R. Saxt	on 12	2/20/2018	
					7. Appro	val	fo	r Return T	o Service				
	Pursua the Ad	ministrator	of the Fede	n per ral Av	sons specified below riation Administration	v, th	ne nd	unit identifi is 🖊 APP	ed in item 5 was in ROVED	REJECTE	D	nanner prescribed by	
BY		FAA Fit. Star Inspector	ndards		Manufacturer		$\downarrow$	Maintenan	ce Organization	De	partmen	ppoved by Canadian it of Transport	
	L	FAA Desig		1 '	pair Station	X	-	•	Authorization	Other (	Specif	y <i>i</i>	
Certific	cate or l	Designation N	lo.	Sig	gnature/Date of Auth	OF L	200	dividual					
AP325	<u>3746</u> 1/	<u> </u>			INT	- [/	H	<u> </u>	Anthony R. Saxton	12/20/20	18	<u></u>	

	no fice on changes shall be entered in the appropriate aircraft r o assure continued conformity with the applicable airwo					
8. Description of Work Accomplished (If more space is required, attach addition	nal sheets. Identify with aircraft nationality and registration	n mark and date work completed.)				
	N521RM	12/20/2018				
	Nationality and Registration Mark	Date				
Repaired left and right inboard fue	el bays at W.S. 119.29 and outboard from from	nt to rear spar.				
• • • • • • • • • • • • • • • • • • • •	interconnect tubing and access plates from in d sealant from area. ver skins.	board fuel bay areas in				
Disassembled wing section and unriveted lower inboard wing skins and separated from wing Rib at W.S. # 119.29 at front spar aft skin butt joint from #119.29 outboard 10" and aft spar outboard 13". Unbonded various stringers ends from skins and skin to internal rib junctions.						
Cleaned areas of corrosion on left	and right wings using procedures in Cessna N	MEB95-11R1 Section 10.				
On left wing lower skin, cut out corroded skin from inboard forward corner (11" x 10) and inboard aft corner (15" x 13") triangle section per Cessna MEB95-11R1 Fig. 5.  On right wing lower skin, cut out corroded skin from inboard forward corner (11" x 10) triangle section per Cessna MEB95-11R1 Fig. 5.						
Cleaned exposed surface of W.S. Sta #119.29 rib lower flange and exposed portion of front and rear spar lower flange with "Scotchbright" pads (note minimal material removal) Following cleaning zyglo inspected section of exposed wing rib, and spar flanges for cracks.  Treated exposed areas as necessary.						
Fabricated doublers shims and co	ingers with EA9303 structural adhesive rner patches and riveted with replaced existin MEB95-11 R1 para E. & Figure 5.	g rivets & added rivets				

All reassembled area sealed area with fay sealed CS3204. Cleaned and coated joints and rivets with sealant CS3204 per Cessna MEB95-11R1 and Cessna 421C Maintenance manual Structural Repair section instructions. All riveting accomplished using AC43.13-1B, Chapter 4 "Metal Structure, Welding and Brazing" Section 4, "Metal Repair Procedures" used various fabrication techniques presented in Para 4-50 through 4-62, Pages 4-11 through 4-51. and Cessna 421C Maintenance manual Structural Repair section instructions.

Reinstalled removed internal structures, and equipment and performed initial leak check.

\*\*\*NOTHING FOLLOWS\*\*\*

Additional Sheets Are Attached		
	<del></del>	 

U.S. Department	
of Transportation	
Federal Aviation	

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

Form Approved OMB No.2120-0020 2/28/2011	Electronic Tracking Number
For F	AA Use Only

Federal Aviat Administration	on <u> </u>					, pp		.tu
INSTRUC	TIONS: Print	or type all entries.	See Title CFR §43.9, P	art /	43 Appendix	B, and AC 43.9-1 (or	subsequent r	revision thereof) for instructions
	sition of this fo . §46301(a)).	orm. This report is n	equired by law (49 U.S.	.C. §	§44701). Fa	ilure to report can resi	ult in a civil p	enalty for each such violation
(48 0.3.0.		ality and Registration N	vlark	—		Serial No.	<del></del> -	
1. Aircraft N521RM						421C0335		
1. Aurure	Make	<del></del>				175.461	6-4	
1	Cessi	na				Model 421C		Series
		<del></del>		—				
	Drake	(As shown on registrati e Air II LLC	ion certificate)	Address (As show			on registration ( lverside Rd	
2. Owr	ner					City Wilming		State DE
		•				Zip 19810-4	ry USA	
			3. For	F.	A Use Only	у		
4.	Туре		5. Uni	it Id	entification			
Repair	<del></del>	n Unit	Make	<u> </u>		Model		Serial No.
, <del>, , , , , , , , , , , , , , , , , , </del>	7110.000	·	1716.15	·		111000	·	Geriai 140.
	X	AIRFRAME			_	(As described in ite	m 1 above)	
		POWERPLANT						
		PROPELLER						
	T		Туре					
! 🗀		APPLIANCE						
		APPLIANCE	Manufacturer			ļ ·		
i	1				1	İ		
			6. Co	nfo	rmity State	ment		· · · · · · · · · · · · · · · · · · ·
A. Agen	cy's Name a	Ind Address	<u> </u>	Π	B. Kind of		<del></del>	
	Anthony R. Sa	_		x		ated Mechanic		Manufacturer
Address	20399 Airport I	Rd.		۳	<del></del>	ificated Mechanic	<del></del>	C. Certificate No.
City	Deflance		State OH	$\vdash$				
Zip	AF3233740IA							W3253140IA
				با	<del></del>			
D. Icer	tify that the r	epair and/or alterat	tion made to the unit(s	.) id	entified in it/	em 5 above and des⁄	cribed on the	e 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.

Signature/Date of Authorized Individual

Extended range fuel per

14 CFR Part 43 App. B

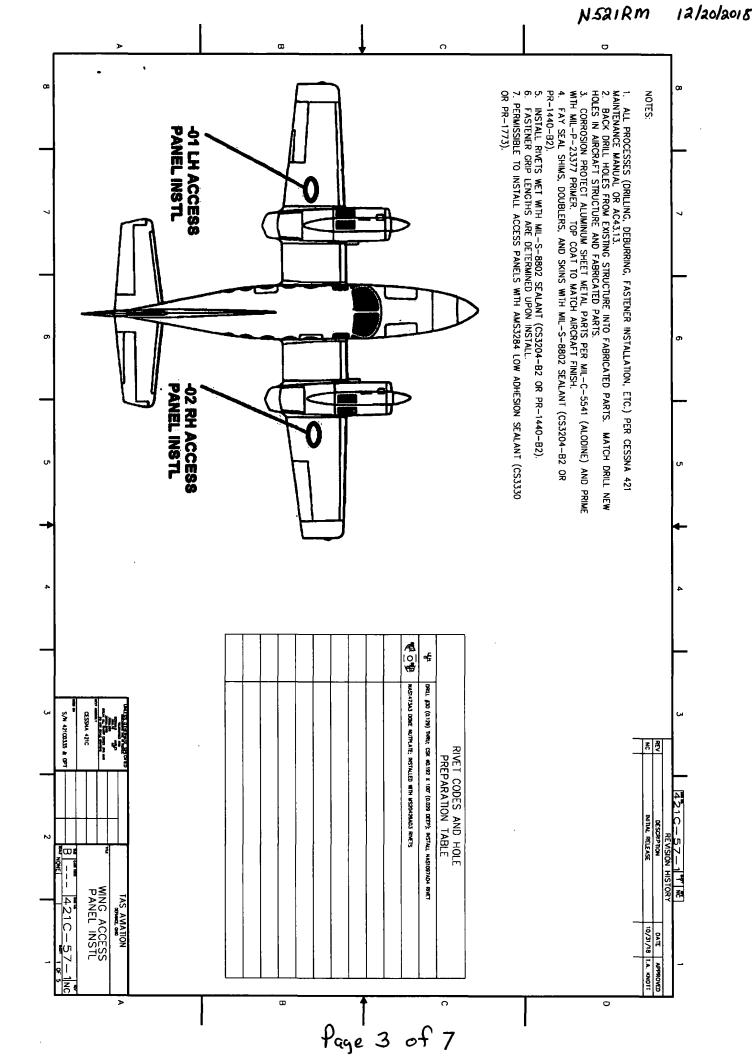
 	 _	
_	_	
•		

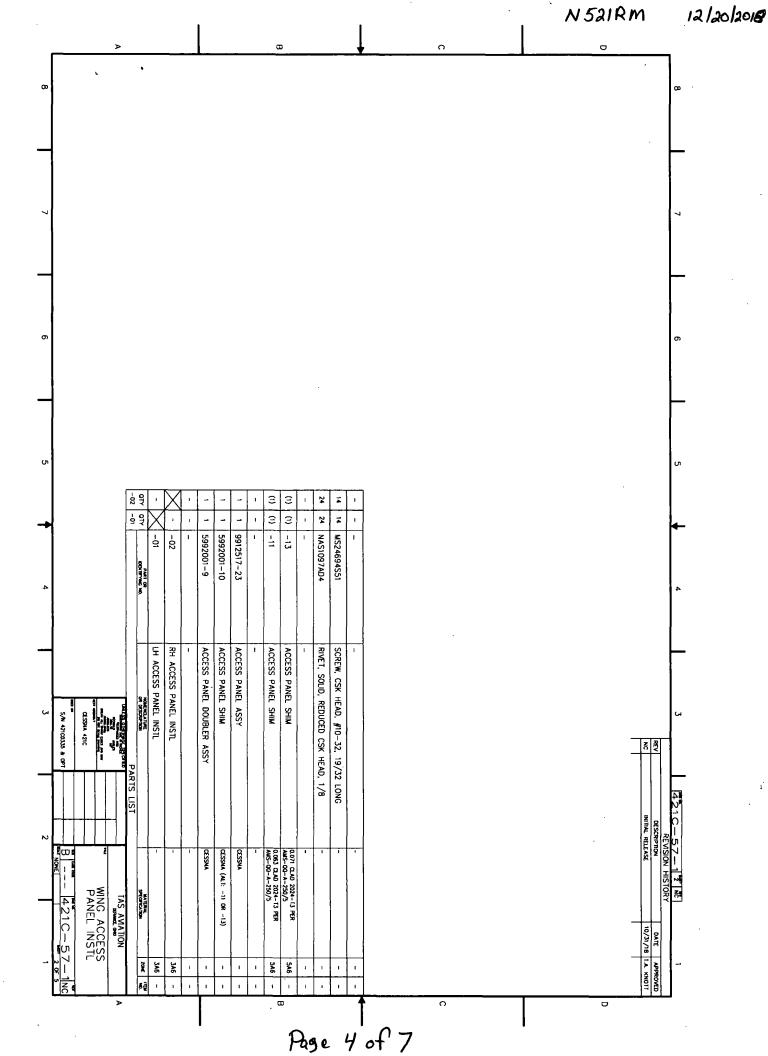
Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

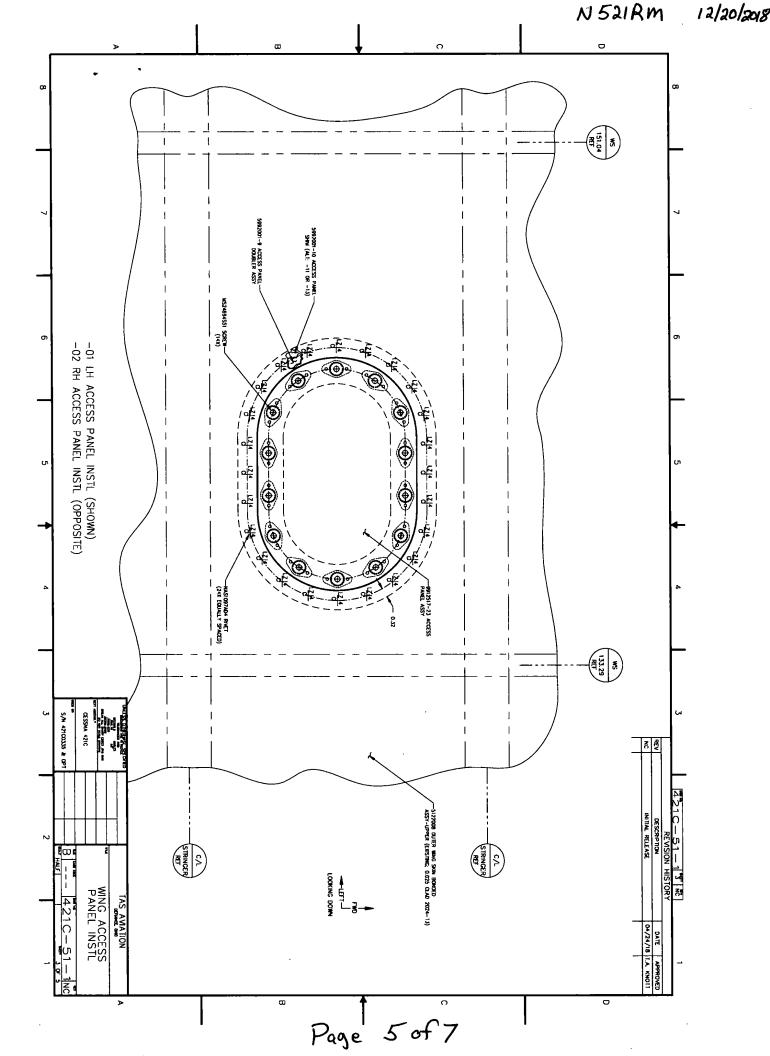
8. Description of Work Accomplished (If more space is required, attach addition	onal sheets. Identify with aircraft nationality and registration r	nark and date work completed.)							
	N521RM	12/20/2018							
	Nationality and Registration Mark	Date							
Added upper wing access panels left and right.									
	it sealed and riveted inspection plate doubler #421C-57-1 dated 10/31/2018 with approval ated 10/31/2018. (attached)								
		•							
	Page 1 of 7								

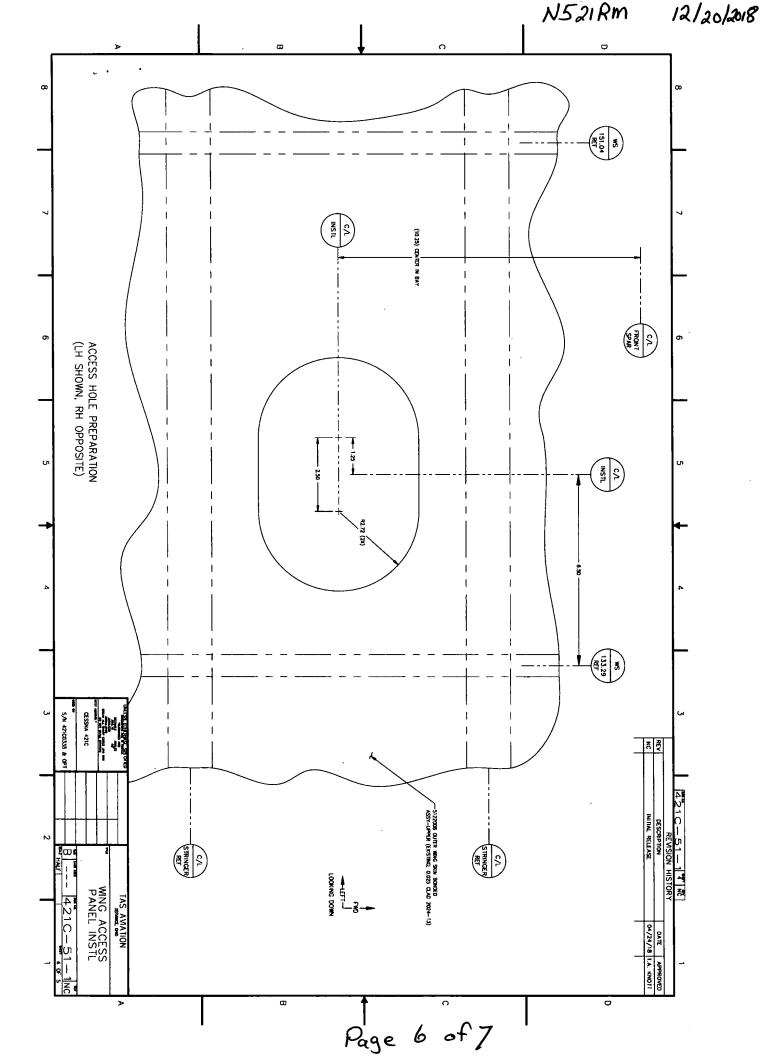
U.S. DEPARTMENT OF TRANSPORTATION 1. DATE FEDERAL AVIATION ADMINISTRATION 0.444 0.45 0.010										
STATEMENT OF	STATEMENT OF COMPLIANCE WITH AIRWORTHINESS STANDARDS									
AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION										
2. MAKE Textron Aviation Inc.	3. MODEL NO. 421C		aff, Engine, Propeller, etc.)		OF APPLICANT					
1 CYTION WANTON THE	421C	Aircraft (	Normal)	TAS A						
· · · · · · · · · · · · · · · · · · ·	L	LISTO	ERATA	Detiano	æ, Ohio					
6. EXENTIFICATION 7. TITLE										
					<del></del>					
Drawing:			1							
421C-57-1	Wing Access Pane	el Insti	•							
Revision NC		:								
Dated 10/31/18			•							
**********	********	*******	*******END OF D	ATA**	***************					
8. PURPOSE OF DATA	Notes:  1. This approval is for engineering design data only. It indicates the data listed above demonstrates compliance only with the regulations specified by paragraph and subparagraph listed below as "Applicable Requirements." Compliance with additional regulations not listed here may be required.  2. This form constitutes FAA approval of all the engineering data necessary for substantiation of compliance to necessary requirements for the entire alteration.  3. This approval is valid only for Golden Eagle s/n 421C0335 and constitutes a major alteration to that aircraft.  4. No additional Airworthiness Limitations are required as a result of this alteration. These installations may be inspected along with the existing aircraft inspection program.  This form is not approval of the inspection intervals or methods.									
In support of a major a		nber 421C	0335 only							
9. APPLICABLE REQUIREMENTS										
CAR3.171(a)(b), 3.172	2, 3.173, 3.174, 3.29	1, 3.292, 3	.293, 3.294, 3.295,	3.296, 3	.301, 3.307 as applicable					
to Certification Basis A	mendment 3-8 in 7	CDS A7C	E							
10. CERTIFICATION - Under authority vested by direction of the Administrator and in accordance with conditions and limitations of appointment under 14 CFR Part 183, data listed above and on attached sheets numbered (1800s) have been examined in accordance with established procedures and found to comply with applicable requirements of the Airworthinese Standards listed.										
Recor	mmend approval of these	dáta ·		·						
I (We) Therefore Approve these data										
11. SIGNATURE(S) OF DESIGNAT	ED ENGINEERING REPRES	ENTATIVE(S)	12. DESIGNATION NUMBE	RS(S) 13	CLASSIFICATION(S)					
Mous			DERT-405106-0	CE	Structures (Consultant)					
Thom	as A. Knott									
•										

