

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 Cessna	MODEL G-21A
	SERIAL NO. B-33	NATIONALITY AND REGISTRATION MARK N17991A
2. OWNER	NAME (As shown on registration certificate) Antiles Airboats Inc.	ADDRESS (As shown on registration certificate) Sea Plane Base St. Thomas U.S. Virgin Is. 0082

3. FOR FAA USE ONLY

The *UNIT* identified herein complies with applicable airworthiness requirements and is approved only for the above described aircraft, subject to the conformity inspection by a person authorized in F.A.R. Part 43, Section 43.7.

WE GADO
Signed: *[Signature]* Date: *7-27-69*

4. UNIT IDENTIFICATION

5. TYPE

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Carl Volair Inc. 2830 E. Wardlow Rd. Long Beach, California	<input type="checkbox"/> U.S. CERTIFICATED MECHANIC	4369
	<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 7-16-69	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	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR ACTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>
----------------------------	--------------------------------	--

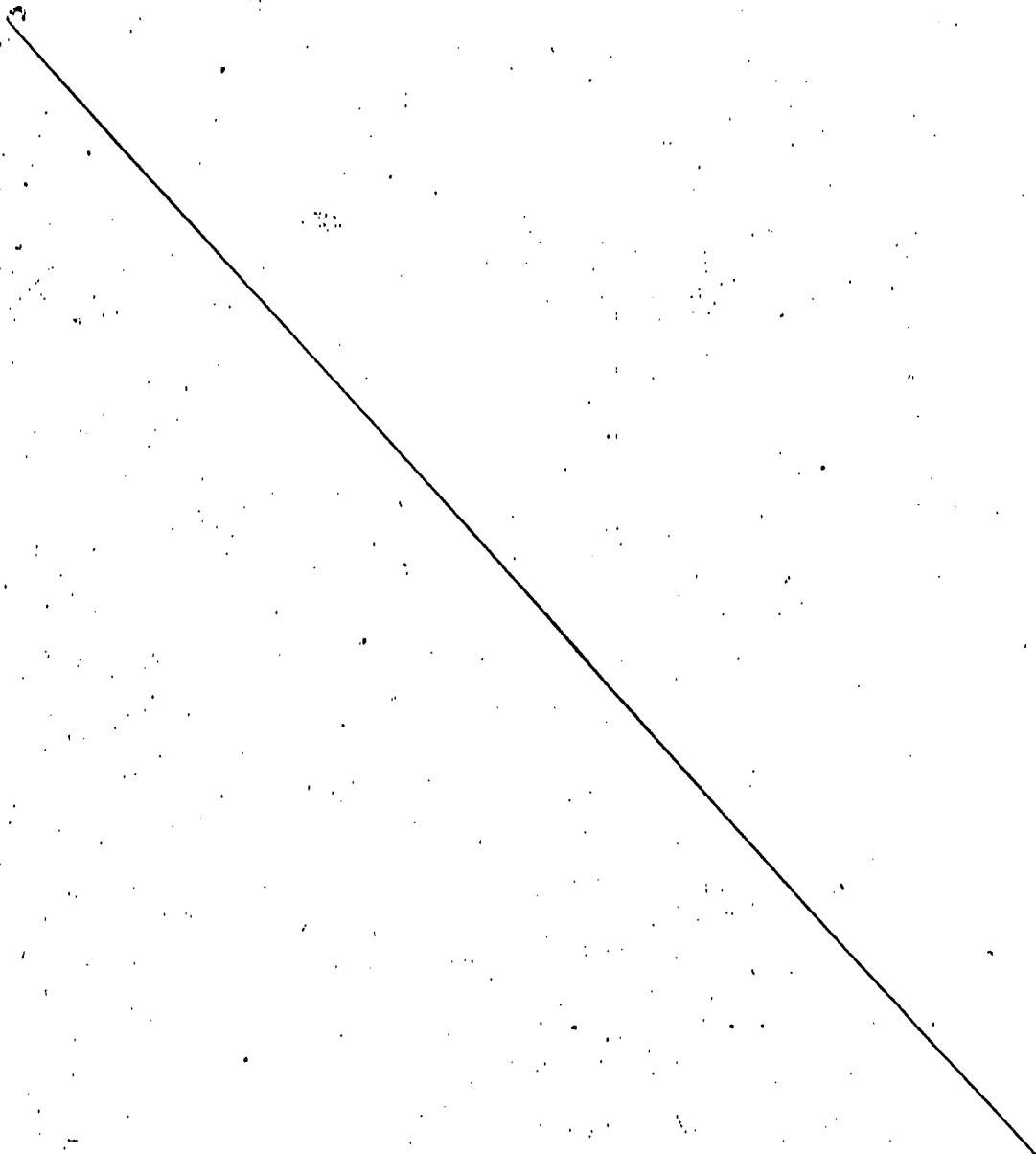


NOTICE

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.

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

Floor and Seat Installation Per Attached Data and Drawings



ADDITIONAL SHEETS ARE ATTACHED



**A MEMORANDUM TO FILE
FOLDER HAS BEEN IMAGED**

This aircraft record was sent to imaging without ever having been a microfiche. It went directly to imaging in its paper form. The pages on the registration side of the record are not numbered and family groupings are not identified.

In the imaging system, the registration side will be identified as a single document under the Document Type of ZRL, Converted Registration/Lien, the airworthiness side under ZAW, Converted Airworthiness, and the suspense documents are identified under ZSS.

Documents below this memorandum have been imaged and cannot be moved, removed, or changed.



**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-21A | c. AIRCRAFT SERIAL NO.
B88 |
| d. ENGINE MAKE
PRATT & WHITNEY | e. ENGINE MODEL
R-985-AN4 | |

4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)

- | | | |
|--|--|--|
| a. REGISTERED OWNER'S FULL NAME
Alaska Coastal-Ellis Airlines | b. PERMANENT MAILING ADDRESS
2 Marine Way
Juneau, Alaska | c. AIRCRAFT NATIONALITY AND REGISTRATION MARK
N-79914 |
|--|--|--|

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 _____
 b. APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B). FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON 10/1/62 (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


 SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT

10/11/62

(DATE)

V.Pres.-Adm. & Finance

(TITLE)

RO

<input type="checkbox"/> ATTACHMENT	AVIATION SAFETY AGENT'S SIGNATURE <i>Stanley R. Jordan</i>	
<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED <input type="checkbox"/> SPOT CHECKED	CAA DESIGNATION NO. A1-3 A1-3	DATE 10/15/62
DESIGNER'S SIGNATURE	DESIGNATION NO.	DATE

Stanley R. Jordan

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

6. CAA REPRESENTATIVE 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) _____

5. CAA APPROVED REPAIR STATION CERTIFICATION

BY _____ (NAME OF ISSUING REPRESENTATIVE) _____ (DESIGNATION NO.) _____ (DATE) _____

PREVIOUS FORM ACA-1362 WAS ISSUED TO EXPIRE 5-15-59 CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED TO EXPIRE 5-15-59 THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS

CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT RECORDS CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT RECORDS

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

*Available in Aircraft in compliance with CAM 43.10. *When not maintained and operated in accordance with Operating Certificates Nos. A1-501 & 501F.

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED

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

BY MECHANIC, CERTIFICATE NO. _____

BY APPROVED REPAIR STATION, CERTIFICATE NO. _____

BY AIRCRAFT MANUFACTURER _____ (DATE) _____

a. LAST AIRWORTHINESS INSPECTION CONDUCTED _____

inspection under continuous maintenance system in accordance with Operating Certificate Nos. A1-501 & 501F.

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

SERIAL NO. 201869	TOTAL HOURS 5073.7
SERIAL NO. 24093	TOTAL HOURS 6629.2
SERIAL NO. _____	TOTAL HOURS _____
SERIAL NO. _____	TOTAL HOURS _____

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 8986.6 HOURS

d. ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:

2. AIRCRAFT AND ENGINE OPERATING RECORDS

a. AIRCRAFT SPECIFICATION NO. _____ THROUGH SHEET REVISION NO. _____

b. AIRCRAFT LISTING PAGE NO. 98

c. AIRWORTHINESS DIRECTIVE SUMMARY 1962 THROUGH CARD NO. 52-22 (YEAR)

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

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

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

AIRCRAFT INSPECTION REPORT

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

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

FOR FAA USE ONLY

OFFICE IDENTIFICATION

FSDO
SAN JUAN

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 <i>GRUMMAN</i>	MODEL <i>G-21A</i>
	SERIAL NO. <i>B-88</i>	NATIONALITY AND REGISTRATION MARK <i>N79914</i>
2. OWNER	NAME (As shown on registration certificate) <i>Antilles Air Boats, Inc.</i>	ADDRESS (As shown on registration certificate) <i>Seaplane Ramp, Veterans Drive St. Thomas, V. I. 00801</i>

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

5. TYPE

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS <i>Dale E. Bartholomew % Antilles Air Boats, Inc. St. Thomas, V. I. 00801</i>	<input checked="" type="checkbox"/>	B. KIND OF AGENCY U.S. CERTIFICATED MECHANIC	C. CERTIFICATE NO. <i>A & P 1814610</i>
	<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 <i>04/25/73</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Dale E. Bartholomew</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	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION <i>04/25/73</i>	CERTIFICATE OR DESIGNATION NO. <i>IA1496292</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>W. J. Everett</i>			

ADDITIONAL SHEETS ARE ATTACHED

ASO-RSDO-61/SJU
 Rcvd. 6/7/73
 Chief

250a	200a
240a	260a
250	267
247	266
246	255
245	264
242	262

NOTHING FOLLOWS.

E. All work done in accordance with German Structure and Repair Manual Nav. Aer. 01-85V-3, Page 196, Figure 110 and AC 43-13-1, Chapter 2, Section 3, Paragraph 60-68, AC-43-13-2, Chapter 1, Paragraphs 4 thru 8.

D. # 8 X 32 Gung-nut channel with 3/4" spacing provides the attachment of water ~~level~~ cover constructed in the same manner as water tight doors on floats and large water tight door on wheel well on R/H side of hull. Cover installed on sealant surface and torqued in same manner as wheel well inspection door.

C. A hole of 5 1/4" vertical dimension and 6.5" longitudinal dimension has been cut in the doubler and provides actual inspection facilities as mentioned above.

B. One doubler of 2024T3 X .050 X 10 3/4" X 9 3/4" riveted on the inside of the hole to restore skin strength at the location of the access hole. Double row of rivets used with 1" spacing as in skin joints of airframe.

A. One hole made on each side of the hull between hull stations nine and ten, 16.5 inches above the chine, 14.5 inches forward of each main gear wheel well. All corners 5/16" radius.

7) In order to facilitate inspection of rudder and elevator push-pull rods, Bell cranks and Bellcrank attach fittings an inspection access door has been provided as follows:

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

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.

NOTICE

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

OR FAA USE
OFFICE IDENTIFICATION
SO-PSPD-61

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 <i>GRUMMAN</i>	MODEL <i>G-21A</i>
	SERIAL NO. <i>B-88</i>	NATIONALITY AND REGISTRATION MARK <i>N-79914</i>
2. OWNER	NAME (As shown on registration certificate) <i>ANTILLES AIR BOATS, INC.</i>	ADDRESS (As shown on registration certificate) <i>SEAPLANE RAMP, VETERANS DRIVE ST. THOMAS, U.S. VIRGIN ISLANDS</i>

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
<i>DALE BARTHOLEMEW c/o ANTILLES AIR BOATS, INC.</i>	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	<i>1814610 A&P</i>
	<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 <i>6/23/72</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Dale Bartholomew</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	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION <i>6/23/72</i>	CERTIFICATE OR DESIGNATION NO. <i>AI 1428780</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Mark H. Allison</i>			

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.

NOTICE

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

Recovered left wing completely, top and bottom using grade "A" fabric and CAB dope.

Recovered right wing from station 97 to station 166 top and bottom using grade "A" fabric and CAB dope.

All work performed in accordance with Grumman Structural Repair Manual, section 8, Fabric Repair and Attachment and AC43-13-1, chapter 3, fabric covering section 1 and section 2.

Replaced left wing lower rear capstrip from station 97 to station 130.

Replaced top aft skin 3 inches wide left wing from station 109 to station 123.

All work performed in accordance with Grumman Structural Repair Manual, section 2, Wing Group and AC43-13-1, chapter 2, Aircraft Metal Structures section 3, Metal Repair Procedures.

NOTHING FOLLOWS

1. MAKE	2. MODEL	3. SERIAL NO.	4. REGISTRATION NO.
5. TYPE OF WORK	6. DATE	7. BY	8. CHECKED
9. APPROVED	10. APPROVED	11. APPROVED	12. APPROVED
13. APPROVED	14. APPROVED	15. APPROVED	16. APPROVED
17. APPROVED	18. APPROVED	19. APPROVED	20. APPROVED
21. APPROVED	22. APPROVED	23. APPROVED	24. APPROVED
25. APPROVED	26. APPROVED	27. APPROVED	28. APPROVED
29. APPROVED	30. APPROVED	31. APPROVED	32. APPROVED
33. APPROVED	34. APPROVED	35. APPROVED	36. APPROVED
37. APPROVED	38. APPROVED	39. APPROVED	40. APPROVED
41. APPROVED	42. APPROVED	43. APPROVED	44. APPROVED
45. APPROVED	46. APPROVED	47. APPROVED	48. APPROVED
49. APPROVED	50. APPROVED	51. APPROVED	52. APPROVED
53. APPROVED	54. APPROVED	55. APPROVED	56. APPROVED
57. APPROVED	58. APPROVED	59. APPROVED	60. APPROVED
61. APPROVED	62. APPROVED	63. APPROVED	64. APPROVED
65. APPROVED	66. APPROVED	67. APPROVED	68. APPROVED
69. APPROVED	70. APPROVED	71. APPROVED	72. APPROVED
73. APPROVED	74. APPROVED	75. APPROVED	76. APPROVED
77. APPROVED	78. APPROVED	79. APPROVED	80. APPROVED
81. APPROVED	82. APPROVED	83. APPROVED	84. APPROVED
85. APPROVED	86. APPROVED	87. APPROVED	88. APPROVED
89. APPROVED	90. APPROVED	91. APPROVED	92. APPROVED
93. APPROVED	94. APPROVED	95. APPROVED	96. APPROVED
97. APPROVED	98. APPROVED	99. APPROVED	100. APPROVED

FEDERAL AVIATION ADMINISTRATION

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

FOR FAA USE ONLY
OFFICE IDENTIFICATION
7-5-61

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 <i>GRUMMAN</i>	MODEL <i>G-21A</i>
	SERIAL NO. <i>B-88</i>	NATIONALITY AND REGISTRATION MARK <i>N-79914</i>
2. OWNER	NAME (As shown on registration certificate) <i>ANTILLES AIR BOATS, INC.</i>	ADDRESS (As shown on registration certificate) <i>SEAPLANE RAMP, VETERANS DRIVE ST. THOMAS, U.S. VIRGIN ISLANDS</i>

3. FOR FAA USE ONLY

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
<i>Dale Bartholemew c/o Antilles Air Boats, Inc. St. Thomas, U.S.V.I.</i>	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	<i>1814610 A&P</i>
	<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 <i>5/30/72</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Dale E. Bartholemew</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	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION <i>5/30/72</i>	CERTIFICATE OR DESIGNATION NO. <i>1428780</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Mark A. Dionne</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.)

Elevator serial #001 recovered with Grade A fabric. All work performed in accordance with AC-43-13-1, Chapter 3, fabric covering section 1 and section 2.

-----NOTHING FOLLOWS-----

SO-FSDO-61/SJU
Revd Chief 6/6/72
240 _____ 260 _____
242 _____ 262 _____
243 _____ 263 _____
244 _____ 264 _____
245 _____ 265 ✓
246 _____ 266 _____
247 _____ 267 _____
248 _____ 268 _____
249 _____ 269 _____
240a _____ 260a _____
250 _____
250a _____
200a _____

ADDITIONAL SHEETS ARE ATTACHED

(Airframe, Powerplant, Propeller, or Appliance).

OFFICE IDENTIFICATION
7-5-61

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 <i>GRUMMAN</i>	MODEL <i>G-21A</i>
	SERIAL NO. <i>B-88</i>	NATIONALITY AND REGISTRATION MARK <i>N-79914</i>
2. OWNER	NAME (As shown on registration certificate) <i>ANTILLES AIR BOATS, INC.</i>	ADDRESS (As shown on registration certificate) <i>SEAPLANE RAMP, VETERANS DRIVE ST. THOMAS, U.S. V.I.</i>

3. FOR FAA USE ONLY

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
<i>DALE BARTHOLEMW c/o Antilles Air Boats St. Thomas, U.S. V.I.</i>	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	<i>1814610 A&P</i>
	<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 <i>5/30/72</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Dale Bartholomew</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	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION <i>5/30/72</i>	CERTIFICATE OR DESIGNATION NO. <i>1428780</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Markell</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.)

Aileron serial #005 recovered with Grade A fabric. All work performed in accordance with AC-43-13-1, Chapter 3, fabric covering section 1 and section 2.

