



US Department of Transportation
Federal Aviation Administration

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

OMB No. 2120-0020
Exp: 5/31/2018

Electronic Tracking Number

For FAA Use Only

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

1. Aircraft	Nationality and Registration Mark N1SW	Serial No. 1452
	Make Grumman	Model G44A
2. Owner	Name (As shown on registration certificate) J P Air Inc	
	Address (As shown on registration certificate) Address 12920 Corporate Drive	
	City Cleveland	State Ohio
	Zip 44130-9312	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	<u>Grumman</u>	(As described in Item 1 above)	<u>1452</u>
<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. AP2028444
Name Bruce Bulloch		<input checked="" type="checkbox"/> U. S. Certified Mechanic	Manufacturer	
Address 5823 Rockport Lane		<input type="checkbox"/> Foreign Certified Mechanic		
City Fairview Park State Ohio		<input type="checkbox"/> Certified Repair Station		
Zip 44126 Country USA		<input type="checkbox"/> Certified Maintenance Organization		

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

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual
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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. AP2028444A	Signature/Date of Authorized Individual
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NOTICE

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

8: Description of Work Accomplished

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

N1SW

7-25-17

Nationality and Registration Mark

Date

Item #1 A 2.5" hole was cut in the leading edge of the right wing at RWS 35.5 to gain access to inspect the internal area around the front spar for corrosion. No corrosion was found.

Item #2 A skin repair was conducted in accordance with form 8110-3 document No. 17-07 Rev A. Dated 18 July 2017.

Item #3 This work is completed. The weight & balance is not affected by this repair.

Nothing Below This Line

Additional Sheets Are Attached

AW02



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

Form Approved
OMB No. 2120-0020
For FAA Use Only
Office Identification
CLE FSDO GL-25 *ja*

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)

1. Aircraft	Make Grumman	Model G-44A
	Serial No. 1452	Nationality and Registration Mark N1SW
2. Owner	Name (As shown on registration certificate) J.P. Air, Inc.	Address (As shown on registration certificate) 2419 East Ninth Street Cleveland, OH 44135

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 Steven Wesley O'Donnell 3901 Sherbrooke Oval Brunswick, OH 44212	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certified Mechanic <input type="checkbox"/> Foreign Certified Mechanic <input type="checkbox"/> Certified Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. 2677287
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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 02-22-02	Signature of Authorized Individual <i>Steven Wesley O'Donnell</i>
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7. Approval for Return to Service

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

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

Date of Approval or Rejection 2/24/02	Certificate or Designation No. 2028444	Signature of Authorized Individual <i>Bruce Bullhoff</i>
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RECEIVED
MAR 21 2002
CLE - GL25

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. Installed Insight Avionics, Inc. Strike Finder, model SF 2000 display and sensor (TSO-C110a). in accordance with Insight Strike Finder Manual Document No: 2000-10/Rev. 1.7, dated August 31, 1999, and AC 43.13-1B as a guide.

	p/n	s/n
Display	SF2000-021-009	7112
Sensor	SF2000-022	7604

2. Installed Flightcom model 403mc voice activated intercom in accordance with Flightcom installation/operation manual, and AC 43.13-1B as a guide.

	p/n	s/n
	101-0263-00	5991

END

Additional Sheets Are Attached

FAA



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

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification **VHC**
CLE FSDO GL25

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 GROMMAN	Model G44A
	Serial No. 1452	Nationality and Registration Mark N15W
2. Owner	Name (As shown on registration certificate) J.P. AIR INC	Address (As shown on registration certificate) 2419 EAST NINTH ST CLEVELAND OH 44115

3. For FAA Use Only

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration
AIRFRAME	~~~~~(As described in Item 1 above)~~~~~				
POWERPLANT					
PROPELLER					
APPLIANCE	Type Nav/Com	KX-170B	19418		X
	Manufacturer King				

6. Conformity Statement

A. Agency's Name and Address Laurence Aircraft Electronics, Inc. Akron-Canton Regional Airport Building #17 North Canton, OH 44720	B. Kind of Agency	C. Certificate No. Radio Class 1,2,3 CR1R07OK
	<input type="checkbox"/> U.S. Certificated Mechanic	
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input checked="" type="checkbox"/> Certified Repair Station	
	Manufacturer	

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

Date February 3, 1997	Signature of Authorized Individual Tim Alexander <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 Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify) FEB 16 1997 CLE-GL25
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection February 3, 1997	Certificate or Designation No. CR1R07OK	Signature of Authorized Individual Tim Alexander <i>[Signature]</i>		

NOTICE

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

ADDITIONAL

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 McCoy Avionics Corporation Mac 1700VTX S/N 5495 to this KX-170B S/N 19418 in accordance with McCoy Avionics Installation Manual, P/N 46-01445-000 dated October 1995, and MAC 1700X Top Assembly Drawing #8808-02, Revision 2, dated December 7, 1988. This is also in accordance with Master Drawing List Rev 1.03 dated December 7, 1988; or later FAA Approved Revisions and referenced to STC #SA1343GL dated December 2, 1988.

*****END*****

Additional Sheets Are Attached



US Department of Transportation
Federal Aviation Administration

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

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification
DTW FSDO G423

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 Grumman	Model G-44-A
	Serial No. 1452	Nationality and Registration Mark N15W
2. Owner	Name (As shown on registration certificate) J.P. Air Inc.	Address (As shown on registration certificate) 2419 East Ninth Street Cleveland, Ohio 44115

3. For FAA Use Only

The data/alteration identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in FAR 43 Section 43.7.

DATE: 1-10-96 SIGNATURE of FAA INSPECTOR:

4. Unit Identification

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

6. Conformity Statement

A. Agency's Name and Address Bruce Bulloch 4041 River Lane Rocky River, Ohio 44116	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certified Mechanic <input type="checkbox"/> Foreign Certified Mechanic <input type="checkbox"/> Certified Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. A&P 2028444
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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 12-12-95	Signature of Authorized Individual
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7. Approval for Return To Service

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

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 1-12-96		Certificate or Designation No. A&P 2028444IA		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.)

Item #1. Removed 4ea. "Hi-Back", standard cabin seats complete.

Item #2. Installed 2ea. Forward Facing, Cessna Cabin Seats P/N 501-4000-1, and 2ea. Aft Facing Cessna Cabin Seats P/N 501-4000-2. These seats were slightly modified to accommodate the installation on to the original airframe seat track.

This modification required moving the seat track "grippers" mounted to the seat base from a 12.5" width to a 10.5" width.. this change required welding 2ea. .75 X .75 X .049 X 4130 cond. N steel tubing to the two front legs and to the two rear legs of each seat using the standards set forth in AC 43.13-1A Sec. 2, Fig. 2.2 (Mil-E-23765/1B Class Mil-E-705-2) and simular to the cluster joint shown in Fig. 2.10.

The above discribed modification was accomplished using the standards set forth in AC 43.13-1A Chap. 2 and AC 43.13-2A chap. 1 as a guide.

The aircraft weight and balance data was updated to reflect this change.

----- Nothing Below This Line -----

Additional Sheets Are Attached

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 US Department of Transportation Federal Aviation Administration		MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		Form Approved OMB No. 2120-0020 For FAA Use Only Office Identification <i>CLG-F500</i> <i>AS</i>	
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 Grumman		Model G 44 A		
	Serial No. 1452		Nationality and Registration Mark N15W		
2. Owner	Name (As shown on registration certificate) J. P. Air Inc.		Address (As shown on registration certificate) 2419 East Ninth Street Cleveland, Ohio 44115		
	3. For FAA Use Only The alteration identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in FAR 43, sec. 43.17 <i>07/13/95</i> <i>[Signature]</i> FAA Inspector				
4. Unit Identification					
	Unit	Make	Model	Serial No.	5. Type
	AIRFRAME	(As described in Item 1 above)			XXXX
	POWERPLANT				
	PROPELLER				
	APPLIANCE	Type			
		Manufacturer			
6. Conformity Statement					
A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
Bruce Bulloch 4041 River Lane Rocky River, Ohio 44116		<input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer		A&P 2028444	
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 5-1-95		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) RECEIVED JUL 13 1995	
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group		
Date of Approval or Rejection 7-13-95		Certificate or Designation No. A&P2028444IA	Signature of Authorized Individual <i>[Signature]</i> CLG-GL25		

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.)

Item #1. Installed Pilot and CoPilot shoulder harness assemblies, Air Carrier Interiors, Inc. Style 3, including seat belt P/N C-1500-3 with P/N 500950-405 connector, P/N 500986-1 connector and P/N 442878 (3ea.) end fitting.

The original seat belt attachments for left and right seats were used as normal.

The single shoulder harness attachment at Sta. #12.0 was installed using a steel plate of 4130 cond. N by 125. X 3.0" X 7.0" mounted to the inner surface of Main Landing Gear Wheel Well supports on the left and right sides using 6ea. AN 220-832-10 structural screws, 6ea. AN 363-832 steel stop nuts and 12 ea. AN 960-8 washers per unit. (See attached photo).

This installation was accomplished using the methods discribed in AC 43.13 2A, Para. b. (4), and Figures 9.1 and 9.3 as a guide.

All work was accomplished using the guide lines in AC 43.13 1A Chap. 2 and AC 43.13 2A .

The weight and balance of this aircraft was not effected by this modification.

----- Nothing Below This Line -----

Additional Sheets Are Attached

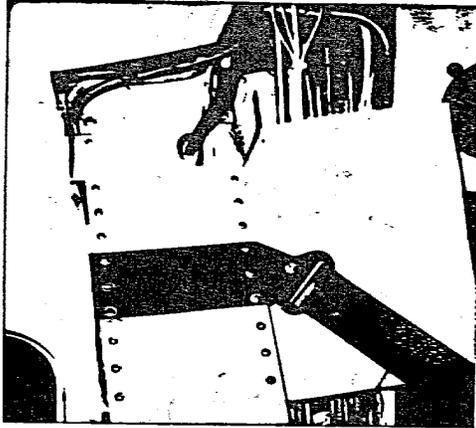


PHOTO #1

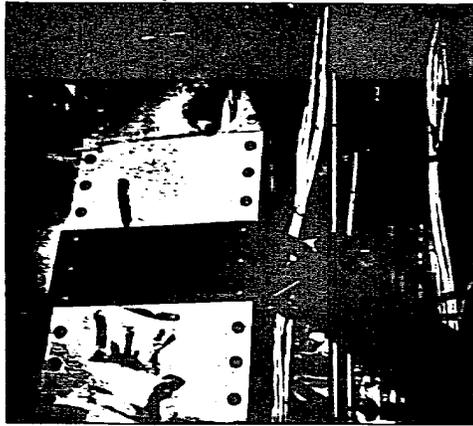
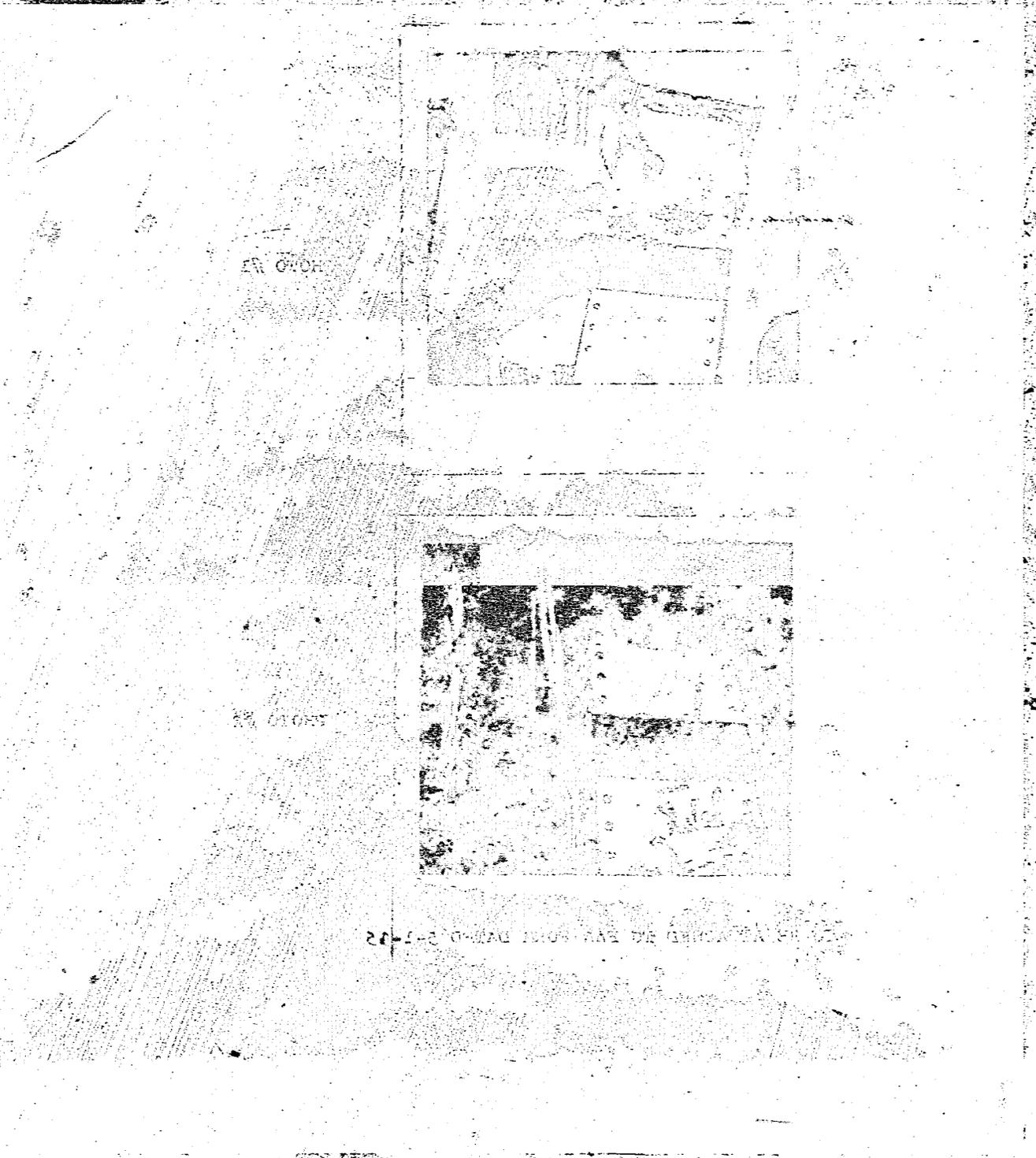


PHOTO #2

TO BE ATTACHED TO FAA FORM DATED 5-1-95



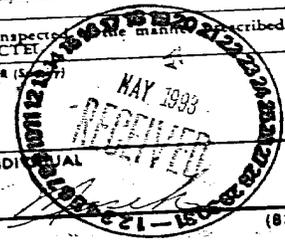
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U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 01-R060	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				FOR FAA USE ONLY	
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof)				OFFICE IDENTIFICATION CLEVELAND GL 25	
1. AIRCRAFT		MAKE Grumman	MODEL G 44A		
		SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N15W		
2. OWNER		ADDRESS (As shown on registration certificate) 2419 East 9 th Street Cleveland OH 44115			
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			7. CERTIFICATE NO.		
A. AGENCY'S NAME AND ADDRESS			B. KIND OF AGENCY		C. CERTIFICATE NO. A&P 1185634
Lawrence J Masek 8812 Torrance Ave Brooklyn OH 44144			<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 5/19/93		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Lawrence J Masek</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 described by the Administrator of the Federal Aviation Administration and is <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED <input type="checkbox"/> OTHER (Specify)					
BY	FAA FT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION		
	FAA DESIGNEE	REPAIR STATION	<input type="checkbox"/> CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION 5/19/93		CERTIFICATE OR DESIGNATION NO. 1185634		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Lawrence J Masek</i>	



NOTICE

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

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

THE FOLLOWING ITEMS REMOVED WILL BE REINSTALLED.

THESE ITEMS ARE LISTED ON THE EQUIPMENT LIST OF THE MCKINNON ENTERPRISES INC
 FAA APPROVED AIRPLANE OPERATING MANUAL AS THE FOLLOWING ITEMS.

- (1) ITEM 405 (2) (a) LEFT REAR PASSENGER SEAT - TECO 432 24 lbs @ +80.5 in
- (2) ITEM 405 (2) (2) (a) LEFT FRONT HASSOCK SEAT - MCKINNON DWG MPD 9000
 32 lbs @ 24.0 in

ITEM	WEIGHT	ARM	MOMENT
OLD E W	4246.95	+16.57	70388.55
SEAT	-24.0	+80.5	-1932.0
HASSOCK	-32.0	+24.0	-768.0

NEW EMPTY WEIGHT 4190.95
 NEW EMPTY WEIGHT CENTER OF GRAVITY +16.15
 NEW USEFUL LOAD 1309.05 LBS

NEW WEIGHT & BALANCE DATA ENTERED IN THE AIRCRAFT LOG BOOK
 CG LIMITS ARE +15.24 TO +21.0

IT IS THE PILOTS RESPONSIBILITY TO LOAD THIS AIRCRAFT SO AS TO REMAIN WITHIN THESE LIMITS. ----- END-----



FAA Form 337 (Rev. 11-19-77) - Weight and Balance Data

1. Description of Work Accomplished: (See text above)

2. Date of Work: 7-26-94

3. Name of Repair Station: MCKINNON ENTERPRISES INC

4. Name of Pilot: [Blank]

5. Name of Owner: [Blank]

6. Name of Operator: [Blank]

7. Name of Manufacturer: [Blank]

8. Name of Model: [Blank]

9. Name of Serial Number: [Blank]

10. Name of Registration Number: [Blank]

11. Name of Weight and Balance Data: [Blank]

12. Name of Weight and Balance Data: [Blank]

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94. Name of Weight and Balance Data: [Blank]

95. Name of Weight and Balance Data: [Blank]

96. Name of Weight and Balance Data: [Blank]

97. Name of Weight and Balance Data: [Blank]

98. Name of Weight and Balance Data: [Blank]

99. Name of Weight and Balance Data: [Blank]

100. Name of Weight and Balance Data: [Blank]

ADDITIONAL SHEETS ARE ATTACHED

 US Department of Transportation Federal Aviation Administration		MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		Form Approved OMB No. 2120-0020	
				For FAA Use Only Office Identifier FSDO <i>GLAS yos</i>	
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and 14 CFR 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	Grumman		Model	G44A
	Serial No.	1452		Nationality and Registration Mark	N1SW
2. Owner	Name (As shown on registration certificate)			Address (As shown on registration certificate)	
	J.P. Air, Inc.			2419 E. 9th Street Cleveland, Ohio 44113	
3. For FAA Use Only					
4. Unit Identification					
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in Item 1 above)			XXX	
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				
6. Conformity Statement					
A. Agency's Name and Address		B. Kind of Agency		C. Certificate No.	
Bruce Bulloch 4041 River Lane Rocky River, Ohio 44116		<input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer		A&P2028444	
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			
5-6-93		<i>Bruce Bulloch</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		
5-7-93		1A2134855	<i>John...</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.)

- Item # 1. Removed all fuel from Left & Right Wing fuel systems.
- Item # 2. Removed Engine Nacell Covers & Panels as necessary to gain access to areas of corrosion under fuel cells.
- Item # 3. Removed corroded plates & treated surrounding area.
- Item # 4. Installed repair plates in accordance with drawings & instructions issued by E. Kurath, D.E.R. 19, Jan., 1993 Drawing #93-03-01.
- Item # 5. All new metal was treated by anodizing in accordance with MIL-A-8625 Type 2. Process.

All work was accomplished using the standards set forth in AC 43.13 1A and AC 43.13 1A Chap.2 as a guide.

Nothing Below This Line

Additional Sheets Are Attached

FAA

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				FOR FA CLEVELAND	
				OFFICE IDENTIFICATION TS00	
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	GPURMAN	MODEL	G44A	
	SERIAL NO.	1452	NATIONALITY AND REGISTRATION MARK	N 1 SW	
2. OWNER	NAME (As shown on registration certificate)		ADDRESS (As shown on registration certificate)		
	J.P. AIR INC.		2419 East Ninth Street Cleveland, OH 44115		
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.	
Lawrence J. Masek Masek Aviation Inc. 8812 Torrance Avenue Brooklyn, OH 44144		<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		A & P 1185634	
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				
4/5/90	<i>Lawrence J. Masek</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	<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			
4/5/90	1185634	<i>Lawrence J. Masek</i>			

APR 1990
RECEIVED

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.)

N 1 SW AIRCRAFT TOTAL TIME 6951.2 HOURS

INSTALLED NARCO AR 850 ALTITUDE REPORTER SYSTEM NO. 03753-0302 USING NARCO AVIONICS INSTALLATION MANUAL NO. 03753-0620, AC 43-13-1A and 43-13-2A AS A GUIDE.

ENCODER S/N 50027 WAS MOUNTED ON TOP OF THE LEDGE IN THE NOSE COMPARTMENT WHERE OLD RADIO EQUIPMENT HAD BEEN REMOVED (.7 LBS @ -47.5) USING (4) 8-32 SCREWS AND RIVNUTS.

TEE INSTALLED IN STATIC SYSTEM AT THE ALTERNATE SOURCE VALVE WITH A HOSE TO THE ENCODER.

STATIC SYSTEM LEAK TESTED PER PART 43 APPENDIX E

CORRESPONDENCE TEST, SERVICE BULLETIN AT50A-5 AND REQUIREMENTS OF FAR 91-171 AND 91.172 WERE ACCOMPLISHED BY AIR OHIO CORP VKGR430K WO#20075. EQUIPMENT LIST REFLECTS THIS CHANGE. THE NEW WEIGHT AND BALANCE WAS ENTERED IN THE AIRCRAFT LOG BOOK.

NEW EMPTY WEIGHT 4246.95

EMPTY WEIGHT CENTER OF GRAVITY 16.57

MOMENT 70388.55

USEFUL LOAD 1253.05

ENCODER AR850 S/N 50027

TRANSPOWDER AT50A S/N 23193

- END -

ADDITIONAL SHEETS ARE ATTACHED

U. S. DEPARTMENT OF COMMERCE **MAR 30 1958** Form approved, Budget Bureau No. 41-80124
 CIVIL AERONAUTICS ADMINISTRATION

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

1. AIRCRAFT	MAKE Cessna	MODEL G44A	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N808W
2. OWNER	NAME (First, middle, last) Alpine Airways			
	ADDRESS (Street and number, city, zone and State) Box 503 Fitchburg, Massachusetts			

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) *****				XXX
b. POWERPLANT					
c. PROPELLER					
d. APPLIANCE	TYPE AND MANUFACTURER				

4. AIRCRAFT WEIGHT AND BALANCE DATA. 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.
 AFTER the repairs and/or alterations described below were made.

CATEGORY	EMPTY WEIGHT (Pounds)*	EMPTY CENTER OF GRAVITY (Inches from datum)*	USEFUL LOAD (Pounds)*
	4094.	+17.62*	Land & Sea 1406.

5. CONFORMITY STATEMENT (Complete and check)

a. AGENCY'S NAME AND ADDRESS Mattituck Airbase Corp. Linden Airport Linden, New Jersey	b. KIND OF AGENCY <input type="checkbox"/> U. S. Certificated Mechanic. <input type="checkbox"/> Foreign Certificated Mechanic. <input checked="" type="checkbox"/> Certificated Repair Station. <input type="checkbox"/> Manufacturer. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)	c. CERTIFICATE NO. 3569 Airframe Class 3 Unlimited
--	--	--

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.

3/24/58 (Date repair and/or alteration completed) *L. R. Schaffer*
(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 and is

APPROVED } BY { CAA Designee Manufacturer Canadian Department of Transport Inspector of Aircraft
 REJECTED } CAA Aviation Safety Agent Repair Station Other (Specify)

3/24/58 (Date of approval or rejection) *L. R. Schaffer*
(Signature of authorized individual; title or identification number)

7. TO BE COMPLETED ONLY BY CAA PERSONNEL

a. Forwarded for engineering comment See attached memorandum
 b. Accepted **4-9-58** (Date) Reinspected (Date) Spot Checked (Date)
1-18 (C.A.A. designation number) *Charles H. Lough*
(Signature Aviation Safety Agent)

179-5-22-58

REG. I NY
 ASDC 15

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 CAA 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.

1. Replaced main cabin chairs with two chairs, Teco Model TE 432, C.A.A. TSO C - Type 2 at Station +75, weight each 24 pounds. Replaced aux seat with one aux chair, McKinnon Model MPD 9000, C.A.A. TSO C39 at Station +24, weight 24 pounds, per previous approved Form ACA-337 on N57LM.
2. Installed auxiliary exit right side per Dwg. #4005G and approval S.T.C. SA4-63.
3. Installed Lear L-2 Auto Pilot per Lear Dwg. for Widgeon No. 91200E. Aircraft Specification 734, Rev. 13, Item 402A.
4. Installed 2 speakers and amplifier and switches.
5. Replaced interior fabrics, both front cabin windows, both pilots' side windows, and windshield.
6. Installed card table left-hand side cabin at Station +50", weight 15 pounds.

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Old Empty Weight	3978	17.01	67653.7
Lear L-2 including rack and amplifier	10	133.	1330.
2. Altitude Cont.	3	136.	408.
3. Pitch Trim Servo	3	115.	345.
4. Elev. & Rudder Follow-up & Support	2	138.	276.
5. Aileron Follow-up	1	35.	35.
6. 3 Axis Servo & Cables	14	-30.	- 420.
7. Control Box	2	-21.	- 42.
8. Dynamotor	8	-60.	- 480.
9. Approach Substitution Box	1	-65.	- 65.
10. Rudder Trim Indicator	1	-33.	- 33.
11. Wiring with Jaybox	16	+15.	240.
Speaker Amplifier	7	-62.	- 434.
Cabin Table	15	50.	750.
Aux. Exit	6	77.	462.
New Aux. Chair	24	25.	600.
2 New Cabin Chairs	48	75.	3600.
Old Aux Chair Removed	- 10	19.	- 190.
2 Old Cabin Chairs Removed	- 38	52.	-1972.
Switch Panel & Speaker	1	- 6.	- 6.
Cabin Speaker & Wiring	2	+37.	74.
TOTAL	4094.	+17.62"	72131.7
New Empty Weight	4094 lbs.		
New Empty Weight C.G.	+17.62"		
New Useful Load (Land & Sea)	1406 lbs.		
Maximum Weight Land & Sea	5500 lbs.		

*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.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Form Approved
Budget Bureau No. 04-R060.1
FOR FAA USE ONLY
OFFICE IDENTIFICATION: Columbus, Ohio

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

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 Grueman	MODEL G-44A
	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N 7 SW
2. OWNER	NAME (As shown on registration certificate) Rangt, John J.	
	ADDRESS (As shown on registration certificate) 42 East Gay Street Columbus, OH. 43215	

3. FOR FAA USE ONLY

The data identified herein complies with applicable airworthiness requirements and is approved only for the above described aircraft subject to conformity inspection by a person authorized in FAR 43.8
APPROVING INSPECTOR: *Robert Brown*
DATE: 12/30/86 AG-1550-12 Columbus Ohio

4. UNIT IDENTIFICATION

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Capital Aircraft Electronics, Inc. 4508 East 5th Ave. Port Columbus Int'l Airport Columbus, OH. 43219	B. KIND OF AGENCY		C. CERTIFICATE NO. 1106
	<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: December 17, 1986
SIGNATURE OF AUTHORIZED INDIVIDUAL: *R. L. Oates*

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 FT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION
	FAA DESIGNEE	XX REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT
DATE OF APPROVAL OR REJECTION January 6, 1987	CERTIFICATE OR DESIGNATION NO. 1106	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>R. L. Oates</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. The following equipment was installed in the aircraft:

P/N	NAME	LOCATION	DATA
II Morrow Apollo II Model 612	Loran "C"	Top Center Radio Panel	Ref: STC-SA3535NM A.C. 20-121 Sec. 6, 7, 8 and Appendix 1 II Morrow Apollo II 560-4000
RS08-001	Northern Airborne Technology NAV/LORAN CDI Switching Module	Forward Equipment Rack	II Morrow Install manual 560-4000 RS08-001 Manual Aug. 1985 Rev. 1.1
145-2101	Apollo II Loran "C" Remote annunciator Panel	Left Instrument Panel	II Morrow Install manual 560-4000
A-16	Loran "C" Antenna	On top of fuselage At station 22.0	

2. All of the above equipment was installed IAW 43.13-1A, Chapter 11 and A.C. 43.13-2A, Chapters 1, 2 and 3.

3. The II Morrow Apollo II Model 612 installation complies with the provisions of AC 20-121 Appendix 1. System was ground checked in accordance with para 2A. The aircraft was flight checked and found to meet VFR/IFR as out lined in A.C. 20-121 Paragraph 2D.

Pilot James S. Mill Certificate # 2266053

4. FAA approved Flight Manual Supplement.

Dated DEC 30 1986 required for this approval.

5. Instrument panel placarded "LORAN-C NOT APPROVED FOR APPROACH."

6. Electrical load check completed IAW AC 43.13-2 Chapter 2, Paragraph 27 and found to be within limits.

7. Weight and balance computed and entered in aircraft log.

ADDITIONAL SHEETS ARE ATTACHED

C-1	SUR	W	NR	N-1
C-2				N-2
C-3				N-3
C-4				N-4
C-5				N-5
JAN 08 1987 FAA - GL-FSD CMH BRANCH				
C-1	C-2	C-3	C-4	IFR

DEPARTMENT OF TRANSPORTATION
 FEDERAL AVIATION ADMINISTRATION

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

Form Approved
 Budget Bureau No. 04-R060.1
 FOR FAA USE ONLY
 OFFICE IDENTIFICATION O-62

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 Grumman Wigdean	MODEL G44A
	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N 1SW
2. OWNER	NAME (As shown on registration certificate) John J. Ranft	ADDRESS (As shown on registration certificate) 42 E. Gay St. Columbus, OH 43215

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 JAMES J. PALMER Fairfield Aviation 3430 Old Columbus Rd. Lancaster, Ohio 43130	B. KIND OF AGENCY		C. CERTIFICATE NO. A & P 122223103
	<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 August 25, 1986	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>James J. Palmer</i>
-------------------------	--

7. APPROVAL FOR RETURN TO SERVICE

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

BY	FAA P.T. 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 August 25, 1986	CERTIFICATE OR DESIGNATION NO. A12149711	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Rose Huff</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.)

All control surfaces stripped of old fabric, cleaned, inspected and primed with zinc chromate. 2 ea. ailerons, 2 ea. elevators, 1 ea. rudder. All surfaces covered with ceconite, and super seam cement, using ceconite procedure manual No. 101 under STC.SA1351 WE. Six coats Randolph Nitrate # 210 dope, Six coats Randolph Butyrate Non-Tautening W-8350 Dope. Five Coats of Silver non-tautening Butyrate. Work accomplished using 43-13-1.

end

O-1	SUPR	APS	M-1
O-2			M-2
O-3			M-3
O-4			M-4
O-5			M-5
O-6	C-1	C-2	C-3
			A-1

AUG 2 R 1986
 FAA GE-FSDO-65
 CMH BRANCH

ADDITIONAL SHEETS ARE ATTACHED

DEPARTMENT OF TRANSPORTATION
 FEDERAL AVIATION ADMINISTRATION

Form Approved
 Budget Bureau No. 04-R060.1

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

FOR FAA USE ONLY
 OFFICE IDENTIFICATION - GAD0-7
 Columbus, Ohio

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 C-182A
	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N-1573
2. OWNER	NAME (As shown on registration certificate) John J. Rahn	ADDRESS (As shown on registration certificate) 42 East Gay Street Columbus, Ohio 43215

3. FOR FAA USE ONLY

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Capital Aircraft Electronics, Inc. 4808 E. Fifth Avenue Columbus Int'l Airport Columbus, Ohio 43219	B. KIND OF AGENCY	C. CERTIFICATE NO. 1106
	<input type="checkbox"/> U.S. CERTIFICATED MECHANIC	
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION	
MANUFACTURER		

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

DATE March 11, 1983	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 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 March 11, 1983	CERTIFICATE OR DESIGNATION NO. 1106	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.

B. 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 Lear L-2 Autopilot. Removed Gyro Horizon and Directional Gyro. Removed King KI-201C Nav Indicator.
2. Installed Collins 331A-3G Course Indicator in left instrument panel.
 Installed Collins 323A-2G Flux Detector in left wing.
 Installed Collins 332E-4 Directional Gyro, Collins 325A-3G Slaving Accessory, Flite-Tronics PC6B Voltage Converter, King KN-72 VOR/LOC Converter and King KN-75 Glideslope Receiver in forward baggage compartment. All of the above installed in accordance with AC 43.13-2, Chapter 2.
3. Installed Edo-Hite Mitchell Century III Autopilot with radio coupler in accordance with STC# SA3186SW-D and manufactures drawings.
4. Installed Narco Glideslope Antenna on upper fuselage at station -2.0 in accordance with AC 43.13-2, Chapter 3.
5. All fuses, circuit breakers, switches, wires and methods of installation are in accordance with AC 43.13-1, Chapter 11, Sections 2 and 3.
6. Electrical load check completed in accordance with AC 43.13-2, Chapter 2, Paragraph 27 and is within limits.
7. Moment 70581.6 = Empty Weight CG 16.64 = New Useful Load 1259.25
 Weight 4240.65

END.

1	CHIEF	✓	APS	✓
2	RECEIVED			
3	APR 15 1983			
4	FAA EL-GADO-7			
5	✓			

ADDITIONAL SHEETS ARE ATTACHED

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)			
FOR FAA USE ONLY			
OFFICE IDENTIFICATION 7-8-05			
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 Grumman	MODEL G-44A	
	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N15W	
2. OWNER	NAME (As shown on registration certificate) Ranfjt John J	ADDRESS (As shown on registration certificate) 42 East Gay St. Columbus, Ohio 43215	
3. FOR FAA USE ONLY			
4. UNIT IDENTIFICATION			5. TYPE
UNIT	MAKE	MODEL	SERIAL NO.
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.
Hill Air Co., Inc. 4300 S.w. 12th Terrace Fort Lauderdale, Fla. 33335		<input type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	CRS 705-80
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		
1-24-78	Victor Kaloski		
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
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT
DATE OF APPROVAL OR REJECTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL	
1-24-78	CRS 705-80	Victor Kaloski	

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.)

Repaired the right float attachments by installing the following new parts: 1 ea. forward strut, p/n 17586; 1 ea. rear strut, p/n 17587; 1 ea. drag tie rod, p/n 17592-3; 1 ea. anti-drag tie rod, p/n 17592-4; 2 ea. front tie rod, p/n 17592-1; 2 ea. rear tie rods, p/n 17592-2; 2 ea. strut brackets, p/n 17041-1. The new parts installed in accordance with Grumman Widgon G-44A Service Manual.

Repaired the outboard right wing by installing the following new parts: 1 ea. wing tip, p/n 17050-8; 1 ea. rib, p/n 17055; 1 ea rib, p/n 17053 and manufactured 2 ea. 27" x 10.5" of .032" 2024T3 aluminum and installed on top and bottom of right wing from next to last to the last rib and from the middle spar to the trailing edge. Repair accomplished in accordance with AC 43.13-1A; Chapter 2; section 3.

Repaired the right aileron by manufacturing a trailing edge of 2024T3 aluminum, the same thickness as original and installing from outboard of aileron, 20 inches inboard. Repair accomplished in accordance with AC 43.13-1A; Chapter 2; Section 3 and similar to Fig. 2.23.

The outboard right aileron was recovered with Ceconite 101 fabric from the fourth rib to outboard on top and bottom using six coats of Brushed CAB clear dope and twelve coats of sprayed CAB aluminum dope. Repair accomplished in accordance with Ceconite Procedure Manual #101, Chapter 11 and with AC 43.13-1A; Chapter 3; Sections 1, 2 and 3.



ADDITIONAL SHEETS ARE ATTACHED

Posted

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		Form Approved Budget Bureau No. 04-R060 1 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 Grumman	MODEL G44A	NATIONALITY AND REGISTRATION MARK N 808W
	SERIAL NO. 1452		
2. OWNER	NAME (As shown on registration certificate) John J. Ranft		ADDRESS (As shown on registration certificate) 42 E. Gay Street Columbus, Ohio
	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		
5. TYPE			
			X
6. CONFORMITY STATEMENT			
A. AGENCY'S NAME AND ADDRESS		B. KIND OF AGENCY	
Robert H. Razy 104 Beley Avenue Mattydale, New York 13211		<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	
		<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
		<input type="checkbox"/> CERTIFICATED REPAIR STATION	
		<input type="checkbox"/> MANUFACTURER	
		C. CERTIFICATE NO. A&P 1104338 AI	
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 30, 1974	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Robert H. Razy</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
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT
DATE OF APPROVAL OR REJECTION January 30, 1974	CERTIFICATE OR DESIGNATION NO. A&P1104338 A&I	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Robert H. Razy</i>	

1 FEB 01 1974
R-20

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)				FOR FAA USE ONLY	
				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	Grumman	MODEL	G44A	
	SERIAL	1852	NATIONALITY AND REGISTRATION MARK	N808W	
2. OWNER	NAME (As shown on registration certificate)		ADDRESS (As shown on registration certificate)		
	John J Ranft		42 East Gay Street Columbus, Ohio 43215		
3. FOR FAA USE ONLY					
4. UNIT IDENTIFICATION					
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				
6. CONFORMITY STATEMENT					
A. AGENCY'S NAME AND ADDRESS		B. KIND OF AGENCY		C. CERTIFICATE NO.	
Capital Aircraft Electronics Inc 4808 East Fifth Ave Port Columbus International Air X Columbus Ohio 43219		<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		#1106	
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	November 2 1973	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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION	OTHER (Specify) #1106	
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT		
DATE OF APPROVAL OR REJECTION	November 2 1973	CERTIFICATE OR DESIGNATION NO.	#1106	SIGNATURE OF AUTHORIZED INDIVIDUAL	

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		FOR FAA USE ONLY	
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.		OFFICE IDENTIFICATION AGL - GADO - 7 Columbus, Ohio	
1. AIRCRAFT	MAKE Grumman	MODEL C44A	
	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N 808W	
2. OWNER	NAME (As shown on registration certificate) John J. Ranft	ADDRESS (As shown on registration certificate) 42 East Gay Street Columbus, Ohio 43215	
	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		
5. TYPE			
			REPAIR ALTERATION
			XX
6. CONFORMITY STATEMENT			
A. AGENCY'S NAME AND ADDRESS		B. KIND OF AGENCY	C. CERTIFICATE NO.
Capital Aircraft Electronics, Inc. 4808 East Fifth Avenue Port Columbus International Airport Columbus, Ohio 43219		<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	#1106
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		
April 20, 1973	<i>R. L. Ruter</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
	FAA DESIGNEE <input checked="" type="checkbox"/>	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT
			OTHER (Specify) #1106
DATE OF APPROVAL OR REJECTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL	
April 20, 1973	#1106	<i>R. L. Ruter</i>	

FEDERAL AVIATION AGENCY 20 JUL 1966

Verified by *ASAC #100* REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
Budget Bureau No. 04-R060.1
FOR FAA USE ONLY
OFFICE IDENTIFICATION
EA-6400-1

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 Grumman	MODEL G44A
	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N808W
2. OWNER	NAME (As shown on registration certificate) C.G. Suits	
	ADDRESS (As shown on registration certificate) c/o General Electric Company P.O. Box 1088, Schenectady, New York	

3. FOR FAA USE ONLY *12301*

The data identified herein complied with applicable airworthiness requirements and is approved only for the above-described aircraft subject to conformity inspection by a person authorized in CAR 18.11(b).