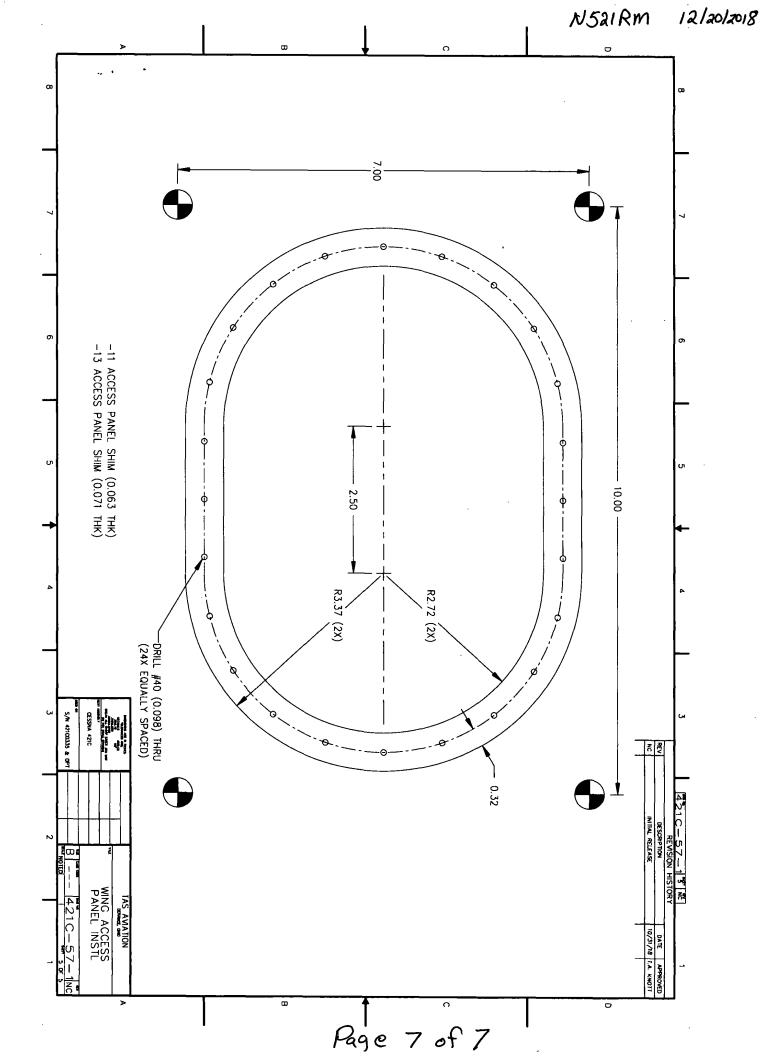
FAA Form 8110-3 (03/10) SUPERSEDES PREVIOUS EDITION NS21RM











(3)
US Department
of Transportation
Federal Aviation
Administration

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

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)) Nationality and Registration Mark Serial No. 421C0335 N521RM 1. Aircraft Make Model Series 400 Jessna Name (As shown on registration certificate) Address (As shown on registration certificate) Address 3511 Silverside Rd STE105 Drake Air II LLC 2. Owner Wilmington City State DE 19810-4902 Country USA 3. For FAA Use Only 4. Type 5. Unit Identification Repair Alteration Unit Make Model Serial No. 421C0335 Cessna (As described in Item 1 above) **AIRFRAME** х POWERPLANT **PROPELLER** Гуре **APPLIANCE** Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency U. S. Certificated Mechanic Name Mobile Transponder Services, LLC Manufacturer 6015 W Condor Rd C. Certificate No. Foreign Certificated Mechanic State CO City Peyton Certificated Repair Station TJJR625X USA Zip Country Certificated Maintenance Organization 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. Signature/Date of Authorized Individual Extended range fuel per 14 CFR Part 43 App. B 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 X Approved Rejected FAA Flt. Standards Persons Approved by Canadian Maintenance Organization Manufacturer Department of Transport Inspector BY Other (Specify) Inspection Authorization **FAA** Designee Repair Station Certificate or Signature/Date of Authorized Individual Designation No. TJJR625X 8-28-201

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 national sheets.	onality and registration mark and dat	e work completed.)
	N521RM	8-28-2017
	Nationality and Registration Mark	Date
Removed Garmin / GTX330 transponder and sent to	Garmin for ADS-B upgra	ade.
Reinstalled Garmin GTX 330 Mode S Exended Squitt SA01714WI and Garmin GTX 3XX Part 23 AML STC dated October 2016.		
Installed equipment I/A/W AC43.13-1B chapters 11 a	nd 12.	
Installed Airplane Flight Manual Supplement P.N. 190	0-00734-15 Rev. 2.	
No change to the continuous electrical load of the airc	craft.	
Instructions for Continued Airworthiness Document N to aircraft records.	umber 190-00734-11 Re	ev. 5 chapter 4 added
A copy of the checkout log was completed and includ	ed with the aircraft main	tenance records.
No change to the Equipment List and Weight & Balan	ce.	
	A - All - I - I	
Additional Sheets	Are Attached	

1
U.S Department of
Transportation
Federal Aviation
Administration

Form Approved OMB No. 2120-0020 11/30/2007

Electronic Tracking Number

1				VIAJ	OK KEPA	IK AN	ID AI	LIERAIN	, אכ	11/30/20	107	·
U.S Departm Transportation		1	(Airfra	me,	Powerpla	ınt, Pr	opel	ler, or Ap	pliance)	ance) For FAA Use Only		
Federal Avia	tion		•		•							
Administrati	on											
and dispos	sition o	of this form. T	This repor	t is red	ee FAR 43.9, quired by law ( Aviation Act 1	49 U.S.C	Append C. 1421	ix B, and AC a	43.9-1 (or subsequer eport can result in a	nt revision civil penalt	thereof) y not to	for instructions exceed \$1,000
		Nationa	Nationality and Registration Mark N521RM					Serial No. 421C0335				
1. Aircraf	t	Make Cessi	na						Model 421C			Series
Name (As shown on registration certificate) RMI Aviation Inc.						ificate)	3.	Address (As shown on registration certificate) Address 4655 Colorado Blvd city Denver State CO zip 80216 Country USA  3. For FAA Use Only				
	4. Tyr	e				ı <del></del>		5	. Unit Identification	n		
Repair		Alteration		Ur	nit		M	ake	Мо	odel		Serial Number
		$\boxtimes$	AIRFR	RAME					(As described	in Item 1 a	bove)	
			POWE	ERPL	ANT							
			PROP	ELLE	iR							
	APPLIANCE Type  Manufactu					cturer						
							6. C	onformity Sta	tement			
A. Agenc	y's Na	me and Addre	ess				B. K	ind of Agency				· · · · · · · · · · · · · · · · · · ·
Name Wil	liam	Zempel					Ø	U.S. Certific	ated Mechanic			Manufacturer
Address 3	7625	Astra Wy						Foreign Cer	tificated Mechanic		C. Ce	rtificate No.
city Wath	kins				State CO			Certificated	Repair Station		3092	523
zip 8013	7		Country	USA				Certificated	Maintenance Organi	ization		
D. I certif	y that been n	nade in accor	l/or altera dance wit	tion m	nade to the uni	of Part 43	3 of the	item 5 above U.S. Federal	and described on the Aviation Regulations	e reverse of and that t	or attach he infor	ments hereto mation
			na correc	t to the	e best of my k Signature/D			d Individual				
Extended per 14 CF App. B			]		7-	17-	20	13	1/1/1	2		
						7.		val for Retur				
			•		ified below, th stration and is			PROVED	REJECTED REJECTED	hiner presc	ribed by	the
ву -		FAA FIt Star Inspector	ndards		Manufacture	er		Maintenanc	e Organization	[		erson Approved by Canadian epartment of Transport
		FAA Design	ee		Repair Stati		$\boxtimes$		Authorization	(	Other (S	pecify)
Certificate Designation 309252	on No.			-	ature/Date of /			idual	111 8	. (	7	·

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.

	N521RM	7-17-2013
	Nationality and Registration Mark	. Date
alled Premiere-Aviation hubcaps in accordight & Balance and Equipment List has be raft documents	dance with STC SA02430LA and Installation	on Instruction document 421-HC-INST
		•

#### United States Of America

#### **Bepartment of Transportation - Hederal Abiation Administration**

# Supplemental Type Certificate

Number SA02430LA

This Cortificate issued to Premiere-Aviation Inc. 145 John Glenn Drive Concord, CA 94520

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon moets the aircorthiness requirements of Part 23\* of the Federal Sociation Begulations. \*Certification basis is set forth on Continuation Sheet.

Original Product Type Cortificate Number: A7CE

Abaka Cessna

Model: 402C, 414A, 421C

Description of Type Design Change. Installation of fiberglass dome hubcaps on Cleveland 40-135 and 40-135A wheels with 3 each attach brackets bolted with existing wheel hardware to outer wheel halves in accordance with the FAA Approved Premiere-Aviation's Drawing No. PAS421 Revision "B" dated March 20, 2012 or later FAA approved revision, Installation Instructions No. PAS421-HC-INST Revision "A" dated March 20, 2012 or later FAA approved revision and Instructions for Continued Airworthiness No. PAS-HC-ICA Revision "A" dated March 20, 2012 or later FAA approved revision.

Limitations and Conditions. This installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. A copy of this STC must be included in the permanent records of 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 romain 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 18, 2011

Dalo of issuance:

July 17, 2012

Date arrended :

Manager, Cabin Safety, Mechanical &

Data reissued: December 4, 2012

Environmental Systems Branch

Los Angeles 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

#### 3Hnited States Of America

### Department of Transportation - Nederal Abiation Administration

# Supplemental Type Certificate

(Continuation Sheet)

Number SA02430LA

Certification Basis Cont'd

The certification basis for this modification met 14 CFR part 23 as follows:

14 CFR part 23 Amendment 0: 23.601, 23.609(a),

14 CFR part 23 Amendment 20: 23.1301(a),

14 CFR part 23 Amendment 23: 23.603(a)(b),

14 CFR part 23 Amendment 48: 23.611, and

14 CFR part 23 Amendment 49: 23.1309(a)(1)(3).

-END-

US Department
of Transportation
Federal Aviation

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

	OMB No. 2120-0020	Electronic Tracking Number						
ı	11/30/2007							
ì	For FAA Use Only							

Administration 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)) Nationality and Registration Mark 1. Aircraft Series lame (As shown on registration certificate) Address (As shown on registration certificate)

Address 3511 SILVERSUE PD 5TE 105 PMI AVIATION INC. 2. Owner WILMINGTON 19810-4902 Country 3. For FAA Use Only 4. Type 5. Unit Identification Alteration Repair Unit Make Model Serial No. (As described in Item 1 above) **AIRFRAME** POWERPLANT GTS10-520-L 277155-R Continental Motors **PROPELLER** Type **APPLIANCE** Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency RAM Aircraft, Limited Partnership U. S. Certificated Mechanic Manufacturer Address 7505 Karl May Drive Foreign Certificated Mechanic C. Certificate No. State Texas Certificated Repair Station City <u>Waco</u> Airframe Class III, Powerplant Class I **United States** 76708 Certificated Maintenance Organization VA1R551K Zip 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. Signature/Date of Authorized Individual Extended range fuel per 14 CFR Part 43 App. B Anthony S. Czajkowski 3/2/12 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 Persons Approved by Canadian FAA Flt. Standards Maintenance Organization Manufacturer Department of Transport Inspector BY Other (Specify) Inspection Authorization **FAA Designee** Repair Station ertificate or Signature/Date of Authorized Individual Designation No. VA1R551K Anthony S. Czajkowski 3/2/12

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.

(If more space is required, attach additional sheets. Identify with aircraft	, ,	
•	N52112M	3/2/12
	Nationality and Registration Mark	Date
	0500000HLD	
Engine modified per Dwg. 1514, Rev. T dated 4-20-10 I/A/W STC	SE8338SW-D.	
Relocated Turbo Oil Supply Line I/A/W RAM Dwg. No. 1224, Rev. studs I/A/W Dwg. 1517, Rev. G dated 11/01/07 per STC SE8338S		on cylinder attachment
Installed Bendix pressurized magnetos p/n BL-349420-2 and BL-3 STC SE4591SW-D.	49460-2 per Dwg.1029, Rev. N, dated 0	2/12/02. Installed I/A/W
Installation mechanic must complete Block 1 and 2 on reverse side Aircraft Registration Branch AFS-750, P.O. BOX 25504, Oklahoma		ion Administration,
Negligible weight and balance change.		
Customer furnished with FAA approved Overhaul and Parts Manual alterations.	al Supplements with instructions for cont	inued airworthiness for all
Pertinent details of the above installations are on file under project	no. 6056.	
Enc		
	,	

Additional Sheets Are Attached

US Department
of Transportation
Federal Aviation
Administration

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

	Electronic Tracking Number
OMB No. 2120-0020	
11/30/2007	
	or 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)) Serial No. Nationality and Registration Mark 421C0335 US N521RM 1. Aircraft Model Make Golden Eagle Cessna Name (As shown on registration certificate) Address (As shown on registration certificate) Address Box 4269 Williams, David State CO 2. Owner Evergreen 80439 Country USA 3. For FAA Use Only THE DATA INCORPORATED HEREIN COMPLIES WITH THE APPLICABLE AIRWORTHINESS REQUIREMENTS AND IS APPROVED ONLY FOR THE ABOVE DESCRIBED AIRCRAFT SUBJECT TO CONFORMITY INSPECTION BY A PERSON AUTHORIZED BY FAR 43, SECTION 43.7 9-14-2007 NM-DEN-FSDO 5. Unit Identification 4. Type Serial No. Model Unit Make Alteration Repair (As described in Item 1 above) X AIRFRAME **POWERPLANT** PROPELLER Туре **APPLIANCE** Manufacturer 6. Conformity Statement B. Kind of Agency A. Agency's Name and Address U. S. Certificated Mechanic Manufacturer Denver Avionics, Inc. 7625 S. Peoria St. C. Certificate No. Foreign Certificated Mechanic CO Certificated Repair Station Centennial PE5R116N 80112-4103 Certificated Maintenance Organization Country 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. Signature/Date of Authorized Individual Extended range fuel per 14 CFR Part 43 App. B Dennis Lamer September 14, 2007 7. Approval for Return to Service Pursuant to the authority given persons specified below, the unit identified in item 5 inspected in the manner prescribed by the Rejected Administrator of the Federal Aviation Administration and is X Approved Persons Approved by Canadian FAA Flt. Standards Maintenance Organization Manufacturer Department of Transport Inspector BY Other (Specify) Inspection Authorization FAA Designee Repair Station Certificate or Signature/Date of Authorized Individual Designation No. PE5R116N September 14, 2007 Dennis Lamer C 221

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.

	US N521RM	09/14/2007
	Nationality and Registration	·
Upgrade existing Garmin GNS430 S/N 97105532 to WAAS status point AML which includes the Cessna 421C.	oer Garmin STC manual PN 190-00	357-Ub rev Band STC#SAUT933
Summary of the installation :		
ield of view is acceptable for IFR visability.		•
Remove GA56 PN 011-00134-00 antennas and install new GA-35 C 5309 using the existing doublers.	GPS/WAAS antenna PN 013-0023	5-00.
Replace coax cable to the new antenna with the approved RG-400	).	
Removed Garmin GNS430 PN 011-00280-10 unit and installed the provisions left behind by removing the standard 430 unit. Installation ev B and STC#SA01933LA.	the upgraded GNS430W PN 011-0 was done IAW Garmin upgrade ir	1060-40 SN 971464 using the Istallation manual PN 190-00357-0
The GNS430W was configured identical to the original unit. Each in 10356-02 section 5. A copy of the checkout log was completed an	nterface was checked out IAW the d included with the aircraft mainten	430W installation manual PN 19 ance records.
Provide FAA approved AFMS PN 190-00356-63.	•	
Veight and balance was not affected. Details are recorded on DAI	l shop Order # 07-01793.	
nstructions for continued airworthiness is found in Garmin PN 190-0	0356-65.	
Note: These supercede the ICA data for the previosly installed GNS	S-430 and GNS-530.	
END		
1		
ı		
		,

## U.S Department of Transportation Federal Aviation Administration

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

Form Approved	:
OMB No. 2120-0020	

For FA	A Use Only
Office I	dontification.

and di	sposition		s repo	rt is required b	y law (49 l	U.S.C				ision thereof) for ins enalty not to exceed		•
4. 61		Make Cessna		· · · · · · · · · · · · · · · · · · ·				Model 421C	······································			
1. Aircraft		Serial No. 421C0335					Nationality and Registration Mark N521RM					
2. Owner	•	Name (As shown DWC Golder				.C.	Address (As shown on registration certificate) 3511 Silverside Rd. Suite 105 Wilmington, DE 19810					
							. For FAA Use					
		ed herein complies of d by FAR Part 43, \$	/	oplicable abwo	Rhiness refron perfo	equire	ments and is an this work must NM-FSDO-0:		ne above describe nterrelationship wi	ed aircraft subject to th any previous mod	conformity inspi lification or repa	ection by a iir.
		/				4	l. Unit Identific	ation	<del></del>		5. Type	*-
Unit		Make					Model		Se	rial No.	Repair	Alteration
AIRFRAM	IE	(As descri					bed in item 1	above)	~~~~~~			X
POWERPI	LANT			,								
PROPELL	LER					·						
APPLIAN	CE	Type Manufacturer										
		mandiadarci										
							. Conformity S	tatement		···		
A. Agenc		ne and Address					ind of Agency			C. Certificate No	<del> </del>	
37800 Ces						믐	U.S. Certified Mechanic  Foreign Certified Mechanic			CRS # 00AR682Y Limited Airframe		
Condo Un						븁	Certified Repair Station			N Company of the Comp	Limited Radio	
Watkins, 0	CO 801	137					Manufacturer			mited Instrument		
hav	e beer	at the repair and/or a n made in accordan rue and correct to the	ce with	n the requirem	ents of Pa	lentifie rt 43 c	ed in item 4 abo of the U.S. Fede	ve and desc eral Aviation	ribed on the rever Regulations and t	se or attachments hat the information f	ereto umished	
Date 2/10/07							Signature of A	cols	- (llb			
						7. Ap	proval for Retu	ım to Servic	e			
		e authority given pe of the Federal Aviat					fied in item 4 w	as inspected REJECTED	in the manner pr	escribed by the		
ву		A Fit Standards spector		Manufacture			Inspection Aut	horization		Other (Specify)	.,	
	FA	A Designee	х	Repair Statio	n		Person Approx Canada Airwo	rthiness Gro	up	)		
Date of Ap 2/10/07		or Rejection	Desi	ificate or ignation No. S # O0AR6	82Y		Signature of A	uthorized Inc	dividual A			•

#### 8. Description of Work Accomplished

Date: 2/10/07

Cessna: 421C

S/N: 421C0335

Registration Number: N521RM

The Garmin #1GNS-430W WAAS GPS/Nav/Com system and Garmin GNS-430 GPS/Nav/Com previously installed by FAA Form 337 dated 2/10/07 has been re-evaluated by AOG-ASAP AVIONICS Inc, and is approved for enroute, terminal, and non-precision approach navigation. These systems were evaluated as follows:

- > The Garmin #1 GNS-430W WAAS GPS/Nav/Com and #2 GNS 430 GPS/NAV/COM systems comply with (GNS-430W) TSO 146a Class 3 Operation and (GNS-430) TSO C-129a, Class A1. These systems have been previously approved for IFR enroute, terminal, and non-precision approaches under STC SA01933LA and STC SA00864WI (GNS). System integration with the pilot and copilot HSI's were evaluated in this installation and found to be in conformance with the requirements of AC 20-138, Appendix 1 and paragraph 8 c (2), Garmin GNS 430W Installation Manual Document P/N 190-00356-02 Rev. B, November 2006 and Garmin GNS-430 Installation Manual Document P/N 190-00140-02 Rev. R November 2006.
- > The systems were checked and passed VHF communication harmonic interference tests per Garmin "VHF Interference" post installation checkout procedures as well as AC 20-138, paragraph 8 c (1), note 2.
- ➤ Removed "GPS LIMITED TO VFR USE ONLY" placard.
- > Conducted flight evaluation and validated system accuracy in accordance with Garmin operating limitations and AC 20-138, paragraph 8 c (2).
- An FAA Approved Flight Manual Supplement AOG-12 & AOG-14 dated 2/10/07, has been submitted to the Denver FSDO for approval and will be inserted into the Approved Airplane Flight Manual.
- > This system is approved for IFR enroute, terminal, and non-precision navigation IAW FAA approved Flight Manual Supplement Document dated 2/10/07, and the Garmin Product Information Kit P/N K0000162-00.

