

**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. B-131
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- 4772C
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5. AIRCRAFT OWNER'S CERTIFICATION (Check and complete appropriate item)

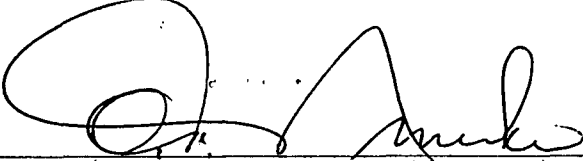
I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered* with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:

- 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 9/18/62 (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 V. Pres. - Adm. & Finance
 (DATE) (TITLE)



<input type="checkbox"/> SPOT CHECKED	DATE <u>10/15/67</u>	CAA DESIGNATION NO. <u>06 FS 50-3</u> <u>AL-3</u>	AVIATION SAFETY AGENT'S SIGNATURE <i>Stanley C. Foster</i>	<input type="checkbox"/> ATTACHMENT	
<input type="checkbox"/> REINSPECTED				DESIGNATION NO.	DESIGNER'S SIGNATURE
<input type="checkbox"/> ACCEPTED				DATE	

8/10/67

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 THIS~~ 12-29-58 (DATE) AL-501-501F

CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED TO EXPIRE AL-501-501F Operating Certificates Nos. _____

THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS

CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT

CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT

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

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

*Available in aircraft in compliance with CAM 43.10.

*When not maintained and operated in accordance with Operating Certificates Nos. _____

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) _____

Inspection under continuous maintenance system in accordance with Operating Certificate Nos. AL-501 & 501F.

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

SERIAL NO.	766.4	SERIAL NO.	Unknown-T50
TOTAL HOURS	5929.9	TOTAL HOURS	7673.6

AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 7673.6 HOURS

COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED

AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 7673.6 HOURS

AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY

AIRCRAFT SPECIFICATION NO. _____ THROUGH SHEET REVISION NO. _____

AIRCRAFT LISTING PAGE NO. 98

AIRWORTHINESS DIRECTIVE SUMMARY 1962 (YEAR) _____ THROUGH CARD NO. 62-22

CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS

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

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS

AIRCRAFT SPECIFICATION NO. _____ THROUGH SHEET REVISION NO. _____

AIRCRAFT LISTING PAGE NO. 98

AIRWORTHINESS DIRECTIVE SUMMARY 1962 (YEAR) _____ THROUGH CARD NO. 62-22

CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

AIRCRAFT INSPECTION REPORT

U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

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

UNITED STATES OF AMERICA — FEDERAL AVIATION AGENCY
STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS N4772C	2. MANUFACTURER AND MODEL GRUMMAN G-21A	3. AIRCRAFT SERIAL NUMBER B131	4. CATEGORY NORMAL
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5. AUTHORITY AND BASIS FOR ISSUANCE
 This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.
 Exceptions:
 NONE

6. TERMS AND CONDITIONS
 Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE 11-19-65 EXCHANGE	FAA REPRESENTATIVE <i>Stanley R. Ferber</i> STANLEY R. FERBER	DESIGNATION NUMBER AL-FSDO-3
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Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.



UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY

CERTIFICATE OF AIRWORTHINESS

1. NATIONALITY AND REGISTRATION MARKS	2. MAKE AND MODEL OF AIRCRAFT	3. AIRCRAFT SERIAL NUMBER
N- 4772C	GRUMMAN G-21A	B-131

4. CATEGORIES

STANDARD

5. This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7 December 1944, and the Federal Aviation Act of 1958, in respect of the above-mentioned aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent Airplane Flight Manual.

10/15/62

DATE OF ISSUE

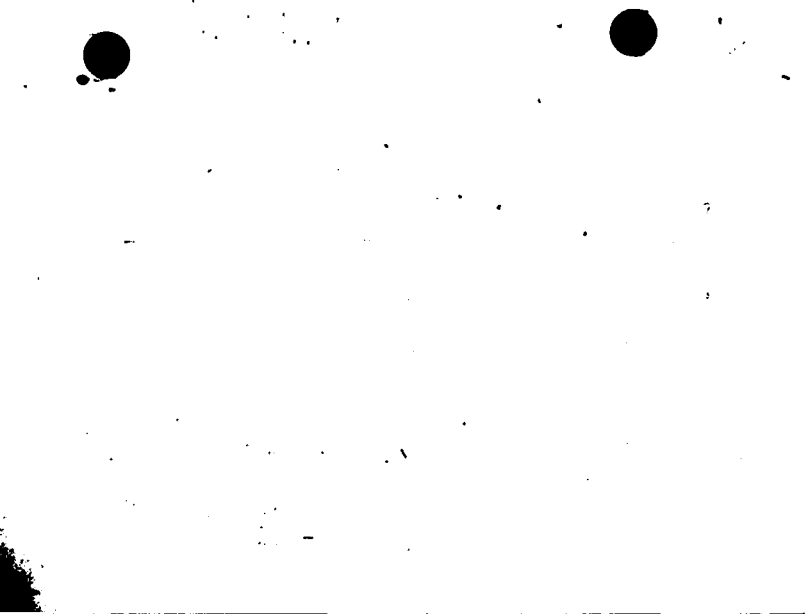

Stanley R. Ferber

FAA REPRESENTATIVE

AL-3

DESIGNATION NO.

6. This aircraft is being maintained under a continuous inspection system in accordance with the terms of Operating Certificate No. AL-501



UNITED STATES OF AMERICA — FEDERAL AVIATION AGENCY
STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS N4772C	2. MANUFACTURER AND MODEL GRUMMAN G-21A	3. AIRCRAFT SERIAL NUMBER B131	4. CATEGORY NORMAL
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5. AUTHORITY AND BASIS FOR ISSUANCE
 This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.
 Exceptions:
NONE

6. TERMS AND CONDITIONS
 Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE 11-19-65 EXCHANGE	FAA REPRESENTATIVE <i>Stanley R. Ferrer</i> STANLEY R. FERRER	DESIGNATION NUMBER AL-FSDO-3
--	--	--

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



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

1. NATIONALITY AND REGISTRATION MARKS N-4772C	2. MANUFACTURER AND MODEL Grumman G-21A	3. AIRCRAFT SERIAL NUMBER B-29	4. CATEGORY Standard
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5. AUTHORITY AND BASIS FOR ISSUANCE
 This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.
 Exceptions:
None

6. TERMS AND CONDITIONS
 Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE Replacement 10/15/62	FAA REPRESENTATIVE <i>Gerald G. Berry</i> Gerald G. Berry	DESIGNATION NUMBER FSDO/ASJU 7-5-6
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Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.



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

FOR FAA USE ONLY

OFFICE IDENTIFICATION

ASO-FSDO-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-131	NATIONALITY AND REGISTRATION MARK U.S. N4772C
2. OWNER	NAME (As shown on registration certificate) Antilles Air Boats, Inc.	ADDRESS (As shown on registration certificate) Sea Plane Ramp, Veterans Drive ST. Thomas, V.I. 00801

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	R 985-ANI	42-122417	X	
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS		B. KIND OF AGENCY		C. CERTIFICATE NO.
Joseph H. Stoy c/o Antilles Air Boats, Inc. Isla Grande Airport, San Juan P.R.		<input checked="" type="checkbox"/>	U.S. CERTIFICATED MECHANIC	A&P 1333009
		<input type="checkbox"/>	FOREIGN CERTIFICATED MECHANIC	
		<input type="checkbox"/>	CERTIFICATED REPAIR STATION	
		<input type="checkbox"/>	MANUFACTURER	

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

DATE August 13, 1975	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Joseph H. Stoy</i>
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7. APPROVAL FOR RETURN TO SERVICE

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

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

DATE OF APPROVAL OR REJECTION August 13, 1975	CERTIFICATE OR DESIGNATION NO. 1333009 AI	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Joseph H. Stoy</i>
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NOTICE

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

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

Engine received this station for overhaul, engine given inspection and completely dis-assembled. All parts cleaned. All steel parts magnafluxed. All parts inspected in accordance with manufacturer's specifications and replaced where necessary. Overhaul magnetos and harness and installed in engine. Test cell run of engine as per manufacturer's specifications. Time since overhaul 00:00 hours.

FAA AD Note 66-14-4 previously complied with.
 FAA AD Note 57-5-4 " "
 FAA AD Note 68-9-1 complied with
 FAA AD Note 56-6-2 " "

Service bulletin 1658-B previously complied with.

ASD-FSDO-61/SJU
 Rcvd 12-23-75
 Chief
 242
 245 264
 246 265
 247 266
 250 267
 240a 260a
 250a 200a

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

FOR FAA USE ONLY
OFFICE IDENTIFICATION
ASD-FSDO-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 Grunman	MODEL G-21A
	SERIAL NO. B131	NATIONALITY AND REGISTRATION MARK U.S.A. N4772C

2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) Seaplane Ramp, Veterans Drive St. Thomas, V. I. 00801
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3. FOR FAA USE ONLY

ASD-FSDO-61/SJU
9/20/74
Chief

242	245	246	247	248	249	250a	250b
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4. UNIT IDENTIFICATION

UN REV'D Chief	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 Charles Freehling c/o Antilles Air Boats, Inc. St. Thomas, V. I. 00801	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 1617154
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE September 11, 1974	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Charles Freehling</i>
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7. APPROVAL FOR RETURN TO SERVICE

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

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

DATE OF APPROVAL OR REJECTION 09/16/74	CERTIFICATE OR DESIGNATION NO. IA#496292	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>William J. ...</i>
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NOTICE

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

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

Removed Grumman G-21A engine ring cowls, p/n 13076, together with mounting brackets.

Beechcraft C-18 engine cowlings modified in accordance with Pan Air Corp. drawings EI-0104 dated 5/7/65 and EI-0104-1 dated 6/15/65.

Beechcraft cowl support brackets, p/n 185 5916 and engine cowlings, upper, p/n 1404-185901 - lower, p/n 185903 installed under S.T.C. #SA551SM dated 8/31/65.

Weight and balance correction entered in aircraft log book.

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

"Established 1948"



AIRCRAFT MODIFICATION - SALES AND SERVICE

APPROVED REPAIR STATION NO. 3823

504 245-1140 FAX-FCO • P. O. BOX 26425 • NEW ORLEANS LAKEFRONT AIRPORT • NEW ORLEANS, LA. 70126

September 4, 1977

Phillips Air Boats, Inc.
Coastline Barr
Veterans Drive
17 St. Thomas
U. I. Virgin Islands 00801

Dear Sir:

Received your letter dated 8/27/77 and your two checks.
Thanks for the prompt payment.

Enclosed is the necessary copy of STC and drawings for
the STC to cover your 1600 aircraft.

N5518A	N777V	N8777A
N2005	N1762C	N3129
N79901	N3224	N525
N79214	N18539	N74543
N3285	N5321A	N1272C
N28360	N71676	N1010V

This STC has to be released with a EE7.
Appreciate doing business with you, and if we may be of any
help in the future, please contact us.

Very truly yours,

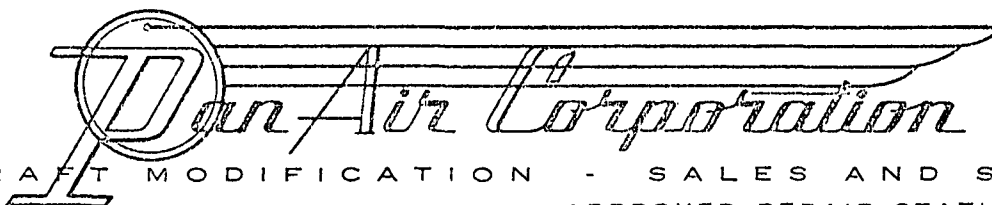
E. F. Gatechair

E. F. Gatechair
Service Manager

1. This enclosure



"Established 1948"



AIRCRAFT MODIFICATION - SALES AND SERVICE

APPROVED REPAIR STATION NO. 3823

504 245-1140 FAX-FCO • P. O. BOX 26425 • NEW ORLEANS LAKEFRONT AIRPORT • NEW ORLEANS, LA. 70120

September 4, 1975

Willes Air Boats, Inc.
Cyclone Barr
Veterans Drive
St. Thomas
U.S. Virgin Islands 00801

Dear Sir:

Received your letter dated 9/27/75 and your two checks.
Thanks for the prompt payment.

