

# N23DT

## 1975 Cessna 421B

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# FAA Form 337s

**MSN: 421B-0852**



*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))

1. Aircraft	Nationality and Registration Mark N1953G	Serial No. 421B0852
	Make Cessna	Model 421B
2. Owner	Name (As shown on registration certificate) Yucaipa Aviation	Address (As shown on registration certificate) Address 261 Trumble Creek Trail
		City Kalispell State Mt Zip 59901 Country United States

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	POWERPLANT	Continental	GTSIO-520-H	267475-R
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
Name RAM Aircraft, Limited Partnership		<input type="checkbox"/> U. S. Certificated Mechanic		Manufacturer	
Address 7505 Karl May Drive		<input type="checkbox"/> Foreign Certificated Mechanic		<input checked="" type="checkbox"/> Certificated Repair Station	
City Waco State Texas		<input checked="" type="checkbox"/> Certificated Maintenance Organization		Airframe Class III, Powerplant Class I	
Zip 76708 Country United States				VA1R551K	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual Joseph Stone 1-25-2023
--	---

7. Approval for Return to Service

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

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. VA1R551K	Signature/Date of Authorized Individual Joseph Stone 1-25-2023
--	---

**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.)*

N1953G	1-25-2023
Nationality and Registration Mark	Date

Engine crankcases modified per Dwg. 1514, Rev. T dated 04/20/10 I/A/W STC SE8338SW-D.

Relocated Turbo Oil Supply Line I/A/W RAM Dwg. No. 1224, Rev. H, dated 11/18/03 per STC SE8338SW-D.

Installed range marked Manifold pressure, 3-in-1 gages I/A/W Dwg. 1152, Rev. C dated 5/02/07 per STC SA5878SW-D.  
Flight Manual Supplement dated July 14, 1986 installed in aircraft.

Installed new Plane-Power alternator C28-150 in place of ALV9510 alternator.

New empty weight and balance computed.

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

Customer furnished with FAA approved Flight Manual Supplements for all operations.

Pertinent details of the above installations are on file under project no. 10229.

---End---

Additional Sheets Are Attached



US Department of Transportation  
Federal Aviation Administration

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

Form Approved  
OMB No. 2120-0020  
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))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>N1953G</b>	Serial No. <b>421B-0852</b>	
	Make <b>CESSNA</b>	Model <b>421B</b>	Series <b>400 SERIES</b>
<b>2. Owner</b>	Name (As shown on registration certificate) <b>YUCAIPA AVIATION INC.</b>	Address (As shown on registration certificate) Address <b>261 TRUMBLE CREEK TRL</b>	
		City <b>KALISPELL</b> State <b>MONTANA</b>	Zip <b>59901-6591</b> Country <b>U.S.A.</b>

### 3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	APPLIANCE	Type <b>BATTERY</b>  Manufacturer <b>CONCORDE</b>	<b>RG24-20</b>	<b>41230561</b>

### 6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name <b>Martin J. Sisk IV</b>	Address <b>1350 Airport Blvd</b> City <b>Mesquite</b> State <b>Texas</b> Zip <b>75181</b> Country <b>U.S.A.</b>	<input checked="" type="checkbox"/>	U. S. Certificated Mechanic
		<input type="checkbox"/>	Foreign Certificated Mechanic
		<input type="checkbox"/>	Certificated Repair Station
		<input type="checkbox"/>	Certificated Maintenance Organization
		C. Certificate No. <b>2820585</b>	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <b>Martin J. Sisk IV 11-11-2022</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  Approved  Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	<input checked="" type="checkbox"/>	Inspection Authorization
				Other (Specify)

Certificate or Designation No. <b>2713403</b>	Signature/Date of Authorized Individual <b>Steven P. Adams 11-11-2022</b>
--	--

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.

N1953G

11-11-2022

8. Description of Work Accomplished

Nationality and Registration Mark      Date

Removed existing main battery GILL P/N G-246 S/N G02934869. Complied with Concorde STC # SA01118W1 by using installation instructions DWG No. 5-0151 sheet 1 of 1, to install new main battery P/N RG24-20 S/N 41230561. No specific ICA's required other than normal maintenance listed in the Concorde RG series CMM and maintenance under section 43.16 and 91.403 of the F.A.R.'s. There are no airworthiness limitations required by this STC Modification. Normal maintenance procedures requires as per Concorde M.M. Weight and Balance negligible.

----- END -----



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Federal Aviation Administration

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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))

<b>1. Aircraft</b>	Nationality and Registration Mark N1953G	Serial No. 421B-0852	
	Make CESSNA	Model 421B	Series 400
<b>2. Owner</b>	Name (As shown on registration certificate) KAVAH LLC	Address (As shown on registration certificate) Address 4219 PIRATES BCH	
		City GALVESTON	State TEXAS
		Zip 77554-8056	Country U.S.A.

### 3. For FAA Use Only

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

### 6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name	STEVEN P. ADAMS	<input checked="" type="checkbox"/> U. S. Certificated Mechanic	Manufacturer
Address	1613 ORIOLE AVE.	<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City	FARMINGTON State N.M.	<input type="checkbox"/> Certificated Repair Station	2713403
Zip	87401 Country U.S.A.	<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <div style="text-align: right;">  04-14-2022         </div>
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### 7. Approval for Return to Service

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

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)

Certificate or Designation No. A&P 2820585 I.A.	Signature/Date of Authorized Individual <div style="text-align: right;">  04-14-2022         </div>
--	--

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.

N1953G

04-14-2022

8. Description of Work Accomplished

Nationality and Registration Mark

Date

Removed original Cessna OEM sun visors. Installed Rosen monorail sunvisor system Kit P/N RC400-300-1 in accordance with STC Number SA2650NM instructions, Document No. 9041-0141-001. I.C.A. requires (ON THE GROUND)periodically cleaning the lens with soft cloth and Rosen Cleaner, periodically adjust pivot tensions and clean the rail. Weight & Balance negligible.

————— END —————



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

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 1958)

<b>1. Aircraft</b>	Make <b>CESSNA</b>	Model <b>421B</b>
	Serial No. <b>421B0852</b>	Nationality and Registration Mark <b>N1953G</b>
<b>2. Owner</b>	Name (As shown on registration certificate) <b>MAXIM SILENCERS INC</b>	Address (As shown on registration certificate) <b>10635 BRIGHTON LN STAFFORD, TX 77477-2301</b>

### 3. For FAA Use Only

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	----- <i>(As described in item 1 above)</i> -----				XX
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

### 6. Conformity Statement

<b>A. Agency's Name and Address</b> SOLAPP AVIONICS INC. 12888 HIGHWAY 6 SOUTH SUGAR LAND, TX 77478	<b>B. Kind of Agency</b> <input type="checkbox"/> U.S. Certified Mechanic <input type="checkbox"/> Foreign Certified Mechanic <input checked="" type="checkbox"/> Certified Repair Station <input type="checkbox"/> Manufacturer	<b>C. Certificate No.</b> OSJR598L
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date <b>7-31-2012</b>	Signature of Authorized Individual 
--------------------------	--

### 7. Approval for Return to Service

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

<b>BY</b>	FAA Fit Standards Inspector		Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	<b>X</b>	Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection <b>7-31-2012</b>	Certificate or Designation No. <b>OSJR598L</b>	Signature of Authorized Individual <b>M G SOJOURNER</b>
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**NOTICE**

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

**8. Description of Work Accomplished**

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

INSTALLED A GNS 430W P/N 011-01060-00 IN NUMBER TWO POSITION @ STATION 110.7. VERIFIED THAT THIS AIRCRAFT AND THE EQUIPMENT INTERFACED IN THIS AIRCRAFT IS COVERED UNDER THE STC AML. A GA 35 ANTENNA WAS MOUNTED @ STATION 46. THE GNS 430W IS NOT COUPLED TO THE AUTOPILOT. THE INSTALLATION WAS PERFORMED IN ACCORDANCE WITH THE AC43.13-1B: CHAPTER 7 SEC 2,3,4 AND 11; CHAPTER 10, CHAPTER 11; AND CHAPTER 12: THE AC 43.13-2A; CHAPTER 2 AND CHAPTER 3: THE GARMIN 400W SERIES INSTALLATION MANUAL 190-00356-08 REV F DATED JAN., 2012; STC SA01933LA FOR THE GNS 430W AND AC 20-138A.

A COMPLETE AND SATISFACTORY OPERATIONAL CHECK WAS PERFORMED ON ALL OF THE EQUIPMENT INSTALLED AND/OR EFFECTED BY THIS INSTALLATION. ALL OF THE ABOVE MENTIONED EQUIPMENT OPERATIONALLY CHECKED NORMAL. FAA APPROVED FLIGHT MANUAL SUPPLEMENT DATED JULY 31, 2009 REV B P/N 190-00356-03 AND THIS FORM 337 ARE REQUIRED FOR THIS APPROVAL. DETAILS OF THIS INSTALLATION CAN BE FOUND ON WO 19249 OF THIS REPAIR STATION. THE EQUIPMENT LIST WAS UPDATED AND THE WEIGHT AND BALANCE WAS UPDATED.

THE NEW CHECK LIST FOR CONTINUED AIRWORTHINESS P/N 190-00356-65 IS ATTACHED TO THIS FORM 337. THE ICA FOR THE GA 35 ANTENNA P/N 190-00673-01 AND THE APPROVED FLIGHT MANUAL SUPPLEMENT P/N 190-00356-03 ARE ALSO ATTACHED TO THIS FORM 337.

\*\*\*\*\*END\*\*\*\*\*

Additional Sheets Are Attached

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FAA APPROVED

AIRPLANE FLIGHT MANUAL SUPPLEMENT  
or  
SUPPLEMENTAL AIRPLANE FLIGHT MANUAL  
for  
GARMIN 400W SERIES GPS-WAAS NAVIGATION SYSTEM  
as installed in

CESSNA 421B

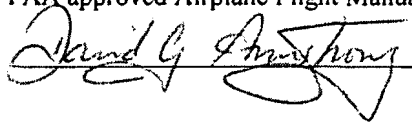
Make and Model Airplane

Reg. No. N1953G S/N 421B0852

This document serves as an Airplane Flight Manual Supplement or as a Supplemental Airplane Flight Manual when the aircraft is equipped with the Garmin 400W Series unit. This document must be carried in the airplane at all times when the Garmin 400W Series unit is installed in accordance with STC SA01933LA-D.