#### INSTRUCTIONS FOR CONTINUED AIRWORTHINESS:

A system description, including maintenance, operational procedures, limitations, performance, wiring diagrams, troubleshooting and functional tolerances information is contained in the following documents placed in the aircraft records.

- ➤ Garmin 400W Series Installation Manual Doc. # 190-00356-02 Rev. B, November 2006.
- FAA Approved Flight Manual Supplement AOG-12 & AOG-14 dated 2/10/07, and the Garmin Product Information Kit P/N K00-00162-00.

#### AIRWORTHINESS LIMITATIONS:

Aircraft equipment list, weight and balance amended. Wire routing, tying, and clamping accomplished per AC 43.13-1B Chapter 11, Section 9-12. Wiring gauge per appropriate installation manual and of approved Telzel. Electrical loading compliance requirements were determined acceptable IAW AC 43.13-1B para. 11-36. Each installed system tested operational per post installation checkout procedures of the appropriate installation manuals and did not interfere with other equipment installed in the aircraft per AC20-138.

Details of this service on file under WO# 2029FR at this repair station. CRS O0AR682Y

	•		

# Federal Aviation Administration

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

Form Approved OMB No. 2120-0020

For FAA Use Only Office Identification

and	dispositi	ONS: Print or type a on of this form. Thi h violation (Section	s repo	rt is required b	y law (49	U.S.C							
4.4!	- 64	Make Cessna					Model 421C						
1. Aircr	att	Serial No. 421C0335							Nationality and Registration Mark N521RM				
2. Own	er	Name (As shown DWC Golder				.C.	Address (As shown on registration certificate) 3511 Silverside Rd. Suite 105 Wilmington, DE 19810						
		S.		·	<del></del>		3. For FAA Us	e Only	· ···		······		
		ed herein complies and by FAR Part 43, \$		oplicable single 143.7. The se	rthiness reson perfo	equire	NM-FSDO		he above describe nterrelationship wi	d aircraft subject to th any previous mod	conformity insp dification or repa	ection by a lir.	
						-	4. Unit Identif	ication	•		5. Type		
Ur	nit	Ma	ake				Model		Ser	ial No.	Repair	Alteration	
AIRFRA	ME	~~~~	~~~~~~	(As de	escri	bed in item	1 above)	·	- Particular Particular		x		
POWER	PLANT												
PROPE	LLER						·						
APPLIA	NCE	Type Manufacturer					•						
		<u>,                                      </u>					. Conformity	Statement				<u> </u>	
A. Ager	ncv's Na	me and Address					(ind of Agency	Statement		C. Certificate No	. <del></del>		
AOG-AS 37800 C Condo L		ONICS Inc. Vay R 4E	• • • •				U.S. Certified Foreign Certi Certified Rep Manufacturer	fied Mechanic air Station	>	CF L	RS # O0AR682Y imited Airframe Limited Radio mited Instrument		
h	ave bee	at the repair and/or a n made in accordan true and correct to th	ce wit	h the requirem	ents of Pa	lentific rt 43 c	ed in item 4 ab of the U.S. Fed	ove and desc leral Aviation	ribed on the revers Regulations and the	se or attachments hat the information t	ereto furnished		
Date 2/10/0	7						Signature of	Authorized Ind	dividual Ul	1			
						<del></del>	proval for R	-					
		e authority given pe of the Federal Aviat			v, the unit	ident DAP	PROVED	vas inspected REJECTED	l in the manner pre	escribed by the			
BY	ins	A Fit Standards spector		Manufacturer	7		Inspection Au			Other (Specify)			
		A Designee	x	Repair Statio	n 		Canada Airw	oved by Trans orthiness Oro	up/	1	***		
Date of / 2/10/0		l or Rejection	Desi	ificate or ignation No. S # ODADE	22V		Signature of	Authorized Inc	dividual				

8. Descript	ion of W	ork Acc	omplished				
	Date: 2/	10/07	Cessna: 421C	S/N: 4	421C0335	Registration Number: N5211	R۸
Installed:					Weight(lbs)	Station(inches)	
	1		armin GMX-200 Multifunction Disp /N 011-01467-00	lay	5.4	109	
	1		armin GA-35 WAAS GPS Antenna /N 011-00235-00		.5	162	
	1		armin GNS 430W WAAS GPS/Com /N 011-01060-00	/Nav/GS	6.2	109	
	.1		armin GA-55 WX/XM Datalink Ant /N 011-00133-00	enna	43	158	
	1		armin GDL-69A WX/XM Datalink I /N 011-00987-00	Revr	.2.83	25	
	1		armin GTX-330 Mode S/A/C Transp /N S72-1750-32L	onder	4.2	109	
Removed:	Items li	sted, and	all associated wiring/hardware.		Weight(lbs)	Station(inches)	
	1	Each: G	armin GTX-320 ATCRBS Xpdr		-2.2	109.5	
	1	Each: B	K KX-155 Nav/Com	1	-5.3	109.5	
	1	Each: B	K KN-64 DME RT		-2.6	109.5	
	1	Each: B	K IN-182A Radar Indicator	-	-9.3	103.9	

#### Install Details:

- Sarmin GMX-200 Multifunction Display P/N 011-01467-00, IAW Doc. # 190-00607-04 Rev. C October 2006, located FS 103.9 top center avionics panel. Interfaced unit to existing ART-2000 Radar Sensor via ARINC 429 and ARINC 455, #1 GNS-430W and XM/WX Datal ink GDL-69A Receiver via RS-232. Altitude information taken from SSD120-30-RS232 encoder via RS-232. Power taken from avionics buss with protection from a 5-amp C/B P/N 7277-2-5, located C/P C/B panel labeled "MFD". Dimming taken from radio dimmer but configured internal. All wiring of approved tefzel and gauge as specified in installation document.
- Garmin GNS 430W WAAS GPS/Nav/Com/GS Receiver TSO 146a, P/N 011-01060-00 and Garmin GA-35 WAAS GPS Antenna P/N 013-00235-00, IAW 400W Series Installation Manual Doc. # 190-00356-02 Rev. B November 2006, located at FS 109.5 in center avionics panel. Installed Garmin GA 35 WAAS GPS Antenna P/N 013-00235-00 and installed doubler plate with reference to I.M. and AC 43.13-2A section 44(a) 1-5, at FS 162, located top center cockpit fuselage. Routed new coaxial cable RG400 to GPS antenna but used existing aircraft coaxial cable for nav, glideslope and com antenna interfaces. GNS 430W power derived from avionics buss with protection through a 5-amp C/B P/N 7277-2-5 labeled "GPS" located avionics panel and a 5-amp C/B P/N 7277-2-5, labeled "COM 1"located copilot C/B panel. GNS-430W dimming taken from radio dimmer but configured internal. GNS 430W navigation data interfaced to Pilot HSI NSD-360 and altitude information taken via ARINC 429 from GTX-330 and RS-232 from SSD120-30-RS232. Nav composite interfaced to King CDI KI-204. GPS placarded "FOR VFR USE ONLY!" All wiring of approved tefzel and gauge as specified in installation manual. Reference STC # SA01933LA and ICA Document # 190-00356-65.
- Garmin WX Data Link Receiver GDL 69A P/N 011-00987-00, IAW with Garmin IM P/N 190-00355-02 Rev E June 2006 at FS 25, located in nose avionics bay. Power derived from avionics buss thru a 3-amp circuit breaker P/N 7277-2-3 labeled "XM", located copilot C/B panel. Unit interfaced to #1 GNS-430W and #2 GNS-430. Routed new RG-142BU coax to GA 55 Data Link Antenna P/N 011-01033-00 through preexisting bulkhead BNC and installed doubler plate with reference to I.M. and AC 43.13-2A section 44(a) 1-5, at FS 158, located top copilot cockpit fuselage. GDL 69A mounting rack installed IAW AC 43.13-1A and 2A and IM. All wiring of approved tefzel and gauge as specified in installation document.
- ➤ Garmin GTX 330 Mode S Transponder P/N 011-00455-00, IAW Garmin Installation Manual P/N 190-00207-02 Rev. K June 2005, located at FS 109 R/H avionics panel. Power derived from avionics buss with protection through a 5-amp C/B P/N 7277-2-5 located pilot C/B panel labeled "TXP 1". Existing coaxial cable and xpdr antenna utilized in this installation. Unit interfaced to #1 GNS-430W and #2 GNS-430 via ARINC 429 and TIS. Dimming taken from radio dimmer but configured internal. All wiring of approved tefzel and gauge as specified in installation manual. Reference STC # ST01125WI

#### INSTRUCTIONS FOR CONTINUED AIRWORTHINESS:

A system description, including maintenance, operational procedures, limitations, performance, wiring diagrams, troubleshooting and functional tolerances information is contained in the Operation and Installation Manual Documentation placed in the aircraft records, this 337 Document dated 1/22/07, and the aircraft maintenance manual.

- ➤ Garmin GMX-200 Installation Manual Doc. # 190-00607-04 Rev. C October 2006.
- ➤ Garmin 400W Series Installation Manual Doc. # 190-00356-02 Rev. B November 2006.
- FAA Approved Airplane Flight Manual Supplement or Supplemental Airplane Flight Manual for Garmin 400W Series GPS-WAAS Navigation System Document AOG-14 dated 2/10/07.
- GNS-430W STC SA01933LA.
- GNS-430W ICA Document # 190-00356-65.
- ➤ Garmin GNS 400W Product Information Kit P/N K00-00162-00.
- GNS 400/500 Series Garmin Optional Displays Pilots Guide Addendum for GDL69/69A & Others P/N 190-00140-13.
- Garmin GDL-69A I.M. P/N 190-00355-02 Rev E June 2006.

Date: 2/10/07

Cessna: 421C

S/N: 421C0335

Registration Number: N521RM

- ➤ GDL-69/69A XM Activation Information Packet.
- ➤ Garmin GTX 330 Installation Manual P/N 190-00207-02 Rev. K June 2005.
- ➤ GTX-330 Product Information Kit P/N K00-00061-00.
- FAA Approved Garmin GTX 330 Mode S Transceiver Flight Manual Supplement (AOG 11), dated 2/10/07.

#### **AIRWORTHINESS LIMITATIONS:**

Aircraft equipment list, weight and balance amended. Wire routing, tying, and clamping accomplished per AC 43.13-1B Chapter 11, Section 9-12. Wiring for each system gauge per appropriate installation manual and of approved Tefzel. Unit tested operational per post installation checkout procedures of the installation manual and did not interfere with other equipment installed in the aircraft per AC20-138. The above systems met the loading requirements as specified IAW AC 43.13-1B Part 11-36 para. b,c,d.

Details of this service on file under	WO# <u>2029FR</u> at this repair station.	CRS OOAR682Y
	End	



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

Form Approved OMB No. 2120-0020

For FAA Use Only

Office Identification

GLOS TRM

INSTRUCTIONS: Print or type all entries. See FAR 43.9. FAR 43 Appendix B, and AC43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$ 1000 for each such violation (Section 901 Federal Aviation Act of 1958). Make Model 421C CESSNA -1. Aircraft Serial No. Nationality and Registration Mark 421C0335 USA N521RM Address (As shown on registration certificate) Name (As shown on registration certificate) Golf & Juliet Travel LLC 839 Country Club Dr 2. Owner Cincinnati, OH 45245-2833 USA 3. For FAA Use Only The data identified herein complies with applicable airworthiness requirements and is approved only for the above described aircraft subject to conformity inspection by a person authorized by FAR 43.7. **NOV** 1 5 2005 Date\_ Approving Inspector\_ GL05 4. Unit Identification 5. Type Unit Make Alteration Model Serial No. Repair AIRFRAME (As described in Item 1 above) X **POWERPLANT PROPELLER** APPLIANCE Manufacturer 6. Conformity Statement A. Agency's Name and Address B. Kind of Agency C. Certificate No. Cincinnati Avionics U. S. Certified Mechanic VYTR380B Clermont County Airport Foreign Certified Mechanic Radio Class 1 & 2 Limited: Rad; Ins;SS; Batavia, OH 45103 Certified Repair Station VYTR380B Airframe; Powerplant 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. Signature of Authorized Individua 14-November-2005 Scott Cole 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 X APPROVED ☐ REJECTED FAA Flt. Standards Other (Specify) Manufacturer Inspection Authorization Inspector ΒY Person Approved by Transport FAA Designee X Repair Station Canada Airworthiness Group Certificate or Designation No. Date of Approval or Rejection Signature of Authorized Individual NOV 17 2005 VYTR380B

**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. DESCRIF	PTION OF WO	RK ACCOMPLISHED	(If more space is r	equired, attach addition	onal sheets. Identify with	_
			stration mark and date				
			N521RN	1 CESSNA 421C	421C0335		
	The following	equipment was rer	moved from the aircraft.		•	•	
	Make	Model	Description GPS/Com	Location Radio Rack			
	Garmin King	GNC 300XL KN 53	Nav	Radio Rack			
	J						
			stalled in the aircraft: Description	Location	Data		
	Make Garmin	Model GNS430	GPS/Com/Nav	Radio Rack	190-00140-02 Rev	v. P*	
	-				*STC SA00705WI	-	
_	Garmin	-GA-56	- GPS Antenna	Top Fuselage	190=00094-00 <sup>-</sup> Rev.		
		GNS430 was wired slope/gps (TSO C	to the HSI, Altitude Encode	er system (corresponde	nce check performed), auto	pilot and existing	
	•		•	anaraval to follow)			
l			) TO VFR USE ONLY" (IFR				
ì	The Garmin G	SNS430 is protecte	d by a 5 amp CB "Com 1" a	and a 5 amp CB "Nav 1	both supplied by the Avior	nics Master.	
ì	GNS430 Pilot	's Guide (P/N 190-	00140-00 Rev. G or later) v	vas placed aboard the a	ircraft.		
	Advisory Circ applicable.	ulars AC 43.13-1B	(Chapters 10, 11, and 12),	AC 43.13-2A (Chapters	1, 2, and 3), and AC 20-13	38A were used as reference as	٠.
	Ground and fl	light evaluation per	formed per AC 20-138A for	·VFR use only.		• •	
	Pilot	)/U	Clerez	T	ech:	201	_
	Date:	(/) KO	V 1 7 2005	c	ate: KOV	1 7 2005	_
	Cert:	6830	77005		ert: <u>257448</u>	8	-
	Aircraft weigh	t & balance, equip	ment listing and logbook en	tries completed to refle	et this installation.		
  -	_ Instructions_fo	or_Continued_Airwo	rthiness_Refer_to_AC_43-21				
ì	Item 1, 2 and	I 3: As documente	d above.				
	Item 4: N/A						
			S 430 is "on condition only" ordinary trouble shooting te				
		10, 11, 12 and 13:		crimque. Telef to Cito 4	oo mamenanee manaa.		
		dditional overhaul					
		• •	IS 430 FMS for limitations. quires approval by local FSI	DO via FAA Form 337.			
l		• •		1	4 11 m	•	
	Reference Ci	ncinnati Avionics V	Vork Order #4301.END		era 🕶 i traj e i Artis		
	e also	•					
			•				
١		****	•		· · · · · · · · · · · · · · · · · · ·	And the second s	
ı				DITIONAL SHEETS AR	EATTACHED		

# 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

GLOS TA

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$ 1000 for each such violation (Section 901 Federal Aviation Act of 1958).

ioi eaci	Sucii	violation (Secti	OH SC	ri rederal Aviation A	CLOI 195	JO J.						
1. Aircr		Make CESSNA					-	Model 421C		· ,	· .	
1. All CI		Serial No. 421C0335						Nationality and USA	Registration Mark	(		
2. Own	1	•	_	istration certificate) t Travel LLC		Address (As shown on registration certificate) 839 Country Club Dr Cincinnati, OH 45245-2833 USA						
						3. F	or FAA l	Jse Only				
The only by F	′ for	the above	d he	erein complies scribed aircra	with oft sul	app bjec	licable t to co	airworth onformity	niness requ inspection	uirements an n by a perso	d is app n author	proved ized
Appr	ovin	g Inspecto	or	Lean Ul	walt			GL05	Dat	e NOV 1	5 2005	<del></del>
					4. Un	it Iden	tification	l			5. Type	
Ur	nit		М	ake			Model		Serial	No.	Repair	Alteration
AIRFRA	FRAME (As des						in Item	1 above)				x
POWER	RPLAN	Т									e, to con-	
PROPE	LLER											
APPLIA	NCE	Type Manufacture	er							. •		
		<b>-</b>		· · · · · · · · · · · · · · · · · · ·		6. C	onformity	/ Statement	<u> </u>		I	
A. Ager	ncy's N	ame and Addr	ess			В.	Kind of A	gency		C. Certificate	No.	
		i Avionic					-	ertified Mecha		VYTR380B		
		County Air OH 45103.	_	t		37	<del></del>	Certified Med Repair Station		Radio Clas		Q
VYTR	-	On 45105.				X	Manufa			Airframe;		
attachr	ments	hereto have	beer	or alteration made made in accorda hed herein is true	nce with	the r	equirem	ents of Part	43 of the U.S	scribed on the re 5. Federal Aviati	everse or ion Regula	tions
Date	-Now	ember-2005				•		thorized Indivi	idual		-	
14							Cole		1	1		
D		والمراجع المراجع المراجع						n to Service	A.woo!=====	had in the		ad by the
		-	-	n persons specified viation Administrat				PPROVED	REJEC		er presono	ed by the
ву	FAA Inspe	Flt. Standards ctor		Manufacturer	ı	nspecti	on Authori	zation	Other (Spec	cify)		
01	FAA	Designee	х	Repair Station				oy Transport ess Group				
Date of	Appro	val or Rejectio	n	Certificate or Designation No. VYTR380B		·	ure of Au	thorized In <del>divi</del>	idual	A		
				VYTR380B		Scott	Cole			15		

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.)
N521RM CESSNA 421C 421C0335  Garmin GNS430 GPS/COM/NAV System (TSO C129) was previously installed as stated on FAA Form 337 dated by this repair station, reference STC SA00705WI.
The objective of this FAA Form 337 is to attain IFR approval for the above referenced GPS Navigation system and Flight Manual Supplement regarding en route, terminal and non-precision approach operations.
The Garmin GNS430 system has been ground / flight evaluated per AC 20-138A and is approved for VFR / IFR flight in the en route, terminal and non-precision approach modes.
Date: Date: Date: Date: 13V 1 7 2005
Cert: 583077005 Cert: 2574488
The placard installed on the previously referenced FAA Form 337 stating "GPS LIMITED TO VFR USE ONLY" has been removed.
FAA approved Flight Manual Supplement dated: NOV 1 5 2005 and GNS430 Pilot's Guide (P/N 190-00140-00 Rev. G or later) are required for this approval.
Aircraft weight & balance, equipment listing and logbook entries completed to reflect this installation.
See above referenced FAA form 337 for instructions for continued airworthiness.
Reference Cincinnati Avionics Work Order #4301.END
☐ ADDITIONAL SHEETS ARE ATTACHED

#### **MAJOR REPAIR AND ALTERATION**

Form Approved OMB No.2120-0020

For FAA Use Only

U.S. Departme of Transportation		frame, Powerplant, F	Prope	ell e	er, or Applianc	e)	Of	fice Ide	entification	
Federal Aviati Administration	1 Aviation								LA	
instructions	and disposition of this	ll entries. See FAR 43.9, l s form. This report is requ ation (Section 901 Federa	ired by	y la	aw (49 U.S.C. 1421	C 43.9-1 (o 1). Failure t	r subseque to report c	ent rev an res	vision thereof ult in a civil p	) for enalty not to
1. Aircrai	Make			Model 421C						
	Serial No. 421C0335			Nationality and Registration Mark N521RM						
2. Owne	· '	on registration certificate) t Travel LLC		Address (As shown on registration certificate) 839 Country Club Dr Cincinnati OH 45245-2833						
	1	3	. For	F/	AA Use Only	_				
					-				1	
_	<del></del>	4. Unit Ident	tificatio	or	) 			:	5. T	ype 
Unit	N	lake		N	lodel	Se	rial No.		Repair	Alteration
AIRFRAME		(As descr	ribed ir	n ii	tem 1 above)———				<b>X</b>	
POWERPL	1			•	y az es en yantaria. A a az ez ez ez en		1			
PROPELLE	:R									
APPLIANCI										
	Manufacturer									
	1	6.	Confo	rn	mity Statement	-		_		
A. Agenc	y's Name and Address	<b>i</b>		Ī	B. Kind of Agency			C. C	ertificate No.	٠.
Anthony	R. Saxton		X	4	U.S. Certificated Mecha	anic		AP2	705607671	Α
	irport Rd.		_	+	Foreign Certificated Me					
Defiance	e, OH 43512		-	┿	Certificated Repair Sta	tion				
hereto	have been made in a	r alteration made to the un ccordance with the require is true and correct to the b	ements	ler s o	of Part 43 of the U.S	ove and des S. Federal A	cribed on viation Re	the revegulation	verse or attac ons and that t	hments
Date			Signat	tur	re of Authorized Inc	livigual /	//			
2/10/200	J	7 Ann	roval	f۸	r Return To Service	My K/a	ita,		Anthony	R. Saxton
Purs	suant to the authority g	iven persons specified be deral Aviation Administrat	low, th	ie	unit identified in ite		spected in	the m	nanner préscr	ibed by
	FAA Fit. Standards Inspector	Manufacturer Manufacturer	X	Ĭ	Inspection Author		Other (S)			1.
BY	FAA Designee	Repair Station			Person Appoved by To Canada Airworthiness	ransport		•		• • •
Date of Ap	proval or Rejection	Certificate or Designation	n No.	T	Signature of Aut	<del></del>	ividual			
2/10/200	3	AP270560767IA		l	/	they K	lake		Anthony	R. Saxton

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.)