APPROVING INSPECTOR *R. J. [Signature]*
DATE **6-10-66**

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
William E. Nichols 47 Pashley Road Scotia, New York	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	A&P1273129
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input type="checkbox"/> MANUFACTURER	

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

DATE June 10, 1966	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>William E. Nichols</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 Agency and is APPROVED 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 6/10/66	CERTIFICATE OR DESIGNATION NO. IA1273129	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>William E. Nichols</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.

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

Installed Curtiss Wright windshield wiper P/N A2-01335 S.T.C.#SA2-1533. Manufactured bracket for converter unit and secured to fire wall with six AN3 bolts and locknuts. Secured converter unit to bracket as per manufactures instructions. Electric motor is mounted on a 1/8" aluminum plate which is secured to ships structure with two AN3 bolts & locknuts. Installed toggle switch & 10amp circuit breaker in pilots over head panel. Unit wired according to manufactures instructions. Installed placard reading " Do Not Operate Wiper When traveling over 150MPH." Installed anchor and mount to two 2" x 2" x .125 aluminum angles with four #10 screws & locknuts. Angles were bolted to ships structure with four AN3 bolts & locknuts. Removed Hayes wheels & brakes & installed Cleveland wheels & brakes. Removed old rug & installed new rug, secured to floor with snap fastners. Removed right rear seat & tracks. Installed radio cover in bow compartment.

<u>ITEM</u>	<u>WEIGHT</u>	<u>ARM-</u>	<u>MOMENT</u>
Old E.W.	4102	/ 16.48	/ 67600.96
Remove:			
Hayes Wheels & Brakes	- 38	/ 6	- 228.00
Rug	-32	/ 48	- 1536.00
Rear Seat	-26	/ 52	- 1352.00
Rear Seat tracks	- 2	/ 62	- 124.00
Add:			
Wiper motor	/ 2	- 62	- 124.00
Wiper Converter	/ 3	- 47	- 141.00
Anchor & mount	/ 5	- 84	- 420.00
Cleveland Wheels & brakes	/ 48	/ 6	/ 288.00
Rug	/ 20	/ 48	/ 960.00
Radio Cover	/ 1.5	- 62	- 93.00
	<u>4083.5</u>	<u>/ 15.88</u>	<u>/ 64830.96</u>

New E.W. 4083.5 lbs
 New E.W.C.G. / 15.88
 Useful load 1416.5 lbs.

ADDITIONAL SHEETS ARE ATTACHED

1049 1452-37 Apr 4

FEDERAL AVIATION AGENCY MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		Form Approved Budget Bureau No. 04-R060.1		
		FOR FAA USE ONLY OFFICE IDENTIFICATION EA-6400-1		
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) instructions and disposition of this form.				
1. AIRCRAFT	MAKE	GRUMMAN	MODEL	G-44
	SERIAL NO.	1452	NATIONALITY AND REGISTRATION MARK	N-808W
2. OWNER	NAME (As shown on registration certificate) Akwasine Flying Service		ADDRESS (As shown on registration certificate) Box 427, Northville, New York	
3. FOR FAA USE ONLY				
The date 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 CAR 18.11(b). APPROVING INSPECTOR <i>R. Knittel Jr.</i> DATE <i>2-25-66</i>				
4. UNIT IDENTIFICATION				
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE
AIRFRAME	***** (As described in item 1 above) *****			REPAIR ALTERATION
POWERPLANT				
PROPELLER				
APPLIANCE	TYPE			
	MANUFACTURER			
6. CONFORMITY STATEMENT				
A. AGENCY'S NAME AND ADDRESS		B. KIND OF AGENCY		C. CERTIFICATE NO.
Page Airways, Inc. Albany, New York		U.S. CERTIFICATED MECHANIC		1070
		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			
2/25/66	<i>Charles J. Ornell</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 Agency 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	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL		
<i>2/24/66</i>	1070	<i>E. J. ... CHIEF INSP.</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 the following equipment and associated wiring:

Narco VTR-1 with power supply and antenna
Auto Pilot Dynamotor
Speaker Amplifier, Cabin Speaker
A.R.C. MB 3 Revr.
R.89B - Glideslope Revr.
DY 20 Dynamotor
PV 2 Dynamotor
Sapphire Trans, Revr.
A.R.C. R-30 A.D.F.
A.R.C. R-13-B Revr.
A.R.C. C-59 Loop.
A.R.C. Omni Indicator

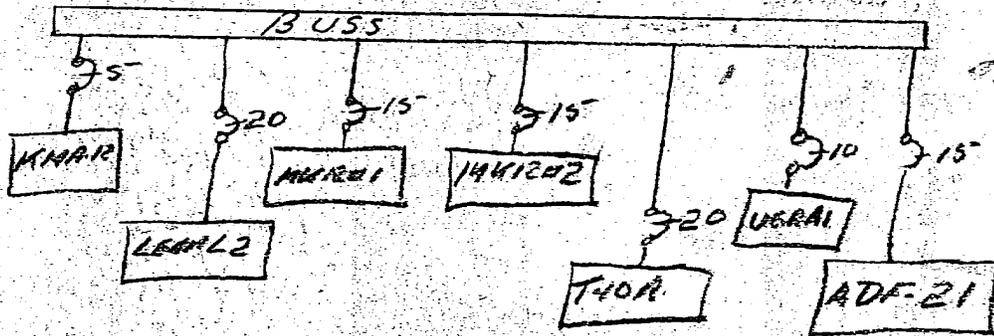
Installed the following equipment:

2 MK 12A Transceivers with Pwr. Supply
KMA-12 Iso Amp.
VOA-5 VOR-ILS Converter
VOA-4 VOR Converter
UGRA1 Glideslope Revr.
T-10R HF Transceiver
AC 10 HF Loading Unit
H.F. Control Head and Tuning Meter
VCA-1 Antennas -2ea
A.D.F. Anti Precip. Antenna
Flightronics Power Converter
VMA-1 MKR Antenna

The VOA-4 and VOA-5 are installed in existing instrument panel outlets and the two MK 12A panel units and the KMA-12 are installed in a fabricated radio panel reinforced with 3/4"x1" structural aluminum angle to Stn. # 8. The two MP 12A power supplies, the UGRA1 and the flitronics power converter are installed on the floor of the nose baggage compartment and attached by means of 8/32 screws and rivnuts. The T-10R is installed under the copilot's seat and attached to the floor by means of 8/32 screws and rivnuts. The HF control head and tuning meter are installed in the right overhead panel. The AC 10 HF loading unit is attached to the top skin between stns. 16 & 17 by means of 10/32 screws and nuts. The VCA-1 antenna is installed in the forward top fuselage and the other VCA-1 antenna is installed in the aft top fuselage. The H.F. anti precip. antenna is installed from the center fuselage to the vertical stabilizer to the right wing tip. The A.D.F. anti precip. antenna is installed from the top fuselage to the right horizontal stabilizer. All of the above equipment is installed in accordance with manufacturers recommendations using factory supplied cables and cable built to

ADDITIONAL SHEETS ARE ATTACHED.

factory specifications. This installation was static load tested and conforms to F.A.A.-23.561. This aircraft was weighed after installation was completed and the E.W. center of gravity was found to be 16.48" aft of datum. New aircraft useful load is 1398 pounds. The electrical load is within 80% of generator output, which is 100 amps for two engines, for single engine operation pilot must consult electrical load analysis chart.



877 1001

DEC 21 1964

Form approved Budget Bureau No. 04-R060.				
filed by Oper #36 FEDERAL AVIATION AGENCY				
MAJOR REPAIR AND ALTERATION FORM (AIRFRAME, POWERPLANT, PROPELLER OR APPLIANCE)				
1. AIRCRAFT	MAKE Crumman	MODEL C-44A	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N8087
2. OWNER	NAME (First, middle, last) Akwasasne Flying Service		ADDRESS (Street and number, city, zone and State) P.O. Box 358 Northville, N.Y.	
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) *****			X
b. POWERPLANT	No alteration identified herein complies with the requirements of Part 18 of the U. S. Civil Air Regulations and is approved only for the above described aircraft subject to conformity inspection by a person authorized in FAR 18.11(d).			
c. PROPELLER				
d. APPLIANCE	TYPE AND MANUFACTURER	APPROVING INSPECTOR <i>A. S. M. Hulse</i> 12/21/64		
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	4141.0	16.8"	1359.0	
5. CONFORMITY STATEMENT (Complete and check)				
a. AGENCY'S NAME AND ADDRESS		b. KIND OF AGENCY		c. CERTIFICATE NO.
Reading Aviation Service, Inc. P.O. Box 1201 Municipal Airport Reading, Pennsylvania		<input type="checkbox"/> U. S. Certificated Mechanic. <input type="checkbox"/> Foreign Certificated Mechanic. <input checked="" type="checkbox"/> Certificated Repair Station. <input type="checkbox"/> Manufacturer. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)		3535
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.				
10 December 1964 (Date repair and/or alteration completed)		Charles D. Helm Charles D. Helm (Reg. 1293693) (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				
6 <input checked="" type="checkbox"/> APPROVED } BY { <input type="checkbox"/> FAA Designee <input type="checkbox"/> Manufacturer <input type="checkbox"/> Canadian Department of Transport Inspector of Aircraft <input type="checkbox"/> REJECTED } <input type="checkbox"/> FAA Flight Standards Inspector <input checked="" type="checkbox"/> Repair Station <input type="checkbox"/> Other (Specify)				
10 December 1964 (Date of approval or rejection)		Harold S. Newcomer Harold S. Newcomer - Chief Inspector (Signature of authorized individual; title or identification number)		
7. TO BE COMPLETED ONLY BY FAA PERSONNEL				
a. <input type="checkbox"/> Forwarded for engineering comment <input type="checkbox"/> See attached memorandum				
b. <input checked="" type="checkbox"/> Accepted 12/21/64 (Date) <input type="checkbox"/> Reinspected (Date) <input type="checkbox"/> Spot Checked (Date)				
EASTERN REGION (FAA designation number) 6400		1-03 <i>A. S. M. Hulse</i> (Signature Flight Standards Inspector)		

No. 3

ACRC 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.

B. DESCRIPTION OF WORK ACCOMPLISHED.

Narco 1016 Transceiver relocated from aft fuselage to nose compartment. Unit attached to existing flooring structure by installation of Rivnuts and 832 screws.

There has been no electrical load change or weight change resulting from this relocation.

The C.G. change has been computed as follows:

	Weight	Arm	Moment
Aircraft empty weight	4141.0	17.6	73,256.5
Removed Narco 1016 Transceiver	- 19.0	124.0	- 2,356.0
Installed Narco 1016 Transceiver	19.0	- 67.0	- 1,273.0
Totals	4141.0		69,627.5

Aircraft empty weight 4141.0 lbs.

Aircraft empty weight C.G. $\frac{69,627.5}{4141} = 16.8"$

Useful load 1359.0 lbs.

C.G. range 14.8 to 22.5

Work has been done in accordance with the requirements as set forth in CAM-18 and CAR-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.

U. S. DEPARTMENT OF COMMERCE
 CIVIL AERONAUTICS ADMINISTRATION
 AUG 12 1957
 Form approved by Post Bureau No. 41-2002-4

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

1. AIRCRAFT MAKE <i>Grumman</i>	MODEL <i>G44A</i>	SERIAL NO. <i>1452</i>	NATIONALITY AND REGISTRATION MARK <i>NFOFN</i>
2. OWNER MAKE (First, middle, last) <i>Alpine Airways Inc.</i>		ADDRESS (Street and number, city, zone and State) <i>Box 503 Fitchburg, Mass</i>	

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) *****				<input checked="" type="checkbox"/>
b. POWERPLANT					
c. PROPELLER					
d. APPLIANCE	TYPE AND MANUFACTURER				

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)*
	<i>3978.0</i>	<i>+ 17.01</i>	<i>1022 lbs Land & Sea</i>

5. CONFORMITY STATEMENT (Complete and check)

a. AGENCY'S NAME AND ADDRESS <i>Mattituck Airbase Corp. Linden Airport Linden, N. J.</i>	b. KIND OF AGENCY <input type="checkbox"/> U. S. Certificated Mechanic. <input type="checkbox"/> Foreign Certificated Mechanic. <input checked="" type="checkbox"/> Certificated Repair Station. <input type="checkbox"/> Manufacturer. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)	c. CERTIFICATE NO. <i>2569 Airframe Class 3 Unlimited</i>
---	--	--

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.

8/15/57
 (Date repair and/or alteration completed) *Antonie H. Schradt*
 (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 and is

APPROVED } BY CAA Designee Manufacturer Canadian Department of Transport Inspector of Aircraft
 REJECTED } CAA Aviation Safety Agent Repair Station Other (Specify)

8/15/57
 (Date of approval or rejection) *Antonie H. Schradt*
 (Signature of authorized individual; title or identification number)

7. TO BE COMPLETED ONLY BY CAA PERSONNEL

Forwarded for engineering comment See attached memorandum
 Accepted AUG 15 1957 (Date) Reinspected (Date) Spot Checked (Date)
NY 257-18
 (CAA designation number) *Jules De Crescenzo*
 (Signature of authorized individual; title or identification number)
 (Aviation Safety Agent)

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

Handwritten signature

81-00094

INSTRUCTIONS

AUG 12 1957

This form must be completed and 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 CAA 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:

An alternate vacuum system was installed, as shown in sketch below, to provide an emergency vacuum system as required under Civil Air Regulations in case of engine driven vacuum pump failure. Installed placard to read "Emergency Vacuum".

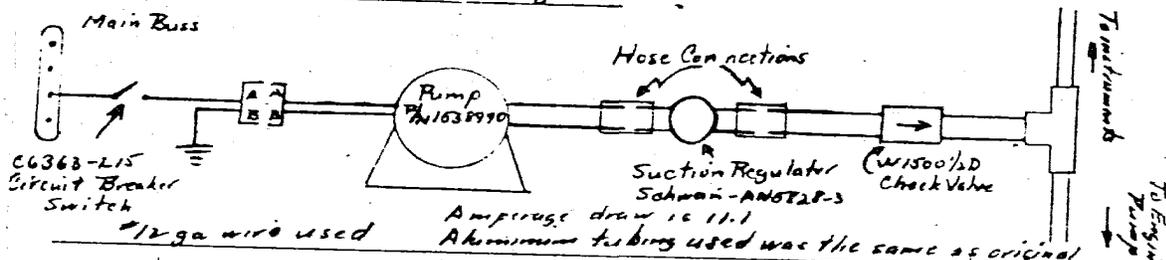
An alternate inverter was installed in the remote compass circuit and the inverter switch was changed from an AN 3021-2 to an AN 3027-1.

All work was done in accordance with CAM-18 and manufacturers specifications.

Weight and Balance Computations

	Weight	Arm	Moment
Old Empty Weight	3960.5	+17.3	68516.7
1 Remote Compass Inverter	1.5	-47.0	-70.5
1 Electric Driven Vacuum pump #N1538990 and regulator	13.5	-50.0	-675.0
Lines, check valve etc.	2.5	-47.0	-117.5
New Empty Weight	3978.0		67653.7
New Empty Weight C.G.	$\frac{67653.7}{3978.0} = 17.01$		
New Useful Load	5500 - 3978 = 1522 lbs.	Land + Sea.	
C.G. Range	Forward +15.24		
	Rearward +21.23		

Schematic of Alternate Vacuum System



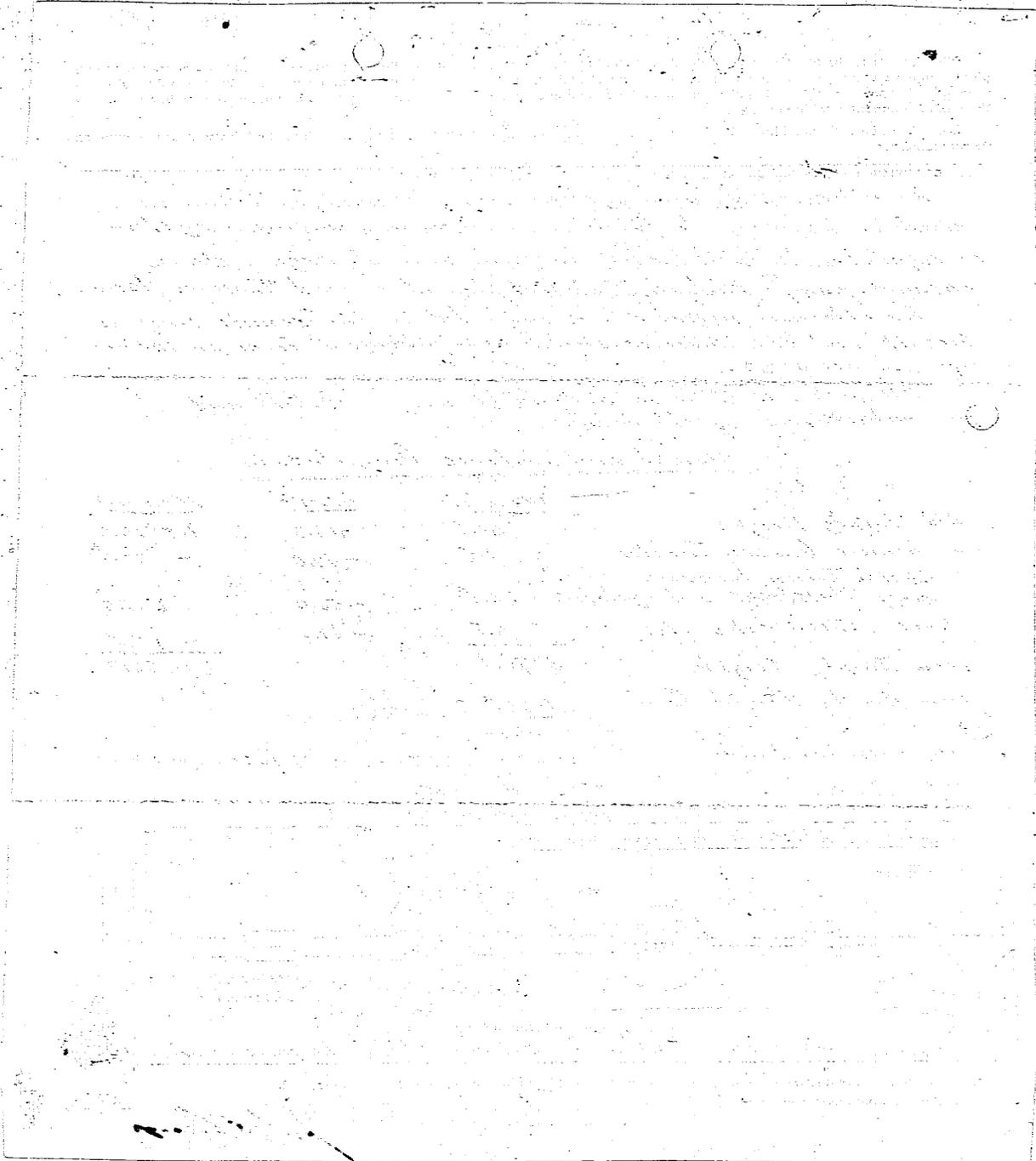
*If additional space is needed attach additional sheets bearing aircraft nationality and registration mark and date work completed.

Check block if additional sheets are attached.

AUG 15 1957

Jules De Crescenzo

Reg. 1 NY
ASDQ 18



MAP - 6 1057
 Form approved.
 Budget Bureau No. 41-R0524

U. S. DEPARTMENT OF COMMERCE
 CIVIL AERONAUTICS ADMINISTRATION

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

1. AIRCRAFT	MAKE Grueman	MODEL G44A	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK NB08W
2. OWNER	NAME (First, middle, last) Alpine Airways Inc.		ADDRESS (Street and number, city, zone and State) Box 303 Fitchburg, Mass.	

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) *****				XXX
b. POWERPLANT					
c. PROPELLER					
d. APPLIANCE	TYPE AND MANUFACTURER				

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)*
	3960.5	17.3	1539.5

5. CONFORMITY STATEMENT (Complete and check)

a. AGENCY'S NAME AND ADDRESS Mattituck Airbase Corp. Linden Airport Linden, N. J.	b. KIND OF AGENCY <input type="checkbox"/> U. S. Certificated Mechanic. <input type="checkbox"/> Foreign Certificated Mechanic. <input checked="" type="checkbox"/> Certificated Repair Station. <input type="checkbox"/> Manufacturer. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)	c. CERTIFICATE NO. 3569
---	--	-----------------------------------

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.
 Date repair and/or alteration completed: **2/28/57**
 Signature of authorized individual: **J. R. Schaffer**

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 and is

APPROVED } BY { CAA Designee Manufacturer Canadian Department of Transport Inspector of Aircraft
 REJECTED } CAA Aviation Safety Agent Repair Station Other (Specify)

Date of approval or rejection: **2/28/57**
 Signature of authorized individual, title or identification number: **J. R. Schaffer**

7. TO BE COMPLETED ONLY BY CAA PERSONNEL

a. Forwarded for engineering comment See attached memorandum

b. Accepted **3-6-57** (Date) Reinspected (Date) Spot Checked (Date)

CAA designation number: **N4257-18**
 Signature Aviation Safety Agent: **[Signature]**

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 CAA 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:

1. Fabric from wing panels removed and replaced with metal skin .025 Alclad 24ST-3. Work and materials per ACA-337 and attached drawings for Widgeon N70060 Serial #1314 by Win Air Service, Syracuse, New York, approved by F. Schmidt 11/10/54.
2. Fabric from wing flaps removed and covered with .025 24ST-3 Alclad skin. All work and material per Win Air Service ACA-337 approved by G. M. Marzio 3/28/55.
3. Installed dual generator system by adding 50-amp generator (Leece Neville Part #24500), voltage regulator and cut out relay, and with paralleling circuit, per ACA-337 by Win Air Service approved by F. Schmidt 2/14/55.
4. Installed auxiliary gas tanks per kit and drawings supplied by McKinnon Enterprises, Supplementary Type Certificate #SA-4-62.
5. Altered landing gear and modified hull for 5500 lbs. maximum weight land and water per drawings and kit supplied by McKinnon Enterprises (Supplementary Type Certificate #SA-4-61 and Supplementary Type Cert. #SA-4-60).
 (Water) (Land)
6. Installed Grimes D-7080-2-12 Rotating Beacon 12 volts at 7.5 amps, supplied from ship's buss to 10 amp circuit breaker, to switch, to beacon, wire size #14. Weight 2 pounds at +238".
7. Installed spray rails on both chines, weight 8 lbs. at -71".
8. Recovered ailerons, elevator and rudder with linen fabric, 12 coats nitrate dope, 1 coat primer and 1 coat enamel.
9. Installed the following radio:
 MB3-ARC Marker Beacon and Dynamotor
 Glide Slope Receiver R89B and Dynamotor
 VHF-ARC OMNI Rec. R13B and R13A Converter.
 ADF ARC R-30 with P-14 Power Unit.
10. Removed Lear ADF12, Power Unit and NARCO Simplexer.
11. Stipped and painted aircraft with Dulux enamel. Registration number changed from N86626 to N808W.

*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.

UNITED STATES OF AMERICA — FEDERAL AVIATION AGENCY
STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS N808W	2. MANUFACTURER AND MODEL GRUMMAN RA44A	3. AIRCRAFT SERIAL NUMBER 10852	4. CATEGORY NORMAL
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5. AUTHORITY AND BASIS FOR ISSUANCE
 This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness requirements prescribed by Article 8 to the Convention on International Civil Aviation, except as noted herein.
NONE

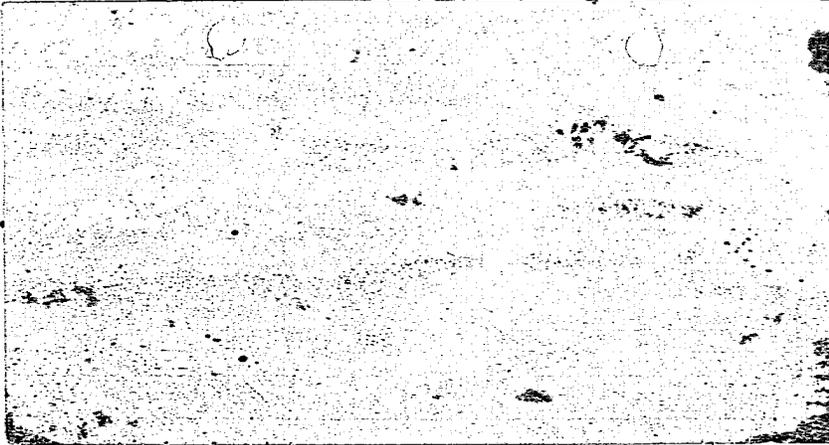
6. TERMS AND CONDITIONS
 Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventive maintenance, and alterations are performed in accordance with Parts 43, 43A, and 43B of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE EXCHANGE 2/20/57	FAA REPRESENTATIVE UTHER H. TAYLOR	DESIGNATION NUMBER PDA GADU 4-3-10
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Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 1362 (7-65) 0052-040-8000 (8-66)

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81



UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION
STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS N808W	2. MANUFACTURER AND MODEL GRUMMAN G44A	3. AIRCRAFT SERIAL NUMBER 152	4. CATEGORY NORMAL
5. AUTHORITY AND BASIS FOR ISSUANCE This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft is shown to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex B to the Convention on International Civil Aviation, except as noted herein. Exceptions:			
6. TERMS AND CONDITIONS Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventive maintenance, and alterations are performed in accordance with Part 43, 43A, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.			
DATE OF ISSUANCE REPLACEMENT 02/20/57	FAA REPRESENTATIVE PAUL J. SCHMIDT	DESIGNATION NUMBER AGL-GADO-7	

Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

Form Approved. Budget Bureau No. 41-R041.5.

**APPLICATION FOR AIRWORTHINESS CERTIFICATE
AND/OR ANNUAL INSPECTION OF AN AIRCRAFT**

INSTRUCTIONS
Please print or type. Submit this form to the
Civil Aeronautics Administration Aviation Safety
Field Representative.

1. TYPE OF APPLICATION (Check which)

- a. ORIGINAL ISSUANCE OF CERTIFICATE
 b. ANNUAL INSPECTION FOR RENEWAL OF CERTIFICATE
 c. AMENDMENT OR MODIFICATION OF CURRENT CERTIFICATE
 d. RECERTIFICATION UNDER THE PROVISIONS OF CAR 8
 e. MULTIPLE CERTIFICATE UNDER THE PROVISIONS OF CAR 8
 f.

2. AIRWORTHINESS CLASSIFICATION (Check appropriate item(s))

It is requested that the Certificate of Airworthiness be issued to permit operation of the aircraft in the following airworthiness classification(s):

- a. STANDARD (NORMAL UTILITY, ACROBATIC, TRANSPORT CATEGORIES)
 b. LIMITED (SEE CAR 9)
 c. RESTRICTED (SEE CAR 8)
 (Check the restricted special purpose operation(s) to be conducted)
 AGRICULTURAL AND PEST CONTROL
 AERIAL ADVERTISING
 AERIAL SURVEYING
 GLIDER TOWING
 PATROLLING
 FOREST AND WILDLIFE CONSERVATION
 WEATHER CONTROL
 OTHER
 d. EXPERIMENTAL
 (Check the type of experimental operation(s) to be conducted)
 RESEARCH AND DEVELOPMENT
 AMATEUR-BUILT
 DEMONSTRATION
 RACING
 EXHIBITION
 OTHER

3. AIRCRAFT IDENTIFICATION (Complete all items)

a. AIRCRAFT MAKE Grumman	b. AIRCRAFT MODEL G44A	c. AIRCRAFT SERIAL NO. 1452
d. ENGINE MAKE Lycoming	e. ENGINE MODEL GO-480-B1B	

4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)

a. REGISTERED OWNER'S FULL NAME Alpine Airways Inc.	b. PERMANENT MAILING ADDRESS Fitchburg, Mass.	c. AIRCRAFT NATIONALITY AND REGISTRATION MARK 15W N-86626 808W CAME
--	--	---

5. AIRCRAFT OWNER'S CERTIFICATION (Check and complete appropriate item)

I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered* with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:

- a. CERTIFICATE OF REGISTRATION, FORM ACA-500 (PART A), DATE OF ISSUE 6/9/47
 b. APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B), FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON _____ (DATE)
 c. DEALER'S REGISTRATION CERTIFICATE, FORM ACA-1707, DATED _____

*In order to be eligible for registration an aircraft must be owned by a citizen of the United States, as defined by Section 1 (13) of the Civil Aeronautics Act of 1938, as amended.

ATTACHMENTS (Check which)

- ACA-319
 ACA-337
 ACA-317
 WEIGHT AND BALANCE REPORT
 DATA, DRAWINGS, ETC.
 UNAPPROVED DEVIATION DATA

Ann De Host
(SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT)

7/3/56
(DATE)

Authorized Agent
(TITLE)

10-20-81
lc

45

37

MC

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

AIRCRAFT INSPECTION REPORT

(To be completed by a CAA representative or approved repair station)

The aircraft described in Item 3 on the reverse of this form has been inspected and found to conform to the following:

(Check and complete applicable items)

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS

- a. AIRCRAFT SPECIFICATION NO. A-734 THROUGH SHEET REVISION NO. 13
- b. AIRCRAFT LISTING PAGE NO. _____
- c. AIRWORTHINESS DIRECTIVE SUMMARY 1954 Rev. THROUGH CARD NO. 56-13
(YEAR)
- d. CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS

- a. AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY
- b. COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED
- c. AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 2981 HOURS
- d. ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:

SERIAL NO. <u>222-28</u>	TOTAL HOURS <u>406</u>
SERIAL NO. <u>350-28</u>	TOTAL HOURS <u>119</u>
SERIAL NO. _____	TOTAL HOURS _____
SERIAL NO. _____	TOTAL HOURS _____

3. PREVIOUS INSPECTION RECORD (INSPECTION RECORDED ON FORM ACA-319)

- a. LAST AIRWORTHINESS INSPECTION CONDUCTED 7/3/56 (DATE)
 - BY AIRCRAFT MANUFACTURER
 - BY APPROVED REPAIR STATION, CERTIFICATE NO. 3569
 - BY MECHANIC, CERTIFICATE NO. _____
- b. PERIODIC AIRCRAFT INSPECTION REPORT, FORM ACA-319, WAS RETURNED TO OWNER

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED

- a. OPERATION LIMITATIONS, FORM ACA-309, WAS ISSUED (COPY ATTACHED)
- b. CURRENT OPERATION LIMITATIONS, FORM ACA-309, IS AVAILABLE IN AIRCRAFT
- c. CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT
- d. CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT
- e. THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS
- f. CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED TO EXPIRE 7/3/57 (DATE)
- g. PREVIOUS FORM ACA-1362 WAS ISSUED TO EXPIRE 10/21/56 (DATE)
BY Mattituck Airbase Corp. (NAME OF ISSUING REPRESENTATIVE) Repair Station 3569 (DESIGNATION NO.)

RECEIVED
 SEP 5 10 39 AM '56
 AIRCRAFT RECORDS BRANCH
 W-300

5. CAA APPROVED REPAIR STATION CERTIFICATION

The aircraft described on the reverse has been inspected under the authority accorded certified repair station No. 3569 by CAB 52 and was found to be:

- AIRWORTHY
 - UNAIRWORTHY
- (REPAIR STATION AUTHORIZED SIGNATURE) Julius Schreff (DATE) 7/3/56

6. CAA REPRESENTATIVE CERTIFICATION

I HAVE INSPECTED THE AIRCRAFT DESCRIBED ON THE REVERSE AND FOUND IT AIRWORTHY UNAIRWORTHY (Check appropriate item)

DESIGNEE'S SIGNATURE	DESIGNATION NO.	DATE	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED <input type="checkbox"/> SPOT CHECKED
AIRCRAFT SAFETY AGENT'S SIGNATURE <u>Julius De Crescenzo</u> <input type="checkbox"/> ATTACHMENT	CAA DESIGNATION NO. <u>NY 257-18</u>	DATE <u>9 1956</u>	

Reg. 1 NY
ASDO 18

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

Form Approved. Budget Bureau No. 41-R0415.

**APPLICATION FOR AIRWORTHINESS CERTIFICATE
AND/OR ANNUAL INSPECTION OF AN AIRCRAFT**

INSTRUCTIONS
Please print or type. Submit this form to the
Civil Aeronautics Administration Aviation Safety
Field Representative.

1. TYPE OF APPLICATION (Check which)

- a. ORIGINAL ISSUANCE OF CERTIFICATE
 b. ANNUAL INSPECTION FOR RENEWAL OF CERTIFICATE
 c. AMENDMENT OR MODIFICATION OF CURRENT CERTIFICATE
 d. RECERTIFICATION UNDER THE PROVISIONS OF CAR 8
 e. MULTIPLE CERTIFICATE UNDER THE PROVISIONS OF CAR 8
 f.

2. AIRWORTHINESS CLASSIFICATION (Check appropriate item(s))

It is requested that the Certificate of Airworthiness be issued to permit operation of the aircraft in the following airworthiness classification(s):

- a. STANDARD (NORMAL, UTILITY, ACROBATIC, TRANSPORT CATEGORIES)
 b. LIMITED (SEE CAR 9)
 c. RESTRICTED (SEE CAR 8)
 (Check the restricted special purpose operation(s) to be conducted)
 AGRICULTURAL AND PEST CONTROL
 AERIAL ADVERTISING
 AERIAL SURVEYING
 GLIDER TOWING
 PATROLLING
 FOREST AND WILDLIFE CONSERVATION
 WEATHER CONTROL
 OTHER
 d. EXPERIMENTAL
 (Check the type of experimental operation(s) to be conducted)
 RESEARCH AND DEVELOPMENT
 AMATEUR-BUILT
 DEMONSTRATION
 RACING
 EXHIBITION
 OTHER

3. AIRCRAFT IDENTIFICATION (Complete all items)

a. AIRCRAFT MAKE GRUMMAN	b. AIRCRAFT MODEL G44A	c. AIRCRAFT SERIAL NO. 1452
d. ENGINE MAKE LYCOMING	e. ENGINE MODEL GO-480-B1B	

4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)

a. REGISTERED OWNER'S FULL NAME ALPINE AIRWAYS, INC.	b. PERMANENT MAILING ADDRESS FITCHBURG, MASS.	c. AIRCRAFT NATIONALITY AND REGISTRATION MARK N-86626
--	---	---

5. AIRCRAFT OWNER'S CERTIFICATION (Check and complete appropriate item)

I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered* with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:

- a. CERTIFICATE OF REGISTRATION, FORM ACA-500 (PART A), DATE OF ISSUE June 9, 1947
 b. APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B), FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON _____ (DATE)
 c. DEALER'S REGISTRATION CERTIFICATE, FORM ACA-1707, DATED _____

*In order to be eligible for registration an aircraft must be owned by a citizen of the United States, as defined by Section 1 (13) of the Civil Aeronautics Act of 1938, as amended.

ATTACHMENTS (Check which)

- ACA-319 WEIGHT AND BALANCE REPORT
 ACA-337 DATA, DRAWINGS, ETC.
 ACA-317 UNAPPROVED DEVIATION DATA

Miss Theresa Motise
(SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT)

10/21/55
(DATE)

Authorized Agent
(TITLE)

OCT 26 1955

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

AIRCRAFT INSPECTION REPORT

(To be completed by a CAA representative or approved repair station)

The aircraft described in Item 3 on the reverse of this form has been inspected and found to conform to the following:
(Check and complete applicable items)

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS:

- a. AIRCRAFT SPECIFICATION NO. A-734 THROUGH SHEET REVISION NO. 11
- b. AIRCRAFT LISTING PAGE NO. _____
- c. AIRWORTHINESS DIRECTIVE SUMMARY 1954 Rev. THROUGH CARD NO. 55-21
(YEAR)
- d. CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS:

- a. AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY
- b. COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED
- c. AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 2987 HOURS
- d. ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:

SERIAL NO. <u>222-28</u>	TOTAL HOURS <u>208</u>
SERIAL NO. <u>223-28</u>	TOTAL HOURS <u>208</u>
SERIAL NO. _____	TOTAL HOURS _____
SERIAL NO. _____	TOTAL HOURS _____

3. PREVIOUS INSPECTION RECORD (INSPECTION RECORDED ON FORM ACA-319)

- a. LAST AIRWORTHINESS INSPECTION CONDUCTED 10/21/55
(DATE)
 - BY AIRCRAFT MANUFACTURER
 - BY APPROVED REPAIR STATION, CERTIFICATE NO. 2569
 - BY MECHANIC, CERTIFICATE NO. _____
- b. PERIODIC AIRCRAFT INSPECTION REPORT, FORM ACA-319, WAS RETURNED TO OWNER

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED:

- a. OPERATION LIMITATIONS, FORM ACA-309, WAS ISSUED (COPY ATTACHED)
- b. CURRENT OPERATION LIMITATIONS, FORM ACA-309, IS AVAILABLE IN AIRCRAFT
- c. CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT
- d. CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT
- e. THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS
- f. CERTIFICATE OF AIRWORTHINESS, FORM ACA-136Z, ISSUED TO EXPIRE 10/21/56
(DATE)
- g. PREVIOUS FORM ACA-136Z WAS ISSUED TO EXPIRE 2/23/56
(DATE) BY NATITUICK AIRBASE COMP. (NAME OF ISSUING REPRESENTATIVE) RFP STA 3569 (DESIGNATION NO.)