The information contained herein supplements or supersedes the information made available to the operator by the manufacturer in the form of clearly stated placards, markings, or manuals or in the form of an FAA approved Airplane Flight Manual, only in those areas listed herein. For limitations, procedures and performance information not contained in this document, consult the basic placards, markings, or manuals or the basic FAA approved Airplane Flight Manual.

FAA Approved By:



David G Armstrong  
ODA STC Unit Administrator  
Garmin International, Inc.  
ODA-240087-CE

Date:

7/31/09

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AIRPLANE FLIGHT MANUAL SUPPLEMENT  
 or SUPPLEMENTAL AIRPLANE FLIGHT MANUAL  
 for a Garmin 400W Series Navigation System

LOG OF REVISIONS				
Rev. No.	No.	Page Date	Description	FAA Approved
A Original	All	11-20-07	Complete Supplement	<u>Seyed-Youssef Hashemi</u> Mgr. Flt. Test Br., ANM-160L FAA, Los Angeles ACO Transport Airplane Directorate Date <u>Nov. 20, 2007</u>
B	All	7/31/09	Added '-D' to STC number, added LP approach type	<u>David G. Amthurs</u> OPA STC Unit Administrator OPA-240087-CE Garmin International, Inc.

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AIRPLANE FLIGHT MANUAL SUPPLEMENT  
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for a Garmin 400W Series Navigation System

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 or SUPPLEMENTAL AIRPLANE FLIGHT MANUAL**  
 for a Garmin 400W Series Navigation System

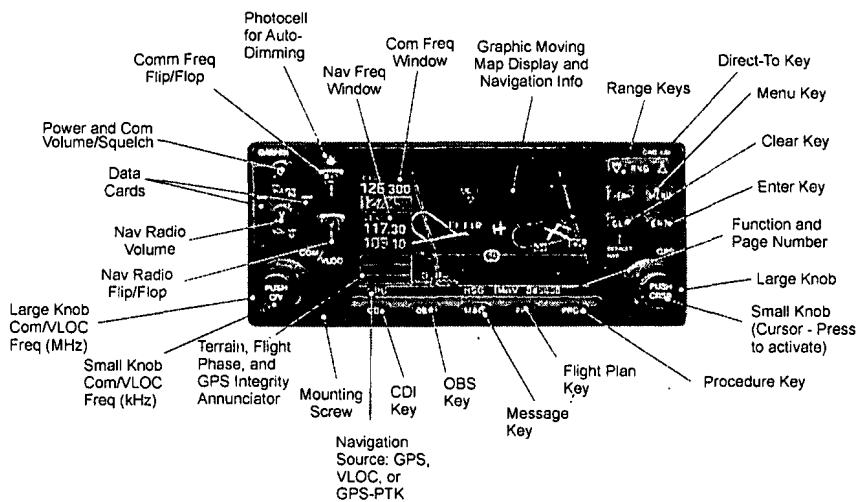
**Section 1. GENERAL**

**1.1 Garmin 400W Series GPS/WAAS Nav Com**

The Garmin 400W Series GPS/WAAS Navigator is a panel-mounted product that contains a GPS/WAAS receiver for GPS approved primary navigation, under TSO C146a (plus optional VHF Com and VHF Nav radios) in an integrated unit with a moving map and color display. The 400W Series unit features a graphical display which may also be used to depict traffic, weather, or terrain data.

The navigation functions are operated by dedicated keys and graphical menus which are controlled by the buttons and the dual concentric rotary knob along the bottom and right side of the display.

Optional VHF Com and VHF Nav radio functions are controlled via dedicated buttons and knobs on the left side of the display and adjacent to frequencies they are controlling.



**Figure 1 - 400W Series Control and Display Layout**

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AIRPLANE FLIGHT MANUAL SUPPLEMENT  
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for a Garmin 400W Series Navigation System

**1.2 Operation**

GPS/WAAS TSO-C146a Class 3 Operation: The Garmin 400W Series unit, when installed in accordance with STC SA01933LA-D, uses GPS and WAAS (within the coverage of a Space-Based Augmentation System complying with ICAO Annex 10) for enroute, terminal area, non-precision approach operations (including “GPS”, “or GPS”, “RNAV”, “LNAV”, and “LP” approaches), and approach procedures with vertical guidance (including “LNAV/VNAV” and “LPV”).

Navigation is accomplished using the WGS-84 (NAD-83) coordinate reference datum. GPS navigation data is based upon use of only the Global Positioning System (GPS) operated by the United States of America.

**1.3 Class II Oceanic, Remote, and other Operations:**

The Garmin 400W Series, as installed, has been found to comply with the requirements for GPS primary means of Class II navigation in oceanic and remote airspace, when used in conjunction with WAAS Garmin Prediction Program part number 006-A0154-03. Oceanic operations are supported when the 400W Series unit annunciates OCN. This provides an alarm limit of four NMI and a mask angle of five degrees. The 400W series unit also has the ability to predict RAIM availability at any waypoint in the database or if WAAS corrections are expected to be absent or disabled. This AFMS does not constitute an operational approval for Oceanic or Remote area operations. Additional equipment installations or operational approvals may be required.

- a) Oceanic navigation requires an additional approved long range oceanic and/or remote area navigation system with independent display, sensors, antenna, and power source. (It may be a second 400W/500W Series unit.)
- b) Redundant VHF Com and VHF Nav systems may be required for other than U.S. 14 CFR Part 91 operations. Check foreign regulation requirements as applicable. (It may be a second 400W/500W Series unit.)
- c) Operations approval *may* be granted for the use of the 400W Series unit RAIM prediction function in lieu of the Prediction Program for operators requiring this capability. Refer to your appropriate civil aviation authorities for these authorizations.

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for a Garmin 400W Series Navigation System

**Section 2. LIMITATIONS**

**2.1 Pilot's Guide**

The GARMIN 400W Series Pilot's Guide, part number and revision listed below (or later applicable revisions), must be immediately available for the flight crew whenever navigation is predicated on the use of the 400W Series unit.

- 400W Series Pilot's Guide & Reference P/N 190-00356-00 Rev E
- 400W/500W Series Optional Displays P/N 190-00356-30 Rev F
- 400W/500W Series Display Interfaces P/N 190-00356-31 Rev B

This AFM supplement does not grant approval for IFR operations to aircraft limited to VFR operations. Additional aircraft systems may be required for IFR operational approval. Systems limited to VFR shall be placarded in close proximity to the 400W Series unit  
"GPS LIMITED TO VFR USE ONLY".

**2.2 System Software:**

The system must utilize the Main and GPS software versions listed below (or later FAA approved versions). The software versions are displayed on the self-test page immediately after turn-on for approximately 5 seconds or they can be accessed in the AUX pages.

Subsequent software versions may support different functions. Check the 400W Series Pilot's Guide for further information.

**Table 1 - Approved Software Versions**

Software Item	Approved Software Version <i>(or later FAA approved versions for this STC)</i>	
	SW version	As displayed on unit
Main SW Version	3.30	3.30
GPS SW Version	3.2	3.2

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for a Garmin 400W Series Navigation System

**2.3 Navigation Database**

The 400W Series unit database card must be installed. (IAW the TSO deviations granted to Garmin for the 400W unit, navigation database cards may not be marked with the part number. The software automatically precludes invalid databases for use by the 400W)

- a) IFR enroute and terminal navigation is prohibited unless the pilot verifies the currency of the database or verifies each selected waypoint for accuracy by reference to current approved data.
- b) GPS instrument approaches using the 400W Series units are prohibited, unless the 400W Series unit's approach data is verified by the pilot or crew to be current. Instrument approaches must be accomplished in accordance with an approved instrument approach procedure that is loaded from the 400W Series unit database.
- c) Installations with dual 400W/500W Series units will only crossfill between units when they contain the same database cycle. Updating of each database must be accomplished on the ground prior to flight.

**2.4 Terrain Database**

The 400W Series unit supports Terrain and requires a Terrain database card to be installed in order for the feature to operate. The table below lists compatible database cards for the 400W series. Each of the data base cards contains the following data:

- a) The Terrain Database has an area of coverage from North 75° Latitude to South 60° Latitude in all longitudes.
- b) The Airport Terrain Database has an area of coverage that includes the United States, Canada, Mexico, Latin America, and South America.
- c) The Obstacle Database has an area of coverage that includes the United States, and is updated as frequently as every 56 days.

NOTE: The area of coverage may be modified as additional terrain data sources become available.



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**Table 2 – Approved Terrain Database Cards**

Part Number	Description
010-10201-20	Data Card, TAWS / Terrain, 128MB
010-10201-21	Data Card, TAWS / Terrain, 256MB

**2.5 Navigation**

No navigation is authorized north of 89° (degrees) north latitude or south of 89° (degrees) south latitude.

**2.6 Approaches**

- a) During GPS approaches, the pilot must verify the 400W Series unit is operating in the approach mode. (LNAV, LNAV+V, L/VNAV, LP, or LPV)
- b) When conducting approaches referenced to true North, the heading selection on the AUX pages must be adjusted to TRUE.
- c) Accomplishment of an ILS, LOC, LOC-BC, LDA, SDF, MLS, VOR approach, or any other type of approach not approved for GPS overlay, is not authorized with GPS navigation guidance.
- d) Use of the GNS 430W VOR/LOC/GS receiver to fly approaches not approved for GPS requires VOR/LOC/GS navigation data to be present on the external indicator (i.e. proper CDI source selection).
- e) For aircraft with remote source selection annunciation or remote GPS navigation annunciators installed, conducting IFR approaches is prohibited if the remote annunciation is found to be inoperative during pre-flight. (This limitation does not prohibit the conduct of an IFR approach if the required remote annunciation fails during flight. The indications provided on the 400W Series unit display may be used as a backup).
- f) Except in emergency conditions, IFR approaches are prohibited whenever any physical or visual obstruction (such as a throw-over yoke) restricts pilot view or access to the 400W Series unit or the affected CDI.