#### N521RM 2/10/2003

#### Repaired aircraft as follows

Lifted left engine and replaced rivet in inboard and outboard upper engine mount rail straps. Rivets were of same type spacing and diameter as original except where necessary for access to install oversize as allowed by Cessna 421C Maintenance Manual #D2515-21-13AF, Section 15 "Structural Repair" Reinstalled engine and components.

Replaced left wing trailing edge rib assembly at W.S. 119.29 with new Cessna part # 5122053-133. Riveted using same size, type, rivets as original.

Patch repaired 1.5" crack in left nose gear side wall at F.S. 51 to FS 62.0. Stop Drilled crack and Installed Typical clear of structure overlay patch of 2024-T3 aluminum next gauge thicker than original per Cessna 421C Maintenance Manual #D2515-21-13AF, Section 15 "Structural Repair" Figure 9 and in AC43.13 -1B dated September 8, 1998 Chapter 4, "Metal Structure, Welding, And Brazing" Figure 4-16. Riveted with 1/8" rivets (2117-T4) per AC43.13 -1B, Table 4-9.

All riveting, performed using techniques in AC43.13 -1B dated September 8, 1998 Chapter 4, "Metal Structure, Welding, And Brazing" Section 4. "Metal Repair Procedures" and Cessna 421C Maintenance Manual #D2515-21-13AF, Section 15 "Structural Repair"

Weight and balance unchanged.

# 0-1 M-1 M-2 C-1 S-A S-0 A-1 A-2 0-2 A-4 0-3 RECEIVED A-4 0-5 A-6 0-6 CMH FSDO COLUMBUS OH A-7 0-7 0-9 A-14 A-13 A-12 A-11 A-10 A-8

Additional Sheets Are Attatched

\*\*\*\* NOTHING FOLLOWS \*\*\*\*\*\*

# 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

_	,	_	_	1)
۷	4	$\sim$	•	/

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).

and d for ea	ispositi ich suc	on of this form. I h violation (Sect	ion 9	01 Federal Aviation	on Act o	of 195	58).		on can result in a			
		Make						Model				1
	44	CESSI	NA						121C	10-2:	<del></del>	
. Aircı	an	Serial No. 421C		35				Nationalit	ty and Registration N521RM	Mark		
				n registration cert	ificate)			Address (	As shown on regis	tration ce	ertificate)	
				S INC. DE				221	5 S HAYFOR	RD RD		]
2. Own	er	DEALERS	ΑU	TO AUCTIO	N OF	S	POKANE	SPC	KANE WA 99	9224-	9490	
		l				3. Fc	r FAA Use C	nly The a	teration identified here	in complie	d with applicable	e
·								above	thiness requirements a described aircraft subjectson authorized in 14 C	ect to coinfi	ormity inspectio	e я
								J01	1 02 1998 Jan	26/C	Jargo	
						4. U	nit Identifica	tion	Date FAA Inc	pector, AFV	fSD0 5. Zype	
Uı	nit		Mak	e			Model		Serial No.		Repair	Alteration
AIRFRA	AME(As desc						in Item 1 abo	ove)				xx
POWER	IPLANT									·		
PROPE	LLER		"									
		Туре		* * * * * * * * * * * * * * * * * * *								
APPLIA	NCE	Manufacturer										
					6.	. Coi	nformity Stat	ement	<u> </u>			
A. Age	ency's l	Name and Addre	ess			B. I	Kind of Agen	су		C. Cert	ificate No.	
		AVIONIC		TNC:			U.S. Certifica	ted Mechani	<u>c                                    </u>	X56F	R055Y	
		AIRPORT R				Foreign Certificated Mechanic				O CLAS	S 1&2	
		TX 7670		,		XX	Certificated F		<u>n</u>	LIM	TED IN	ST.
D. 1 f	certify nave be urnishe	that the repair ar en made in acco	nd/or ordan	ralteration made to ce with the requirect to the bes	o the un ements t of my l	it(s) i of Pa	identified in i art 43 of the lepge.	tem 4/above U.S./Federa	and described on t at Aviation Regulation	he revers ons and t	e or attachme hat the inform	ents hereto mation
Date					<u>-</u>		pature of Au	horized Inc	dividual			
		JUN 0 2 19	99			X.	RYUS!	COMPANY	R, GENERAL	, MANA	AGER	
							al for Return					
Pur	suant to	the authority to the federa	giver al Avi	persons specific ation Administrat	ed belov ion and	w, the	e unit identif XXAPPRO	ied in item /ED 🗆	4 was inspected i REJECTED		nner prescri	bed by the
		A Fit. Standards		Manufacturer		Insp	ection Autho	rization	Other (Specify)	1		;
BY	FA	A Designee	xx	Repair Station		Can	on Approved	iness Group				
Date c	1 Appro	oval or Rejection		Certificate or Designation No.		Sig	natule of Au	porized Inc	dividual 1.			
	JUN	0 2 1999		X56R055Y		<i>8</i> 2	RY S	CONPACE	RY GENERAL	MAN	AGER	
							7					

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.

-	•
	Fork Accomplished s required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)
Α.	VFR REFERENCE PREVIOUSLY APPROVED FAA FORM 337 DATED 22 DEC 98.
в.	GARMIN GNC-300XL WAS INSTALLED FOR VFR ONLY.
	THE EQUIPMENT MANUFACTURER GARMIN, HAS CERTIFIED THAT THE GARMIN CNC-300XL MEETS THE DESIGN AND ACCURACY REQUIREMENTS CONTAINED IN ADVISORY CIRCULAR 20-138.
D.	THIS DATA HAS BEEN RECORDED AND FILED WITH WO# 0050 AT AURORA AVIONICS, INC. REPAIR STATION #X56R055Y.
E.	A COPY OF THE CARMIN CNC-300XL PILOT'S GUIDE, PN 190-00067-30 REV A, DATED FEBRUARY 1998 (OR LATER REVISION), MUST BE ON BOARD FOR ALL FLIGHTS WHENEVER NAVIGATION IS PREDICATED ON THE USE OF THE SYSTEM.
F.	GROUND AND FLIGHT TESTS WERE ACCOMPLISHED AND THE ACCURACY CRITERIA OF ADVISORY CIRCULAR 20-138 HAS BEEN DEMONSTRATED.

H.	FAA APPROVED FLIGHT MANUAL SUPPLEMENT DATED	JUN U Z 1999	IS
	REQUIRED TO BE ON BOARD FOR ALL FLIGHTS.		
	FND		

\$ 3° 1 1 100

্ণুকিংশ্লি চাইলিক

US Department of Transportation Federal Aviation Administration

# MAJOR REPAIR AND ALTERATION FEB 2 5 1999

(Airframe, Powerplant, Propeller, or Appliance) FAA AFW FSDO Form Approved

OMB No. 2120-0020

For FAA Use Only

Office Identification

ASW FSDO

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 suc	h violation (Sec	ction	901 Federal Aviati	ion Act	of 1958).						
		Make CESS	SNF	Ā			Model	421C	_			
1. Air	craft	Serial No. 4210					Nationality and Registration Mark N521RM					
		Name (As sho	own c	on registration cert	tificate)	)	Address (As shown on registration certificate)					
· •		1		NS INC. DE		2215 S HAYFORD RD						
2. Ow	/ner	B.		UTO AUCTIO		1						
		·				3. For FAA Use O	nly					
		<del></del>				4. Unit Identificati	ion			5. Type	1	
1	Unit		Mak	ке	<u> </u>	Model		Serial No.		Repair	Alteration	
AIRFR	AIRFRAME(As de					ribed in Item 1 abo	ve) ·····				xx	
POWE	ERPLANT											
PROP	ROPELLER											
		Туре							_			
APPLI	IANCE	Manufacturer	r									
					6	6. Conformity State	ment					
A. A	gency's N	Name and Addre	ess		!	B. Kind of Agenc			C. Certi	ificate No.		
ΑŢ	TRORA	AVIONIC	S J	INC.	,	U.S. Certificate			X561	X56R055Y		
79	937 A	IRPORT R	OAD		!	Foreign Certificated Be			RAD	IO CLAS		
WA	4CO, '	TX 7670	8		!	XX Certificated Repair Station L3  Manufacturer L3			LIM	ITED IN	ST.	
	have bee	en made in acco	ordan		rements	nit(s) identified in ite s of Part 43 of the U		and described on th I Aviation Regulatio				
Date		B 2 4 1999				Signature of Auth	<b>\1</b>	ande	L MAI	NAGER		
					7. Ap	proval for Return T	To Service					
Pu Ad	rsuant to ministrat	the authority	giver al Av	n persons specifie riation Administrati	d belov	w, the unit identified	ed in item	4 was inspected in REJECTED	the mar	nner prescrib	ed by the	
вү	1 1	A Fit. Standards pector		Manufacturer		Inspection Authoriz	zation	Other (Specify)				
D 1	FA	A Designee	xx	Repair Station		Person Approved b Canada Airworthin	ese Group			·····		
Date	of Appro	val or Rejection	,	Certificate or Designation No.		Signature of Auth	dized Ind	ividual				
F	FEB 2 4	4 1999	,	X56R055Y		1 Xapylly	CONTO	ER. GENERA	T. MAI	NAGER		

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.

•	Description	of Work Accomplish	har

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

- A. REMOVED THE FOLLOWING EQUIPMENT:
  - 1. BENDIX/KING RS-181A RADAR A/RT.....ARM 24.9

B. INSTALLED THE FOLLOWING EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, AURORA AVIONICS, INC. DRAWING #1008-010, AC43.13-1A CHAPTER 5, SECTION 1 AND CHAPTER 11, SECTIONS 2,3,5, AND 7, AND FOLLOWING THE GUIDELINES AND SUGGESTIONS ESTABLISHED IN AC43.13-2A CHAPTERS 1 AND 2 PARAGRAPHS 1, 9, 21, 22 AND 24:

PER BENDIX KING INSTALLATION MANUAL PN 066-00693-0002 REV 2, DATED SEPT 94:

- 1. BENDIX/KING KPA-900 CONFIGURATION MODULE......ARM 24.9
- 2. BENDIX/KING ART-2000 RADAR ANT/RT......ARM 24.9
- C. RADAR STABILIZATION IS PROVIDED FROM THE COPILOT'S ATTITUDE GYRO.
- D. THE EXISTING WIRING HARNESS WAS RE-USED IN THIS INSTALLATION.
- E. WEIGHT AND BALANCE CHANGE IS NEGLIGIBLE. THE EQUIPMENT LIST HAS BEEN REVISED.
- F. THE MAXIMUM PROBABLE CONTINIOUS ELECTRICAL LOAD DOES NOT EXCEED 80% OF THE TWO 100 AMP ALTERNATORS INSTALLED IN THIS AIRCRAFT.
- G. "INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOR THIS ALTERATION ARE AS FOLLOWS; RECEIVERS, TRANSMITTERS AND ANTENNAS ARE ON CONDITION ITEMS AND WILL BE MAINTAINED AS SUCH. ALL OTHER PARTS AND MATERIALS INSTALLED SUCH AS WIRING, CIRCUIT BREAKERS, SWITCHES, ANNUNCIATORS, CLAMPS, DOUBLERS, SHELVES, AND RACKS WILL BE INSPECTED FOR CONDITION AND SECURITY AT ANNUAL INSPECTIONS IN ACCORDANCE WITH FAR PART 43, APPENDIX D. AND ALL MAINTENANCE TO BE PERFORMED WILL BE DONE IN ACCORDANCE WITH FAA AC 43.13-1A AND APPLICABLE MANUFACTURERS SERVICE INSTRUCTIONS".

---- END ---

6.35 4.834

NEO

US Department of Transportation

# MAJOR REPAIR AND ALTERATION JAN 07 1999 OMB No. 2120-0020 (Airframe, Powerplant, Propeller, or Appliance) FAA

Form Approved

For FAA Use Only

AFW FSDO Office Identification

AFW FSDO 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 violation (Section 901 of Federal Aviation Act of 1958).

		3.6-1					· · · · · · · · · · · · · · · · · · ·					
		Make						Model				
1. Air	oroff	Cessna Serial No.				,		421C				
i. Air	Crait								lity and Registration	Mark		
-		421C0335		on registration certif	icato)			N4261				
		GB Auctio			icale)				s (As shown on regis	stratior	r certificate)	•
2. Ow	ner				1				S.Hayford RD.			
		Dealers At	ILO	Auction of Spo	kane			Spoka	ne, WA 99224-	9490		
				······································		2	For FAA Use Or	J				
							FOI FAA OSE OI	ii y				· · · · · · · · · · · · · · · · · · ·
					<del></del>	4.	Unit Identificatio	n	···		5. Type	
	Unit		Ma	den.			NA 1 - 1	Т				T
<u> </u>			IVia	ike			Model		Serial No.		Repair	Alteration
AIRFR	AME	``		~~~~~~~(	As des	cribed	in Item 1 above)	~~~~~	·~~~			37
												X
POWE	RPLANT				`							
PROPE	:1100					1						
FROFE	ELLER							Ì				
		Туре										
APPLIA	ANCE							l				
		Manufacturer										
	····											
							onformity Staten	ent				
A. Agen Aurora A		and Address		<del></del>			ind of Agency		<del></del>		ertificate No.	
	rport Rd.									P252884234		
	X 76708					Foreign Certificated Mechanic Certified Repair Station						
							Manufacturer	Jiduon	****	1		
D. Ic	ertify that t	he repair and/or	alter	ration made to the u	nit(s) id	lentific	ed in item 4 above	and des	cribed on the reverse	or att	achments hereto	have been
ma	ade in acco	rdance with the	requ	irements of Part 43 ct to the best of my	of the	U.S. I	ederal Aviation R	egulation	s and that the inform	nation		
Date	Thorica nei	en is true and c	One	ct to the best of my	Knowie			<u>.</u>				
12-28-	98					Sig	nature of Authoriz	ea/inavid	MA			
		<del></del>		· · · · · · · · · · · · · · · · · · ·		$\perp /\!\!\!/$	1 PERAL	17	~ <i>(//1/00)4</i>			
							al for Return To					
Pursuar Federal	nt to the au Aviation A	thority given pera dministration and	sons 1 is	specified below, th 図 APPROVED	e unit id	dentifi JECT	ed in item 4 was i ED	rspected	in the manner preso	ribed i	by the Administrat	or of the
	FAA FI Inspec	t. Standards tor		Manufacturer	х	Ins	pection Authorizat	on	Other (Specify	)		
BY	FAA D	esignee		Repair Station		Per Car	son Approved by adda Airworthines	Franspor	t			
Date of / 12-28-		r Rejection		Certificate or Designation No.			nature of Authoriz		Sual MI	60	$\sim$	
				A&P25288423	4I/A	16	11 WM	281	CL: 118/1/	4) (	4	
AA Fon	m 337 (12-	88)							$\vee$	-	7	

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.)

- 1. Installed Ram vortex generators by authority of STC SA8352SW in accordance with Ram Aircraft drawing No.1532 rev. E dated 12-9-91 and installation instructions drawing No. 1564 rev. B dated 4-1-98. A weight change of 1.23 lbs. at 136.15 was recorded. Flight manual supplement FM1025 was added to the aircraft filght manual.
- 2. Installed improved exhaust system slip joints by authority of STC SA4592SW and in accordance with Ram drawing 1153 rev. A dated 1-23-85.
- 3. Installed Power Pac spoiler kit model SP4000 by authrity of STC SA4913NM and in accordance with Spoilers Inc. installation instructions SP4000 dated 3-29-90 and master drawing list SP4000 dated 3-29-90. A weight change of 19.1 lbs. at 197.14 was recorded and a flight manual

supplement was added to the aircraft flight manual.