Enclosed is the necessary copy of STC and drawings for
the STC to cover your 1600 aircraft.

N5548A	N777Y	N8777A
N2005	N1762C	N3200
N79901	N5204	N525
N79014	N18550	N71578
N3295	N5521A	N1772C
N28360	N71676	N1040V

This STC has to be released with a LET.
Appreciate doing business with you, and if we may be of any
help in the future, please contact us.

Very truly yours,

E. F. Gatechair

E. F. Gatechair
Service Manager

1 - 101: enclosures



SUPPLEMENTAL TYPE CERTIFICATE

INSTRUCTIONS - SUBMIT IN TRIPLICATE TO LOCAL
FAA FLIGHT STANDARDS INSPECTOR.
COPY WILL BE RETURNED TO APPLICANT UPON
ISSUANCE

1. NAME AND ADDRESS OF APPLICANT Pan Air Corporation P.O. Box 26425 New Orleans, La. 70126	2. SUPPLEMENTAL TYPE CERTIFICATE APPLIED FOR:
	<input checked="" type="checkbox"/> AIRCRAFT <input type="checkbox"/> ENGINE <input type="checkbox"/> PROPELLER
	ORIGINAL MODEL DESIGNATION Grumman G21A
NEW MODEL DESIGNATION (If desired) none	

DESCRIPTION OF CHANGE

Modify Beechcraft C-18 cowl to fit Grumman G21A per Pan Air Corporation drawings EL-0104 dated 5/7/65, EL-0104-1 dated 6/15/65, EL-0104-2 dated June 15, 1965.

The following placard is required in full view of the pilot:

"With modified Beech cowling installed, sea level single engine climb performance at maximum gross weight is 30 ft./minute. rate of sink."

ALL DATA BE AVAILABLE FOR SALE OR RELEASE TO OTHER PERSONS?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
ALL PARTS BE MANUFACTURED FOR SALE (NOT CAR 1.55)?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO

SIGNATURE AND TITLE OF APPLICANT	<u>E. Gatechair</u> E. Gatechair SIGNATURE
DATE OF APPLICATION	5/7/65
	Chief Inspector TITLE

6. To be Completed by FAA

DATE AND LOCATION OF DATA
Data listed in Item 3 above and Flight Test Report No. A714SWS on file at SW-210.

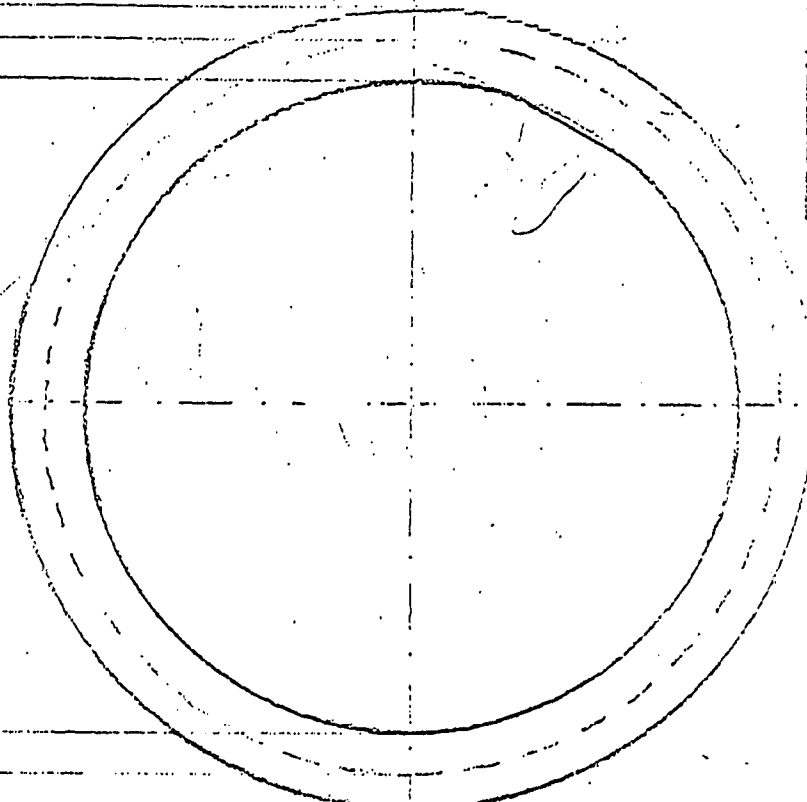
Reference Project: A714SWS

Applicable regulations: Same as original certification.

ORIGINAL TYPE CERTIFICATE NO. 654	FAA APPROVAL
SUPPLEMENTAL TYPE CERTIFICATE NO. SA551SW	<u>H. H. Slaughter</u> SIGNATURE
DATE OF APPROVAL 8/31/65	H. H. Slaughter Chief, Engineering and Manufacturing Branch TITLE

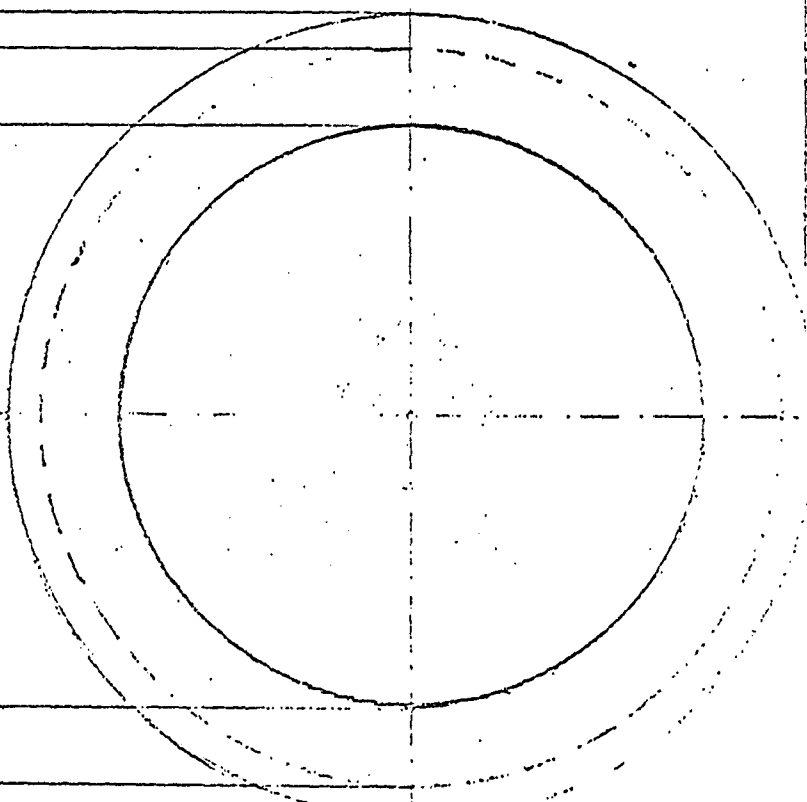


CONV G-21A



41.5" DIA
 37 1/4" DIA
 46" DIA
 GAP 2 1/4"

CONV SEECH C-18



41.5" DIA
 33" DIA
 46" DIA
 GAP 2 1/4"

DIFFERENTIAL PROOF TO CONV UNFINISHED FEATHERED

G-21A 4 1/2"
 SEECH C-18 2 1/4"
 2 5/8"

CONV G-21A 26 H
 SEECH C-18 35 H

PART NO. CONVECTION LHM55201 RY 155 251-526
 PART NO. LHM55201 LHM55201 RY 155 103-560

PAN-AIR CORPORATION

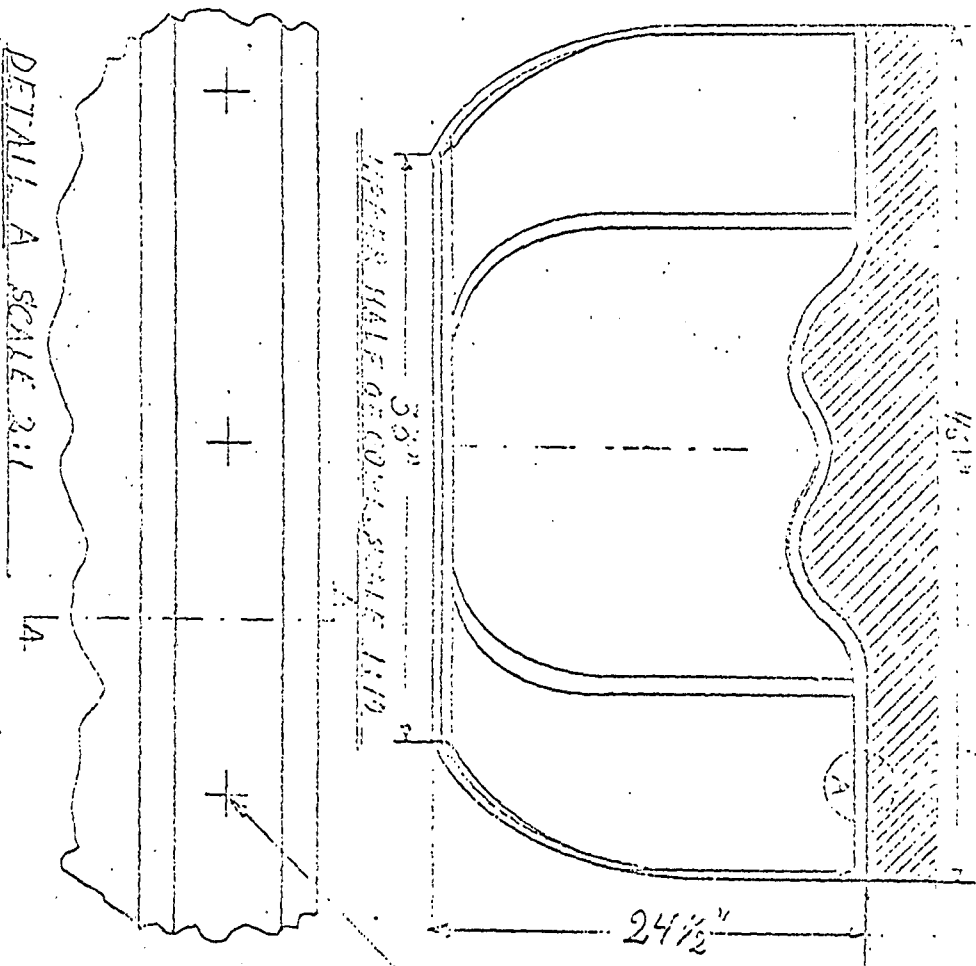
Title SEECH CONVECTION CONV 55750

Aircraft 598 G-21A

Date 6-21-41 Scale 1:10

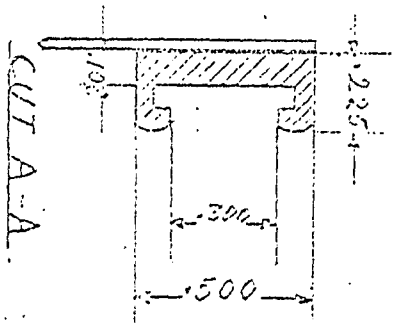
Drawn By [blank] Superv. By [blank] Dwg. No. 42-0104-1



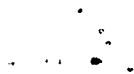


NOTE: LOWER COWLING CUT TO 24 1/2" ONLY AND EXTENSION INSTALLED. CURVE CUT TO CLEAR EXHAUST STACK ON UPPER HALF ONLY.