5. CAA APPROVED REPAIR STATION CERTIFICATION

The aircraft described on the reverse has been inspected under the authority accorded certificated repair station No. 3569 by CAR 52 and was found to be:
 AIRWORTHY
 UNAIRWORTHY
J. R. SCHARFER (REPAIR STATION AUTHORIZED SIGNATURE) 10/21/55 (DATE)

6. CAA REPRESENTATIVE CERTIFICATION

I HAVE INSPECTED THE AIRCRAFT DESCRIBED ON THE REVERSE AND FOUND IT AIRWORTHY UNAIRWORTHY
(Check appropriate item)

DESIGNEE'S SIGNATURE	DESIGNATION NO.	DATE	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED <input type="checkbox"/> SPOT CHECKED
AVIATION SAFETY AGENT'S SIGNATURE <u>Julia De Crescenzo</u>	CAA DESIGNATION NO. <u>NY 357-18</u>	DATE <u>OCT 26 1955</u>	

ATTACHMENT

RECEIVED
OCT 7 8 52 AM '55
MAIL & RECORDS BRANCH
V-400

Fig. 1 NY
1520-18
Form 2 CA-3054 (1-51)

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

Form approved
Budget Bureau No. 41-R0324

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

1. AIRCRAFT	MAKE Grumman	MODEL G44A	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK N36626		
2. OWNER	NAME (First, middle, last) Alpine Airways Inc.		ADDRESS (Street and number, city, zone and State) Fitchburg, Mass.			
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) *****				X
b.	POWERPLANT					
c.	PROPELLER					
d.	APPLIANCE	TYPE AND MANUFACTURER				
4. AIRCRAFT WEIGHT AND BALANCE DATA <i>*AFTER the repairs and/or alterations described below were made.</i>					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)*	
		3785	15-31" aft datum		L 1215 Sea 915	
5. CONFORMITY STATEMENT (Complete and check)						
a. AGENCY'S NAME AND ADDRESS Hattituck Airbase Corp. Linden Airport Linden, New Jersey			b. KIND OF AGENCY <input type="checkbox"/> U. S. Certificated Mechanic. <input type="checkbox"/> Foreign Certificated Mechanic. <input checked="" type="checkbox"/> Certificated Repair Station. <input type="checkbox"/> Manufacturer. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)		c. CERTIFICATE NO. 3569	
4. 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. Feb. 23, 1955 (Date repair and/or alteration completed) Julius R. Schaffer (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 and is <input checked="" type="checkbox"/> APPROVED } BY { <input type="checkbox"/> CAA Designee <input type="checkbox"/> Manufacturer <input type="checkbox"/> Canadian Department of Transport Inspector of Aircraft <input type="checkbox"/> REJECTED } <input type="checkbox"/> CAA Aviation Safety Agent <input checked="" type="checkbox"/> Repair Station <input type="checkbox"/> Other (Specify) Feb. 23, 1955 (Date of approval or rejection) Julius R. Schaffer (Signature of authorized individual; title or identification number)						
7. TO BE COMPLETED ONLY BY CAA PERSONNEL						
a. <input type="checkbox"/> Forwarded for engineering comment <input type="checkbox"/> See attached memorandum						
b. <input checked="" type="checkbox"/> Accepted MAR 4 1955 (Date) <input type="checkbox"/> Reinspected (Date) <input type="checkbox"/> Spot Checked (Date)						
N7257-18 (CAA designation number)			Jules De Cremona (Signature Aviation Safety Agent)			

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 CAA 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.

1. **Major alteration installation of Lycoming engines.**
Installed McKinnon-Hickman Lycoming GO-480-B engine kit #101270-480 with dual batteries all parts, instructions and drawings were supplied by McKinnon-Hickman. Engines are Lycoming GO-480-B, serial no. 222-28 left, 223-28 right. Props are Hartsell HC93x20-2A, serial no. D322 left, D321 right.
2. **Removed retractable wing landing lights and installed two wing leading edge lamps 250 watts between stations #126 to 138.**
Replaced 35 amp circuit breakers with 20 amp. Used existing L/L electrical circuit with exception of motor energizing wires which were removed. Light installation is flush type copied from Grumman Widgeon N41826 installed at Mattituck, February 1953. No wing structure except the L/E cut-out and one L/E false nose rib between station 126 and 138 was reworked or modified. L/E opening was reinforced with doubler plate rolled to fit out of .051 24ST alclad extending to adjacent ribs. All parts including bulb, glass shield, retaining frame, and supporting frame is identical to or similar to Beech Model 35 installation. All parts fabricated from 24ST alclad sheet in accordance with standard practices as outlined in CAM 18. All parts were primed with zinc chromate primer and finished in dull black enamel.
3. **Installed hydraulic modification units as per Grumman Service Bulletin No. 24 (A.D. Note 54-26-1).** By installing Greer accumulator, type #30AC10, unloader valve #109529, and restrictor #25247-1. Replaced flap and gear selector valves with new types; flap selector #D-357 and gear selector #25250. All numbers are Grumman part numbers.
4. **Aircraft was weighed, copy of which is attached and new flight manual was issued (supplied by McKinnon-Hickman).**
5. **Installed Stewart Warner heater, model 940-B, serial no. 103, according to McKinnon-Hickman installation instructions. The above was installed in aircraft at time of weighing.**

RECEIVED
MAY 20 3 15 PM '81
FAA RECORDS SECTION

APPROVED BY: _____

DATE: _____

BY: _____

 APPROVED BY _____
 APPROVED BY _____
 APPROVED BY _____
 APPROVED BY _____

*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.

U. S. GOVERNMENT PRINTING OFFICE 16-64010-4

8. Description of Work Accomplished (cont'd)

Weight increase from modifications and radio installation:-

Added:	Weight	Arm	Moment
Old Empty Weight	3785	+15.31	57979
Metal Wing Increase	30	+48.5	1455
Metal Flap Increase	14	+99.	1386
Aux. Tank Increase	20	+21.	420
Gear and Hull Mod Increase	5	- 3.6	- 18
Generator	22	+ 4.	88
Marker Beacon Rec. ARC MB3	3	+130.	390
Glide Slope Rec. R89B	14.5	+129.	1870.5
Dynamotor DY-20	4.	140.	560
Dynamotor PV2	4	138.	552
*Saphire Trans. Rec.	25	133.	3325
ARC ADF R-30	17	- 6.	-108
ARC OMNI & Rec. R13B	16	- 6.	- 96
Loop (C-59 ARC)	4	- 5.	- 20
Indicator OMNI	3	-37.	-111
ADF Indicator	1.5	-36.	- 54
Remote Compass	3	-97.	-291
Remote Compass Inverter	1.5	-47.	- 70.5
Spray Rails	8	-71.	-568
Rotating Beacon	3.5	238.	833
Radio Wiring and Controls	12	50.	600

Removed the following:

Lear ADF Power Pac	- 12	- 6.	72
Lear ADF Loop	- 4	- 4.5	18
Tuner ADF	- 5	-35.	175
Narco Simplexer	- 12	- 3.	36
Indicator ADF	- 2.5	-35.	87.5
	3960.5	+17.3"	68510.5

* Installed by Kemp Co.

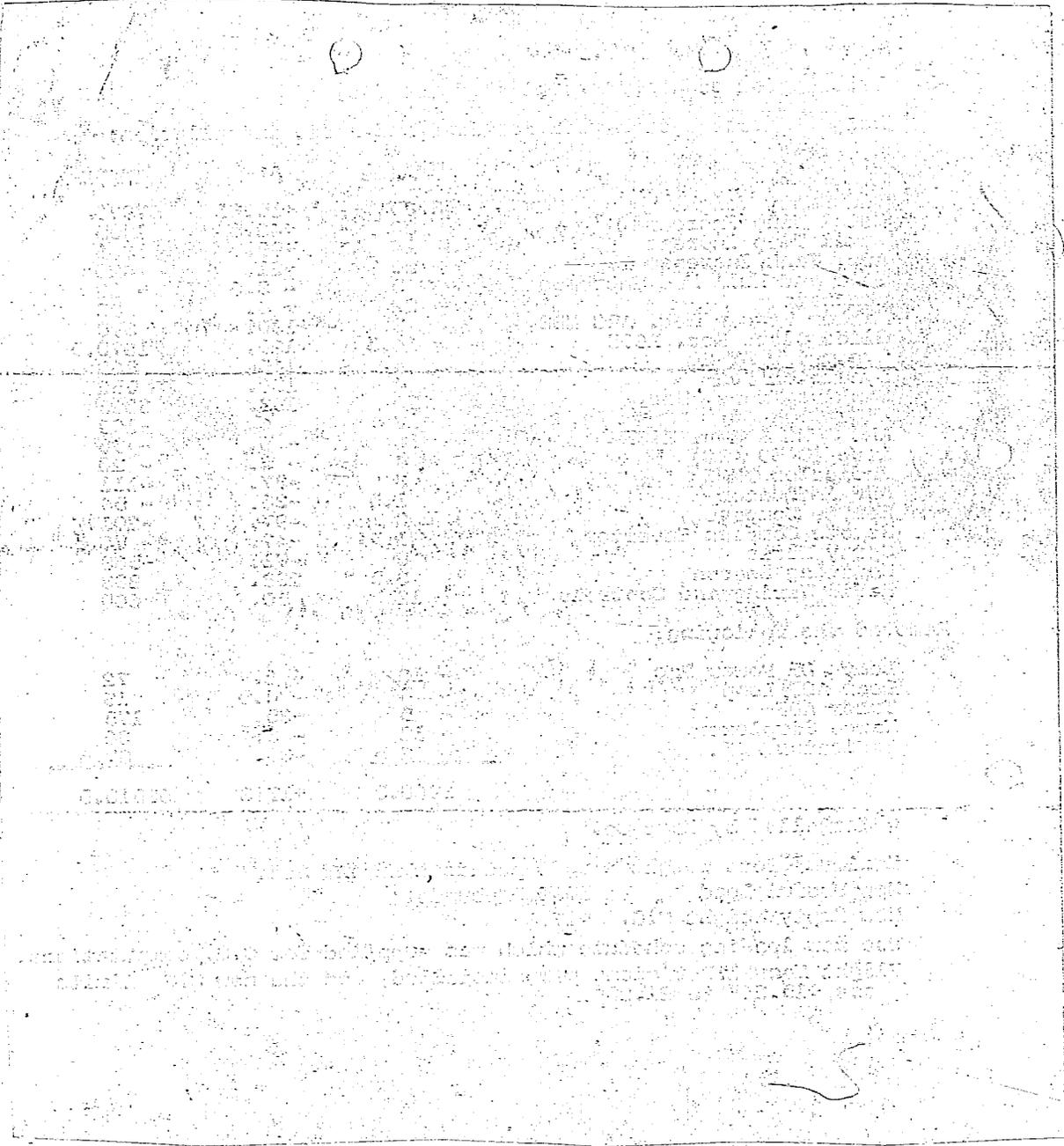
Maximum gross weight 5500 pounds Land and Sea.

New Useful Load 1539.5 pounds.

New Empty Weight C.G. +17.3"

Use new loading schedule which was supplied for C.G. computations.

Flight Manual Revisions were installed, and the new C.G. Limits are +15.24" to +21.23".



U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

Form Approved. Budget Bureau No. 41-R041.5

**APPLICATION FOR AIRWORTHINESS CERTIFICATE
AND/OR ANNUAL INSPECTION OF AN AIRCRAFT**

INSTRUCTIONS
Please print or type. Submit this form to the
Civil Aeronautics Administration Aviation Safety
Field Representative.

1. TYPE OF APPLICATION (Check which)

- a. ORIGINAL ISSUANCE OF CERTIFICATE
 b. ANNUAL INSPECTION FOR RENEWAL OF CERTIFICATE
 c. AMENDMENT OR MODIFICATION OF CURRENT CERTIFICATE
 d. RECERTIFICATION UNDER THE PROVISIONS OF CAR 8
 e. MULTIPLE CERTIFICATE UNDER THE PROVISIONS OF CAR 8
 f.

2. AIRWORTHINESS CLASSIFICATION (Check appropriate item(s))

It is requested that the Certificate of Airworthiness be issued to permit operation of the aircraft in the following airworthiness classification(s):

- a. STANDARD (NORMAL UTILITY, ACROBATIC, TRANSPORT CATEGORIES)
 b. LIMITED (SEE CAR 9)
 c. RESTRICTED (SEE CAR 9)
 (Check the restricted special purpose operation(s) to be conducted.)
 AGRICULTURAL AND PEST CONTROL
 PATROLLING
 AERIAL ADVERTISING
 FOREST AND WILDLIFE CONSERVATION
 AERIAL SURVEYING
 WEATHER CONTROL
 GLIDER TOWING
 OTHER
 d. EXPERIMENTAL
 (Check the type of experimental operation(s) to be conducted.)
 RESEARCH AND DEVELOPMENT
 RACING
 AMATEUR-BUILT
 EXHIBITION
 DEMONSTRATION
 OTHER

3. AIRCRAFT IDENTIFICATION (Complete all items)

- a. AIRCRAFT MAKE: **Grumman**
 b. AIRCRAFT MODEL: **G44A**
 c. AIRCRAFT SERIAL NO.: **1452**
 d. ENGINE MAKE: **Lycoming**
 e. ENGINE MODEL: **G0-480-B1**

4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)

- a. REGISTERED OWNER'S FULL NAME: **Alpine Airways Inc.**
 b. PERMANENT MAILING ADDRESS: **Fitchburg, Mass.**
 c. AIRCRAFT NATIONALITY AND REGISTRATION MARK: **N-86626**

5. AIRCRAFT OWNER'S CERTIFICATION (Check and complete appropriate item)

I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered* with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:

- a. CERTIFICATE OF REGISTRATION, FORM ACA-500 (PART A), DATE OF ISSUE **6/9/47**
 b. APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B), FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON _____
 c. DEALER'S REGISTRATION CERTIFICATE, FORM ACA-1707, DATED _____

*In order to be eligible for registration an aircraft must be owned by a citizen of the United States, as defined by Section 1 (13) of the Civil Aeronautics Act of 1926, as amended.

ATTACHMENTS (Check which)

- ACA-319 WEIGHT AND BALANCE REPORT
 ACA-337 DATA, DRAWINGS, ETC.
 ACA-317 UNAPPROVED DEVIATION DATA

James Jones
(SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT)

Feb. 23, 1955 **Authorized Agent**
(DATE) (TITLE)

*see
4-6-5
Eng. cty
24*

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

AIRCRAFT INSPECTION REPORT

(To be completed by a CAA representative or approved repair station)

The aircraft described in Item 3 on the reverse of this form has been inspected and found to conform to the following:

(Check and complete applicable items)

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS

- a. AIRCRAFT SPECIFICATION NO. A-734 THROUGH SHEET REVISION NO. 10
- b. AIRCRAFT LISTING PAGE NO. _____
- c. AIRWORTHINESS DIRECTIVE SUMMARY 1953 Rev. THROUGH CARD NO. 55-3
- d. CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS

- a. AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY
- b. COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED
- c. AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 2586. HOURS
- d. ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:

SERIAL NO. <u>222-28</u>	TOTAL HOURS <u>0</u>
SERIAL NO. <u>223-28</u>	TOTAL HOURS <u>0</u>
SERIAL NO. _____	TOTAL HOURS _____
SERIAL NO. _____	TOTAL HOURS _____

3. PREVIOUS INSPECTION RECORD (INSPECTION RECORDED ON FORM ACA-319)

- a. LAST AIRWORTHINESS INSPECTION CONDUCTED Feb. 16, 1955 (DATE)
 - BY AIRCRAFT MANUFACTURER
 - BY APPROVED REPAIR STATION, CERTIFICATE NO. 3569
 - BY MECHANIC, CERTIFICATE NO. _____
- b. PERIODIC AIRCRAFT INSPECTION REPORT, FORM ACA-319, WAS RETURNED TO OWNER

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED

- a. OPERATION LIMITATIONS, FORM ACA-309, WAS ISSUED (COPY ATTACHED)
 - b. CURRENT OPERATION LIMITATIONS, FORM ACA-309, IS AVAILABLE IN AIRCRAFT
 - c. CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT
 - d. CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT
 - e. THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS
 - f. CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED TO EXPIRE Feb. 23, 1956 (DATE)
 - g. PREVIOUS FORM ACA-1362 WAS ISSUED TO EXPIRE 7/19/55 (DATE)
- by Felix Aimonetti (NAME OF ISSUING REPRESENTATIVE) 1214 (DESIGNATION NO.)

5. CAA APPROVED REPAIR STATION CERTIFICATION

The aircraft described on the reverse has been inspected under the authority accorded certificated repair station No. 3569 by CAB 52 and was found to be:

- AIRWORTHY
- UNAIRWORTHY

Julius R. Schaffer
Julius R. Schaffer (REPAIR STATION AUTHORIZED SIGNATURE) 2/23/55 (DATE)

6. CAA REPRESENTATIVE CERTIFICATION

I HAVE INSPECTED THE AIRCRAFT DESCRIBED ON THE REVERSE AND FOUND IT AIRWORTHY UNAIRWORTHY (Check appropriate item)

DESIGNEE'S SIGNATURE	DESIGNATION NO.	DATE	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED <input type="checkbox"/> SPOT CHECKED
AVIATION SAFETY AGENT'S SIGNATURE <u>Julius De Crescenzo</u> Julius De Crescenzo	CAA DESIGNATION NO. <u>NY 95718</u>	DATE <u>MAR 4 1955</u>	

ATTACHMENT

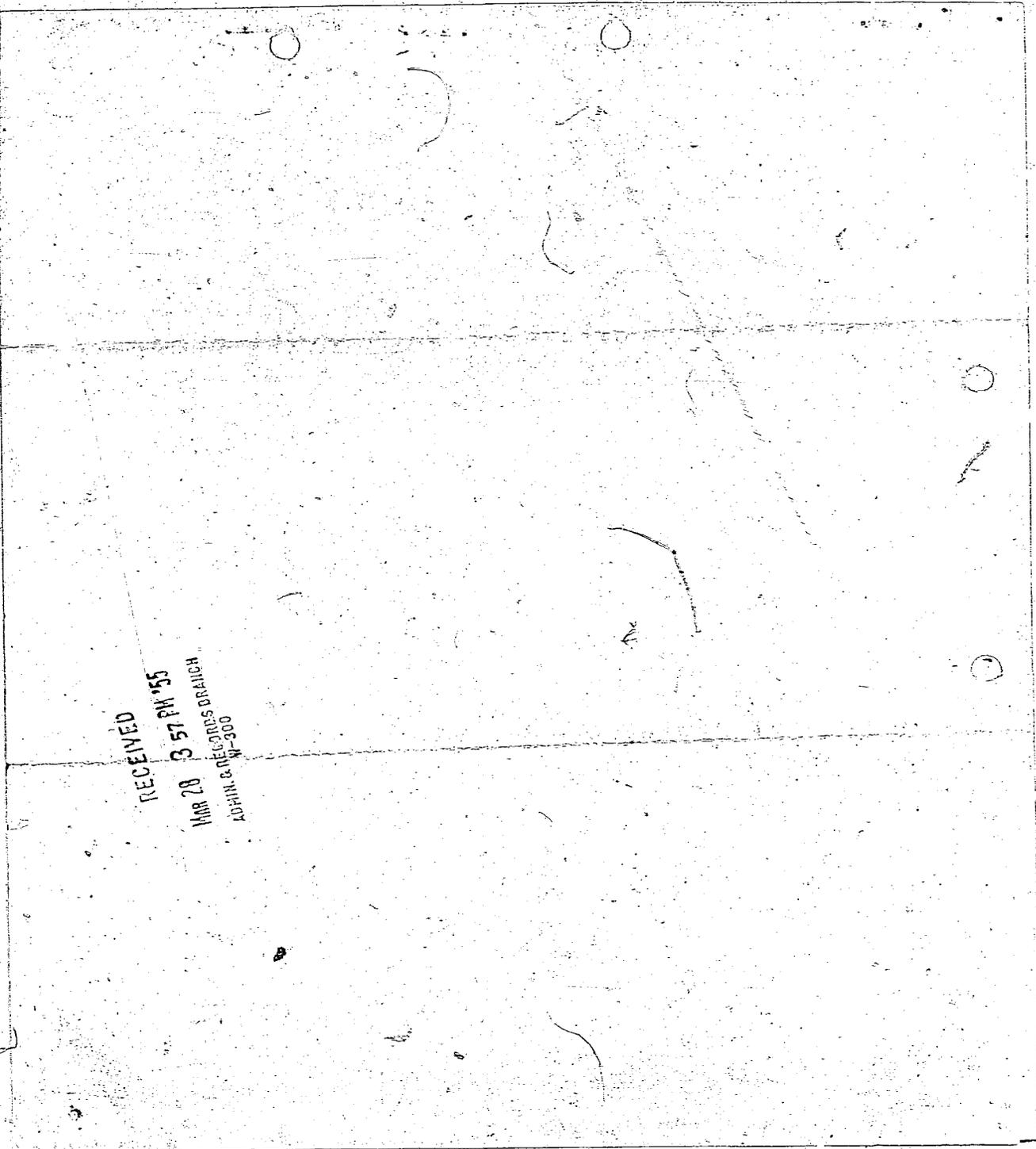
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 MAR 20 9 57 AM '55
 ADM. & RECORDS BRANCH
 W-300

McKINNON-HICKMAN CO.		EQUIPMENT	Page: 6
Prepared by:	Date:	LIST	Model: GRUMMAN
Mattituck Airbase Corp.	2/28/55		C-44A
		<u>Weight</u>	<u>Area</u>
<u>Propellers and Propeller Accessories</u>			
- 2 Hartzell HC-83X20-2A/8433-0 Propellers		184	-42
- 2 Hamilton Standard 1C12-G1 Propeller Governors		9	-35
- 2 McKinnon-Hickman Co. Propeller Spinners		16	-44
<u>Engines and Engine Accessories - Fuel and Oil Systems</u>			
- 2 Lycoming engines, Model GO-480-B1		426	
- 2 Carburetor Air Intake Systems,		5	-24
- 2 Exhaust Manifold Systems, Augmentor Type			
- 2 Vacuum Pumps, Pesco 194		4	44
- 1 Hydraulic Pump, hand operated			
- 1 Hydraulic Pump, engine-driven, Pesco 1P-349-PE		4	41.5
- 2 Oil Coolers, Heat Exchangers Model 1103		21.5	-28
- 2 Fuel Pumps, auxiliary, Thompson AN 4100 (with Dalco Motor Model 4948)		20	410
- 2 Fuel Pumps, engine-driven, Chandler- Evans AN 4100		6	-1
- 2 Starters, Eclipse Model 377-50, Type P-80		39	46.5
1 Hyd. Accumulator Greer Model 30A-C10		5	30
1 Unloader Valve Grumman 109567		1.5	30
1 Restrictor Flap System Grumman 2-247-1			22
2 Electrical Primer Valve		.8	4
<u>Landing Gear & Floats</u>			
201 - Two main wheel-brake assemblies, 7.50-10, with 7.50-10, 6-ply HD tires (a) Goodrich 735A, Assy. No. G-3-45A		80	46
- 2 Wing Tip Floats, Struts, & wires		45	
202 - Tail wheel assembly, 10 in. with 10.5 in., 6-ply streamline tire (a) Goodrich B-14-161		5	464
Wing Tip Floats, struts and wires		45	14

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

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ADMIN. & RECORDS BRANCH
N-300

McKINNON-HICKMAN CO.		EQUIPMENT LIST	Page: 7
Prepared by: Mattituck Airbase Corp.	Date: 2/28/55		Model: GRUMMAN G-44 A
	Weight		Arm
<u>Electrical and Radio Equipment</u>			
302 - 1 Battery, 38 amp. hr. (Exide 6-TA9-9-1)	36		122
303 - 2 Landing Light (Cammerton fixed leading edge)	2		118
304 - (Cammerton fixed leading edge)	2		118
(Cammerton fixed leading edge)			
- 1 Generator, Leece Neville 50 amp. Part No. 24500 (R/eng.)	22		4
- Lear ADF RT10E Tuner	5		35
Power supply	12		6
Loop antenna	3.5		6
Narco NC-12	12		3-25
Narco VTR-1 VHF Comm. VHF Antenna & LF Antenna	12		35
Power Supply	25		45
2 Fuel Pressure warning light transmitters	1		40
<u>Interior Equipment</u>			
403 - Dual rudder controls complete with removable rudder pedal (Grumman Dwg. 17819)			
405 - Control Column (Grumman Dwg. 122850): (b) Double-arm	8		22
401 - CAA Approved Airplane Operating Manual (Airplane Flight Manual)			
- 2 Passenger Seats	19		52
- 1 Auxiliary Seat	10		49
Rudder Bungee McKinnon-Hickman Dwg. 11000			
<u>Miscellaneous</u>			
404 - 1 Fire Extinguisher, Pyrene type	6		116
601 - Anchor and Rope (Northill)	19		87
- 1 Aircraft Heater, South Wind Model	40		134
Artificial Horizon	5		35
Directional Gyro	4		35
Thermocouple Instrument & Leads- Dual Type	2		33
Kollsman Dir. Indicator			35
Van Dusen Flasher Model BRG1	1		27



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ADMIN. & RECORDS BRANCH
W-300

MCKINNON-HICKMAN COMPANY		LOADING CHART	Page: 8
Prepared by: WSE Mattituck Airbase Corp.	Date: 2/28/55		Model: GRUMMAN G-44 A

FUEL TABLE

GAL.	WEIGHT	MOMENT/100
10	60	/ 15
20	120	/ 25
30	180	/ 38
40	240	/ 50
50	300	/ 63
60	360	/ 78
70	420	/ 88
80	480	/ 101
90	540	/ 113
100	600	/ 126
108	648	/ 136

OIL TABLE

GAL.	WEIGHT	MOMENT/100
1	7.5	- 1.2
2	15.0	- 2.4
3	22.5	- 3.6
4	30.0	- 4.8
5	37.5	- 6.0
6	45.0	- 7.2

CREW & PASSENGER TABLE

SEAT	WEIGHT	MOMENT/100
Co-Pilot	170	- 10
Auxiliary	170	/ 32
L.H. Art	170	/ 68
R.H. Art	170	/ 88

BAGGAGE TABLE

WEIGHT	NOSE COMPT MOMENT/100	AFT CABIN COMPT MOMENT/100
5	- 3	/ 5
10	- 5	/ 9
20	- 10	/ 18
30		/ 27
40		/ 36
50		/ 45
60		/ 54
70		/ 63
80		/ 72
90		/ 81
100		/ 90
200		/ 180
300		/ 270
400		/ 360

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

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Aircraft Records Branch

McKINNON-HICKMAN COMPANY		LOADING CHART	Page: 9
Prepared by: Mattituck Airbase Corp.	Date: 2/28/55		Model: GRUMMAN G-44A

CENTER OF GRAVITY TABLE

GROSS WEIGHT	C.G. IN INCHES									
	14.8	15.0	16	17	18	19	20	21	22	22.5
3700	548	555	592	629	666	703	740	777	814	853
50	555	563	600	638	675	713	750	788	825	844
3800	563	570	608	646	684	722	760	798	836	855
50	570	578	616	655	693	732	770	809	847	866
3900	577	585	624	663	702	741	780	819	858	878
50	585	593	632	672	711	751	790	830	869	889
4000	592	600	640	680	720	760	800	840	880	900
50	599	608	648	689	729	770	810	851	891	911
4100	607	615	656	697	738	779	820	861	902	923
50	614	623	664	706	747	789	830	872	913	934
4200	622	630	672	714	756	798	840	882	924	945
50	629	638	680	723	765	808	850	893	935	956
4300	636	645	688	731	774	817	860	903	946	968
50	644	653	696	740	783	827	870	914	957	979
4400	651	660	704	748	792	836	880	924	968	990
50	659	668	712	757	801	846	890	935	979	1001
4500	666	675	720	765	810	855	900	945	990	1013
50	673	683	728	774	819	865	910	956	1001	1024
4600	681	690	736	782	828	874	920	966	1012	1035
50	688	698	744	791	837	884	930	977	1023	1046
4700	696	705	752	799	846	893	940	987	1034	1058
50	703	713	760	808	855	903	950	998	1045	1069
4800	710	720	768	816	864	912	960	1008	1056	1080
50	718	728	776	825	873	922	970	1019	1067	1091
4900	725	735	784	833	882	931	980	1029	1078	1103
50	733	743	792	842	891	941	990	1040	1089	1114
5000	740	750	800	850	900	950	1000	1050	1100	1125

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

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ADMIN. & RECORDS BRANCH
W-300

McKINNON-HICKMAN COMPANY		CENTER OF GRAVITY CALCULATION	Page: 10
Prepared by: Mattituck Airbase Corp.	Date: 2/28/55		Model: GRUMMAN G-44A

(Examples)*

Most Forward C.G. Loading Condition

	WEIGHT	ARM	MOMENT
Weight of Empty Aircraft	3785	15.31	57979
Min. Fuel 44 gal.	264	/21	3544
Oil 6 gals.	45	-16	- 720
Pilot	170	- 6	- 1020
Passengers	170	- 6	- 1020
Total	4434		58763

C.G. at 14.8 aft of Datum

Most forward C.G. exceeds maximum limit. Ballast as required for pilot and passenger in copilot's seat, 80 lbs. of ballast required in aft baggage compartment. For pilot and no passenger, 60 lbs. of baggage (or ballast) must be carried in aft baggage compartment. (Cabin floor against rear bulkhead, arm 105 inches.)

Most Rearward C.G. Loading Condition

	WEIGHT	ARM	MOMENT
Weight of Empty Aircraft	3785	/ 15.31	57979
Oil 6 gals.	45	- 16	- 720
Pilot	170	- 6	- 1020
Passengers (2)	340	/ 52	17680
Fuel	270	/ 21	5670
Baggage	390	/ 90	35100
Total	5000		113103

C.G. at 22.5 aft of Datum

Maximum Useful Load: Land 1,215 lbs.
 Sea 915 lbs.

* Use Loading Charts for other Loading Conditions

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

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MAR 20 3 45 PM '55

AUTH. & RECORDS BRANCH
W-300

MCKINNON-HICKMAN COMPANY		WEIGHT & BALANCE REPORT	Page: 11
Prepared by:	Date:		Model: GRUMMAN G-44A
Mattituck Airbase Corp.	2/28/55		

	SCALE READING	TARE	NET WEIGHT (LBS.)
Right			1915
Left			1905
Tail			340
Total Net Weight (Includes 45 lbs. Oil and 330 lbs. Fuel)			4160
Net Empty Weight			3785

	INCHES
Computed Empty C.G. Distance Aft from Datum* to Main Wheel Centers	3.62
Empty C.G. in Relation to Datum:	15.31
Distance from Main Reaction to Tail Reaction (Actual)	144.5
Empty C.G. in Relation to Main Reaction	11.69
Loaded C.G. Limits: 14.8" to 22.5" aft of Datum	
*Datum: Wing Leading Edge at Center Section	

LOADING SCHEDULE ATTACHED TO FLIGHT MANUAL

9

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MAR 20 3 45 PM '55

ADMIN. & RECORDS BRANCH
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U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

Form Approved. Budget Bureau No. 41-R0415.

**APPLICATION FOR AIRWORTHINESS CERTIFICATE
AND/OR ANNUAL INSPECTION OF AN AIRCRAFT**

INSTRUCTIONS

Please print or type. Submit this form to the
Civil Aeronautics Administration Aviation Safety
Field Representative.

1. TYPE OF APPLICATION (Check which)

- a. ORIGINAL ISSUANCE OF CERTIFICATE
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 c. AMENDMENT OR MODIFICATION OF CURRENT CERTIFICATE
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 e. MULTIPLE CERTIFICATE UNDER THE PROVISIONS OF CAR 8
 f.

2. AIRWORTHINESS CLASSIFICATION (Check appropriate item(s))

It is requested that the Certificate of Airworthiness be issued to permit operation of the aircraft in the following airworthiness classification(s):

- a. STANDARD (NORMAL, UTILITY, ACROBATIC, TRANSPORT CATEGORIES)
 b. LIMITED (SEE CAR 9)
 c. RESTRICTED (SEE CAR 8)
 (Check the restricted special purpose operation(s) to be conducted)
 AGRICULTURAL AND PEST CONTROL
 AERIAL ADVERTISING
 AERIAL SURVEYING
 GLIDER TOWING
 PATROLLING
 FOREST AND WILDLIFE CONSERVATION
 WEATHER CONTROL
 OTHER
 d. EXPERIMENTAL
 (Check the type of experimental operation(s) to be conducted)
 RESEARCH AND DEVELOPMENT
 AMATEUR-BUILT
 DEMONSTRATION
 RACING
 EXHIBITION
 OTHER

3. AIRCRAFT IDENTIFICATION (Complete all items)

a. AIRCRAFT MAKE Grumman Widgeon	b. AIRCRAFT MODEL G44A	c. AIRCRAFT SERIAL NO. 1452
d. ENGINE MAKE Ranger	e. ENGINE MODEL 6-440-C5	

4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)

a. REGISTERED OWNER'S FULL NAME Alpine Airways, Incorporated	b. PERMANENT MAILING ADDRESS 842 River Street Pittsburg, Massachusetts	c. AIRCRAFT NATIONALITY AND REGISTRATION MARK N-86626
--	--	---

5. AIRCRAFT OWNER'S CERTIFICATION (Check and complete appropriate item)

I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered* with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:

- a. CERTIFICATE OF REGISTRATION, FORM ACA-500 (PART A), DATE OF ISSUE **June 9, 1947**
 b. APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B), FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON _____ (DATE)
 c. DEALER'S REGISTRATION CERTIFICATE, FORM ACA-1707, DATED _____

*In order to be eligible for registration an aircraft must be owned by a citizen of the United States, as defined by Section 1 (13) of the Civil Aeronautics Act of 1938, as amended.

ATTACHMENTS (Check which)

- ACA-319 WEIGHT AND BALANCE REPORT
 ACA-337 DATA, DRAWINGS, ETC.
 ACA-317 UNAPPROVED DEVIATION DATA

Felix Amorette
Felix Amorette
(SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT)

7-19-54
(DATE)

Acce\$
(TITLE)

8-10-4

HP

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

AIRCRAFT INSPECTION REPORT

(To be completed by a CAA representative or approved repair station)

The aircraft described in Item 3 on the reverse of this form has been inspected and found to conform to the following:
(Check and complete applicable items)

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS

a. AIRCRAFT SPECIFICATION NO. A734 THROUGH SHEET REVISION NO. 6

b. AIRCRAFT LISTING PAGE NO. _____

c. AIRWORTHINESS DIRECTIVE SUMMARY 1953 THROUGH CARD NO. 54-14
(YEAR)

d. CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS

a. AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY

b. COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED

c. AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 2477 HOURS

d. ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:

SERIAL NO. <u>R009448</u>	TOTAL HOURS <u>624hrs. SM - 72hrs10mins. STO</u>
SERIAL NO. <u>R003625</u>	TOTAL HOURS <u>440hrs.05mins. SM - 24hrs.30mins. STO</u>
SERIAL NO. _____	TOTAL HOURS _____
SERIAL NO. _____	TOTAL HOURS _____

3. PREVIOUS INSPECTION RECORD (INSPECTION RECORDED ON FORM ACA-319)

a. LAST AIRWORTHINESS INSPECTION CONDUCTED 12-21-53
(DATE)

BY AIRCRAFT MANUFACTURER

BY APPROVED REPAIR STATION, CERTIFICATE NO. _____

BY MECHANIC, CERTIFICATE NO. MT6910

b. PERIODIC AIRCRAFT INSPECTION REPORT, FORM ACA-319, WAS RETURNED TO OWNER.

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED

a. OPERATION LIMITATIONS, FORM ACA-309, WAS ISSUED (COPY ATTACHED)

b. CURRENT OPERATION LIMITATIONS, FORM ACA-309, IS AVAILABLE IN AIRCRAFT

c. CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT

d. CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT

e. THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS

f. CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED TO EXPIRE July 19, 1955
(DATE)

g. PREVIOUS FORM ACA-1362 WAS ISSUED TO EXPIRE August 10, 1954
(DATE)

BY John F. Loughlin (NAME OF ISSUING REPRESENTATIVE) Agro Trades, Inc. Sta. 115 (DESIGNATION NO.)

5. CAA APPROVED REPAIR STATION CERTIFICATION

The aircraft described on the reverse has been inspected under the authority accorded certificated repair station No. 97 by CAR 52 and was found to be:

AIRWORTHY

UNAIRWORTHY

Felix Aimonetti
Felix Aimonetti (REPAIR STATION AUTHORIZED SIGNATURE) 7-19-54 (DATE)

6. CAA REPRESENTATIVE CERTIFICATION

I HAVE INSPECTED THE AIRCRAFT DESCRIBED ON THE REVERSE AND FOUND IT AIRWORTHY UNAIRWORTHY
(Check appropriate item)

DESIGNEE'S SIGNATURE	DESIGNATION NO.	DATE	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED <input type="checkbox"/> SPOT CHECKED
AVIATION SAFETY AGENT'S SIGNATURE <u>Frank Borg</u>	CAA DESIGNATION NO. <u>NY-257-17</u>	DATE <u>7-22-54</u>	

ATTACHMENT

RECEIVED
 JUL 27 3 49 PM '54
 ADMIN. & RECORDS DIVISION
 W-300

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

Form Approved. Budget Bureau No. 41-B041.5

**APPLICATION FOR AIRWORTHINESS CERTIFICATE
AND/OR ANNUAL INSPECTION OF AN AIRCRAFT**

INSTRUCTIONS
Please print or type. Submit this form to the
Civil Aeronautics Administration Aviation Safety
Field Representative.

1. TYPE OF APPLICATION (Check which)

- a. ORIGINAL ISSUANCE OF CERTIFICATE
b. ANNUAL INSPECTION FOR RENEWAL OF CERTIFICATE
c. AMENDMENT OR MODIFICATION OF CURRENT CERTIFICATE
d. RECERTIFICATION UNDER THE PROVISIONS OF CAR 8
e. MULTIPLE CERTIFICATE UNDER THE PROVISIONS OF CAR 8
f.