-----NOTHING FOLLOWS-----

SO-FSDO-61/SJU
Rcvd _____
Chief _____
240 _____ 260 _____
242 _____ 262 _____
243 _____ 263 _____
244 _____ 264 _____
245 _____ 265 _____
246 _____ 266 _____
247 _____ 267 _____
248 _____ 268 _____
249 _____ 269 _____
240a _____ 260a _____
250 _____
250a _____
200a _____

ADDITIONAL SHEETS ARE ATTACHED

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Form 337
Budget Bureau No. 04-111

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

FOR FAA USE ONLY

OFFICE IDENTIFICATION

7-5-61

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-21A
	SERIAL NO.	B-88	NATIONALITY AND REGISTRATION MARK	
2. OWNER	NAME (As shown on registration certificate)		ADDRESS (As shown on registration certificate)	
	ANTILLES AIR DOGS, INC.		ST. THOMAS, U.S. VIRGIN ISLANDS	

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

5. TYPE

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Date Began c/o Antilles Air Dogs, Inc. St. Thomas, U.S.V.I.	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	1014610 AGP

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
5/30/72	<i>Robert North...</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	REPAIR STATION		
DATE OF APPROVAL OR REJECTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL		
5/30/72	1428780	<i>Mark K. Blaine</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.)

Aileron serial #004 recovered with Grade A fabric. All work performed in accordance with AC-43-13-1, Chapter 3, fabric covering section 1 and section 2.

-----NOTHING FOLLOWS-----

SO-FSDO-61/SJU

Rcvd	<u>6/6/72</u>
Chief	<u>[Signature]</u>
240	<u>260</u>
242	<u>262</u>
243	<u>263</u>
244	<u>264</u>
245	<u>265</u> <u>g</u>
246	<u>266</u>
247	<u>267</u>
248	<u>268</u>
249	<u>269</u>
240a	<u>260a</u>
250	<u> </u>
250a	<u> </u>
200a	<u> </u>

ADDITIONAL SHEETS ARE ATTACHED

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

FOR FAA USE ONLY

OFFICE IDENTIFICATION

7-5-61

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-21A
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N-79912
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) SEAPLANE RAMP, VETERANS DRIVE ST. THOMAS, U.S. VIRGIN ISLANDS

3. FOR FAA USE ONLY

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Dale Bartholomew c/o Antilles Air Boats, Inc. St. Thomas, U.S.V.I.	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	1814610 A&P
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input type="checkbox"/> MANUFACTURER	

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

DATE 5/30/72	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Dale Bartholomew</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	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 5/30/72	CERTIFICATE OR DESIGNATION NO. 1428780	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Mark K. O'Brien</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.)

Rudder serial #002 recovered with Grade A fabric. All work performed in accordance with AC-43-13-1, Chapter 3, fabric covering section 1 and section 2.

-----NOTHING FOLLOWS-----

SO-FSDO-61/SJU

Rcvd	6/6/72
Chief	<i>[Signature]</i>
240	260
242	262
243	263
244	264
245	265 <i>g</i>
246	266
247	267
248	268
249	269
240a	260a
250	
250a	
200a	

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

FOR FAA USE
OFFICE IDENTIFICATION
7-5-61

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-21A
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N-79914
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) SEAPLANE RAMP, VETERANS DRIVE ST. THOMAS, U.S. VIRGIN ISLANDS

3. FOR FAA USE ONLY

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
<i>Dale Bartholomew c/o Antilles Air Boats, Inc. St. Thomas, U.S.V.I.</i>	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	1814610 A&P
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input type="checkbox"/> MANUFACTURER	

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

DATE 5/30/72	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Dale E. Bartholomew</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	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 5/30/72	CERTIFICATE OR DESIGNATION NO. 1428780	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Mark K. Malone</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.)

Elevator serial #003 recovered with Grade A fabric. All work performed in accordance with AC-43-13-1, Chapter 3, fabric covering section 1 and section 2.

-----NOTHING FOLLOWS-----

SO-FSDO-61/SJU

Rcvd	6/6/77
Chief	<i>[Signature]</i>
240	260
242	262
243	263
244	264
245	265 <i>[Signature]</i>
246	266
247	267
248	268
249	269
240a	260a
250	
250a	
200a	

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 **NU FSD**
 7-5-61

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 9-21a
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N-79914 L/E
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS	ADDRESS (As shown on registration certificate) SEAPLANE RAMP-VETERAN DRIVE ST. THOMAS, U.S. VIRGIN ISLAND

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	PRATT & WHITNEY	R985-AN1	18398	X	
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS ENGINE SUPPORT, INC. SEBRING AIR TERMINAL P.O. BOX 631 SEBRING, FLORIDA	B. KIND OF AGENCY	C. CERTIFICATE NO. 3610 POWER PLANT CLASS 1 & 2
	<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 July 22, 1971	SIGNATURE OF AUTHORIZED INDIVIDUAL Burt M. Peterson
------------------------------	---

7. APPROVAL FOR RETURN TO SERVICE

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

BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	<input checked="" type="checkbox"/> REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION July 22, 1971	CERTIFICATE OR DESIGNATION NO. 3610	SIGNATURE OF AUTHORIZED INDIVIDUAL Burt Peterson
---	---	--

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.

NOTICE

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

Engine received this station for overhaul. Engine given receiving inspection, completely disassembled and all parts cleaned. All steel parts magnafluxed. All parts inspected in accordance with manufacturer's specifications and replaced where necessary. Engine, magnetos and harness completely overhauled. Test house run of engine satisfactory. Time since overhaul 00:00 hours.

FAA A.D. Note 56-6-2 complied with (Cylinder Inspection).
 FAA A.D. Note 57-5-4 has been complied with (Crankshaft).
 FAA A.D. Note 66-14-4 (One Piece Cam Reduction Gear) complied with.
 FAA A.D. Note 68-9-1 (Fly Weights and Fly Weight Liners) complied with.

260	240
262	242
263	243
264	244
245	245
246	246
247	247
248	248
249	249
260a	240a
250	250

CHIEF
 8/13/71
 SO-RSDO-61/SJN

ADDITIONAL SHEETS ARE ATTACHED

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

FOR FAA USE ONLY
OFFICE IDENTIFICATION FSDO
7-5-51

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 <i>GRUMMAN</i>	MODEL <i>G-21A</i>
	SERIAL NO. <i>B-88</i>	NATIONALITY AND REGISTRATION MARK <i>N-79914</i>
2. OWNER	NAME (As shown on registration certificate) <i>ANTILLES AIR BOATS, INC.</i>	ADDRESS (As shown on registration certificate) <i>SEAPLANE RAMP, VETERANS DRIVE ST. THOMAS, U.S.V.I.</i>

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
<i>DONALD A. SUMRALL ANTILLES AIR BOATS ST. THOMAS, U.S.V.I.</i>	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	<i>A&P 1383930</i>
	<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 <i>JUNE 16, 1971</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Donald A. Sumrall</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)
			<input checked="" type="checkbox"/>	
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION <i>JUNE 16, 1971</i>	CERTIFICATE OR DESIGNATION NO. <i>IA1383930</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Donald A. Sumrall</i>		

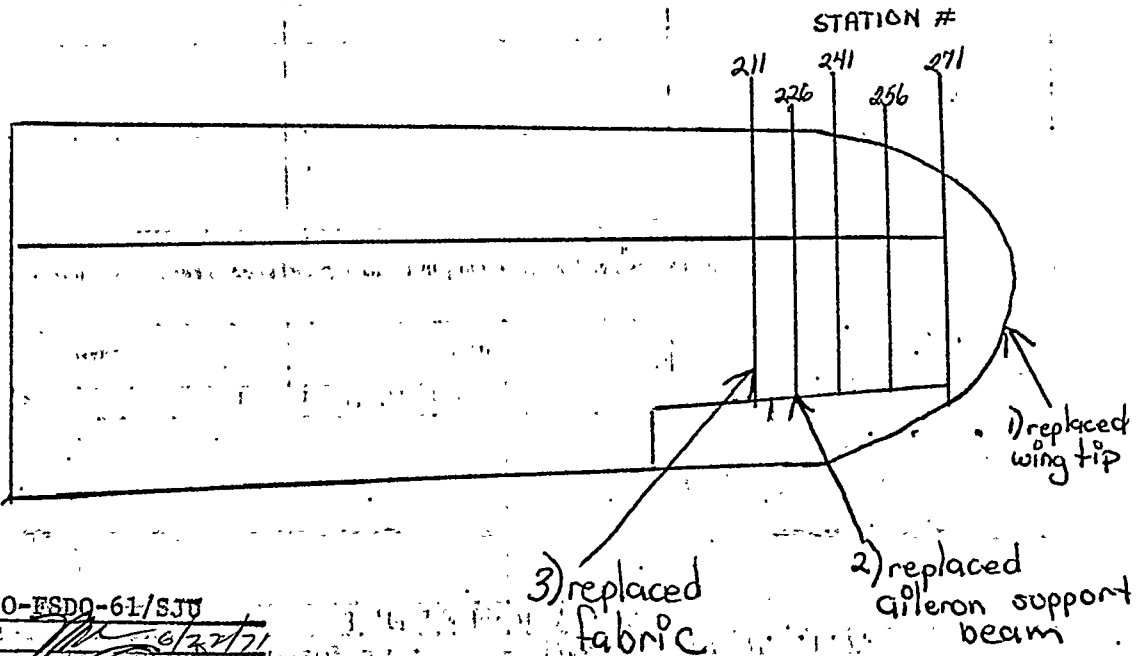
NOTICE

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) REPLACED RIGHT WING TIP FROM STATION #271 OUTBOARD
- 2) REPLACED RIGHT AILERON SUPPORT BEAM FROM STATION #226 OUTBOARD UTILIZING FACTORY SPLICE AT BEAM JOINT AT STATION #226.
- 3) REPLACED FABRIC FROM STATION #211 OUTBOARD AS PER STANDARD PROCEDURES USING GRADE "A" COTTON LINEN AND BUTERATE DOPE.

NOTHING FOLLOWS



SO-ESDQ-61/SJU	
CHIEF	6/27/71
240	260
242	
243	263
244	264
245	265
246	266
247	267
248	268
249	269
240a	260a
250	
200a	

ADDITIONAL SHEETS ARE ATTACHED

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 FSDO
7-5-61

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-21A
	SERIAL NO. B88	NATIONALITY AND REGISTRATION MARK N-79914
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) Seaplane Ramp, Veterans Drive St. Thomas, U.S.V.I. 00801

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, section 43.7. April 8/71 Victor Pinheiro
DATE Signature of FAA Inspector

4. UNIT IDENTIFICATION

5. TYPE

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Victor Pinheiro c/o Antilles Air Boats, Inc. St. Thomas, U.S.V.I.	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	A&P378437
	<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 April 8, 1971	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Victor Pinheiro</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 April 8, 1971	CERTIFICATE OR DESIGNATION NO. IA#1496292	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>William J. DeWitt</i>			

XX ADDITIONAL SHEETS ARE ATTACHED

- (1) Removed one each Bendix T12C ADF located at station #9 on the instrument panel.
- (2) Removed one each Narco MK XII transceiver at station #9 on the instrument panel.
- (3) Removed one each T14MP-12A power supply located in bow compartment on bulkhead at station #7.
- (4) Removed one each ADF indicator Model #551 installed on the instrument panel at station #9.
- (5) Removed one each VOA-6 omni converters installed on the instrument panel at station #9.
- (6) Installed one each Genave Nav-Com transceiver model Alpha/200 at station #9 on the instrument panel per General Aviation Electronics, Inc. installation manual and AC-43-13-2, Chapter 2, Figure 2.2, sections 21 through 27 and Chapter 15, sections 1 and 2.
- (7) Appropriate weight and balance changes made to weight and balance data of aircraft records.
- (8) See attached electrical load analysis.

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

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.

NOTICE

ELECTRICAL LOAD COMPUTATION

April 8, 1971.

Make of A/C. Grumman
Model. G-21A
Current Rating GEN. 50AMP
No. of Engines 2EA

Registration. N79914
System Voltage. 24Volts
Number of Gen. 1EA
Total Current. 50Amp

<u>Electrical Load Item</u>	<u>LOAD</u>	<u>Intermittent</u>	<u>Continuous</u>	<u>Continous & Intermittent.</u>
Nav Lights.	.58A		.58A	.58A
Landing Lights	8.75A	8.75A	8.75A	8.75A
Interior Lights	.75A		.75A	.75A
Inst Lights	.75A		.75A	.75A
Oil Temp Ind.	.06A		.06A	.06A
Carb Temp Ind.	.07A		.07A	.07A
Magnesyn Compass.	.50A		.50A	.50A
Transceiver Alpha/200				
A) Transmit	2.20A	2.20A		2.20A
B) Receive	1.70A		1.70A	1.70A
		<u>10.95A</u>	<u>13.16A</u>	<u>15.36</u>

Total Intemittent Load 10.95Amps

Total Continuous Load 13.16Amps

Total Possible Load Continuous and intermittent 15.36 Amps.

Total Continuous Load is 26.32% of total gen capacity.

Victor Pinheiro
Victor Pinheiro
A&P#378437

William J. Everett Jr.
William J. Everett Jr.
IA#1496292.

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 G-21A
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N-79914
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) Seaplane Ramp, Veterans Drive St. Thomas, U.S.V.I. 00801

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, section 43.7. April 2/71 William [Signature]
DATE Signature of FAA Inspector

4. UNIT IDENTIFICATION

5. TYPE

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 Victor Pinheiro c/o Antilles Air Boats, Inc. St. Thomas, U.S.V.I.	B. KIND OF AGENCY <input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER	C. CERTIFICATE NO. A&P 378437
--	--	---

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 April 2, 1971	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Victor Pinheiro</i>
------------------------------	--

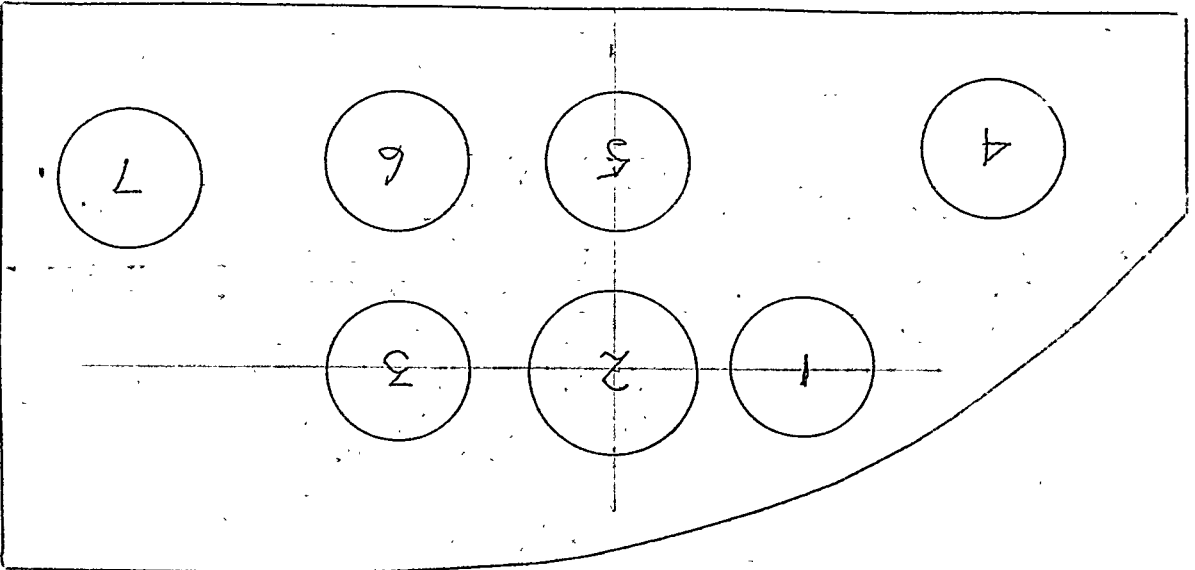
7. APPROVAL FOR RETURN TO SERVICE

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	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT, INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION April 2, 1971	CERTIFICATE OR DESIGNATION NO. IA1496292	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>William [Signature]</i>			

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

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



(1) Airspeed Indicator; (2) Gyro Horizon; (3) Altimeter; (4) Turn & Bank; (5) Magnesy Compass; (6) Rate of Climb; (7) Vacuum Gauge.

Flight instrument panel modified to provide standardization throughout the fleet. Standardization of layout allows more efficient scanning of instruments by pilot and also permits improved arrangement of Pitot, Static and Vacuum lines.

Panel Material: .070" 2024-T3 anodized (same as original).
 Mounting: Original G-21A location and shock mounts.
 Finish: Olive Green crackle enamel.

Magnesy Compass flux gate mounted in rear baggage compartment roof at Station 27. Switches and circuit breakers properly placarded -- total continuous electrical load does not exceed 80% generator capacity.

See aircraft records and weight and balance records for weight change.
 All work done in accordance with AC-43-13-1, Chapter 2, section 3 - part 61 through part 68; and AC-43-13-2, Chapter 11, section 181 through 184.

NOTHING FOLLOWS

30-TSDQ-61/SYU

2460	260
2460	262
2460	263
2460	264
2460	265
2460	266
2460	267
2460	263
2460	269
2460	260a
250	
200a	

ADDITIONAL SHEETS ARE ATTACHED

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

FOR FAA USE ONLY

OFFICE IDENTIFICATION

7-5-61

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-21A
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N-79914
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) Seaplane Ramp, Veterans Drive St. Thomas, U.S.V.I. 00801

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 Victor Pinheiro c/o Antilles Air Boats, Inc. St. Thomas, U.S.V.I.	B. KIND OF AGENCY		C. CERTIFICATE NO. A&P 378437
	<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 April 2, 1971	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Victor Pinheiro</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	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION April 2, 1971	CERTIFICATE OR DESIGNATION NO. IA1496292	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>William Peroff</i>			

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.

NOTICE

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) Center Section Box Beam Capstrip Insertion Repair

Corroded section removed and repair carried out as per Repair Manual - Page 36, Figure 14. Station # 0 - 30 on 37.5% line of wing.