**MAJOR REPAIR AND ALTERATION** US Department of Transportation (Airframe, Powerplant, Propeller, or Appliance) Federal Aviation Administration

FAA AFW FSDO

Form Approved OMB No. 2120-0020

For FAA Use Only

Office Identification

ASW FSDO 19

NSTRUCTIONS: 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
or each such violation (Section 901 Federal Aviation Act of 1958).

fo	r each suc	ton of this form th violation (S	n. 1 n ectio	n 901 Federal Avia	tion Ac	/ (49 t of 1	0.S.C. 1421). Fa 1958).	ilure to report	t can result in a	civil pena	ity not to exc	eed \$1,000	
		Make	~~~~			****		Model				<del>-</del>	
1. A	ircraft	CESS	SNA ——					421		<del></del>			
Unit  2. Owner  Unit  AIRFRAME  POWERPLANT  PROPELLER  APPLIANCE  A. Agency's Nata AURORA 7937 AI WACO, T:  D. I certify the have been furnished Date  DEC  Pursuant to tot Administrator	Serial No.	- ^ ^	~=				1	and Registration	n Mark				
		4210		35 on registration cei	-4ificate	- 1			26RW	***	- 4761 - nAn 1		
	Owner  Unit  FRAME  WERPLANT  DPELLER  PLIANCE  Agency's N  URORA  937 AI  ACO, T  I certify the have been furnished to diministrato  FAA Inspections	1		•		₹)		li .	shown on regi		ertificate)		
2. O	wner			NS INC. DE		, c	· • • • • • • • • • • • • • • • • • • •	2215 S HAYFORD RD SPOKANE WA 99224-9490					
		DEALEKS	) A	UTO AUCTIC	)N O	ت t 	PUKANE	SPUKANE	WA 9922	24-94:	90		
						3.	For FAA Use O	ıly					
						4.	Unit Identificati	on .			5. Type	<del>.</del>	
	1 Init		M	ake					Carial Na			A !	
	Unit	<u> </u>		ike			Model —		Serial No.	·	Repair	Alteration	
AIRF	RAME		••••	(/	As desc	cribe	d in Item 1 abov	/e)				xx	
				-				<del></del>					
P∩W	FRDI ANT			ļ								ĺ	
	En cari												
2201													
PHOR	PELLEK												
		Туре											
APPL	IANCE												
		Manufacture	ır										
				I	6	. Co	nformity Stater	nent					
A. A	gency's N	ame and Addr	ess				Kind of Agency			C. Certif	icate No.		
ΑĽ	TRORA	AVTONTO	ς.	TNC		U.S. Certificated Mechanic				X56R055Y			
				TIVC •		Foreign Certificated Mechanic				RADIO CLASS 1&2			
						XX	Certificated Rep	air Station			ITED INST.		
						<u></u>	Manufacturer		$\sim$				
D.	I certify th	at the repair a	nd/o	or alteration made to	the un	it(s)	identified in iter	n 4 above and	described on th	e reverse	or attachmer	nts hereto	
	furnished	herein is true	and	nce with the require correct to the best	of my	know	vledge.	s. Federal Avia	ation Regulatio	ns and tn	at the inform	ation	
Date		2 0 0 400.1				Sig	nature drautho	riged Individu					
	DE	C 2 2 1998				<u>ا</u> ا	$\times$ $\cup$	<b>メ</b> 、ノム	Miller				
					7 An			ONOVER,	GENERA	L MAN	AGER		
Pili	reuant to	the authority	aive	n persons specifie			al for Return To		!			<del></del>	
Adı	ministrato	r of the Federa	al Av	iation Administration	on and	is	APPROVE	O REJE	CTED	tne manı	ner prescribe	ed by the	
3Y		Flt. Standards ector		Manufacturer			ection Authoriza	ation	Other (Specify)				
	<u> </u>	Designee	<u> </u>	Repair Station		Can	on Approved by atla Arworthine	ss Group					
	of Approve DEC 2 2	al or Rejection 1998		Certificate or Designation No. X56R055Y		Sign	ature of Autho	TZEGINDI/III	GENERA	T. MAN	AGER		

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. REMOVED THE FOLLOWING EQUIPMENT:

1. ARC RT-1038A COMM TRANSCEIVERARM	33.0
2. ARC C-1038A COMM CONTROLARM	112.9
3. ARC RT-1038A COMM TRANSCEIVERARM	33.0
	112.9
5. ARC R-1048B NAV RECEIVERARM	33.0
6. ARC C-1048A NAV CONTROLARM	112.9
7. ARC R-1048B NAV RECEIVERARM	33.0
8. ARC C-1048A NAV CONTROLARM	112.9
9. ARC R-1043A GLIDESLOPE RECEIVERARM	33.0
10. ARC R-1043A GLIDESLOPE RECEIVERARM	33.0
11. ARC R-402 MARKER BEACON RECEIVERARM	33.0
12. ARC AA-108 AUDIO AMPLIFIERARM	111.9
13. ARC RT-859A TRANSPONDERARM	
14. ARC RT-859ATRANSPONDERARM	109.5
15. ARC RTA-876A DME TRANSCEIVER ARM	
16. ARC C-876A DME CONTROLARM	111.0
17. BENDIX ANT-161A RADAR TRANSCEIVERARM	
18. BENDIX IN-152A RADAR INDICATORARM	
19. ARC R-846A ADF RECEIVERARM	
20. ARC C-1046A ADF CONTROLARM	
21. ARC P-1000A POWER SUPPLYARM	
22. ARC IN-13A-1 INDICATORARM	
23. ARC RA-846A ACCESSORY UNITARM	
24. ARC L-346A LOOP ANTENNAARM	
25. SENSE ANTENNAARM	206.6
26. ARC IN-803A RMI INDICATORARM	185.0
27. ARC B-24A RMI CONVERTERARM	
28. FLITEFONE III RT-18ARM	
29. NAT AA80 INTERCOM SYSTEMARM	
30. ACK A-30 BLIND ENCODERARM	
31. TRIMBLE TNL-2000T GPS RECEIVERARM	
32. TRIMBLE GPS ANTENNAARM	
33. NAT RS08-001 REMOTE RELAYARM	
34. FLITETRONICS PC-12A CONVERTERARM	
35. CO-PILOT HORIZONTAL GYROARM	
36. CO-PILOT DIRECTIONAL GYROARM	113.0

B. INSTALLED THE FOLLOWING EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, AURORA AVIONICS, INC. DRAWING LIST #1008-000, AC43.13-1A CHAPTER 5, SECTION 1 AND CHAPTER 11, SECTIONS 2,3,5, AND 7, AND FOLLOWING THE GUIDELINES AND SUGGESTIONS ESTABLISHED IN AC43.13-2A CHAPTERS 1,2, AND 3 PARAGRAPHS 1, 9, 12, 21, 22, 23, 24, 44 AND CHAPTER 13 SECTION 1:

PER BENDIX/KING INSTALLATION MANUAL PN 006-00174-0006 REV 3, DATED OCT 94:

1. BENDIX/KING KN-53 NAV/GS RECEIVER.....ARM 109.5

"11

DATE\_\_\_\_\_

PER	BENDIX/KING INSTALLATION MANUAL PN 006-00140-0003 REV 3, DATEI	OCT 9	6:
2.	BENDIX/KING KI-209 NAV INDICATOR	ARM 1	11.9
PE	R BENDIX/KING INSTALLATION MANUAL PN 066-00142-0001 REV 1, DATE	) ЈЈЈЈ	78:
3.	BENDIX/KING KN-72 NAV CONVERTER	ARM 3	3.0
PEF	R BENDIX/KING INSTALLATION MANUAL PN 066-00179-0006 REV 6, DATE	OCT 9	94:
4.	BENDIX/KING KX-155 COMM/NAV/GS	ARM 1	09.5
PEI	R BENDIX/KING INSTALLATION MANUAL PN 066-00137-0004 REV 4, DATEI	) MAR	88:
5.	BENDIX/KING KI-204 NAV/GS INDICATOR	.ARM J	11.9
	R CENTURY FLIGHT SYSTEMS BULLETIN NO. 749 REV 4, DATED APR 95 AI AGRAM # 39140:	ND WIR	ING
6. 7.	CENTURY NSD-360 HSI INDICATOR (COPILOT'S DISPLAY) EDO-AIRE 1U367 ATTITUDE GYRO (COPILOT'S HORIZON)	.ARM ARM	113.0 112.5
PEF	R BENDIX/KING INSTALLATION MANUAL PN 006-00144-0006 REV 6, DATEI	APR 9	7:
8.	BENDIX/KING KN-64 DME TRANSCEIVER	ARM	109.5
PER	GARMIN INSTALLATION MANUAL PN 190-00149-01 REV B, DATED MAR 9	18:	
9.	GARMIN GMA-340 MARKER/AUDIO PANEL	ARM	109.5
PER	GARMIN INSTALLATION MANUAL PN 190-00133-01 REV E, DATED SEPT 9	7:	
10.	GARMIN GTX-320 TRANSPONDER	ARM	109.5
	GARMIN GTX-320 TRANSPONDER		109.5
	R GARMIN INSTALLATION MANUAL PN 190-00067-22 REV C, DATED JUNE		
12.	GARMIN GNC-300XL GPS/COMM	ARM	109.5
13. 11	GARMIN GA-56 GPS ANTENNAGARMIN GPS REMOTE BATTERY	ARM	
			33.0
PER	MID-CONTINENT INSTALLATION MANUAL PN 7019813 REV 2, DATED FE	3 98:	
14.	MID CONTINENT MD41-1448 ANNUNCIATOR	ARM	112.9
PER	MID-CONTINENT INSTALLATION MANUAL PN 7019029 REV 1, DATED AU	G 97:	
15.	MID CONTINENT MD41-248 RELAY	ARM	33.0
PER	ASTRON INSTALLATION MANUAL:		
16.	ASTRON 2412-12 POWER CONVERTER	ΔΡΜ	33 0

FAA FORM 337 - CESSNA N426RW/421C-0335 PAGE 3 OF 4 DATE\_\_\_\_\_DEG 2 2 1996

PER BF GOODRICH INSTALLATION MANUAL PN 009-10950-001 REV 00, DATED AUG 97:

- 17. WX-950 STORMSCOPE INDICATOR......ARM 109.5
- 18. WX-950 STORMSCOPE ANTENNA......ARM 161.5

PER ARC INSTALLATION MANUAL PN 7010414-1 CHANGE 1, DATED DEC 77:

PER BENDIX KING INSTALLATION MANUAL PN 066-00955-0006 REV 6, DATED MAR 92:

- 20. BENDIX/KING IN-182A RADAR INDICATOR.....ARM 103.9
- 21. BENDIX/KING RS-181A RADAR ANT/RT.....ARM 24.9
- D. INTERFACED THE GPS SYSTEM AND THE NAV-1 SYSTEM TO THE PILOT'S HSI AND THE AUTOPILOT/FLIGHT DIRECTOR SYSTEMS THROUGH THE USE OF A MID-CONTINENT MD-41 RELAY/ANNUNCIATOR UNIT. AN ILS LOCK-OUT WAS INSTALLED THAT WILL SELECT NAV-1 ILS INFORMATION ON THE PILOT'S HSI WHENEVER AN ILS FREQUENCY IS SELECTED BY THE NAV-1 RECEIVER
- E. ENCODING INFORMATION IS PARALLED TO THE GARMIN GNC-300XL AND THE ENCODING ALTIMETER AT THE SPLICE AREA LOCATED AT THE REAR OF THE TRANSPONDER CONNECTORS.
- F. WIRING HARNESSES TO THE NOSE AREA PASS THROUGH A FACTORY FEED-THROUGH AT STATION 100.0.
- G. THE AUTOPILOT / FLIGHT DIRECTOR INTERFACE WAS DONE IN ACCORDANCE WITH AIRCRAFT WIRING DIAGRAMS AT THE AVIONICS TERMINAL STRIPS AND RELAYS LOCATED IN THE NOSE AT STATION 33.0.
- H. INSTALLED FOUR MIC AND STEREO PHONE JACKS ON THE CABIN SIDEWALLS FOR PASSENGER INTERCOM AND STEREO USE. PASSENGERS HAVE INTERCOM CAPABILITY ONLY. MUSIC INPUT INTERFACED TO THE PREVIOUSLY INSTALLED STEREO SYSTEM.
- I. RADAR STABILIZATION IS PROVIDED FROM THE COPILOT'S ATTITUDE GYRO.
- J. EQUIPMENT IS PROTECTED THROUGH THE USE OF CIRCUIT BREAKERS LOCATED IN THE RIGHT HAND CIRCUIT BREAKER PANEL ON THE AVIONICS BUSS.
- K. PANEL PLACARDED "GPS LIMITED TO VFR USE ONLY".
- L. WEIGHT AND BALANCE HAS BEEN REVISED TO REFLECT THIS ALTERATION. THE EQUIPMENT LIST HAS BEEN UPDATED.
- M. THE MAXIMUM PROBABLE CONTINIOUS ELECTRICAL LOAD DOES NOT EXCEED 80% OF THE TWO 100 AMP ALTERNATORS INSTALLED IN THIS AIRCRAFT.

DF	<u>-</u> C	9	9	10	q	8
ப	_ 🕡	<i>-</i> -	7.	- 1-		u

FAA FORM 337 - CESSNA N426RW/421C-0335 PAGE 4 OF 4

DATE		

N. "INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOR THIS ALTERATION ARE AS FOLLOWS; RECEIVERS, TRANSMITTERS AND ANTENNAS ARE ON CONDITION ITEMS AND WILL BE MAINTAINED AS SUCH. ALL OTHER PARTS AND MATERIALS INSTALLED SUCH AS WIRING, CIRCUIT BREAKERS, SWITCHES, ANNUNCIATORS, CLAMPS, DOUBLERS, SHELVES, AND RACKS WILL BE INSPECTED FOR CONDITION AND SECURITY AT ANNUAL INSPECTIONS IN ACCORDANCE WITH FAR PART 43, APPENDIX D. AND ALL MAINTENANCE TO BE PERFORMED WILL BE DONE IN ACCORDANCE WITH FAA AC 43.13-1A AND APPLICABLE MANUFACTURERS SERVICE INSTRUCTIONS".

....-END -------

# US department of Transportation

of Transportation
Federal Aviation
Administration

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

Form Approved
OMBNo. 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).

VIO	lation (Section	n 901 Federal A	viatio	n Act of 1958).			•				CCG \$1,000 101	COULT SOUL		
1. Aircraft		Make CES	SSN	Α .				Model 421C						
		Serial No.					Nationality and Registration Mark							
				21C-0335		<del></del>								
		Name (As she	own o	on registration certi	ficate	)	·	Addre	SS (As shown on re	gistration	certificate)			
2.	Owner	AURORA	AVI	ATION, INC.		٠,	1800 E. SAHARA DR. STE 1 LAS VEGAS, NV 89104							
						3.	For FAA Use O	nlv	······································		<del></del>			
										·		··		
		-		·•	•	-								
				4. Ui	nit Id	entific	ation			·	5. Type			
	Unit		Mal	æ			Model		Serial No.		Repair	Alteration		
AIR	FRAME	(As de				describe	escribed in Item 1 above}					х		
POV	VERPLANT					• ,,								
PRO	OPELLER									<del>- · · · </del>				
APF	LIANCE	Туре	-			<del></del>								
		Manufacturer												
				<del> </del>			nformity Staten	nent						
A. <i>I</i>	agency≔s Na	me and Address	•			B.						rtificate No.		
	IOI ITOD						U.S. Certificated Mechanic FCP5				5831D, L-AF, L-INS,			
	_IGHTCR/	-				<u> </u>					D, RAD-1, RAD-2,			
		WEST DRIV	Ε			X	X Certificated Repair Station AAC-					-1, AF-3		
<u> </u>	AY WARD	, CA 94541	-14				Manufacturer lentified in item 4 above and described on the reverse or attachments he							
to th	e best of my	noo man are rede	aitera Jirem	ents of Part 43 of t	he U.	S. Fede	ed in item 4 above a eral Aviation Regula	and descri ations and	bed on the reverse o that the information	r attachm furnished	ents hereto ha herein is true	ve been and correct		
Date	······································	9/10/9	8			Sigi	Signature of Authorized Individual							
					7. A	pprov	al for Return to	Service	<u> </u>		·			
Purs	suant to the a	uthority given pe	rsons	s specified below, t	he un	it identi	ified in item 4 was i	inspected	in the manner presc	ribed by the	ne Administrat	or of the		
Fede	eral Aviation A	Administration ar	nd is	X APPROVED	R	EJECT	ED			•				
	FAA F Inspec	it. Standards ctor		Manufacturer		ins	pection Authorizati	on	Other (Specify)					
BY		Designee	X	Repair Station		Pe Ca	rson Approved by T nada Airworthiness	Fransport Group						
Date	of APPROV			Certificate or Designation No.		Sig	Signature of Authorized Individual  Will Will Control of Authorized Individual							
ĒΛΛ	9/10/98 FCP5831D						ville was							

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.

shed
,

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

9/10/98

N426RW

CESSNA 421C

S/N 421C-0335

Aircraft maximum weight increase in accordance with Ram Aircraft Corp. STC SA5981SW.

Increase maximum ramp weight to 7610 pounds; maximum takeoff weight to 7560 pounds; maximum landing weight is 7200 pounds; maximum zero fuel weight is 6533 pounds in accordance with Report 85-8 dated May 28, 1985.

Revised AFM/POH with Ram Aircraft Corp. Flight Manual Supplement dated 11/6/1985.

Revised weight and balance data to reflect gross weight increase.

END

MAdditional Sheets Are Attached

IU.S. GPO: 1994-568-012/00019

United States of America

Department of Transportation—Jederal Aviation Administration

# Supplemental Type Certificate

Number SA5981SW

This certificate, issued to RAM Aircraft Corporation P. O. Box 5219
Waco, Texas 76708

cortifies 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: A7CI

Make: Cessna

Model: 421C

Description of Trype Design Change:

Increase maximum ramp weight to 7610 pounds; maximum takeoff weight to 7560 pounds; maximum landing weight is 7200 pounds; maximum zero fuel weight is 6533 pounds in accordance with Report 85-8 dated May 28, 1985, or later FAA approved revision.

#### Limitations and Conditions:

FAA Approved Airplane Flight Manual Supplement dated July 11, 1985, or Supplement dated November 6, 1985, is required.

Compatibility of this modification with other previously approved modifications must be determined by the installer.

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 Gedoral Aviation Administration

Dale of application: May 29, 1985

29, 1985 Sale reissued:

Dale of issuance: July 11, 1985

Sale amended: November 6, 1985 Revision 1

By direction of the Administrator

for Don P. Watson (Signature)

Manager, Aircraft Certification Division

Southwest Region

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.

#### RAM\_AIRCRAFT\_CORPORATION P.Q. BOX\_5219 WACQ.TEXAS\_76708

REPORT 85-8

GROSS WEIGHT INCREASE PROPOSAL EQR CESSNA\_421C AIRCRAFT

WARNING
THIS DOCUMENT CONTAINS TRADE SECRET INFORMATION OWNED BY
RAM AIRCRAFT CORFORATION. UNAUTHORIZED DISCLOSURE OF THE
INFORMATION CONTAINED IN THIS DOCUMENT TO GROUPS OR INDIVIDUALS
WILL BE TREATED AS THEFT OF A TRADE SECRET. DISCLOSURE OR USE OF
THE INFORMATION CONTAINED IN THIS DOCUMENT TO SPECIFIC GROUPS OR
INDIVIDUALS IS AUTHORIZED ONLY BY MEANS OF A LETTER OF AUTHORIZATION SIGNED BY THE PRESIDENT OF RAM

PHILLIF T CRAWFORD,

MAY 28, 1985

#### REVISION\_PAGE

REVISION\_DATE\_\_BY\_\_\_DESCRIFTION\_\_\_\_\_

#### TABLE OF CONTENTS

INTRODUCTIONi	ii
CHANGED PARAMETERS	1
UNCHANGED PARAMETERS	1
REFERANCES	1
SUBPART B: FLIGHT REQUIREMENTS	17
SUBPART C: STRUCTURES	.3
SUBPART E: POWERPLANT	_

#### I. INTRODUCTION

The purpose of this new project is to obtain a gross weight increase of 110 lb on the standard Cessna 421C aircraft. This will bring the standard 421C up to the gross weight carrying capability of RAM's STC SA5811SW winglet airplane without the increased stuctural loads imposed by the wing extension/winglet installation. The proposed aircraft will have the same gross weight, zero-fuel weight, and center of gravity limitations that are currently approved for the winglet aircraft. The currently approved landing weight of 7,200 lbs will not be changed. The proposed new weights are:

Maximum Ramp Weight......7,610 lbs Maximum Takeoff Weight.....7,560 lbs Maximum Zero-Fuel Weight....6,533 lbs Maximum Landing Weight.....7,200 Lbs

The principle effects of this change will be on the aircraft's performance. The aircraft structure is not detrimentally affected since without the wing extension and with the zero-fuel weight decrease, the wing net loads (shear, moment, and torsion), are smaller than the previously approved airplane's loads. This is true except at the extreme outboard portion of the wing where the load percentage increase is large but the absolute load is small in comparison to the available structure.

