



U.S. 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 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 N7937P	Serial No. 24-3173	
	Make Piper	Model PA-24-250	Series
<b>2. Owner</b>	Name (As shown on registration certificate) Leise Richard P		
	Address (As shown on registration certificate) Address RD 2		
	City Argyle	State NY	
	Zip 12809	Country USA	

### 3. For FAA Use Only

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

### 6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
Name	Walter D Southworth	<input checked="" type="checkbox"/>	U.S. Certificated Mechanic	3134354	
Address	191 Sawmill Road	<input type="checkbox"/>	Foreign Certificated Mechanic		
City	West Pawlet State VT	<input type="checkbox"/>	Certificated Repair Station		
Zip	05775 Country USA	<input type="checkbox"/>	Certificated Maintenance Organization		

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

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <i>Walter D Southworth</i>	8-11-14
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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. 3134354		Signature/Date of Authorized Individual <i>Walter D Southworth</i> 8-11-14		

### 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.)*

N7937P

8-11-14

Nationality and Registration Mark

Date

Installed Webco door latch kit STC SA2549CE.....END.....

Additional Sheets Are Attached



# MAJOR REPAIR AND ALTERATION

(Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No. 2120-0020

For FAA Use Only

Office Identification

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

<b>1. Aircraft</b>	Make: Piper	Model: Pa-24-250
	Serial No. 24-3173	Nationality and Registration Mark N7937P
<b>2. Owner</b>	Name (As shown on registration certificate) Leise Richard P	Address (As shown on registration certificate) RD 2 ARGYLE NY 12809

**3. For FAA Use Only**

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

Date 8/4/03 FAA Signature [Signature]

**4. Unit Identification**

**5. Type**

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

**6. Conformity Statement**

<b>A. Agency's Name and Address</b> North American Flight Services 405 Greenfield AVE Ballston Spa Ny 12020	<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> NOMR725J
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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 <u>8-4-03</u>	Signature of Authorized Individual <u>[Signature]</u>
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**7. Approval for Return to Service**

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

<b>BY</b>	<input type="checkbox"/> FAA FIT Standards Inspector	<input type="checkbox"/> Manufacturer	<input type="checkbox"/> Inspection Authorization	Other (Specify)
	<input type="checkbox"/> FAA Designee	<input checked="" type="checkbox"/> Repair Station	<input type="checkbox"/> Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection <u>8-4-03</u>	Certificate or Designation No. NOMR725J	Signature of Authorized Individual <u>[Signature]</u>		

## 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.)

N7937P

1. Removed KX-155 NAV/COM, Northstar M1 Loran, KI-208.
2. Installed Garmin GNS-530 GPS/Nav/Comm system TSO'ed to C129a, C37d, C38d, C40c, C36e, C34e. Installed one GA-56 antenna. Installed GI-106A indicator.
3. The systems are wired I.A.W. North American Flight Services Avionics drawings.
4. The GNS 530 Gps/ Nav/Com was installed using existing radio rack structure and manufactures supplied rack, the GA 56 GPS antenna was installed using manufactures supplied doubler and hardware. The GI-106A was installed in existing number one indicator spot in pilots instrument panel the existing indicator was moved down to an existing empty spot in the pilots instrument panel.
5. In addition to manufacturers' specific instructions, all wire harnesses were fabricated with reference to AC 43.13-1B, para's 11-66, 11-85, 11-89, 11-96, 11-206, 11-207, 11-208, 11-209 and 11-210.
6. An existing .10 amp breaker protects the Com portion of the GNS 530. A 5 amp breaker protects the GNS 530 GPS/Nav portion.
8. The GNS 530 interfaces with the new GI 106A Nav indicator and existing audio panel, and existing altitude reporting system, and Autopilot.
9. All post installation tests required by the manufacturers have been performed, and no discrepancies were noted. The test and inspections required by FAR 91.411 and 91.413 IAW Part 43 appendixes E and F to an altitude of 20,000 ft. have been performed. All units operate satisfactorily, and do not interfere with any other systems.
10. Continuous Electrical running load computed and found to be within acceptable limits of the bus capacity.
11. The aircraft equipment list and weight and balance information have been revised to reflect this change.
12. The GNS-530 pilots guide, and FAA approved Flight Manual Supplement must be available to the pilot, whenever the systems are used.
13. Instructions for continued airworthiness: (see attached pages)