(2) Outer Panel Capstrip Repair

Corroded section removed and repair carried out as per Repair Manual - Page 36, Figure 14. Station # 196 - 211 on 11.6% line of wing.

(3) Center Section - Wing Box Beam Stringer Repairs

Corroded section removed and repair carried out as per Repair Manual - Page 39, Figure 17, lower illustration. 2 stringers Station # 15 - 30 between 25% and 37.5% line of wing.

(4) Bulkhead Plate Patch Repair

Corroded materials removed and repair carried out in accordance with Repair Manual - Page 200, Figure 114. Station # 30 between 11.6% and 37.5% line of wing. This repair carried out on right hand inboard fuel tank bulkhead. Repairs sealed in accordance with Repair Manual - Page 29, paragraphs 92 and 93.

For further information, refer to attachments.

All above work conforms with AC-43-13-1, Chapter 2, section 3 - part 61 through part 68.

.....NOTHING FOLLOWS.....

SO-RSDO-61/SJU
 CHIEF
 4/7/71

240 260

242 262

243 263

244 264

245 265

246 266

247 267

248 268

249 269

240a 260a

250

200a

ADDITIONAL SHEETS ARE ATTACHED

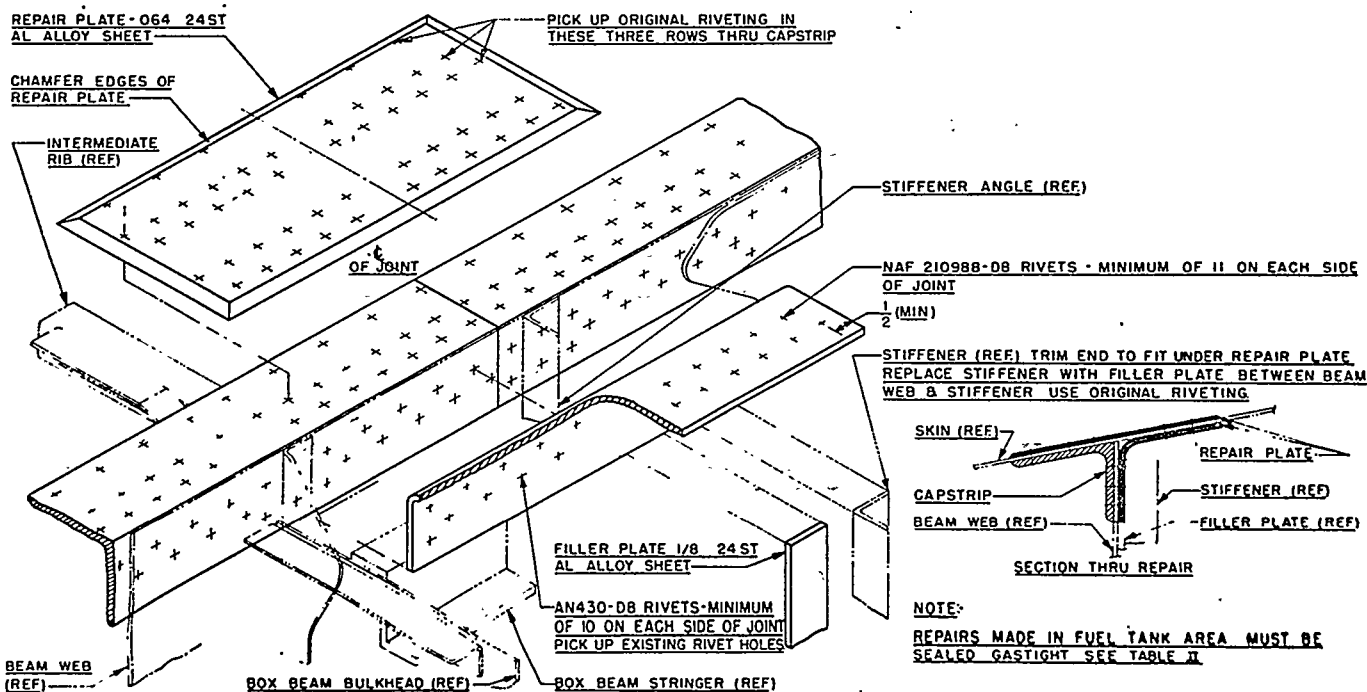
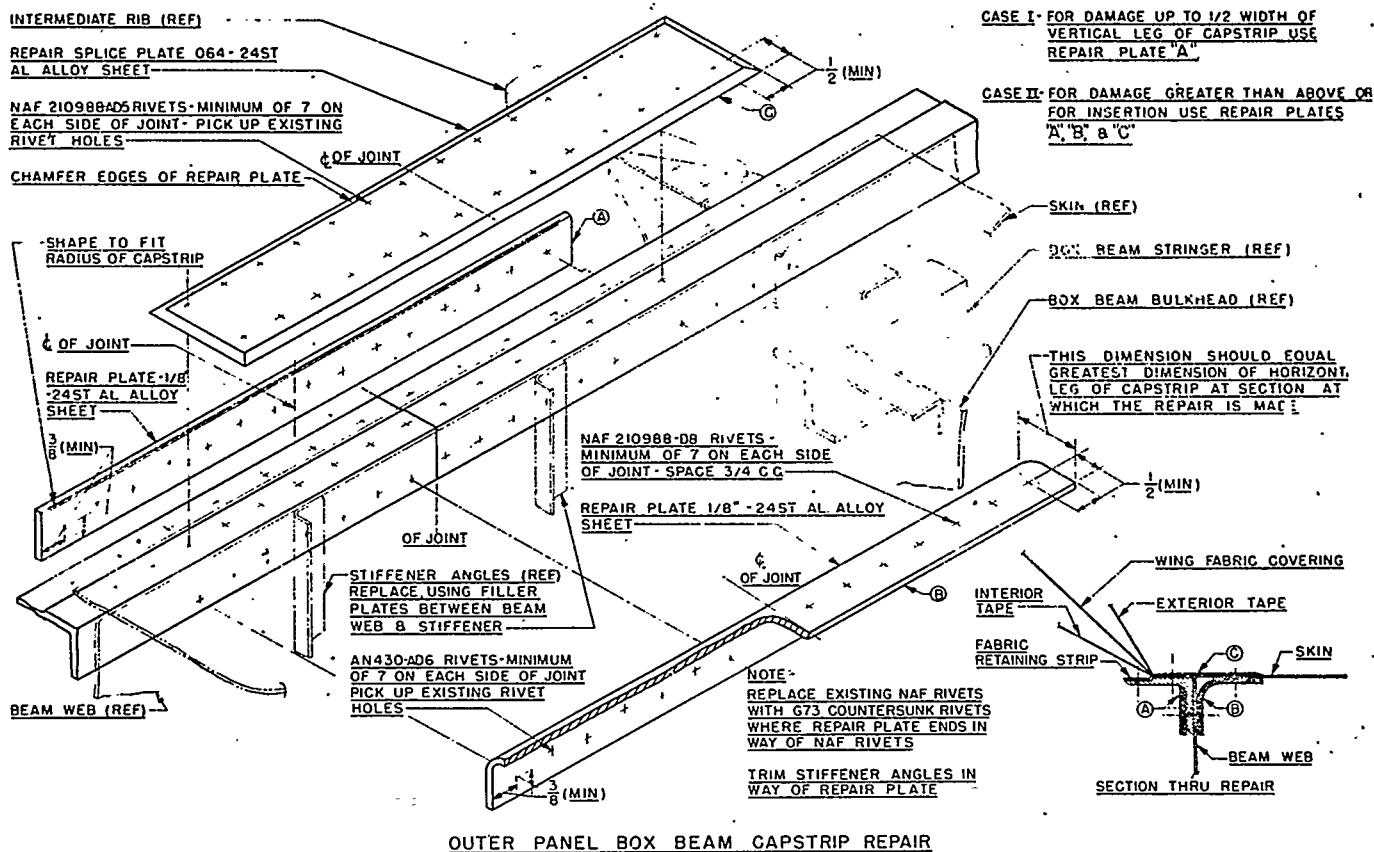


Figure 14 - Wing Box Beam Capstrip Repairs



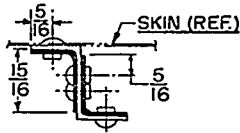
100-100000-100000

REPAIR ANGLE -.072 24 ST AL. ALLOY SHEET

NAF210 988-AD5 RIVETS - MINIMUM OF 6 ON EACH SIDE OF JOINT.

AN 430-AD5 RIVETS - MINIMUM OF 12 ON EACH SIDE OF JOINT.

PRESENT STRINGER IS ALCOA®11256
SEE FIG. 106 (SHEETS 1 TO 4)

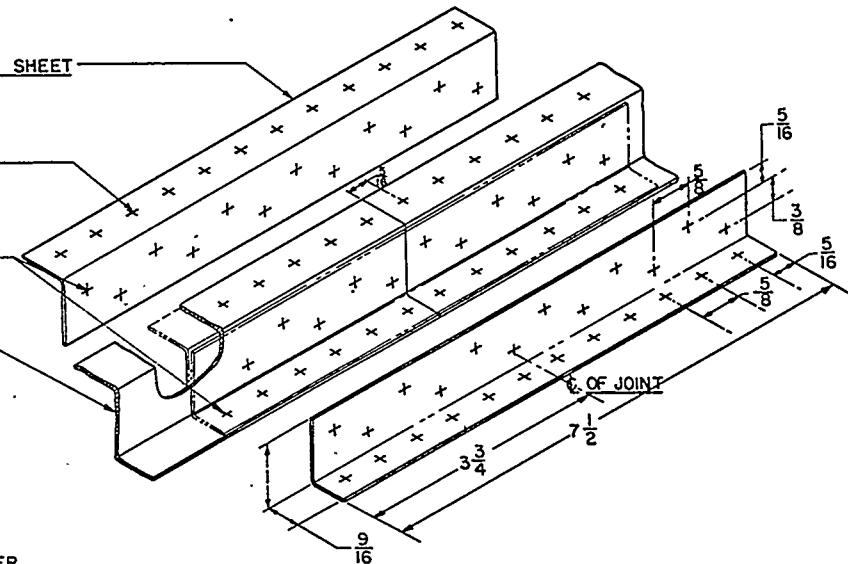


SECTION THRU REPAIR

NOTE:

FOR DAMAGE TO ONE LEG OF STRINGER ONLY, ONE REPAIR ANGLE TO COVER DAMAGE SHOULD BE USED.

OUTER PANEL



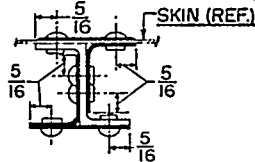
G29-AD5 SKIN RIVETS - MINIMUM OF 12 ON EACH SIDE OF JOINT.

REPAIR ANGLES & PLATES -.051 24 ST AL. ALLOY SHEET.

AN430-AD5 RIVETS - MINIMUM OF 18 RIVETS ON EACH SIDE OF JOINT.

WING SKIN (REF.)

ORIGINAL STRINGER IS ALCOA®1060
SEE FIG. 106 (SHEETS 1 TO 4)



SECTION THRU REPAIR

NOTE:

FOR DAMAGE TO ONE LEG OF STRINGER ONLY, ONE REPAIR ANGLE & PLATE TO COVER DAMAGE SHOULD BE USED.

CENTER SECTION

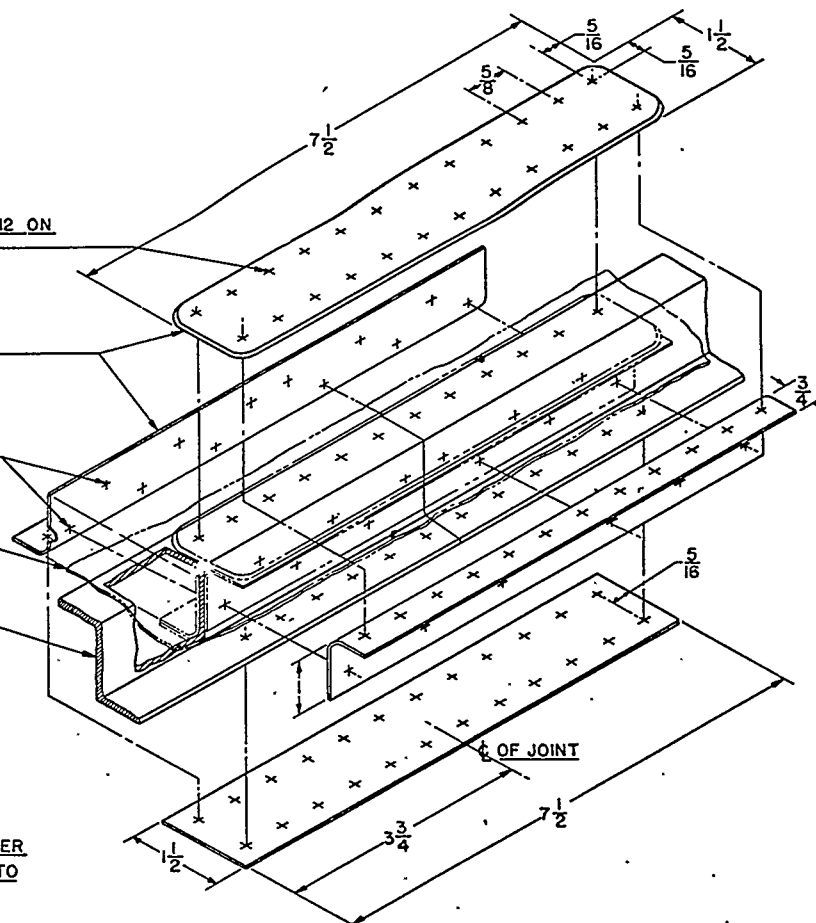
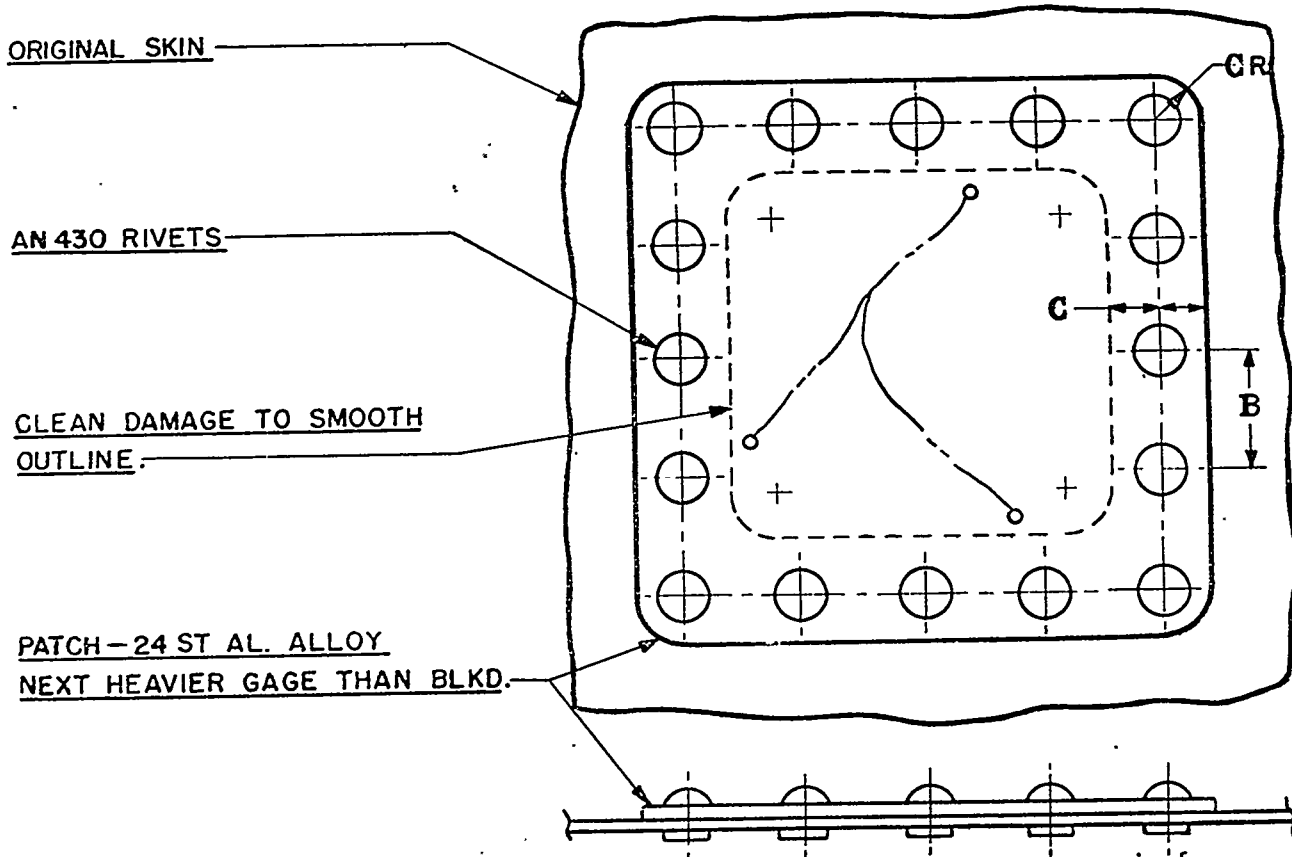


Figure 17 - Wing Box Beam Stringer Repairs





NOTE:

SEE FIG.108 FOR RIVETING & SPACING SCHEDULE.

SEAL PATCH AS INDICATED IN TEXT.

Figure 114 - Bulkhead Plate Patch Repair



this Section, with the exception of the fuel tank skin which is described in Paragraphs 87 to 90 below, and patching of the skin outside the fuel tank area, which is described in Paragraph 101 below.

b. LEAKS.