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**2.7 Autopilot Coupling**

IFR installations of a Garmin 400W Series unit allow the operator to fly all phases of flight based on the navigation information presented to the pilot; however, not all modes may be coupled to the autopilot. All autopilots may be coupled in Oceanic (OCN), Enroute (ENR), and Terminal (TERM) modes; however, the FAA requires that vertical coupling of an autopilot for approaches be demonstrated to meet their intended function and provide safe and proper operation to published minimums. This installation is limited to:

- No limitations for autopilot coupling.
- Lateral GPS coupling (LNAV only). For 430W units: The GS of an ILS (VLOC) may be coupled to the autopilot without any limitations.

This limitation may be removed after an FAA Flight Test demonstration. Contact Garmin International, Tech Support for additional information.

**2.8 Terrain Display**

Terrain refers to the display of terrain information. Pilots are NOT authorized to deviate from their current ATC clearance to comply with terrain/obstacle alerts. Terrain unit alerts are advisory only and are not equivalent to warnings provided by TAWS. Navigation must not be predicated upon the use of the terrain display.

The terrain display is intended to serve as a situational awareness tool only. By itself, it may not provide either the accuracy or the fidelity on which to base decisions and plan maneuvers to avoid terrain or obstacles.

**2.9 VNAV**

VNAV information may be utilized for advisory information only. Use of VNAV information for Instrument Approach Procedures does not guarantee Step-Down Fix altitude protection, or arrival at approach minimums in a normal position to land.

**2.10 Weather Display**

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If an optional weather receiver is interfaced to the 400W Series unit, the weather information displayed is limited to supplemental use only and may not be used in lieu of an official weather data source.

**2.11 Traffic Display**

Traffic may be displayed on the 400W Series unit when connected to an approved optional TCAS, TAS, or TIS traffic device. These systems are capable of providing traffic monitoring and alerting to the pilot. Traffic shown on the display may or may not have traffic alerting available. The display of traffic is an aid to visual acquisition and may not be utilized for aircraft maneuvering. Display of this traffic data and related operations are described in the 400W Series unit Pilot's Guide.

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**Section 3. EMERGENCY PROCEDURES**

**3.1 Emergency Procedures**

No change.

**3.2 Abnormal Procedures**

- a) If the Garmin 400W Series unit GPS navigation information is not available, or is invalid, utilize other remaining operational navigation equipment installed in the airplane as appropriate. If the 400W Series unit loses GPS position and reverts to Dead Reckoning mode (indicated by the annunciation of “DR” in the lower left of the display), the moving map will continue to be displayed. Aircraft position will be based upon the last valid GPS position and estimated by Dead Reckoning methods. Changes in airspeed or winds aloft can affect the estimated position substantially. Dead Reckoning is only available in Enroute mode; Terminal and Approach modes do not support DR.
- b) If a “Loss of Integrity” (INTEG) message is displayed during:
  - Enroute/Terminal: continue to navigate using GPS equipment and periodically cross-check the GPS guidance to other approved means of navigation.
  - GPS Approach: GPS approaches are not authorized under INTEG - Execute missed approach or revert to alternate navigation.
- c) During a GPS LPV precision approach or GPS LNAV/VNAV approach, the 400W Series unit will downgrade the approach if the Vertical alarm limits are exceeded. This will cause the vertical guidance to flag as unavailable. The procedure may be continued using the LNAV only minimums.
- d) During a GPS LP approach, the 400W Series may downgrade the approach prior to the Final Approach Fix if alarm limits are exceeded. If this occurs, a message will be displayed advising the pilot to use LNAV minimums. If alarm limits are exceeded after the Final Approach Fix, the 400W Series unit will flag the lateral guidance and generate a system message “ABORT APPROACH loss of navigation”. Immediately upon viewing the message the unit will revert to Terminal alarm limits. If the position integrity is within these limits lateral guidance will be restored

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and the GPS may be used to execute the missed approach, otherwise alternate means of navigation should be utilized.

- e) During any GPS approach in which precision and non-precision alarm limits are exceeded, the 400W Series unit will flag the lateral guidance and generate a system message "ABORT APPROACH loss of navigation". Immediately upon viewing the message the unit will revert to Terminal alarm limits. If the position integrity is within these limits lateral guidance will be restored and the GPS may be used to execute the missed approach, otherwise alternate means of navigation should be utilized.

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**Section 4. NORMAL PROCEDURES**

Refer to the 400W Series unit Pilot's Guide defined in paragraph 2.1 on page 6 of this document for normal operating procedures. This includes all GPS operations, VHF COM and NAV, and Multi-Function Display information. For information on TIS traffic, or data linked weather see the Pilot's Guide addendum for optional displays. For information on active traffic sensor or Stormscope operation and displays see the Pilot's Guide addendum for display interfaces.

Although intuitive and user friendly the 400W Series unit requires a reasonable degree of familiarity to prevent operations without becoming too engrossed at the expense of basic instrument flying in IMC and basic see-and-avoid in VMC. Pilot workload will be higher for pilots with limited familiarity in using the unit in an IFR environment, particularly without the autopilot engaged. Garmin provides excellent training tools with the Pilot's Guide and PC based simulator. Pilots should take full advantage of these training tools to enhance system familiarization. Use of an autopilot is strongly encouraged when using the 400W Series unit in IMC conditions

**4.1 Approaches with Vertical Guidance**

The 400W Series unit supports three types of GPS approaches with vertical guidance: LPV approaches, LNAV/VNAV (annunciated as L/VNAV) approaches, and LNAV approaches with advisory vertical guidance (annunciated as LNAV+V). For LNAV approaches with advisory vertical guidance, the 400W Series will annunciate LNAV+V indicating vertical guidance is available. LNAV minimums will be controlling in this case.

**NOTE:**

If flying an LPV or LNAV/VNAV approach, be prepared to fly the LNAV only approach prior to reaching the final approach fix (FAF). If the GPS integrity is not within vertical approach limits, the system will flag the vertical guidance. This may be annunciated by a downgrade to LNAV message.

For additional information on approaches with vertical guidance refer to the 400W Series unit Pilot's Guide.

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**4.2 Approaches without Vertical Guidance**

The 400W Series unit supports Localizer Performance approaches (annunciated as LP). Published LP minimums will be controlling in this case.

***NOTE:***

If flying an LP approach, be prepared to fly the LNAV only approach prior to reaching the final approach fix (FAF). If the GPS integrity is not within LP approach limits, the system will notify the pilot by a downgrade to LNAV message.

For additional information on LP approaches refer to the 400W Series unit Pilot's Guide.

**4.3 Autopilot Operation**

The Garmin 400W Series may be coupled to an optional autopilot if installed in the aircraft when operating as prescribed in the LIMITATIONS section of this manual. For lateral guidance, some installations may utilize GPSS or GPS Roll Steering in lieu of the analog deviation information. If an HSI is used with GPSS engaged, the pilot should rotate the course pointer as prompted on the 400W Series unit to prevent loss of situational awareness and to prevent the aircraft from turning inappropriately if the autopilot is switched from digital (GPSS) to analog mode. For autopilot operational instructions, refer to the FAA approved Flight Manual or Flight Manual Supplement for the autopilot.

**4.4 Coupling the Autopilot during approaches**

The Garmin 400W Series supports analog and digital (GPSS) control interfaces to an optionally installed autopilot. Some autopilots revert to ROLL mode (wings level) and/or flag a NAV failure if the digital data becomes unavailable or is inhibited. The CDI selection of VLOC should inhibit the digital control interface. When switching between GPS and VLOC the pilot should be aware that the autopilot may need to be re-engaged into APR or NAV mode after changing the CDI source.

Autopilot coupling to GPS vertical guidance requires that the autopilot be engaged in an analog APR mode identical to coupling to an ILS. Some autopilots may revert to ROLL mode when the navigation outputs of the 400W Series unit sequence to the final approach fix. In these installations

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the unit will be configured to PROMPT the pilot to “Enable the autopilot approach outputs” in order to prevent the autopilot from entering ROLL mode without the pilot being aware of the transition.

- This installation prompts the pilot and requires the pilot to enable the A/P outputs just prior to engaging the autopilot in APR mode.
- This installation supports a seamless transition from digital (GPSS) to analog guidance for the autopilot. To capture the vertical guidance, the pilot may engage the autopilot in APR mode at any time when the GPS Glide Slope (VDI) becomes valid (displayed without a FLAG).
- This installation interfaces to the autopilot in analog mode only. To capture the vertical guidance, the pilot may engage the autopilot in APR mode at any time when the GPS Glide Slope (VDI) becomes valid.
- The autopilot does not support any vertical capture or tracking in this installation.



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Analog only autopilots should use APR mode for coupling to LNAV approaches. Autopilots which support digital roll steering commands (GPSS) may utilize NAV mode and take advantage of the digital tracking during LNAV only approaches.

**4.5 WFDE Prediction Program**

The Garmin WAAS Fault Detection and Exclusion (WFDE) Prediction Program is required for Remote/Oceanic operations.

The Prediction Program should be used in conjunction with the Garmin 400W/500W Simulator. After entering the intended route of flight in the Simulator flight plan the pilot selects the FDE Prediction Program under the Options menu of the Simulator program.

For detailed information refer to the WFDE prediction program instructions (190-00643-01). The availability of FDE is only required for Oceanic or Remote operations.

**Section 5. PERFORMANCE**

No change.

**Section 6. WEIGHT AND BALANCE**

See current weight and balance data.

**Section 7. SYSTEM DESCRIPTIONS**

See Garmin 400W Series unit Pilot's Guide for a complete description of the 400W Series unit.

# GA Antenna Series

## Instructions for Continued Airworthiness

STC Number SA01695SE

Document Number 190-00673-01 Rev. F

Garmin Ltd. Or its subsidiaries  
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Aircraft tail number N1953G

Antenna location on aircraft ARM 151.2

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### Record of Revision

Rev.	Date	Description of Change
D	08-21-06	Initial STC Issuance
E	11-29-06	Added GA 35 Antenna
F	08-27-07	Added GA 36 & GA 37 Antennas

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# 1. INTRODUCTION

## 1.1 Purpose

This document is designed for use by the installing agency of the antenna models listed in Table 1 below as Instructions for Continued Airworthiness in response to Federal Aviation regulation (FAR) Part 23.1529, and Part 23 Appendix G. They include information required by the operator to adequately maintain the antenna models listed in Table 1.