2. AIRWORTHINESS CLASSIFICATION (Check appropriate item(s))

It is requested that the Certificate of Airworthiness be issued to permit operation of the aircraft in the following airworthiness classification(s):

- a. STANDARD (NORMAL, UTILITY, ACROBATIC, TRANSPORT CATEGORIES)
b. LIMITED (SEE CAR 9)
c. RESTRICTED (SEE CAR 9)
(Check the restricted special purpose operation(s) to be conducted)
 AGRICULTURAL AND PEST CONTROL
 AERIAL ADVERTISING
 AERIAL SURVEYING
 GLIDER TOWING
 PATROLLING
 FOREST AND WILDLIFE CONSERVATION
 WEATHER CONTROL
 OTHER
d. EXPERIMENTAL
(Check the type of experimental operation(s) to be conducted)
 RESEARCH AND DEVELOPMENT
 AMATEUR-BUILT
 DEMONSTRATION
 RACING
 EXHIBITION
 OTHER

3. AIRCRAFT IDENTIFICATION (Complete all items)

a. AIRCRAFT MAKE GRUMMAN	b. AIRCRAFT MODEL G44A	c. AIRCRAFT SERIAL NO. 1452
d. ENGINE MAKE RANGER	e. ENGINE MODEL 6-440-C5	

4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)

a. REGISTERED OWNER'S FULL NAME ALPINE AIRWAYS INC.,	b. PERMANENT MAILING ADDRESS BOX 503 FITCHBURG MASSACHUSETTS	c. AIRCRAFT NATIONALITY AND REGISTRATION MARK N-86626
--	--	--

5. AIRCRAFT OWNER'S CERTIFICATION (Check and complete appropriate item)

I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered* with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:

- a. CERTIFICATE OF REGISTRATION, FORM ACA-500 (PART A), DATE OF ISSUE JUNE 8, 1947
b. APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B), FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON _____
c. DEALER'S REGISTRATION CERTIFICATE, FORM ACA-1107, DATED _____ (DATE)

*In order to be eligible for registration an aircraft must be owned by a citizen of the United States, as defined by Section 1 (13) of the Civil Aeronautics Act of 1938, as amended.

ATTACHMENTS (Check which)

- ACA-319
 ACA-337
 ACA-317
 WEIGHT AND BALANCE REPORT
 DATA, DRAWINGS, ETC.
 UNAPPROVED DEVIATION DATA

Fyl E. Halstead
(SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT)
AUGUST 10, 1953
(DATE) *Pilot*
(TITLE)

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

AIRCRAFT INSPECTION REPORT

(To be completed by a CAA representative or approved repair station)

The aircraft described in Item 3 on the reverse of this form has been inspected and found to conform to the following:

(Check and complete applicable items)

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS

- a. AIRCRAFT SPECIFICATION NO. A 734 THROUGH SHEET REVISION NO. 6
- b. AIRCRAFT LISTING PAGE NO. _____
- c. AIRWORTHINESS DIRECTIVE SUMMARY 1953 THROUGH CARD NO. 53-15
- d. CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS

- a. AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY
- b. COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED
- c. AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 2197:50 HOURS
- d. ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:

SERIAL NO. <u>R 009448</u>	TOTAL HOURS <u>248:30</u>
SERIAL NO. <u>R 003635</u>	TOTAL HOURS <u>164:30</u>
SERIAL NO. _____	TOTAL HOURS _____
SERIAL NO. _____	TOTAL HOURS _____

3. PREVIOUS INSPECTION RECORD (INSPECTION RECORDED ON FORM ACA-319)

- a. LAST AIRWORTHINESS INSPECTION CONDUCTED AUGUST 10, 1953
 - BY AIRCRAFT MANUFACTURER
 - BY APPROVED REPAIR STATION, CERTIFICATE NO. 115
 - BY MECHANIC, CERTIFICATE NO. _____
- b. PERIODIC AIRCRAFT INSPECTION REPORT, FORM ACA-319, WAS RETURNED TO OWNER

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED

- a. OPERATION LIMITATIONS, FORM ACA-309, WAS ISSUED (COPY ATTACHED)
- b. CURRENT OPERATION LIMITATIONS, FORM ACA-309, IS AVAILABLE IN AIRCRAFT
- c. CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT
- d. CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT
- e. THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS
- f. CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED TO EXPIRE AUG 10, 1953
- g. PREVIOUS FORM ACA-1362 WAS ISSUED TO EXPIRE JULY 26, 1953
 - BY JOSEPH PITTS (NAME OF ISSUING REPRESENTATIVE)
 - 1321 (DESIGNATION NO.)

RECEIVED
 SEP 29 2 44 PM '53
 ADMIN. & RECORDS DIVISION
 W-300

5. CAA APPROVED REPAIR STATION CERTIFICATION

The aircraft described on the reverse has been inspected under the authority accorded certified repair station No. 115 by CAR 52 and was found to be:

- AIRWORTHY
- UNAIRWORTHY

John P. Longhlin
(REPAIR STATION AUTHORIZED SIGNATURE)
INSPECTOR

AUG 10, 1953
(DATE)

6. CAA REPRESENTATIVE CERTIFICATION

I HAVE INSPECTED THE AIRCRAFT DESCRIBED ON THE REVERSE AND FOUND IT AIRWORTHY UNAIRWORTHY
(Check appropriate item)

DESIGNEE'S SIGNATURE	DESIGNATION NO.	DATE	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED <input type="checkbox"/> SPOT CHECKED
AVIATION SAFETY AGENT'S SIGNATURE <u>Otto H. Holger</u>	CAA DESIGNATION NO. <u>NY 250-11</u>	DATE <u>9-22-53</u>	

ATTACHMENT

Form A CA-387 (11-48)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		Form Approved Budget Bureau No. 41-R052.2	
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)					
(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)					
1. AIRCRAFT	MAKE Crumwell	MODEL 111A	SERIAL NO. 1452	Standard N86626 NATIONALITY AND REGISTRATION MARK N86626	
2. OWNER	NAME (First, middle, last) Alpine Airways, Inc.,		ADDRESS (Street and number, city, zone, and State) Box 503, Fitchburg, Massachusetts		
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED					
UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
a. AIRCRAFT	***** (As described in item 1 above) *****			MAJOR REPAIR	MAJOR ALTERATION
b. PROPELLER BLADE OR HUB					
c. ENGINE	Ranger	6-440C-5	R009448		X
d. INSTRUMENT	TYPE AND MANUFACTURER				
4. AIRCRAFT 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.					
WEIGHT AND BALANCE DATA					
AFTER the repairs and/or alterations described below were made.		EMPTY WEIGHT (Pounds) Previous 3330.7 lbs	EMPTY CENTER OF GRAVITY (Inches from datum)* 16.1 IN. AFT DATUM	USEFUL LOAD (Pounds)* 1194.3 lbs.	
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)					
<input type="checkbox"/> MANUFACTURER		<input checked="" type="checkbox"/> APPROVED REPAIR STATION NO. 1998 (Specify)		<input type="checkbox"/> CERTIFIED MECHANIC	
6. AGENCY	NAME Schneck Engine Service	ADDRESS (Street and number, city, zone, and State) Chicago Hammond Airport, Lansing, Illinois		DATE WORK ACCOMPLISHED 3/29/52	
7. DESCRIPTION OF WORK (ALL WORK MUST BE ACCOMPLISHED IN ACCORDANCE WITH PART 18 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18)					
PARTS INSTALLED: 1 set rings, 1 gskt. set comp., 1 c'shaft, 1 thrust nut, 1 thrust y., 4 mount rubbers, 6 wrist pin bushings, 1 set main brgs., 1 set con. rod brgs., 12 con. rod bolts, 6 wrist pins, 12 wrist pin plugs, 8 std. cyls., 6 rocker arm bushings, 2 rocker arms, 8 rocker arm shafts, 1 cam housing, 1 oil screen cover, 1 carb., 2 mags., 2 mag. drive rubbers, 2 oil scavenger gears, 1 fuel pump spacer, 44 ft. shielded ign. wire, 12 spark plug elbows, 12 lead shims, 12 ign. furels, 65 elastic stop nuts, 100 elastic stop nuts, 8 elastic stop nuts, 10 palnuts, 1 damper plate shim, 4 damper plate bolts, 4 damper plate nuts, 4 damper bolt lock pins, 3 damper brg. bolts, 3 damper brg. nuts, 3 damper brg. lock pins, 12 inner valve springs, 12 outer valve (continued on reverse side)					
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL					
I CERTIFY that the above statements are true and correct to the best of my knowledge.					
Stanley Minnecral (Signature of supervising mechanic)		E-682-531 (Certificate number and rating)		3/29/52 (Date)	
TO BE COMPLETED BY CAA REPRESENTATIVES					
<input checked="" type="checkbox"/> APPROVED	DESIGNEE'S SIGNATURE Paul Johnson		NO. DAMI 153	DATE Oct. 13, 1952	
<input type="checkbox"/> REJECTED	CAA AGENT SIGNATURE St. Johnson		<input checked="" type="checkbox"/> ACCEPTED	DATE 10-20-52	
			<input type="checkbox"/> REINSPECTED		

OCT 17 1952

(continued from other side)

springs, magnaflux all steel parts, complete major overhaul of engine and run-in on test stand. The following bulletins complied with: #112 Rework front crankcase, #114-Vent added in generator adapter, #115-Crankcase rework for more oil drainage in magneto dretainers, #67-Replacement of oil relief valve, #84-Pressure oil pump relief channel, #88 Cam housing spacer, #103-Installation of piston pin plugs, #93-Installation of crankshaft damper shim, #116-Reduction in main bearing clearance, also February 4, 1952 bulletin regarding piston pin bosses.

Oct. 13, 1952

This engine installed in left side of Grumman Widgeon G-44A by Aero Trades, Inc.
MacArthur Airport, Ronkonkoma, N. Y., Repair Station #115

Cleaned oil tank

Repaired exhaust where necessary

Repacked L/R flap actuating cylinders

Installed overhauled vacuum pump, fuel pump and hydraulic pump on left engine.

Installed fire resistant hose assembly between fuel pump & carburetor L/R engines.

RECEIVED
 PARTICULATE SECTION
 OCT 22 2 38 PM '52

Paul Nykolow
A4E16576

AERO TRADES
INC.

MACARTHUR AIRPORT
RONKONKOMA, L.I., N.Y.
C. A. A. COPY

- INSTRUCTIONS
1. This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine or instrument.
 2. When repairs and/or alterations are made which affect the operation limitations set forth in the Airplane Flight Manual or Form ACA-309, the aircraft shall not be returned to service until the operation limitations have been corrected by an authorized representative of the CAA.
 3. Certificated mechanics must, in all cases, obtain approval of the repair and/or alteration from the CAA representative prior to returning the article to service.
 4. The manufacturer of an aircraft, engine, propeller, or instrument, and a certificated repair station holding the appropriate rating may return the article to service without prior approval of an authorized CAA representative, provided the alteration and/or repair does not change any of the operation limitations.
 5. Repair agencies will be guided as follows when completing this form:
 - a. For an aircraft repair and/or alteration—Complete Items 1, 2, 3a, 4, 5, 6, and 7.
 - b. Mechanic—Submit to CAA representative for inspection and approval prior to returning the article to service. Upon approval, the CAA representative will return the original copy to the mechanic who should submit it to the aircraft owner. Manufacturer or Approved Repair Station—Submit original to aircraft owner, forward copy to CAA district office or CAA agent prior to returning article to service.
 - c. For a component installed in an aircraft—Complete Items 1, 2, 3 (b, c, or d, whichever is applicable), 4, 5, 6, and 7. Distribute copies as in a above.
 - d. For a Spare Component—Complete Items 3 (b, c, or d, whichever is applicable), 5, 6, and 7.
 6. Mechanic—Submit to CAA representative for inspection and approval. When approved, retain both copies of the form with the component until installation on an aircraft. At this time Items 1, 2, and 4 must be completed by the installing agency who will distribute the forms as follows: (No further approval of CAA is required, only a log-book entry by the installing agency is necessary.) After installation, original form should be submitted to aircraft owner, and copy forwarded to the nearest CAA district office or CAA agent.
 7. Manufacturer or Approved Repair Station—Handle same as for mechanics except that it is not necessary to submit to CAA representative for inspection or approval.

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

Form Approved. Budget Bureau No. 41-R041.5

**APPLICATION FOR AIRWORTHINESS CERTIFICATE
AND/OR ANNUAL INSPECTION OF AN AIRCRAFT**

INSTRUCTIONS
Please print or type. Submit this form to the
Civil Aeronautics Administration Aviation Safety
Field Representative.

1. TYPE OF APPLICATION (Check which)

- a. ORIGINAL ISSUANCE OF CERTIFICATE
 b. ANNUAL INSPECTION FOR RENEWAL OF CERTIFICATE
 c. AMENDMENT OR MODIFICATION OF CURRENT CERTIFICATE
 d. RECERTIFICATION UNDER THE PROVISIONS OF CAR 8
 e. MULTIPLE CERTIFICATE UNDER THE PROVISIONS OF CAR 8
 f.

2. AIRWORTHINESS CLASSIFICATION (Check appropriate item(s))

It is requested that the Certificate of Airworthiness be issued to permit operation of the aircraft in the following airworthiness classification(s):

- a. STANDARD (NORMAL: UTILITY, ACROBATIC, TRANSPORT CATEGORIES)
 b. LIMITED (SEE CAR 9)
 c. RESTRICTED (SEE CAR 8)
 (Check the restricted special purpose operation(s) to be conducted)
 AGRICULTURAL AND PEST CONTROL
 AERIAL ADVERTISING
 AERIAL SURVEYING
 GLIDER TOWING
 PATROLLING
 FOREST AND WILDLIFE CONSERVATION
 WEATHER CONTROL
 OTHER
 d. EXPERIMENTAL
 (Check the type of experimental operation(s) to be conducted)
 RESEARCH AND DEVELOPMENT
 AMATEUR-BUILT
 DEMONSTRATION
 RACING
 EXHIBITION
 OTHER

3. AIRCRAFT IDENTIFICATION (Complete all items)

- | | | |
|------------------------------------|-------------------------------------|--|
| a. AIRCRAFT MAKE
GRUMMAN | b. AIRCRAFT MODEL
G-44A | c. AIRCRAFT SERIAL NO.
1542 1452 |
| d. ENGINE MAKE
RANGER | e. ENGINE MODEL
6-440-C-5 | |

4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)

- | | | |
|---|---|--|
| a. REGISTERED OWNER'S FULL NAME
ALPINE AIRWAYS Inc. | b. PERMANENT MAILING ADDRESS
642 RIVER ST.
Fitchburg, Massachusetts | c. AIRCRAFT NATIONALITY
AND REGISTRATION MARK
N-86626 |
|---|---|--|

5. AIRCRAFT OWNER'S CERTIFICATION (Check and complete appropriate item)

I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered* with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:

- a. CERTIFICATE OF REGISTRATION, FORM ACA-500 (PART A), DATE OF ISSUE **June 9, 1947**
 b. APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B), FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON _____ (DATE)
 c. DEALER'S REGISTRATION CERTIFICATE, FORM ACA-1707, DATED _____

*In order to be eligible for registration an aircraft must be owned by a citizen of the United States, as defined by Section 1 (13) of the Civil Aeronautics Act of 1938, as amended.

ATTACHMENTS (Check which)

- ACA-319 WEIGHT AND BALANCE REPORT
 ACA-337 DATA, DRAWINGS, ETC.
 ACA-317 UNAPPROVED DEVIATION DATA

Francis A. McLean
(SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT)

7/15/52
(DATE)

AGENT
(TITLE)

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

AIRCRAFT INSPECTION REPORT

(To be completed by a CAA representative or approved repair station)

The aircraft described in Item 3 on the reverse of this form has been inspected and found to conform to the following:
(Check and complete applicable items)

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS

- a. AIRCRAFT SPECIFICATION NO. A-734 THROUGH SHEET REVISION NO. 5
- b. AIRCRAFT LISTING PAGE NO. _____
- c. AIRWORTHINESS DIRECTIVE SUMMARY 1952 THROUGH CARD NO. 52-17
(YEAR)
- d. CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS

- a. AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY
- b. COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED
- c. AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 1851:40 HOURS
- d. ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:

L SERIAL NO. <u>R005635</u>	TOTAL HOURS <u>403:40</u>
R SERIAL NO. <u>R2356</u>	TOTAL HOURS <u>209:35</u>
SERIAL NO. _____	TOTAL HOURS _____
SERIAL NO. _____	TOTAL HOURS _____

3. PREVIOUS INSPECTION RECORD (INSPECTION RECORDED ON FORM ACA-319)

- a. LAST AIRWORTHINESS INSPECTION CONDUCTED 7/18/52 (DATE)
 BY AIRCRAFT MANUFACTURER
 BY APPROVED REPAIR STATION, CERTIFICATE NO. ATA 80451-41
 BY MECHANIC, CERTIFICATE NO. ATA 80451-41
- b. PERIODIC AIRCRAFT INSPECTION REPORT, FORM ACA-319, WAS RETURNED TO OWNER

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED

- a. OPERATION LIMITATIONS, FORM ACA-309, WAS ISSUED (COPY ATTACHED)
- b. CURRENT OPERATION LIMITATIONS, FORM ACA-309, IS AVAILABLE IN AIRCRAFT
- c. CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT
- d. CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT
- e. THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS
- f. CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED TO EXPIRE 7/26/53 (DATE)
- g. PREVIOUS FORM ACA-1362 WAS ISSUED TO EXPIRE 14 Aug 1952 (DATE)
 BY R.H. Lubb (NAME OF ISSUING REPRESENTATIVE) 1596 (DESIGNATION NO.)

5. CAA APPROVED REPAIR STATION CERTIFICATION

- The aircraft described on the reverse has been inspected under the authority accorded certificated repair station No. _____ by CAR 52 and was found to be:
- AIRWORTHY
 - UNAIRWORTHY
- (REPAIR STATION AUTHORIZED SIGNATURE) (DATE)

6. CAA REPRESENTATIVE CERTIFICATION

- I HAVE INSPECTED THE AIRCRAFT DESCRIBED ON THE REVERSE AND FOUND IT AIRWORTHY UNAIRWORTHY
(Check appropriate item)

DESIGNEE'S SIGNATURE <u>Joseph Fitts</u>	DESIGNATION NO. <u>1321</u>	DATE <u>7/26/52</u>	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED <input type="checkbox"/> SPOT CHECKED
AVIATION SAFETY AGENT'S SIGNATURE <u>[Signature]</u>	CAA DESIGNATION NO. <u>1-57701-13</u>	DATE <u>7-30-52</u>	

ATTACHMENT

The last known date of operation was 7/11/52.

Form ACA-337 (11-58)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION			Form Approved Budget Bureau No. 41-R052.2	
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)						
(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)						
1. AIRCRAFT	MAKE Crummer	MODEL G-44	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK NC86628		
2. OWNER	NAME (First, middle, last) Alpine Airways Inc.		ADDRESS (Street and number, city, zone, and State) Fitchburg, Mass.			
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED						
UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)		
				MAJOR REPAIR	MAJOR ALTERATION	
a. AIRCRAFT	***** (As described in item 1 above) *****				X	
b. PROPELLER BLADE OR HUB						
c. ENGINE						
d. INSTRUMENT	TYPE AND MANUFACTURER					
4. AIRCRAFT						
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.						
WEIGHT AND BALANCE DATA						
AFTER the repairs and/or alterations described below were made.		EMPTY WEIGHT (Pounds) 3350.7 (comp)	EMPTY CENTER OF GRAVITY (Inches from datum)* 16.1 in. aft of datum	USEFUL LOAD (Pounds)* 1194.3 norm.		
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)						
<input type="checkbox"/> MANUFACTURER <input type="checkbox"/> APPROVED REPAIR STATION NO. _____ (Specify) <input checked="" type="checkbox"/> CERTIFIED MECHANIC						
6. AGENCY	NAME Usher Aviation Radio Division	ADDRESS (Street and number, city, zone, and State) Municipal Airport New Haven, Conn.		DATE WORK ACCOMPLISHED Oct. 30, 1951		
7. DESCRIPTION OF WORK (ALL WORK MUST BE ACCOMPLISHED IN ACCORDANCE WITH PART 18 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18.)						
Installed: (1) Lear ADF-12 as per Lear dwg. no's 64139, 64153, 64152 and 64156. (2) Narco VTR-1 omnigator as per Narco inst. manual, pages 5 & 6 Removed: Lear T-30-RCBB receiver, transmitter, power supply and antenna reel.						
See reverse side for E.W. computations;						
If more space is needed, continue on reverse, or attach separate sheets bearing aircraft registration mark.						
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL						
I CERTIFY that the above statements are true and correct to the best of my knowledge.						
Signature of supervising mechanic <i>Thomas W. Ennis</i> Thomas W. Ennis		Certificate number and rating A26177539		Date Nov. 3, 1951		
TO BE COMPLETED BY CAA REPRESENTATIVES						
<input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	DESIGNEE'S SIGNATURE T.W. Ennis <i>T.W. Ennis</i>		NO. 1644	DATE Nov. 3, 1951		
	CAA AGENT SIGNATURE <i>[Signature]</i>		<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE 11/6-51		

INSTRUCTIONS

1. This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument.
2. When repairs and/or alterations are made which affect the operation limitations set forth in the Airplane Flight Manual or Form ACA-309, the aircraft shall not be returned to service until the operation limitations have been corrected by an authorized representative of the CAA.
3. Certificated mechanics must, in all cases, obtain approval of the repair and/or alteration from the CAA representative prior to returning the article to service.
4. The manufacturer of an aircraft, engine, propeller, or instrument, and a certificated repair station holding the appropriate rating may return the article to service without prior approval of an authorized CAA representative, provided the alteration and/or repair does not change any of the operation limitations.
5. Repair agencies will be guided as follows when completing this form.
 - a. For an Aircraft Repair and/or Alteration—Complete Items 1, 2, 3a, 4, 5, 6, and 7.
 Mechanic—Submit to CAA representative for inspection and approval prior to returning the article to service. Upon approval, the CAA representative will return the original copy to the mechanic who should submit it to the aircraft owner.
 Manufacturer or Approved Repair Station—Submit original to aircraft owner, forward copy to CAA district office or CAA agent prior to returning article to service.
 - b. For a Component Installed in an Aircraft—Complete Items 1, 2, 3 (b, c, or d, whichever is applicable), 4, 5, 6, and 7. Distribute copies as in a above.
 - c. For a Spare Component—Complete Items 3 (b, c, or d, whichever is applicable), 5, 6, and 7.
 Mechanic—Submit to CAA representative for inspection and approval. When approved, retain both copies of the form with the component until installation on an aircraft. At this time Items 1, 2, and 4 must be completed by the installing agency who will distribute the forms as follows: (No further approval of CAA is required, only a log-book entry by the installing agency is necessary.) After installation, original form should be submitted to aircraft owner, and copy forwarded to the nearest CAA district office or CAA agent.
 Manufacturer or Approved Repair Station—Handle same as for mechanics except that it is not necessary to submit to CAA representative for inspection or approval.

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GENERAL SECTION

16-54010-2 U. S. GOVERNMENT PRINTING OFFICE

Item	Weight	Arm	Moment
E.W.A.	3334.0	16.37	54,577.58
Removed;			
Lear equipment	- 36.0	1.00	- 36.00
Installed:			
Omnirotor	6.5	-38.50	-327.25
Omniantenna	1.5	208.00	312.00
Antenna	.2	6.00	1.20
Power supply	6.5	-48.00	-312.00
Tuner	4.0	-37.50	-150.00
Loop	2.0	- 4.50	- 9.00
Indicator	.5	-35.00	- 17.50
amplifier	3.0	-12.00	- 36.00
Cables	1.5	-15.00	- 22.50
	<u>3330.7</u>	<u>16.1</u>	<u>53,920.53</u>

New E.W.U.G. #16.1

Index Unit = $\frac{\text{Arm} \times \text{weight}}{1,000}$

Empty Weight index unit equals $\frac{3330.7 \times 16.1}{1,000}$ equals 53.62

NOTE: The above E.W. index unit to be used with Grumman loading chart #G44A-54B

Form ACA-387 (12-48)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		Form Approved Budget Bureau No. 41-R052.2	
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)					
(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)					
1. AIRCRAFT	MAKE Grumman	MODEL G-44	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK NC80626	
2. OWNER	NAME (First, middle, last) Alpine Airways, Inc.	ADDRESS (Street and number, city, zone, and State) Box 503 Fitchburg, Mass.			
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED					
UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
				MAJOR REPAIR	MAJOR ALTERATION
a. AIRCRAFT	***** (As described in item 1 above) *****			X	
b. PROPELLER BLADE OR HUB					
ENGINE	Ranger	6 440-G-5	R2356	X	
7. INSTRUMENT	TYPE AND MANUFACTURER				
4. AIRCRAFT 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.					
WEIGHT AND BALANCE DATA					
AFTER the repairs and/or alterations described below were made.		EMPTY WEIGHT (Pounds) 3330.7 (comp)	EMPTY CENTER OF GRAVITY (Inches from datum)* 16.1 in. aft of datum	USEFUL LOAD (Pounds)* 1194.3 norm.	
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)					
<input type="checkbox"/> MANUFACTURER <input checked="" type="checkbox"/> APPROVED REPAIR STATION NO. <u>1393</u> (Specify) <input type="checkbox"/> CERTIFIED MECHANIC					
6. AGENCY	NAME Schneck Engine Service & Supply	ADDRESS (Street and number, city, zone, and State) Chicago Hammond Airport Lansing, Ill.		DATE WORK ACCOMPLISHED 10/29/51	
7. DESCRIPTION OF WORK (ALL WORK MUST BE ACCOMPLISHED IN ACCORDANCE WITH PART 48 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18.)					
Installed: 1 ring set, 6 pistons std., 6 cyl. 6 wrist pin bushings, 1 gasket set, 1 set rod brgs., 1 set main brgs., 12 inner valve springs, 12 outer valve springs, 6 ex. valves, 6 intake valves, 4 mount rubbers, 1 vertical drive housing, 1 crankshaft, 1 cam housing, 12 wrist pin plugs, 2 mag. drive couplings, 1 oil relief spring, 1 valve oil relief, 24-3/8" oil nuts, 15 cyl. base nuts, 65-1/2" elastic stop nuts, 100-5/16" elastic stop nuts, 8-3/8" elastic stop nuts, 1 new carb., 44 ft. shielded ign. wire, 12 spark plug elbows, 12 spark plug cigarettes, 12 ign. wire clips, 1 new magneto, 2 mag. gaskets, 1 window, 4 numbers, 1 condenser, 1 dist. cyl., 1 set points, 1 oil seal. MAJOR overhaul engine, magnaflux all steel parts. All latest bulletins are complied with. Engine installed by J.W. Ennis A/E 177539.					
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL If more space is needed, continue on reverse, or attach separate sheets bearing aircraft registration mark.					
I CERTIFY that the above statements are true and correct to the best of my knowledge.					
Signature of supervising mechanic <i>Stanley Mierini</i>		Certificate number and rating E-682-531		Date October 29, 1951	
TO BE COMPLETED BY CAA REPRESENTATIVES					
<input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	DESIGNEE'S SIGNATURE T.W. Ennis	NO. 1644	DATE Nov. 5, 1951		
CAA AGENCY SIGNATURE		<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE 11-15-51		

FORM ACA-305 (11-49)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		Form Approved Budget Bureau No. 41-R041.4	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aeronautics Administration Aviation Safety Field Representative	
1. APPLICATION (CHECK WHETHER) <input type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIFICATE <input checked="" type="checkbox"/> ANNUAL INSPECTION		2. AIRWORTHINESS CLASSIFICATION <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RESTRICTED <input type="checkbox"/> EXPERIMENTAL <input type="checkbox"/> LIMITED <input type="checkbox"/> OTHER			
AIRCRAFT					
3. MAKE GRUMMAN			5. NATIONALITY AND REGISTRATION MARK N86626		
4. MODEL G-44A			6. MANUFACTURER'S SERIAL NO. 1452		
ENGINE					
7. MAKE RANGERS			8. MODEL 6-440-C5		
9. OWNER'S NAME Alpine Airways, Inc.			10. (GIVE ADDRESS ONLY IF IT HAS BEEN CHANGED FROM THAT GIVEN ON YOUR CERTIFICATE OF REGISTRATION, FORM ACA-300) 642 River Street Fitchburg, Mass.		
11. ATTACHMENTS (CHECK WHICH) <input checked="" type="checkbox"/> ACA-319 <input type="checkbox"/> WEIGHT AND BALANCE REPORT <input type="checkbox"/> ACA-337 <input type="checkbox"/> DATA, DRAWINGS, ETC. <input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA		12. I CERTIFY that the above statements are true. <div style="text-align: right;"> <i>E. Halstead</i> (OWNER OR AUTHORIZED AGENT) Agent </div> 8/14/51 (DATE)			
FORM ACA-305a (11-49)					
AIRCRAFT INSPECTION REPORT (To be completed by CAA representatives)					
13. It has been determined that the aircraft described in 305 above is in conformity with the following: (CHECK AND COMPLETE APPLICABLE ITEMS)					
a. <input checked="" type="checkbox"/> AIRCRAFT SPECIFICATION NO. <u>A-734</u> THROUGH SHEET REVISION NO. <u>3</u>					
b. <input type="checkbox"/> AIRCRAFT LISTING PAGE NO. _____					
c. <input checked="" type="checkbox"/> AIRWORTHINESS DIRECTIVE SUMMARY <u>1951</u> THROUGH CARD NO. <u>51-19</u> (YEAR)					
d. <input type="checkbox"/> OPERATIONS LIMITATIONS FORM ACA-309 ISSUED.					
e. <input checked="" type="checkbox"/> OPERATIONS LIMITATIONS FORM ACA-309 IS AVAILABLE IN AIRCRAFT.					
f. <input checked="" type="checkbox"/> CURRENT, APPROVED, AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT.					
g. <input checked="" type="checkbox"/> ALL APPLICABLE NOTES, INSTRUMENT MARKINGS, AND PLACARDS HAVE BEEN COMPLIED WITH.					
h. <input checked="" type="checkbox"/> CERTIFICATE OF AIRWORTHINESS FORM ACA-1362 WAS ISSUED.					
FINDINGS					
14. <input checked="" type="checkbox"/> AIRWORTHY <input type="checkbox"/> UNAIRWORTHY		15. DESIGNEE'S SIGNATURE R. H. JUBB		16. DESIGNATION NO. 1896	17. DATE 8/14/51
		18. AVIATION SAFETY AGENT'S SIGNATURE <i>[Signature]</i>		19. <input type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	20. DATE 8/14/51
21. REASON FOR DISAPPROVAL, OR REMARKS (INDICATE IF YOU HAVE USED THE REVERSE TO CONTINUE THIS OR OTHER ITEM) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
DATE OF LAST OPERATION 25 July 1951					
<i>aw</i> <i>12-6-1</i> <i>MX</i>					

FABRIC AIRWORTHY

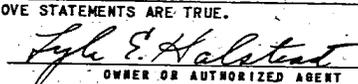
[The main body of the document is a large, mostly blank rectangular area with faint horizontal lines, suggesting a form or a page from a binder. The text is extremely faint and illegible.]

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CERTIFICATE SECTION
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Form A CA-387 (11-48)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		Form Approved Budget Bureau No. 41-R052.2	
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)					
(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)					
1. AIRCRAFT	MAKE Grumman ✓	MODEL G-44A ✓	SERIAL NO. 1452 ✓	NATIONALITY AND REGISTRATION MARK NC 8662C ✓	
2. OWNER	NAME (First, middle, last) Alpine Airways, Inc. ✓		ADDRESS (Street and number, city, zone, and State) 642 River St., Fitchburg, Mass.		
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED					
UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
				MAJOR REPAIR	MAJOR ALTERATION
a. AIRCRAFT	***** (As described in item 1 above) *****				
b. PROPELLER BLADE OR HUB	Curtiss	55518-10K	E-12432	X	
c. ENGINE					
d. INSTRUMENT	TYPE AND MANUFACTURER				
4. AIRCRAFT 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.					
WEIGHT AND BALANCE DATA					
AFTER the repairs and/or alterations described below were made.		EMPTY WEIGHT (Pounds) 3334 ✓	EMPTY CENTER OF GRAVITY (Inches from datum)* 16.37 ✓	USEFUL LOAD (Pounds)* 1191 ✓	
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)					
<input type="checkbox"/> MANUFACTURER		<input checked="" type="checkbox"/> APPROVED REPAIR STATION NO. 182 (Specify)		<input type="checkbox"/> CERTIFIED MECHANIC	
6. AGENCY	NAME HESTER'S PROPELLER SERVICE Inc.	ADDRESS (Street and number, city, zone, and State) 258 Herricks Road		DATE WORK ACCOMPLISHED 4/27/50	
	MINHOLA, NEW YORK				
* DESCRIPTION OF WORK (ALL WORK MUST BE ACCOMPLISHED IN ACCORDANCE WITH PART 18 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18.)					
Propeller was etched and reconditioned; angles, track and balance were checked. ✓					
Dia. is 6' 10". Pitch is 68°					
If more space is needed, continue on reverse, or attach separate sheets bearing aircraft registration mark.					
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL					
I CERTIFY that the above statements are true and correct to the best of my knowledge.					
<i>E. J. Weise</i> (Signature of supervising mechanic)		A & E 16655 (Certificate number and rating)		May 3, 1950 (Date)	
TO BE COMPLETED BY CAA REPRESENTATIVES					
<input checked="" type="checkbox"/> APPROVED	DESIGNEE'S SIGNATURE <i>R. H. Jubel</i>	NO. 1596	DATE 8-13-50		
<input type="checkbox"/> REJECTED	CAA AGENT SIGNATURE <i>F. W. Falmer</i>	<input checked="" type="checkbox"/> ACCEPTED	DATE 8/29/50		
		<input type="checkbox"/> REINSPECTED			

INSTRUCTIONS

1. This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument.
2. When repairs and/or alterations are made which affect the operation limitations set forth in the Airplane Flight Manual or Form ACA-309, the aircraft shall not be returned to service until the operation limitations have been corrected by an authorized representative of the CAA.
3. Certificated mechanics must, in all cases, obtain approval of the repair and/or alteration from the CAA representative prior to returning the article to service.
4. The manufacturer of an aircraft, engine, propeller, or instrument, and a certificated repair station holding the appropriate rating may return the article to service without prior approval of an authorized CAA representative, provided the alteration and/or repair does not change any of the operation limitations.
5. Repair agencies will be guided as follows when completing this form:
 - a. For an Aircraft Repair and/or Alteration—Complete Items 1, 2, 3, 4, 5, 6, and 7.
Mechanic—Submit to CAA representative for inspection and approval prior to returning the article to service. Upon approval, the CAA representative will return the original copy to the mechanic who should submit it to the aircraft owner.
Manufacturer or Approved Repair Station—Submit original to aircraft owner, forward copy to CAA district office or CAA agent prior to returning article to service.
 - b. For a Component Installed in an Aircraft—Complete Items 1, 2, 3 (b, c, or d, whichever is applicable), 4, 5, 6, and 7. Distribute copies as in a above.
 - c. For a Spare Component—Complete Items 3 (b, c, or d, whichever is applicable), 5, 6, and 7.
Mechanic—Submit to CAA representative for inspection and approval. When approved, retain both copies of the form with the component until installation on an aircraft. At this time Items 1, 2, and 4 must be completed by the installing agency who will distribute the forms as follows: (No further approval of CAA is required, only a log-book entry by the installing agency is necessary.) After installation, original form should be submitted to aircraft owner, and copy forwarded to the nearest CAA district office or CAA agent.
Manufacturer or Approved Repair Station—Handle same as for mechanics except that it is not necessary to submit to CAA representative for inspection or approval.