RIVETS AN 456-4-5
1 INCH CENTERS



PAN-AIR CORPORATION			
Title BEECH COWLING CONVERTED			
Aircraft G-21A			
Date 5-7-45	Draft By	Superv. By	Scale 1:10
			211
			41-2100



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

FOR FAA USE ONLY

OFFICE IDENTIFICATION

ASO-FSDO-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. B131	NATIONALITY AND REGISTRATION MARK N-4772C
2. OWNER	NAME (As shown on registration certificate) AWAILES AIRBOATS, INC.	ADDRESS (As shown on registration certificate) SEA PLANE RAMP, VETERANS DR., ST. THOMAS VI

3. FOR FAA USE ONLY

ASO-FSDO-61/SJJ
9/20/74
Chief

- 262
- 264
- 265
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- 250
- 250a
- 250b

4. UNIT IDENTIFICATION

5. TYPE

AIRFRAME	MODEL	SERIAL NO.	5. TYPE	
			REPAIR	ALTERATION
***** (As described in item 1 above) *****				
POWERPLANT	PRATT & WHITNEY	R985-AN14B	218299	X
PROPELLER				
APPLIANCE	TYPE			
	MANUFACTURER			

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
ENGINE SUPPORT, INC. SEBRING AIR TERMINAL RT 2 BOX 513 SEBRING, FLORIDA 33870	<input type="checkbox"/> U.S. CERTIFICATED MECHANIC	3610 POWER PLANT CLASS 1 & 2
	<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 August 19, 1974	SIGNATURE OF AUTHORIZED INDIVIDUAL Harry F. Worwetz Harry F. Worwetz
--------------------------------	--

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	
		X		

DATE OF APPROVAL OR REJECTION August 19, 1974	CERTIFICATE OR DESIGNATION NO. 3610	SIGNATURE OF AUTHORIZED INDIVIDUAL Harry F. Worwetz Harry F. Worwetz
---	---	--

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.)

Engine received this station for overhaul. Engine given receiving inspection, completely disassembled and all parts cleaned. All steel parts magnetized. 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 57-5-4 previously completed with.

FAA A.D. Note 66-14-4 previously completed with.

FAA A.D. Note 68-9-1 completed with.

FAA A.D. Note 56-6-2 completed with.

Service Bulletin 1658-B completed with.

SEPT 17th ACT 14158.8 AT SIMS W 730 Fawcett Appraisal

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

FOR FAA USE ONLY

OFFICE IDENTIFICATION

ASO-P200-11

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>G. Rumman</i>	MODEL <i>G-21A</i>
	SERIAL NO. <i>B131</i>	NATIONALITY AND REGISTRATION MARK <i>N-4772C</i>
2. OWNER	NAME (As shown on registration certificate) <i>ANT. HAS AIR BOATS INC.</i>	ADDRESS (As shown on registration certificate) <i>SEA PLANE RAMP, VETERANS DR. ST. THOMAS VI</i>

3. FOR FAA USE ONLY

ASO-P200-51/500 9/20/74	242	245	246	247	250	260a	200a
Chief							

4. UNIT IDENTIFICATION	5. TYPE		
	REPAIR	ALTERATION	
AIRFRAME ***** (As described in item 1 above) *****			
POWERPLANT Pratt & Whitney R985-AN1 201671	X		
PROPELLER			
APPLIANCE TYPE MANUFACTURER			

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Engine Support, inc. RT, 2 Box 513. Sebring; Air Terminal. Sebring; Florida. 33870	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.

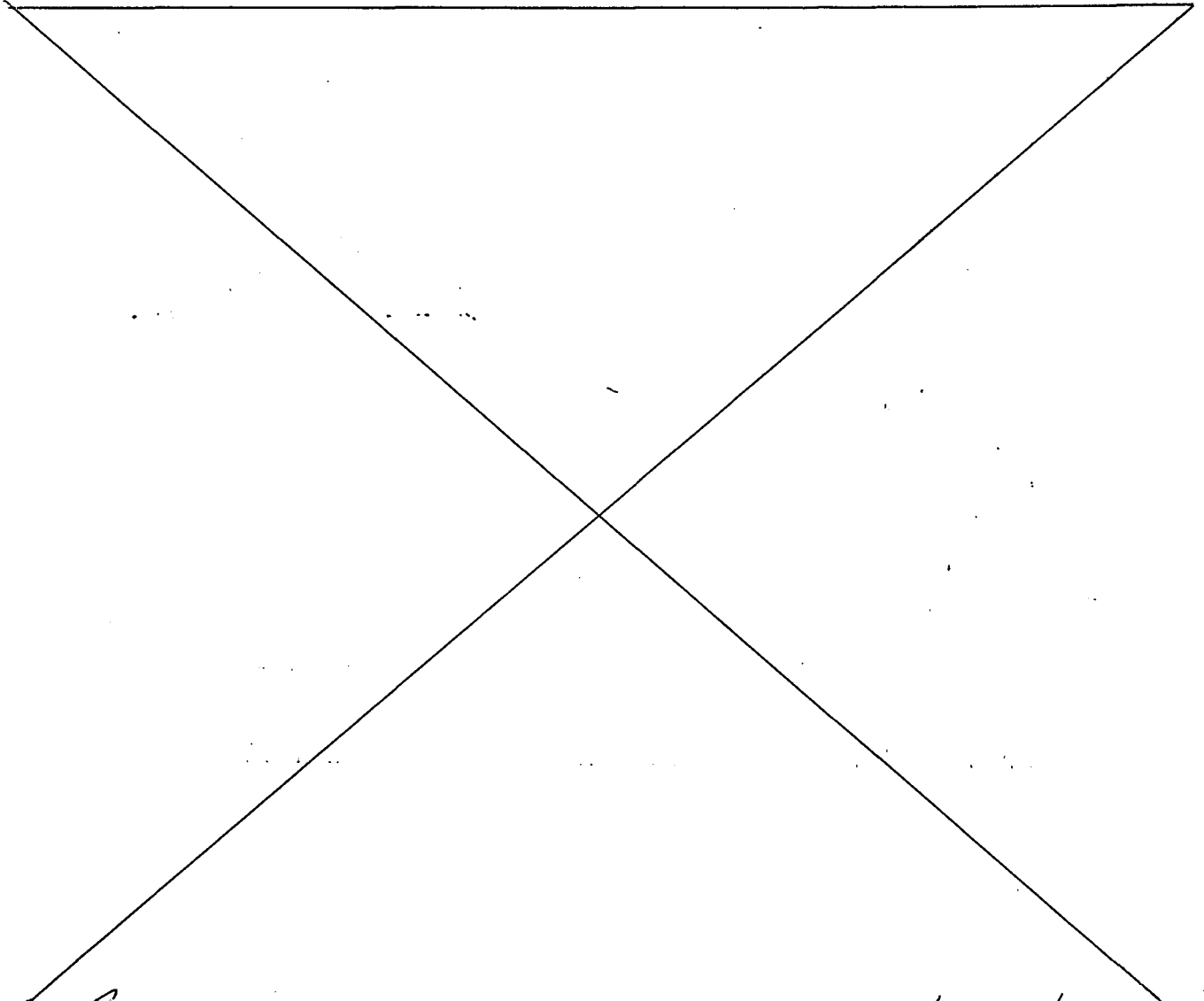
DATE July 5 1974	SIGNATURE OF AUTHORIZED INDIVIDUAL Harry F. Worwetz <i>Harry F. Worwetz</i>
---------------------	--

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	X REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION July 5 1974	CERTIFICATE OR DESIGNATION NO. 3610	SIGNATURE OF AUTHORIZED INDIVIDUAL Harry F. Worwetz <i>Harry F. Worwetz</i>
--	--	--



SEP 17/74 A/C n.k. 14/5888. INSTALLED AT SIOC N JAC 6/11/75H.

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 magnetfluxed. 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 00:00 hours.
Parts listings on file this station under W.O. #2782.
FAA A.D. Note 57-5-4 has been previously completed with. (Crank shaft) FAA A.D. Note 66-14-4 previously completed with. (Cam reduction gear) Service bulletin 1658-B has been previously completed with.
FAA A.D. Note 68-9-1 completed with (Fly weights & Liners)
FAA A.D. Note 56-6-2 completed with (Cylinder inspection)

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.

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

FOR FAA USE ONLY

OFFICE IDENTIFICATION

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 GRUMMAN	MODEL G-21A
	SERIAL NO. B-151	NATIONALITY AND REGISTRATION MARK HA772C
2. OWNER	NAME (As shown on registration certificate) Antilles Air Boats	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)				<input checked="" type="checkbox"/>
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Dale D. Bartholomew Antilles Air Boats St. Thomas U.S. Virgin Islands	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	AAP1814610
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input type="checkbox"/> MANUFACTURER	

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

DATE 27 April, 1973	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	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		
DATE OF APPROVAL OR REJECTION 27 APRIL 1973	CERTIFICATE OR DESIGNATION NO. IA1496292	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>W.J. Everett</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. Removed all existing seats and flooring.
2. Installed 2 each Lounges manufactured by Carrier Aircraft, Inc. to ISO standards under ISO-C39. See attached drawings (2 sheets) G21(1001).
3. Installed 4 each seats manufactured by Carrier Aircraft, Inc. to ISO standards under ISO-C39. See attached drawings (2 sheets) G21(1001).

4. The above mentioned seats and Lounges were attached to structure per structure substantiation report date 15 June 1969 #621-1 approved by DER IA-321 affixed to this report.
5. The aircraft equipment list, loading schedule and weight and balance data were modified as necessary to reflect these changes.

6. All above mentioned work done in accordance with AC43-13-1, chapter 2, section 2, paragraph 44-48, section 3, paragraph 60-67, and AC43-13-2 chapter 1, paragraph 1-12, chapter 9, paragraph 130-136.

NOTHING FOLLOWS

ASO-FSDO-61/SJM

Rcvd

5/11/73

Chief

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CAL-VOLAIR INC

2870 E WARDLOW RD

LONG BEACH CALIF 90804

REF: -1

10 JUNE 1969

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: G21-1001, 2 SHTS

APPROVED: *Thomas L. Cox* DER LA-321
APPVD: *A. J. Williams* CAL-VOLAIR



10 JUNE 1967

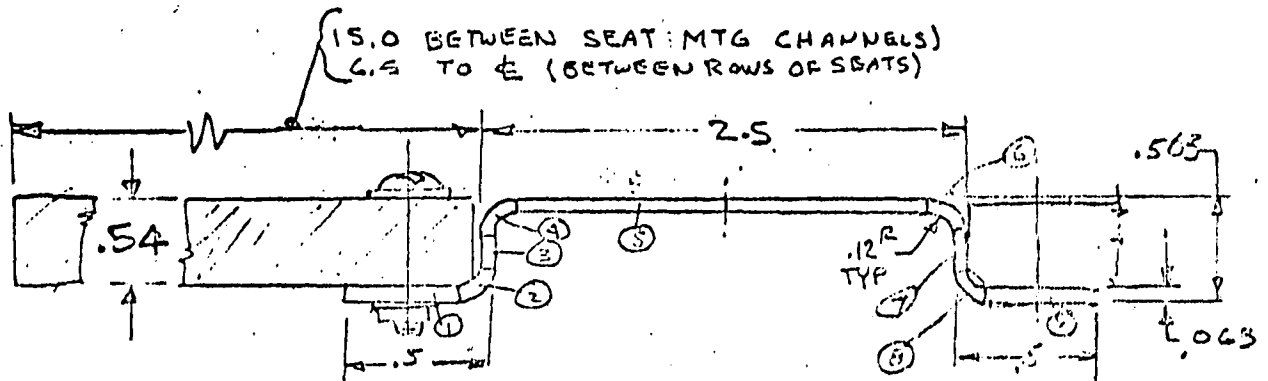
FLOOR BEAM ANALYSIS:

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

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

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

SECTION PROPERTIES: (REF DWG G21-1001 SHT 1)



FOR CHANNEL ONLY: MATL = 2024-T3 ALUM,

	A	Y	AY	AY ²	I _o	
.32x.063	1	.0202	.031	.00062	.000019	—
.32x.063	2	.0158	.086	.00136	.000117	.00004
.188x.043	3	.0118	.281	.00331	.000932	—
Ø	4	.0158	.398	.00630	.002510	.00004
Ø	5	.1338	.532	.07200	.038650	.00004
Ø	6	.0158	.398	.00630	.002510	.00004
Ø	7	.0118	.281	.00331	.000932	—
Ø	8	.0158	.086	.00136	.000117	.00004
.32x.063	9	.0202	.031	.00062	.000019	—
Σ		.2610	̄Y = .368	.09618	.045806	.00016

$$I_{NA} = .010566 \text{ IN}^4$$



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

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

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

ALLOW FLOOR LOAD = $149.2(215) = 32100 \text{ IN-LBS}$
(USING .460 THICK DOUGLAS FIR PLYWOOD - ANL-18)
(CONSERVATING AS .540 THK PLYWOOD IS ACTUALLY INSTALLED PER DWG G-21-1001)

$MS = \frac{3210}{3030} = 1.058$

THE FLOOR SOCKETS TO HOLD SEATS ON THE CHANNEL ARE ATTACHED WITH (4) AN3 BOLTS $P_3 = 2126 \text{ LBS}$

ASSUME (SHEAR CARRIED BY FRONT LEGS ONLY)

FWD LOAD PER LEG = $\frac{1656}{2} (1.33) = 1035 \text{ LBS}$ $M_1 = \text{HIGH}$

BEARING OF BOLTS IN CHANNEL:

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

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

BEARING IN STEEL PLATE O.K. BY COMPARISON.

TENSION LOAD PER BOLT =

$\frac{1656(215)(1.33)}{2 (13.5)} = 1750 \text{ LBS/LEG OR } 438 \text{ /BOLT}$

$P_6 = 2259 \text{ LBS (MIL-HDBK-5)}$

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

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

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

BEARING IN .058 TUBE = $.190 (.058) (2) (90000) = 1980 \text{ LBS}$

$MS = \frac{1980}{1750} = 1.13$



REVISION 1
15 JUNE 1969

THE CHANNELS ARE RIVETED TO EACH TRANSVERSE
BEAM WITH 2 AN470AD4 RIVET - ALLOW = 388 LBS SHEAR EACH
(MIL-HORR-5)
 $388(2) = 776 \text{ #/CHANNEL}$

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

(FROM FWD LOAD)

$$MS = \frac{776}{551} = 1.41$$



44

CARRIER

AIRCRAFT, INC.

LONG BEACH AIRPORT • PHONE 427-0760 • LONG BEACH, CALIFORNIA

MAILING ADDRESS:
P. O. Box D
LAKELAND, CALIFORNIA 90714

December 1, 1971

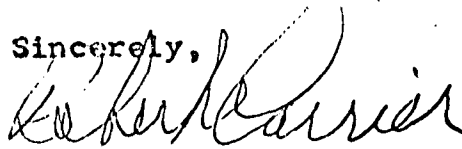
Antilles Air Boats
39 Strend St.,
Christiansted
St. Croix
U.S. Virgin Islands

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



DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WESTERN REGION
P.O. BOX 92007, WORLDWAY 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

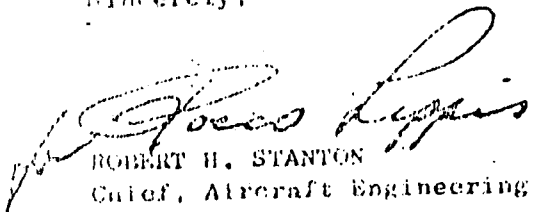
Gentlemen:

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



CARRIER

WHEELER AIRCRAFT, INC.

LONG BEACH AIRPORT, LONG BEACH, CALIFORNIA

MAIL ROOM
P.O. BOX 11
LONG BEACH, CALIFORNIA 90714

June 21, 1969

Chief, Aircraft Engineering Division
Federal Aviation Administration
Aircraft Office Box 92007, Worldway Postal Center
Los Angeles, California 90009

Authorization is hereby made for installation to use the
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.

Technical data required by TSO and the quantity
are submitted herewith.

Required quality control data is submitted under
separate cover.

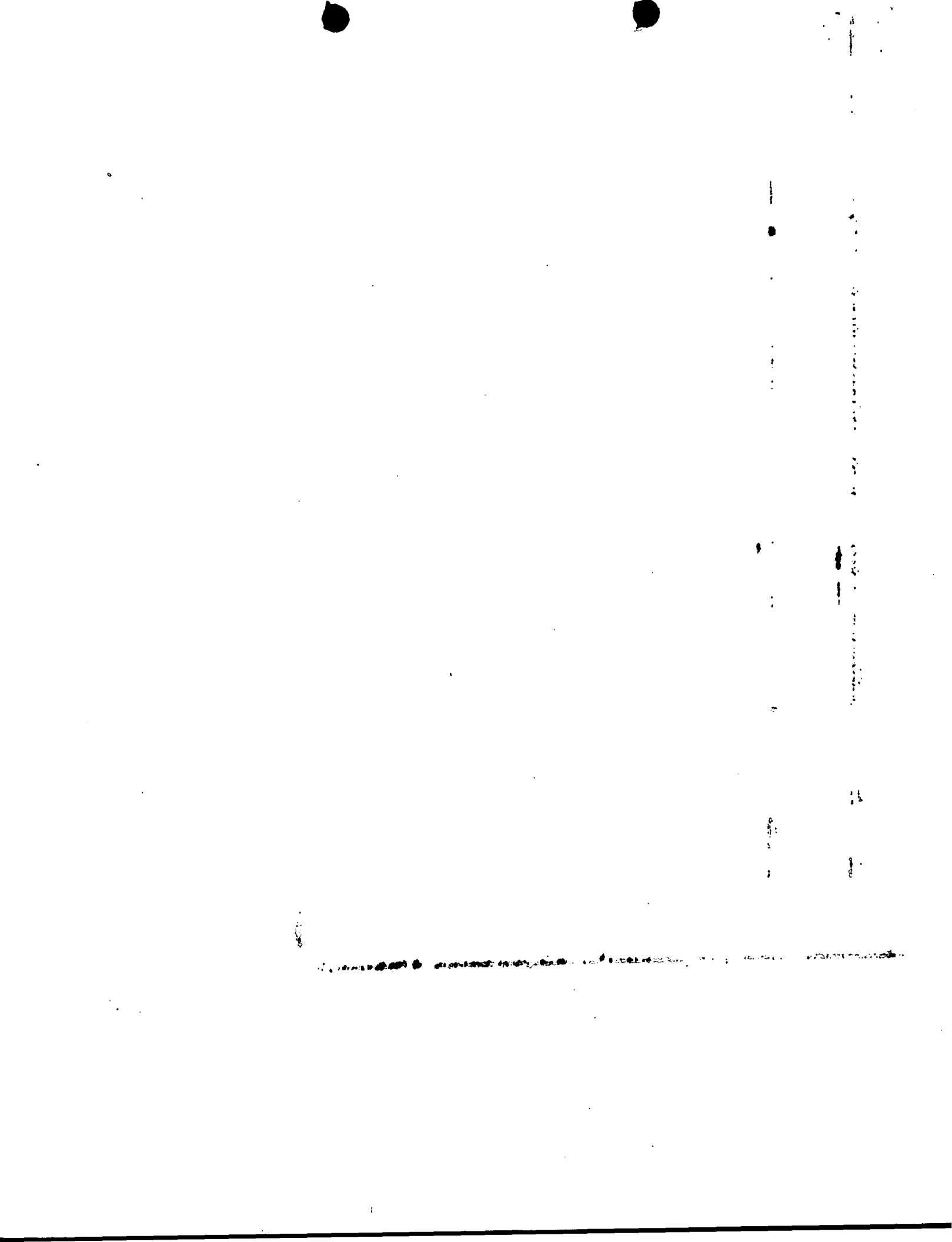
Authorization to use TSO identification on this article is
requested.

Seat forward facing single - Model 101

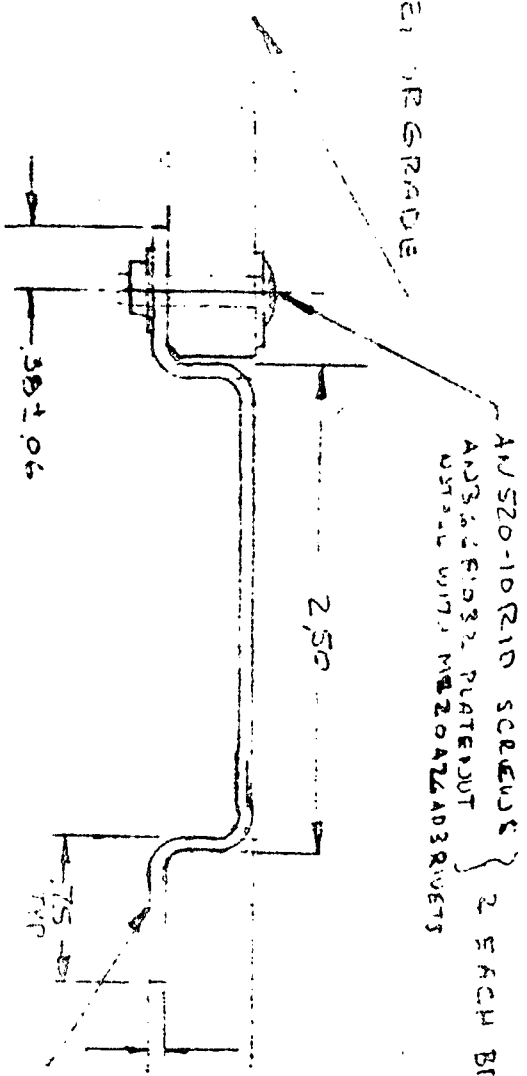
WHEELER AIRCRAFT, INC.