## 1.2 Scope

This document identifies the Instruction for Continued Airworthiness for the modification of the aircraft for installation of the antenna models listed in Table 1.

**Table 1 - List of Antenna Models**

Manufacturer	Antenna Model	Description
Garmin	GA 35	GPS/WAAS Antenna
Garmin	GA 36	GPS/WAAS Antenna
Garmin	GA 37	GPS/WAAS with XM Antenna
Garmin	GA 55	XM Antenna
Garmin	GA 55A	XM Antenna
Garmin	GA 56W	GPS/WAAS Antenna
Garmin	GA 56A	GPS/WAAS Antenna
Garmin	GA 57	GPS/WAAS with XM Antenna
Garmin AT	A-34	GPS/WAAS Antenna

## 1.3 Document Control

This document shall be released, archived, and controlled in accordance with 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.

## 1.5 Permission to Use Certain Documents

Permission is granted to any corporation or person applying for approval of the antenna models listed in Table 1 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.

## 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) **CFR:** Code of Federal Regulations
- 5) **DER:** Designated Engineering Representative
- 6) **FAA:** Federal Aviation Administration
- 7) **IAW:** In Accordance With
- 8) **ICA:** Instructions for Continued Airworthiness
- 9) **MFD:** Multi-Function Display unit
- 10) **PMI:** Primary Manufacturing Inspector
- 11) **POI:** Primary Operations Inspector
- 12) **STC:** Supplemental Type Certificate
- 13) **TC:** Type Certification or Type Certificate
- 14) **TSO:** Technical Standard Order

## 2. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

### 2.1 Introduction

Content, Scope, Purpose and Arrangement:	This document identifies the Instruction for Continued Airworthiness for the modification of the aircraft by installation of the antenna models listed in Table 1.
Applicability:	Applies to aircraft altered by installation of the antenna models listed in Table 1.
Definition of Abbreviations:	See Section 1.6
Precautions:	None
Units of measurement:	None
Referenced publications: (or later FAA approved revisions)	190-00569-00 Rev. F <i>STC Antenna Installation Manual</i>  005-C0373-00 Rev. F <i>Garmin GA Antenna Series Master Data List</i>
Distribution:	This document should be included in the permanent aircraft records.

## **2.2 Description of Alteration**

Physical installation of the antenna models listed in Table 1.

## **2.3 Control, Operating Information**

There are no pilot controls or operating information. All pilot controls and operating information is through the interfaced receiver unit.

## **2.4 Servicing Information**

The antenna models listed in Table 1 are non-repairable. The antenna must be replaced in event of failure.

## **2.5 Periodic Maintenance Instructions**

This STC is for physical installation and mounting of the antenna models listed in Table 1 and does not include functional operation. The antenna models listed in Table 1, when interfaced to other receiving equipment, are functionally tested by the interfaced receiver.

Within 12 calendar months, conduct a visual inspection on the antenna and its mounting.

## **2.6 Troubleshooting Information**

Troubleshooting is performed with the interfaced receiving unit.

## **2.7 Removal and Replacement Information**

*If the antenna is removed and replaced, verify proper operation by successfully completion of the self test of the interfaced receiving equipment.*

Penetration of the pressure vessel of a pressurized aircraft is not approved under this STC installation.

Note: There are no special handling requirements for the antennas.

## **2.8 Diagrams**

Refer to the STC Antenna Installation Manual (listed under reference documentation in section 2.1 of this document) for drawings applicable to this installation. There are no wiring diagrams since this STC does not provide wiring interconnections. Location of the antenna varies with aircraft and installation, but must be mounted with RF transparent view of the sky. Refer to the cover page of this document for the mounting location of the antenna specific to the aircraft tail number.

## **2.9 Special Inspection Requirements**

Verify there are no cracks on the antenna. Verify there are no cracks or deformation in the mounting structure around the antenna. Verify all sealing fillets around the antenna are in good condition.

## **2.10 Application of Protective Treatments**

None, N/A.

## **2.11 Data Relative to Structural Fasteners**

For fastener torque information, refer to the STC Antenna Installation Manual listed in the reference documentation in section 2.1 of this document.

## **2.12 Special Tools**

No special tools are required. Refer to the STC Antenna Installation Manual listed in reference documentation in section 2.1 of this document.

## **2.13 Additional Instructions for Aircraft Operating under FAR 121/135**

1. Aircraft Electrical Loads: There is no power connection to the antenna. The only interface to the antenna is from the receiving equipment. Power loads are addressed with the interfaced receiving equipment.
2. Methods of balancing flight controls: N/A.
3. Special Repair Methods applicable to the airplane: See certificate holder's General Maintenance Manual for instructions.

## **2.14 Overhaul Period**

This STC is for physical installation and mounting of the antenna(s) and does not include functional operation. The antenna(s) do not require overhaul at a specific time period. Antenna health is monitored and self-test conducted by the interfaced GPS/WAAS and XM receivers.

## **2.15 ICA Revision and Distribution**

To revise this ICA, a letter must be submitted to the ACO for approval along with the revised ICA. The ACO will obtain AEG acceptance, and approve any revision to the Airworthiness Limitations Section 1.4. After FAA acceptance/approval, Garmin will release the revised ICA for customer use, and provide any required notification of the revision.

The latest revision of this document will be available on the Garmin website ([www.garmin.com](http://www.garmin.com)). A Garmin Service Bulletin, describing ICA revision, will be sent to dealers if 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 [garmin.com](http://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 operator's aircraft scheduled maintenance program.



# 400W Series

## Instructions for Continued Airworthiness

Document Number 190-00356-65 Rev. B

Garmin Ltd. Or its subsidiaries  
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### Record of Revision

Rev.	Date	Description of Change
1	10-19-06	Initial Release
A	11-03-06	Revision for STC Issuance
B	07-30-09	Add the "-D" to STC number when reissued under ODA

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## **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.

### **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.

### **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.

### **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) **CFR:** Code of Federal Regulations
- 5) **DER:** Designated Engineering Representative
- 6) **FAA:** Federal Aviation Administration

- 7) **IAW:** In Accordance With
- 8) **ICA:** Instructions for Continued Airworthiness
- 9) **MFD:** Multi-Function Display unit
- 10) **PMI:** Primary Manufacturing Inspector
- 11) **POI:** Primary Operations Inspector
- 12) **STC:** Supplemental Type Certificate
- 13) **TC:** Type Certification or Type Certificate
- 14) **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: <i>(or later FAA approved revisions)</i>	190-00356-02 Rev. G <i>400W Series Installation Manual</i>  005-C0221-00 Rev. F <i>400W Series STC Master Data List</i>
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.

### 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 annunciators 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 and its wire harness to insure installation integrity:

1. Inspect the unit for security of attachment.
2. Inspect all knobs and buttons for legibility.
3. Inspect condition of wiring, routing and attachment/clamping.

### 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.

## 2.6 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 '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**

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' procedures-contained in the 400W Series Installation Manual listed in paragraph 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.

## **2.8 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 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**

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, a letter must be submitted to the ACO along with the revised ICA. The ACO will obtain AEG acceptance, and approve any revision to the Airworthiness Limitations Section 1.4. After FAA acceptance/approval, Garmin will release the revised ICA for customer use, and provide any required notification of the revision.

The latest revision of this document will be available on the Garmin website ([www.garmin.com](http://www.garmin.com)). A Garmin Service Bulletin, describing ICA revision, will be sent to dealers if 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](http://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)

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

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>N1953G</b>	Serial No. <b>421B0852</b>	
	Make <b>Cessna</b>	Model <b>421B</b>	Series <b>421B0852</b>
<b>2. Owner</b>	Name (As shown on registration certificate) <b>MAXIM SILENCERS</b>	Address (As shown on registration certificate) Address <b>10635 BRIGHTON LN</b>	
		City <b>STAFFORD</b> State <b>TX</b>	Zip <b>77477</b> *Country <b>FORT BEND</b>

### 3. For FAA Use Only

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

### 6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name <b>South Central Avionics LLC</b>		<input type="checkbox"/> U. S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input checked="" type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Certificated Maintenance Organization	
Address <b>20221 Stuebner Airline Hangar X14</b>		C. Certificate No.	
City <b>Spring</b> State <b>TX</b>		<b>9S9R372B</b>	
Zip <b>77379</b> Country <b>Harris</b>			

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <b>6/21/2010</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  Approved  Rejected

<b>BY</b>	FAA Fit. Standards Inspector		Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	<input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>9S9R372B</b>	Signature/Date of Authorized Individual <b>6/21/2010</b>
---	---



### 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.)*

N1953G

06/21/2010

Nationality and Registration Mark

Date

Validated that the previous installation of one GNS530 was installed IAW with Garmin instructions and approved via an FAA-stamped field approval document on FAA-form 337 dated 08/27/2002. Verified this aircraft and all interfaced equipment are under the STC AML. The GNS530 was removed and upgraded to a GNS530W. The existing location of the 530 is determined to meet the field-of-view requirements without the need of annunciation. The existing wiring and shielding was inspected and determined to be IAW the STC AML installation data. The existing GA56 antenna AND RG58 were removed and replaced with one GA35 antenna and RG400 using approved mounting provisions of the previous installation.

A summary of the modification done to the aircraft is as follows:

1. Removed one Garmin GA56 antenna P/N011-00134-00 and installed one GA35 GPS/WAAS Antenna P/N 013-00235-00 S/N 60917 using the provisions left behind from the standard antenna IAW Garmin STC Upgrade Installation Manual (190-00357-06) Rev. D, Mar, 2008 and STC no. SA01933LA.
2. Removed Garmin GNS530 P/N 011-0550-10 S/N 78405518 unit and installed Garmin GNS530W P/N 010-00416-40 S/N 78405518, using the provision left behind from the standard 530 unit. Installation done IAW Garmin STC Upgrade Installation Manual (190-00357-06) Rev. D, Mar, 2008 and SA01933LA.
3. The GNS530W was configured to the original 530 unit. The GNS530W was checked out in reference to 530W installation manual (190-00357-08) Rev. A, Dec, 2009.
4. Removed AFMS for the GNS530 and installed a GNS530W AFMS with P/N190-00357-03 Rev. B date 7/31/09.