FORM ACA-305 (8-26-47)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		FORM APPROVED BUDGET BUREAU NO. 41-2041.3	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aeronautics Administration Field Representative.	
APPLICATION (Check whether)		CAA IDENTIFICATION			
<input type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIF.		<input checked="" type="checkbox"/> NC <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify)			
<input checked="" type="checkbox"/> ANNUAL INSPECTION		<input type="checkbox"/> NX <input type="checkbox"/> NL			
AIRCRAFT					
MAKE <u>Grumman</u>			MODEL <u>G-44-A</u>		
REGISTRATION NO. <u>NC 86626</u>	MANUFACTURER'S SERIAL NO. <u>1452</u>	DATE MANUFACTURED <u>6-45</u>	TYPE CERTIFICATE NO. <u>734</u>		
ENGINE					
MAKE <u>Ranger</u>			MODEL <u>6-440C-5</u>		
OWNER'S NAME <u>Alpine Airways, Inc.</u>			PERMANENT ADDRESS (Street and number, City, Zone and State) <u>Fitchburg, Mass.</u>		
ATTACHMENTS (Check which)		I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.			
<input type="checkbox"/> ACA-319 <input type="checkbox"/> WEIGHT AND BALANCE REPORT		 OWNER OR AUTHORIZED AGENT <u>Agent</u> TITLE			
<input checked="" type="checkbox"/> ACA-337 <input type="checkbox"/> SPECIAL APPROVALS					
<input type="checkbox"/> ACA-805 <input type="checkbox"/> DATA, DRAWINGS, ETC.					
<input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA					
		DATE <u>8-12-50</u>			
FORM ACA-305a (FORMERLY ACA-307) AIRCRAFT INSPECTION REPORT (To be completed by a CAA inspector or a designated inspector or representative)					
IT HAS BEEN DETERMINED THAT THE AIRCRAFT DESCRIBED IN 305 ABOVE IS IN CONFORMITY WITH THE FOLLOWING					
ALL APPLICABLE MANDATORY NOTES, INSTRUMENT MARKINGS AND PLACARDING REQUIREMENTS HAVE BEEN COMPLIED WITH <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
[AIRCRAFT SPECIFICATION - AIRWORTHINESS DIRECTIVE, NO(S)] <u>A-734</u> AD's thru <u>50-32</u> (SPECIFY)					
FORM ACA-1362, CERTIFICATE OF AIRWORTHINESS, ISSUED <input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> ANNUAL INSPECTION					
(Check whether)					
<input checked="" type="checkbox"/> OPERATION LIMITATIONS FORM ACA-309 WAS ISSUED, OR <u>Both items are available in</u>					
<input checked="" type="checkbox"/> APPROVED AIRPLANE FLIGHT MANUAL IS IN THE AIRCRAFT <u>the aircraft</u>					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY		DESIGNEE'S SIGNATURE AND NO. <u>R.H. Jubba, R. Jubba</u> 1596		DATE <u>8-12-50</u>	
<input type="checkbox"/> UNAIRWORTHY		CAA INSPECTOR'S SIGNATURE <u>L. H. Takemura</u>		<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	
				DATE <u>8/29/50</u>	
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other item <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)					
Date of last flight 27 July 1950					

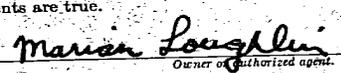
Form ACA-337 (11-48)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		Form Approved Budget Bureau No. 41-R052.2	
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)					
(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)					
1. AIRCRAFT	MAKE Grumman	MODEL G-44-A	SERIAL NO. 1452	NATIONALITY AND REGISTRATION MARK NC 86626	
2. OWNER	NAME (First, middle, last) Alpine Airways, Inc		ADDRESS (Street and number, city, zone, and State) #642 River St., Fitchburg, Mass.		
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED					
	UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check) MAJOR REPAIR MAJOR ALTERATION
a. AIRCRAFT	***** (As described in item 1 above) *****				
b. PROPELLER BLADE OR HUB	Curtiss	55518-10K	M-12430		
c. ENGINE	TYPE AND MANUFACTURER				
d. INSTRUMENT					
4. AIRCRAFT 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.					
WEIGHT AND BALANCE DATA					
AFTER the repairs and/or alterations described below were made.		EMPTY WEIGHT (Pounds) 3334	EMPTY CENTER OF GRAVITY (Inches from datum)* 16.37	USEFUL LOAD (Pounds)* 1191	
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)					
<input type="checkbox"/> MANUFACTURER		<input checked="" type="checkbox"/> APPROVED REPAIR STATION NO. 182 (Specify)		<input type="checkbox"/> CERTIFIED MECHANIC	
6. AGENCY	NAME PESTER'S PROPELLER SERVICE Inc.	ADDRESS (Street and number, city, zone, and State) 258 Herricks Road		DATE WORK ACCOMPLISHED 4/27/50	
7. DESCRIPTION OF WORK (ALL WORK MUST BE ACCOMPLISHED IN ACCORDANCE WITH PART 18 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18.)					
<p>Propeller was etched and reconditioned; angles, track and balance were checked.</p> <p>Dia. 156" x 10" Pitch is 68"</p>					
If more space is needed, continue on reverse, or attach separate sheets bearing aircraft registration mark.					
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL					
I CERTIFY that the above statements are true and correct to the best of my knowledge.					
<i>E. J. Deane</i> (Signature of supervising mechanic)		A & E 16655 (Certificate number and rating)		May 3, 1950 (Date)	
TO BE COMPLETED BY CAA REPRESENTATIVES					
<input checked="" type="checkbox"/> APPROVED	DESIGNEE'S SIGNATURE <i>R. K. Jubb</i>	NO. 1596	DATE 8-12-50		
<input type="checkbox"/> REJECTED	CAA AGENT SIGNATURE <i>F. W. Tolson</i>	<input checked="" type="checkbox"/> ACCEPTED	DATE 8/29/50	<input type="checkbox"/> REINSPECTED	

INSTRUCTIONS

1. This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument.
2. When repairs and/or alterations are made which affect the operation limitations set forth in the Airplane Flight Manual or Form ACA-309, the aircraft shall not be returned to service until the operation limitations have been corrected by an authorized representative of the CAA.
3. Certificated mechanics must, in all cases, obtain approval of the repair and/or alteration from the CAA representative prior to returning the article to service.
4. The manufacturer of an aircraft, engine, propeller, or instrument, and a certificated repair station holding the appropriate rating may return the article to service without prior approval of an authorized CAA representative, provided the alteration and/or repair does not change any of the operation limitations.
5. Repair agencies will be guided as follows when completing this form.
 - a. For an Aircraft Repair and/or Alteration—Complete Items 1, 2, 3a, 4, 5, 6, and 7.
Mechanic—Submit to CAA representative for inspection and approval prior to returning the article to service. Upon approval, the CAA representative will return the original copy to the mechanic who should submit it to the aircraft owner.
Manufacturer or Approved Repair Station—Submit original to aircraft owner, forward copy to CAA district office or CAA agent prior to returning article to service.
 - b. For a Component Installed in an Aircraft—Complete Items 1, 2, 3 (b, c, or d, whichever is applicable), 4, 5, 6, and 7. Distribute copies as in a above.
 - c. For a Spare Component—Complete Items 3 (b, c, or d, whichever is applicable), 5, 6, and 7.
Mechanic—Submit to CAA representative for inspection and approval. When approved, retain both copies of the form with the component until installation on an aircraft. At this time Items 1, 2, and 4 must be completed by the installing agency who will distribute the forms as follows: (No further approval of CAA is required, only a log-book entry by the installing agency is necessary.) After installation, original form should be submitted to aircraft owner, and copy forwarded to the nearest CAA district office or CAA agent.
Manufacturer or Approved Repair Station—Handle same as for mechanics except that it is not necessary to submit to CAA representative for inspection or approval.

SEP 7 1949 #2645

1-183

Form ACA-305 (12-47)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		FORM APPROVED BUDGET BUREAU No. 41-R041.3	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aeronautics Administration Field Representative	
APPLICATION (Check which)		AIRWORTHINESS CLASSIFICATION			
<input type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIFICATE		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RESTRICTED			
<input checked="" type="checkbox"/> ANNUAL INSPECTION		<input type="checkbox"/> EXPERIMENTAL <input type="checkbox"/> LIMITED <input type="checkbox"/> OTHER			
AIRCRAFT					
MAKE Grumman		MODEL G11A		TYPE CERTIFICATE NO. 734	
REGISTRATION NO. 86626		MANUFACTURER'S SERIAL NO. 1452			
ENGINE					
MAKE Ranger		MODEL 6-440-C5			
OWNER'S NAME Alpine Airways Inc.			PERMANENT ADDRESS (Street and number, city, zone, and State) Fitchburgh, Mass.		
ATTACHMENTS (Check which)			I CERTIFY that the above statements are true.		
<input checked="" type="checkbox"/> ACA-319 <input checked="" type="checkbox"/> WEIGHT AND BALANCE REPORT			 Owner or authorized agent.		
<input type="checkbox"/> ACA-337 <input type="checkbox"/> DATA, DRAWINGS, ETC.					
<input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA					
			9/2/49 (DATE) (TITLE)		

Form ACA-305a		AIRCRAFT INSPECTION REPORT	
(To be completed by a CAA inspector or a designated inspector or representative)			
It has been determined that the aircraft described in 305 above is in conformity with the following:			
ALL APPLICABLE MANDATORY NOTES, INSTRUMENT MARKINGS AND PLACARDING REQUIREMENTS HAVE BEEN COMPLIED WITH <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
AIRCRAFT SPECIFICATION—AIRWORTHINESS DIRECTIVE NO(S) & Spec. 734-3 ADS thru 49-34 (Specify)			
FORM ACA-1362, CERTIFICATE OF AIRWORTHINESS, ISSUED <input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> ANNUAL INSPECTION			
(Check whether)			
<input type="checkbox"/> OPERATION LIMITATIONS FORM ACA-303 WAS ISSUED, OR			
<input type="checkbox"/> APPROVED AIRPLANE FLIGHT MANUAL IS IN THE AIRCRAFT			
FINDINGS			
<input checked="" type="checkbox"/> AIRWORTHY		DATE 9/2/49	
<input type="checkbox"/> UNAIRWORTHY		DATE 9/6/49	
CAA INSPECTOR'S SIGNATURE AND NO. Edwin Lovejoy DMIR 1009		<input checked="" type="checkbox"/> ACCEPTED	
CAA INSPECTOR'S SIGNATURE Edwin W. Schwobler		<input type="checkbox"/> REINSPECTED	
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other items.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

FAA AIRCRAFT REGISTRY
CAMERA NO. 3

DATE: 1-20-81

DEPT OF COMMERCE
ADM. AERONAUTICS DIV.
SEP 19 9 40 AM '49
MAIL ROOM 3
WASHINGTON

249E

FORM ACA-305 (3-5-47)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		FORM APPROVED BUDGET BUREAU NO. 41-R041.3	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aero- nautics Administration Field Representative.	
APPLICATION (Check whether)		CAA IDENTIFICATION			
<input type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIF.		<input checked="" type="checkbox"/> NC <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify)			
<input checked="" type="checkbox"/> ANNUAL INSPECTION		<input type="checkbox"/> NX <input type="checkbox"/> NL			
AIRCRAFT					
MAKE Grumman "Widgeon"			MODEL G-44A		
REGISTRATION NO. NC 86626		MANUFACTURER'S SERIAL NO. 1452		DATE MANUFACTURED 6/20/45	TYPE CERTIFICATE NO. A-734-3
ENGINE					
MAKE Ranger			MODEL 6-440C-5		
OWNER'S NAME Alpine Airways, Inc.			PERMANENT ADDRESS (Street and number, City, Zone and State) Fitchburg, Mass.		
ATTACHMENTS (Check which)		I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.			
<input checked="" type="checkbox"/> ACA-319 * <input checked="" type="checkbox"/> WEIGHT AND BALANCE REPORT		<p style="text-align: right;"><i>Lyell E. Halstead</i> OWNER OR AUTHORIZED AGENT</p> <p style="text-align: center;">10-27-48 DATE</p> <p style="text-align: right;"><i>Donna J. Pitt</i> TITLE</p>			
<input checked="" type="checkbox"/> ACA-337 <input type="checkbox"/> SPECIAL APPROVALS					
<input type="checkbox"/> ACA-805 <input type="checkbox"/> DATA, DRAWINGS, ETC.					
<input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA					
FORM ACA-305a (FORMERLY ACA-307) AIRCRAFT INSPECTION REPORT (To be completed by a CAA inspector or a designated inspector or representative)					
IT HAS BEEN DETERMINED THAT THE AIRCRAFT DESCRIBED IN 305 ABOVE IS IN CONFORMITY WITH THE FOLLOWING					
ALL APPLICABLE MANDATORY NOTES, INSTRUMENT MARKINGS AND PLACARDING REQUIREMENTS HAVE BEEN COMPLIED WITH <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
(AIRCRAFT SPECIFICATION - AIRWORTHINESS DIRECTIVE, NO(S) A-734-4 AD'S. thru 48-42 (SPECIFY))					
AUTHORITY FOR EXCEPTIONS (If any) NONE					
FORM ACA-1362, CERTIFICATE OF AIRWORTHINESS, ISSUED <input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> ANNUAL INSPECTION					
Check whether)					
<input checked="" type="checkbox"/> OPERATION LIMITATIONS FORM ACA-309 WAS ISSUED, OR					
<input type="checkbox"/> APPROVED AIRPLANE FLIGHT MANUAL IS IN THE AIRCRAFT					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY		DESIGNER'S SIGNATURE <i>Red H. Armstrong</i>		DATE Nov. 3, 1948	
<input type="checkbox"/> UNAIRWORTHY		CAA INSPECTOR'S SIGNATURE <i>William W. Schwach</i>		<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	
				DATE Nov 4, 1948	
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other item <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No) General condition of aircraft at time of this inspection is very good.					
* Returned to Owner.					

A-Radio
ADW
8-2-49

WASHINGTON
MAIL ROOM - 1
NOV 16 8 06 AM '48
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMIN.

Form A-CA-808--Page 1 (12-48)

NOV 9 RECD

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		OPERATION LIMITATIONS			INT. MARK NO 86626	
ENGINE MAKE Ranger MODEL 6-440-05	AIRCRAFT MAKE Crummen MODEL G-44-A	DATE RECD 6-45	SERIAL NO. 1452	DESIGNATION Amphib.	TYPE CERT. 734	

ENGINE AND AIR SPEED LIMITS NOT TO BE EXCEEDED
(All Values Are Maximums and Are NOT RECOMMENDED OPERATING LIMITS)

ENGINE LIMITS							TRUE INDICATED AIR SPEED		
	MINUTES	ALTITUDE	IN. HG.	R. P. M.	H. P.	FUEL OCT.		M. P. H. LAND	KNOTS SEA
TAKE-OFF	-	Any	-	2450	200	87	CLIMB OR LEVEL FLIGHT	168	146
SEA LEVEL	X	TO	-	■	■	■	GLIDE OR DIVE (Smooth Air Only)	201	175
METO ALTITUDE	FROM	■	-	■	■	■	FLAPS EXTENDED	104	90

*METO—MAXIMUM EXCEPT TAKE-OFF

TAKE-OFF WEIGHT		LANDING WEIGHT	
LAND	SEA	LAND	SEA
4525		4525	4525

OPERATIONS AUTHORIZED
See weight and balance data section for loading information.

INSPECTOR'S SIGNATURE
Edwin W. Schwoabli
Edwin W. Schwoabli
DATE
Nov. 4, 1948

ADDITIONAL OPERATIONS AUTHORIZED YES NO (IF YES—SEE OVER)

THIS PLACARD MUST BE DISPLAYED IN VIEW OF THE PILOT
(FOLD HERE)

ADDITIONAL OPERATIONS AUTHORIZED

THIS FORM IS TO BE FILLED OUT BY THE PILOT OR OWNER OF THE AIRCRAFT AND IS TO BE KEPT ON THE AIRCRAFT AT ALL TIMES.

REGISTRATION NO. *101-10101*

TYPE *C440* SEV *1* GROSS WT *1000* TYPE *1* GROSS WT *1000*

MAXIMUM TAKE-OFF WEIGHT *1000* MAXIMUM LANDING WEIGHT *1000*

TYPE	WINGSPAN	WING AREA	WING LOADING	WING TIP SPEED						
	WINGSPAN	WING AREA	WING LOADING	WING TIP SPEED						

ENGINE MAKE *Lycoming* MODEL *O-360* HORSEPOWER *180*

PROPELLER MAKE *Hughes* MODEL *100*

LANDING GEAR MAKE *Garrett* MODEL *100*

LANDING GEAR TYPE *Tricycle*

LANDING GEAR WEIGHT *1000*

LANDING GEAR CLEARANCE *10*

LANDING GEAR SPREAD *10*

LANDING GEAR TRACK *10*

LANDING GEAR STRENGTH *1000*

LANDING GEAR BRAKES *1000*

LANDING GEAR STEERING *1000*

LANDING GEAR TOWING *1000*

LANDING GEAR OTHER *1000*

LANDING GEAR NOTES *1000*

LANDING GEAR WEIGHT *1000*

LANDING GEAR CLEARANCE *10*

LANDING GEAR SPREAD *10*

LANDING GEAR TRACK *10*

LANDING GEAR STRENGTH *1000*

LANDING GEAR BRAKES *1000*

LANDING GEAR STEERING *1000*

LANDING GEAR TOWING *1000*

LANDING GEAR OTHER *1000*

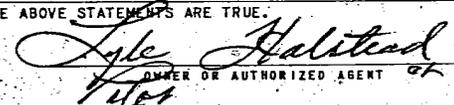
LANDING GEAR NOTES *1000*

IF THIS FORM IS LOST OR DESTROYED, A DUPLICATE MAY BE OBTAINED FROM THE CERTIFICATION AND RECORDATION SECTION, AIRCRAFT AND COMPONENTS SERVICE, CIVIL AERONAUTICS ADMINISTRATION, WASHINGTON, D. C., FOR \$2.00. (MONEY ORDER OR CHECK SHOULD BE MADE PAYABLE TO THE TREASURER OF THE UNITED STATES.)

FORM 10-65710-2

Form ACA-337 (11-7-46)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		Budget Bureau No. 41-R052.1 Approval expires December 31, 1948.	
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)					
<p>INSTRUCTIONS.—This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument, as follows:</p> <p>(A) <i>For an Aircraft.</i>—Complete items 1, 2, 3a, 4, 5, 6, and 7, and submit to CAA representative for approval.</p> <p>(B) <i>For a Component Installed in an Aircraft.</i>—Complete items 1, 2, 3 (b, c, or d, whichever is applicable), 4, 5, and 6, and submit as described in (A) above.</p> <p>(C) <i>For a Spare Component.</i>—Complete items 3 (b, c, or d), 5, and 6, and submit to CAA representative for approval. When approved, retain both copies of this form with the component until installation on an aircraft. At that time items 1, 2, and 4 must be completed by the installing agency which will then forward forms as described in (A) above.</p>					
1. AIRCRAFT	MAKE Gruman	MODEL G-44A	SERIAL NO. 1453	CAA IDENTIFICATION MARK ED 86628	
2. OWNER	NAME (First, middle, last) Alpine Airways, Inc.		ADDRESS (Street and number, city, zone, and State) Fitchburg, Mass.		
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED					
UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check) MAJOR REPAIR MAJOR ALTERATION	
AIRCRAFT	***** (As described in item 1 above) *****				
b. PROPELLER BLADE OR HUB	See Statement in item 7 below.				X
c. ENGINE					
d. INSTRUMENT	TYPE AND MANUFACTURER				
<p>The following items are to be completed by repair or alteration agency. However, in the case of a spare component, item 4 will not be completed until such component is installed in an aircraft. At this time, item 4 will be completed by the installing agency, if applicable.</p>					
4. AIRCRAFT	EMPTY WEIGHT (Pounds)*	EMPTY CENTER OF GRAVITY (Inches from datum)*	USEFUL LOAD (Pounds)*		
	See Statement in item 7 below.				
* After the repairs and/or alterations described below were made.					
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)					
<input checked="" type="checkbox"/> MANUFACTURER		<input checked="" type="checkbox"/> APPROVED REPAIR STATION NO. 18		<input checked="" type="checkbox"/> CERTIFIED MECHANIC	
		(Specify)			
6. AGENCY	NAME Gruman Aircraft Engineering Corp.	ADDRESS (Street and number, city, zone, and State) Bohpage, N. Y.		DATE WORK ACCOMPLISHED 11/1/48	
7. DESCRIPTION OF WORK ACCOMPLISHED IN ACCORDANCE WITH PART 18 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18. (IF MORE SPACE IS NEEDED, CONTINUE ON REVERSE OR ATTACH SEPARATE SHEETS BEARING AIRCRAFT IDENTIFICATION MARK.)					
<p>Equipped with Sensinich wood propellers—4828572 5262 17.58 1245</p> <p>Equipped with Curtiss metal propellers—455518-10 3384 16.57 1191</p> <p>This owner changes propellers frequently and desires to record a fixed operating limitation, and form ACA-537 to suit both conditions, (wood or metal propellers,) selecting the lower value of the two. Both weight and balance conditions are noted</p>					
I CERTIFY that the above statements are true and correct to the best of my knowledge.					
R. W. Schaefer		M-10275 A & E		11/1/48	
(Signature of supervising mechanic)		(Certificate number and rating)		(Date)	
TO BE COMPLETED BY CAA REPRESENTATIVES					
<input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	SIGNATURE OF DESIGNEE		NO.	DATE	
<input checked="" type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL	SIGNATURE OF INSPECTOR Edmund W. Schwedler		<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE Nov. 4, 1948	

MAY 27 RECD 1749

FORM ACA-305 (3-5-47)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		FORM APPROVED BUDGET BUREAU NO. 41-R041.3	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aero- nautics Administration Field Representative.	
APPLICATION (Check whether)		CAA IDENTIFICATION			
<input type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIF.		<input checked="" type="checkbox"/> NC <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify) _____			
<input checked="" type="checkbox"/> ANNUAL INSPECTION		<input type="checkbox"/> NX <input type="checkbox"/> NL			
AIRCRAFT					
MAKE Grumman			MODEL G-44A		
REGISTRATION NO. NC 86626	MANUFACTURER'S SERIAL NO. 1452	DATE MANUFACTURED 6/46	TYPE CERTIFICATE NO. A734		
ENGINE					
MAKE Ranger			MODEL 440-C5		
OWNER'S NAME Alpine Airways, Inc.			PERMANENT ADDRESS (Street and number, City, Zone and State) Fitchburg, Mass.		
ATTACHMENTS (Check which)			I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.		
<input checked="" type="checkbox"/> ACA-319 <input checked="" type="checkbox"/> WEIGHT AND BALANCE REPORT			 OWNER OR AUTHORIZED AGENT DATE 5-25-48 TITLE _____		
<input checked="" type="checkbox"/> ACA-337 <input type="checkbox"/> SPECIAL APPROVALS					
<input type="checkbox"/> ACA-605 <input type="checkbox"/> DATA, DRAWINGS, ETC.					
<input type="checkbox"/> ACA-517 <input type="checkbox"/> UNAPPROVED DEVIATION DATA					
FORM ACA-305a (FORMERLY ACA-307) AIRCRAFT INSPECTION REPORT (To be completed by a CAA inspector or a designated inspector or representative)					
IT HAS BEEN DETERMINED THAT THE AIRCRAFT DESCRIBED IN 305 ABOVE IS IN CONFORMITY WITH THE FOLLOWING					
ALL APPLICABLE MANDATORY NOTES, INSTRUMENT MARKINGS AND PLACARDING REQUIREMENTS HAVE BEEN COMPLIED WITH <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
(AIRCRAFT SPECIFICATION - AIRWORTHINESS DIRECTIVE, No(S). A-734-3 ADS thru 48-5-5 (SPECIFY)					
AUTHORITY FOR EXCEPTIONS (If any)					
FORM ACA-1362, CERTIFICATE OF AIRWORTHINESS, ISSUED <input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> ANNUAL INSPECTION					
(Check whether)					
<input checked="" type="checkbox"/> OPERATION LIMITATIONS FORM ACA-309 WAS ISSUED, OR					
<input type="checkbox"/> APPROVED AIRPLANE FLIGHT MANUAL IS IN THE AIRCRAFT					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY	DESIGNEE'S SIGNATURE AND NAME WED R. ARMSTRONG			DATE 5-26-48	
<input type="checkbox"/> UNAIRWORTHY	CAA INSPECTOR'S SIGNATURE			<input type="checkbox"/> ACCEPTED	DATE
				<input type="checkbox"/> REINSPECTED	
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other item <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)					

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMIN.
JAN 2 12 54 PM '81

27 RECD

FORM ACA-937 (11-7-46) DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION BUDGET BUREAU NO. 41-8052.1- APPROVAL EXPIRES DECEMBER 31, 1948

REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)

INSTRUCTIONS - This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument, as follows:
 (A) For an Aircraft - Complete items 1, 2, 3a, 4, 5, 6, and 7 and submit to CAA representative for approval.
 (B) For a Component Installed in an Aircraft - Complete items 1, 2, 3(b, c, or d, whichever is applicable), 4, 5, and 6, and submit as described in (A) above.
 (C) For a Spare Component - Complete items 3(b, c, or d), 5, and 6, and submit to CAA representative for approval. When approved, retain both copies of this form with the component until installation on an aircraft. At that time, items 1, 2, and 4 must be completed by the installing agency, which will then forward forms as described in (A) above.

1. AIRCRAFT	MAKE Grumman	MODEL G-44A	SERIAL NO. 1452	CAA IDENTIFICATION MARK NC - 86626
2. OWNER	NAME (First, middle, last) ADDRESS (Street and number, city, zone, and state) Alpine Airways, Inc. Fitchburg, Mass.			
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED				
UNIT	MAKE	MODEL	SERIAL NO.	MATURE OF WORK (Check) MAJOR REPAIR MAJOR ALTERATION
(As described in item 1 above)				
b. PROPELLER BLADE OR HUB	Curtiss	55518-10	L.H. M-12432	X
			R.H. M-12430	
c. ENGINE				
d. INSTRUMENT	TYPE AND MANUFACTURER			
The following items are to be completed by repair or alteration agency. However, in the case of a spare component, item 4 will not be completed until such component is installed in an aircraft. At this time, item 4 will be completed by the installing agency, if applicable.				
4. AIRCRAFT	EMPTY WEIGHT (Pounds)* 3386	EMPTY CENTER OF GRAVITY (Inches from datum)* 16.37	USEFUL LOAD (Pounds)* 1139	
*AFTER the repairs and/or alterations described below were made.				
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check) <input type="checkbox"/> MANUFACTURER <input checked="" type="checkbox"/> APPROVED REPAIR STATION NO. 18 <input checked="" type="checkbox"/> CERTIFIED MECHANIC (SPECIFY)				
AGENCY	NAME Grumman Aircraft Eng. Corp.	ADDRESS (Street and number, city, zone, and state) Bethpage, L.I.		DATE WORK ACCOMPLISHED 5/24/48
7. DESCRIPTION OF WORK ACCOMPLISHED IN ACCORDANCE WITH PART 18 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18. (If more space is needed, continue on reverse, or attach separate sheets bearing aircraft identification mark) Removed Sensenich wooden propellers design #82RS72 weighing 54lbs. (27 lbs. ea.) and installed Curtiss metal propellers design #55518-10 weighing 106 lbs. Empty weight of the airplane was increased 52lbs at arm -47".				
I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.				
SIGNATURE OF SUPERVISING MECHANIC <i>William K. Keller</i>		CERTIFICATE NUMBER AND RATING A & E M-10275		DATE 5/24/48
TO BE COMPLETED BY CAA REPRESENTATIVES				
<input checked="" type="checkbox"/> APPROVED	SIGNATURE OF INSPECTOR <i>Fred R. Armstrong</i>	NUMBER 1008	DATE 5-26-48	
<input type="checkbox"/> REJECTED		<input type="checkbox"/> ACCEPTED	DATE	
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL		<input type="checkbox"/> REINSPECTED		

DEPARTMENT OF COMMERCE
AVIATION ADMINISTRATION
FIRST REGION
NEW YORK, NEW YORK

MAY 28 9 11 AM '48

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[The main body of the document is a large, mostly illegible form with faint lines and text, possibly containing registration or inspection details.]

FORM ACA-337
(11-7-46)

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

BUDGET BUREAU NO. 41-7052.1
APPROVAL EXPIRES DECEMBER 31, 1948

REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)

INSTRUCTIONS - This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument, as follows:

- (A) For an Aircraft - Complete items 1, 2, 3a, 4, 5, 6, and 7 and submit to CAA representative for approval.
- (B) For a Component Installed in an Aircraft - Complete items 1, 2, 3(b, c, or d, whichever is applicable), 4, 5, and 6, and submit as described in (A) above.
- (C) For a Spare Component - Complete items 3(b, c, or d), 5, and 6, and submit to CAA representative for approval. When approved, retain both copies of this form with the component until installation on an aircraft. At that time, items 1, 2, and 4 must be completed by the installing agency, which will then forward forms as described in (A) above.

1. AIRCRAFT MAKE Grumman	MODEL G-44A	SERIAL NO. 1452	CAA IDENTIFICATION MARK NC 86626
2. OWNER NAME (First, middle, last) Alpine Airways Inc.		ADDRESS (Street and number, city, zone, and state) Fitchburg, Mass.	

3. FILL IN INFORMATION ON THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED

UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
				MAJOR REPAIR	MAJOR ALTERATION
* AIRCRAFT (As described in item 1 above)					
PROPELLER MADE OR HUB	Sensenich	82RS72	L.H. G9476 R.H. G9480		X
c. ENGINE					
d. INSTRUMENT					

The following items are to be completed by repair or alteration agency. However, in the case of a spare component, item 4 will not be completed until such component is installed in an aircraft. At this time, item 4 will be completed by the installing agency, if applicable.

4. AIRCRAFT	EMPTY WEIGHT (Pounds)* 3264	EMPTY CENTER OF GRAVITY (Inches from datum)* 17.58	USEFUL LOAD (Pounds)* 1261
-------------	---------------------------------------	--	--------------------------------------

*AFTER the repairs and/or alterations described below were made.

5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)

MANUFACTURER APPROVED REPAIR STATION NO. **18** CERTIFIED MECHANIC

6. AGENCY NAME Grumman Aircraft Eng. Corp.	ADDRESS (Street and number, city, zone, and state) Bethpage, L. I.	DATE WORK ACCOMPLISHED 11/13/47
--	--	---

7. DESCRIPTION OF WORK ACCOMPLISHED IN ACCORDANCE WITH PART 18 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18. (If more space is needed, continue on reverse, or attach separate sheets bearing aircraft identification mark)

Removed Curtiss metal propellers design #55518-10 weighing 106 lbs. and installed Sensenich wooden propellers design # 82RS 72 weighing 54 lbs. This decreased the empty weight 52 lbs. at arm-47".

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

W. William K. Walker **A & E M10276** **11/13/47**
SIGNATURE OF SUPERVISING MECHANIC CERTIFICATE NUMBER AND RATING DATE

<input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED <input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL	TO BE COMPLETED BY CAA REPRESENTATIVES		DATE
	SIGNATURE OF DESIGNER <i>Fred R. ...</i>	NUMBER 1008	
	SIGNATURE OF INSPECTOR <i>...</i>	NUMBER 1008	DATE
		<input checked="" type="checkbox"/> ACCEPTED	
		<input type="checkbox"/> REINSPECTED	

FAA Form 35-ACA-809-Page 1 (12-45)

NOV 18 1980 #1376-*WCL*

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE FAA CIVIL AERONAUTICS ADMINISTRATION		OPERATION LIMITATIONS				CAA IDENT. MARK NO 86628		
ENGINE MAKE Pratt & Whitney	MODEL 6-440-G5	MAKE Cessna	MODEL C-44-A	DATE MFRD. 6-45	SERIAL NO. 1458	DESIGNATION Amphib.		
ENGINE AND AIR SPEED LIMITS NOT TO BE EXCEEDED (All Values Are Maximum and Are NOT Recommended Operating Limits)								
ENGINE LIMITS						TRUE INDICATED AIR SPEED		
	M. P. H.	ALTITUDE	IN. HG.	R. P. M.	H. P.	FUEL OCT.	M. P. H. LAND	KNOTS SEA
TAKE-OFF	-	Any	-	2450	200	87	CLIMB OR LEVEL FLIGHT	176 152
SEA LEVEL	X	d°	-	□	□	□	GLIDE OR DIVE (Smooth Air Only)	210 183
ALTIITUDE	FROM	□	-	□	□	□	FLAPS EXTENDED	104 90
*METO—MAXIMUM EXCEPT TAKE-OFF							Land & Sea	
TAKE-OFF WEIGHT				LANDING WEIGHT				
LAND	SEA	LAND	SEA	LAND	SEA	LAND	SEA	
4525	4525	4525	4525	4525	4525	4525	4525	
OPERATIONS AUTHORIZED								
See weight and balance data section for loading information.								
						INSPECTOR SIGNATURE <i>Fred A. Armstrong</i> DATE 11-14-47 DMIR 1008		

ADDITIONAL OPERATIONS AUTHORIZED YES NO (IF YES—SEE OVER)
THIS PLACARD MUST BE DISPLAYED IN VIEW OF THE PILOT
 (FOLD HERE)

FORM ACA-309 3521777		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		FORM APPROVED BUDGET BUREAU NO. 41-R041.3	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aero- nautics Administration Field Representative.	
APPLICATION (Check whether)		CAA IDENTIFICATION			
<input type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIF.		<input checked="" type="checkbox"/> NC <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify)			
<input type="checkbox"/> ANNUAL INSPECTION		<input type="checkbox"/> NX <input type="checkbox"/> NL			
AIRCRAFT					
MAKE GRUMMAN			MODEL G-44A (WIDGEON)		
REGISTRATION NO. NC 86626	MANUFACTURER'S SERIAL NO. 1452	DATE MANUFACTURED 6-45	TYPE CERTIFICATE NO. 734		
ENGINE					
MAKE RANGER			MODEL 6-440-C-5		
OWNER'S NAME ALPINE AIRWAYS, INC.			PERMANENT ADDRESS (Street and number, City, Zone and State) FITCHBURG, MASS.		
ATTACHMENTS (Check which)		I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.			
<input checked="" type="checkbox"/> ICA-319 <input type="checkbox"/> WEIGHT AND BALANCE REPORT		_____ OWNER OR AUTHORIZED AGENT _____ DATE TITLE 11-11-47 _____			
<input checked="" type="checkbox"/> ACA-337 <input type="checkbox"/> SPECIAL APPROVALS					
<input type="checkbox"/> ACA-805 <input type="checkbox"/> DATA, DRAWINGS, ETC.					
<input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA					
FORM ACA-305a (FORMERLY ACA-307) AIRCRAFT INSPECTION REPORT (To be completed by a CAA inspector or a designated inspector or representative)					
IT HAS BEEN DETERMINED THAT THE AIRCRAFT DESCRIBED IN 305 ABOVE IS IN CONFORMITY WITH THE FOLLOWING ALL APPLICABLE MANDATORY NOTES, INSTRUMENT MARKINGS AND PLACARDING REQUIREMENTS HAVE BEEN COMPLIED WITH <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
(AIRCRAFT SPECIFICATION - AIRWORTHINESS DIRECTIVE, NO(S). A-734-3 AD 352 (SPECIFY)					
AUTHORITY FOR EXCEPTIONS (If any) NONE					
FORM ACA-1362, CERTIFICATE OF AIRWORTHINESS, ISSUED <input type="checkbox"/> ORIGINAL <input type="checkbox"/> ANNUAL INSPECTION					
(Check whether)					
OPERATION LIMITATIONS FORM ACA-309 WAS ISSUED, OR 11-14-47					
<input type="checkbox"/> APPROVED AIRPLANE FLIGHT MANUAL IS IN THE AIRCRAFT					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY		DESIGNER'S SIGNATURE AND NO. Fred R. Armstrong, DMIR		DATE 11-14-47	
<input type="checkbox"/> UNAIRWORTHY		CAA INSPECTOR'S SIGNATURE		<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other item <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No) Removed Curtiss metal propellers design 55518-10 and installed Sensenich wood propellers design 82RS72. New weight and balance report issued dated 11-17-47, to cover this change, also issued new page one of 309 due to changes in airspeed limits.					

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

[Faint, mostly illegible text and markings on a grid background, possibly a technical drawing or form.]

DEPARTMENT OF TRANSPORTATION
WASHINGTON, D.C. 20590
Dec 3 12 59 PM '47
MAIL ROOM - 2
WASHINGTON

70,86626

FORM ACA-337 (11-7-46)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		BUDGET BUREAU NO. 41-8052.1 APPROVAL EXPIRES DECEMBER 31, 1948	
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)					
<p>INSTRUCTIONS - This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument, as follows:</p> <p>(A) <i>For an Aircraft</i> - Complete items 1, 2, 3a, 4, 5, 6, and 7 and submit to CAA representative for approval.</p> <p>(B) <i>For a Component Installed in an Aircraft</i> - Complete items 1, 2, 3(b, c, or d, whichever is applicable), 4, 5, and 6, and submit as described in (A) above.</p> <p>(C) <i>For a Spare Component</i> - Complete items 3(b, c, or d), 5, and 6, and submit to CAA representative for approval. When approved, retain both copies of this form with the component until installation on an aircraft. At that time, items 1, 2, and 4 must be completed by the installing agency, which will then forward forms as described in (A) above.</p>					
1. AIRCRAFT	MAKE Cessna	MODEL 441	SERIAL NO. 7450	CAA IDENTIFICATION MARK DNC 86626	
2. OWNER	NAME (First, middle, last) Alpine Airways Inc.		ADDRESS (Street and number, city, zone, and state) 642 River Street, Fitchburg, Massachusetts		
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED					
UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
a. AIRCRAFT	(As described in item 1 above)			MAJOR REPAIR	MAJOR ALTERATION
b. PROPELLER					
c. ENGINE					
d. INSTRUMENT	TYPE AND MANUFACTURER				
The following items are to be completed by repair or alteration agency. However, in the case of a spare component, item 4 will not be completed until such component is installed in an aircraft. At this time, item 4 will be completed by the installing agency, if applicable.					
4. AIRCRAFT	EMPTY WEIGHT (Pounds)*	EMPTY CENTER OF GRAVITY (Inches from datum)*	USEFUL LOAD (Pounds)*		
*AFTER the repairs and/or alterations described below were made.					
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)					
<input type="checkbox"/> MANUFACTURER		<input type="checkbox"/> APPROVED REPAIR STATION NO.		<input checked="" type="checkbox"/> CERTIFIED MECHANIC	
(SPECIFY)					
AGENCY	Aeronautical Radio Mfg. Co.		ADDRESS (Street and number, city, zone, and state) Roosevelt Field, Mineola, New York		DATE WORK ACCOMPLISHED 10/14/47
7. DESCRIPTION OF WORK ACCOMPLISHED IN ACCORDANCE WITH PART 19 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTIC MANUAL 18. (If more space is needed, continue on reverse, or attach separate sheets bearing aircraft identification mark)					
<p>Installed AVR104 Receiver, AVR114 transmitter, AVA127 power unit and necessary accessories AVR114</p> <p>For Weight and Balance see reverse side.</p>					
I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.					
SIGNATURE OF SUPERVISING MECHANIC <i>George W. McCaulley</i>		CERTIFICATE NUMBER AND RATING 366 A&R		DATE 10/14/47	
TO BE COMPLETED BY CAA REPRESENTATIVES					
<input checked="" type="checkbox"/> APPROVED	SIGNATURE OF DESIGNEE		NUMBER	DATE	
<input type="checkbox"/> REJECTED	SIGNATURE OF INSPECTOR <i>William C. Butler</i>		<input type="checkbox"/> ACCEPTED	DATE	
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL			<input type="checkbox"/> REINSPECTED	11/25-14-47	

THIS FORM IS TO BE COMPLETED BY THE AIRCRAFT MANUFACTURER OR THE PERSON RESPONSIBLE FOR THE AIRCRAFT AT THE TIME OF THE AIRCRAFT'S FIRST FLIGHT OR AT THE TIME OF THE AIRCRAFT'S REPAIR OR ALTERATION.

Weight Moment
Previous Empty Weight (computed) 3316 16.57 54,946

ITEMS ADDED	WEIGHT	ARM	MOMENT
Receiver RCA AVR104	1.75	-35	-61
AF Unit RCA AVR104	1.62	-6	-10
Cables	1.5	-25	-38
Transmitter RCA AVF114	1.9	-35	-67
Power unit RCA AVA127	9.3	18	167
Cables	1.4	-25	-35
Antenne VHF	.6	13	8
Subtotal	18.07		-36

Revised Empty Weight 3334 (16.46) 54,910

Empty C.G. 16.46 in.

Useful Load = 4525 - 3334 = 1191

EMPTY WEIGHT (COMBINED) (INCLUDES FUEL TANKS AND FUEL LOADS)
EMPTY WEIGHT (COMBINED) (INCLUDES FUEL TANKS AND FUEL LOADS)

APPROVED REPAIR STATION NO. _____
APPROVED REPAIR STATION NO. _____

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.
DATE: _____

SIGNATURE OF REPRESENTATIVE OF AIRCRAFT MANUFACTURER
SIGNATURE OF INSPECTOR
APPROVED
REJECTED
FORWARDED
ENGINEERING

(7-46)

REPORT NO. 227

PAGE NO. 1 of 4

PAUL C. HALSTEAD
WEIGHT & BALANCE SERVICE
MERRICK, N. Y.

WEIGHT AND BALANCE

A IDENT. MARK
NCS6626

LOADING SCHEDULE

Model G-44A
Serial No. 1452
Certificate No. NCS6626

SUPPLEMENT TO REPAIR AND ALTERATION FORM 337 DATED 10/14/47

19/14/47

Prepared by: Paul C. Halstead
Paul C. Halstead
AZE 753296

Approved by: [Signature]
CAA Inspector

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

EDWARDS AIR FORCE BASE TEXAS

1-20-81

[Handwritten Signature]

[Handwritten Signature]

(7-48)

REPORT NO. 277

PAGE No. 2 of 4

PAUL C. HALL, LEAD
 WEIGHT & BALANCE SERVICE
 MERRICK, N. Y.