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

Additional Sheets Are Attached

**MAJOR REPAIR AND ALTERATION**  
**(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 <b>PIPER</b>	MODEL <b>PA-24-250</b>
	SERIAL NO. <b>24-3173</b>	NATIONALITY AND REGISTRATION MARK <b>N7937P</b>
2. OWNER	NAME (As shown on registration certificate) <b>RICHARD P. LEISE</b>	ADDRESS (As shown on registration certificate) <b>RD # 2 NORTH ARGYLE, NY 12809</b>

3. FOR FAA USE ONLY

Blank area 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>August Avionics PO Box 1483, Claremont AP Claremont, NH 03743-1483</b>	B. KIND OF AGENCY		C. CERTIFICATE NO. <b>RM5R176N</b>
	U.S. CERTIFICATED MECHANIC		
	FOREIGN CERTIFICATED MECHANIC		
	X 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>11/22/91</b>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>
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7. APPROVAL FOR RETURN TO SERVICE

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

BY	FAA 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 <b>11/22/91</b>	CERTIFICATE OR DESIGNATION NO. <b>RM5R176N</b>	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.)

1. Removed 1ea Narco MK V Nav/Com system. Installed 1ea King KX-155/KI-208 Nav/Com system. The KX-155 Unit was mounted in the center radio stack and the KI-208 Nav Ind was installed in the instrument panel. The existing antenna systems were used for the King KX-155 Nav/Com. Installed 1ea Northstar Loran C Receiver Model M1A S/N N24943, ACU #2010 Preamp and CI 121SP Antenna. The Loran C Rec. was mounted in the center radio stack, the Narco CS-3B Nav Ind in the instrument panel, the ACU #2010 and the Antenna were mounted on top rear of aircraft. The structural mounting of the Loran C Equipment is sufficient to ensure the emergency landing loads appropriate to the aircraft category. All work was accomplished in accordance with the Manufacturer's specifications in the installation Manuals, for the Northstar M1 P/N GM295 Revision M, 05/10/89, the King KMA-24 marker/audio panel P/N 006-0180-00 January 1979, the King KX-155/165 Manual P/N 006-0179-05 Rev # 5 February 1988 and conforms to the acceptable methods, techniques, and practices in AC 43.13-1A, Chapters 11 Section 2 paragraphs 424, 428, 429, 430, Section 3 paragraphs 442 through 452, Section 7 paragraphs 514 through 519, Chapter 15 Section 6 paragraphs 840, AC 43.13-2A Chapter 1 paragraphs 1 through 12, Chapter 2 paragraphs 21, 22, 23, 24, 27, Chapter 3 paragraphs 36, 38 and AC 20-121A.

2. Ground and Flight checks were done to verify that Loran C equipment is not a source of objectional electromagnetic interference (EMI) and is functioning properly and safely, and operates in accordance with manufacturer's specifications.

3. The Loran C is coupled to the Nav function of the Century IIB Auto Pilot by means of switch selecting Nav 1, Nav 2 and Loran C.

4. Weight and Balance, equipment list and log book entries were made to reflect the change. Compass was checked for accuracy and found ok. The electrical load was computed and found to be less than 90% of alternator capacity.

5. Loran C is VFR approved only, and a placard is in clear view of pilot which indicates "LORAN-C NOT APPROVED FOR IFR".

Pilot's Operating Hand Books were provided to the aircraft owner.