Instructions for Continued Airworthiness (ICA)

1. GNS530W - Included Garmin document Instructions for Continued Airworthiness (190-00357-65) Rev. B, Jul, 2009 in aircraft

Additional Sheets Are Attached

GARMIN Ltd. or its subsidiaries  
c/o Garmin International  
1200 E. 151<sup>st</sup> Street, Olathe, KS 66062 USA

FAA APPROVED

AIRPLANE FLIGHT MANUAL SUPPLEMENT  
or  
SUPPLEMENTAL AIRPLANE FLIGHT MANUAL  
for  
GARMIN 500W SERIES GPS-WAAS NAVIGATION SYSTEM  
as installed in

CESSNA 421B  
Make and Model Airplane  
Reg. No. N1953G S/N 421B0852

This document serves as an Airplane Flight Manual Supplement or as a Supplemental Airplane Flight Manual when the aircraft is equipped with the Garmin 500W Series unit. This document must be carried in the airplane at all times when the Garmin 500W Series unit is installed in accordance with STC SA01933LA-D.

The information contained herein supplements or supersedes the information made available to the operator by the manufacturer in the form of clearly stated placards, markings, or manuals or in the form of an FAA approved Airplane Flight Manual, only in those areas listed herein. For limitations, procedures and performance information not contained in this document, consult the basic placards, markings, or manuals or the basic FAA approved Airplane Flight Manual.

FAA Approved By:



David G Armstrong  
ODA STC Unit Administrator  
Garmin International, Inc.  
ODA-240087-CE

Date:

7/31/09



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

SW-09 RJE

**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).

<b>1. Aircraft</b>	Make Cessna	Model 421B
	Serial No. 421B-0852	Nationality and Registration Mark N1953G
<b>2. Owner</b>	Name (As shown on registration certificate) Thompson Aviation, Inc.	Address (As shown on registration certificate) 2121 Sage RD STE 225 Houston, TX 77056-4326

### 3. For FAA Use Only

--

### 4. Unit Identification

### 5. Type

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

### 6. Conformity Statement

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
Virgilio Coronel 200 Jim Davidson Drive Sugar Land, Texas 77478	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	215880201
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

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

Date 15 March 2006	Signature of Authorized Individual 	Virgilio Coronel
-----------------------	--	------------------

### 7. Approval for Return To Service

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

BY	FAA Flt. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 15 March 2006		Certificate or Designation No. 465650599	Signature of Authorized Individual 		

**NOTICE**

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

**8. Description of Work Accomplished**

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

N1953G S/N 421B-0852

Installed a Keith Products, Inc. Vapor Cycle Air-conditioning System in accordance with STC# SA8RM and Drawing Number 40-016, Drawing Number 40-050, Drawing Number 40-071, and Drawing Number 40-081.

Aircraft weight and balanced has been revised by Airweight, Inc. CRS# WYR372L; new weight sheet installed into AFM.

Equipment List Updated:

Form 337 entered into AFM.

AFM Supplement entered into AFM

Instructions for Continued Airworthiness can be found in Keith Products System Service Manual Document No. TR-134 Pg. 9.

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

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RECEIVED

MAR 20 2006

MGR	OPS UNIT
AO	AW UNIT
LAN	SPM-OPS
	SPM-AW

Additional Sheets Are Attached

BJR



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

SW-09 BJR

**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).

<b>1. Aircraft</b>	Make Cessna	Model 421B
	Serial No. 421B-0852	Nationality and Registration Mark N1953G
<b>2. Owner</b>	Name (As shown on registration certificate) Thompson Aviation, Inc.	Address (As shown on registration certificate) 2121 Sage RD STE 225 Houston, TX 77056-4326

### 3. For FAA Use Only

--

### 4. Unit Identification

### 5. Type

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

### 6. Conformity Statement

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
Virgilio Coronel 200 Jim Davidson Drive Sugar Land, Texas 77478	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	215880201
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

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

Date 15 March 2006	Signature of Authorized Individual 	Virgilio Coronel
-----------------------	--	------------------

### 7. Approval for Return To Service

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

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 15 March 2006		Certificate or Designation No. 465650599		Signature of Authorized Individual 	
				Shane McKenney	

**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.)

N1953G S/N 421B-0852

Installed McCauley MC1 Synchrophaser and Governor in accordance with RAM Aircraft STC# SA4546SW and Drawing Number 1406.

Aircraft weight and balance has been revised by Airweight, Inc. CRS# WVYR372L; new weight sheet installed into AFM.

Equipment List Updated.

Form 337 entered into AFM.

AFM Supplement entered into AFM.

Instructions for Continued Airworthiness can be found in RAM Maintenance Manual Drawing Number 2548 Revision B Dated 05 May 2004 Chapter 4 Pg. 7.

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

HOU FSDO  
RECEIVED

MAR 20 2006

Additional Sheets Are Attached

MGR	OPS UNIT
AO	AW UNIT
LAN	SPM-OPS
LAN	SPM-OPS



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

SW09 *[Signature]*

**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).

<b>1. Aircraft</b>	Make Cessna	Model 421B
	Serial No. 421B-0852	Nationality and Registration Mark N1953G
<b>2. Owner</b>	Name (As shown on registration certificate) Thompson Aviation	Address (As shown on registration certificate) 2121 Sage, Suite 225 Houston, TX 77056

### 3. For FAA Use Only

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in item 1 above)			HOU FSDO RECEIVED AUG 29 2002	X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

### 6. Conformity Statement

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
Shane McKenney 200 Jim Davidson Drive Sugarland, TX 77478	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	465650599
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

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

Date 27 August 2002	Signature of Authorized Individual <i>[Signature]</i> Shane McKenney
------------------------	--

### 7. Approval for Return To Service

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

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 27 August 2002		Certificate or Designation No. 451597610		Signature of Authorized Individual <i>[Signature]</i> Jarrell Allen	

## NOTICE

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

### 8. Description of Work Accomplished.

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

Removed original plastic overlays from pilot and co-pilot instrument panels and installed Aero Enhancements, Inc. overlays with Ultravision Instrument Panel Lighting System, Model # UV-250-P and installed Ultravision Glareshield Instrument Panel Lighting System, Model # UV-250-1

Above units installed per Aero Enhancement, Inc. installations P/N AE0830-01 and P/N AE0403-01 under the guidance of AC43.13-1B Chapter 11 Sec. 2.424, 426(d) & (f), 428, 429, and 430. The above units were tested for vertical flammability by John R. Coloa, FAA DER and passed per FAR 25.853 (a) and FAR 25.1359 (d)

The above units operate independently from the existing factory installed instrument panel lighting by means of isolated three way toggle switches and dimmer rheostats for both the UV-250-P and UV-250-1. The primary source for power is provided by the aircraft BUSS and circuit protection is achieved through the means of 5 amp circuit breakers for each unit

The power consumption for the UV-250-P is: Input 101.6 mA DC- Output 17.3 mA DC  
The power consumption for the UV-250-1 is: Input 111.12 mA DC- Output 35.9 mA DC

Standby power is provided by an independent, internally fused, 9 volt power supply for each unit

Preventative and continuing maintenance for each unit is to be preflight and annual inspection function checks. The standby power supply is to be replaced semi-annually or after 4 hours of use I.A.W. Mfg recommendations

Installed placard on instrument panel stating: "Maximum backup battery lamp operation time is 4 hours"

Installed placards on instrument panel to indicate system switch positions: "On-Off-Backup"

Updated aircraft P.O.H. to include UV-250-P and UV-250-1 operating instructions and specifications

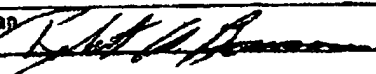
Aircraft weight & balance and equipment list updated

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

Additional Sheets Are Attached



RB020060

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION STATEMENT OF COMPLIANCE WITH THE FEDERAL AVIATION REGULATIONS			DATE 08/17/02
AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION			
MAKE Cessna Aircraft Company	MODEL NO. 421B S/N 421B-0852 ONLY	TYPE (Airplane, Radio, Helicopter, etc.) AIRPLANE	NAME OF APPLICANT - Aero Enhancement Inc. Fenton MO.
LIST OF DATA			
IDENTIFICATION	TITLE		
AE0403-01, Rev. IR 04/03/98	Glare Shield Instrument Panel Lighting System Model Uv250-1, Installation and Operation Manual		
AE0830-01, Rev. IR 08/30/98	Instrument Panel Overlay and Ultravision Instrument Panel Lighting System Model UV-250-P, Installation and Operation Manual		
NOTE: The data listed above is approved for the +/Electronic and Avionics System aspects only. The data approved under this 8110-3 is retained in the DER file RB 020060at 1625 Grassy Rd., Makanda, IL 62958 Faa project number: None			
PURPOSE OF DATA: To provide FAA Engineering approval for the data listed to support a major alteration, approval is for design data only and is not installation approval.			
APPLICABLE REQUIREMENTS (List specific sections)- 14 CFR PART 23.1301 a b, .1309 a, .1357 a c, .1381 a b c, .1431 a b.			
CERTIFICATION- Under authority vested by direction of the Administrator and in accordance with conditions and limitations of appointment under Part 183 of the Federal Aviation Regulations, data listed above and on attached sheets numbered <u>N/A</u> have been examined in accordance with established procedures and found to comply with applicable requirements of the Federal Aviation Regulations.			
<input type="checkbox"/> Recommend approval of these data			
I (We) Therefore			
<input checked="" type="checkbox"/> Approve these data			
SIGNATURE(S) OF DESIGNATED ENGINEERING REPRESENTATIVE(S)	DESIGNATION NUMBERS	CLASSIFICATION(S)	
Robert A. Beuman 	DERT-405014-CE	Systems & Equipment, Electrical	