WEIGHT AND BALANCE

IDENT. MARK
 EC8626

LOADING SCHEDULE

Empty Weight (ACA337 10/14/47) 3334 lbs.
 Center of Gravity 16.46 in.
 Useful Load 1191 lbs.

REF. COND.	FUEL GALS.	PILOT	PASSENGERS			BAGGAGE ALLOWED			CG. G.
			FWD	AUX	AFT	BOW	MAX	MIN	
A	48	1	1	1	2	0	0	0	17.76
B	76	1	-	1	2	0	0	0	18.77
C	104	1	-	-	2	0	0	0	18.84
D	Full	1	-	-	1	29	131	0	19.36
E	Full	1	1	-	-	0	151	26	17.80
F	76	1	1	-	2	0	0	0	17.83
G	Full	1	-	-	-	0	321	0	21.41

- NOTE: 1. Additional baggage up to the airplane gross weight of 4525# may be carried at the position of the auxiliary seat.
2. Equipment of 20# as shown in above table may be carried in the bow compartment in addition to anchor and rope.
3. If anchor and rope are removed, 12# of baggage or ballast must be substituted in their place.

*C.G.s are for fully loaded conditions allowing 170 lbs per person.

Datum: Wing LE at center section
 C.G. Limits Forward 14.85
 Rearward 22.5

CALCULATIONS FOR LOADING SCHEDULE

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
A. Pilot and 4 Passengers			
Weight Empty	3334	16.46	54910
Oil 7 gals.	52	10	520
Pilot	170	-6	-1020
1 Passenger (fore)	170	-6	-1020
1 Passenger (aux)	170	19	3230
2 Passenger (aft)	340	52	17680
Total Weight Less Fuel	4236		74300
Maximum Fuel 48 gals	288	21	6048
Gross Wt. Limit	4524	(17.76)	80348
.....			
B. Pilot and 3 Passengers (aux. 2 aft)			
Weight Empty	3334	16.46	54910
Oil 7 gals	52	10	520
Pilot	170	-6	-1020
1 Passenger (aux)	170	19	3230
2 Passengers (aft)	340	52	17680
Total Weight Less Fuel	4066		75320
Maximum Fuel 76 gals	456	21	9576
Gross Wt. Limit	4522	(18.77)	84896
.....			
C. Pilot and 2 Passengers (aft)			
Weight Empty	3334	16.46	54910
Oil 7 gals	52	10	520
Pilot	170	-6	-1020
2 Passengers (aft)	340	52	17680
Total Weight Less Fuel	3896		72090
Maximum Fuel 104 gals	624	21	13104
Gross Wt. Limit	4520	(18.84)	85194
.....			
D. Pilot and 1 Passenger (aft)			
Weight Empty	3334	16.46	54910
Oil 7 gals	52	10	520
Pilot	170	-6	-1020
1 Passenger (aft)	170	52	8840
Full fuel 108 gals	648	21	13608
Box baggage	20	-50	-1000
Total Weight Less Rear Baggage	4394		75858
Maximum Rear Baggage	131	90	11790
Gross Weight Limit	4525	(19.36)	87648

REGISTRATION NUMBER	TYPE	MODEL	YEAR	STATUS	OWNER	ADDRESS	CITY	STATE	ZIP
12345	C152	Cessna 152	1978	Active	John Doe	123 Main St	Anytown	CA	90210
67890	C172	Cessna 172	1979	Active	Jane Smith	456 Elm St	Smalltown	TX	75001
11111	C182	Cessna 182	1980	Active	Bob Johnson	789 Oak St	Bigcity	NY	10001
22222	C190	Cessna 190	1981	Active	Alice Brown	101 Pine St	Midtown	IL	60601
33333	C260	Cessna 260	1982	Active	Charlie White	202 Birch St	Westside	WA	98001
44444	C280	Cessna 280	1983	Active	Diana Green	303 Cedar St	Northside	OR	97001
55555	C310	Cessna 310	1984	Active	Frank Black	404 Maple St	Eastside	AZ	85001
66666	C340	Cessna 340	1985	Active	Grace King	505 Walnut St	Southside	ND	58001
77777	C360	Cessna 360	1986	Active	Henry Lee	606 Spruce St	Westside	MT	59001
88888	C380	Cessna 380	1987	Active	Ivy Scott	707 Fir St	Northside	WY	82001
99999	C441	Cessna 441	1988	Active	Jack Adams	808 Ash St	Eastside	CO	80001
00000	C441	Cessna 441	1989	Active	Karen Baker	909 Hickory St	Southside	UT	84001
00001	C441	Cessna 441	1990	Active	Larry Clark	1010 Sycamore St	Westside	VT	05001
00002	C441	Cessna 441	1991	Active	Mary Evans	1111 Chestnut St	Northside	RI	02001
00003	C441	Cessna 441	1992	Active	Ned Foster	1212 Locust St	Eastside	MA	01001
00004	C441	Cessna 441	1993	Active	Olivia Grant	1313 Mulberry St	Southside	NH	03001
00005	C441	Cessna 441	1994	Active	Peter Hall	1414 Poplar St	Westside	ME	04001
00006	C441	Cessna 441	1995	Active	Quinn Ives	1515 Willow St	Northside	NJ	07001
00007	C441	Cessna 441	1996	Active	Rachel King	1616 Elm St	Eastside	DE	19001
00008	C441	Cessna 441	1997	Active	Sam Lee	1717 Oak St	Southside	MD	21001
00009	C441	Cessna 441	1998	Active	Tina Scott	1818 Pine St	Westside	PA	17001
00010	C441	Cessna 441	1999	Active	Victor Taylor	1919 Birch St	Northside	NC	27001
00011	C441	Cessna 441	2000	Active	Wendy White	2020 Cedar St	Eastside	SC	29001
00012	C441	Cessna 441	2001	Active	Xavier Black	2121 Maple St	Southside	GA	30001
00013	C441	Cessna 441	2002	Active	Yvonne Green	2222 Walnut St	Westside	LA	70001
00014	C441	Cessna 441	2003	Active	Zoe King	2323 Spruce St	Northside	MS	39001
00015	C441	Cessna 441	2004	Active	Adam Lee	2424 Fir St	Eastside	AL	36001
00016	C441	Cessna 441	2005	Active	Bella Scott	2525 Ash St	Southside	AK	99001
00017	C441	Cessna 441	2006	Active	Carl White	2626 Hickory St	Westside	HI	96001
00018	C441	Cessna 441	2007	Active	Dora Black	2727 Sycamore St	Northside	VT	05001
00019	C441	Cessna 441	2008	Active	Ethan Green	2828 Chestnut St	Eastside	RI	02001
00020	C441	Cessna 441	2009	Active	Fiona King	2929 Locust St	Southside	MA	01001
00021	C441	Cessna 441	2010	Active	Gavin Lee	3030 Mulberry St	Westside	NH	03001
00022	C441	Cessna 441	2011	Active	Hannah Scott	3131 Poplar St	Northside	ME	04001
00023	C441	Cessna 441	2012	Active	Ian White	3232 Willow St	Eastside	NJ	07001
00024	C441	Cessna 441	2013	Active	Jessica Black	3333 Elm St	Southside	DE	19001
00025	C441	Cessna 441	2014	Active	Kyle Green	3434 Oak St	Westside	MD	21001
00026	C441	Cessna 441	2015	Active	Laura King	3535 Pine St	Northside	PA	17001
00027	C441	Cessna 441	2016	Active	Mason Lee	3636 Birch St	Eastside	NC	27001
00028	C441	Cessna 441	2017	Active	Nora Scott	3737 Cedar St	Southside	SC	29001
00029	C441	Cessna 441	2018	Active	Oscar White	3838 Maple St	Westside	GA	30001
00030	C441	Cessna 441	2019	Active	Pamela Black	3939 Walnut St	Northside	LA	70001
00031	C441	Cessna 441	2020	Active	Quinn Green	4040 Spruce St	Eastside	MS	39001
00032	C441	Cessna 441	2021	Active	Rachel King	4141 Fir St	Southside	AL	36001
00033	C441	Cessna 441	2022	Active	Samuel Lee	4242 Ash St	Westside	AK	99001
00034	C441	Cessna 441	2023	Active	Tina White	4343 Hickory St	Northside	HI	96001
00035	C441	Cessna 441	2024	Active	Victor Black	4444 Sycamore St	Eastside	VT	05001
00036	C441	Cessna 441	2025	Active	Wendy Green	4545 Chestnut St	Southside	RI	02001
00037	C441	Cessna 441	2026	Active	Xavier King	4646 Locust St	Westside	MA	01001
00038	C441	Cessna 441	2027	Active	Yvonne Lee	4747 Mulberry St	Northside	NH	03001
00039	C441	Cessna 441	2028	Active	Zoe Scott	4848 Poplar St	Eastside	ME	04001
00040	C441	Cessna 441	2029	Active	Adam White	4949 Willow St	Southside	NJ	07001
00041	C441	Cessna 441	2030	Active	Bella Black	5050 Elm St	Westside	DE	19001
00042	C441	Cessna 441	2031	Active	Carl Green	5151 Oak St	Northside	MD	21001
00043	C441	Cessna 441	2032	Active	Dora King	5252 Pine St	Eastside	PA	17001
00044	C441	Cessna 441	2033	Active	Ethan Lee	5353 Birch St	Southside	NC	27001
00045	C441	Cessna 441	2034	Active	Fiona Scott	5454 Cedar St	Westside	SC	29001
00046	C441	Cessna 441	2035	Active	Gavin White	5555 Maple St	Northside	GA	30001
00047	C441	Cessna 441	2036	Active	Hannah Black	5656 Walnut St	Eastside	LA	70001
00048	C441	Cessna 441	2037	Active	Ian Green	5757 Spruce St	Southside	MS	39001
00049	C441	Cessna 441	2038	Active	Jessica King	5858 Fir St	Westside	AL	36001
00050	C441	Cessna 441	2039	Active	Kyle Lee	5959 Ash St	Northside	AK	99001
00051	C441	Cessna 441	2040	Active	Laura White	6060 Hickory St	Eastside	HI	96001
00052	C441	Cessna 441	2041	Active	Mason Black	6161 Sycamore St	Southside	VT	05001
00053	C441	Cessna 441	2042	Active	Nora Green	6262 Chestnut St	Westside	RI	02001
00054	C441	Cessna 441	2043	Active	Oscar King	6363 Locust St	Northside	MA	01001
00055	C441	Cessna 441	2044	Active	Pamela Lee	6464 Mulberry St	Eastside	NH	03001
00056	C441	Cessna 441	2045	Active	Quinn Scott	6565 Poplar St	Southside	ME	04001
00057	C441	Cessna 441	2046	Active	Rachel White	6666 Willow St	Westside	NJ	07001
00058	C441	Cessna 441	2047	Active	Samuel Black	6767 Elm St	Northside	DE	19001
00059	C441	Cessna 441	2048	Active	Tina Green	6868 Oak St	Eastside	MD	21001
00060	C441	Cessna 441	2049	Active	Victor King	6969 Pine St	Southside	PA	17001
00061	C441	Cessna 441	2050	Active	Wendy Lee	7070 Birch St	Westside	NC	27001
00062	C441	Cessna 441	2051	Active	Xavier Scott	7171 Cedar St	Northside	SC	29001
00063	C441	Cessna 441	2052	Active	Yvonne White	7272 Maple St	Eastside	GA	30001
00064	C441	Cessna 441	2053	Active	Zoe Black	7373 Walnut St	Southside	LA	70001
00065	C441	Cessna 441	2054	Active	Adam Green	7474 Spruce St	Westside	MS	39001
00066	C441	Cessna 441	2055	Active	Bella King	7575 Fir St	Northside	AL	36001
00067	C441	Cessna 441	2056	Active	Carl Lee	7676 Ash St	Eastside	AK	99001
00068	C441	Cessna 441	2057	Active	Dora White	7777 Hickory St	Southside	HI	96001
00069	C441	Cessna 441	2058	Active	Ethan Black	7878 Sycamore St	Westside	VT	05001
00070	C441	Cessna 441	2059	Active	Fiona Green	7979 Chestnut St	Northside	RI	02001
00071	C441	Cessna 441	2060	Active	Gavin King	8080 Locust St	Eastside	MA	01001
00072	C441	Cessna 441	2061	Active	Hannah Lee	8181 Mulberry St	Southside	NH	03001
00073	C441	Cessna 441	2062	Active	Ian Scott	8282 Poplar St	Westside	ME	04001
00074	C441	Cessna 441	2063	Active	Jessica White	8383 Willow St	Northside	NJ	07001
00075	C441	Cessna 441	2064	Active	Kyle Black	8484 Elm St	Eastside	DE	19001
00076	C441	Cessna 441	2065	Active	Laura Green	8585 Oak St	Southside	MD	21001
00077	C441	Cessna 441	2066	Active	Mason King	8686 Pine St	Westside	PA	17001
00078	C441	Cessna 441	2067	Active	Nora Lee	8787 Birch St	Northside	NC	27001
00079	C441	Cessna 441	2068	Active	Oscar Scott	8888 Cedar St	Eastside	SC	29001
00080	C441	Cessna 441	2069	Active	Pamela White	8989 Maple St	Southside	GA	30001
00081	C441	Cessna 441	2070	Active	Quinn Black	9090 Walnut St	Westside	LA	70001
00082	C441	Cessna 441	2071	Active	Rachel Green	9191 Spruce St	Northside	MS	39001
00083	C441	Cessna 441	2072	Active	Samuel King	9292 Fir St	Eastside	AL	36001
00084	C441	Cessna 441	2073	Active	Tina Lee	9393 Ash St	Southside	AK	99001
00085	C441	Cessna 441	2074	Active	Victor White	9494 Hickory St	Westside	HI	96001
00086	C441	Cessna 441	2075	Active	Wendy Black	9595 Sycamore St	Northside	VT	05001
00087	C441	Cessna 441	2076	Active	Xavier Green	9696 Chestnut St	Eastside	RI	02001
00088	C441	Cessna 441	2077	Active	Yvonne King	9797 Locust St	Southside	MA	01001
00089	C441	Cessna 441	2078	Active	Zoe Lee	9898 Mulberry St	Westside	NH	03001
00090	C441	Cessna 441	2079	Active	Adam Scott	9999 Poplar St	Northside	ME	04001
00091	C441	Cessna 441	2080	Active	Bella White	10000 Willow St	Eastside	NJ	07001
00092	C441	Cessna 441	2081	Active	Carl Black	10001 Elm St	Southside	DE	19001
00093	C441	Cessna 441	2082	Active	Dora Green	10002 Oak St	Westside	MD	21001
00094	C441	Cessna 441	2083	Active	Ethan King	10003 Pine St	Northside	PA	17001
00095	C441	Cessna 441	2084	Active	Fiona Lee	10004 Birch St	Eastside	NC	27001
00096	C441	Cessna 441	2085	Active	Gavin Scott	10005 Cedar St	Southside	SC	29001
00097	C441	Cessna 441	2086	Active	Hannah White	10006 Maple St	Westside	GA	30001
00098	C441	Cessna 441	2087	Active	Ian Black	10007 Walnut St	Northside	LA	70001
00099	C441	Cessna 441	2088	Active	Jessica Green	10008 Spruce St	Eastside	MS	39001
00100	C441	Cessna 441	2089	Active	Kyle King	10009 Fir St	Southside	AL	36001
00101	C441	Cessna 441	2090	Active	Laura Lee	10010 Ash St	Westside	AK	99001
00102	C441	Cessna 441	2091	Active	Mason White	10011 Hickory St	Northside	HI	96001
00103	C441	Cessna 441	2092	Active	Nora Black	10012 Sycamore St	Eastside	VT	05001
00104	C441	Cessna 441	2093	Active	Oscar Green	10013 Chestnut St	Southside	RI	02001
00105	C441	Cessna 441	2094	Active	Pamela King	10014 Locust St	Westside	MA	01001
00106	C441	Cessna 441	2095	Active	Quinn Lee	10015 Mulberry St	Northside	NH	03001
00107	C441	Cessna 441	2096	Active	Rachel Scott				

	Weight	Arm	Moment
E. Pilot and 1 Passenger (forward)			
Weight Empty	3334	16.46	54910
Oil 7 gals	52	10	520
Pilot	170	-6	-1020
Passenger (fore)	170	-6	-1020
Total Less Fuel and Baggage	3726	(14.32)	53390
Minimum baggage rear	26	90	2340
	3752	(14.85)	55730
Maximum fuel full 108 gals	648	21	13608
Additional rear baggage	125	90	11250
Gross Weight Limit	4525	(17.80)	80588
.....			
F. Pilot and Two Passengers (1 forward and 2 aft)			
Weight Empty	3334	16.46	54910
Oil 7 gals	52	10	520
Pilot	170	-6	-1020
1 Passenger (fore)	170	-6	-1020
2 Passengers (aft)	340	52	17680
Total Weight Less Fuel	4066		71070
Maximum Fuel 76 gals	456	21	9576
Gross Weight Limit	4522	(17.83)	80646
.....			
G. Pilot, Full Fuel and Cargo			
Weight Empty	3334	16.46	54910
Oil 7 gals	52	10	520
Pilot	170	-6	-1020
Full fuel 108 gals	648	21	13608
Total Less Baggage	4204		68018
Cargo	321	90	28890
Gross Weight Limit	4525	(21.41)	96908

REGISTRATION NUMBER	TYPE	CLASSIFICATION	STATUS
N10000	C-172	Normal	Active
N10001	C-172	Normal	Active
N10002	C-172	Normal	Active
N10003	C-172	Normal	Active
N10004	C-172	Normal	Active
N10005	C-172	Normal	Active
N10006	C-172	Normal	Active
N10007	C-172	Normal	Active
N10008	C-172	Normal	Active
N10009	C-172	Normal	Active
N10010	C-172	Normal	Active
N10011	C-172	Normal	Active
N10012	C-172	Normal	Active
N10013	C-172	Normal	Active
N10014	C-172	Normal	Active
N10015	C-172	Normal	Active
N10016	C-172	Normal	Active
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N10075	C-172	Normal	Active
N10076	C-172	Normal	Active
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N10091	C-172	Normal	Active
N10092	C-172	Normal	Active
N10093	C-172	Normal	Active
N10094	C-172	Normal	Active
N10095	C-172	Normal	Active
N10096	C-172	Normal	Active
N10097	C-172	Normal	Active
N10098	C-172	Normal	Active
N10099	C-172	Normal	Active

C H A JUN 7 1947 876

FORM ACA-305 (3-7-46)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		BUDGET BUREAU NO. 41-R041.2 APPROVAL EXPIRES FEBRUARY 15, 1947	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aero- nautics Administration Field Representative.	
APPLICATION (Check)		CAA IDENTIFICATION			
<input type="checkbox"/> AIRWORTHINESS CERTIFICATE		<input checked="" type="checkbox"/> NC <input type="checkbox"/> NX <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify) _____			
<input checked="" type="checkbox"/> ANNUAL INSPECTION					
MAKE		AIRCRAFT FLYAWAY			
GRUMMAN		MODEL G44A (Widgeon)			
REGISTRATION NO.	MANUFACTURER'S SERIAL NO.	DATE MANUFACTURED			
86626	1452	6/8/45			
ENGINE					
MAKE	Ranger	MODEL	(2) 6-440C-5	RATED 200 each	
(Check whether)		IF OVERHAULED, STATE BY WHOM		DATE OF OVERHAUL	
<input type="checkbox"/> NEW <input checked="" type="checkbox"/> USED <input type="checkbox"/> OVERHAULED		-		-	
(Check which)					
<input checked="" type="checkbox"/> AIRCRAFT NOW REGISTERED WITH THE ADMINISTRATION			<input type="checkbox"/> APPLICATION FOR REGISTRATION AND BILL OF SALE (FORMS ACA-501 AND 502) ATTACHED		
OWNER'S NAME			PERMANENT ADDRESS (Street and No., City, Zone, State)		
LPINE AIRWAYS INC.			FITCHBURG, MASSACHUSETTS		
ATTACHMENTS (Check which)		I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE			
<input type="checkbox"/> ACA-319 <input type="checkbox"/> WEIGHT AND BALANCE REPORT		<div style="text-align: right; margin-right: 50px;"> <i>Lyle E. Halstead</i> <small>OWNER OR AUTHORIZED AGENT</small> Pilot DATE 4/29/47 </div>			
<input type="checkbox"/> ACA-337 <input type="checkbox"/> SPECIAL APPROVALS					
<input type="checkbox"/> ACA-809 <input type="checkbox"/> DATA, DRAWINGS, ETC.					
<input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA					
FORM ACA-305a (FORMERLY ACA-307) AIRCRAFT INSPECTION REPORT.					
(To be completed by a CAA inspector or a designated inspector or representative)					
IT HAS BEEN DETERMINED THAT THE AIRCRAFT DESCRIBED IN 305 ABOVE IS IN CONFORMITY WITH THE FOLLOWING					
LISTING IN INSPECTOR'S HANDBOOK, CHAP. XVIII		AIRCRAFT SPECIFICATION		AIRWORTHINESS DIRECTIVE	
PAGE NO.	T.C. NO.	SERIAL NO.	EFFECTIVE NOTES	NO.	EFFECTIVE NOTES
-	734	A734-2	2, 4, 6, 7	AD532	None
OTHER (Describe)			EXCEPTIONS, IF ANY (If additional space is required, use reverse)		
-			-		
<input checked="" type="checkbox"/> FORM ACA-319 (Return to owner)	APPROVED BY	MECH. CERTIF. AND RATING NO.	DATED		
	A. N. Goldstein	A & B M5428-92	4/2/47		
<input checked="" type="checkbox"/> FORM ACA-1362 ISSUED	CERTIFICATE VALID TO (Specify date)				
<input type="checkbox"/> AIRCRAFT AIRWORTHINESS CERTIFICATE WITH OPERATION LIMITATIONS FORM (ATTACHED) WAS ISSUED					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY	DESIGNED BY AND NO.	DATE		DATE	
<input type="checkbox"/> UNAIRWORTHY	Edwin Lovejoy, CAA DMIR 1009.	5/1/47			
CAA INSPECTOR'S SIGNATURE			<input checked="" type="checkbox"/> ACCEPTED	DATE	
<i>A.N.G.</i>			<input type="checkbox"/> REINSPECTED		
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other item <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)					
Form ACA309, Operation Limitations, is available in aircraft in accordance with CAR 03.					
Form 308A has been picked up and delivered to CAA factory inspector.					

[The main body of the document is a form with multiple rows of text, which is extremely faint and illegible due to the quality of the scan. It appears to be a checklist or a data entry form.]

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMIN.
JAN 16 9 42 AM '81
MAIL ROOM-2
WASHINGTON

Form ACA-857
(Rev. 3-31-45)

CLASSIFICATION	NATURE OF WORK PERFORMED	
	Major repair	Major alteration
AIRCRAFT		
ENGINE		
PROPELLER		
INSTRUMENT		

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

Budget Bureau No. 41-R032
Form Approved.

(To be filled in by inspector)

<input checked="" type="checkbox"/>	APPROVED
<input type="checkbox"/>	DISAPPROVED
Forwarded for engineering approval (Submit complete details)	
Date <u>11-8-46</u>	
Inspector <u>[Signature]</u> CAA DMIR 1059	

REPAIR AND ALTERATION FORM
AIRCRAFT—ENGINES—PROPELLERS—INSTRUMENTS

Aircraft Identification Mark No. NC86626

Owner's name Alpine Airways
Owner's address Fitchburg, Mass.
Aircraft manufacturer and model Grumman G44A Serial No. 1452
Engine manufacturer and model* _____ Serial No. _____
Propeller manufacturer and model* _____ Serial No. _____
Propeller blade model* _____ Serial No. _____
Instrument name, manufacturer, and model* _____ Serial No. _____

* To be filled in only for unit repaired or altered.

REPAIR OR ALTERATION AGENCY

* Manufacturer. * Approved repair station No. 18 * _____ Certified mechanic

Agency's name Grumman Aircraft Engineering Corp.

Address Bethpage, L. I., N. Y.

Date of repair
or alteration 11/7/46

The following work has been accomplished in accordance with Part 18, Civil Air Regulations. (For recommended practice refer to CAM 18.)

(If blank space is insufficient for clear presentation, attach separate pages (8" x 10 1/2" or multiples thereof) bearing aircraft identification mark)

Installed marker beacon radio receiver model BC357 (converted) on aft side of bulkhead (sta. 22) immediately aft of main cabin door. The antennae runs from the top forward leading edge of the vertical fin to the beacon receiver mast located at sta. 22. The power supply is taken from the ships radio receiver located under the right wing beam on right side of cabin. Jewel light indicator is located on the main instrument panel.

This increases the weight empty 4.5 lbs. at 106 in. arm.

Installed Lear ANR11278A Aural Loop with LCU-1 Conversion unit. Loop is over pilots head in cockpit and conversion unit was installed in the radio panel. This increases empty weight 3 lbs. 14 oz. at 19".

*CHECK AGENCIES INVOLVED.

TO BE FILLED OUT IN DUPLICATE AND COMPLETED ON OPPOSITE SIDE

DISTRIBUTION OF COMPLETED FORMS

(1) When repair and alteration is identified by aircraft identification and serial number the original is to be forwarded through the appropriate Field Branch Office, and copy delivered to the owner of the aircraft. (2) When the repair and/or alteration of spare components is not identified this form must stay with the component until it is installed and the aircraft identification and serial number is entered on this form which is to be forwarded in the same manner as set forth in condition (1).

WEIGHT & BALANCE REPORT

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

REPORT NO. G44A-5A

COMPUTED

WEIGHT & BALANCE

OF

MODEL G-44A

SERIAL NO. 1452

CERTIFICATE NO. NC86626

4 PLACE AMPHIBIAN

4525# GROSS WEIGHT

Date: 8-28-46

Prepared by:

Charles E. Lyman
Charles E. Lyman

Checked by:

John F. Michel
John F. Michel

Approved by:

Robert J. Trisborn
Robert J. Trisborn

8-15-46

REPORT NO. G44A-5A

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81



TABLE OF CONTENTS

<u>Page No.</u>	<u>Contents</u>
2	Airplane Weighing Data
3	Basic Weight Empty Derivation
4	Loading Schedule
5	Calculations for Loading Schedule
8	List of Special Equipment
9	Instructions for Preparing New Weight & Balance Report

8-15-46

REPORT NO. G11A-54A

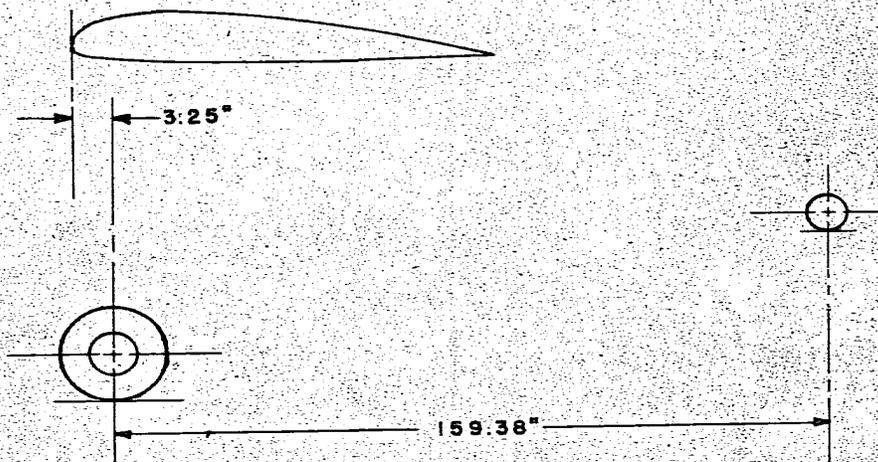
G103-5000-12-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

Airplane Weighing Form

Airplane as weighed (in level position)



	<u>Scale Reading</u>	<u>Tare</u>	<u>Net</u>
Right Wheel			
Left Wheel			
Tail Wheel			
Total			

COMPUTED

Weighting Witnessed by

C.G. Location - Airplane as Weighed

C.G. = 159.38 " aft C.L. axle

Datum to C.L. axle = 3.25"

C.G. as weighed is aft of datum: 3.25 + =

REPORT NO. G101A-51A

8-15-46

G103-5000-12-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81



TABLE OF ADDITIVE & SUBTRACTIVE ITEMS

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Airplane as weighed (See Report GHA-54) (Includes Residual Fuel & Oil)	3255	17.47	56875
Add: Curtiss Reed Propellers	+ 52	-47	-2444
	<u>3307</u>	<u>16.46</u>	<u>54431</u>

The Basic Weight Empty is **3307** lbs. and the corrected c.g. is **16.46** aft of Datum line.

8-15-46

G103-5000-12-48

REPORT NO. GHA-54A

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

LOADING SCHEDULE
BAGGAGE ALLOWED IN BAGGAGE COMPARTMENT

REF. COND.	FUEL GALS.	PILOT	PASSENGERS			BAGGAGE ALLOWED		
			F'W'D.	AUX.	AFT	BOW COMPT.	REAR COMPARTMENT	
							MAXIMUM	MINIMUM
A	49	1	1	1	2	20	0	0
B	78	1	-	1	2	20	0	0
C	FULL	1	-	-	2	0	8	0
D	FULL	1	-	-	1	20	158	0
E	FULL	1	1	-	-	0	178	11
F	78	1	1	-	2	20	0	0
G	FULL	1	-	-	-	0	348	0

NOTE:

1. Additional baggage up to the airplane gross weight of 4525# may be carried at the position of the auxiliary seat.
2. Equipment of 20# may be carried in the bow compartment in addition to anchor and rope.
3. If anchor and rope are removed, 12# of baggage or ballast must be substituted in their place.

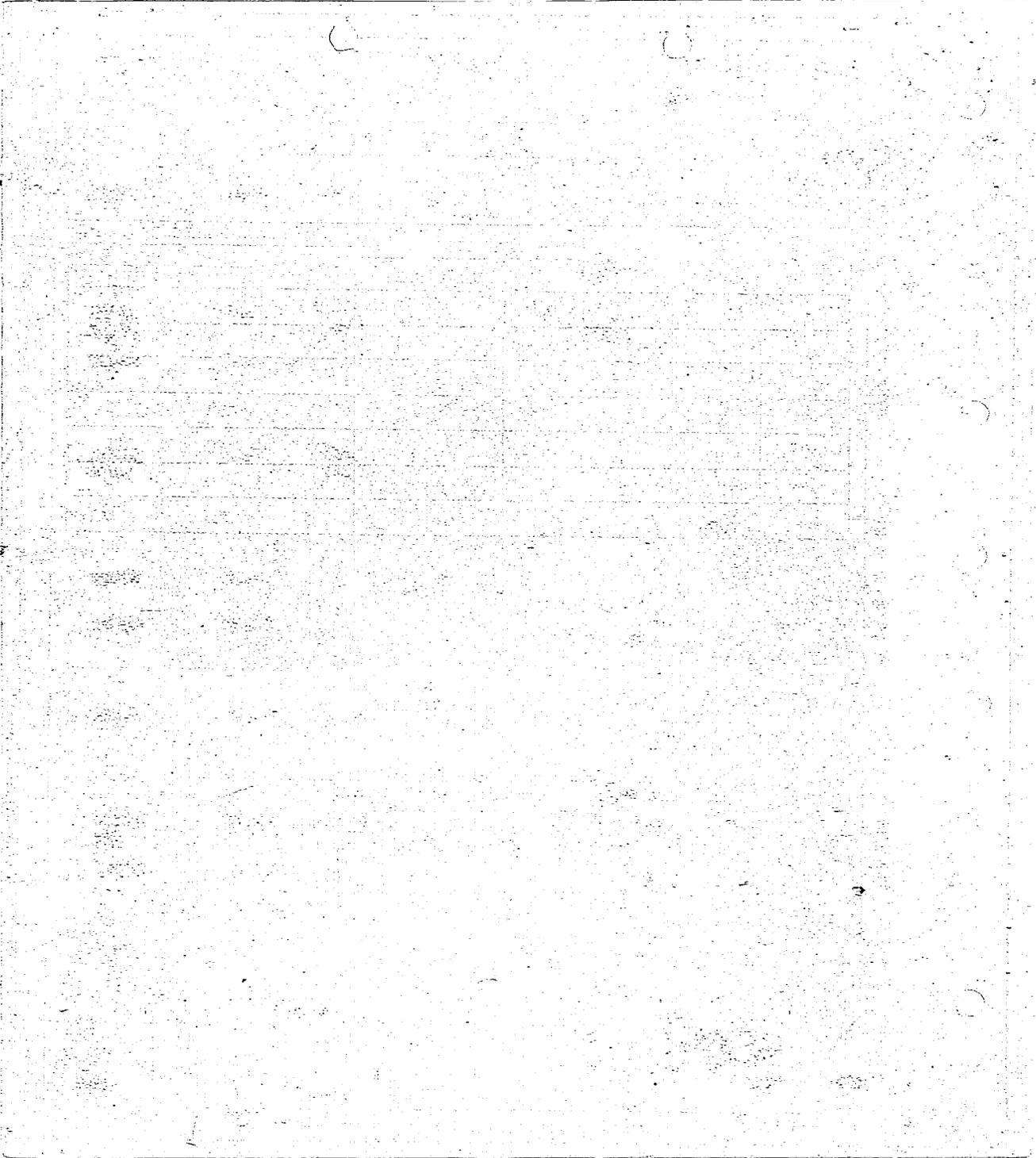
REPORT NO. G44A-54A

8-15-46

G100-5000-12-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81



CALCULATIONS FOR LOADING SCHEDULE

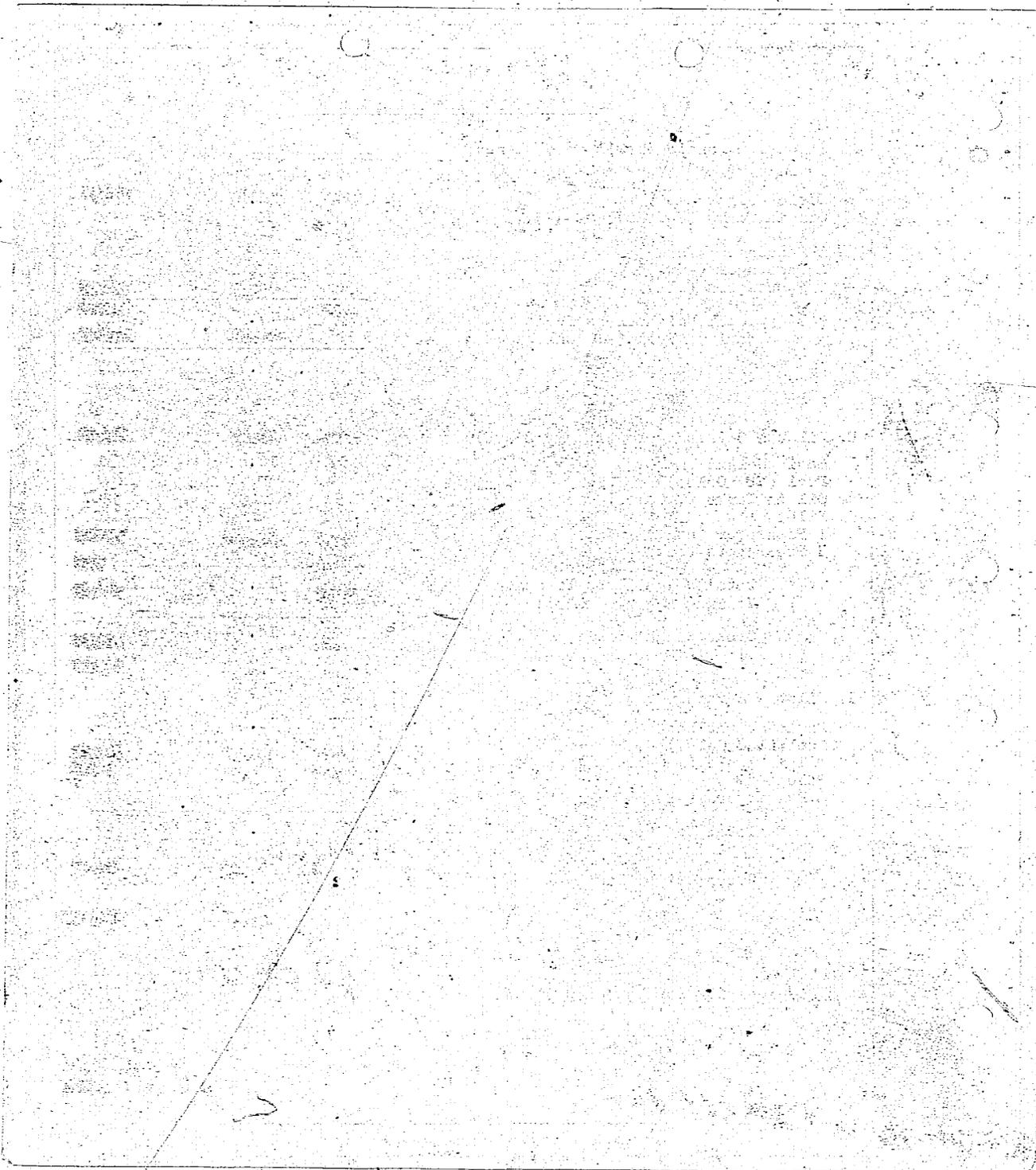
	Weight	Arm	Moment
A. Pilot & 4 Passengers (1 fore, 1 aux, 2 aft) No Baggage			
Basic Weight Empty	3307	16.47	54431
Oil in Tanks (7 Gals.)	52	10	520
Pilot	170	-6	-1020
1 Passenger (fore)	170	-6	-1020
1 Passenger (aux.)	170	19	3230
2 Passengers (aft)	340	52	17680
Total Weight Less Fuel	4209	17.54	73821
Maximum Fuel (49 Gals.)	296	21	6216
Gross Weight Limit	4505*	17.77 "aft	80037
		L.E.W.	
B. Pilot & 3 Passengers (1 aux, 2 aft)			
Basic Weight Empty	3307	16.47	54431
Fuel (78 Gals.)	466	21	9786
Oil in Tanks (7 Gals.)	52	10	520
Pilot	170	-6	-1020
1 Passenger (aux.)	170	19	3230
2 Passengers (aft)	340	52	17680
Total Weight Less Baggage	4505	18.79	84627
Maximum Baggage Allowed	0	90	0
Gross Weight Limit	4505*	18.79 "aft	84627
		L.E.W.	
C. Pilot & 2 Passengers - aft			
Basic Weight Empty	3307	16.47	54431
Fuel (108 Gals.)	648	21	13608
Oil in Tanks (7 Gals.)	52	10	520
Pilot	170	-6	-1020
2 Passengers (aft)	340	52	17680
Total Weight Less Baggage	4517	18.67	85219
Maximum Baggage Allowed	8	90	720
Gross Weight Limit	4525	18.99 "aft	85939
		L.E.W.	