END

ADDITIONAL SHEETS ARE ATTACHED

**MAJOR REPAIR AND ALTERATION**  
**(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 PIPER	MODEL PA - 24 - 250
	SERIAL NO. 24-3173	NATIONALITY AND REGISTRATION MARK N7937D
2. OWNER	NAME (As shown on registration certificate) POORE, PATRICIA A.	ADDRESS (As shown on registration certificate) 504 WESTWOOD DRIVE McMINNVILLE, TENN. 37110

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION				5. TYPE	
UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				XX
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS COURTESY AIR SERVICE WARREN COUNTY AIRPORT GLENS FALLS, N.Y.	B. KIND OF AGENCY	C. CERTIFICATE NO. 1362
	<input type="checkbox"/> U.S. CERTIFICATED MECHANIC	
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input type="checkbox"/> MANUFACTURER	

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

DATE JANUARY 7, 1975	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Edwin K. Poole</i>
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7. APPROVAL FOR RETURN TO SERVICE

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

BY	FAA 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 1-7-75	CERTIFICATE OR DESIGNATION NO. R.R.S. 1362	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Glen L. ...</i>
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## NOTICE

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

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

Installed rudder balance weight. Installation kit 760-705 in accordance with Piper Kit Instruction and sketches.

New weight and balance has been computed and placed in weight and balance section of flight manual.

ADDITIONAL SHEETS ARE ATTACHED



**MAJOR REPAIR AND ALTERATION**  
**(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 Piper	MODEL PA-24-250
	SERIAL NO. 24-3173	NATIONALITY AND REGISTRATION MARK N7937P
2. OWNER	NAME (As shown on registration certificate) Bill Rutherford, Ent.	ADDRESS (As shown on registration certificate) 308 Nashville Bank & Trust Bldg. Nashville, Tennessee 37201

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				XX
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Big Brother Aircraft, Inc. P.O. Box 3527 Airport Station Nashville, Tennessee 37217	<input type="checkbox"/> U.S. CERTIFICATED MECHANIC	L-5476
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input type="checkbox"/> MANUFACTURER	

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

DATE 8-21-70	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>William R. Hapner</i>
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7. APPROVAL FOR RETURN TO SERVICE

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

BY	FAA 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 8-21-70	CERTIFICATE OR DESIGNATION NO. L-5476	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Leslie T. Reel</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 radio equipment.

NARCO AT5-A Transponder remote unit was installed on aft. radio rack. Control panel mounted on lower bottom right hand instrument panel. Antenna was installed on bottom aft. fuselage with doubler plate of .040 alum. for support. All above radio equipment work was accomplished in accordance to manufacturer's recommendations and F.A.R. 43.13-2 chapter 2 and 3. Weight and balance computed below.

Aircraft	Weight	Arm	Moment
	1814.7	83.6	151625.5
Installed:			
NARCO AT5-AR	5.3	163.0	863.9
NARCO AT5-AP	2.0	58.0	116.0
NARCO UDM-3	.25	185.0	46.25
Cable	.37	119.0	44.03
	<u>7.92</u>		<u>1070.18</u>
New empty weight	1822.62		
New C.G.	83.14		
New useful load	1077.38		
Total Moment	152695.68		

-----END-----

ADDITIONAL SHEETS ARE ATTACHED

FEDERAL AVIATION AGENCY  
**MAJOR REPAIR AND ALTERATION**  
 (Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
 Budget Bureau No. 04-R06

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 <b>PIPER</b>	MODEL <b>PA 24 "250"</b>
	SERIAL NO. <b>24 - 3173</b>	NATIONALITY AND REGISTRATION MARK <b>N 7937P</b>
2. OWNER	NAME (As shown on registration certificate) <b>B.T. HICKMAN</b>	ADDRESS (As shown on registration certificate) <b>764 GILLESPIE ST. JACKSON, MISS</b>