FAA FORM 8110-3 (11-70) SUPERSEDES PREVIOUS EDITION

**ARIG**

APPLICANT: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

**AIRPLANE FLIGHT MANUAL SUPPLEMENT**  
**FOR**  
**CESSNA 421B**  
**WITH**  
**ULTRAVISION INSTRUMENT PANEL LIGHTING MODEL NO. UV250-P**  
**ULTRAVISION GLARE SHIELD LIGHTING MODEL NO. UV250-1**

**REGISTRATION NO. N1953G**  
**SERIAL NO. 421B-0852**

**This supplement must be attached to the Cessna 421B FAA approved Flight Manual when Ultravision Instrument Panel Lighting Model No. UV250-P and Ultravision Glare Shield Lighting Model No. UV250-1 has been installed in accordance with Installation Instructions Doc. AE0830-01 and Doc. AE0403-01.**

**The information contained herein supplements or supersedes the information of the basic Airplane/Rotorcraft Flight Manual only in those areas listed. For limitations, Procedures and Performance Data not contained in this supplement, consult the basic Airplane/Rotorcraft Flight Manual.**

**APPROVED: \_\_\_\_\_**

**DATE: \_\_\_\_\_**

APPLICANT: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

AIRPLANE FLIGHT MANUAL SUPPLEMENT  
FOR CESSNA 421B WITH  
ULTRAVISION INSTRUMENT PANEL LIGHTING MODEL NO. UV250-P  
ULTRAVISION GLARE SHIELD LIGHTING MODEL NO. UV250-1

**LOG OF REVISIONS**

REV. NO	DESCRIPTION	PAGES REVISED	APPROVED BY	DATE

APPLICANT: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

AIRPLANE FLIGHT MANUAL SUPPLEMENT  
FOR CESSNA 421B WITH  
ULTRAVISION INSTRUMENT PANEL LIGHTING MODEL NO. UV250-P  
ULTRAVISION GLARE SHIELD LIGHTING MODEL NO. UV250-I

**OPERATION:**

SWITCH: UP - ON      CENTER - OFF      DOWN - 9-VOLT BATTERY BACKUP

DIMMING CONTROL: FULL BRIGHT - CLOCKWISE  
FULL DIM - COUNTER CLOCKWISE

9 - VOLT BATTERY: TO CHANGE BATTERY SNAP INTO HOLDER ENSURE PROPER CONNECTION.

9-VOLT BATTERY (LOCATION IN AIRCRAFT): \_\_\_\_\_

**CONTINUING MAINTENANCE:**

9 - VOLT BATTERY SHOULD BE CHECKED DURING PREFLIGHT BY SIMPLY UTILIZING  
THREE POSITION TOGGLE SWITCH.

9 - VOLT BATTERY SHOULD BE REPLACED SEMI-ANUALLY OR AFTER 4 HOURS OF USE.



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

Form Approved  
OMB No. 2120-0020

For FAA Use Only

Office Identification

SW FSDO OF

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).

<b>1. Aircraft</b>	Make Cessna	Model 421B
	Serial No. 421B-0852	Nationality and Registration Mark N1953G
<b>2. Owner</b>	Name (As shown on registration certificate) Thompson Aviation, Inc.	Address (As shown on registration certificate) 2121 Sage, Suite 225 Houston, Texas 77056

### 3. For FAA Use Only

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

SW-FSDO-09

24 SEP 2002

*Mitchell F. [Signature]*

### 4. Unit Identification

### 5. Type

Date	Unit	FAA Inspector	Make	Model	Serial No.	Repair	Alteration
	AIRFRAME		(As described in item 1 above)				X
	POWERPLANT						
	PROPELLER						
	APPLIANCE	Type					
		Manufacturer					

### 6. Conformity Statement

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
Outlaw Avionics 18000 Groeschke Rd., Hanger 1 East Houston, Texas 77084	<input type="checkbox"/> U.S. Certified Mechanic	OL7R953J
	<input type="checkbox"/> Foreign Certified Mechanic	
	<input checked="" type="checkbox"/> Certified Repair Station	
	<input type="checkbox"/> Manufacturer	

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

Date <i>9/30/02</i> <sup>PRC</sup> <i>9/24/02</i>	Signature of Authorized Individual <i>[Signature]</i> Timothy O. Rester
--	---

### 7. Approval for Return To Service

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

BY	FAA Fit. Standards Inspector	X	Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee		Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection <i>9/24/02</i> <i>9/30/02</i>			Certificate or Designation No. OL7R953J	Signature of Authorized Individual <i>[Signature]</i> Timothy O. Rester	

**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.)

Having complied with AC 20-138 paragraph 8.c (2) this FAA Form 337 removes the VFR limitations on the Garmin GNS 530 GPS/VOR/ILS/COM Transceiver System installed on FAA Form 337 dated 27 August 2002. This approval requires FAA Approved Flight Manual Supplement dated ~~9/4 SEP~~ 2002

Instructions for Continued Airworthiness Checklist

1. Introduction:  
The installation of a Garmin GNS-530 GPS/VOR/ILS/COM Transceiver Interfaced with a EDO-AIRE NSD-360A and STEC 55X Autopilot
2. Description:  
The Garmin GNS 530 GPS System is a fully integrated, panel mounted instrument, which contains a VHF Com Transceiver, a VOR/ILS receiver, and a GPS Navigation computer with updateable database
3. Control, Operation Information:  
The pilot's guides and operation manuals were placed in the aircraft
4. Servicing Information: N/A
5. Maintenance Instructions:  
Maintenance of GNS 530 is "on condition" only. Periodic maintenance is not required
6. Troubleshooting Information: N/A
7. Removal and Replacement Information: N/A
8. Diagrams: N/A
9. Special Inspection Requirements: N/A
10. Application of Protective Treatments: N/A
11. Data: N/A
12. List of Special Tools:  
A 3/32-inch allen wrench is required for removal of the GNS 530 unit
13. For Commuter Category Aircraft: N/A
14. Recommended Overhaul Periods: N/A
15. Airworthiness Limitation Section:  
The aircraft instrument panel is placarded "GPS FOR VFR USE ONLY".  
The placards will be removed upon compliance with AC 20-138 paragraph 8.c.(2)
16. Revision:  
To obtain a revision to the ICA (Instructions for Continued Airworthiness), a letter must be submitted to the Local FSDO with a copy of the revised FAA Form 337 and revised ICS

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

HOU FSDO  
RECEIVED

OCT 02 2002

ROUTE

MGR		UNIT A	
A/D		UNIT B	
LAN		UNIT C	
SECY		SPM	

HOU FSDO  
RECEIVED

SEP 17 2002

ROUTE

MGR		UNIT A	
A/D		UNIT B	
LAN		UNIT C	
SECY		SPM	

Additional Sheets Are Attached



U.S. Department  
of Transportation  
Federal Aviation  
Administration

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

Form Approved  
OMB No. 2120-0020

For FAA Use Only

Office Identification

*MS SW09*

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).

<b>1. Aircraft</b>	Make Cessna	Model 421B
	Serial No. 421B-0852	Nationality and Registration Mark N1953G
<b>2: Owner</b>	Name (As shown on registration certificate) Thompson Aviation	Address (As shown on registration certificate) 2121 Sage, Suite 225 Houston, Texas 77056

### 3. For FAA Use Only

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

### 6. Conformity Statement

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
Shane McKenney 200 Jim Davidson Drive Sugar Land, Texas 77478	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	465650599
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

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

Date 30 August 2002	Signature of Authorized Individual <i>Shane McKenney</i>	Shane McKenney
------------------------	---	----------------

### 7. Approval for Return To Service

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

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	<input type="checkbox"/>	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 30 August 2002		Certificate or Designation No. 451597610		Signature of Authorized Individual <i>Jarrell Allen</i>	

**NOTICE**

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

**8. Description of Work Accomplished**

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

Installed S-TEC Yaw Damper System, Model ST-238, in accordance with STC# SA5362SW-D, Bulletin # 338, Revision 6 dated 5-15-1998 and Master Drawing List No. 92298, Revision F

Weight and balance revised

Aircraft Flight Manuals have been updated

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

HOU FSDO  
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SEP 3 2002

TABLE

NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Additional Sheets Are Attached



RAD



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

*Handwritten signature/initials*

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

1. Aircraft	Make Cessna	Model 421B
	Serial No. 421B-0852	Nationality and Registration Mark N1953G
2. Owner	Name (As shown on registration certificate) Thompson Aviation, Inc.	Address (As shown on registration certificate) 2121 Sage, Suite 225 Houston, Texas 77056

**3. For FAA Use Only**

*(Empty section for FAA use only)*

**4. Unit Identification**

**5. Type**

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

**6. Conformity Statement**

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
Shane McKenney 200 Jim Davidson Drive Sugar Land, Texas 77478	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	465650599
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

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

Date 30 August 2002	Signature of Authorized Individual <i>Shane McKenney</i>	Shane McKenney
------------------------	---	----------------

**7. Approval for Return To Service**

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

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 30 August 2002		Certificate or Designation No. 451597610	Signature of Authorized Individual <i>Jarrell Allen</i>		

**NOTICE**

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

**8. Description of Work Accomplished**

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

Removed ARC 400-A auto-pilot system

Installed S-TEC System 55X Two Axis Automatic Flight Guidance System, Model ST-599 in accordance with STC# SA8890SW-D, Bulletin No. 659, Revision 5, dated 3-15-01 and Master Drawing List No. 92728, Revision E.

Weight and balance have been revised

Aircraft Flight Manuals have been updated in accordance with STC# SA8890SW-D

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

HOU FSDO  
RECEIVED

SEP - 3 2002

TABLE


Additional Sheets Are Attached



U.S. Department of Transportation  
Federal Aviation Administration

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

Form Approved  
OMB No. 2120-0020

For FAA Use Only

Office Identification

SWFSDO 09

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).