William C. Waddell,
President

WHE



EXTERNAL GRADE



AV520-10R10 SCREWS } 2 EACH BETWEEN EACH FRAME SECTION
 AND 3/16\"/>

NOTE: ATTACH CHAIRS TO EXISTING FLOOR STRUCTURE WITH MS2047AD3 RIVETS

DC3 REF
 Q-3: 2024T4 ALUM. A. SHEET
 Q-A-250/4 OR EQ. A-250/5

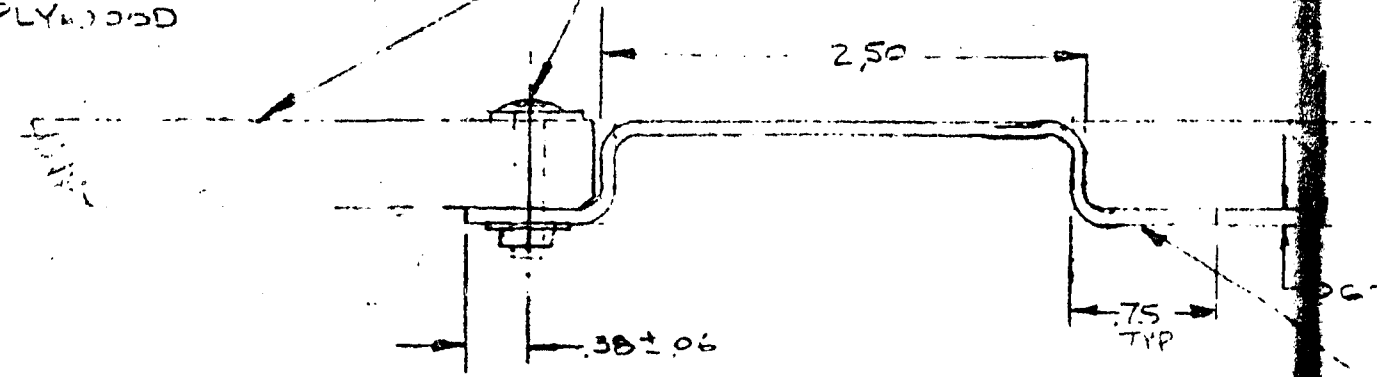
15.75 ON LH AFT COUCH ONLY

CARRIER AIRCRAFT
 LONG BEACH AIRPORT

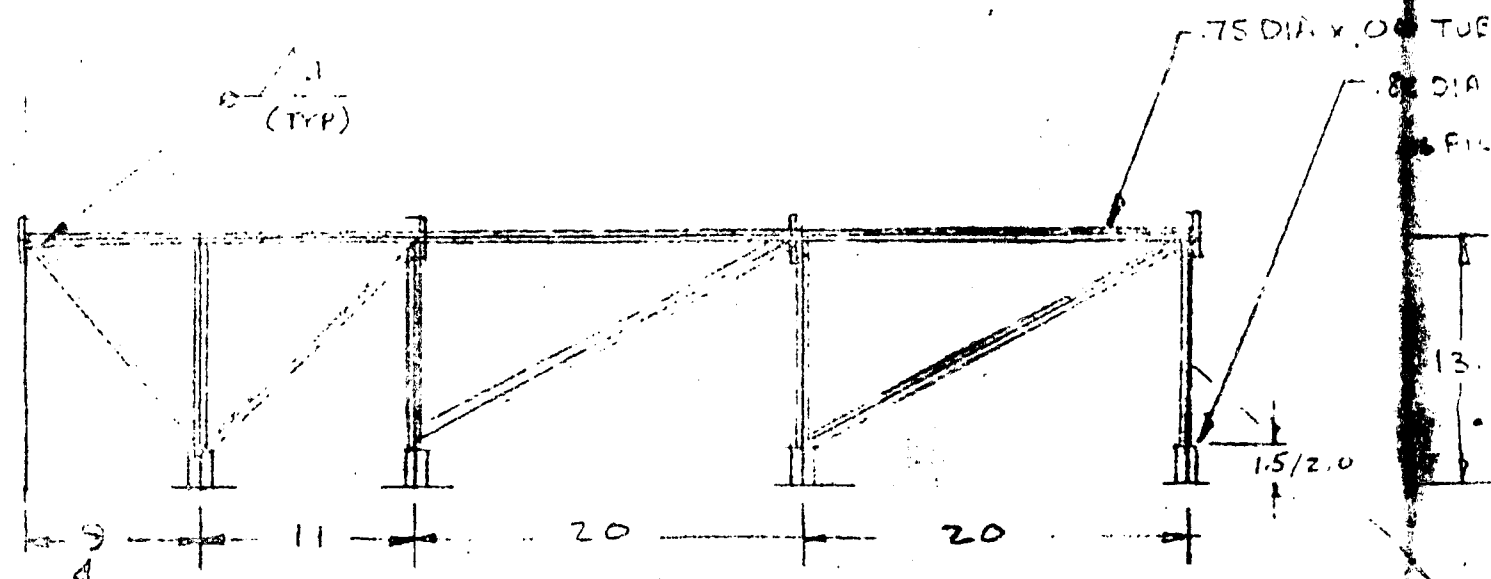
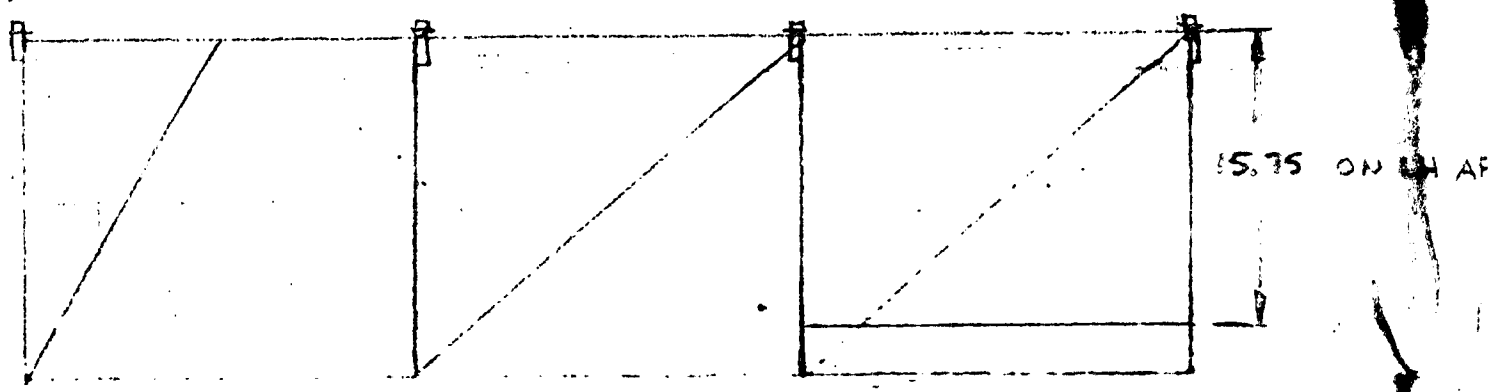


3/4 DOUGLASS FIR EXTERIOR GRADE PLYWOOD

AN520-10R10 SCREWS } 2 EACH BETWEEN
 AN366F1032 PLATENUT
 INSTALL WITH MS20426A03RIVETS



NOTE: ATTACH CHANNEL TO EXISTING FLOOR STRUCTURE WITH MS20426 ADS



LOCATION ON FOR RH FOLD COUCH ONLY
 LH ART COUCH HAS 20 IN SPACING

3 PLACE COUCH

DR-A-250/6 OR DR-A-250/5

ON LH AFT COUCH ONLY

CARRIER AIRCRAFT
LONG BEACH AIRPORT
LONG BEACH CALIF. 90807

GOOSE INTERIOR
LAYOUT & DETAILS

G21-1001

SHT 1-22

OF TUBE; ALL MEMBERS

Ø 8 DIA X .053 TUBE (8) PLACES

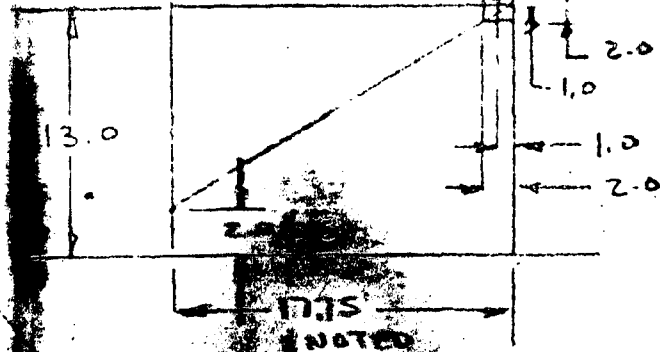
FILLET WELD ALL AROUND

14/32

SEAT BELT TIE .063 4130 STL SHEET

ONE THICKNESS AT EACH END

TWO THICKNESSES AT BOTH
INTERMEDIATE TIES

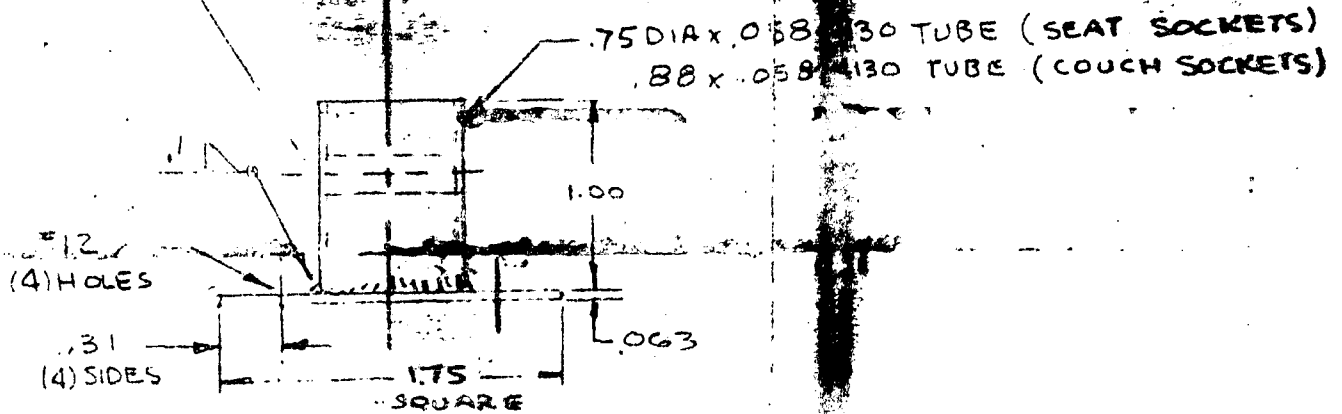


THIS IS ON LH COUCH 2.5 SHORT
TO MATCH FLOOR CONTOUR
AT AFT END OF CABIN



DRILL # 2

INSTALL AN 3-10A BOLT
AN 305 NUT EACH LEG



3 PLACE COUCH

1.5

SS. OREF

SEAT

431

50 TUBE (SEAT SOCKETS)
30 TUBE (COUCH SOCKETS)

3 PLACE COUCH

SEAT

SEAT

SEAT

7.25



TUBES 4130 STL
OD 1.049 WALL

4030'

27

TE

3 4130



CS

1.5/2.0

4130 TUBE

1.5

1.5

SEAT

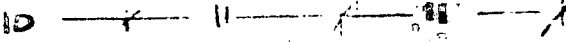
48.0 REF

2.5

3 WELD PER CAM 18

4 SEAT & SUCH WELDING

1 FLOOR SLIPPER



CARRIER AIRPORT

LONG BEACH AIRPORT - L.B. CALIF 90807 - SHEET 2 OF 2

21 1001

65085

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 GRUMMAN	MODEL G-21A
	SERIAL NO. B-131	NATIONALITY AND REGISTRATION MARK N4772C
2. OWNER	NAME (As shown on registration certificate) Antilles Air Boats, Inc.	ADDRESS (As shown on registration certificate) Seaplane Ramp, Veterans Drive St. Thomas, V. I. 00801

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 Dale E. Bartholomew % Antilles Air Boats, Inc. St. Thomas, V. I. 00801	<input checked="" type="checkbox"/>	U.S. CERTIFICATED MECHANIC	C. CERTIFICATE NO. A & P 1814610
	<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 04/25/73	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 04/25/73	CERTIFICATE OR DESIGNATION NO. IA1496292	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>W. J. Everett</i>			

ADDITIONAL SHEETS ARE ATTACHED

262	242
264	245
265	246
266	247
267	250
260a	240a
200a	250a

Chief _____
 Rev'd _____
 ASO-PSDO-61/SJU
 6/7/73

NOTHING FOLLOWS.

E. All work done in accordance with Grumman 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 3/2 gang-nut channel with 3/4" spacing provides the attachment of water ~~well~~ 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.