(1) For other than extensive damage, repair of the fuel tanks will be concerned generally with testing and repairing leaks. If the structure is misaligned, leaks will result; for example, if the tank bulkheads are misaligned, a strain on the structure will loosen joints with resultant leakage. When skin rivets are not treated as described in Paragraph 88a below, leaks may be encountered. Metal particles which become entrapped in joints as a result of drilling may seriously affect the leak-proof qualities of the fuel tank structure.

(2) In general, when a leak develops around a rivet, the rivet should be drilled out and a new equivalent rivet thoroughly covered with leak-proof cement inserted. When a leak develops along a joint, the rivets must be drilled out and a new piece of leak-proof tape covered with cement should be inserted in the joints and new equivalent rivets with shanks covered with cement as in the original construction should be inserted (See Paragraph 92 below).

SKIN.

87. NEGLIGIBLE DAMAGE.--See Paragraph 5 above.

88. DAMAGE REPAIRABLE BY PATCHING.

a. Isolated cracks up to one inch in length may be repaired by drilling a #40 (.098) hole at the ends and patching with a sealed patch as described below in this Paragraph. Cracked areas may be cut out and repaired with a sealed patch as shown in Figure 112. Holes in the skin 1/4 inch in diameter or less after cleaning out may be repaired by inserting a rivet treated with leak-proof cement into the hole.

b. Larger holes may be repaired by cutting out the damaged area and making a patch repair. A flush type or an outside patch may be used. Preparation of these patches is described in Paragraph 101 below, and shown in Figures 108, 109, 111. When using the flush type patch it may be necessary to insert the frame between the stringers and the patch. This may disturb the adjacent riveting and result in leaks; therefore, unless this can be avoided, an outside patch may be more convenient for this repair of the fuel tank skin. Patches must be sealed gas tight.

89. DAMAGE REPAIRABLE BY INSERTION.--If the fuel tank skin cannot be repaired by patching as described above, a partial panel may be inserted by removing the entire fuel tank panel all the way to the skin outside the fuel tank area as noted in Figure 7, and making a lap skin joint outside the fuel tank area.

90. DAMAGE NECESSITATING REPLACEMENT.--Since the fuel tank skin must be entirely removed to adjacent skin, the insertion repair described in the Paragraph above constitutes replacement of the fuel tank skin.

NOTE

When patching or replacing fuel tank skin panels, care should be taken not to disturb riveting. Special care must be taken with the double row of skin rivets at the fuel tank bulkheads. If it is necessary to drill out these rivets, first drill out every fourth rivet and insert screws to hold the skin down.

CAUTION

Be sure the skin is held down tight at these joints while inserting new riveting. This will prevent distortion of the skin with resultant leakage and help to guard against metal chips getting underneath. The top and bottom angles at the bulkhead are mild steel. Rivets must be driven through these members absolutely straight or the rivet holes will become enlarged with resultant leaks. All rivet rows must be absolutely straight as in the original construction. Avoid excessive patching to an extent which interferes with the flexibility of this structure, which must be maintained.

GAS TIGHT JOINTS.

91. GENERAL.--If it is necessary to repair skin sheet or other structure in gas tight areas the following instructions must be carefully followed:

92. REPAIR PROCEDURE.

a. In order to eliminate all possibilities of metal chips being trapped in a joint or seam, the drilling should be done wherever possible before the parts are assembled with the sealing cement and tape. Whenever this cannot be done, all metal chips that have been entrapped should be removed. Enough cement should be applied to the parts so that when the assembly is made, the excess cement will be forced out at the edges. The cement can

be removed from the surfaces around a joint by wetting it with gasoline and wiping off with a soft rag.

CAUTION

Avolā gasoline seeping inside a joint as this may cause the cement to soften and remain in a jelly-like state, impaired as a sealant.

b. Whenever flat surfaces are brought together in a gas tight joint, the assembly should be treated as specified below for seams. Any appreciable opening should be packed with Fairprene tape (See Table II) soaked in carbon-tetrachloride and packed with Fairprene cement or equivalent. (See Table II). The Fairprene cement should be thinned down to a workable consistency with carbon-tetrachloride. The cement has no adhering property until the activator is added in the proportion of one ounce to each pint of Fairprene cement and must then be used within 12 hours or discarded. A recommended substitute for Fairprene cement is zinc chromate paste.

NOTE

Angles used as stiffeners need not be gas tight. When gas proofing seams, the parts should be coated with cement and the assembly completed as soon as possible. Under no circumstances should a sub-assembly whose surfaces have been coated with adhesive, remain incomplete for more than 30 minutes unless the coated surfaces are brought in contact by sheet metal screws inserted in every fourth hole. Whenever sheet metal screws are used, the assembly may remain as is for approximately one hour before inserting the rivets. Whenever the skin laps at a longitudinal, the small crevice formed by such an assembly should be packed with cement. Joints at or around extrusions should be sealed by the use of metal plates. The plates should be drilled and fitted before the application of the sealing compound. After riveting in place, both sides of the entire joint should then

be sealed with a fillet of undiluted adhesive as shown in Figure 107. After re-pairing and allowing the cement to dry overnight, the seal should be tested as described in Paragraph 85 above.

93. DRAINING AND PURGING.

a. PROCEDURE.--Use the following procedure to remove fuel vapors:

- (1) Drain out all fuel and leave outlets open.
- (2) Run water through the tanks for 1/2 hour.
- (3) Blow compressed air at low pressure with all vents open long enough to hasten drying and cause the odor of gasoline to disappear completely.

CAUTION

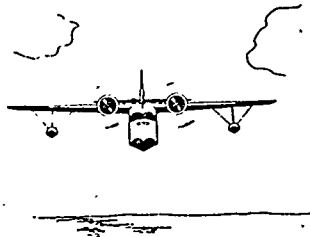
Do not purge the fuel tanks of vapor by the use of steam as it is detrimental to the tank sealing compound and might cause leaks.

FUEL LINES.

94. GENERAL.--The fuel lines are 5250 aluminum alloy tubing.

95. ESTIMATION OF DAMAGE.--Fuel lines should be inspected for scratches, holes, breaks and deformities. Lines must be carefully removed and cleaned thoroughly for an adequate inspection, being tagged with location given as an aid to assembly. Flared ends of fuel lines should be checked, especially under the sleeves. In cases where a slight scratch appears, it may be burnished out by using a burnishing tool. The burnishing should be finished with a crocus cloth and oil to leave a clean smooth surface.

96. DAMAGE NECESSITATING REPLACEMENT.--Any damage to the fuel lines necessitates replacement with equivalent undamaged lines. If a full length of tubing is not available, the damaged section may be cut out and a length of tubing inserted, using standard fuel line fittings.





11-11-11

21E

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

STU PSDU

7-5-61

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 9-21a
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N-79914
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS	ADDRESS (As shown on registration certificate) 39 STRAND STREET CHRISTIANSTED, ST. GROIX V.I.

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	PRATT & WHITNEY	R985-AN14B	JP-207375	X	
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS ENGINE SUPPORT, INC. SEBRING AIR TERMINAL P. O. BOX 631 SEBRING, FLORIDA	B. KIND OF AGENCY	C. CERTIFICATE NO. 3610 POWER PLANT CLASS 1 & 2
	<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 February 23, 1971	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>George W. Dumont</i> George W. Dumont, Chief Inspector
----------------------------------	---

7. APPROVAL FOR RETURN TO SERVICE

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

BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION February 23, 1971	CERTIFICATE OR DESIGNATION NO. 3610	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>George W. Dumont</i> George W. Dumont, Chief Inspector
---	---	---

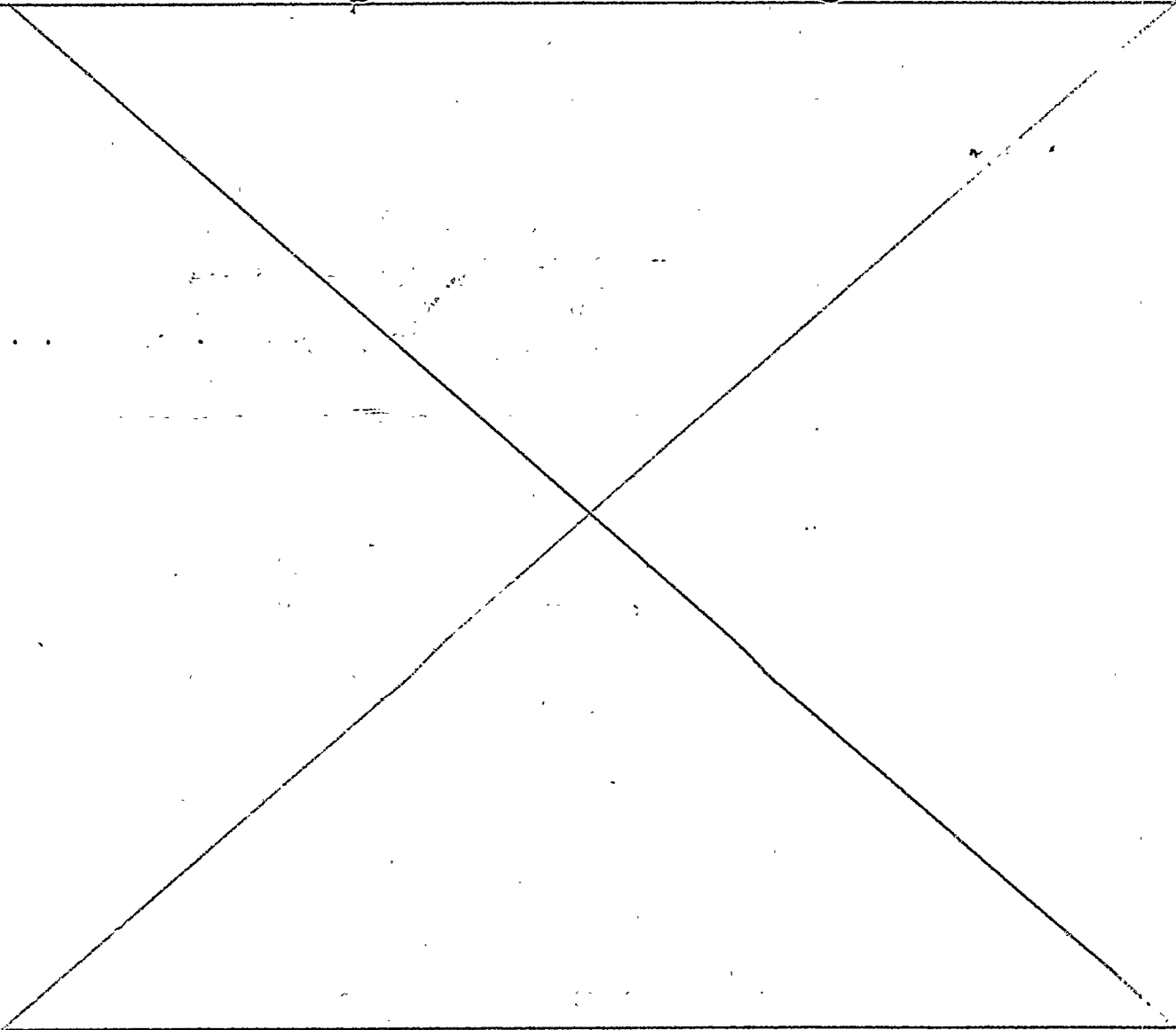
Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

NOTICE

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

Engine received this station for overhaul. Engine given receiving inspection, completely disassembled and all parts cleaned. All steel parts magnafluxed. All parts inspected in accordance with manufacturer's specifications and replaced where necessary. Engine, magnetos and harness completely overhauled. Test house run of engine satisfactory. Time since overhaul 00:00 hours.

FAA A.D. Note 56-6-2 complied with (Cylinder Inspection).
FAA A.D. Note 57-5-4 has been complied with (Crankshaft).
FAA A.D. Note 66-14-4 (One Piece Cam Reduction Gear) complied with.
FAA A.D. Note 68-9-1 (Fly Weights and Fly Weight Liners) complied with.



ADDITIONAL SHEETS ARE ATTACHED

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

FOR FAA USE ONLY

OFFICE IDENTIFICATION
SU TSDU
7561

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 <i>Grenman</i>	MODEL <i>9-21a</i>
	SERIAL NO. <i>B-88</i>	NATIONALITY AND REGISTRATION MARK <i>N-79914</i>
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) 39 Strand Street Christiansted, St. Croix, U.S. V. I.

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	PRATT & WHITNEY	r985-AN1	23986	X	
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS ENGINE SUPPORT, INC. SEBRING AIR TERMINAL P.O. BOX 631 SEBRING, FLORIDA	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	C. CERTIFICATE NO. 3610 POWER PLANT CLASS 1 & 2
--	--	--

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 28, 1970	SIGNATURE OF AUTHORIZED INDIVIDUAL Burt Peterson <i>Burt M. Peterson</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 December 28, 1970	CERTIFICATE OR DESIGNATION NO. 3610	SIGNATURE OF AUTHORIZED INDIVIDUAL Burt Peterson <i>Burt M. Peterson</i>		

ADDITIONAL SHEETS ARE ATTACHED

_____ 200a
 _____ 250
 _____ 240a
 _____ 249
 _____ 268
 _____ 267
 _____ 246
 _____ 245
 _____ 244
 _____ 243
 _____ 242
 _____ 240
 _____ 260
 _____ 267
 _____ 268
 _____ 269
 _____ 240a
 _____ 250
 _____ 200a

80-82ND-61/SJU
 CHINA
 1/26/71

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

Engine received this station for overhaul. Engine given receiving inspection, completely disassembled and all parts cleaned. All steel parts magnafluxed. All parts inspected in accordance with manufacturer's specifications and replaced where necessary. Engine, magnets and harness completely overhauled. Test house run of engine satisfactory. Time since overhaul 60:00 hours.

PAA A.D. Note 56-6-2 complied with (Cylinder inspection).
 PAA A.D. Note 57-5-4 has been complied with (Grankshaft).
 PAA A.D. Note 66-14-4 (One piece Cam Reduction gear) complied with.
 PAA A.D. Note 68-9-1 (Fly Weights and Fly Weight Liners) complied with.

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.

K/A.

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
7-5-61

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 <i>Cessna AN</i>	MODEL <i>6-21-A</i>
	SERIAL NO. <i>B-88</i>	NATIONALITY AND REGISTRATION MARK <i>N 79914</i>
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) 39 Strand St., Christiansted St. Croix, U.S. Virgin Islands

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME (As described in item 1 above)				
POWERPLANT	PRATT & WHITNEY	B985-AN14B	10052	X	
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS EIGHTH AIR DEPOT, INC. SEBRING AIR TERMINAL P.O. Box 631 SEBRING, FLORIDA	B. KIND OF AGENCY		C. CERTIFICATE NO. 3610- POWER PLANT CLASS 1 & 2
	<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 May 4, 1970	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>George W. Dumont</i> George W. Dumont, Chief Inspector
----------------------------	---

7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is 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 May 4, 1970	CERTIFICATE OR DESIGNATION NO. 3610	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>George W. Dumont</i> George W. Dumont, Chief Inspector		

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.

NOTICE

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

Engine received this station for overhaul. Engine given receiving inspection, completely disassembled and all parts cleaned. All steel parts magnafluxed. All parts inspected in accordance with manufacturer's specifications and replaced where necessary. Engine, magnetos and harness completely overhauled. Test house run of engine satisfactory. Time since overhaul 00:00 hours.

FAA A.D. Note 56-6-2 complied with (Cylinder Inspection).
 FAA A.D. Note 57-5-4 has been complied with (Crankshaft).
 FAA A.D. Note 66-14-4 (One Piece Cam Reduction Gear) complied with.
 FAA A.D. Note 68-9-1 (Fly Weights and Fly Weight Liners) complied with.

FILE COPY
 FSDO

5/28/70
 SUPV. [Signature]
 CIRC. DIST.

- 251
- 252
- 253
- 254
- 255
- 256
- 262
- 263
- 264
- 267
- 200a
- 200b
- 200c

ADDITIONAL SHEETS ARE ATTACHED

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

FOR FAA USE ONLY

OFFICE IDENTIFICATION
SJO FSDO
7-5-61

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 <i>Cessna</i>	MODEL <i>C-21-A</i>
	SERIAL NO. <i>B-55</i>	NATIONALITY AND REGISTRATION MARK <i>N 79914</i>
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) 39 Strand St, Christiansted St. Croix, US Virgin Islands

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION

5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	***** (As described in item 1 above) *****				
POWERPLANT	PRATT & WHITNEY	R985-AN14B	17977	X	
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS EIGHTH AIR DEPOT, INC. SEBRING AIR TERMINAL P.O. Box 631 SEBRING, FLORIDA	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	C. CERTIFICATE NO. 3610 POWER PLANT CLASS 1 & 2
--	--	---

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 12, 1970	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>George W. Dumont</i> George W. Dumont, Chief Inspector
----------------------------------	---

7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is 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 February 12, 1970	CERTIFICATE OR DESIGNATION NO. 3610	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>George W. Dumont</i> George W. Dumont, Chief Inspector		

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.