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

UNIT	MAKE	MODEL	SERIAL NO.
AIRFRAME	***** (As described in item 1 above) *****		
POWERPLANT			
PROPELLER			
APPLIANCE	TYPE		
	MANUFACTURER		

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS <b>BERT A. WELCH, JR 1950 VENTURA DR. JACKSON, MISS</b>	B. KIND OF AGENCY	C. CERTIFICATE NO. <b>IA 1333978</b>
	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	
	<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 <b>11-25-66</b>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Bert A. Welch, Jr.</i>
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7. APPROVAL FOR RETURN TO SERVICE

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

BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION <i>A</i>	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		
DATE OF APPROVAL OR REJECTION <b>11-25-66</b>		CERTIFICATE OR DESIGNATION NO. <b>IA 1333978</b>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Bert A. Welch, Jr.</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.)

A. AIRCRAFT DAMAGED DUE TO LANDING GEAR UP LANDING.

B. ALL DAMAGED PARTS REMOVED AND FACTORY NEW PARTS INSTALLED: NEW PARTS 20557-08 ANGLE L/H, 20557-09 ANGLE R/H, 22630-04 BULK HEAD, 20601-08 BULK HEAD L/H, 20601-07 BULK HEAD R/H, EX PIPE 21580-00, 23142-00 BULK HEAD, 22217-03 ANGLE, 20950-00 FITTING ASSY, 20954-00 CHANNEL ASSY, 22117-00 SCOOP, 22090-00 PLATE, DME ANT ADF LOOP ANT, MARKER BEACON ANT, ALL SKIN - ALUM WAS REPLACED WITH <sup>NEW</sup> SAME AS ~~REMOVED~~ DAMAGED.

C. ALL WORK DONE Y/A/W PART 43

D. A/C WAS PUT ON JACKS + LANDING GEAR RIG Y/A/W PIPER PA-24 SERVICE MANUAL.

E. PAINTED NEW PARTS + REPAIRS.

F. TEST FLIGHT WAS Y/W ~~AT~~ LANDING GEAR OPERATED O.K.

ADDITIONAL SHEETS ARE ATTACHED

FEDERAL AVIATION AGENCY

Form approved.  
Budget Bureau No. 04-R060.

MAJOR REPAIR AND ALTERATION FORM (AIRFRAME, POWERPLANT, PROPELLER OR APPLIANCE)

1. AIRCRAFT	MAKE Piper	MODEL PA 24"250"	SERIAL NO. 24-3173	NATIONALITY AND REGISTRATION MARK N7937P
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2. OWNER	NAME (First, middle, last) E. T. Hickman	ADDRESS (Street and number, city, zone and State) 764 Gillespie Street Jackson, Mississippi
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3. COMPLETE ONLY FOR UNIT REPAIRED AND/OR ALTERED. DESCRIBE WORK ACCOMPLISHED ON REVERSE IN ACCORDANCE WITH CIVIL AERONAUTICS MANUAL 18.

UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
				MAJOR REPAIR	MAJOR ALTERATION
a. AIRFRAME	***** (As described in Item 1 above) *****				XX
b. POWERPLANT					
c. PROPELLER					
d. APPLIANCE	TYPE AND MANUFACTURER	1/12/63 Donald J. O'Neal		Se-Cat 110-4	

4. AIRCRAFT WEIGHT AND BALANCE DATA *After the repairs and/or alterations described below were made.* This item must be completed by repair or alteration agency. However, in the case of a spare component, it will not be completed until such component is installed in an aircraft. At this time, it will be completed by the installing agency, if applicable.

CATEGORY	EMPTY WEIGHT (Pounds)*	EMPTY CENTER OF GRAVITY (Inches from datum)*	USEFUL LOAD (Pounds)*
Normal	1814.7	33.33 170	1085.3

5. CONFORMITY STATEMENT (Complete and check)

a. AGENCY'S NAME AND ADDRESS Ray A. O'Neal North Jackson Air Service, Inc. Bruce Campbell Field Madison, Mississippi	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. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)	c. CERTIFICATE NO. A&P 1474888
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d. I certify that the repair and/or alteration made to the unit(s) identified under item 3 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 18 of the U. S. Civil Air Regulations and that the information furnished herein is true and correct to the best of my knowledge.