* 4525# less 20# for bow compartment allowance

8-15-46

REPORT NO. G11A-51A

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81



CALCULATIONS FOR LOADING SCHEDULE (Cont.)

	Weight	Arm	Moment
D. Pilot & 1 Passenger - aft			
Basic Weight Empty	3307	16.47	54431
Fuel (108 Gals.)	648	21	13608
Oil in Tanks (7 Gals.)	52	10	520
Pilot	170	-6	-1020
1 Passenger (aft)	170	52	8840
Total Weight Less Baggage	4347	17.57	76379
Maximum Baggage Allowed	158	90	14220
Gross Weight Limit	4505*	20.11 aft L.E.W.	90599
E. Pilot & 1 Passenger - Forward			
Basic Weight Empty	3307	16.47	54431
Minimum Fuel (33 Gals.)	198	21	4158
Oil in Tanks (7 Gals.)	52	10	520
Pilot	170	-6	-1020
1 Passenger (Forward)	170	-6	-1020
Total Weight Less Baggage	3897	14.64	57069
Minimum Baggage or Ballast	11	90	990
Rear with None Forward	3908	14.85	58059
Most Forward C.G. Limit	450	21	9450
Add'l. Fuel (75 Gals.) (108 Gals. Total)	167	90	15030
Maximum Additional Baggage Rear	4525	18.24 aft L.E.W.	82539
Gross Weight Limit	4525	18.24 aft L.E.W.	82539
F. Pilot & 3 Passengers (1 fore, 2 aft)			
Basic Weight Empty	3307	16.47	54431
Fuel (38 Gals.)	466	21	9786
Oil in Tanks (7 Gals.)	52	10	520
Pilot	170	-6	-1020
1 Passenger (fore)	170	-6	-1020
2 Passengers (aft)	340	52	17680
Total Weight Less Baggage	4505	17.84	80377
Maximum Baggage Allowed	0	90	0
Gross Weight Limit	4505*	17.84 aft L.E.W.	80377

* 4525# less 20# for bow compartment allowance.

REPORT NO. G44A-51A

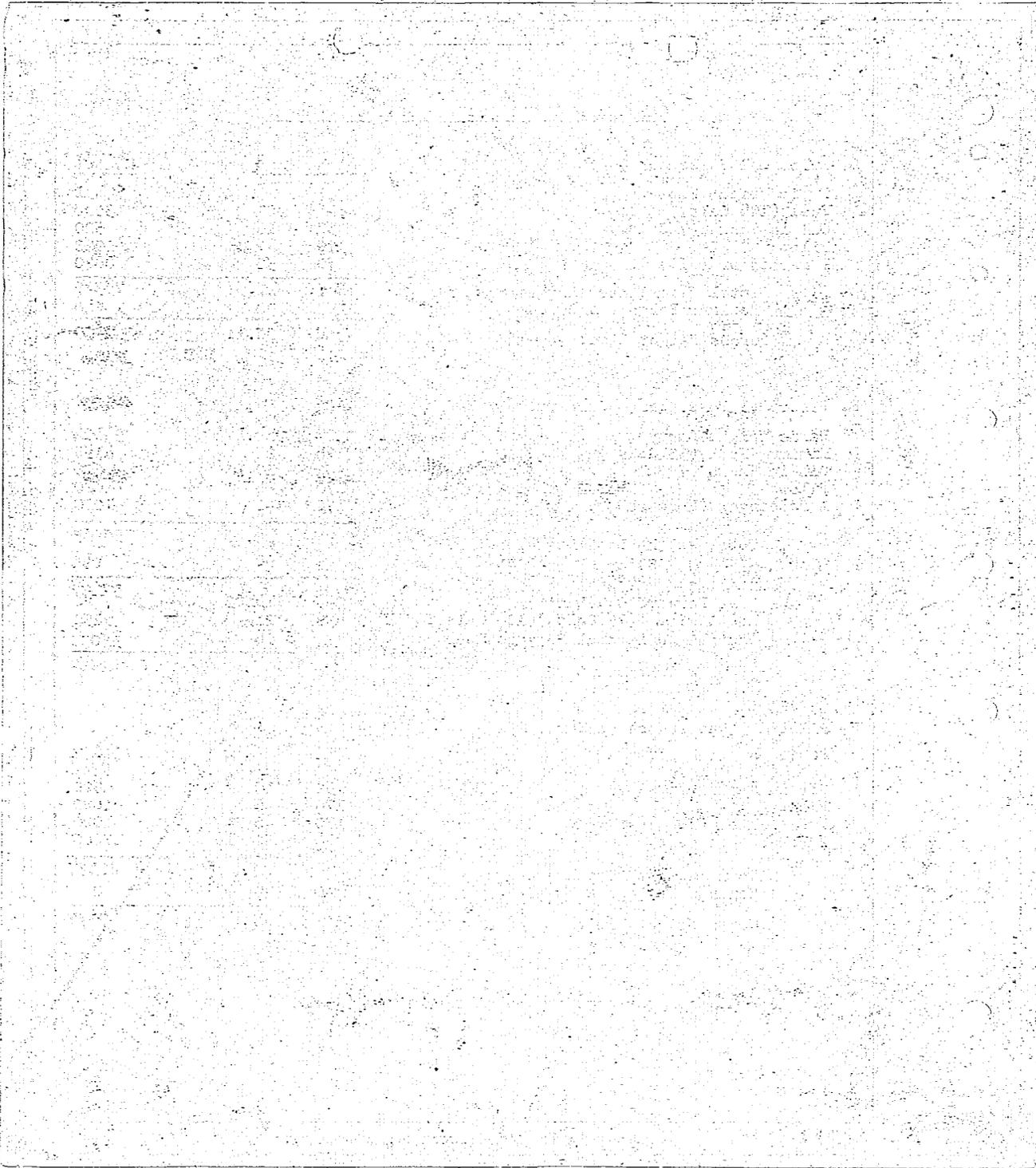
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G103-5000-12-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY

CAMERA NO. 3 DATE: 1-20-81



CALCULATIONS FOR LOADING SCHEDULE (Cont.)

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
G. Pilot & Full Fuel			
Basic Weight Empty	3307	16.47	54431
Minimum Fuel (33 Gals.)	198	21	4158
Oil in Tanks (7 Gals.)	52	10	520
Pilot	170	-6	-1020
Total Weight Less Baggage	3727	15.59	58089
* Max. Baggage in Rear with None in Front	348	90	31320
Most Aft C.G. Limit	4075	21.94^{Aft} L.E.W.	89409
Additional Fuel (75 Gals.)(108 Gals. Total)	450	21	9450
Gross Weight Limit	4525	21.85	98859

*400# Baggage Max. at Sta. 90

8-15-46

G103-5000-12-45

REPORT NO. G11A-54A

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

25.15

7

SPECIAL EQUIPMENT

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Curtiss Reed Propellers	+52	-47	-2444

* Indicates Increase Over Standard

ENGINE SERIAL NOS.

Left
RO-03159-S

Right
RO-09448-S

REPORT NO. G111A-51A

8-15-46

G103-8000-12-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY

CAMERA NO. 3 DATE: 1-20-81



INSTRUCTIONS FOR PREPARING
NEW WEIGHT & BALANCE AFTER AN ALTERATION

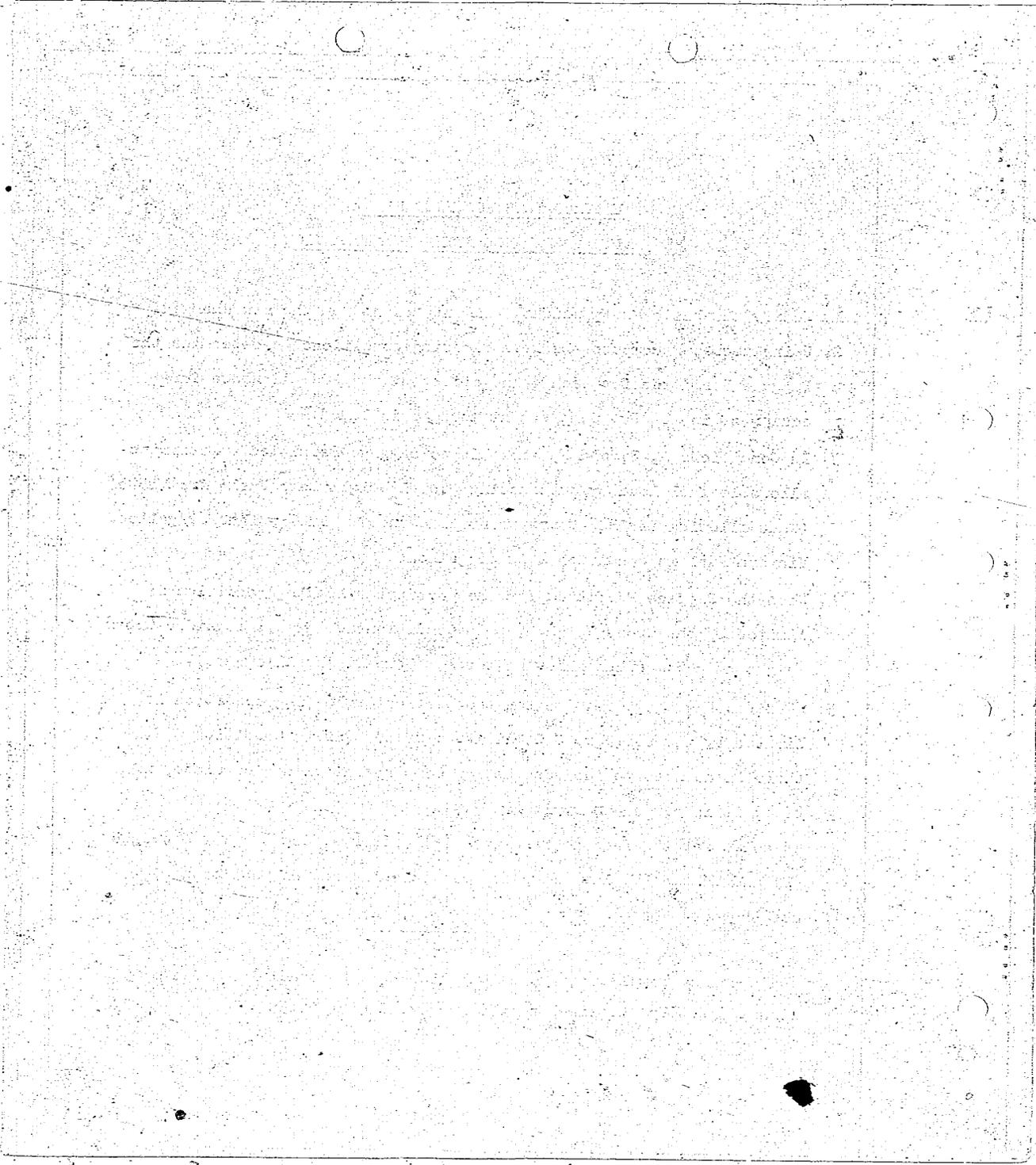
1. Modify the basic Empty Weight, Arm and Moment for the new changes.
2. Using these, recompute the seven loading conditions to determine the Baggage Permitted for each. The effect of the 20# allowance for equipment in the Bow Compartment must be included.
3. In Conditions A, B, and F, there is no Baggage Permitted. Determine allowable fuel load by subtracting 'Total Weight Less Fuel' from 4505# (Thus allowing for Bow Compartment Allowance). Fuel weighs 6#/gallon. Minimum Fuel in condition A is 60 gallons.
4. When the Baggage Permitted for the particular loading condition is limited by the Gross Weight (as in Conditions C, D, E), consider Gross Weight as 4505# (Thus allowing for Bow Compartment Allowance).
5. When the Baggage Permitted for the particular loading condition is limited by the rearward C.G. limit of 22.50" (as in Condition G) there is no need to include the Bow Compartment allowance since, if used, it is a nose-heavy item.

To solve for the Baggage Permitted (x), after adding the Total Weight (W) and Moment (M) less Baggage (See calculations of Condition G), use the equation:-

$$x = \frac{22.5 W - M}{67.5}$$

and check by completing the calculation for the condition, dividing final moment by the final weight to give C.G. = 22.50".

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81



INSTRUCTIONS FOR PREPARING
NEW WEIGHT & BALANCE (Cont.)

6. Conditions may be limited by Gross Weight or by C.G. They must be computed and checked for both limits.

7. Make two new loading schedule Placards with the same notes.

1 to ship

Make four copies of Revised Weight and Balance Report

1 to ship

1 to C.A.A.

1 to owner for record purposes.

8. The above computations separate the effect of the Bow Compartment Allowance from the Baggage Permitted so that it may be used wholly or in any part without exceeding either Gross Weight or C.G. limit.

9. The most forward C.G. for flying is at 14.85" aft of the L.E.W.
The most rearward is 22.5" aft of the L.E.W.

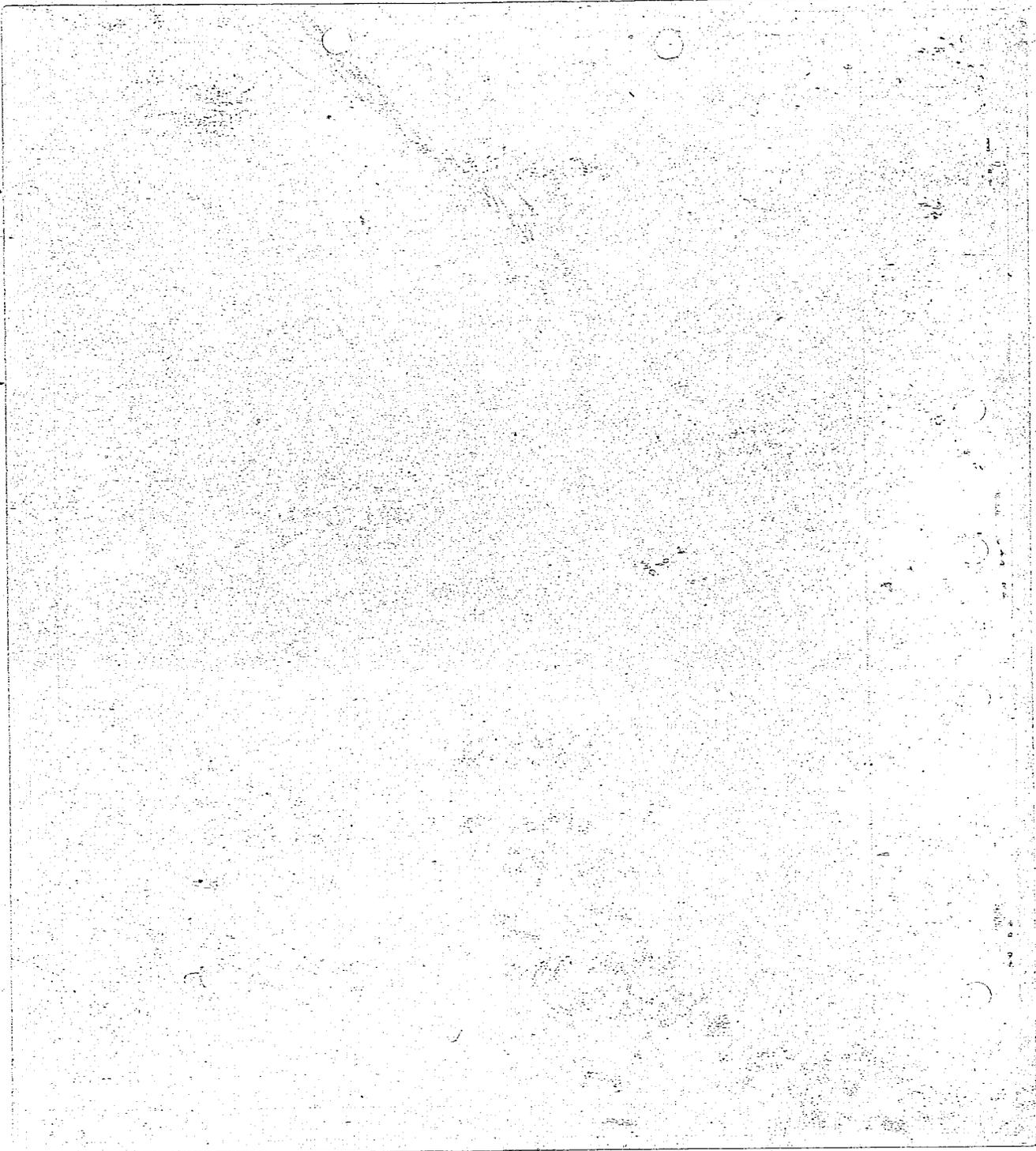
REPORT NO. G11A-51A

8-15-46

G103-5000-12-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81



Form ACA 807
(Rev. 11-1-41)

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

AIRCRAFT INSPECTION REPORT

Alpine Airways Fitchburg, Massachusetts
(Owner's name) (Address)

Grumman G44A 1452 NC86626
(Make) (Model) (Serial number) (Identification mark)

Designation 4 PCL-Am-Fbm Aircraft Specification No. 734

ISSUANCE—PERIODIC ENDORSEMENT—REPAIR (ALTERATION)—SPECIAL—EXPORT
(Circle which)

Is Registration Certificate properly displayed in the aircraft? Yes

Are Airworthiness Certificate and Operation Record Form in the aircraft? Yes

Are aircraft and engine log books available and in proper condition? Yes

Periodic aircraft inspection report dated 8/28/46 by Albert Goldstein submitted.

1. Aircraft was inspected and determined to have complied with the following, except as noted—*

(a) Listing in inspector's handbook, chapter XVIII -

(b) Aircraft specifications Serial No. A- 734-2

(c) Special inspection request dated None requested

(d) Notes Nos. 2, 3, 4, 6, 7

(e) Special Notes Nos. No Notes Applicable

* Exceptions, if any, noted No Exceptions

Satisfactory? Yes (x). No ().

2. Aircraft was thoroughly inspected and determined to be in an airworthy condition for the operations authorized and for the type of certificate issued, except as noted.

* Exceptions, if any, of which the owner or his representative was advised No Exceptions

Satisfactory? Yes (x). No ().

3. Alterations and/or major repairs described in the attached Repair and Alteration Form were thoroughly inspected and determined to be satisfactory, and to comply with the provisions of the Civil Air Regulations pertaining to repair and alteration, except as noted.

* Exceptions, if any, of which the owner or his representative was advised No Exceptions

Satisfactory? Yes (x). No ().

4. All required placards, instructions, warnings, and markings pertaining to the use and operation of the controls, fuel valves, instruments and gages, safety devices, fuel, oil and baggage capacities, and the like, are correctly executed and properly displayed, except as noted.

* Exceptions, if any, of which the owner or his representative was advised No Exceptions

Satisfactory? Yes (x). No ().

5. Based on the results of the above inspection, Aircraft Airworthiness Certificate with Operation Record Form attached, was issued () Endorsed () for a period of - on date of -

DISAPPROVED* APPROVED

Date 8/28/46

Inspector Edwin Devo Joy
CAA DMIR 1009

[OVER]

REMARKS PERTAINING TO

AIRCRAFT OK

ENGINES OK

PROPELLERS Installed new Curtiss metal propellers 55518-10 and removed Sensenich wood propellers 82RS73

REPAIRS No Repairs

ALTERATIONS See R & A Form dated 8/28/46
After accident of

Forms and documents submitted (indicate by form number or nature of content) which are attached Old 309, new 309, 337, New Weight and Balance Report

with the following to be checked by the Engineering Branch and returned when checked (). Forwarded through channels if satisfactory (x).

REMARKS

NOTE.—This form to be executed and submitted in single copy following any inspection which results in the issuance or endorsement of an Aircraft Airworthiness Certificate (1) Original issuance; (2) periodic endorsement, or (3) following major repair, alteration, or after inspection for export, except that in case of disapproval, a duplicate copy of the "Disapproved" Inspection Report will be attached to the Aircraft Operation Record, and will only be removed by an inspector of the Administration, following a satisfactory inspection of the aircraft.

Form ACA 337
(Rev. 3-31-45)

Budget Bureau No. 4-802
Form Approved.

CLASSIFICATION	NATURE OF WORK PERFORMED	
	Major repair	Major alteration
AIRCRAFT		
ENGINE		
PROPELLER		<input checked="" type="checkbox"/>
INSTRUMENT		

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

(To be filled in by inspector)

<input checked="" type="checkbox"/>	APPROVED
<input type="checkbox"/>	DISAPPROVED
Forwarded for engineering approval (Submit complete details)	
Date 8-28-46	
Inspector E. J. [Signature]	
CADMIR #1000	

REPAIR AND ALTERATION FORM
AIRCRAFT—ENGINES—PROPELLERS—INSTRUMENTS

Aircraft Identification Mark No. NC 86626

Owner's name Alpine Airways
Owner's address Fitchburg, Mass
Aircraft manufacturer and model Grumman G4A Serial No. 1452
Engine manufacturer and model* _____ Serial No. _____
Propeller manufacturer and model* Curtiss Metal Props #55518-10 Serial No. M12430 M12432
Propeller blade model* _____ Serial No. _____
Instrument name, manufacturer, and model* _____ Serial No. _____

* To be filled in only for unit repaired or altered.

REPAIR OR ALTERATION AGENCY

* Manufacturer. * Approved repair station No. 18 * _____ Certificated mechanic
Agency's name Grumman Aircraft Eng. Corps
Address Bethpage, L. I., N. Y. Date of repair or alteration 8/28/46

The following work has been accomplished in accordance with Part 18, Civil Air Regulations. (For recommended practice refer to CAM 18.)

[If blank space is insufficient for clear presentation, attach separate pages (8" x 10 1/4" or multiples thereof) bearing aircraft identification mark]

Removed Sensenich wooden propellers design # 82RS72 weighing 54 lbs. (27 lbs. ea.) and installed Curtiss metal propellers design #55518-10 106 lbs. (53 lbs. ea.)

Empty weight increased 52 lbs. at arm -47".

*CHECK AGENCIES INVOLVED.

TO BE FILLED OUT IN DUPLICATE AND COMPLETED ON OPPOSITE SIDE

DISTRIBUTION OF COMPLETED FORMS.

(1) When repair and alteration is identified by aircraft identification and serial number the original is to be forwarded through the appropriate Field Branch Office, and copy delivered to the owner of the aircraft. (2) When the repair and/or alteration of spare components is not identified this form must stay with the component until it is installed and the aircraft identification and serial number is entered on this form which is to be forwarded in the same manner as set forth in condition (1).

NOTE: Submitted herewith are technical data, drawings, Weight and Balance Report, etc., as listed below.

[Faint, mostly illegible text and lines, likely representing technical data or a weight and balance report.]

SUPERVISING MECHANIC'S CERTIFICATE

Albert H. Goldstein certifies that the foregoing statements are true of his own knowledge.

8/28/46

(Date)

Albert H. Goldstein
(Mechanic's signature)

Mechanic's Certificate No. 1-254222

(Rating)

NOV 26 11 22 AM '46
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMIN.

Form ACA-309-1 (12-45)

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		SPECIFICATION No. A-734-2		ACCIDENT No. 86626		
EQUIPMENT No.				SPECIAL EQUIPMENT		
NUMBER	NUMBER	NUMBER	NUMBER	ITEM (DESCRIPTION)	WGT.	ARM.
1	112(a)	202	301	2 B-2 Vacuum Pumps	15	0
106	113	203	400(a)	Artificial Horizon	5	35
108	114	206		Directional Gyro	4	35
109	201(b)	207		Bilge Pump	6.5	86
E. W. (computed) 3307				Anchor & Rope		
Useful Load 1218				(Danforth)		12-87
E.C. C. 16.48" Aft of Datum				2 Elec. Fuel Pumps		
				(Romec A7004)		14/10
C. G. LIMITS						
LAND		SEA				
14.85" to 22.5"		same				
DATUM Leading edge of Center Section				Edwin Love, by		
				CAA DHR 1009		
				DATE 8/28/46		

*REV 357
11-8-46*

SEE VIBRATION RECORD

REPAIR AND ALTERATION RECORD

REPAIR AND ALTERATION FORM DATED 8/28/46		BY (Agency Name and No.) Crumman Aircraft Eng. Corp.	
LOCATION AND BRIEF DESCRIPTION OF REPAIR Installation of Curtis Metal Props 55518-10.			
REPAIR AND ALTERATION FORM DATED		BY (Agency Name and No.)	
LOCATION AND BRIEF DESCRIPTION OF REPAIR			
REPAIR AND ALTERATION FORM DATED		BY (Agency Name and No.)	
LOCATION AND BRIEF DESCRIPTION OF REPAIR			
REPAIR AND ALTERATION FORM DATED		BY (Agency Name and No.)	
LOCATION AND BRIEF DESCRIPTION OF REPAIR			
REPAIR AND ALTERATION FORM DATED		BY (Agency Name and No.)	
LOCATION AND BRIEF DESCRIPTION OF REPAIR			
WORKS	REPAIRS	ALTERS	BY
ISSUED (Date)		TITLE	
ADMINISTRATIVE		80339	

Form ACA-309—Page 1 (12-45)

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		OPERATION LIMITATIONS			CAA IDENT. MARK N86626	
ENGINE: MAKE Ranger MODEL 6-440C-5	AIRCRAFT: MAKE Grumman MODEL G44A	DATE MFRD. 6/9/46	SERIAL NO. 1452	DESIGNATION 4 PCL-Am	TYPE CERT. 754	

ENGINE AND AIR SPEED LIMITS NOT TO BE EXCEEDED
(All Values Are Maximum and Are NOT RECOMMENDED OPERATING LIMITS)

ENGINE LIMITS							TRUE INDICATED AIR SPEED		
	MINUTES	ALTITUDE	IN. HG.	R. P. M.	H. P.	FUEL OCT.		M. P. H. LAND	KNOTS SEA
TAKE-OFF	-	any	-	2450	200	87	CLIMB OR LEVEL FLIGHT	168	146
SEA LEVEL	X	∞	-	∞	∞	∞	GLIDE OR DIVE (Steady Air Only)	201	175
ALTIITUDE	FROM	∞	-	∞	∞	∞	FLAPS EXTENDED	104	90

*METO—MAXIMUM EXCEPT TAKE-OFF

TAKE-OFF WEIGHT				LANDING WEIGHT			
LAND	SEA	LAND	SEA	LAND	SEA	LAND	SEA
4525		4525		4525		4525	

OPERATIONS AUTHORIZED

Night - Instrument but not for hire unless suitable flares are installed.

INSPECTOR'S SIGNATURE
Edwin Lovejoy
DATE - CAA DMIR 1089
8/28/46

ADDITIONAL OPERATIONS AUTHORIZED: YES NO (IF YES—SEE OVER)

THIS PLACARD MUST BE DISPLAYED IN VIEW OF THE PILOT
(FOLD HERE)

(GOLD PLATE)
 THIS SECTION WILL BE FILLED IN BY OWNER OR PILOT
ADDITIONAL OPERATIONS AUTHORIZED

TYPE: GA
 MAKE: Cessna
 MODEL: 441
 SERIAL: 44085
 REGISTRATION: N44185
 OPERATIONS AUTHORIZED:

TYPE: GA MAKE: Cessna MODEL: 441 SERIAL: 44085 REGISTRATION: N44185
 MAKE-UP WEIGHT: _____ FLYING WEIGHT: _____

WIND-PROVING EXCELLENCE

| TYPE | WIND-PROVING EXCELLENCE |
|------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| TYPE | WIND-PROVING EXCELLENCE |
| TYPE | WIND-PROVING EXCELLENCE |

(WEIGHTS AND MEASUREMENTS NOT RECOMMENDED EXCEEDING THIS)
 ENGINE AND WIND SPEED SHOULD NOT BE EXCEEDED

IF THIS FORM IS LOST OR DESTROYED, A DUPLICATE MAY BE OBTAINED FROM THE CERTIFICATION AND RECORDATION SECTION, AIRCRAFT AND COMPONENTS SERVICE, CIVIL AERONAUTICS ADMINISTRATION, WASHINGTON, D. C. FOR \$2.00. (MONEY ORDER OR CHECK SHOULD BE MADE PAYABLE TO THE TREASURER OF THE UNITED STATES.)

Form ACA 807
(Rev. 11-1-41)

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

AIRCRAFT INSPECTION REPORT

Grumman Aircraft Engineering Corporation, Bethpage, L. I., N. Y.
(Owner's name) Grumman Aircraft Engineering Corporation (Address) Grumman
Grumman (Make) G44A (Model) 2-2442001 452 (Serial number) 86626 (Identification mark)

Designation 5 PCL-Am-FbM Aircraft Specification No. 734

ISSUANCE PERIODIC ENDORSEMENT REPAIR ALTERATION SPECIAL EXPORT
(Circle which)

Is Registration Certificate properly displayed in the aircraft? Yes

Are Airworthiness Certificate and Operation Record Form in the aircraft? _____

Are aircraft and engine log books available and in proper condition? _____

Periodic aircraft inspection report dated _____ by _____ submitted.

1- Aircraft was inspected and determined to have complied with the following, except as noted *

- (a) Listing in inspector's handbook, chapter XVIII _____
 - (b) Aircraft specifications Serial No. A- 734-2
 - (c) Special inspection request dated _____
 - (d) Notes Nos. #2, 4, 6
 - (e) Special Notes Nos. A.D. 352 Not Applicable
- * Exceptions, if any, noted #3, 5, 7 Not Applicable

Satisfactory? Yes (x). No ().

2- Aircraft was thoroughly inspected and determined to be in an airworthy condition for the operations authorized and for the type of certificate issued, except as noted *

* Exceptions, if any, of which the owner or his representative was advised _____

Satisfactory? Yes (x). No ().

3- Alterations and/or major repairs described in the attached Repair and Alteration Form were thoroughly inspected and determined to be satisfactory, and to comply with the provisions of the Civil Air Regulations pertaining to repair and alteration, except as noted *

* Exceptions, if any, of which the owner or his representative was advised NONE

Satisfactory? Yes (). No ().

4- All required placards, instructions, warnings, and markings pertaining to the use and operation of the controls, fuel valves, instruments and gages, safety devices, fuel, oil and baggage capacities, and the like, are correctly executed and properly displayed, except as noted.

* Exceptions, if any, of which the owner or his representative was advised _____

Satisfactory? Yes (x). No ().

5- Based on the results of the above inspection, Aircraft Airworthiness Certificate with Operation Record Form attached, was issued (x). Endorsed () for a period of _____

on date of June 10, 1946

Date June 10, 1946 Date June 10, 1946

Inspector _____ Inspector Edw. H. Overjoy
CAA DMIR 1009

10-11531-1
[OVER]

REMARKS PERTAINING TO

AIRCRAFT New

ENGINES Ranger 6-440C-5
Right R009448-S
Left R003459-S

PROPELLERS Sensenich 82RS72

REPAIRS

After accident of

ALTERATIONS

Forms and documents submitted (indicate by form number or nature of content) which are attached 305, 308, 309 weight and Balance and loading schedule

with the following to be checked by the Engineering Branch

and returned when checked () Forwarded through channels if satisfactory ()

REMARKS 501, 500A, 132 Forwarded Directly to Washington, D.C.

NOTE.—This form to be executed and submitted in single copy following any inspection which results in the issuance or endorsement of an Aircraft Airworthiness Certificate, (1) original issuance, (2) periodic endorsement, or (3) following major repair, alteration, special inspection, or after inspection for export, except that in case of disapproval, a duplicate copy of the "Disapproved" Inspection Report will be attached to the Aircraft Operation Record, and will only be removed by an inspector of the Administration following a satisfactory inspection of the aircraft.

10-11531-1 U. S. GOVERNMENT PRINTING OFFICE
DEPARTMENT OF COMMERCE
FEDERAL AVIATION ADMINISTRATION

Form ACA-309-1a2 (12-45)

UNITED STATES AMERICA		SPECIFICATION NO. A-734-2		CAA IDENT. NO. 86626		
DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION						
EQUIPMENT No.			SPECIAL EQUIPMENT			
NUMBER	NUMBER	NUMBER	NUMBER	ITEM (DESCRIPTION)	WGT.	ARM.
101	112(a)	202	301	Two B-2 Vacuum Pumps	4	0
106	113	203	400(a)	Artificial Horizon	5	-36
108	114	206		Directional Gyro	4	-36
109	201(b)	207		Bilge Pump	6.5	-86
E.W. (actual)		3255	EA	Anchor & Rope		
Useful Load		1270		(Danforth)		12-87
E.C.G. 17.47"		Aft of Datum		Two Electric Fuel Pumps (Romec A7004)		14/10
LOCATION AND SERIAL DESCRIPTION OF BELT		LOCATION OF BELT				
BELT AND INFORMATION LOG IN FILED		EA				
LOCATION AND SERIAL DESCRIPTION OF BELT		LOCATION OF BELT				
BELT AND INFORMATION LOG IN FILED		EA				
C. G. LIMITS						
LAND		/14.85" to /22.5"		SEA		same
Leading edge ^{PATH} center section				INSPECTOR'S SIGNATURE Edwin Lovelace CAA DISTRICT OFFICER		
LOCATION AND SERIAL DESCRIPTION OF BELT		LOCATION OF BELT		DATE 6/10/46		
BELT AND INFORMATION LOG IN FILED		EA				

ATWENTINGSON
 MAY 10 1946
 11 30 10 05 AM '46
 ADVANCE UNIT

BELT AND INFORMATION RECORD

Form ACA-809-2 (12-45)

UNITED STATES AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		SPECIFICATION NO. A-734-2		CAA IDENT. NO. 86626		
EQUIPMENT No.			SPECIAL EQUIPMENT			
NUMBER	NUMBER	NUMBER	NUMBER	ITEM (DESCRIPTION)	WGT.	ARM.
101	112(a)	202	301	Two B-2 Vacuum Pumps	4	0
106	113	203	400(a)	Artificial Horizon	5	-35
108	114	206		Directional Gyro	4	-35
109	201(b)	207		Bilge Pump	6.5	-86
E.W. (actual)		3255		Anchor & Rope (Danforth)		12-87
Useful Load		1270		Two Electric Fuel Pumps (Romec A7004)		14-10
E.C.G.	17.47"	Aft of Datum				
C. G. LIMITS						
LAND	14.85" to 22.5"		SEA	Same		
DATUM Leading edge of center section				INSPECTOR'S SIGNATURE <i>Edwin Lovelace</i>		
DATE: 6/10/46				DATE: 6/10/46		
BELVIE WIND VELOCITY RECORD						

Form ACA-809-PAGE 1 (12-45)

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		OPERATION LIMITATIONS			CAA IDENT. MARK N86626
ENGINE MAKE Ranger	AIRCRAFT MAKE Grumman	DATE MFRD. 6/8/45	SERIAL NO. 1452	DESIGNATION 5PCL-Am	TYPE CERT. NO. 734
MODEL 6-440C-5	MODEL G44A			Fbh	

ENGINE AND AIR SPEED LIMITS NOT TO BE EXCEEDED
 (All Values Are Maximum and Are NOT RECOMMENDED OPERATING LIMITS)

ENGINE LIMITS							TRUE INDICATED AIR SPEED		
	MINUTES	ALTITUDE	IK. HG.	R. P. M.	H. P.	FUEL OCT.		M. P. H. LAND	KNOTS SEA
TAKE-OFF	-	any	-	2450	200	87	CLIMB OR LEVEL FLIGHT	175	152
(SEA LEVEL)		∞	-	∞	∞	∞	GLIDE OR DIVE (Smooth Air Only)	210	183
*M.T.O. ALTITUDE	FROM	∞	-	∞	∞	∞	FLAPS EXTENDED	104	90

*M.T.O.—MAXIMUM EXCEPT TAKE-OFF

TAKE-OFF WEIGHT		LANDING WEIGHT	
LAND	SEA	LAND	SEA
4525	4525	4525	4525

OPERATIONS AUTHORIZED

Night - Instrument but not for hire unless suitable
 flares are installed.

INSPECTOR'S SIGNATURE
Edward A. Lovvorn
 DATE
CAA DMIR 1009
6/10/46

ADDITIONAL OPERATIONS AUTHORIZED YES NO (IF YES—SEE OVER)

THIS PLACARD MUST BE DISPLAYED IN VIEW OF THE PILOT
 (FOLD HERE)

(10-10-78)

ADDITIONAL OPERATIONS AUTHORIZED

6173

TYPE		REV	TYPE	REV	TYPE	REV	TYPE	REV	
A									
MAXIMUM TAKE-OFF WEIGHT		MAXIMUM LANDING WEIGHT							
FIELD-TAKING EXCEPT TAKE-OFF									
FIELD TAKE-OFF	WINGSPAN	WING AREA	WING LOADING	WING AREA	WING LOADING	WING AREA	WING LOADING	WING AREA	
	FT	SQ FT	LB/SQ FT	FT	SQ FT	LB/SQ FT	FT	SQ FT	
FIELD TAKE-OFF	WINGSPAN	WING AREA	WING LOADING	WING AREA	WING LOADING	WING AREA	WING LOADING	WING AREA	
	FT	SQ FT	LB/SQ FT	FT	SQ FT	LB/SQ FT	FT	SQ FT	
ENGINE MAKE		ENGINE MODEL		ENGINE MAKE		ENGINE MODEL		ENGINE MAKE	
CIVIL AIRCRAFT		CIVIL AIRCRAFT		CIVIL AIRCRAFT		CIVIL AIRCRAFT		CIVIL AIRCRAFT	

(IF APPROVED UNDER AN AFM NOT RECORDED OTHERWISE MARK)
 ENGINE WIND VIB SPEED ENGINE WIND VIB EXCEEDED

**IF THIS FORM IS LOST OR DESTROYED, A DUPLICATE MAY BE OBTAINED FROM THE
 CERTIFICATION AND RECORDATION SECTION, AIRCRAFT AND COMPONENTS SERVICE,
 CIVIL AERONAUTICS ADMINISTRATION, WASHINGTON, D. C., FOR \$2.00. (MONEY ORDER
 OR CHECK SHOULD BE MADE PAYABLE TO THE TREASURER OF THE UNITED STATES.)**

FAA FORM 337-300-1 (10-78)

Form ACA-809-Page 1 (12-45)

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		OPERATION LIMITATIONS			CAA IDENT. MARK NC 86626	
ENGINE MAKE Ranger	ENGINE MODEL 6-4400-5	MAKE Grumman	MODEL G44A	DATE MFRD. 6/8/45	SERIAL NO. 1452	DESIGNATION 5PCL-Am FbM
						TYPE CERT. 734

ENGINE AND AIR SPEED LIMITS NOT TO BE EXCEEDED
 (All Values Are Maximum and Are NOT RECOMMENDED OPERATING LIMITS)

ENGINE LIMITS							TRUE INDICATED AIR SPEED		
	MIRUTES	ALTITUDE	IN. HG.	R. P. M.	H. P.	FUEL OCT.		M. P. H. LAND	KNOTS SEA
TAKE-OFF	-	any	-	2450	200	87	CLIMB OR LEVEL FLIGHT	175	152
METO	SEA LEVEL	∞ ^o	-	"	"	"	GLIDE OR DIVE (Smooth Air Only)	210	183
	ALTITUDE	FROM	-	"	"	"	FLAPS EXTENDED	104	90

METO - MAXIMUM EXCEPT TAKE-OFF

TAKE-OFF WEIGHT		LANDING WEIGHT	
LAND	SEA	LAND	SEA
4525	4525	4525	4525

OPERATIONS AUTHORIZED

Night - Instrument but not for hire unless suitable flares are installed.