<b>1. Aircraft</b>	Make Cessna	Model 421B
	Serial No. 421B-0852	Nationality and Registration Mark N1953G
<b>2. Owner</b>	Name (As shown on registration certificate) Thompson Aviation, Inc.	Address (As shown on registration certificate) 2121 Sage, Suite 225 Houston, Texas 77056

The data ~~information~~ identified herein complied with applicable **3. For FAA Use Only**

airworthiness requirements and is approved only for the above described aircraft subject to conformity inspection by a person authorized in FAR 43.7

27 AUG 2002 *M. J. Fye* SW-FSDO-09

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

### 6. Conformity Statement

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
Outlaw Avionics 18000 Groeschke Rd, Hanger 1 East Houston, TX 77084	U.S. Certificated Mechanic	OL7R953J
	Foreign Certificated Mechanic	
	<input checked="" type="checkbox"/> Certificated Repair Station	
	Manufacturer	

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

Date 27 August 2002	Signature of Authorized Individual <i>Timothy O. Rester</i> Timothy O. Rester
------------------------	---

### 7. Approval for Return To Service

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

BY	FAA Fit. Standards Inspector		Manufacturer	Inspection Authorization	Other (Specify)
	FAA Designee	X	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 27 August 2002		Certificate or Designation No. OL7R953J		Signature of Authorized Individual <i>Timothy O. Rester</i> Timothy O. Rester	

## NOTICE

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

### 8. Description of Work Accomplished

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

Removed the following avionics equipment:

DME P/N KN65A S/N 19202  
DME Indicator P/N KI265 S/N 8860  
Transponder P/N AT150 S/N 25707  
Transponder P/N RT459A S/N 967  
Audio Amp P/N AA108 S/N B1559  
Marker Receiver P/N R402A S/N 417  
Serial to Parallel Converter P/N KA120 S/N 1863  
VOR Converter P/N B445A S/N 1443  
Intercomm P/N PCA400  
NAT Switcher P/N RS08-001 S/N 2460


- A. Installed a Garmin GNS-530 unit below audio panel in the center avionics
- B. Interfaced the Garmin GNS-530 GPS with the existing EDO-AIRE NSD-360A HSI. Coupled the GNS-530 GPS unit to the STEC55X Autopilot
- C. This installation was performed in accordance with or the following manuals were referenced: Garmin GNS-530 GPS installation manual P/N 190-00181-02, Revision D dated April 2001; installation manual system 55/55X P/N 8750; Century NSD-360 FAA Approved Bulletin No. 734, revision 3 dated February 1978; AC43.13-1B chapter 11; AC43.13-2A chapters 1,2, and 3; AC20-138
- D. The pilot's instrument panel was placarded as follows: "GPS APPROVED FOR VFR USE ONLY"
- E. All installed equipment function tested to MPS this date for proper operation. Aircraft Flight Manual Supplement created this date

### Instructions for Continued Airworthiness Checklist

1. Introduction:  
The installation of a Garmin GNS-530 GPS/VOR/ILS/COM Transceiver Interfaced with a EDO-AIRE NSD-360A and STEC 55X Autopilot
2. Description:  
The Garmin GNS-530 GPS System is a fully integrated, panel mounted instrument, which contains a VHF Com Transceiver, a VOR/ILS receiver, and a GPS Navigation computer with updateable database
3. Control Operation Information:  
The pilot's guides and operation manuals were placed in the aircraft
4. Servicing Information: N/A
5. Maintenance Instructions:  
Maintenance of GNS-530 is "on condition" only. Periodic maintenance is not required
6. Troubleshooting Information: N/A
7. Removal and Replacement Information: N/A
8. Diagrams: N/A
9. Special Inspection Requirements: N/A
10. Application of Protective Treatments: N/A
11. Data: N/A
12. List of Special Tools:  
A 3/32-inch allen wrench is required for removal of the GNS-530 unit
13. For Commuter Category Aircraft: N/A
14. Recommended Overhaul Periods: N/A
15. Airworthiness Limitation Section:  
The aircraft instrument panel is placarded "GPS FOR VFR USE ONLY"  
The placards will be removed upon compliance with AC20-138 paragraph 8.c.(2)
16. Revision:  
To obtain a revision to the ICA (Instructions for Continued Airworthiness), a letter must be submitted to the local FSDO with a copy of the revised FAA Form 337 and revised ICS

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

Additional Sheets Are Attached

 U.S. Department of Transportation Federal Aviation Administration		<b>MAJOR REPAIR AND ALTERATION</b> (Airframe, Powerplant, Propeller, or Appliance)		Form Approved OMB No. 2120-0020 For FAA Use Only	
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).					
1. Aircraft	Make	<b>Cessna</b>	1	Model	<b>421B</b>
	Serial No.	<b>421B0852</b>		Nationality and Registration Mark	<b>N1953G</b>
2. Owner	Name (As shown on registration certificate)			Address (As shown on registration certificate)	
	<b>Western Airways Inc.</b>			<b>18000 Groeschke 2 East Houston, TX 77084</b>	
3. For FAA Use Only					
4. Unit Identification					
Unit	Make	Model		Serial No.	5. Type
AIRFRAME	(As described in Item 1 above)				Repair
POWERPLANT					Alteration
PROPELLER					<b>XXX</b>
APPLIANCE	Type				
	Manufacturer				
6. Conformity Statement					
A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
<b>Brazos Avionics Inc. 10615 West Main St. La Porte, TX 77571</b>		U.S. Certificated Mechanic		<b>XS1R623K</b>	
		Foreign Certificated Mechanic			
		<input checked="" type="checkbox"/> Certificated Repair Station			
		Manufacturer			
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.					
Date		Signature of Authorized Individual			
<b>3/8/94</b>		<b>James E. Miller</b> <i>James E. Miller</i>			
7. Approval for Return To Service					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)	
	<input checked="" type="checkbox"/> FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group		
Date of Approval or Rejection		Certificate or Designation No.	Signature of Authorized Individual		
<b>4/18/94</b>		<b>XS1R623K</b>	<b>James E. Miller</b> <i>James E. Miller</i>		

**NOTICE**

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

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


Installed the following named equipment in said aircraft PCA 400 intercom in said aircraft. Equipment was installed in instrument panel left side using one in-line fuse. All equipment was installed in accordance w/AC 43.13 1A & 2A, and manufacture installation manual. AC 43.13 1A & 2A, Chapter 11, Section 1, Inspection and operation check; Section 2, determination of electrical load & circuit protection devices; Section 3, Aircraft electric wire; Section 7, routing wires and ties and lacing; Chapter 5, section 8, Para 842 coaxial cable and fittings. System doesn't interfere w/any other equipment if system should fail. Revised equipment list. No effect on Weight and Balance Report System, (unit less than .5 lbs. Made the appropriate log-book entry.

DOT FAA  
HOU FSDO  
RECEIVED

APR 22 1994

MGR:	_____	CALA:	_____
AMGR:	_____	CAS:	_____
A/C:	_____	APS:	_____

Additional Sheets Are Attached

 U.S. Department of Transportation Federal Aviation Administration		MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		Form Approved OMB No. 2120-0020 For FAA Use Only	
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).				Office Identification SW-FSDO-09 <i>SLM</i>	
1. Aircraft	Make	<i>Cessna</i>	Model	<i>421B Golden Eagle</i>	
	Serial No.	<i>421B0852</i>	Nationality and Registration Mark	<i>N1953C</i>	
2. Owner	Name (As shown on registration certificate)		Address (As shown on registration certificate)		
	<i>Western Airways</i>		<i>1800 Groeschke St E Houston, Tex. 77084</i>		
3. For FAA Use Only					
4. Unit Identification					
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in item 1 above)				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				
6. Conformity Statement					
A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
<i>Western Airways 1800 Groeschke St E Houston, Tex 77084</i>		<input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer		<i>APP 449826015</i>	
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.					
Date		Signature of Authorized Individual			
<i>5-26-93</i>		<i>[Signature]</i>			
7. Approval for Return To Service					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)	
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group		
Date of Approval or Rejection		Certificate or Designation No.	Signature of Authorized Individual		
<i>5-26-93</i>		<i>457130731</i>	<i>[Signature]</i>		

**NOTICE**

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

**8. Description of Work Accomplished**

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


- Cleveland Brake Conversion STC - SA 197-GL -  
Installed Cleveland wheel and brake Conversion  
Kit. Per STC SA 197GL instructions.  
Aircraft weight & balance records revised.

END

Additional Sheets Are Attached



TLP

 US Department of Transportation Federal Aviation Administration		<b>MAJOR REPAIR AND ALTERATION</b> (Airframe, Powerplant, Propeller, or Appliance)		Form Approved OMB No. 2120-0020 For FAA Use Only Office Identification Houston 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 such violation (Section 901 Federal Aviation Act of 1958).						
1. Aircraft	Make Cessna 421B		Model 421B Golden Eagle			
	Serial No. 421B0852		Nationality and Registration Mark U.S. 19536			
2. Owner	Name (As shown on registration certificate) Western Airways Inc		Address (As shown on registration certificate) 1800 Grasschke #2E Houston, Texas 77084			
	3. For FAA Use Only					
4. Unit Identification						
Unit		Make	Model	Serial No.	5. Type	
AIRFRAME		(As described in Item 1 above)			Repair	Alteration ✓
POWERPLANT						
PROPELLER						
APPLIANCE		Type				
		Manufacturer				
6. Conformity Statement						
A. Agency's Name and Address Western Airways Inc 1800 Grasschke #2E Houston, Texas 77084			B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer		C. Certificate No. AEP 449826015	
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.						
Date 4-28-93		Signature of Authorized Individual <i>[Signature]</i>				
7. Approval for Return To Service						
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED						
BY	FAA Fit Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)	
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group		
Date of Approval or Rejection 4-28-93		Certificate or Designation No. 457130731		Signature of Authorized Individual <i>[Signature]</i> Randall Poe		

**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.

**B. Description of Work Accomplished**

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

Removed old style Cessna Air Filters, replaced  
with Brackett type air Filters plw BA-108 Both  
Engines per STC-SA713L. No Change in weight  
Balance - END