1) In order to facilitate inspection of rudder and elevator push-pull rods, Bell cranks and Ballcrank 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)

FOR FAA USE ONLY

OFFICE IDENTIFICATION
SJU FSDO

7-5-01

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 131	NATIONALITY AND REGISTRATION MARK N47720
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	Radio Installation (As described in item 1 above)				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE <i>deo/MA</i>				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
DALE E. BARTHOLOMEW ANTILLES AIR BOATS ST. THOMAS U.S. VIRGIN ISLANDS	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	A&P 1814610
	<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 24 April, 1973	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	INSPECTION AUTHORIZATION <input checked="" type="checkbox"/>	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		

DATE OF APPROVAL OR REJECTION	CERTIFICATE OR DESIGNATION NO.	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>W.J. Everett</i>
-------------------------------	--------------------------------	---

ADDITIONAL SHEETS ARE ATTACHED

250a	200a
240a	260a
250	207
247	
246	265
245	
242	262

ASO-FSDO-61/SJU
 Rcvd 5/1/73
 Chief

NOTHING FOLLOWS

load analysis

See weight and balance records and equipment list and electrical

sections 1 and 2.

and AC43-13-2, chapter 2, section 25-27 and AC43-13-1, chapter 15, and AC43-13-2, chapter 2, section 25-27 and AC43-13-1, chapter 15, installation manual, Inc., installation manual

- 1. Removed dadio equipment on instrument panel and associated equipment under instrument panel
- 2. Installed two (2) each Geneve NAV/COM transceivers model Alpha 200 at station #9 on rack fastened to cockpit overhead to existing structure. Per General Aviation Electronics, Inc., installation manual

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

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

Registration. N4772C
 System Voltage. 24Volts
 Number of Gen. 1EA
 Total Current. 50Amp

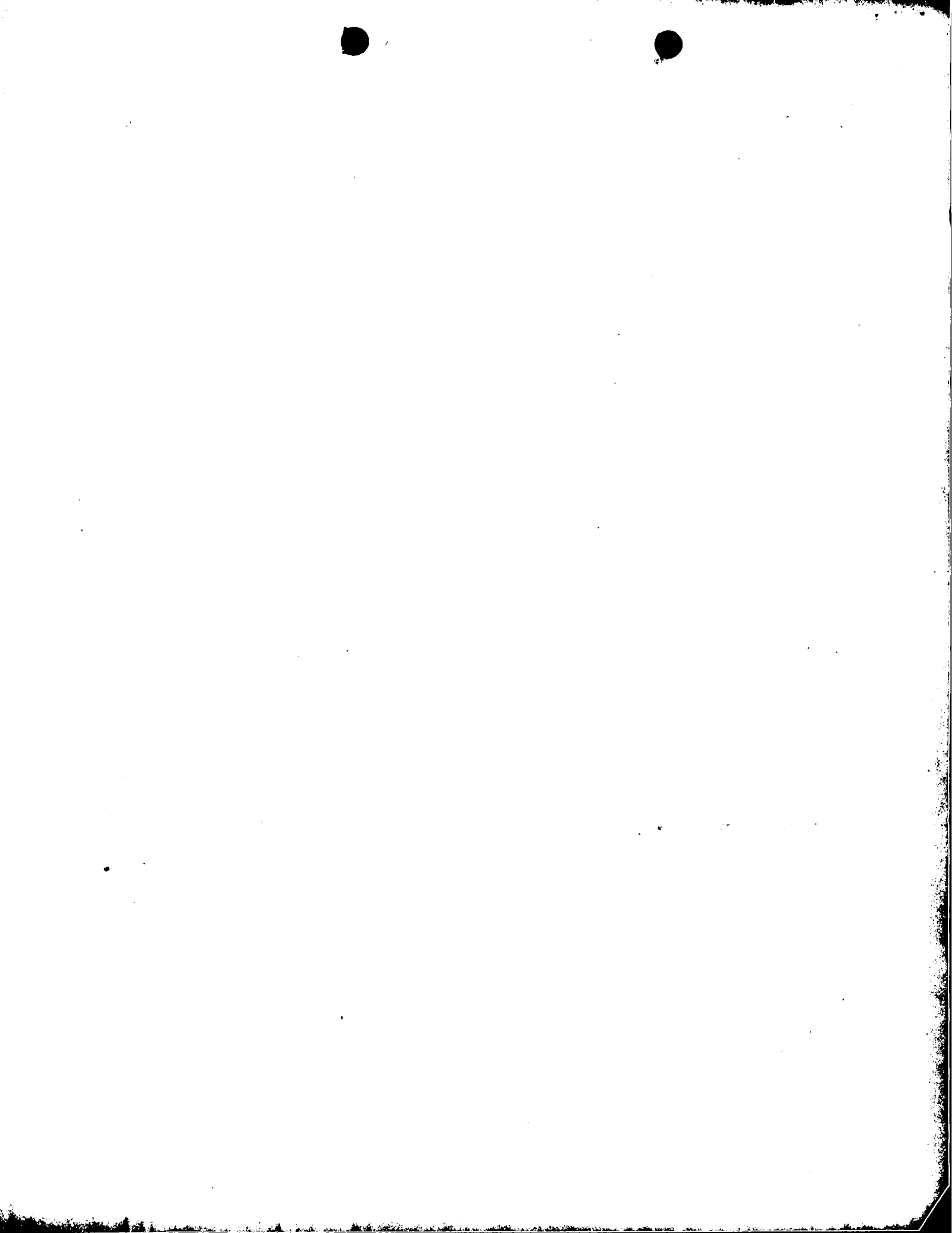
Electrical Load Item	LOAD	Intermittent	Continuous	Continuous & Intermittent
Nav Lights.	.58A		.58A	.58A
Landing Lights	8.75A	8.75A	8.75A	8.75A
Interior Lights	.75A		.75A	.75A
Inst Lights	.75A		.75A	.75A
Oil Temp Ind.	.06A		.06A	.06A
Carb Temp Ind.	.07A		.07A	.07A
Magnesyn Compass.	.50A		.50A	.50A
Transceiver 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.



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	MODEL
	SERIAL NO. GRUMMAN B-131	G21A N-4772C
2. OWNER	NAME (As shown on registration certificate)	ADDRESS (As shown on registration certificate)
	ANTILLES AIR BOATS, INC	Seaplane Ramp, Veterans Drive St. Thomas, USVI 00801

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION				5. TYPE	
UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	Propeller Installation (As described in item 1 above)				X
POWERPLANT					
PROPELLER	<i>over</i>				X
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT		
A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Dale E. Bartholomew Antilles Air Boats St. Thomas, USVI 00801	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	AEP #1814610
	<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 4/24/73	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	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION	<input checked="" type="checkbox"/> CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 4/24/73	CERTIFICATE OR DESIGNATION NO. IA1496292	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>W. J. Everett, Jr.</i>		

ADDITIONAL SHEETS ARE ATTACHED

ASO-FSDO-61/SJU
 Rcvd 5/10/73
 Chief

242	262
245	264
246	265
247	266
250	267
250a	268
250b	269

-----NOTHING 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.)

One each Hartzell Propeller hub, Model #HC-B3R30-2E, Blade #P10152-5 1/2 installed on right side of this aircraft in accordance with Hartzell Propeller, Inc., STC SAI-52, Drawing #B1860.

Flight Manual modified for this installation. See weight and balance report and equipment list.

Functional check OK.

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)

FOR FAA USE ONLY
OFFICE IDENTIFICATION
JUL 1966
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-131	NATIONALITY AND REGISTRATION MARK N 4772G
2. OWNER	NAME (As shown on registration certificate) ANTILLES AIR BOATS, INC.	ADDRESS (As shown on registration certificate) Sea Plane Ramp, Veterans Drive St. Thomas, USVI 00801

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION				5. TYPE	
UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	Propeller Installation (As described in item 1 above)				X
POWERPLANT					
PROPELLER	<i>eps</i> Pittsboro Propeller	Red Model 10132-2 Blue Model 10132-5			
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT		
A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
Dale E. Bartholomew Antilles Air Boats, Inc. St. Thomas, USVI, 00801	<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC	A&P #1814610
	<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 4/24/73	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 <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	X	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 4/24/73	CERTIFICATE OR DESIGNATION NO. IA1496292	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>W. J. Everett, Jr.</i>			

ADDITIONAL SHEETS ARE ATTACHED

ASO-FSDO-61/SJU
 Rcvd 5/1/73
 Chief

250a	200a
240a	260a
250	267
247	265
246	265
245	264
242	262

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

One each Hartzell Propeller hub, Model #HC-B3R30-2E, Blade #P10152-5 1/2 installed on left side of this aircraft in accordance with Hartzell Propeller, Inc., STC SAI-52, Drawing #D1860.

Flight Manual modified for this installation. see weight and balance report and equipment list.

Functional check OK.

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

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.

**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. B-131
d. ENGINE MAKE PRATT & WHITNEY	e. ENGINE MODEL R-985	

4. AIRCRAFT REGISTRATION INFORMATION (Complete all items)

a. REGISTERED OWNER'S FULL NAME ALASKA COASTAL AIRLINES	b. PERMANENT MAILING ADDRESS 2 MARINE WAY, JUNEAU, ALASKA	c. AIRCRAFT NATIONALITY AND REGISTRATION MARK N- 4772C
---	---	--

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

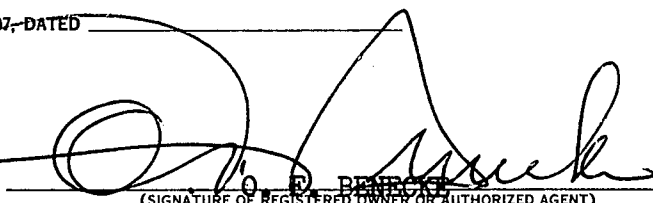
I hereby certify that I am the registered owner (or his agent) of the aircraft identified in Item 3 above which is registered* with the Civil Aeronautics Administration as required by the Regulations of the Administrator, Part 501 or 502 and when operated displays the following evidence of registration:

- a. CERTIFICATE OF REGISTRATION, FORM ACA-500 (PART A), DATE OF ISSUE 11/9/54
 b. APPLICATION FOR REGISTRATION, FORM ACA-500 (PART B), FORM ACA-500, PART A, FORWARDED TO CAA AIRCRAFT RECORDS BRANCH, W-300 ON _____ (DATE)
 c. DEALER'S REGISTRATION CERTIFICATE, FORM ACA-1707, DATED _____

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

ATTACHMENTS (Check which)

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


 (SIGNATURE OF REGISTERED OWNER OR AUTHORIZED AGENT)

1/18/55
 (DATE)

Co-Manager
 (TITLE)

**U. S. DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
AIRCRAFT INSPECTION REPORT**

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

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

1. AIRCRAFT AND ENGINE CERTIFICATION BASIS
- a. AIRCRAFT SPECIFICATION NO. _____ THROUGH SHEET REVISION NO. _____
 - b. AIRCRAFT LISTING PAGE NO. 98
 - c. AIRWORTHINESS DIRECTIVE SUMMARY 1951 THROUGH CARD NO. 51-26
 - d. CIVIL AIR REGULATION PART 8 (MODIFIED TYPE CERTIFICATE)

2. AIRCRAFT AND ENGINE OPERATING RECORDS

- a. AIRCRAFT NEW—NO PREVIOUS OPERATION OR MAINTENANCE HISTORY
 - b. COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES RECORDED
 - c. AIRCRAFT RECORDS INDICATE THE AIRFRAME HAS BEEN OPERATED A TOTAL OF 718.1 HOURS
 - d. ENGINE RECORDS INDICATE THE FOLLOWING OPERATION:
- | SERIAL NO. | TOTAL HOURS |
|------------|-------------|
| 6206 | 2194.2 |
| 7352 | 3318.1 |

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

- a. LAST AIRWORTHINESS INSPECTION CONDUCTED 1/18/55 (DATE)
- BY AIRCRAFT MANUFACTURER
- BY APPROVED REPAIR STATION, CERTIFICATE NO. 1355
- BY MECHANIC, CERTIFICATE NO. _____
- b. PERIODIC AIRCRAFT INSPECTION REPORT, FORM ACA-319, WAS RETURNED TO OWNER

4. AIRWORTHINESS DOCUMENTS ISSUED OR REVIEWED

- a. OPERATION LIMITATIONS, FORM ACA-309, WAS ISSUED (COPY ATTACHED)
 - b. CURRENT OPERATION LIMITATIONS, ~~FORM ACA-309, WAS ISSUED (COPY ATTACHED)~~ CAM 13-10-1 COMPLETED WITH.
 - c. CURRENT APPROVED AIRPLANE FLIGHT MANUAL IS AVAILABLE IN AIRCRAFT
 - d. CURRENT WEIGHT AND BALANCE INFORMATION IS AVAILABLE IN AIRCRAFT
 - e. THIS INSPECTION HAS BEEN RECORDED IN THE AIRCRAFT RECORDS
 - f. CERTIFICATE OF AIRWORTHINESS, FORM ACA-1362, ISSUED TO EXPIRE UPON REMOVAL OF THE AIRCRAFT FROM OPERATING CERTIFICATE (DATE)
 - g. PREVIOUS FORM ACA-1362 WAS ISSUED TO EXPIRE _____ (DATE)
- BY _____ (NAME OF ISSUING REPRESENTATIVE) _____ (DESIGNATION NO.)