Since there is no change in the currently approved powerplant all that is necessary to show powerplant compliance is to demonstrate adequate engine cooling at the proposed gross weight. Since a cooling test has already been conducted at the proposed gross weight under the STC SA5811SW project the previously approved data is included with this report to show compliance.

Forformance items affected by this increase are the single-engine climb and maximum takeoff climb performance. The balked landing climb performance and the landing distances are unchanged from previous approvals since the landing weight is unchanged. The takeoff performance at the heavy weight will be extrapolated using a conservative method. All performance parameters at 7,450 lbs and below are unchanged from previous approvals.

## 11\_CHANGED\_PARAMETERS

- A) The maximum ramp weight increased from 7500 to 7610 lbs
- B) The maximum takeoff gross weight increased from 7450 to 7560 lbs.
- C) The maximum zero-fuel weight decreased from 6733 to 6533 lbs.

#### III UNCHANGED FARAMETERS

- A) Aircraft configuration and aerodynamics are unchanged from previous approvals.
- B) Installed power and powerplant is unchanged from previous approvals.
- C) Available fuel tankage and tank configurations are unchanged from previous approvals.
- D) Maximum landing weight remains at 7200 lbs as previously approved.
- E) Except at the extreme outer portion of the Wing the Wing Shear, moment, and torsion at the higher gross weight of 7560 lbs is less than at the standard gross weight of 7450 lbs. In the area where the loads are in fact higher, they are also very small and not significant.

## IV. REFERANCES

- A) Type data sheet A7CE, Cessna 421C aircraft.
- B) Engine Cooling test results
- C) Wing loads computations

### V\_COMPLIANCE\_CONSIDERATIONS

## SUBPART B: FLIGHT REQUIREMENTS

The primary considerations of this part are the effects of the weight increase on performance and handling. Since the aircraft has been flown at the higher gross weight with winglets installed and found to be adequately stable and controllable then the standard aircraft at the new weight will likewise meet the regulations. This assertion can be supported by considering the fact that the aircraft has no known handling quality problem that will be aggravated by a 1.5% weight increase. For the results of the STC SA5811SW handling quality flight test see the Type Inspection Report dated April 9, 1985. For these reasons only performance considerations are discussed here.

The performance considerations are the takeoff distance, maximum climb and single-engine climb performance. The effects of the weight increase on each area of performance will be extrapolated from the previously approved Cessna flight manual data. The effects of the weight increase at sea level on these performance areas are listed below:

Gross Weight	7560	
Max Climb FPM	1907	-2.2%
Single Engine Climb 350	331	-5.4%
Takeoff Distance2335	2426	+3_8%

The aircraft flight manual supplement will indicate that the aircraft will suffer performance degradations as shown when operated at the higher gross weights. These estimates are based on conservative extrapolation techniques when used with small weight increments. The most critical item is the single engine climb and it is reduced by approximately 20 fpm. When operated at or below 7450 lbs weight the performance will be equal to or better than previous approved Cessna data.

### SUPPART\_C: STRUCTURES

The calculations contained in Ref C show that the wing shear, moment, and torsion are equal to or less than previously approved. The techniques used to compute these loads are the same ones used to compute the wing net loads on RAM's STC SA5811SW winglet project. This net load reduction is accomplished by lowering the zero-fuel weight from 6733 lbs to 6533 lbs. This results in a minimum of 100 lbs more relieving fuel load in each wing for every gross weight in excess of 6733 lbs. Since this weight is carried in the wing outboard of the engine macelle it tends to reduce the loads in the wing as gross weight is increased. The load computations take into account the standard wind airloads at both 7450 and 7560 lbs weight. The relieving effects of the fuel are computed at these gross weights using a zero-fuel weight of 6733 and 6533 lbs respectively. The relieving effect of the wing weight was neglected since there is no change to the wing structure and therefore no difference in relieving loads. The structural aspect of this project is considered to be in compliance.

### SUBPART\_E: POWERPLANT

The only powerplant consideration is the effect of the weight increase on engine cooling. This has been previously demonstrated on the STC SA58:1SW project and the results are included here as Ref  $\theta$ .

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	or 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	or each such violation (Section
901 Federal Aviation Act of 1958).	·

											0	10P-	27
of thi	is form. This	6: Print or type report is requi	ired by I	ries. See FAR 43.9, law (49 U.S.C. 142	, FAR 4 11). Fai	i3 App	pendix B, and A o report can re	AC 43.9-1 (sult in a cir	(or subsequent vil penalty not to	t revision to exceed	thereof) for inst 1 \$1,000 for each	ructions an h such viola	d disposition
1. A	Aircraft	Make						Model				*	
		CESS Serial No.	NA						121 C	'' Mai	•.		
		Serial No.	421 <sub>C</sub>	C-0335	_	_			ty and Registra 1426RW	ation Mai	ik		
2. O	wner			n on registration ce	rtificate	 ∌)		Address	(As shown on regi	istration ce	ertificate) 1800 I	E. Saha	ra Dr.
		AUROR	A AV	TATION, INC	<u>c.                                    </u>	·	<del></del>	STE#1	07, Las V	Vegas	NV 89104	4	
	·						For FAA Use	Only		·			
				4	. Unit	Ident	tification			_		5.	Туре
	Unit	·	Mak	ke			Model			Serial No	).	Repair	Alteration
Alf	RFRAME				(As	desci	tibed in item :	1 above)					
POW	VERPLANT		TCM	И		G	TSIO-520-L			608271			Х
PRO	OPELLER			-								•	
API	PLIANCE	Туре											
		Manufacturer											
						6. (	Conformity St	tatement					
A. A	lgency's Na	me and Add	lress			B. K	ind of Agency	<del></del>		$\overline{}$	C. Certificate N	Vo.	<del> </del>
		······································					U. S. Certifica	ated Mech	anic		**PED/		2 244
	RAM AIR	CRAFT C	ORP	ORATION			Foreign Certif	ficated Me	chanic	$\neg$		AME CLASS PLANT CLA	
	WACO, T	X 5219 TEXAS 76	708			Х	Certificated R	Repair Stat	ion		VA	1R551K	
_							Manufacturer	 r				•	
ii.	in accordanc	ne repair and/o be with the rec ny knowledge.	quireme	ation made to the ur ents of Part 43 of t	nit(s) id the U.S	lentific	ed in item 4 aboreral Aviation Ro	ove and de egulations	scribed on the	reverse	or attachments in furnished here	hereto have in is true ar	been made ad correct to
Date					ş	Signa	ature of Author	rized Indi	vidual				·
		8-18	J-98		L	Larry I	D. Hemandez	SOUR S	1)10	man	nd		
					7. £	Appro	oval for Return	n To Serv	ice		0		
Purs eden	suant to the a	authority give	n perso	ons specified below	w, the u	ınit ide	entified in item	4 was ins	pected in the n	nanner p	orescribed by the	• Administra	ator of the
	FAA Fit.	t. Standards or .		Manufacturer		inspe	ection Authoriza	ation	OTHER (	Specify)			
BY	FAA De	signee	Х	Repair Station			on Approved by		t		<u></u> -		
Date o	of Approval o	r Rejection		Certificate or Designation No.		Signa	ature of Authori	ized Individ	dual		$\overline{}$		
	8-17	8-98	!	VA1R551K	: 1	Larry	∕ D. Hernande∑	(O)	16 El	Oma	m		

VA1R551K COMPUTER GENERATED FAA FORM 337 (12-88)

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must b 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.)

## GTSIO-520-L R-608271 Cessna 421C0335 N426RW

Engine crankcase modified per Dwg. 1514, Rev. F, dated 6/04/97 I/A/W STC SE8338SW.

Installed Bendix pressurized magnetos p/n S6LN 1251 and 1255 per Dwg. 1029, Rev. K, dated 2/24/94. Installed I/A/W STC SE4591SW.

Installed spring loaded induction hose clamps per Dwg. 1171 dated 5/23/85 I/A/W STC SE3767SW.

Relocated Turbo Oil Supply Line per RAM Dwg. No. 1224, Rev. D dated 9/26/96 and DER Approval Form 8110-3 dated 8/18/98.

Installation mechanic must complete Block 1 and 2 on reverse side and mail one copy to their local FSDO.

Negligible weight and balance change.

Customer furnished with FAA approved Overhaul and Parts Manual Supplements for all alterations.

Pertinent details of the above installations are on file uner work order no. 3505/JJ0007.

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

					_							
of this	form. This	: Print or type report is requ tion Act of 1	ired by	tries. See FAR 43.9 law (49 U.S.C. 142	), FAR 21). Fa	43 Ap ailure	pendix B, and A to report can re	AC 43.9-1 (c sult in a civi	or subsequent revision I penalty not to exce	on thereof) for ins ed \$1,000 for eac	tructions and such viola	nd disposition ation (Section
1. Ai	rcraft	Make CESSN	A					Model 42				
		Serial No.		_			····	Nationality	and Registration M	ark		
	<del> </del>	421C-							126RW	4000		
2. Ow	mer			n on registration ce VIATION, INC		te)			As shown on registration  OF LAS VEGA	•		IARA DR.
							For FAA Use	Only	·	•		
				4	I. Uni	t Iden	tification				5.	Туре
	Unit		Mai	ke			Model	T	Serial N	io.	Repair	Alteration
AIR	FRAME				(At	desc	ribed in Item	1 abovej				
POWI	ERPLANT		TC	М		G.	TSIO-520-NcL		277022	-P		X
PRO	PELLER										•	
APP	LIANCE	Туре										
		Manufacturer										
						6.	Conformity S	tatement				
A. Ag	jency's Na	me and Add	iress			В. Н	Kind of Agency	у		C. Certificate	No.	
							U. S. Certific	ated Mecha	nic	AIRER	AME CLAS	S 111
F	P. O. BO	X 5219		ORATION			Foreign Certi	ficated Mec	hanic		PLANT CL	
'	NACO, T	EXAS 76	708			X	Certificated F	Repair Statio	n	VA	1R551K	
	<del></del>	<u> </u>				<u> </u>	Manufacture			<u> </u>		
ເກ	accordanc	e repair and/o e with the rec y knowledge	quirem	ation made to the userts of Part 43 of	nit(s) i the U.	dentifi S. Fed	ied in item 4 ab Ieral Aviation R	ove and des egulations a	cribed on the revers and that the informati	e or attachments on furnished here	hereto have in is true ar	been made nd correct to
Date						Signa	ature of Autho	rized Indiv	idual			
		8-18	3-98			Larry	D. Hernandez	Farr	Mema	nder		
					7.	Appr	oval for Retur	n To Servi	ce)	d		
Purst Federal	uant to the all Aviation A	uthority give Iministration	n pers	ons specified belo	w, the	unit ic	lentified in item	4 was insp	ected in the manner	prescribed by the	Administra	ator of the
	FAA Fit	Standards or .		Manufacturer		Insp	ection Authoriz	ation	OTHER (Specify	)		
3Y  -	FAA De	signee	Х	Repair Station			son Approved b ada Airworthine					
Date of	Approval o	Rejection		Certificate or Designation No.		Sign	ature of Author	ized Individ	ual	Λ		
-	8-18	3-98	FORM	VA1R551K	<u> </u>	Lam	D. Hernandez	Spr	Mery Her	onde		
rı			H	337 (37-00)						^		

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.)

## GTSIO-520-NcL L-277022-P Cessna 421C0335 N426RW

Engine crankcase modified per Dwg. 1514, Rev. F, dated 6/04/97 I/A/W STC SE8338SW.

Installed Bendix pressurized magnetos p/n S6LN 1251 and 1255 per Dwg. 1029, Rev. K, dated 2/24/94. Installed I/A/W STC SE4591SW.

Installed spring loaded induction hose clamps per Dwg. 1171 dated 5/23/85 I/A/W \$TC SE3767SW.

Relocated Turbo Oil Supply Line per RAM Dwg. No. 1224, Rev. D dated 9/26/96 and DER Approval Form 8110-3 dated 8/18/98.

Installation mechanic must complete Block 1 and 2 on reverse side and mail one copy to their local FSDO.

Negligible weight and balance change.

Customer furnished with FAA approved Overhaul and Parts Manual Supplements for all alterations.

Pertinent details of the above installations are on file uner work order no. 3505/HH0096.

#### United States of America

## Department of Transportation—Federal Aviation Administration

# Supplemental Type Certificate

Number SE8338SW

This certificate, issued to RAM Aircraft Corp.
P.O. Box 5219
Waco, TX 76708

cortifies 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 13 of the CAR Regulations.

Coriginal Product - Type Certificate Number: E7CE

Make: Teledyne
Medel: GTSIO-520

Description of Type Design Change:

Install locknuts on cylinder attachment studs and thru-bolts, and install six additional cylinder attachment studs onto engine crankcases as detailed by RAM Drawing No. 1514 dated 08/19/91, or later FAA approved revision.

## Limitations and Conditions:

Compatibility of this modification with previously installed equipment must be determined by installer.

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 Tederal Siviation Administration.

Tale of application: October 1, 1991

Tale reissued:

Tale of issuance: May 19, 1992

I ale amended:



By direction of the Administrator

Mark R. Schilling, Manager Special 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.

## United States of America

## Department of Transportation—Jederal Aviation Administration

## Supplemental Type Certificate

Number SE4591SW

This cortificate, issued to

RAM Aircraft Modifications, Inc. P. O. Box 5219

Waco, Texas 76708

cortifies 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 13 of the Civil Air
Regulations.

Original Product - Type Cortificate Number: E7CE

Make: Teledyne Continental

Model: GTSIO-520-D, -L, -H, -N

Description of Type Design Change: Installation of RAM Magneto Pressurization System according to RAM Drawings 1029, Revision A, dated 1/26/82; and 1019, Revision B, dated 1/19/82, or later FAA approved revision.

Limitations and Conditions:

Compatibility of this modification with other previously approved modifications must be determined by the installer.

This corlificate 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 Gedoral Aviation Administration.

Dale of application: January 5, 1982

Sale reissued:

Gale of issuance: Janu

January 27, 1982

I ale umended:



(Signature)

By direction of the Administrator

Don P. Watson Acting Chief, Aircraft Certification

Division

(Title)

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

## Department of Transportation — Hederal Aviation Administration

# Supplemental Type Certificate

Number SE37675W

This corlificate, issued to

RAM Aircraft Corporation P.O. Box 5219 Waco, Texas 76708

cortifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the sire orthiness requirements of Part 13 of the Civil Air Regulations.

Original Product - Trypo Cortificate Number:

Make: Teledyne Continental Motors

Model: GTSIO-520-D, H, L, M and N

Description of Trype Design Change:

Installation of induction hose clamps in accordance with RAM Aircraft Corp. Drawing No. 1170, Revision A, dated October 7, 1985, and Drawing No. 1171, dated May 23, 1985, or later FAA approved revisions.

## Limitations and Conditions:

Compatibility of this modification with other previously approved modifications must be determined by the installer.

This cortificate and the supporting date which is the basis for approval shall romain in effect until surrondored, suspended, rowcked, or a termination date is otherwise established by the Administrator of the Federal Siviation Administration.

Dule of application: July 12, 1985

Gulomissued:

Salvef issunce:

April 30, 1987

Sialo amonded:



L. B. Andriesen (Signature)

Bry direction of the Aldeninistrator

Manager, Aircraft Certification Division Southwest Region

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

LHCH

## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

FEDERAL AVIATION ADMINISTRATION

STATEMENT OF COMPLIANCE WITH THE FEDERAL AVIATION REGULATIONS

DATE August 18, 1998

<u>'</u>	AIRCRAFT OR AI	RCRAFT COMPONENT IDENTIFIC	ATION
MAKE TELEDYNE CONTINENTAL MOTORS	MODEL NO. GTSIO-520-NcL	TYPE ENGINE	NAME OF APPLICANT RAM Aircraft Corporation P.O. Box 5219 Waco, Texas 76708
•		LIST OF DATA	
DENTIFICATION			
RAM Aircraft Corp. Dwg. No. 1224 Rev. E Dated 6/11/98	Turbo oil supply line of Lines utilized composed Dwg. 1224 dated 5/22.	d of stainless steel and MIL-H 8794 high /86. s limited to one engine only, serial numb	ase side port to right front oil pressure port pressure hose. Routed in accordance with
PURPOSE OF DATA	Show compliance with	CAR's.	
APPLICABLE REQUIREM CAR 3.570 - Oil System Lines,	•	•	
appointment under Part 183 of the in accordance with established I I ( ) therefore [ ] Recom	Federal Aviation Regulat	tions, data listed above and on attached so comply with applicable requirements of	rdance with conditions and limitations of heets numbered have been examined f the Federal Aviation Regulations.
SIGNATURE OF DES ENGINEERING REPRI		DESIGNATION NUMBER	CLASSIFICATIONS
		SW-394	Powerplant;
(dont M) Ce	2.1		Chart B1; Areas A,B,D;
Jack M. Riley,	Jr.		Chart B2; Areas A,B;
	<del></del>		CAR 3: FAR 23

Computer Generated FAA Form 8110-3

Federal Aviation Administration RECEIVED OAKLAND F.S.D.O.

## MAJOR REPAIR AND ALTERATIONUN 2 3 1995 (Airframe, Powerplant, Propeller, or Appliance)

Form Approved OMB No. 2120-0020

For FAA Use Only

Office Identification
WP27

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).

for	each s	such violation (Section	n 901 Federal Aviat	tion Act	of 1	958).	11010101	portounited	01111 p 0.1.	,	0004.,555
- A	ircraft	Make Cess	na ·				Model	421C			
1. ~	Clan	Serial No. 42	21C0335			!	National	lity and Registration	n Mark 4	26RW	
		Name (As shown	on registration cer	rtificate	)		Address	(As shown on regi	stration c	ertificate)	<del></del>
2. Ov	wnor	1	se American	-	-		1	23308 Kidd		•	
د. ن	Milei				·E -		1	Hayward, C			
						For FAA Use Or	nly .				
		The data identified herein con requirements and is approved for conformity inspection by a personal form of the conformation of the conformati	2/1		22.0	. · ·			÷		
	···	DATE	SIGNATURE OA	AK-FSDO							
					4. l	Unit Identification	on	1		5. Type	
	Unit	Ма	ake			Model		Serial No.		Repair	Alteration
AIRF	RAME		(/	As desc	ribec	d in Item 1 abou	/8) ****	***************************************			х
POWI	ERPLAN	іт									
PROF	PELLER					•					
l		Туре		ĺ							
APPL	LIANCE	Manufacturer									
				6	i. Co	onformity Staten	ment			<u>l</u>	<u> </u>
A. A		s Name and Address			1	Kind of Agency				ificate No.	
		Flightcraft				U.S. Certificated	d Mechanic		FCP58	331D, L	
i		19990 Skywe		'	اليا	Foreign Certific		anic	L-INS	L-RAD	,RAD-1,
i		Hayward, CA	94541	'	X	Certificated Rep	pair Station	1	RAD−2	2,AAC-1	,AF-3
<u> </u>			-		ٰــــــــــــــــــــــــــــــــــ	Manufacturer			Щ		
I	nave b	fy that the repair and/o been made in accordar hed herein is true and	ince with the require	rements	of Pa	art 43 of the U.S	n4above S. Federal	and described on the Aviation Regulation	ne reverse ons and th	or attachmenat the inform	nts hereto nation
Date					Sig	nature of Autho	orized Ind	ividual			
_'	6-	14.95	•	!			Lyg.	an C	Dro	inter	,
				7. Ap	prov	al for Return To	o Service			<del></del>	
Pu Ad	rsuant Iministr	to the authority giver	n persons specifie viation Administrat	d below	w, the	e unit identified	d in item	4 was inspected in	the man	mer prescrib	ed by the
BY		FAA Fit. Standards nspector	Manufacturer		Insp	pection Authoriza	ation	Other (Specify)			
		FAA Designee	Repair Station		Cana	son Approved by nada Airworthine	ess Group				
Date		roval or Rejection	Certificate or Designation No.		Sigr	natura of Autho	rized Indi	vidual	<del></del>		
	6-	15-95	FCP58		1	WillE Wa	MAY				

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.