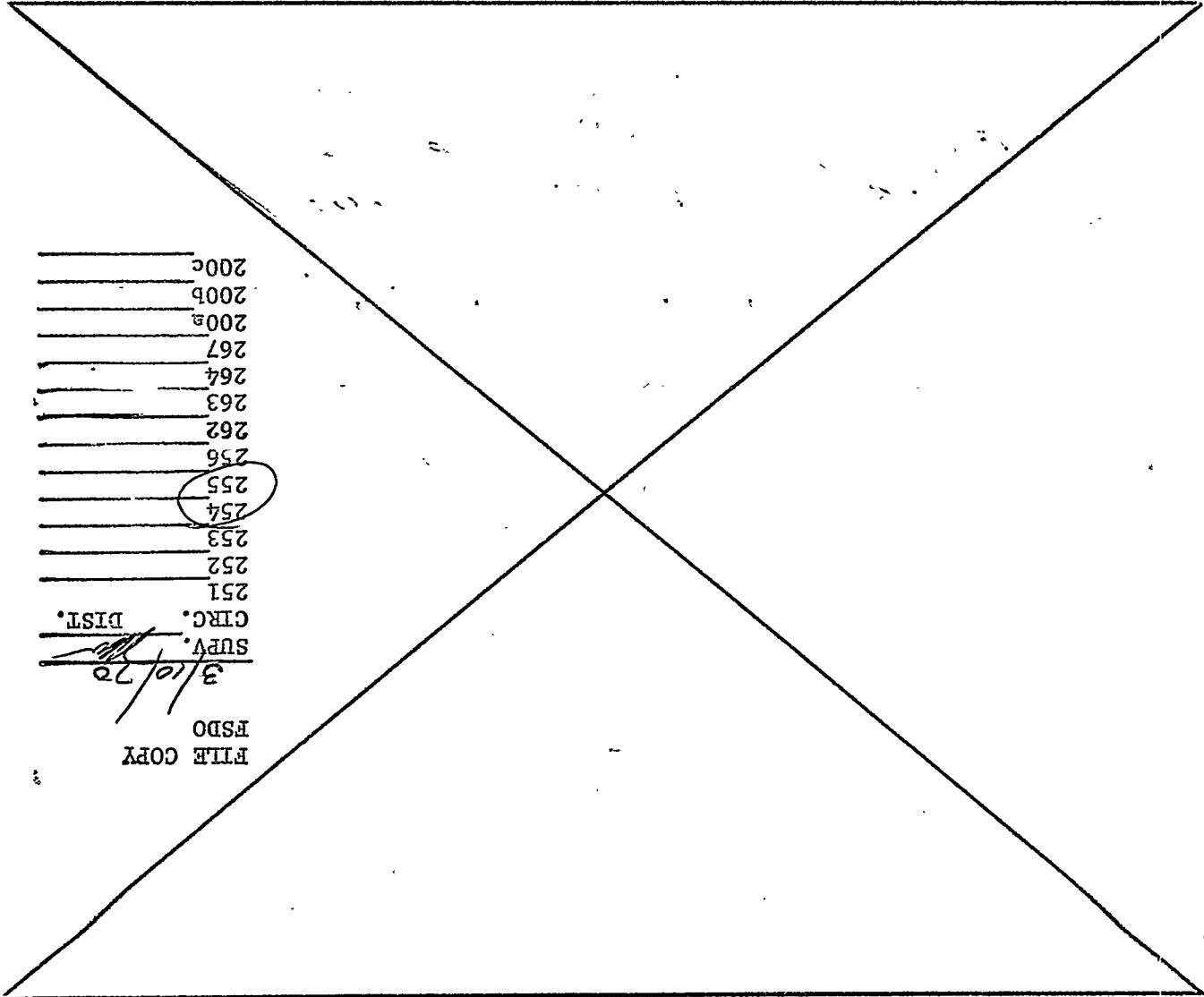
NOTICE

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

Engine received this station for overhaul. Engine given receiving inspection, completely disassembled and all parts cleaned. All steel parts magnafluxed. All parts inspected in accordance with manufacturer's specifications and replaced where necessary. Engine, magnetos and harness completely overhauled. Test house run of engine satisfactory. Time since overhaul 00:00 hours.

FAA A.D. Note 56-6-2 complied with (Cylinder Inspection).
 FAA A.D. Note 57-5-4 has been complied with (Crankshaft).
 FAA A.D. Note 66-14-4 (One Piece Cam Reduction Gear) complied with.
 FAA A.D. Note 68-9-1 (Fly Weights and Fly Weight Liners) complied with.

FILE COPY
 FSDO
 3/10/70
 SUPV.
 CTRC. DIST.
 251
 252
 253
 254
 255
 256
 262
 263
 264
 267
 200a
 200b
 200c



ADDITIONAL SHEETS ARE ATTACHED

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 Grugman	MODEL G-21A
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N79914
2. OWNER	NAME (As shown on registration certificate) Antiles Airboats Inc.	ADDRESS (As shown on registration certificate) Sea Plane Base St. Thomas U.S. Virgin Is. 0081

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 the conformity inspection by a person authorized in F.A.R. Part 43, Section 43.7.

WE GADO
Signed: *[Signature]* Date: **7-22-69**

4. UNIT IDENTIFICATION

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Cal Volair Inc. 2830 E. Wardlow Rd. Long Beach, California	B. KIND OF AGENCY <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	C. CERTIFICATE NO. 4869
---	---	-----------------------------------

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 7-16-69	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	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 10/10/69	CERTIFICATE OR DESIGNATION NO. 1A 1360638	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>		

NOTICE

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

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

Floor and Seat installation Per Attached Data and Drawings

ADDITIONAL SHEETS ARE ATTACHED

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 Garwood	MODEL G-21A
	SERIAL NO. E-88	NATIONALITY AND REGISTRATION MARK N 79914
2. OWNER	NAME (As shown on registration certificate) Antilas Airboats Inc.	ADDRESS (As shown on registration certificate) Sea Plane Base St. Thomas U.S. Virgin Is. 0097

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 the conformity inspection by a person authorized in F.A.R. Part 43, Section 43.7.

WE GADO Date: 7-27-69
Signed: *[Signature]*

4. UNIT IDENTIFICATION

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Gal Volair Inc. 2330 E. Wardlow Rd. Long Beach, California	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	C. CERTIFICATE NO. 4869
--	--	----------------------------

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 7-26-69	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

FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION	OTHER (Specify)
FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
CERTIFICATE OR DESIGNATION NO.		SIGNATURE OF AUTHORIZED INDIVIDUAL	

NOTICE

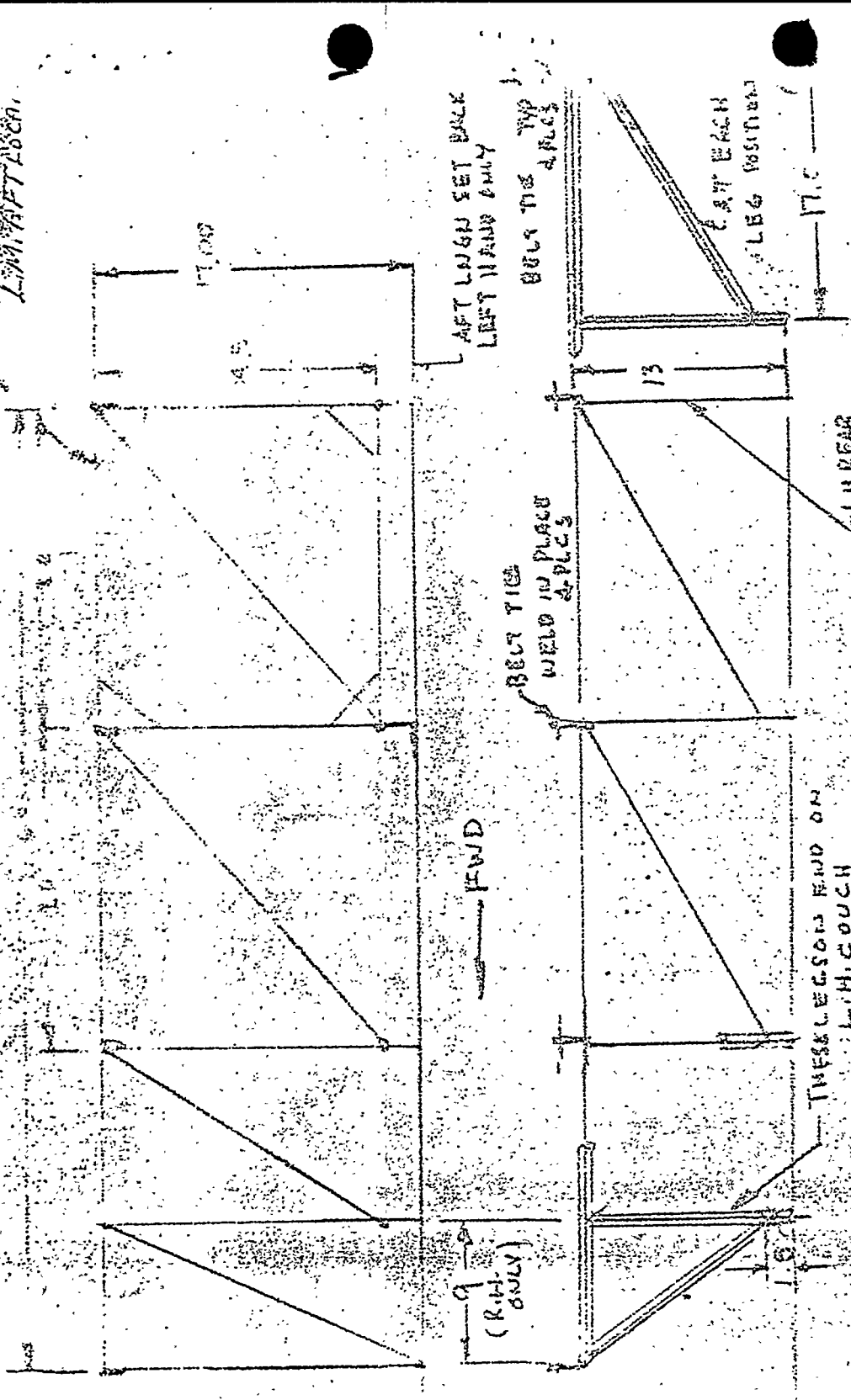
Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

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

Floor and Seat installation Per Attached Data and Drawings

ADDITIONAL SHEETS ARE ATTACHED

3 X 3 X 3/8
L.H. AFF-ADCA



LEG MAY BE TRIMMED TO FIT FLOOR SLOPE

ALL TUBES .75 DIA X .049, #130 STL TUBE

ALL WELDS PER PAR 4.3.13-1, 2

ALL CORNERS ROUNDED SMOOTH APPEAR WELD

FOR COVER & DETAILING SPEC. SEE DWG 021-1002

-102-2 R.H. SHOWN
-102-3 L.H. NOTED

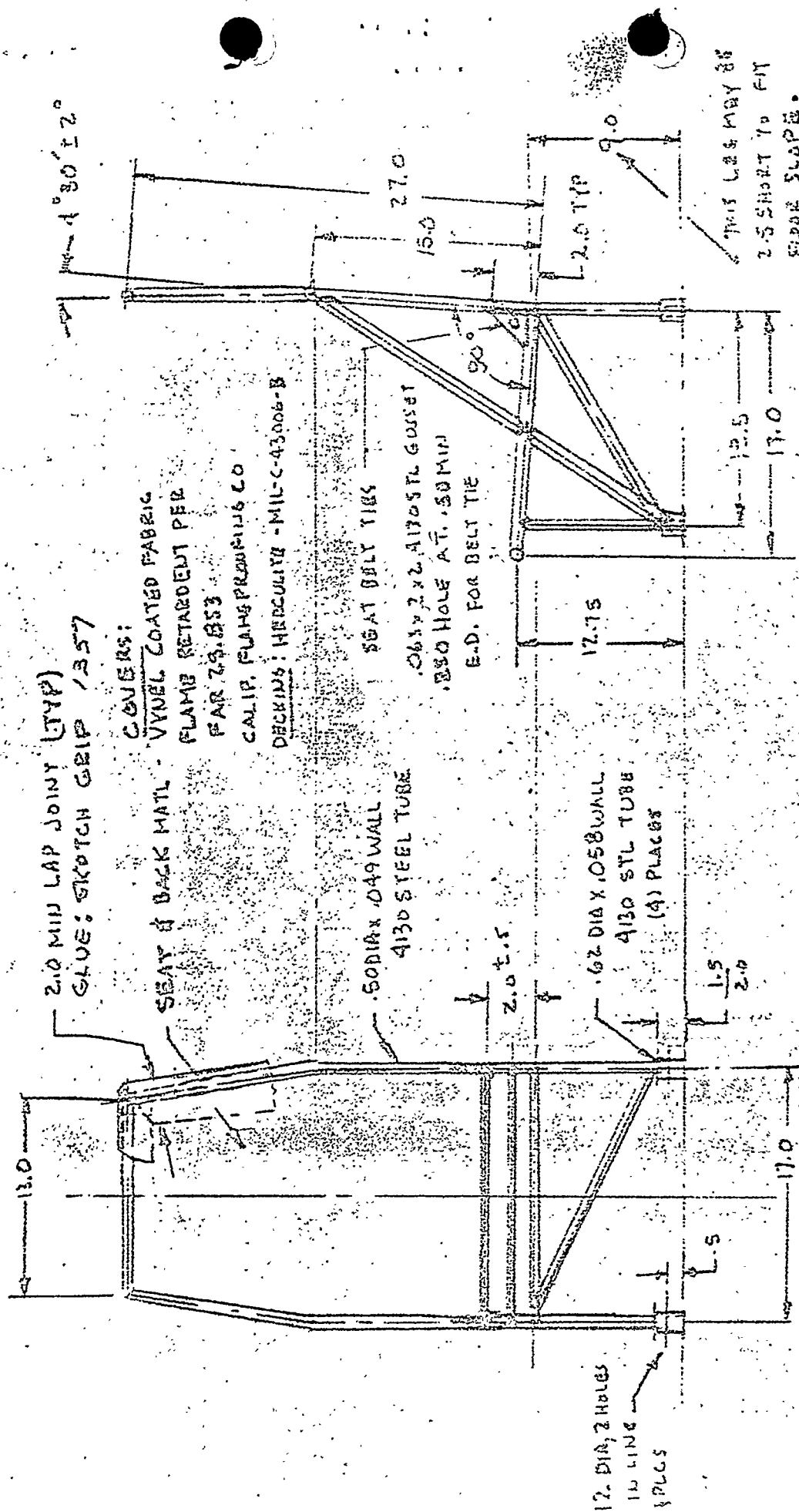
3 PLACE COUCH
CARBIDE AIRCRAFT
LONG BEACH AIRCRAFT

021-1003

SMY

OUTED

17678.701



2.0 MIN LAP JOINT (TYP)
GLUE: SKOTCH GRIP 1357

COVERS:

SEAT & BACK MATL - VINYL COATED FABRIC
FLAME RETARDENT PER
FAR 25.853
CALIP. FLAMPROOFING CO
DECKING: HERCULEX - MIL-C-43006-B

.50 DIA X .049 WALL
4130 STEEL TUBE

.062 X 2.2 AT 90° STL GUSSET
.250 HOLE AT .50 MIN
E.D. FOR BELT TIE

12. DIA, 2 HOLES
IN LINE
PLCS

.62 DIA X .058 WALL
4130 STL TUBE
(4) PLACES

SEAT TO HAVE TAG
WITH FOLLOWING INFO.)
CARRIER AIRCRAFT CO.
MODEL #2 J01-1
W/ FACING SEAT
LIFT OFF MARKS
TAG #48

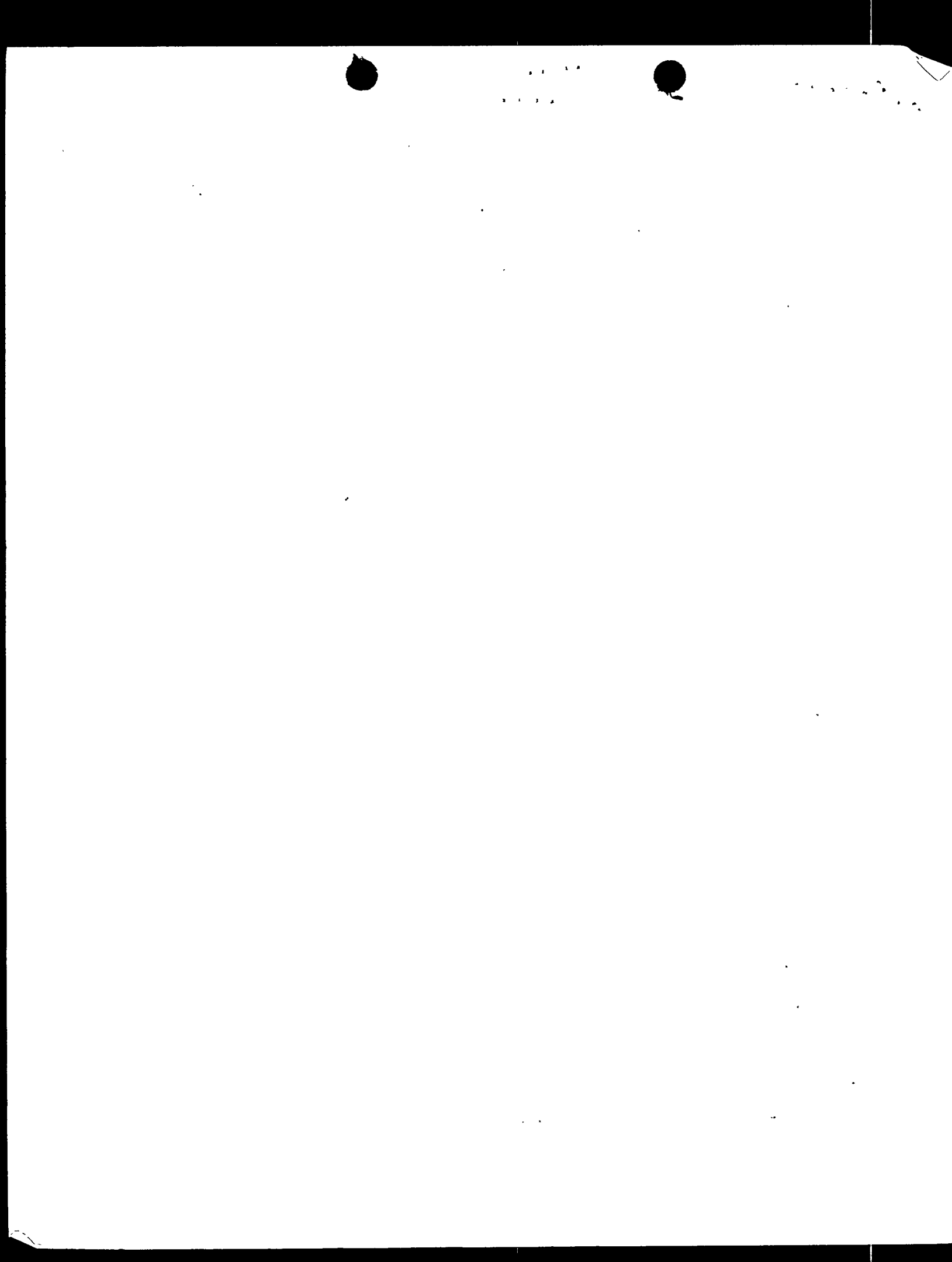
3. INSTALL BELTS WITH:
AN3-12A BOLT
AN36112 NUT
AN460-10 WASHER AS REQD

2. ALL WELDED CONSTRUCTION
PER FAR 23.13-1-2
1. ALL CORNERS ROUNDED SMOOTH
AFTER WELDING

NOTES:

CARRIER AIRCRAFT CO.
LOS ANGELES AIRPORT L.S. CALIF 9087

Dwg G21-1002
PASSENGER SEAT
SHEET 1



TAG ON EACH COUCH TO READ

CARRIER AIRCRAFT

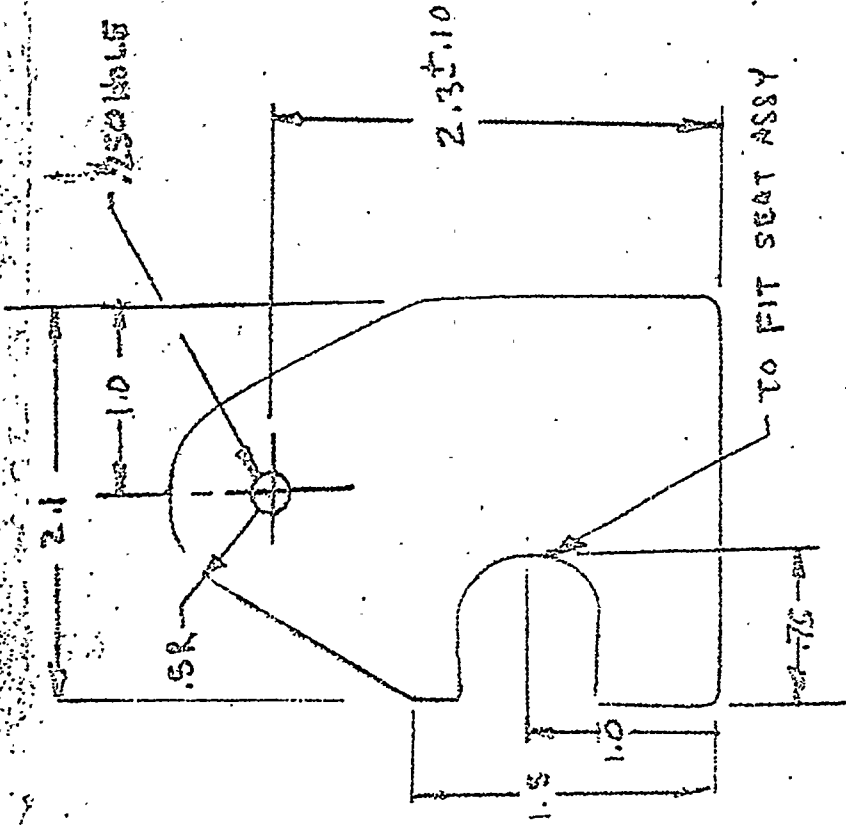
10Z-2 (FOR RH COUCH)

MODEL NO: 10Z-3 (FOR LH COUCH)

SIDE FACING COUCH

DATE OF MFG

PER TSO C 39



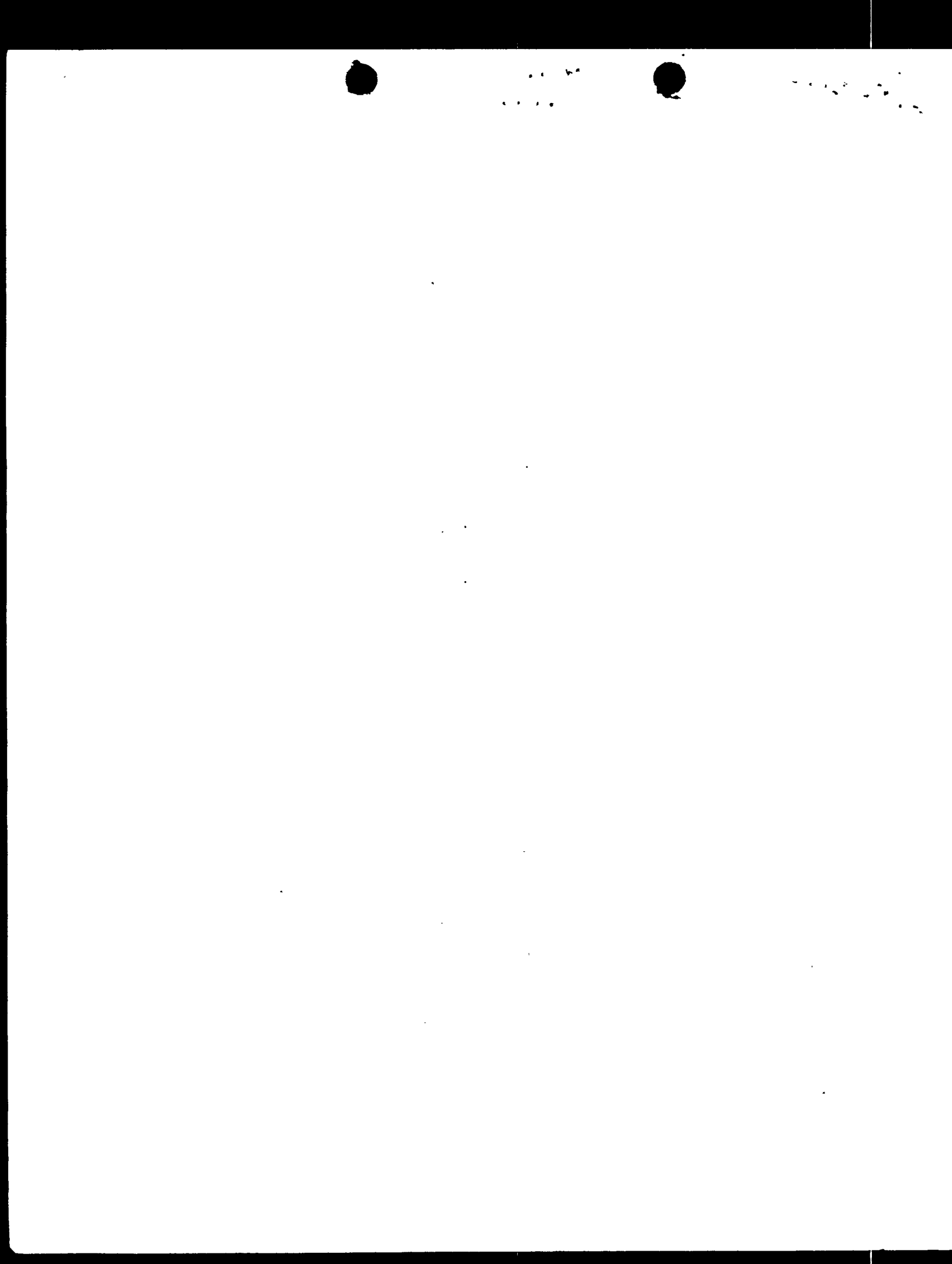
DETAIL OF SEAT BELT TIE

.063, ALSO STL SHEET

NO OF 1/4" TIES .063 (1) INT ONLY

CENTER TIES (2) INTS .043 WELDED TOGETHER

Q1 2 1/2 = 0.125



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 Garmin	MODEL G-21A
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N79914
2. OWNER	NAME (As shown on registration certificate) Antiles Airboats Inc.	ADDRESS (As shown on registration certificate) Sea Plane Base St. Thomas U.S. Virgin Is. 0081

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 the conformity inspection by a person authorized in F.A.R. Part 43, Section 43.7.

WE GADO
Signed: *[Signature]* Date: *7-16-69*

4. UNIT IDENTIFICATION

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Cal Volair Inc. 2330 E. Wardlow Rd. Long Beach, California	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	C. CERTIFICATE NO. 4869
--	--	----------------------------

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 7-16-69	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	<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 <i>[Signature]</i>		

NOTICE

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

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

Floor and Seat installation Per Attached Data and Drawings

ADDITIONAL SHEETS ARE ATTACHED

2930 E WARDLOW PK
LONG BEACH CALIF 90804

10 JUNE 1964

STRUCTURAL SUBSTANTIATION
INSTALLATION OF FLOOR, SEATS
& 3 PLACE COUCH IN GRUMMAN
MODEL G-21 AIRCRAFT.

FOR CARRIER AIRCRAFT INC.
LONG BEACH AIRPORT
L.B. CALIF. 90807

NO OF PAGES 3

REF. DWGS: G-21-1001, 2 SHTS

APPROVED: *Shannon* DER LA-321
APPVD: *Alj McLaren* CAL-VOLAIR



1 - 2 - 1 - 1



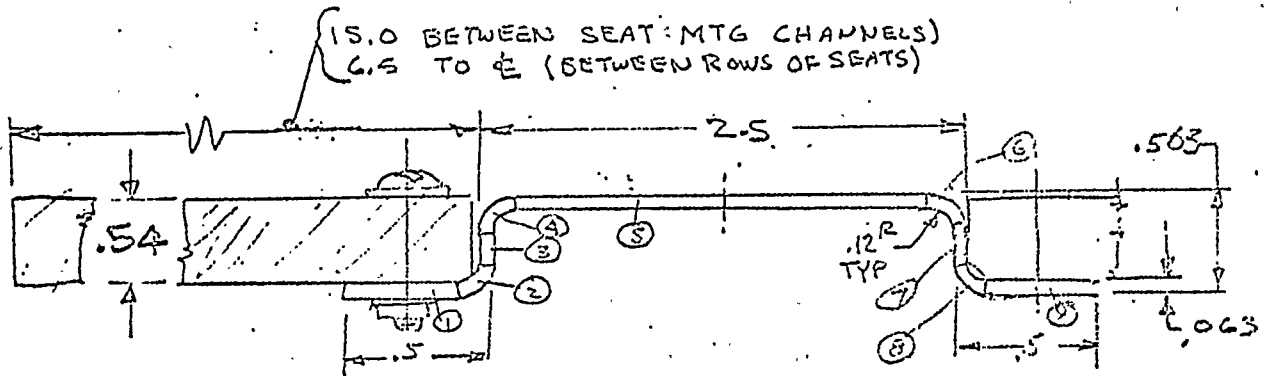
FLOOR BEAM ANALYSIS:

THE MOST CRITICAL LOAD IS FROM FWD CONDITION (1656# @ SEAT BELT)
 REACTED NEAR THE CENTER OF ONE OF THE 10.0 BAYS

$$LOAD = \frac{1656 (21.5)}{13.5} = 2640 \text{ LBS}$$

$$M_{MAX} = \frac{Pab}{a+b} = M_{MAX} = \frac{2640(5.25)(4.75)}{10} = 6580 \text{ IN-LBS (TOTAL LOAD ON 2 BEAMS)}$$

SECTION PROPERTIES: (REF DWG G21-1001 SHT I)



FOR CHANNEL ONLY: MATL = 2024-T3 ALUM,

	A	Y	AY	AY ²	I _o
.22x.063 1	.0202	.031	.00062	.000019	—
.22x.063 2	.0158	.086	.00136	.000117	.00004
.138x.043 3	.0118	.281	.00331	.000932	—
R 4	.0158	.398	.00630	.002510	.00004
L.043 5	.1338	.532	.07200	.038650	.00004
1 6	.0158	.398	.00630	.002510	.00004
7	.0118	.281	.00331	.000932	—
8	.0158	.086	.00136	.000117	.00004
.22x.063 9	.0202	.031	.00062	.000019	—
Σ	.2610	ȳ = .368	.09618	.045806	.00016

$$I_{NA} = \frac{.045806}{3} + \frac{.00016}{3} - \frac{.0359}{3} = .010566 \text{ IN}^4$$



1 1 1 1 1

$F_b = 61000 \text{ PSI (MIL-HDBK-5)}$

$M = \frac{61000 (.0106)(2)}{.368} = 3510 \text{ IN-LBS ALLOW}$

6540 - MAX MOMENT
 - 3510 ALLOW IN CHANNELS
3030 APPLIED TO FLOOR

ALLOW FLOOR LOAD = $149.21(215) = 32101 \text{ IN-LBS}$
 (USING .460 THICK DOUGLAS FIR PLYWOOD - ANCL-18)
 (CONSERVATIVE AS .540 THK PLYWOOD
 IS ACTUALLY INSTALLED PER DWG
 G-21-1001)

$MS = \frac{3210}{3030} = \underline{\underline{.358}}$

THE FLOOR SOCKETS TO HOLD SEATS ON THE CHANNEL
 ARE ATTACHED WITH (4) AN3 BOLTS - $P_s = 2126 \text{ LBS}$

ASSUME
 (SHEAR CARRIED BY
 FRONT LEGS ONLY)

FWO LOAD PER LEG = $\frac{1656}{2} (1.33) = 1035 \text{ LBS}$ $MS = \text{HIGH}$

BEARING OF BOLTS IN CHANNEL:

$.190 (.063) (92000) = 1100 \text{ LBS}$

$MS = \frac{1100(4)}{1035} = \underline{\underline{3.25}}$

BEARING IN STEEL PLATE O.K. BY COMPARISON.

TENSION LOAD PER BOLT =

$\frac{1656(215)(1.33)}{2(1.35)} = 1750 \text{ LBS/LEG OR } 438 \text{ /BOLT}$

$P_t = 2259 \text{ LBS (MIL-HDBK-5)}$

$MS = \frac{2259}{438} = \underline{\underline{5.15}}$

FOR CONNECTION BETWEEN LEG & SOCKET: AN3 BOLT
 VERT LOAD = 1750 LBS

DOUBLE SHEAR ON BOLT, ALLOW = $2126(2) = 4252 \text{ LBS}$ $MS = \text{HIGH}$

BEARING IN .058 TUBE: $.190 (.058) (2) (90000) = 1985 \text{ LBS}$

$MS = \frac{1985}{1750} = \underline{\underline{1.13}}$



1 1 1 1 1



THE CHANNELS ARE RIVETED TO EACH TRANSVERSE
BEAM WITH 2 AN470AD4 RIVET - ALLOW = 388 LBS SHEAR EACH
(MIL-HDBK-5)

$$388(2) = 776 \text{ #/CHANNEL}$$

$$\text{APPLIED LOAD} = \frac{1656(1.33)}{4} = 551 \text{ LBS}$$

(FROM FWD LOAD)

$$MS = \frac{776}{551} - 1 = \underline{41}$$



1 1 1 1



CARRIER

AIRCRAFT, INC. LONG BEACH AIRPORT • PHONE 427-0760 • LONG BEACH, CALIFORNIA

MAILING ADDRESS:
P. O. BOX D
LAKEWOOD, CALIFORNIA 90714

December 1, 1971


Antilles Air Boats
39 Strand St.,
Christiansted
St. Croix
U.S. Virgin Islands

Attention: Captian Gillies

The Carrier Aircraft type passenger seats and lounges
installed in your Grumman G 21A Aircraft are approved
by FAA, and manufactured under TSO-C39.

Reference FAA letter WE-130/8150, dated Sept. 15th, 1969.

Sincerely,



Robert Carrier

RC/ibp



CARRIER

AIRCRAFT, INC. LONG BEACH AIRPORT, LONG BEACH, CALIFORNIA

MAILING LIST 898
P. O. BOX 11
LONG BEACH, CALIFORNIA 90714

June 24, 1969

Chief, Aircraft Engineering Division
Federal Aviation Administration
Post Office Box 92067, Worldway Postal Center
Los Angeles, California 90069

Authorization is hereby made for national origin to use the technical standard order procedures.

The undersigned hereby certifies that the article listed below by model number, which has been tested and meets the performance standards of Technical Standard Order C39. In addition, all other applicable provisions of Part 37 of the Federal Aviation Regulations have been met.

The technical data required by the TSO and the quantity shown are cancelled in this document.

The required quality control data is submitted under separate cover.

Authorization to use TSO identification of this article is requested.

Seat forward facing single - Model 101

CARRIER AIRCRAFT, INC.

William C. Waddell,
President

WCS:mf



DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WESTERN REGION
P.O. BOX 92007 WORLDWAY POSTAL CENTER
LOS ANGELES, CALIFORNIA 90009

15 SEP 1969



IN REPLY

REFER TO: WE-130/8150

Carrier Aircraft, Inc.
2750 East Wardlow Road
Long Beach, California.