INSPECTOR'S SIGNATURE
[Signature]
 DATE
 CAA DMIR 1009
 6/10/46

ADDITIONAL OPERATIONS AUTHORIZED YES NO (IF YES - SEE OVER)

THIS PLACARD MUST BE DISPLAYED IN VIEW OF THE PILOT
 (FOLD HERE)

STAT.

16-6710-2

Form ACA 306
(Rev. 12-1-41)

BUDGET BUREAU NO. 41-R041-43
Approval expires 12-31-43

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

IDENTIFICATION MARK NC86626
DATE 6/10/46
APPROVED <i>Edwin Lovejoy</i> Edwin Lovejoy CAA (License No. 14609)
DISAPPROVED
(Inspector's signature)

APPLICATION FOR AIRWORTHINESS CERTIFICATE FOR
AN AIRCRAFT

TO THE CIVIL AERONAUTICS ADMINISTRATION:

Application is made for an Airworthiness Certificate for:

1. Make Grumman 2. Model G44A
3. Type Certificate No. 734 4. Manufacturer's Serial No. 1452
5. Engines

MANUFACTURER	MODEL	SERIAL No.	SPEC. No.	H. P.
Ranger	Left	R-6-440-C5	R003459-S 216	200
Ranger	Right	R-6-440-C5	R009448-S 216	200

6. Check type of aircraft: Airplane , glider , dirigible , balloon , open cockpit , cabin , convertible , amphibian , seaplane , landplane , biplane , monoplane , unconventional and other (describe): _____
7. Number seats with safety belts provided for passengers and crew 5
8. Applicant's name Grumman Aircraft Engineering Corporation
(Print or type FULL NAME)
9. Permanent mailing address Bethpage, L. I., N. Y.
(Street) (City) (State)
10. Describe any special purposes for which aircraft will be used _____

Business and Pleasure

~~THIS AIRCRAFT IS NOT REGISTERED WITH THE CIVIL AERONAUTICS ADMINISTRATION~~
Application for registration is attached hereto } in the name of the applicant.
(Strike out words not applicable)

I CERTIFY that the above statements are true.

Grumman Aircraft Engineering Corp.
(Name of applicant)

By *Edwin Lovejoy*
(Signature)

Edwin Lovejoy
(Title)

Date June 10, 1946

FAA Form 337, dated 1-20-81, is a form used for reporting aircraft accidents and incidents. The form is divided into several sections, including a header section, a section for aircraft information, a section for accident/incident details, and a section for witness information.

The header section contains the following information:

- FAA Form 337, dated 1-20-81
- FAA AIRCRAFT REGISTRY
- CAMERA NO. 3 DATE: 1-20-81

The aircraft information section contains the following information:

- Registration Number: N10000
- Model: Cessna 441
- Year: 1980
- Engine: Rotax 580
- Serial Number: 4410000000
- Manufacturer: Cessna Aircraft Company

The accident/incident details section contains the following information:

- Date: 1-18-81
- Time: 10:00
- Location: [illegible]
- Altitude: [illegible]
- Weather: [illegible]
- Flight Status: [illegible]
- Accident/Incident Description: [illegible]

The witness information section contains the following information:

- Name: [illegible]
- Address: [illegible]
- City: [illegible]
- State: [illegible]
- Zip: [illegible]

The form also includes a section for the pilot's name and address, and a section for the FAA representative's name and address.

Form ACA 307
(Rev. 11-1-41)

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

AIRCRAFT INSPECTION REPORT

Grumman Aircraft Engineering Corporation, Bethpage, L. I., N.Y.

Grumman (Make) G44-A343065 (Model) 1452 (Serial number) 86626 (Identification mark)

Designation 5PCL-Am-FbM Aircraft Specification No. 734

(ISSUANCE) PERIODIC ENDORSEMENT REPAIR ALTERATION SPECIAL EXPORT

Is Registration Certificate properly displayed in the aircraft? Yes

Are Airworthiness Certificate and Operation Record Form in the aircraft?

Are aircraft and engine log books available and in proper condition?

Periodic aircraft inspection report dated _____ by _____ submitted.

1. Aircraft was inspected and determined to have complied with the following, except as noted *

- (a) Listing in inspector's handbook, chapter XVIII
- (b) Aircraft specifications Serial No. A- 734-2
- (c) Special inspection request dated _____
- (d) Notes Nos. #2, 4, 6
- (e) Special Notes Nos. A.D. 352 Not Applicable

* Exceptions, if any, noted #3, 5, 7 Not Applicable

Satisfactory? Yes (x) No (-)

2. Aircraft was thoroughly inspected and determined to be in an airworthy condition for the operations authorized and for the type of certificate issued, except as noted.

* Exceptions, if any, of which the owner or his representative was advised _____

Satisfactory? Yes (x) No (-)

3. Alterations and/or major repairs described in the attached Repair and Alteration Form were thoroughly inspected and determined to be satisfactory, and to comply with the provisions of the Civil Air Regulations pertaining to repair and alteration, except as noted.

* Exceptions, if any, of which the owner or his representative was advised - NONE

Satisfactory? Yes () No ()

4. All required placards, instructions, warnings, and markings pertaining to the use and operation of the controls, fuel valves, instruments and gages, safety devices, fuel, oil and baggage capacities, and the like, are correctly executed and properly displayed, except as noted.

* Exceptions, if any, of which the owner or his representative was advised _____

Satisfactory? Yes (x) No ()

5. Based on the results of the above inspection, Aircraft Airworthiness Certificate with Operation Record Form attached, was issued (x). Endorsed () for a period of _____

on date of June 10, 1946

DISAPPROVED APPROVED Date June 10, 1946

Inspector _____ Inspector [Signature] CAA DMLR 1009

REMARKS PERTAINING TO

AIRCRAFT New

ENGINES Ranger 6-440C-5
Right R009448-S
Left R003469-S

PROPELLERS Sensenich 82RS72

REPAIRS After accident of

ALTERATIONS

Forms and documents submitted (indicate by form number or nature of content) which are attached 305, 308A, 309, Weight and Balance and Loading Schedule

with the following to be checked by the Engineering Branch

and returned when checked () Forwarded through channels if satisfactory (x)

REMARKS 501, 500A, 132 Forwarded Directly to Washington, D.C.

NOTE - This form to be executed and submitted in single copy following inspection which results in the issuance or endorsement of an Aircraft Airworthiness Certificate as (1) Original issuance, (2) periodic endorsement, or (3) following major repair, alteration, special inspection, or after inspection for export, except that in case of disapproval, a duplicate copy of the "Disapproved" Inspection Report will be attached to the Aircraft Operation Record, and will only be removed by an inspector of the Administration following a satisfactory inspection of the aircraft.

U. S. GOVERNMENT PRINTING OFFICE



MODEL 644-A

6/6/46

LICENSE NO. NC86626

LOADING SCHEDULE

BAGGAGE ALLOWED IN BAGGAGE COMPARTMENT

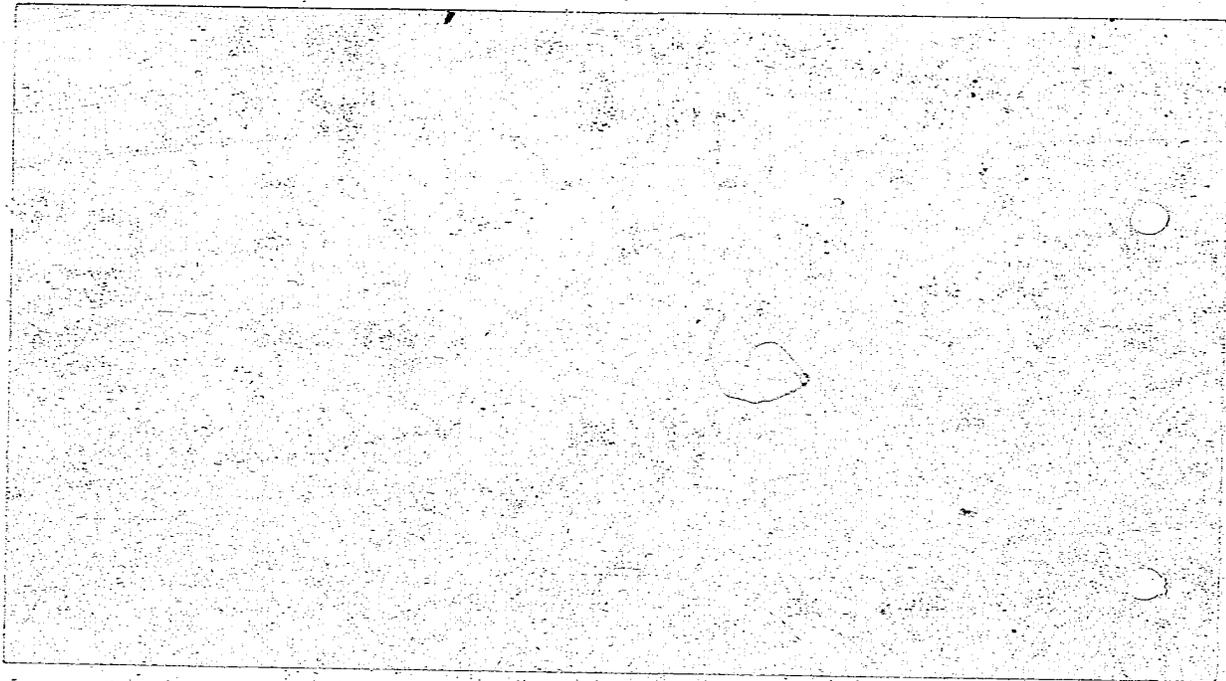
REF.	FUEL GALS.	PILOT	PASSENGERS			MAXIMUM BAGGAGE - LBS.
			FORE	AUX.	AFT	
A	58	1	1	1	2	0
B	86	1	-	1	2	0
C	Full	1	-	-	2	40
D	Full	1	-	-	1	210
E	Full	1	1	-	-	210
F	86	1	1	-	2	0
G	Full	1	-	-	-	338

20# Baggage may be carried in Bow Compartment in addition to amounts shown above.

J-G1252

2

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81



2

copy file

WEIGHT & BALANCE REPORT
GRUMMAN AIRCRAFT ENGINEERING CORPORATION
REPORT NO. G44A-54

ACTUAL
WEIGHT & BALANCE
OF
MODEL G-44A
SERIAL NO. 1452
CERTIFICATE NO. HB86626
5 PLACE AMPHIBIAN
15257 GROSS WEIGHT

Date: June 6, 1946

Prepared by:

John Michel
John Michel

Checked by:

Charles E. Lyman
Charles E. Lyman

Approved by:

Robert J. Trimborn
Robert J. Trimborn

12-7-45
G103-9000-7-44

Report No. G44A-54

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

FAA AIRCRAFT REGISTRY
CAMERA NO. 3 DATE: 1-20-81

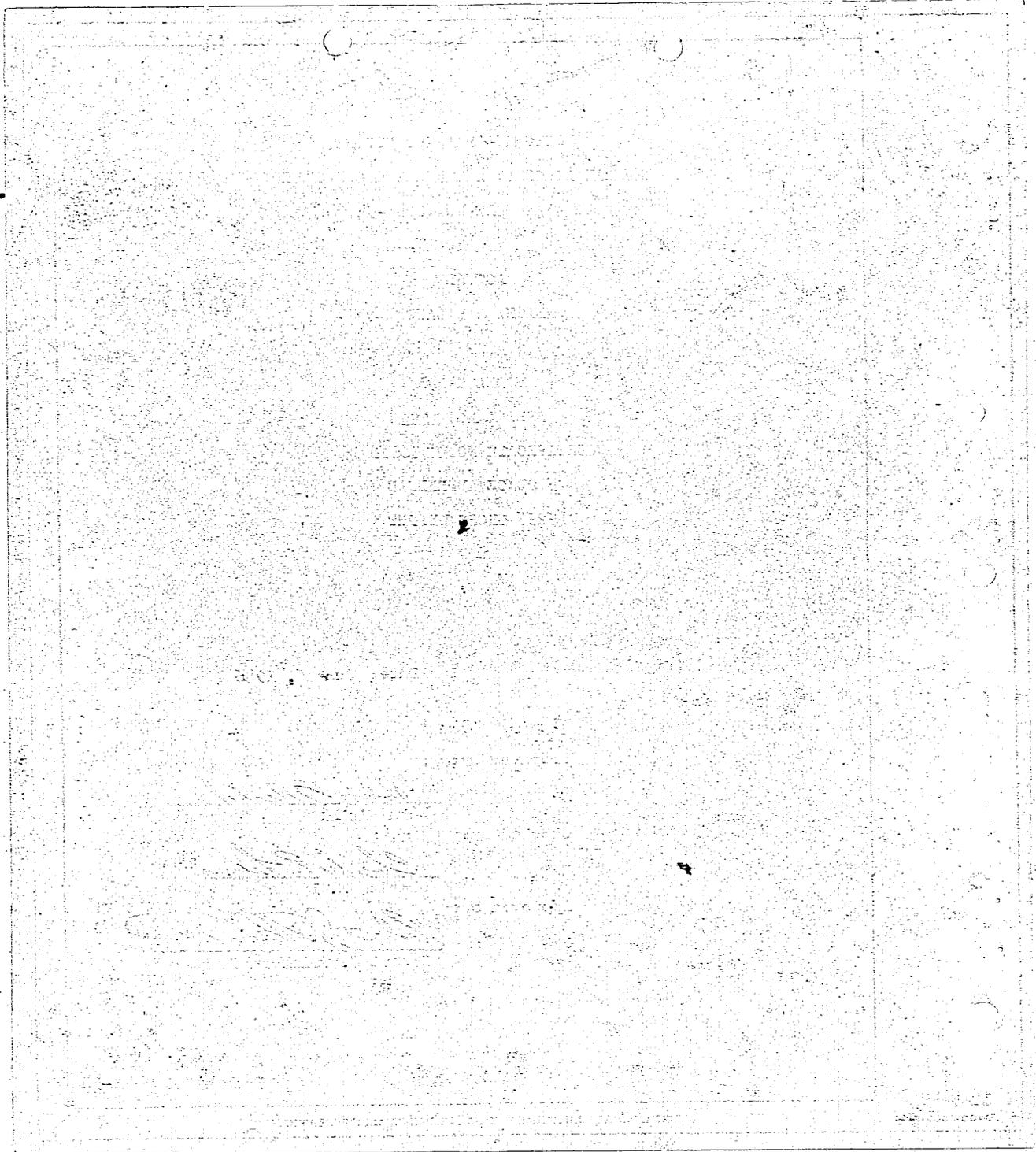


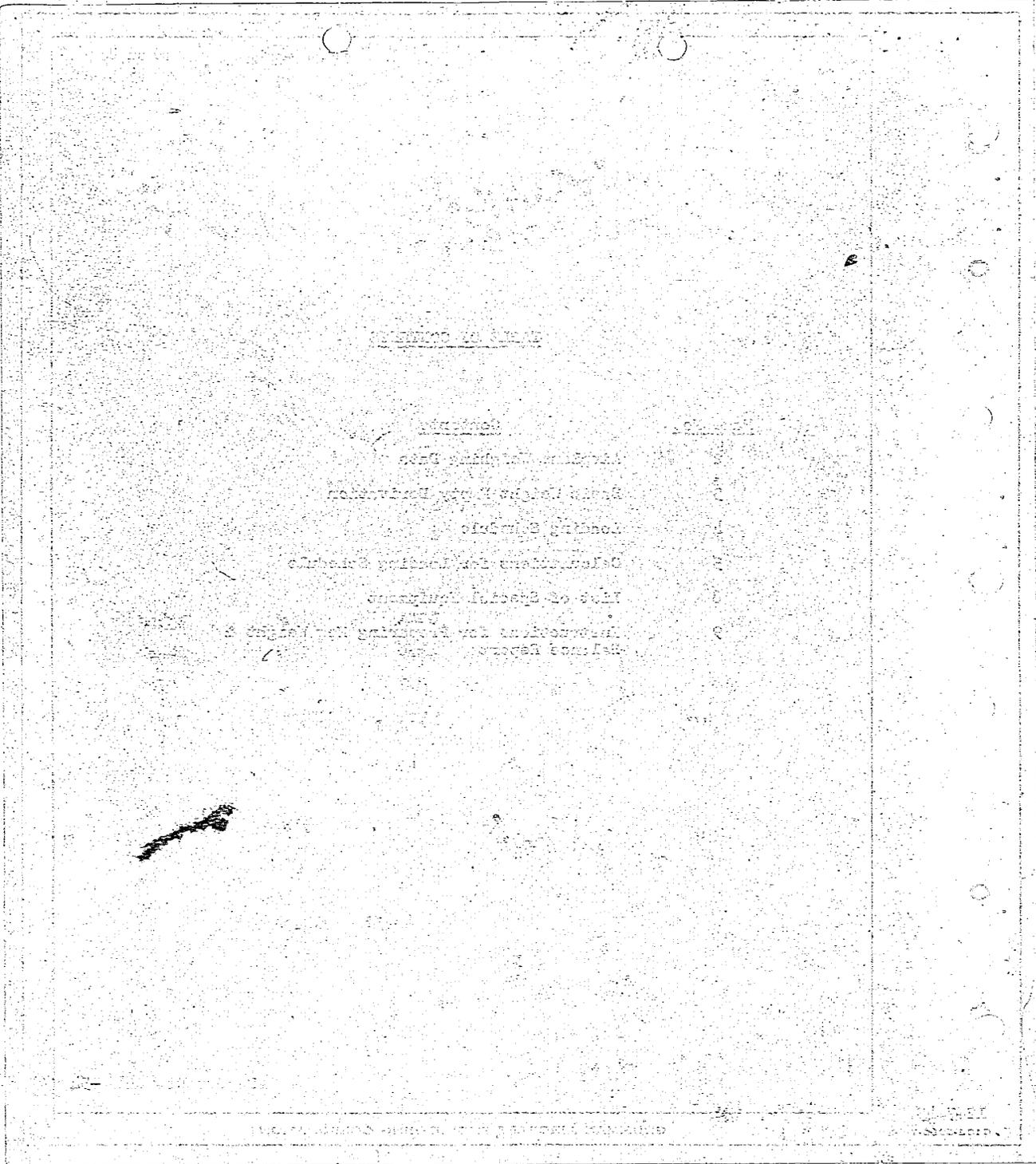
TABLE OF CONTENTS

<u>Page No.</u>	<u>Contents</u>
2	Airplane Weighing Data
3	Basic Weight Empty Derivation
4	Loading Schedule
5	Calculations for Loading Schedule
8	List of Special Equipment
9	Instructions for Preparing New Weight & Balance Report

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G103-6000-7-44

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

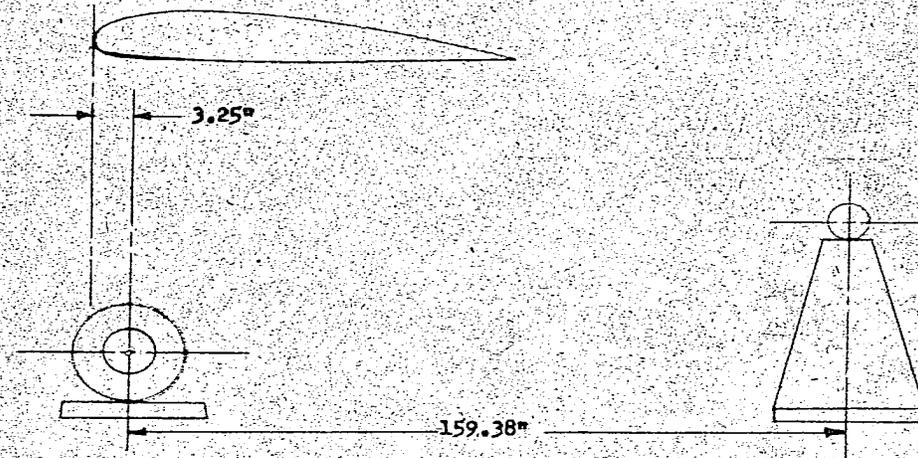


FEDERAL BUREAU OF INVESTIGATION
U.S. DEPARTMENT OF JUSTICE

1-20-81
1-20-81

Airplane Weighing Form

Airplane as weighed (in level position)



	<u>Scale Reading</u>	<u>Tare</u>	<u>Net</u>
Right Wheel	1523	0	1523
Left Wheel	1438	0	1438
Tail Wheel	290	0	290
Total	3251		3251

Weighing Witnessed by *Henry L. Smith*

C.G. Location - Airplane as Weighed

$$\text{C.G.} = \frac{290 \times 159.38}{3251} = 14.22 \text{ " aft C.L. axle}$$

Datum to C.L. axle = 3.25"

$$\text{C.G. as weighed is aft of datum: } 3.25 + 14.22 = 17.47$$

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TABLE OF ADDITIVE & SUBTRACTIVE ITEMS

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Airplane as weighed (Includes Residual Fuel & Oil)	3251	17.47	56795
	<u>4</u>	<u>20</u>	<u>80</u>
Voltage Regulator	3255	17.47	56875

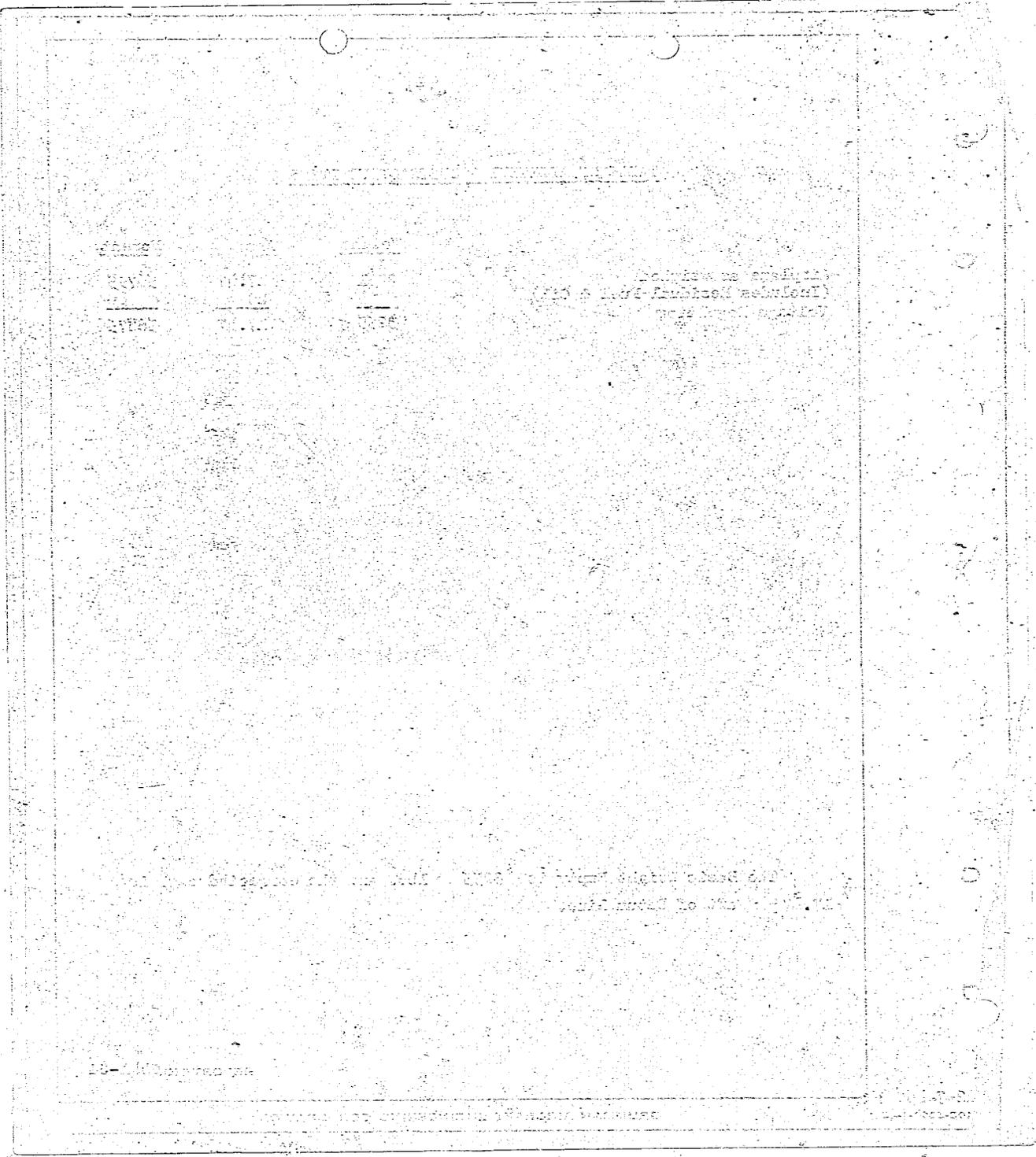
4-22-81
 3251
 17.47

The Basic Weight Empty is 3255 lbs. and the corrected c.g. is 17.47" aft of Datum line.

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 103-5000-1-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION



LOADING SCHEDULE
BAGGAGE ALLOWED IN BAGGAGE COMPARTMENT

REF.	FUEL GALS.	PILOT	PASSENGERS			MAXIMUM BAGGAGE - LBS.
			FORE	AUX.	AFT.	
A	58	1	1	1	2	0
B	86	1	-	1	2	0
C	Full	1	-	-	2	40
D	Full	1	-	-	1	210
E	Full	1	1	-	-	210
F	86	1	1	-	2	0
G	Full	1	-	-	-	338

NOTE:

1. Additional baggage up to the airplane gross weight of 4525# may be carried at the position of the auxiliary seat.
2. Equipment of 20# may be carried in the bow compartment in addition to anchor and rope.
3. If anchor and rope are removed, 19# of baggage or ballast must be substituted in their place.

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REGISTRATION	TYPE	CLASS	STATUS	EXPIRES	ISSUE DATE	ISSUE NO.
N10000	C	1	1	1	1	1
N10001	C	1	1	1	1	1
N10002	C	1	1	1	1	1
N10003	C	1	1	1	1	1
N10004	C	1	1	1	1	1
N10005	C	1	1	1	1	1
N10006	C	1	1	1	1	1
N10007	C	1	1	1	1	1
N10008	C	1	1	1	1	1
N10009	C	1	1	1	1	1
N10010	C	1	1	1	1	1

FAA AIRCRAFT REGISTRY
 CAMERA NO. 3 DATE: 1-20-81

CALCULATIONS FOR LOADING SCHEDULE

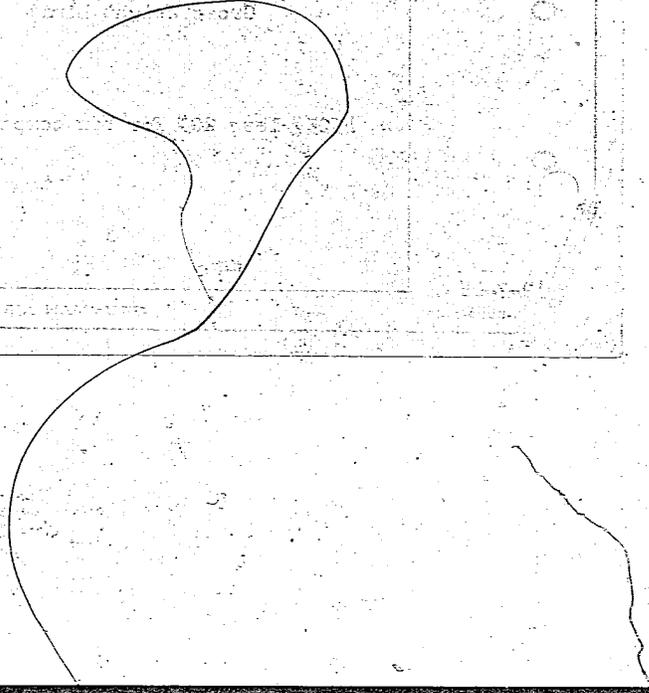
	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
A. Pilot & 4 Passengers (1 fore, 1 aux, 2 aft) No Baggage			
Basic Weight Empty	3255	17.47	56875
Oil in Tanks (7 gals.)	52	10	520
Pilot	170	- 6	- 1020
1 Passenger (fore)	170	- 6	- 1020
1 Passenger (aux.)	170	19	3230
2 Passengers (aft)	340	52	17680
Total Weight Less Fuel	4157	18.346	76265
Maximum Fuel (58 gals.)	348	21	7308
Gross Weight Limit	4505*	18.55 "aft L.E.W.	83573
B. Pilot & 3 Passengers (1 aux, 2 aft)			
Basic Weight Empty	3255	17.47	56875
Fuel (86 gals.)	518	21	10878
Oil in Tanks (7 gals.)	52	10	520
Pilot	170	- 6	- 1020
1 Passenger (aux.)	170	19	3230
2 Passengers (aft)	340	52	17680
Total Weight Less Baggage	4505	19.57	88163
Maximum Baggage Allowed	0	90	0
Gross Weight Limit	4505*	19.57 "aft L.E.W.	88163
C. Pilot & 2 Passengers - aft			
Basic Weight Empty	3255	17.47	56875
Fuel (108 gals.)	648	21	13608
Oil in Tanks (7 gals.)	52	10	520
Pilot	170	- 6	- 1020
2 Passengers (aft)	340	52	17680
Total Weight Less Baggage	4465		87663
Maximum Baggage Allowed	40	90	3600
Gross Weight Limit	4505*	21.26 "aft L.E.W.	91263

* 4525# less 20# for bow compartment allowance

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12-7-45
 3-5000-1-45

Faint, mostly illegible text and table structure, possibly a flight log or aircraft registration record. The text is extremely faded and difficult to decipher.



CALCULATIONS FOR LOADING SCHEDULE (Cont.)

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
D. Pilot & 1 Passenger - aft			
Basic Weight Empty	3255	17.47	56875
Fuel (108 gals.)	648	21	13608
Oil in Tanks (7 gals.)	52	10	520
Pilot	170	- 6	-1020
1 Passenger (aft)	170	52	8840
Total Weight Less Baggage	4295		78823
Maximum Baggage Allowed	210	90	18900
Gross Weight Limit	4505*	21.69^{aft} L.E.M.	97723
E. Pilot & 1 Passenger - Forward			
Basic Weight Empty	3255	17.47	56875
Fuel (108 gals.)	648	21	13608
Oil in Tanks (7 gals.)	52	10	520
Pilot	170	- 6	-1020
1 Passenger (fore)	170	- 6	-1020
Total Weight Less Baggage	4295		68963
Maximum Baggage Allowed	210	90	18900
Gross Weight Limit	4505*	19.50^{aft} L.E.M.	87863
F. Pilot & 3 Passengers (1 fore, 2 aft)			
Basic Weight Empty	3255	17.47	56875
Fuel (86 gals.)	518	21	10878
Oil in Tanks (7 gals.)	52	10	520
Pilot	170	- 6	-1020
1 Passenger (fore)	170	- 6	-1020
2 Passengers (aft)	340	52	17680
Total Weight Less Baggage	4505		89313
Maximum Baggage Allowed	0	90	0
Gross Weight Limit	4505*	18.63^{aft} L.E.M.	89313

*4525# less 20# for bow compartment allowance.

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GRUMMAN AIRCRAFT ENGINEERING CORPORATION

CALCULATIONS FOR LOADING SCHEDULE (Cont.)

G. Pilot & Full Fuel	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Basic Weight Empty	3255	17.47	56875
Fuel (108 gals.)	648	21	13608
Oil in Tanks (7 gals.)	52	10	520
Pilot	170	- 6	-1020
Total Weight Less Baggage	4125		69983
Maximum Baggage Allowed	338	90	30420
Center of Gravity Limit	4463	22.50" aft L.E.W.	100403

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 G103-5000-7-44

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

SPECIAL EQUIPMENT

Item

Weight

Arm

Moment

ENGINE SERIAL NOS.

Left

RO-03159-S

Right

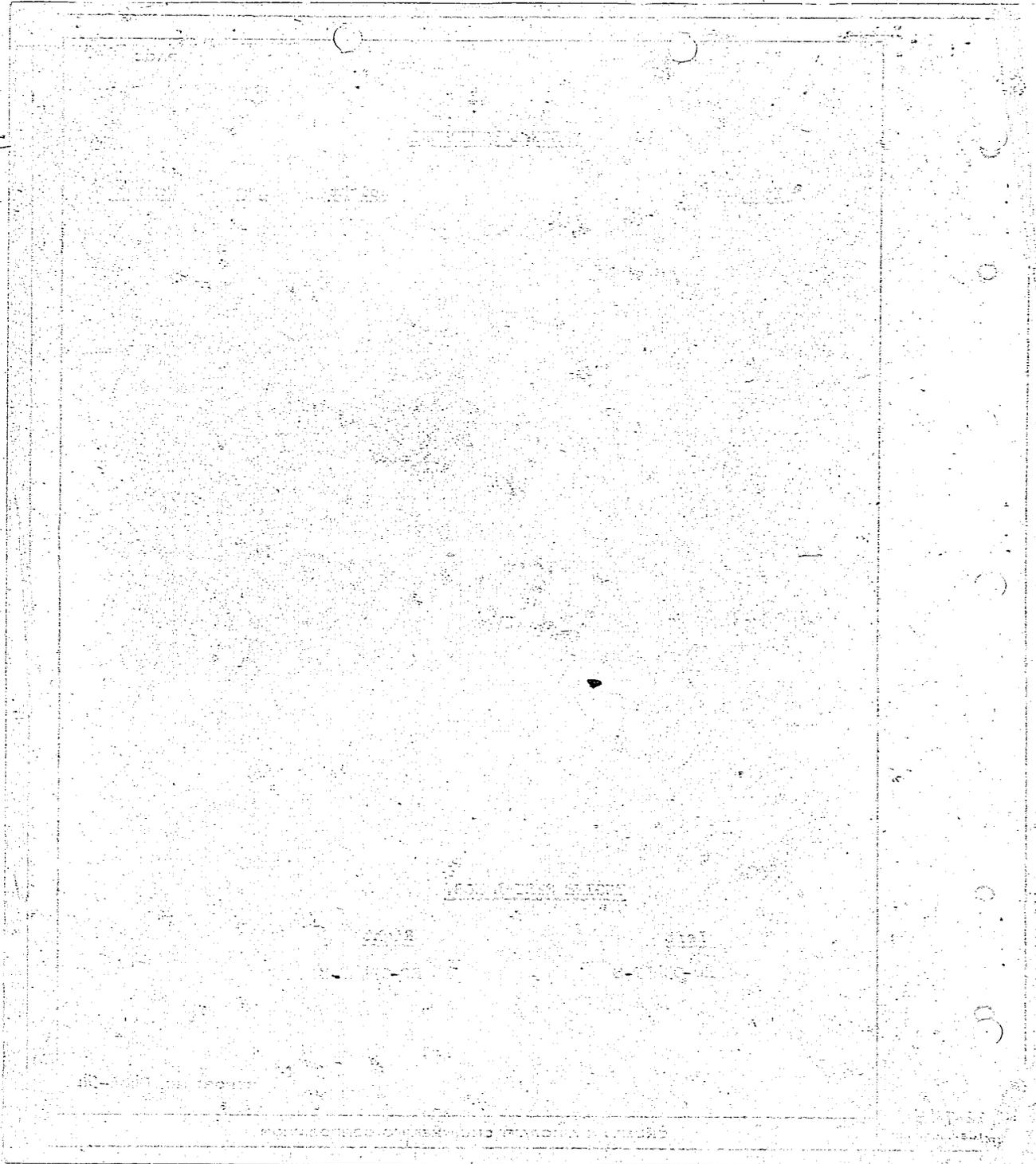
RO-09118-S

REPORT NO. 011A-51

12-7-45

103-5000-1-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION



2

INSTRUCTIONS FOR PREPARING
NEW WEIGHT & BALANCE AFTER AN ALTERATION

1. Modify the basic Empty Weight, Arm and Moment for the new changes.
2. Using these, recompute the seven loading conditions to determine the Baggage Permitted for each. The effect of the 20# allowance for equipment in the Bow Compartment must be included.
3. In conditions A, B, and F, there is no Baggage Permitted. Determine allowable fuel load by subtracting 'Total Weight Less Fuel' from 4505# (Thus allowing for Bow Compartment Allowance). Fuel weighs 6#/gallon. Minimum Fuel in condition A is 60 gallons.
4. When the Baggage Permitted for the particular loading condition is limited by the Gross Weight (as in conditions C, D, E), consider Gross Weight as 4505# (Thus allowing for Bow Compartment Allowance).
5. When the Baggage Permitted for the particular loading condition is limited by the rearward C.G. limit of 22.50" (as in condition G) there is no need to include the Bow Compartment allowance since, if used, it is a nose-heavy item.

To solve for the Baggage Permitted (x), after adding the Total Weight (W) and Moment (M) less Baggage (See calculations of condition G), use the equation:-

$$x = \frac{22.5 W - M}{67.5}$$

and check by completing the calculation for the condition, dividing final moment by the final weight to give C.G. = 22.50".

12-7-45

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GRUMMAN AIRCRAFT ENGINEERING CORPORATION

INSTRUCTIONS FOR PREPARING
NEW WEIGHT & BALANCE (Cont.)

6. Conditions may be limited by Gross Weight or by C.G.
They must be computed and checked for both limits.
7. Make two new loading schedule Placards with the same notes.
 - 1 to ship
 - 1 to C.A.A.Make four copies of Revised Weight and Balance Report
 - 1 to ship
 - 2 to C.A.A.
 - 1 to owner for record purposes.
8. The above computations separate the effect of the Bow Compartment Allowance from the Baggage Permitted so that it may be used wholly or in any part without exceeding either Gross Weight or C.G. Limit.
9. The most forward C.G. for flying is at 14.85" aft of the L.E.W.
The most rearward is 22.5" aft of the L.E.W.

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GRUMMAN AIRCRAFT ENGINEERING CORPORATION

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1-20-81