5. CAA APPROVED REPAIR STATION CERTIFICATION

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

AIRWORTHY UNAIRWORTHY

_____ (REPAIR STATION AUTHORIZED SIGNATURE) _____ (DATE)

6. CAA REPRESENTATIVE CERTIFICATION

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

DESIGNER'S SIGNATURE <i>Gordon Graham</i>	DESIGNATION NO. 8801	DATE 1/18/55
AVIATION SAFETY AGENT'S SIGNATURE <i>J.E. McCarty</i>	CAA DESIGNATION NO. 5-HBDO-2	DATE 5-15-75

ACCEPTED REINSPECTED SPOT CHECKED

ATTACHMENT

RECEIVED
JUL 29 2 09 PM '55
ADMIN. & RECORDS BRANCH
W-300

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. 1-131	NATIONALITY AND REGISTRATION MARK N 47720
2. OWNER	NAME (First, middle, last) ALASKA COASTAL AIRLINES	ADDRESS (Street and number, city, zone, and State) 2 MARINE WAY, JUNEAU, 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	P & W	R-985AN63	6206 & 7352		X
d. INSTRUMENT	TYPE AND MANUFACTURER				

4. AIRCRAFT
WEIGHT AND BALANCE DATA

This item must be completed by repair or alteration agency. However, in the case of a spare component, it will not be completed until such component is installed in an aircraft. At this time, it will be completed by the installing agency, if applicable.

AFTER the repairs and/or alterations described below were made.	EMPTY WEIGHT (Pounds) 6280	EMPTY CENTER OF GRAVITY (Inches from datum)* 4 24.055	USEFUL LOAD (Pounds)* 1720
--	---------------------------------------	---	--------------------------------------

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

MANUFACTURER APPROVED REPAIR STATION NO. **1355** CERTIFIED MECHANIC

(Specify)

6. AGENCY	NAME ALASKA COASTAL AIRLINES	ADDRESS (Street and number, city, zone, and State) 2 MARINE WAY, JUNEAU, ALASKA	DATE WORK ACCOMPLISHED 1/18/55
-----------	--	---	--

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.)

SEE ATTACHED SHEETS.

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.

JOHN S. BRACELIN (Signature of supervising mechanic) **Chief Inspector** (Certificate number and rating) **1/18/55** (Date)

TO BE COMPLETED BY CAA REPRESENTATIVES

<input checked="" type="checkbox"/> APPROVED	DESIGNEE'S SIGNATURE Gordon Graham GORDON GRAHAM	NO. 0801	DATE 1/18/55
<input type="checkbox"/> REJECTED	CAA AGENT SIGNATURE J. McCarthy	<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE 5-15-55

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.
 - 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.
- f. 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.
- g. 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

JUL 29 2 09 PM '55

ADMIN. & RECORDS BRANCH
W-300

ATTACHMENT TO FORM ACA 337 FOR GRUMMAN G-21A,
SERIAL NO. B-131, REGISTRATION NO. N 47720,
DATED JANUARY 19, 1955.

DESCRIPTION OF WORK ACCOMPLISHED

- C
O
P
Y
- A. All military equipment installations, including automatic pilot, were removed. The hull was inspected and tested for leakage. All defects were satisfactorily repaired. Note 8 of the Aircraft Specification was complied with in its entirety, as applicable to this aircraft.
 - B. Wing center section overhauled to incorporate riveted baffles in integral fuel tanks in compliance with AD 49-16-1. Spot welds were replaced with AN456AD4 rivets as specified by the manufacturer. Access for riveting was obtained by installation of four (4) additional openings in the bottom of each fuel tank. New access holes were reinforced with Grumman P/N 12350 Hole Flanges, in accordance with the manufacturer's instructions.
 - C. Outer wing panels overhauled. All minor structural repairs found necessary were accomplished in accordance with the manufacturer's recommendations. Fabric covering replaced with "Grade A" fabric and finished with six (6) coats of clear C.A.B. dope, two (2) coats aluminum C.A.B. dope and three (3) coats pigmented C.A.B. dope.
 - D. Ailerons, wing flaps, elevators, horizontal stabilizers, and rudder repaired as necessary. All defective hinge fittings and control horns replaced. Minor repairs to structure satisfactorily accomplished. Fabric covering replaced and refinished as described in paragraph "C", above. Upper stabilizer strut terminals, P/N 12561-1, are steel parts, in accordance with AD 49-18-1. AD 53-21-2 complied with by magnetic particle inspection of stabilizer strut adjustable ends, P/N 12561-3, which were found satisfactory. Total time on these parts 748.1 hours as of this date. Stabilizer forward attachment fittings inspected in accordance with AD 53-24-1.
 - E. Landing gear inspected and found to be in very good condition throughout. Retraction test conducted with aircraft hoisted.
 - F. Control system inspected. All defects corrected. AD 50-15-1 complied with.
 - G. New instrument panels installed. All instruments installed were overhauled in accordance with the manufacturer's recommendations in ACA Instrument and Accessory Overhaul Shop.
 - H. All unnecessary fluid and air lines were removed. Remaining systems were completely overhauled. Defective lines were replaced and all valves were replaced with new or overhauled valves.
 - I. Electrical system completely overhauled. All unnecessary wiring and conduit removed. All defective parts and wires replaced. New wiring installed where necessary. Carbon pile voltage regulator and relay switch installed in cockpit.

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ATTACHMENT TO FORM ACA 337 FOR GRUMMAN G-21A,
SERIAL NO. B-131, REGISTRATION NO. N 47720,
DATED JANUARY 18, 1955.

DESCRIPTION OF WORK ACCOMPLISHED (Continued)

J. Six Flight Equipment and Engineering Corporation Model A-12 "Payloaders" seats were installed in the cabin in accordance with ACA Dwg. Nos. S 0200A, S 0200-3A, S 0200-4, S 0200-5 and S0201A, identical to installation previously approved on Form ACA 337 for Ellis Air Lines' Grumman G-21A, Serial No. 1157, Registration No. N 88821, dated February 14, 1953.

Rear seat on right side of cabin fabricated by ACA per Ellis Air Lines Dwg. No. E-11-11 with the following modifications:

- (1) Diagonal brace to resist side loads installed between bottom member of right leg structure and left leg assembly hinge tube.
- (2) Seat belt attachment bushings welded into aft seat frame tube. Seat belts attached to seat with AN4 bolts thru Air Associates No. M 3318 end fittings.
- (3) Seat attached to floor structure by means of four (4) Wedgit studs engaged in P/N 295301 Wedgit assemblies installed in channel on floor as shown in ACA Dwg. No. S 0200A, View "C", with additional doubler channel of .064 in. 24ST as shown in View "B".

Rear seat installation tested in accordance with TSO C25-1 requirements for Type I (Transport Category) seats. The installation sustained the required loads for the specified time without failure.

K. Stewart-Warner Model 979-B1 cabin heater installed in accordance with ACA Dwg. Nos. H-01A, H-02A, H-02-1A, H-02-2, H-03-2, H-03A, H-03-3, H-04A, H-06, H-06-1, H-07, H-09, H-09-1, H-10, H-11B, H-12 and H-13A. Hand operated carbon dioxide fire extinguisher installed in cockpit.

Engineering Approval Reference: Memorandum from Acting Chief, Aircraft Division, Seventh Region. Subject: Project 1A96-8, Installation of Stewart-Warner 979-B1 Heater in Grumman G-21A by Alaska Coastal Airlines.

- L. Water rudder assembly installed in accordance with Ellis Air Lines Dwg. No. B-9-8, formerly No. E-47-1001-900.
- M. Cabin interior below top of windows reupholstered with flame resistant material. New floorboards of .012 24ST-balsa sandwich material covered with # RT11 and # RT13 B. F. Goodrich Avtrim Flight Rug were installed.
- N. The exterior of the hull and wing center section assembly were completely stripped of all finish, thoroughly cleaned, Alodized and refinished with zinc chromate primer and enamel.
- O. Lear RCB-B receiver, T30-AB transmitter and G-30-AB power supply, overhauled in Alaska Coastal Airlines Radio Shop, were installed in the cockpit. Fixed and trailing antennas installed.

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ATTACHMENT TO FORM ACA 337 FOR GRUMMAN G-21A,
SERIAL NO. B-131, REGISTRATION NO. N 47720,
DATED JANUARY 18, 1955.

DESCRIPTION OF WORK ACCOMPLISHED (Continued)

- P. Pratt & Whitney R-985 engines, completely overhauled in accordance with the manufacturer's recommendations and tolerances, were installed. Engine overhaul included magnaflux inspection of all steel parts, Dy-Chek inspection of pistons, chromic acid treatment of magnesium cases, and replacement of all parts found worn beyond limits or otherwise defective. All currently effective service bulletins complied with. AD 54-22-2 complied with.
- Q. Hamilton Standard 2D30 propellers with 6101A-24 blades were completely overhauled in accordance with the recommendations of the manufacturer.
- R. All engine accessories were overhauled in accordance with the recommendations of their respective manufacturers prior to installation. Powerplants were built up, run in for six (6) hours, tested and installed in aircraft. AD 46-22-1 complied with.
- S. Fuel tanks and system filled, flow checked and checked for leaks.
- T. All controls rigged for proper travel and cable tension.
- U. The aircraft was weighed and its center of gravity determined as shown in the attached weight and balance data.

All parts and materials used in the assembly of this aircraft comply with the recommendations of the manufacturer as contained in the reference manuals, and/or with standards prescribed in CAM 18.

REFERENCES:

1. NavAer 01-85V-3, Handbook of Instructions, Structural Repair for Models JRF-k, 2, 3, 4, 5 and 6B.
2. Service Manual for Grumman Goose Model G-21A (JRF).

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

January 18, 1955.


JOHN S. BRACELAN
689213 A & E

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ALASKA COASTAL AIRLINES

E-Q-U-I-P-M-E-N-T C-H-A-N-G-E

DATE: January 18, 1955.

AIRCRAFT AFFECTED:

<u>Make</u>	<u>Model</u>	<u>Serial No.</u>	<u>Registration No.</u>
GRUMMAN	G-21A	B-131	N 4772C

DESCRIPTION OF CHANGE:

- (1) Stewart Warner Model 979B1 Cabin Heater installed.
- (2) First Aid kit installed.

NET WEIGHT CHANGE:

- (1) + 40 at - 31.5
- (2) + 2 at + 169.0

WEIGHT & BALANCE AMENDMENTS:

Empty weight (as weighed 1/13/55)	6238	+ 24.364	+ 151985
(1) Heater installed	+ 40	- 31.5	- 1260
(2) First Aid kit installed	+ 2	+ 169.0	+ 338
	<u>6280</u>		<u>+ 151063</u>

NEW E.W. 6280 POUNDS
 NEW E.C.G. + 24.055

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

[Signature]
 JOHN S. BRASHER
 Chief Inspector.