Additional Sheets Are Attached

*Collins B*

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-R060.1	
<b>MAJOR REPAIR AND ALTERATION</b> (Airframe, Powerplant, Propeller, or Appliance)				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.					
1. AIRCRAFT	MAKE	CESSNA	MODEL	421B	
	SERIAL NO.	421B0852	NATIONALITY AND REGISTRATION MARK	N 1953G	
2. OWNER	NAME (As shown on registration certificate)		ADDRESS (As shown on registration certificate)		
	WESTERN AIRWAYS, INC.		5910 STAR LANE HOUSTON, TEXAS 77057		
3. FOR FAA USE ONLY					
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	(As described in item 1 above)			REPAIR	ALTERATION
POWERPLANT				X	
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
C.G. HENRY 10922 Country Meadow Ln. TOMBALL, TEXAS 77375			<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC		494437 A & P
			<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC		
			<input type="checkbox"/> CERTIFICATED REPAIR STATION		
			<input type="checkbox"/> MANUFACTURER		
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.					
DATE			SIGNATURE OF AUTHORIZED INDIVIDUAL		
31 January 1992			<i>C.G. Henry</i> C.G. HENRY		
7. APPROVAL FOR RETURN TO SERVICE					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION		CERTIFICATE OR DESIGNATION NO.		SIGNATURE OF AUTHORIZED INDIVIDUAL	
31 January 1992		494437 IA		<i>C.G. Henry</i> C.G. HENRY	

**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.)**

1. The following items were re-upholstered by TRIM SPECIALITIES of HOUSTON, INC. using patterns of the original cabin carpet panels, kick panels, cabin and cockpit side panels, and seat covers. The manner of upholstering is the same as that used by the aircraft manufacturer.
  - Full Set of cabin and cockpit floor carpet panels,
  - Full set of kick panels for both sides of the cockpit and cabin,
  - 2 ea Pilot Seats,
  - 5 ea Passenger Seats, and
  - The Potty Seat.
2. The following materials were used:
  - Carpet — #13 Tan Thatch from Lancer Carpet,
  - Vinyl — Brown Baypoint from Mellohide, and
  - Cloth Fabric — Kendall Beige from Marion Fabrics.
3. Three specimens of each of the materials were submitted to HOUSTON FLAME TESTING LAB (FAA Approved Repair Station #GWZR861K) for burn testing on W.O. # 1309 and 1311 on 8 January and 16 January 1992, respectively.
4. TESTING RESULTS:
  - a. CARPET — Passed — Record #662 — FAR 23.787 (d); FAR 23.853 (a); FAR 27.953 (b); FAR 3.388 (a); and CAR 4b.381 (b).
  - b. VINYL — Passed — Record # 657 — FAR 23.787 (d); FAR 23.853 (a); FAR 27.853 (b); FAR 27.855 (a); CAR 3.388 (a); CAR 4b.381 (b).
  - c. CLOTH FABRIC — Passed — Record #660 — FAR 25.853 (b); FAR 29.853 (a) (2).
5. The re-upholstered items were reinstalled in accordance with the methods used by the aircraft manufacturer.
6. No significant weight difference was made.

\*\*\*END\*\*\*

ADDITIONAL SHEETS ARE ATTACHED

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION <b>MAJOR REPAIR AND ALTERATION</b> (Airframe, Powerplant, Propeller, or Appliance)				Form Approved Budget Bureau No. 04-R060.1 <b>FOR FAA USE ONLY</b> 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.					
1. AIRCRAFT	MAKE	CESSNA	MODEL	421B	
	SERIAL NO.	421B0852	NATIONALITY AND REGISTRATION MARK		
2. OWNER	NAME (As shown on registration certificate)			ADDRESS (As shown on registration certificate)	
	Arthur-Smith Corporation			8819 Interchange Boulevard Houston, Texas 77054	
3. FOR FAA USE ONLY					
4. UNIT IDENTIFICATION				5. TYPE	
UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
Michael C. Lindsay P. O. Box 314 Mt. Vernon, Alabama 36560			<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC		422723410
			<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC		
			<input type="checkbox"/> CERTIFICATED REPAIR STATION		
			<input type="checkbox"/> MANUFACTURER		
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.					
DATE			SIGNATURE OF AUTHORIZED INDIVIDUAL		
October 28, 1988			<i>M. C. Lindsay</i>		
7. APPROVAL FOR RETURN TO SERVICE					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION OTHER (Specify)	
	FAA DESIGNEE	REPAIR STATION	<input type="checkbox"/>		
DATE OF APPROVAL OR REJECTION		CERTIFICATE OR DESIGNATION NO.		SIGNATURE OF AUTHORIZED INDIVIDUAL	
10/28/88		422723410		<i>M. C. Lindsay</i>	

**NOTICE**

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

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

Removed Goodyear wheels and brakes. Installed Cleveland Wheels & Brakes Kit Part Number 199-76, Rev. E. Work was accomplished per drawings and instructions supplied with Kit and outlined in STC SA197GL.

END

FAA Form 337, Revision 10-1-79. The form contains a large grid for recording work. The grid is mostly blank, with some faint markings and a small handwritten 'b' in the upper right quadrant. At the bottom of the grid area, there is a checkbox labeled 'ADDITIONAL SHEETS ARE ATTACHED' which is currently unchecked.

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION <b>MAJOR REPAIR AND ALTERATION</b> (Airframe, Powerplant, Propeller, or Appliance)				Form Approved Budget Bureau No. 04-R060.1 FOR FAA USE ONLY OFFICE IDENTIFICATION SWF 500-642al	
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.					
1. AIRCRAFT	MAKE Cessna		MODEL 421B		
	SERIAL NO. 421B0852		NATIONALITY AND REGISTRATION MARK N1953C		
2. OWNER	NAME (As shown on registration certificate) Arthur Smith Corp.			ADDRESS (As shown on registration certificate) 8919 Interchange Blvd. Houston, TX 77054	
	3. FOR FAA USE ONLY				
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION
POWERPLANT					X
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
Mort Hall Avionics, Inc. David Wayne Hooks Memorial Airport 20119 Stuebner Airline Spring, TX 77379			<input type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		264-23
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct, to the best of my knowledge.					
DATE 6-10-87		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>			
7. APPROVAL FOR RETURN TO SERVICE					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION	OTHER (Specify)	
	FAA DESIGNEE	X REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION 6-10-87		CERTIFICATE OR DESIGNATION NO. 264-23	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>		

**NOTICE**

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

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

Installed Northstar Avionics M 1 Loran C receiver and a Northstar A-100 antenna with an AN-1010 antenna coupler. The Loran C receiver is located in the center avionics rack and is connected to a Cessna IN 830 HSI and a Cessna 800 IFCS through a Northern Airborne Technology RS 08-001 remote switch controlled by Northern Airborne Technology PB-08 annunciator switch placarded Nav 1/Loran C. The Loran system is placarded "Loran-C not approved for IFR."  
All work accomplished using approved parts and hardware in accordance with the appropriate Northstar Avionics Installation Manual, N.A.T. RS 08-001 Installation Manual and Advisory Circulars AC-43.13-1A chapter 11, chapter 13, AC 45.13-2A chapter 2, chapter 3, chapter 13 and AC 20-121.  
A ground function test was performed.  
The M 1 reference manual P/N 122186 Rev. H dated 1985 placed in the aircraft. No change in aircraft flight manual.  
Aircraft weight and balance and equipment list revised.  
Magnetic compass operation checked and not effected.

END

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ADDITIONAL SHEETS ARE ATTACHED



E-1

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION <b>MAJOR REPAIR AND ALTERATION</b> (Airframe, Powerplant, Propeller, or Appliance)				Form Approved Budget Bureau No. 04-R060.1 FOR FAA USE ONLY OFFICE IDENTIFICATION SW HSDO 62 DR	
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.					
1. AIRCRAFT	MAKE <b>Cessna</b>	MODEL <b>421B</b>		NATIONALITY AND REGISTRATION MARK <b>N1953G</b>	
	SERIAL NO. <b>421B0852</b>				
2. OWNER	NAME (As shown on registration certificate) <b>Tauber Oil Company</b>			ADDRESS (As shown on registration certificate) <b>1610 Melrose Building Houston, Texas 77002</b>	
	3. FOR FAA USE ONLY				
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO.
<b>Continental Radlo Company, Inc.</b> <b>8701 Travelair</b> <b>Houston, Texas 77061</b>			U.S. CERTIFICATED MECHANIC		<b>3672</b> <b>Radlo 1, 2 &amp; 3</b> <b>Inst. &amp; S.S. Limited</b>
			FOREIGN CERTIFICATED MECHANIC		
			<input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION		
			MANUFACTURER		
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.					
DATE <b>1-11-80</b>			SIGNATURE OF AUTHORIZED INDIVIDUAL <i>E.W. Baker</i>		
7. APPROVAL FOR RETURN TO SERVICE					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is: <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION		OTHER (Specify)
	FAA DESIGNEE	<input checked="" type="checkbox"/> REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION <b>1-11-80</b>		CERTIFICATE OR DESIGNATION NO. <b>3672</b>		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>E.W. Baker</i>	

### NOTICE

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

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

Cessna 421B  
S/N 421E0852 N1953G

Removed the Cessna P/N 9711019-1 Radome and installed Norton 4009X Radome Kit per STC SA807EA.

Removed the following equipment: RCA AVQ-47 Radar (MI-585035 Receiver/Transmitter, MI585036-3 Indicator, MI-585086-1 Antenna and 1719434-501 Phased Array).

Installed RCA Weather Scout II Radar including:

- (1) RTA-1002 Receiver-Transmitter mounted as per Norton drawing AD4009X.
- (2) DI-1002 Digital Indicator mounted in the radio panel in the location of the removed RCA MI-585036-3 Indicator, utilizing AN hardware.

The following data was used as guidelines for the installation:

- A.C. 43.13-1A Chapter 11, Sections 2, 3, 4 and 7.
- A.C. 43.13-2A Chapter 1 "Structural Data".
- A.C. 43.13-2A Chapter 2 "Radio Installations", paragraphs 21 a(1)(2)(3)(4)(5)(6); 22; 23 a, b, c, e, f; 27 a(1)(2), b(1)(2), c(1)(2)(3)(4), d, e(1)(2).

The Equipment List was revised.

The Weight and Balance was corrected.

ADDITIONAL SHEETS ARE ATTACHED