1-12-63

(Date repair and/or alteration completed)

*Ray A. O'Neal*

(Signature of authorized individual)

6. APPROVAL FOR RETURN TO SERVICE (Check and complete appropriate items)

Pursuant to the authority specified below the unit identified in item 3 was inspected in the manner prescribed by the Administrator of the Federal Aviation Agency and is

APPROVED } BY {  FAA Designee     Manufacturer     Canadian Department of Transport Inspector of Aircraft  
 REJECTED }     FAA Flight Standards Inspector     Repair Station     Other (Specify) Inspection Authorization

1-12-63

(Date of approval or rejection)

*J. H. ...*

(Signature of authorized individual; title or identification number)

A&P 1321576

7. TO BE COMPLETED ONLY BY FAA PERSONNEL

a.  Forwarded for engineering comment     See attached memorandum  
b.  Accepted \_\_\_\_\_ (Date)     Reinspected \_\_\_\_\_ (Date)     Spot Checked \_\_\_\_\_ (Date)

(FAA designation number)

(Signature Flight Standards Inspector)

# INSTRUCTIONS

This form must be completed in duplicate each time a major repair and/or alteration is made of an aircraft, airframe, power-plant, propeller or appliance. After the repair and/or alteration has been inspected and item 6 completed, the original copy of this form will be made available to the aircraft owner for retention as part of the aircraft records. The duplicate copy is retained by the FAA for administrative purposes.

See CAM 18 for detailed instructions concerning the information to be furnished with this form and instructions concerning its preparation.

**8. DESCRIPTION OF WORK ACCOMPLISHED.\***

Installed the following equipment in Cemanche N7937P

- Meterola ADF-12-E
- Narco Mark V with VOA-4 Indicator
- King KX 130 with KI-210 Omni/ILS Indicator
- Narco UDI-2 DME
- Narco MBT-12 Marker Beacon
- Omni Antenna
- Transmitting Antenna
- Marker Beacon Antenna

All of above components were installed according to and using methods and routines as outlined in Piper Aircraft Corp Radio installation drawing No. 22430. All circuit protectors and wires were of the type and size as recommended and used by Piper. All units were functionally checked and compass calibrated where needed. Aircraft is equipped with 50 Amp generator. Total continuous electrical load was computed and found to be 28 Amps which is within allowable 30% of generator output.

Weight and Balance computed and equipment list changed.

Item	Weight	Arm	Moment
Aircraft	1738.0	82.6	143565.0
Meterola ADF-12-E added	27.0	121.6	3283.2
Narco Mark V & power supply	14.0	96.0	1344.0
Narco VOA-4 Omni indicator	2.9	13.0	37.7
King KX 130 Panel Unit	6.8	59.0	383.5
King KI 210 Omni, ILS Ind	2.0	13.0	26.0
King KS-501A Power Supply	3.2	163.0	521.6
Narco UDI-2 DME	15.8	107.5	1698.5
Narco MBT-12 Marker & Antenna	3.0	113.0	339.0
Narco VRP-37 Omni Ant.	1.0	268.0	268.0
Narco VTP-17 Whip Ant.	1.0	159.0	159.0
	1814.7		151625.5
<u>TM</u> = B.W.C.G.	<u>151625.5</u>	= 83.6" New Empty Wt. C. G.	
<u>TW</u>	<u>1814.7</u>		

New Empty Weight = 1814.7 lbs  
 New E. W. C. G. = 83.6"  
 New Useful load = 1085.3

\*If additional space is needed attach additional sheets bearing aircraft nationality and registration mark and date work completed.

Check block if additional sheets are attached.