Attention: Mr. William C. Waddell
President

Subject : Carrier Aircraft, Inc., Seat Models 101 Forward Facing, and
102 Side Facing, Technical Standard Order C39

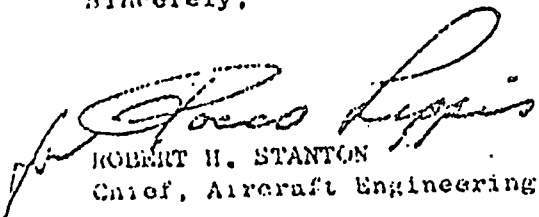
Gentlemen:

Your 24 June 1969 applications for authorization to use the technical standard order procedures, received in this office on 31 July 1969, have been reviewed. The certifications of conformance with the requirements of Subpart A of Part 37 and TSO-C39 are acceptable. The quality control data in Carrier Aircraft, Inc. Quality Control Manual dated 1 July 1969 are adequate. A copy is on file in Aircraft Engineering District Office Number 48, Long Beach, California.

Effective this date, you are authorized to use the technical standard order procedures as prescribed by Part 37 of the Federal Aviation Regulations, and to identify the subject seats with the applicable TSO marking, as required by TSO-C39.

This authorization pertains only to manufacturing operations at the above address, and this office must be notified in advance of any proposed relocation.

Sincerely,


ROBERT H. STANTON
Chief, Aircraft Engineering Division



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 Gruzman	MODEL G-21A
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N79914
2. OWNER	NAME (As shown on registration certificate) Antiles Airboats Inc.	ADDRESS (As shown on registration certificate) Sea Plane Base St. Thomas U.S. Virgin Is. 00821

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 the conformity inspection by a person authorized in F.A.R. Part 43, Section 43.7.

WE GADO
Signed: *[Signature]* Date: 7-23-69

4. UNIT IDENTIFICATION

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Cal Volair Inc. 2330 E. Wardlow Rd. Long Beach, California	B. KIND OF AGENCY	C. CERTIFICATE NO. 4869
	<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 7-16-69	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	<input checked="" type="checkbox"/> INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 7/1/69	CERTIFICATE OR DESIGNATION NO. 1A 1300658	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>[Signature]</i>		

NOTICE

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

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

Floor and Seat installation Per Attached Data and Drawings

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

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 Gruzman	MODEL G-21A
	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N79914
2. OWNER	NAME (As shown on registration certificate) Antiles Airboats Inc.	ADDRESS (As shown on registration certificate) Sea Plane Base St. Thomas U.S. Virgin Is. 0082

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 the conformity inspection by a person authorized in F.A.R. Part 43, Section 43.7.

WE GADO Date: 7-22-69
Signed: [Signature]

4. UNIT IDENTIFICATION

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

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Col Volair Inc. 2330 E. Wardlow Rd. Long Beach, California	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	C. CERTIFICATE NO. 4869
--	--	----------------------------

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 7-16-69	SIGNATURE OF AUTHORIZED INDIVIDUAL [Signature]
-----------------	---

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	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 7/16/69	CERTIFICATE OR DESIGNATION NO. 1A 1360638	SIGNATURE OF AUTHORIZED INDIVIDUAL [Signature]		

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 registration and registration mark and date work completed.)
Floor and Seat Installation Per Attached Data and Drawings

ADDITIONAL SHEETS ARE ATTACHED

GOVERNMENT FORM NO. 100-10

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) <input checked="" type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIF. <input type="checkbox"/> ANNUAL INSPECTION	CAA IDENTIFICATION <input checked="" type="checkbox"/> NC <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify) <u>79914</u> <input type="checkbox"/> NX <input type="checkbox"/> NL
---	---

AIRCRAFT

MAKE <u>Grumman</u>	MODEL <u>G 21 A</u>		
REGISTRATION NO. <u>79914</u>	MANUFACTURER'S SERIAL NO. <u>B 88</u>	DATE MANUFACTURED <u>9-30-44</u>	TYPE CERTIFICATE NO. <u>654</u>

ENGINE

MAKE <u>R 985 - AN 6 Pratt and Whitney</u>	MODEL <u>R 985-AN 6</u>
---	----------------------------

OWNER'S NAME <u>Ellis Air Lines</u>	PERMANENT ADDRESS (Street and number, City, Zone and State) <u>Box 1059 1277 Tongass Ave Ketchikan</u>
--	---

ATTACHMENTS (Check which)

<input checked="" type="checkbox"/> ACA-319	<input type="checkbox"/> WEIGHT AND BALANCE REPORT
<input 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

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.

Ellis Air Lines
[Signature]
OWNER OR AUTHORIZED AGENT

Jan 5 1950 DATE President TITLE

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 YES NO

(AIRCRAFT SPECIFICATION - AIRWORTHINESS DIRECTIVE, NO(S). A- 654 thru ADS 49-52-2 (SPECIFY))

FORM ACA-1362, CERTIFICATE OF AIRWORTHINESS, ISSUED ORIGINAL ANNUAL INSPECTION

(Check whether)

OPERATION LIMITATIONS FORM ACA-309 WAS ISSUED, OR

APPROVED AIRPLANE FLIGHT MANUAL IS IN THE AIRCRAFT

FINDINGS

<input checked="" type="checkbox"/> AIRWORTHY <input type="checkbox"/> UNAIRWORTHY	DESIGNEE'S SIGNATURE AND NO. <u>J.L. Sherman</u> <u>8800</u>	DATE <u>Jan 5 1950</u>
	CAA INSPECTOR'S SIGNATURE <u>F.W. Quenbury</u>	<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 Yes No)

Do not apply
ans
9-12-1
nu

nu
2-20-50
X

DEPT OF GOVTY REGULATIONS
ANCHORAGE, ALASKA
RECEIVED
FEB 6 1950
CAB

RECEIVED
FEB 6 10 27 AM '50
CIVIL AERO. ADMIN.
EIGHTH REGIONAL OFF.
ANCHORAGE, ALASKA

DEPT OF COMMERCE
WASHINGTON
FEB 9 8 09 AM '50
MAIL ROOM 3

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

(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)

1. AIRCRAFT	MAKE Grumman	MODEL G-21A	SERIAL NO. B88	NATIONALITY AND REGISTRATION MARK N 79914
2. OWNER	NAME (First, middle, last) Ellis Air Lines			
	ADDRESS (Street and number, city, zone, and State) Box 1059, Ketchikan, Alaska			

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) 6352	EMPTY CENTER OF GRAVITY (Inches from datum)* 24"	USEFUL LOAD (Pounds)* 1648
--	---------------------------------------	--	--------------------------------------

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

MANUFACTURER APPROVED REPAIR STATION NO. _____ (Specify) CERTIFIED MECHANIC

6. AGENCY	NAME Ellis Air Lines	ADDRESS (Street and number, city, zone, and State) B x 1059, Ketchikan, Alaska	DATE WORK ACCOMPLISHED 1/31/55
-----------	--------------------------------	--	--

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.)

Redesigned rear auxiliary folding seat, to conform to Payloader seats by adding wedjets as shown in drawing E-11-11 Alteration 1. Attaching safety belts to plane structure at station 26, as shown in drawing Detail C. Seats were pulled according to TSO-C25 dated 1/1/51, they exceeded the allowable forces in all directions. All work accomplished according to manual 18.

If more space is needed, continue on reverse, or attach separate sheets bearing aircraft registration mark.

FORWARDED FOR ENGINEERING APPROVAL

I CERTIFY that the above statements are true and correct to the best of my knowledge.

W. A. Nebel *W.A. Nebel* **A. E. 382152** **1/31/55**
(Signature of supervising mechanic) (Certificate number and rating) (Date)

TO BE COMPLETED BY CAA REPRESENTATIVES

<input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	DESIGNEE'S SIGNATURE	NO.	DATE
	CAA AGENT SIGNATURE <i>J. McCarthy</i>	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE 4-6-55

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. Certified 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.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.

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

RECEIVED

APR 15 4 14 PM '55

AIRLINE RECORDS SEARCH
7-300

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

(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)

1. AIRCRAFT	MAKE Grumman	MODEL G 21 A	SERIAL NO. B88	NATIONALITY AND REGISTRATION MARK N 79914
2. OWNER	NAME (First, middle, last) Ellis Air Lines	ADDRESS (Street and number, city, zone, and State) Box 1059 Ketchikan, Alaska		

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					
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) 6452.5	EMPTY CENTER OF GRAVITY (Inches from datum)* 23.9	USEFUL LOAD (Pounds)* 1547.5
--	---	---	--

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

MANUFACTURER APPROVED REPAIR STATION NO. _____ (Specify) CERTIFIED MECHANIC

6. AGENCY	NAME Ellis Air Lines KxxxxxKxxxxxx	ADDRESS (Street and number, city, zone, and State) Ketchikan, Alaska	DATE WORK ACCOMPLISHED 11/30/53
-----------	--	--	---

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.)

Drawing on back, details attached sheet.

If more space is needed, continue on reverse, or attach separate sheets bearing aircraft registration mark.

FORWARDED FOR ENGINEERING APPROVAL

I CERTIFY that the above statements are true and correct to the best of my knowledge.

K. J. Vanderweale **ATE 1122424** **11/30/53**
(Signature of supervising mechanic) (Certificate number and rating) (Date)

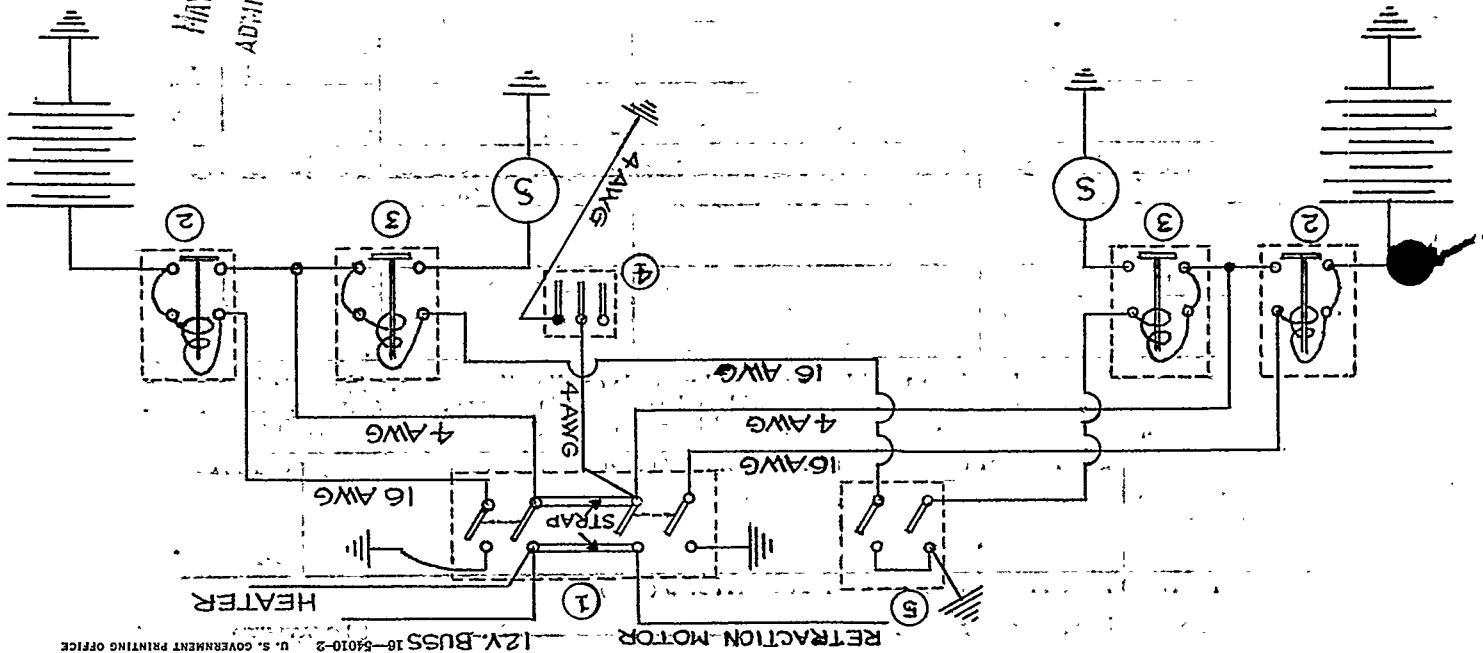
TO BE COMPLETED BY CAA REPRESENTATIVES

<input checked="" type="checkbox"/> APPROVED	DESIGNEE'S SIGNATURE W. A. Nebel	NO. 8802	DATE 11/30/53
<input type="checkbox"/> REJECTED	CAA AGENT SIGNATURE J. E. McCarthy	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE 12-22-53

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.
 - c. 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.
 - d. 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.
 - e. 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 warding 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.

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



- ① BATTERY SWITCHES
- ② BATTERY RELAY B-1
- ③ STARTER RELAY B-8
- ④ AUX. PLUG
- ⑤ STARTER SWITCHES

RECEIVED
 MAY 20 2 50 PM '51
 ADMIN. & RECORDS BRANCH
 W-300

Ellis Air Lines electrical changes

Attached sheet to 337 date 11/30/53

Electrical changes on G21-A drawing on back of 337 all references in #s are to drawing.

#1. Battery ~~switches~~ switches in same location as before except a different type of switch is used incorporating another set of contacts to actuate #2 battery solenoids, (continuous duty). The solenoids are located in each nacelle as close to battery as possible.

Auxiliary starter plug was moved from right nacelle to cockpit, located above main distribution panel in its own box with an insulating block over propngs, also a cover. The insulating block to be removed when auxiliary power to be used. A placard was placed over the cover giving instructions in its use. When auxiliary power is plugged in engines can be started with out turning on master ~~switches~~ switches, this is a safe guard in case 24 volts was used.

Starter relays #3 one in each nacelle operate on either main battery or auxiliary power, therefore eleminating the use of a set of aux. starter switches in cockpit but use the regular switches.

Starter and battery relays are both mounted in one metal box each nacelle.

W. A. Nebel
W. A. Nebel
Inspection Dept.

RECEIVED

MAY 20 2 50 PM '54

ADMIN. & RECORDS BRANCH
W-300

W-240

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

1. AIRCRAFT	MAKE Crummen	MODEL C-21-A	SERIAL NO. B-88	NATIONALITY AND REGISTRATION MARK N 79914
2. OWNER	NAME (First, middle, last) Ellis Air Lines		ADDRESS (Street and number, city, zone and State) Box 1059 Ketchikan, Alaska	

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) *****				
b. POWERPLANT					
c. PROPELLER					
APPLIANCE	TYPE AND MANUFACTURER				
	Static pressure alternate source outlet				

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)*
Standard	6438	24.34	1562

5. CONFORMITY STATEMENT (Complete and check)

a. AGENCY'S NAME AND ADDRESS	b. KIND OF AGENCY	c. CERTIFICATE NO.
	<input checked="" type="checkbox"/> U. S. Certificated Mechanic. <input type="checkbox"/> Foreign Certificated Mechanic. <input type="checkbox"/> Certificated Repair Station. <input type="checkbox"/> Manufacturer. <input type="checkbox"/> (Check if repair or alteration was made under delegation option procedures.)	AC/122424 <i>act</i>

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.

11-3-53 (Date repair and/or alteration completed) Kenneth J. Vanderveer (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)

11/3/53 (Date of approval or rejection) W. A. Nebel (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 12-16-53 (Date) Reinspected _____ (Date) Spot Checked _____ (Date)

5 (AM) ASDO-3 (CAA designation number) J. E. McCarthy (Signature Aviation Safety Agent)

INSTRUCTIONS

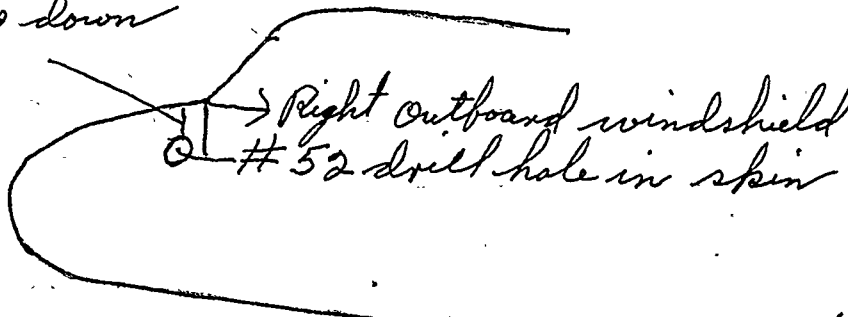
This form must be completed in duplicate each time a major repair and/or alteration is made of an aircraft, airframe, power-plant, propeller or appliance. After the repair and/or alteration has been inspected and item 6 completed, the original copy of this form will be made available to the aircraft 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.*

The static alternate source was moved from cabin to the outside of the hull. The reason for moving it was to get a more normal operation of the instruments when the static pressure is switched from regular to alternate ~~XXXXXX~~ source. At present it is located about nine inches down from forward end of the right windshield and ahead of the instrument panel, on test flite it was very ~~satisfactory~~ satisfactory. It is possible that we may in the future have to install the outlet on both sides of the hull.

Nine inches down



Dural fitting made up to fit

#4 pipe fitting and riveted on inside of hull skin.

ADMN. & RECORDS BRANCH
V-300

DEC 21 4 16 PM '53

RECEIVED

*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.

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

(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)

1. AIRCRAFT	MAKE Grimman Goose	MODEL G 21A	SERIAL NO. B 88	NATIONALITY AND REGISTRATION MARK N7991L
2. OWNER	NAME (First, middle, last) Ellis Air Lines	ADDRESS (Street and number, city, zone, and State) Box 1059 Ketchikan, Alaska		

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					
c. ENGINE	Pratt & Whitney	R-985-AN-3	Mfg. serial 11194 42-20573	xxx	
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	EMPTY WEIGHT (Pounds)* 6438	EMPTY CENTER OF GRAVITY (Inches from datum)* 24.34	USEFUL LOAD (Pounds)* 1562
-------------------------	---------------------------------------	--	--------------------------------------

*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. **4104** (Specify) CERTIFIED MECHANIC

6. AGENCY	NAME Westcoast Aircraft Sales & Service Inc., Boeing Field, Seattle 8, Wash.	ADDRESS (Street and number, city, zone, and State)	DATE WORK ACCOMPLISHED 7-29-52
-----------	--	--	--

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.)