Jun 14, 1995

421C

S/N 421C0335

N426RW

11 ...

Inspected previously installed:

Sony CDX-U6260/Sony CDX 65 Compact Disc Player/Disc Changer, left and right speakers and Flightronics DC to DC Power Converter, Model PC12AA.

CDX-U6260 mounted in cabinet above aft baggage area, starboard side. CDX65 Changer mounted on aft baggage area floor, port side. PC12A Power Converter mounted inside pilot's seat pedestal.

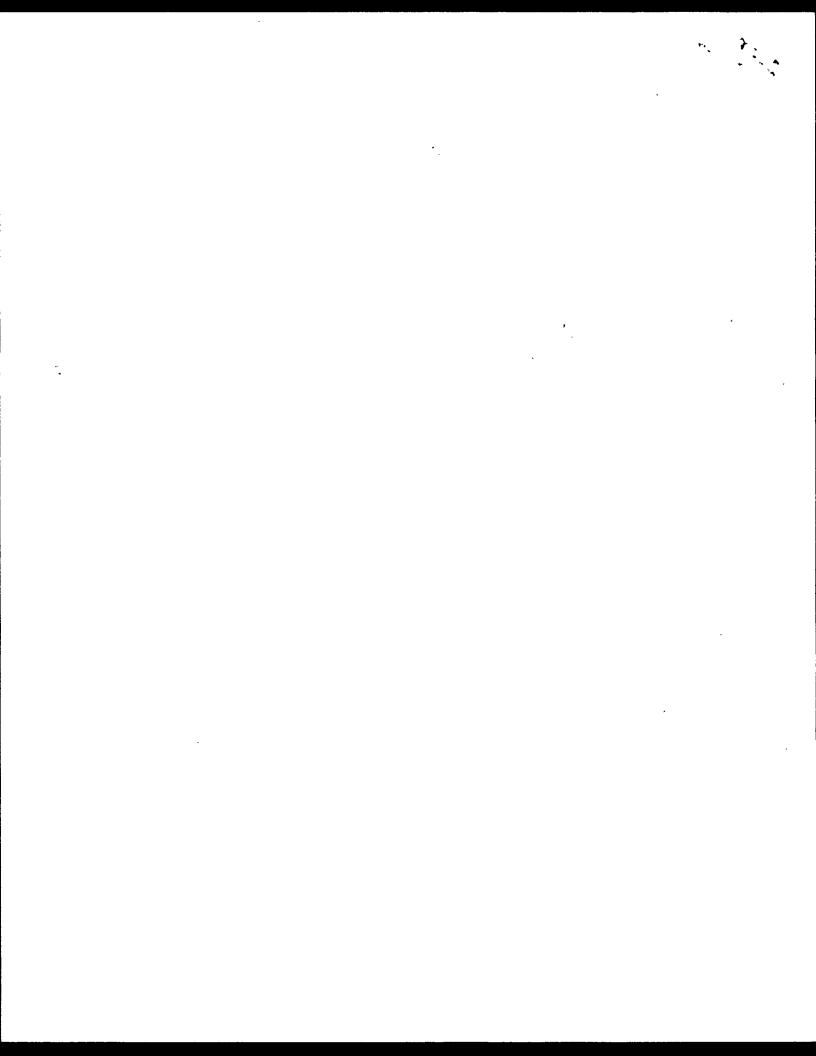
PC12A Converter primary connected to avionics bus. Wiring protected by 10 amp inline fuse mounted behind avionics C.B. panel. Secondary or output circuit protected by 10 amp fuse in wiring harness at PC12A. Sony equipment protected by inline fuses at unit.

- I. All equipment installed per data acceptable to the FAA; I.A.W. AC 43.13-1A, Ch II, Sec 2, 3, 5 & 7. AC 43.13-2A, Ch 2, Par 21-24 & 27.
- II. Electrical load does not exceed 80% of rated generator capacity.
- V. Aircraft weight and balance recomputed and equipment list revised.

END

AVIONICS BUS

SONY CD PLAYER CHANGER
INSTALLATION NAZORW
FLICHTERAFT, INC. - 6/14/95



US Department of Transportation

FAA F ---- 227 ....

Form Approved OMB No. 2120-0020

For FAA Use Only Office Identification

(Airframe, Powerplant, Propeller, or Appliance)

Federal Aviation Administration wp27 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).

	<sup>Make</sup> Cessna		•	•		Model	. 421	С			
1. Aircraft	Serial No. 421C	0335				Nationali	ity and R	egistratio	n Mark N	426RW	
· · · · · · · · · · · · · · · · · · ·	Name (As shown on	registration cer	tifiçate,	)		Address	(As show	vn on regi	stration c	ertificate)	
2. Owner	Chinese	American	Cor	p.		1		Kidd			
			-		•	I	Haywa	rd, C	A 945	45	
				3. F	or FAA Use O	nly .					
		COMOTT	identilied ents and i ty inspecti '24/9 DATE	on by a	n complies with the wed for the above desperson authorized in the signature.	apolicable aircraft, FAR 43, Section OAX-FSDO					
			-	4. U	Init Identificati	on				5. Type	
Unit	Make				Model			Serial No	•	Repair	Alteration
AIRFRAME		••••••••••(A	ls desc	ribea	l in Item 1 abov	/e)	······	•••••			х
POWERPLANT											
PROPELLER											
	Туре	-									
APPLIANCE	14	13.				ļ					
	Manufacturer							_			
	l		6	. Coi	nformity Stater	nent					,
A. Agency's N	ame and Address			В. І	Kind of Agency	,			C. Certi	ficate No.	
	lightcraft,				U.S. Certificate	d Mechanic	:			31D, L-	
	9990 Skywest				Foreign Certific					,L-RAD,	
H	ayward, CA 9	4541		X	Certificated Rep	pair Station	l 	-	RAD-2	,AAC-1,	AF-3
have bee	nat the repair and/or al n made in accordance I herein is true and coi	with the require	ements	of Pa	dentified in iter art 43 of the U.	m 4 above S. Federal	and desc Aviation	ribed on the Regulation	ne reverse ons and th	or attachmen at the inform	nts hereto lation
Date / ~	24-95			Sign	nature of Autho	orized Indi		13	un	tu	
			7 An	orovs	al for Return To	Service				<i>U</i>	
	the authority given p		d belov	v, the		d in item	4 was ins		the man	ner prescribe	ed by the
FAA	Ell Standards	anufacturer	1	Г	ection Authoriz			(Specify)			
BY FAA	Designee X	epair Station			on Approved by ada Airworthine		t				
Date of Approv	I D	ertificate or esignation No.		Sign	nature of Author	rized Indi	vidual		>	1	
1-2	4-95	•	215			Z	<del>ra</del> v	6	run	ty	
	• • •	FCP58	3 LU_		<u> </u>					. ()	

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. As 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 additionality and registration mark and date work completed.)

421C0332

451C

N4S6RW

1993. Intercom System per NAT AA80 Inter, VOX Intercom Installation Manual, Rev 2.1, dated June 1993.

Installed:

Mounted the unit on the Avionics instrument panel on the lower right side below the ADF control heads.

Interfaced wiring to A/C at R/H pedestal terminal strip.

Klixon, p/n 7277-5-1/2, circuit breaker mounted in circuit breaker panel. Labeled circuit breaker "ICS".

- I. All equipment installed per data acceptable to the FAA; I.A.W. AC 43.13-1A, Ch 11, Sec 2, 3, 5 & 7. AC 43.13-2A, Ch 2, Par 21-24 & 27.
- II. Electrical load does not exceed 80% of rated generator capacity.
- III. Aircraft weight and balance recomputed and equipment list
  revised.

END

PECTIVE.

US Department of Transportation Federal Aviation Administration	(Airframe, Pow	REPAIR AN verplant, Pr	D ALTERATI	ON opliance		orm Appro OMB No. 2 For Office Identi ジタネフ	120-0020 FAA Use O	nly
	ONS: Print or type all entries. S ion of this form. This report is re h violation (Section 901 Federa			and AC 43.9 ailure to rep	)-1 (or subsequen port can result in a	<u> </u>	ereof) (ering	structions ed \$1,000
1. Aircraft	Make CESSNA Serial No.			Model 421	C ty and Registratio	n Mark		
	421C0335			N42	6RW		Agricolar	
2. Owner	Name (As shown on registrate CHINESE AMERICA			233	As shown on reg OB KIDDER WARD, CA.	STREE		
<u> </u>		<del>(~</del>	3. For FAA Use C		en en en			
		conformity impacts	d hereta complies with a approved for the above in by a purson authorized in 19 SIGNATURE	FAR 43, Section	aft, subject to 43.7			
			4. Unit Identificat	ion			5. Type	
Unit	- Make		Model		Serial No		Repair	Alteration
AIRFRAME	•••••	(As desci	ribed in Item 1 abo	ve)		No. 17		xx
POWERPLANT								
PROPELLER		in a series				1 1	A. 4.2	
APPLIANCE	Type  Manufacturer					on of Both style Ceta		• .
*******		6.	Conformity State	ment				
	ame and Address		B. Kind of Agenc	у		C. Certific	cate No.	
20511	R Electronics Skywest Dr. rd, Ca. 94541		Foreign Certificate  XX Certificated Re  Manufacturer	cated Mecha	nic	хв	3R965L	
nave beer	nat the repair and/or alteration in made in accordance with the lines in the lines	requirements	Of Part 43 of the U	m 4 above a .S. Federal	and described on t Aviation Regulati	he reverse cons and tha	r attachment t the inform	nts hereto ation
Date 3 -	7-94		Signature of Auth	norized Indi	viduat	21		
Pursuant to Administrato	the authority given persons s	pecified below	roval for Return 1 the unit identified is XXAPPROVI	ed in item 4	I was inspected i	n the mann	er prescrib	ed by the
FAA	Fit. Standards Manufactur		Inspection Authori		Other (Specify)			<del> </del>
FAA	Designee Repair Stat	tion	Person Approved t Canada Airworthin	y Transport	1			Tylini
Date of Approv	/ Designation	or on No. R965L	Signature of Auth		ridual		i Viking si tura Ngangarin	

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

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

A/C: CESSNA 421C SER.NO. 421C0335 REG.NO. N426RW

The Trimble TNL-2000T GPS referenced in this document was installed by field approval dated 23 Feb 1994.

The Trimble TNL-2000T GPS is limited to VFR and IFR En Route Oceanic, En Route Domestic and Terminal Area Navigation, and was tested in accordance with Notice 8110.47 paragraph 9a4.

Removed "GPS Not Approved for IFR" placard, and affixed "GPS Not Approved for IFR Approaches" placard to instrument panel .s shown in Drawing 9335-5a.

Airplane Flight Manual Supplement, Document No. 9335-GPS/IFR, dated os / 07 / 94 is required for this installation.

All inspection records and other documents pertaining to this major alteration are on file at J and R Electronics, under Work Order 9335.

☐ Additional Sheets Are Attached

DU.S. GOVERNMENT PRINTING OFFICE: 1992-769-012/60157

ALT	(REF)	[ 25 P ]	10 L
ATT GYRO (REF)	HST (REF)	ALT ALERT  (REF)  PILOT'S PANFI	REG NYZORW S/N 421C 0335 MODEL @ 421C MAKE CE55 NA
AIR SPEED (REE)	DME (REF)	NESLIP NAVZEREPS	9335-5a
(CLOCK) (REP)	RMI (REF)	TURN E'SLIP (REF)	J&R ELECTRONICS 20511 SKYWEST DR. HAYWARD, CA 84541 XB3R965L

70721-00-0212 348-2079

	FEDERA	ARTMENT OF TRANSPORTATI L AVIATION ADMINISTI	RATION		FOR	FAA USE ONLY	
	14 4 10 P P	L CIVA SIAGE	TERATION		OFFICE ID	ENTIFICATION	
		Innt Propelle	er, or Appliar	100)	WP-2	7 8	
	-11	Anterior See FAR 4	3.9, FAR 43 APP	endix B, and AC	43.9-1 (or subs	quent revision the	reof)
STRUCT instruction	ons and disposition of	this form.			<u> </u>		
	MAKE CESSNA			MODEL 421C		ON HARK	
IRCRAFT	SERIAL NO.			NATIONALITY N426RW	AND REGISTRAT		
	421C0335	oistration certificate)		ADDRESS (As	LEPEK SELK	on certificate)	
OWNER	NAME (As shown on re CHINESE AMER	ICAN CORP.		HAYWARI	), CA. 945	45	
	1		3. FOR FAA USE O				
			herein complies with th		<b>.</b>		
2 - 2	graphic soliday	requirements and is	epproved for the above do n by a person authorized i	scribed aircraft, subject b n FAR 43, Section 43.7		et e	
		02/23/9			<u>.</u> ***	Parker Bridge	
		DATE	SEGNATURE 7	OAAFSDO			
		4. UNIT I	DENTIFICATION			5.	TYPE
	MAE!		MODEL		SERIAL MO	REPAIR	ALTER
UNIT							
RFRAME	***************************************	(As o	described in item 1	above) cosesses	200002000000000000000000000000000000000		X
		<del></del>				-	
OWERPLA!	NT	•		e in the second			
ROPELLER					a teta te		1
:							+
	TYPE			Totaley Johnson Ber		1.	
PPLIANC	MANUFACTURER				es en la fil	H 1	
			6. CONFORMITY S	TATEMENT		C. CERTIFICA	TE NO.
	A. AGENCY'S NAME	AND ADDRESS		, KIND OF AGE	- NCT	C. CENTIFICA	
J. a	nd R Electron	ics	U.S. CE	CERTIFICATED MECHANI	IANIC		
205	11 Skywest Dr	•		ATED REPAIR STATIO		XB3R965L	•
Hay	ward, Ca. 945	41	MANUFA				
	-ify shee she repair an	d/or alteration made	le to the unit(s)	identified in ite	m 4 above and 43 of the U.S. I	described on the ederal Aviation R	reverse egulacio
bna bna	that the information for	arnished herein is to	ue and correct to	the best of my	KHO witz Box	1 1	
DATE	1 1.		SIGNATURE	II. NA	min VA	1/2	
	2/23/94		APPROVAL FOR REA	THE WAY SERVICE	MIN M		
		7. l	below the unit i	entined in item	4 was inspected	in the manner pre	scribed
Pursus the Ad	nt to the authority give ministrator of the Feder	ral Aviation Adminis	tration and is	CXMPROVED	OTHER (Specify)		
	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	Respection			2 - 3 - 3 · 3 · 3 · 3 · 3 · 3 · 3 · 3 · 3	
BY	THE PARTONES	REPAIR STATION	OF TRANSPO	DEPARTMENT DET INSPECTOR -		1 - 1	
	1/4.2	CERTIFICATE OR	SIGNATU	E OF AUTHOR	ZED INDIVIDUA		
REJECTI	OF APPROVAL OR	DESIGNATION N	ю.   /	May NA	Ulau Mi	N	
		XB3R965I			CANAL TANK		100
1 2	123199	702-01-	- / / /	717 1	9		(83

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 ARC RN-878A Area Navigation Computer and mount and replaced with ARC B-445A Nav Converter per Cessna Factory. Aircraft Wiring Diagrams 9703269, 9703321, 9707207; Cessna Manual 7010408, pages 2-1 thru 2-9; J and R Drawing 9335-1 and AC 43.13-2A, paragraph 24, subparagraph b.

Installed Second ARC RT-859A Transponder with Comant CI-105 Antenna and ACK A-30 Blind Encoder in accordance with Cessna Manual 7010433, pages 2-1 thru 2-11, ACK manual dated 22 May 1989, and J and R Drawings 9335-2 and 9335-4. Static systems tested and comply with paragraph (a) of appendices E and F of part 43 in accordance with FAR 91.411. Transponders tested and comply with paragraph (c) of appendix E per part 43 in accordance with FAR 91.413. Transponder Select Switch installed per J and R Drawing 9335-4.

Installed Trimble TNL-2000T GPS Receiver with Trimble 16248-20 GPS Antenna and N.A.T. RS08-001 Remote Switch in accordance with Trimble Manual 80820 Rev.A, pages 2.01 thru 2.29; N.A.T. Manual Dated June 1993, pages 1 thru 17; J and R Drawings 9335-1, 9335-3, and 9335-4; and FAA Notice 8110-47 for VFR installation.

The antenna installation conforms to AC43.13-2A, paragraph 38, subparagraph b, sections 1 thru 4. The antenna was sealed a the pressure bulkhead in accordance with AC43.13-2A, paragraph 44, subparagraph a, sections 1 thru 5.

The wire harness has been sealed at the point where it passes through the pressure bulkhead in accordance with AC43.13-2A, paragraph 263, subparagraphs a thru f.

The installation of GPS in this aircraft does not interfere with the normal operations of any other equipment installed in the aircraft per Notice 8110 47. baregraph 7, subparagraph (a), section 1.

A Navigation Source Annie to entering the installed in the Pilot's instrument panel indicating the correction of gation source provided to the Nav 2 indicator per Notice 8110.47, paragraph 7, subparagraph (a), section 4.

A placard stating "GPS Not Approved For IFR" has been installed on the pilot's instrument panel per Notice 8110.47, paragraph 7, subparagraph (a), section 5 and J and R Drawing 9335-5.

The GPS has been coupled to the autopilot by the compatible steering output per Notice 8110.47, paragraph 7, subparagraph (a), section 6.

Normal and abnomal operation of the GPS will have no effect on any other aircraft systems. Normal and abnormal operation of other equipment, will not adversely affect the GPS equipment operation per Notice 8110.47, paragraph 7, subparagraph (a), section 9.

□ ADDITIONAL SHEETS ARE ATTACHED

DUS SOVERNMENT BRINTING DEFICE 1977-771-021

CESSNA 421C

SER. NO. 42100335

REG. N428RW

FAA Flight Manual Supplement Document No. 9335-GPS, dated 23 1994, is required for this installation.

Aircraft Reweighed By FlightCraft Inc., 19990 Skywest Dr.,

Hayward, Ca. 94541. See Log Book entry dated 21 Feb. 1994.