APPROVED

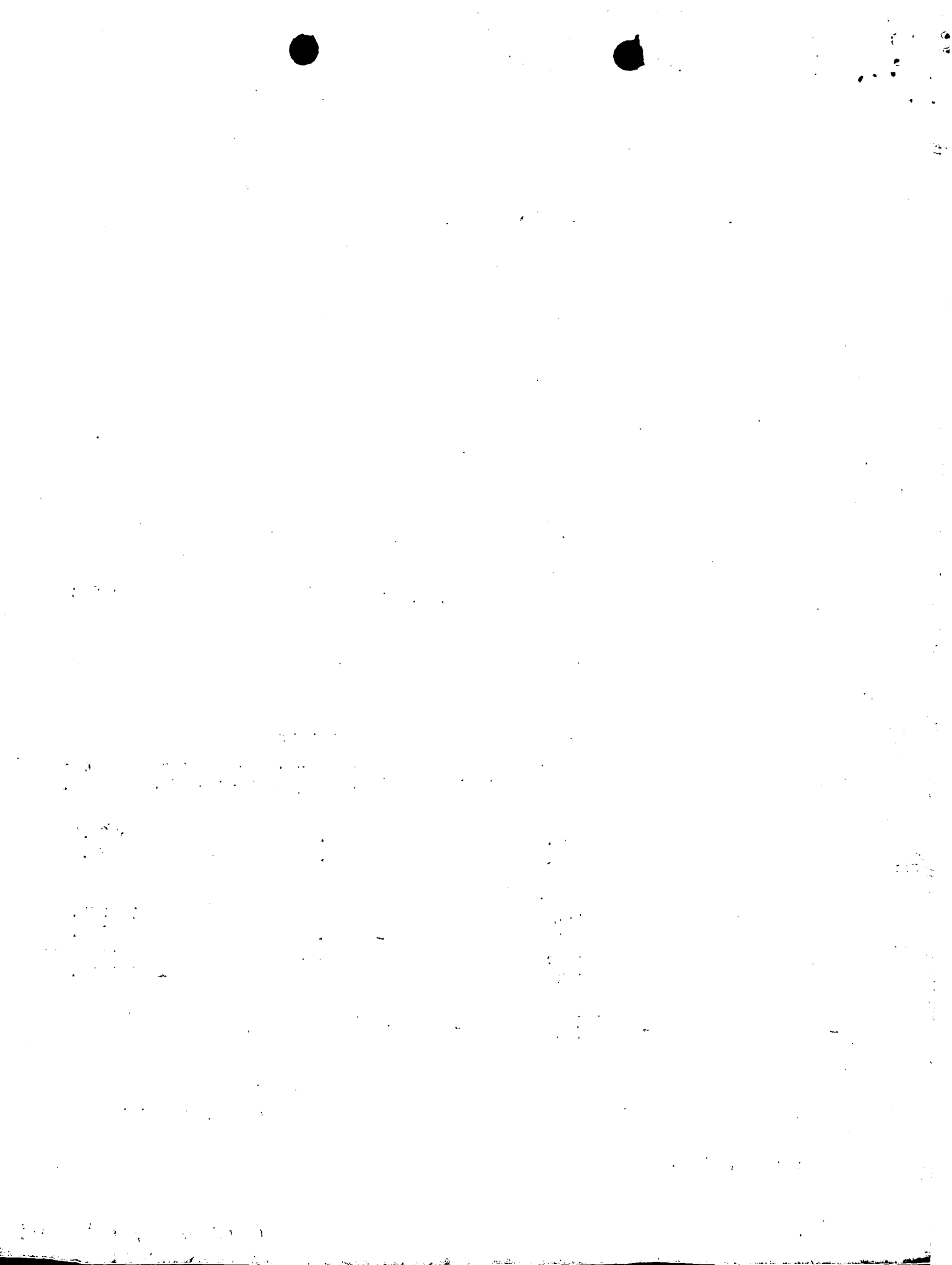
DATE: 1/18/55

By:

[Signature]
 GORDON GRAHAM, DAMI # 8801



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E-Q-U-I-P-M-E-N-T L-I-S-T

GRUMMAN G-21A

SERIAL NO. B-131

REGISTRATION NO. N 47720

DATE: January 13, 1955, at time of weighing.

The following equipment was installed in the subject aircraft this date:

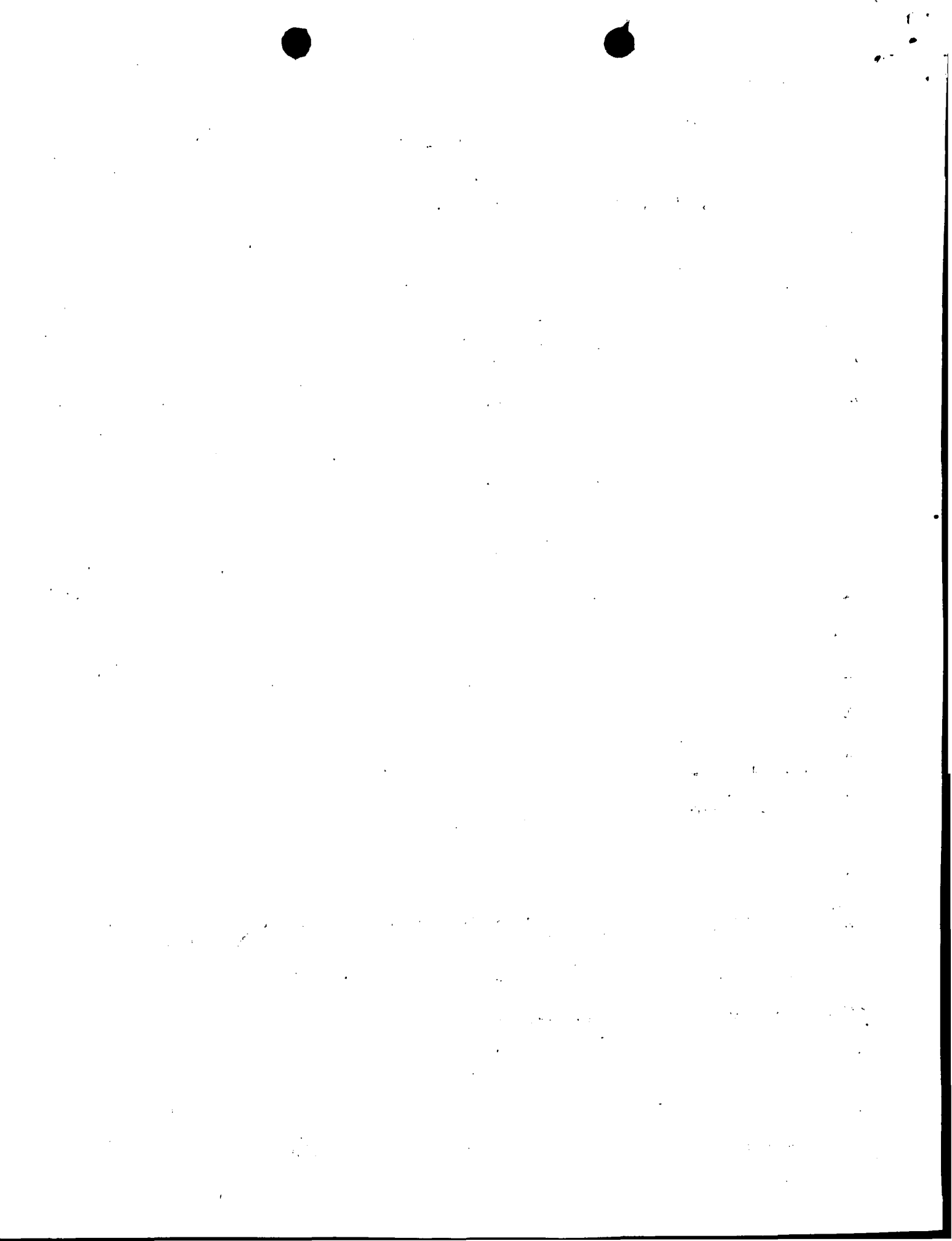
Equipment items of the Aircraft Specification for Grumman G-21A on page 98 of the Aircraft Listing, indicated below:

<input checked="" type="checkbox"/> 101	<input checked="" type="checkbox"/> 111(e)	<input checked="" type="checkbox"/> 225
<input checked="" type="checkbox"/> 106(b)	<input checked="" type="checkbox"/> 201	<input checked="" type="checkbox"/> 301
<input checked="" type="checkbox"/> 107	<input type="checkbox"/> 210	<input type="checkbox"/> 302
<input checked="" type="checkbox"/> 108	<input checked="" type="checkbox"/> 217(a)	

The following items of Special Equipment:

<u>Item</u>	<u>Weight</u>	<u>Location</u>
<input checked="" type="checkbox"/> Two starters (Eclipse E-80)	38	- 12
<input type="checkbox"/> One generator (Eclipse Type 790)	22.5	- 23
<input checked="" type="checkbox"/> One generator (Eclipse Type 310)	32	- 23
<input checked="" type="checkbox"/> Two fuel pumps	5	- 18
<input checked="" type="checkbox"/> One vacuum pump	5.5	- 18
<input checked="" type="checkbox"/> Two batteries (AN 3152)	80	/ 18
<input checked="" type="checkbox"/> Two oil coolers (AN 4080-7)	36	(0)
<input checked="" type="checkbox"/> Two tachometer generators (AN 5531-2)	5	- 18
<input checked="" type="checkbox"/> One Lear RCB-B receiver	3.5)	
One Lear T-30-AB transmitter	3.5)	- 13
<input checked="" type="checkbox"/> One Lear G-30-AB power supply	15.5	- 13
<input checked="" type="checkbox"/> Stewart-Warner 979-B1 cabin heater installation	40	- 31.5
<input checked="" type="checkbox"/> Two Hamilton Standard controllable propellers, Model 2D30 with 6101A-24 blades		(No wt. change)
<input checked="" type="checkbox"/> Water rudder assembly (EAL B-9-8)	-	-
<input type="checkbox"/> Water rudder assembly (ACA)	-	-

(Continued on next page)



CREWMAN G-21A
 SERIAL NO. B-131
 REG. NO. N 4772C
 DATE: 1/13/55

<u>Item</u>	<u>Weight</u>	<u>Location</u>
<input checked="" type="checkbox"/> China spray shields	- -	- - - -
<input checked="" type="checkbox"/> One fire extinguisher (2½ lb. CO ₂)	9	- 24
<input checked="" type="checkbox"/> One fire extinguisher (XXXXXXXXXXXX) (2½ lb. CO ₂)	9	✚ 134
<input checked="" type="checkbox"/> One first aid kit	2	✚ 169
<input checked="" type="checkbox"/> Nine life preservers (MV-104)	10.5	✚ 169
<input type="checkbox"/> Nine life preservers (AF type B-4)	27	✚ 169
<input checked="" type="checkbox"/> Two containers emergency rations	55	✚ 169
<input checked="" type="checkbox"/> Arctic Survival Equipment (1 pr. snowshoes, 1 sleeping bag, 5 blankets)	20	✚ 169
<input checked="" type="checkbox"/> Two passenger chairs (Flight Equip. & Engr. Co. A-12)	44	✚ 34.75
<input checked="" type="checkbox"/> Two passenger chairs " " " " " "	44	✚ 67.875
<input checked="" type="checkbox"/> Two passenger chairs " " " " " "	44	✚ 100
<input checked="" type="checkbox"/> One passenger chair	- -	✚ 131.5
<input checked="" type="checkbox"/> Special cabin floor (See description below)	- -	✚ 91.5
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

REMARKS:

SPECIAL CABIN FLOOR - 3/8 inch balsa-dural (.012 24ST) sandwich floor panels covered with B.F. Goodrich Avtrim # RT-11 & RT-13 Flight Rug.

NOTE * Cockpit door at Sta. 13 removed.

* * Installed 1/18/55, subsequent to weighing.

Date: January 13, 1955.

By:


 JOHN S. BRACELLEN

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