Complete major overhaul of engine. All parts (steel) magnafluxed. All new seals and gaskets installed. All necessary parts beyond factory tolerances replaced. Overhauled NARB carburetor 5722594 and Bosch Magnetos B17096 and B6081 installed. Engine run in on test stand in accordance with latest factory recommendations. Run in satisfactory. Preserved for long-time storage. NO OTHER.

Installed on right

If more space is needed, continue on reverse, or attach separate sheets bearing aircraft registration mark.

FORWARDED FOR ENGINEERING APPROVAL

I CERTIFY that the above statements are true and correct to the best of my knowledge.

Leon J. Eichstaedt (Signature of inspecting mechanic) **E322202** (Certificate number and rating) **7-29-52** (Date)

TO BE COMPLETED BY CAA REPRESENTATIVES

<input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	DESIGNEE'S SIGNATURE W. A. Nebel	NO. 8808	DATE 10/27/53
	CAA AGENT SIGNATURE J. E. McCarthy	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE 11-2-53

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. Certified 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.
 - c. 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.
 - d. 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.
 - e. 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.

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

RECEIVED
NOV 5 12 29 PM '53
ADMIN. & RECORDS BRANCH
W-300

UNITED STATES OF AMERICA
 DEPARTMENT OF COMMERCE
 CIVIL AERONAUTICS ADMINISTRATION

OPERATION LIMITATIONS (STANDARD)

ENGINE	MAKE	P & W	AIRCRAFT	MAKE	Grumman	NATIONALITY AND REGISTRATION MARKS	
	MODEL	2-905-A7-6		MODEL	G-21A	SERIAL NO.	8-88

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.	HP.	MIN. OCT.		M. P. H. LAND	M. P. H. SEA
TAKE-OFF	1	ANY	36.5	2300	450	87	CLIMB OR LEVEL FLIGHT	194	194
	1	ANY	33.5	2200	400	80			
METO	SEA LEVEL	TO	34.5	2200	400	80	GLIDE OR DRIVE <i>(Smooth Air Only)</i>	225	225
	ALTITUDE	FROM	5000	33.5	2200	400	FLAPS EXTENDED	110	110

*METO—MAXIMUM EXCEPT TAKE-OFF

TAKE-OFF WEIGHT				LANDING WEIGHT			
LAND		SEA		LAND		SEA	
8000		8000		8000		8000	

C. G. LIMITS

LAND		SEA	
(/20.5) TO (/33.0)		(/20.5) TO (/33.0)	

WEIGHT

SEE WEIGHT AND BALANCE DATA FOR LOADING INFORMATION

DATUM

WING LEADING EDGE AT FUSELAGE

CEILING

LIMITATIONS

- (a) Without de-icers: 6000 ft. absolute (density altitude) with either engine inoperative
- (b) With de-icers: Zero ft. (usable) in standard air at 8048 lbs. with either engine inoperative and the inoperative propeller idling in high pitch.

INSPECTOR'S OR DESIGNEE'S SIGNATURE	DESIG. NO.	DATE
<i>Robert H. J. Dallas</i>	8-583-3	October 10, 1951

ADDITIONAL LIMITATIONS YES NO (IF YES—SEE OVER)

THIS FORM MUST BE AVAILABLE IN THE AIRCRAFT WHEN OPERATED

Pursuant to Special Civil Air Regulation SR-337, as amended, this aircraft when being operated entirely within the Territory of Alaska under the provisions of Part 41 or 42 of the Civil Air Regulations is authorized to operate in accordance with the following limitations:

Maximum Weight (Take-Off and Landing)

Landplane	8800 lbs.
Seaplane	8800 lbs.

Propeller(s)

Ham. Std. Constant Speed 2D30/6101A-18

- Diam. 102 inches. Pitch settings shall be such that the following will be developed:

- (1) 2300 R.P.M. - 50 R.P.M. at 36.5 inches Manifold Pressure with
 - (a) Aircraft static on ground
 - (b) Propeller control in Full low pitch
 - (c) Throttle setting as required

- (2) 2200 R.P.M. - 50 R.P.M. at 34.5 in Hg. Manifold Pressure with
 - (a) Aircraft climbing after take-off at an airspeed of 110 M.P.H.
 - (b) Throttle setting as required

RECEIVED

Date:

October 10, 1951

16 11 40 2 28 130
Norman H. Salles
C.A.A. Agent

CIVIL AERONAUTICS ADMINISTRATION
ANCHORAGE, ALASKA

AIRCRAFT WEIGHT & BALANCE

AIRCRAFT: Make & Model Grumman G-21-A Serial No. R 88
 Registration No. N 79911
 DATE 1/17/50 PLACE Ketchikan, Alaska SCALES USED _____
 WEIGHING WITNESSED BY John C. Rowen C.A.A. _____

AIRCRAFT WEIGHED AS FOLLOWS:

1. EMPTY (Fuel and oil drained at system drains)
2. IN LEVEL FLIGHT ATTITUDE
3. FIXED EMERGENCY EQUIPMENT INCLUDED AS FOLLOWS:
100 Lbs. at 139 Ins. Aft of Datum
 For'd/Aft
4. DATUM IS Leading Edge of Wing at 30" from C:L of Hull

See attached sketch.

NOTE: Aircraft balanced in level flight position when suspended from lifting eye.

SKETCH OF WEIGHING METHOD AND MAJOR DIMENSIONS

	Scale Weight (Lbs.)	Tare (Lbs.)	Net Weight (Lbs.) (Scale Wt.-Tare)
Left Main Weight Point (W _L)	6175	0	6175
Right Main Weight Point (W _R)			
Nose or Tail Weight Point (W _a)			
Total Empty Weight (W)			6175

Empty Weight C.G. = 23.5 Ins. Aft of Reference datum
 for'd/aft

Empty Weight C.G. = _____ Ins. _____ of _____

ae

LOCATION OF EQUIPMENT ITEMS		
ITEM	Weight (Lbs.)	ARM (Ins. from Datum)*
Propeller and Propeller Accessories		
201 Constant Speed Propeller Controls	13	-23
302 Two Controllable Metal Propellers		
Hamilton Standard Hubs 2D30, Blades 6101		
Engine and Engine Accessories-Fuel and Oil System		
101 Two Engine Ring Cowls	56	-36
102 Two Oil Radiators	26	0
103 Two Starters Eclipse E-80		-12
108 Pressure Fire Extinguisher Lux	A-1.21	-33

* Use plus (+) sign for arms of items aft of datum and minus (-) sign for arms forward of datum.

111 E Military R-985-AN 6 B Manual
104 One Generator with control box Carburetors

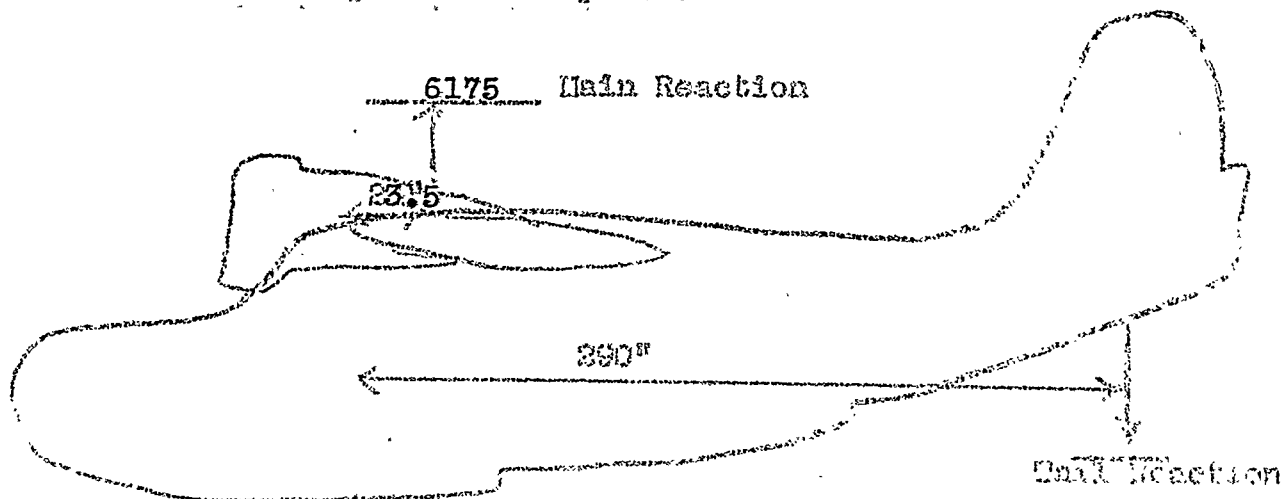
Landing Gear 32 x 8 Hayes
Ellis Air Lines Water Rudder Model C
305 12.50 Tail Wheel Goodrich
301 Two Wing Tip Floats Liberty Type 17
204 Two Batteries 34 Amp
216 Miscellaneous

Interior Equipment

207 Radio Lear T30 R3 AB		
225 Cabin Heater Manifold		
Marquette Windshield Swipe		
Two Seats with Life Belts		Plus 24
Two Seats with Life Belts		Plus 62
REMARKS: Two Seats with Life Belts		Plus 102
Two Pilot Cushions with Life Belts		
One Emergency Seat with Life Belt		Plus 136
210 Two Windows in Cabin Doors	100	125
Four Tie Up Cleats		
One Ellis Splash Strip	12	
No Smoking and Belt Sign		
One Anchor and Line		
One CO2 and One Axe		
One Pyrene		
One Paddle with Hook		
Two Cans Emergency Rations		136
One Flashlight		
One First Aid Kit		

ACTUAL WEIGHT AND BALANCE

1. Determination of Weight Empty and Center of Gravity, airplane Grumman C-21A, bearing NO79914 and Serial Number B88, was weighed in Ellis Air Lines Maintenance Hangar, Ketchikan, Alaska, on 1-17-50. The airplane was weighed in level flight position on Dillon Dynamometer and balanced with spring tension scale from tail eye. Fuel in tanks 0 and oil in tanks 0. All equipment listed on Page of this report was in place.



Item	Weight	Arms	Moment
Main Reaction	6175	23.5	
Wing Reaction			
Tail Reaction	0		
Cos Aboard	0		
Oil Aboard	0		
Empty Weight	6175		
Empty C.G.		23.5	

M A C 97.4"

Datum Leading Edge of Wing at 30 " from C.L. of Hull

C.G. Range Forward 20.5 " Rearward 33. "

Dear Sir,
I have the pleasure to inform you that your application for the position of [unclear] has been successful. We are pleased to have you join our team.

Your starting date will be [unclear]. We will be in contact with you regarding the details of your employment.

Yours faithfully,
[unclear]
[unclear]
[unclear]

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

OPERATION LIMITATIONS (Standard)

CAA IDENT. NO. **79914**

ENGINE	MAKE	AIRCRAFT	MAKE	DATE MFRD.	SERIAL NO.	DESIGNATION	TYPE CERT.
	P & H		Grumman	9/30/44	B 88	Land & Sea	654
	MODEL 8B-3		MODEL G-21A				

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.		WEIGHT	M. P. H.	KNOTS	
TAKE-OFF	1	--	34.5	2200	400	80	CLIMB OR LEVEL FLIGHT	8000	194	169	
TAKE-OFF	1	--	36.5	2300	450	87	GLIDE OR DIVE (Smooth Air Only)	8000	225	195	
MAXIMUM EXCEPT TAKE-OFF	SEA LEVEL	X TO --	34.5	2200	400	87	FLAPS EXTENDED	8000	110	96	
	SEA LEVEL		5000	33.5	2200	400	87	CLIMB OR LEVEL FLIGHT	--	--	--
	ALTITUDE	FROM (straight line manifold pressure variation from Sea Level to						GLIDE OR DIVE (Smooth Air Only)	--	--	--
	ALTITUDE	variation from Sea Level to						FLAPS EXTENDED	--	--	--
	LOW IMP.	5000*	--	--	--	--	--	DATUM Wing Leading Edge At Fuselage.			
LOW IMP.	--	--	--	--	--	--					
HIGH IMP.	--	--	--	--	--	--					
HIGH IMP.	--	--	--	--	--	--					

USEABLE CEILINGS AND ADDITIONAL CONDITIONS*

CEILING (FT.)	WEIGHT	R. P. M.	M'FOLD PRESS.	FUEL OCT.	T. I. A. S.	PROP. DEICER	WING DEICER
6000	8000	Neto	Neto	87	--	No	No
1000	8048	Neto	Neto	87	--	Yes	Yes

*Standard air, any engine inoperative, inoperative carburetor air intake on "cold air," idling in high pitch

MAXIMUM TAKE-OFF WEIGHT

MAXIMUM LANDING WEIGHT

LAND 8000 lbs.	SEA 8000 lbs.	LAND 8000 lbs.	SEA 8000 lbs.
-----------------------	----------------------	-----------------------	----------------------

OPERATIONS AUTHORIZED

See Weight and Balance data section for loading information.

INSPECTOR'S SIGNATURE
J. H. Brown
DATE **1/17/50**

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

1/17/50
John C. Brown

Land, wheel equipped - 8000 lbs.
5000 lbs.

This aircraft is authorized to operate in accordance with the
provisions of Special Civil Air Regulation SR-327 as not to
exceed the following maximum weights:

ADDITIONAL OPERATIONS AUTHORIZED

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		SPECIFIC NO.	CAA IDENT. NO. (Optional)		
		1654-2	NC 79914		
EQUIPMENT No.		SPECIAL EQUIPMENT			
NUMBER	NUMBER	NUMBER	ITEM (Description)	WGT.	ARM
302			Constant speed Propeller Control	13	-23
302			Two Controllable Metal Propellers	308	-52
101			Hambed Hubs 2D30, Blades 6101		
102			Two Engine Ring Gears	56	-36
103			Two Oil Radiators	26	
108			Two Starters (Helipac K-80)		-12
1115			Pressure Fire Extinguisher Lux A-1221	21	-33
1116			Military R-985-AN 68 Manual Gas Generator with control box		
			Carburators		
			Landing Gear 32 x 8 Bayes		
			Ellis Air Lines Water Rudder Model C		
305			12.50 Tail Wheel Goodrich		
301			Two Wing Tip Floats Liberty Type 17		
204			Two Batteries 34 Amp		
216			Miscellaneous		
207			Radio Lear Y30 R3 AB		
205			Cabin Heater Manifold		
			Marquette Windshield Wiper		
			Two Seats with Life Belts		104
			Two Seats with Life Belts		102
			Two Seats with Life Belts		100
			Two Pilot Gunions with Life Belts		
			One Emergency Seat with Life Belt		136
			Two Windows in Cabin Doors	100	125
			Four Tie Up Cleats		
			One Ellis Splash Strip	12	
			No Smoking and Belt Sign		
			One Anchor and Line		
			One 602 and One Axe		
			One Pyrene		
			One Paddle with Hook		
			Two Cans Emergency Rations		136
			One Flashlight		
			One First Aid Kit		

(LAND)		C. G. LIMITS		(SEA)	
NORMAL		NORMAL		NORMAL	
0.5" to 33.0" (15.2% - 28% MAC)		20.5" to 37.0" (15.2% - 28% MAC)			
IN FLIGHT		IN FLIGHT			
5/17/50		INSPECTOR'S SIGNATURE		John C. Bowen	
		John L. Bowen			

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 21 A	SERIAL NO. B88	CAA IDENTIFICATION MARK N 79914
2. OWNER	NAME (First, middle, last) ADDRESS (Street and number, city, zone, and state) Ellis Air Lines Box 1059 1277 Tongass Ave Ketchikan AAA			

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					X
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)* 6175	EMPTY CENTER OF GRAVITY (Inches from datum)* 23.5	USEFUL LOAD (Pounds)* 2625
-------------	---------------------------------------	---	--------------------------------------

*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	NAME Walter A. Nebel	ADDRESS (Street and number, city, zone, and state) Box 1059 Ketchikan AAA	DATE WORK ACCOMPLISHED Jan 5 1950
--------	--------------------------------	---	---

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)
 The Grumman G 21 A Hull was purchased Surplus from the Navy and refitted in Ellis Air Lines Shops. Wings and control surfaces were recovered and finished and installed. Flight controls, Instruments, Engines, and Nacelles were overhauled and installed. Ellis Splash Strips, Ellis Model C Water Rudder, and Barkley Grow Modified Seats were uninstalled.

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

Walter A. Nebel
 SIGNATURE OF SUPERVISING MECHANIC A-887 79914 Jan 5 1950
 CERTIFICATE NUMBER AND RATING DATE

TO BE COMPLETED BY CAA REPRESENTATIVES

<input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED <input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL	SIGNATURE OF DESIGNEE <i>J. L. Sherman</i>	NUMBER 8800	DATE Jan 5 1950
	SIGNATURE OF INSPECTOR <i>J. W. Luenburg</i>	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE Feb 2, 1950



222

122

272

1000

RECEIVED
FEB 6 10 27 AM '50
CIVIL AERONAUTICS
SOUTH REGIONAL OFFICE
ANCHORAGE, ALASKA

WASHINGTON
FEB 6 9 48 AM '50
U.S. AIR FORCE
OFFICE OF AIR FORCE
ATTORNEY GENERAL