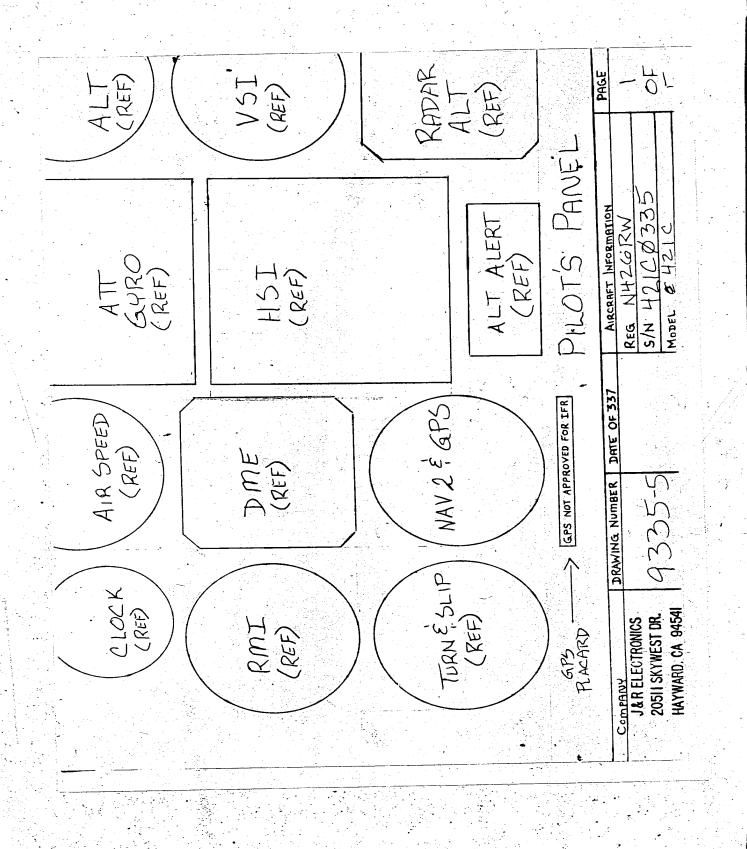
Electrical load does not exceed rated generator capacity per AC 43.13-14, paragraph 424, and paragraph 424, subparagraph (a).

Electrical Components added are circuit protected in accordance with AC 43.13-14, paragraph 429, subparagraphs a,b,c, and d.

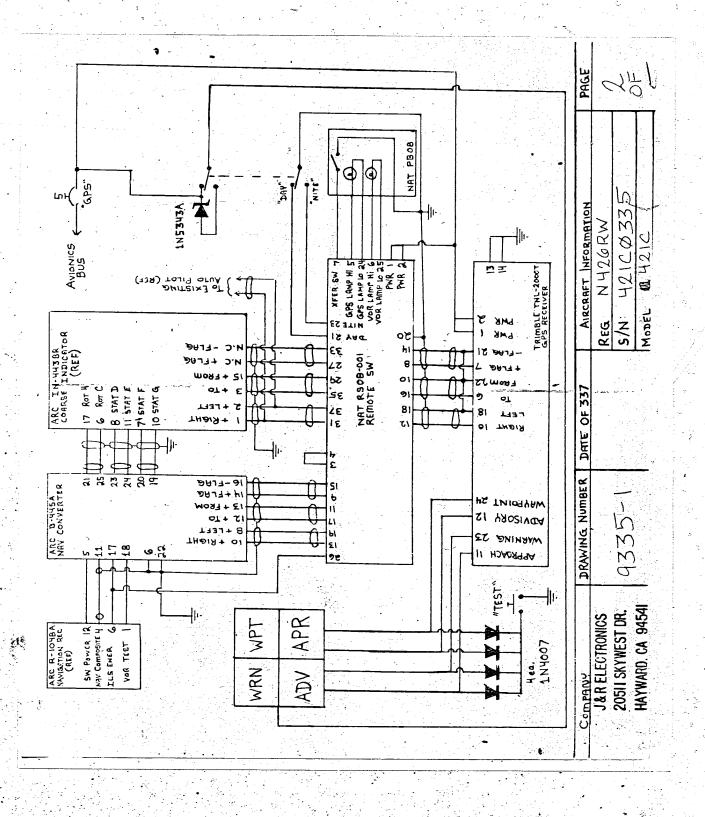
Wiring used meets all requirments of AC 43.13-14, paragraph 443, subparagraph d, and paragraph 444, subparagraphs a(1) and (2) and has been installed in accordance with AC 43.13-14, paragraph 446, subparagraphs a,c, and d.

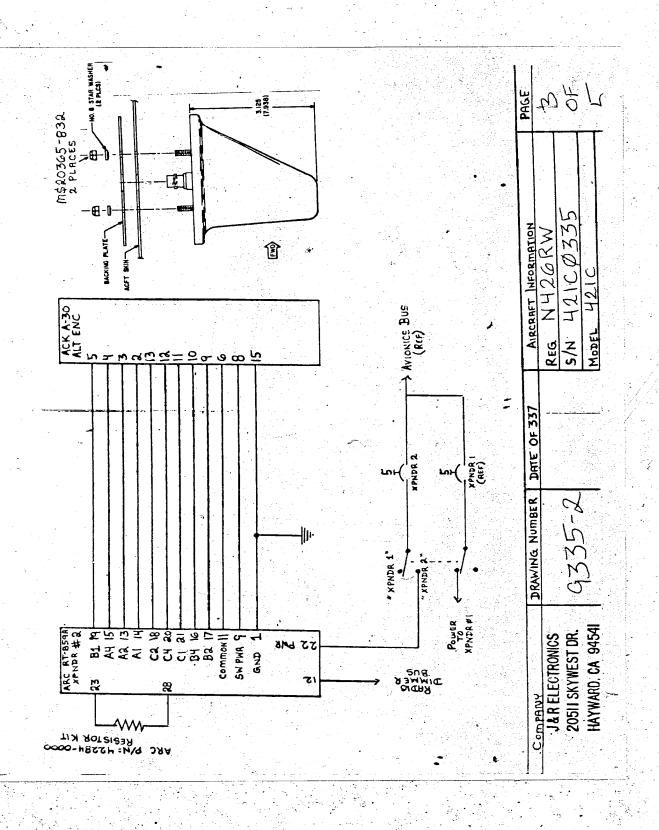
Logbook entries complied with.

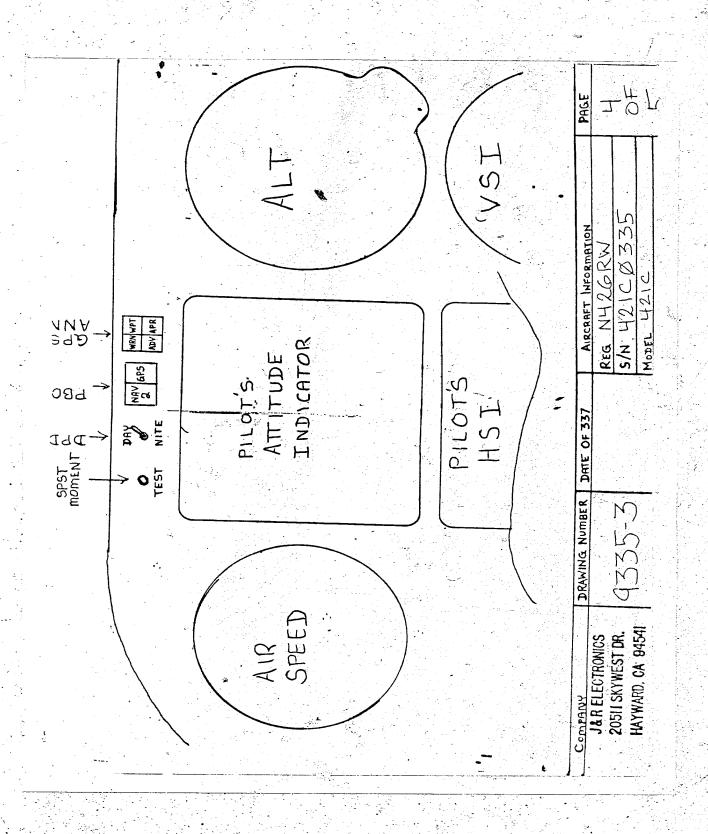
----- End of Page 2 of 2 Pages -----

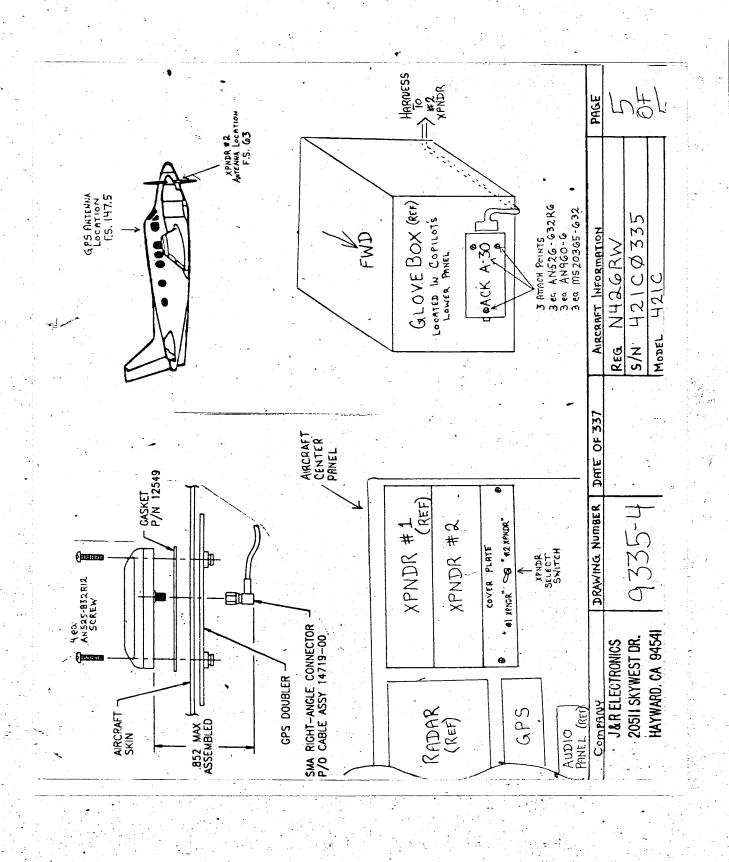


The state of the s









MAR 2 2 1985

				DEPARTMENT OF THE FEDERAL AVIATION	ADMIN	HSTRA'	TION	* **	sut:		Per Bu	na Approved dget Bureau		
	- 1	A A	AA.	JOR REPAIR A	ND	ALT	ERATI	ON	- '			FOR FAA	USE OF	ILY
		- (Airfra	me	, Powerplant, P	rope	iler,	or A	pplia	nce) -	· · · ·		FICE IDENTIF	ICATION	
II G	STRUC r instruct	TIONS: Prin	t or posi	type all entries. Se- tion of this form.	FAR	43.9	, FAR	43 App	Sers B, an	AC 43.	9-1 (6	r subsequent	revision	thereof)
1. 4	URCRAFT	MAKE Cessna	٠,				٠.	- F	MODEL 421C			<del></del>		
		4216-03							NATIONAL N37391	TY AND	REG	STRATION A	LARK	:
2. (	WKER			n en registration certic I Carbonic Pro			Inc.		1 /400 5	outh (	entr	al Ave.	ificate)	
						3. FC	R FAA	USE OF	Beator	d Park	C, IL	60638		
÷	1													•
		~-		4. UI	IT IO	ENTIF	ICATION		<del></del>	<del>`</del>	·			
. 1	TIMU			MAKE			M	DEL			BERIA	. NO.	<del></del>	TYPE
NIRFI	RAME	**	•	************	'As de	scribe	d in ite	m 1 ab	novel ease	••••		1.1.1.1.1.1.1.1.1	REPAIR	ATION
	ERPLANT												-	×
-		<u>.</u>	1. 1 1.1								· .			
<b>20</b> P	ELLER			en jobb gard										
PPLI	ANCE	MANUFACTURE	-			4								
		CENIOVIC AL			6, (	CONFO	RAUTY	STATEM	BIT					
.3.	oliet	Avionics	ME.	AND ADDRESS		L			D OF AGEN	KY		C. CER	TIFICATE I	NO.
Di	uPage	Airport	, 1	nc.					ED MECHANIC					
W	est Ch	icago, I	Ŀ 6	0185					CATED MECHA	HAC		ح ذ ح	_	
							MANUFA		PAIR STATION			315	9	
] d	certify to	hat the repa is hereto hav be informati	ir ar	nd/or alteration made en made in accorda urnished herein is tr	ie to nce w ue an	the u	nit(s) te requ rect to	identification in the be	st of my ke	owledge	U.B. F	SCHULL VAREL	the rever	rse or
ATE	1		2	្នំ ប្រុស្នាទៅព្រះ		SIGN	ATURE	OF A	UTHORIZED	INDIVID	JAL	l Sacrag		<del></del>
Ma	rch 19	9, 1985			4	Leor	iel C	Fr	itz	yu.	)- <u>1</u>	. L., Chap	Sp. A	-
De A	ant to the	e authority tor of the Fe	rive:	persons specified b					SERVICE in item 4 w	as inspec	ted in	the manner	prescribe	d by
L	FAA FL INSPEC	T. STANDARDS		MANUFACTURES	· 'Y					THER (Spe		en enemotical enemo	Jeronamon	**************************************
		ESIGNEE	X	REPAIR STATION	- 11	CANAL OF TR	NAN DEI ANSPORT	ARTMEN	TOS	ئىدىمە مەدە			en e	
ECTI	ON .	OVAL OR	-	CERTIFICATE OR DESIGNATION NO.	1			OF A	THORIZED	INDIVID	UAL	Sangai , et e Sagi	and the	District.
		1985		3159	1	eon	el C	Fri	tz	J		es e consta	y <del>t</del> a a sia	<b>.</b>
A F	om 33	7 (7-67)					A. A.		X	ing lang Carrie			(81	20)

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

DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with air- craft nationality and registration mark and date work completed.)							
Installe	d SDI CFS-2000 Fuel Flow In W and Drawing No. 421001 da	ted 5-16-78 0	r later FAA App	.13_1A. Chapter			
Revision 11. Sect	<ul> <li>This installation was dion 2, 3, &amp; 7. Aircraft wan.</li> <li>Also operational flight nt was entered in appropria</li> </ul>	s run up and	checked for nor	anal engine			
	nt Was entered in appropria						
		ราชานัก (ค.ศ. 25) เกาะสาราชานักสาราชานักสาราชานักสาราชานักสาราชานักสาราชานักสาราชานักสาราชานักสาราชานักสาราชาน	and the second s				
	Apriles		et and designation of the				
1317	Variable state of the state of						
	Bartella de la companya de la compa Bartella de la companya de la compa	TATE HE AND	i de la	The second secon			
			talan kulon da	en e			
				. The first of the second of t			
			en aller berieft eine Ste Definier af bei				
astropolit Raso other							
				A series and the series of the			
		्रेश करहे अ <b>स्ट्रे</b> स	ing party and the second of th				
		ran (m. 1945) Proposition (m. 1945) Proposition (m. 1945)		and the second of the second s			
				الأورية إلى الماريخ إدام والعالم والطائف التهايك. ويماة إلى الماريخ الإحقاء العداد الماريخيان المهايك.			
			ر معامل من المناسبة br>المناسبة المناسبة الم	The state of the s			
المرافقة المخاص بور المالي في المرافقة المحافقة المرافقة							
				المُحَدِّم في المُحِيَّمُ شَاءِمَا اللهِ وَمَنَّ اللهِ وَمَنَّ اللهِ وَمِنْ اللهِ وَمِنْ أَنْ اللهِ السُّمُ فِينَّ اللهِ الله			
		SECTION AND ADDRESS.		transport good respectively was been been as a series of the first series of the serie			
		in the state of the	उद्युर्गे के विकास	Matrice Court (1990)			
	en erisiki presidence 1425 Nationalistika		77.00 South (	The spiritual designation of the			
	Cs 2297						
			The second secon				
				Laber of Deciding Co.			
	经格别的基础的 100mm 100	DITIONAL SHEETS	ADE ATTACHED				

C PAA AC 78-1908

e U.S. GPO: 1981 - 776-332/47

DEPARENT OF TRANSPORTATION

INSTRUCT	FIONS: Print or ty	pe all entries. Se					subsequent		hereof)
I. AIRCRAFT	MAKE CESSNA SERIAL NO. NATIONALITY AND REGISTRATION MARK								
2. OWNER	HAME (As shown on registration certificate)  B. C. MANUFACTURING, INC.  ADDRESS (As shown on registration certificate)  P. O. BOX 37  WICKETT, TEXAS 79788							•	
			3	. FOR FAA USE (	HLY		منسست	CEIV	
; ;								¥-18 1: <del>- DAT</del>	
UNIT		AKE	INIT IDE	MTIFICATION MODEL		SERIAL	но.	FADO REPAIR	ALTER
AIRFRAME	*****	***************************************	(As desi	cribed in item 1 c	bove) esesses	••••••	<del></del>	-	X
POWERPLANT							.*		
PROPELLER							•	,	
APPLIANCE	MANUFACTURER								
	CENICVIE NIAME	AND ADDRESS	6. C	DNFORMITY STATE					
A. AGENCY'S NAME AND ADDRESS  ROWE HENLEY  \$ C&C AIRCRAFT SERVICE, INC.  4650 AIRPORT PARKWAY  ADDISON, TEXAS 75001  D. 1 certify that the repair and/or alteration made to attachments hereto have been made in accordance with the service of the se			B. KIND OF AGENCY  Y U.S. CERTIFICATED MECHANIC  FOREIGN CERTIFICATED MECHANIC  CERTIFICATED REPAIR STATION  MANUFACTURER  The Unit(s) identified in item 4 shows and			C. CERTIFICATE NO.  A&P 1360803			
and that	the information fu	en made in accord rnished herein is	true and	th the requirement correct to the	best of my kno	wledge.	ederal Aviat	ion Regul	ations
APRII	L 24, 1981		455501	, e		uy			
FAA F	he authority given rator of the Federa	persons specified Aviation Adminis	below, stration		ed in item 4 wa	inspected in		r prescribe	ed by
Y	DESIGNEE	REPAIR STATION		CANADIAN DEPARTM OF TRANSPORT, INSI OF AIRCRAFT	\$CTOR				
ATE OF APPR	TOVAL OR	CERTIFICATE OR	o.  S	IGNATUPE, OF	AUTHORIZED I	NDIVIDUAL		•	

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. craft nationality and registration mark and date work completed.)	Identify with air-
	and the second second
	en inggegen verske til som en som
CONVERTED GOODYEAR BRAKES TO CLEVEIAND BRAKES IN	San
ACCORDANCE WITH STC 197 GL	
WEIGHT CHANGE NEGLICABLE.	
는 마이트를 보고 있는 것을 보고 있는 것이다. 그는 것이 되는 것은 것이 되었다. 그는 것이 되었다. 그는 것은 것을 모르게 되었다. 그는 것이다. 	
BND COLUMN TO THE RESIDENCE OF THE PROPERTY OF	
는 이 경우는 기계업으로 기계업에 가장 보는 것을 구입하는 것이다. 이 경기에 되었다는 것이 되었다면 하였습니다. 2007년 1월 10년 1일 10년 1일	
[기계 [대] [기계 [대]	
[[]	
[]	
[하기 시청하다 이 기를 가득하게 됐다는 것이 같은 사람들은 사람들이 되었다.	The second of th
[마르스프리트] 대학자 생산하는 얼굴 보고 보았다. 저는 없는 사람들이 살았다. 그리	
그는 그 아이들은 살아보는 말아 있다는 것이 없는 것이 없는 것이 없다.	TOTAL TO
	. T.W
	Allendaria North Allendaria
CONTRACTOR OF THE PROPERTY OF	HCM 2574C STATES
The same and the s	entari, regularistaper "
The second secon	
	的學樣等的時代
THE PROPERTY OF THE PROPERTY O	ragarika rejerik yan bira da anda da da Kalendari
ADDITIONAL SHEETS ARE ATTACHED	· · · · · · · · · · · · · · · · · · ·