UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1 NATIONALITY AND REGISTRATION MARKS	2 MANUFACTURER AND MODEL	3 AIRCRAFT SERIAL NUMBER	4 CATEGORY
N272BG	Gulfstream GV-SP (G550)	5164	Transport

5 AUTHORITY AND BASIS FOR ISSUANCE

This airworthiness certificate is issued pursuant to 49 U.S.C. § 44704 and certifies that, as of the date of issuance, this aircraft has been inspected and found to conform to its type certificate and be in a condition for safe operation. This aircraft meets the requirements of the applicable airworthiness standards in Annex 8 to the Convention on International Civil Aviation, except as follows:

Exemption 7946 25.813 (e) Door Between Passenger Compartments
Exemption 8004 25.901 (c) Single Failure Criteria
Exemption 8142 25.901 (c) Single Failure Criteria

6 TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the FAA, this airworthiness certificate is effective as long as maintenance, preventative maintenance, and alterations are performed per the applicable Federal Aviation Regulations and the aircraft is registered in the United States.

DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
R 21 Aug 2007	Michael Edward Masterson Digitally signed by Michael Edward Masterson Date: 2018.09.17 14:52:56 -04'00'	FSDO EA-17

Any alteration, misuse, or reproduction of this certificate for a fraudulent purpose may be punishable by certificate revocation, fine, and / or imprisonment.

THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT PER THE APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (11-2016) Previous Edition Dated 04-11 May be Used Until Depleted

DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3. AIRCRAFT SERIAL NUMBER	4. CATEGORY
N372BG	Gulfstream GV-SP (G550)	5164	Transport

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:

Exemption 7946 25.813(e) Door Between Passenger Compartments
Exemption 8004 25.901(c) Single Failure Criteria
Exemption 8142 25.901(c) Single Failure Criteria

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	FAA REPRESENTATIVE	DESIGNATION NUMBER
R 8/21/07	Emery P. Wiltse	DART-609001-GL

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

FAA Form 8100-2 (8-82)

GPO 892-804

Berwind Corporation
5 Hog Island Road
Philadelphia, PA 19153
215.365.5252 main
215.365.5206 fax
www.berwind.com

BERWIND

Berwind Corporation
Kevin Wiig, Director of Aviation
5 Hog Island Road
Philadelphia, PA 19153

9/17/2018

Mr. Mike Masterson
FAA Flight Standards District Office
Federal Aviation Administration
2 International Plaza, Suite 110
Philadelphia, PA 19113

Subject: Gulfstream G550, SN 5164 Registration Number Change

Dear Mr. Masterson:

Berwind Corporation is changing the Registration Number of our Gulfstream G550, serial number 5164. The previous registration number was N372BG. The new and current registration number is N272BG. We've completed FAA Form 8050-64 in support of this process. Additionally, the aircraft's logbook has the associated entry detailing the change along with the repaint of the registration number being now complete. We're requesting that a replacement Airworthiness Certificate be issued allowing us to continue the process and formally complete this process.

Should you have any questions please contact me at your convenience. I can be reached at my email address, kwiig@berwind.com, or on my cell phone at 267-408-3925. Thank you for your assistance.

Respectfully,

Kevin Wiig
Director of Aviation

BERWIND Airframe Logbook 09 Aug 2018

N372BG - Gulfstream G550, S/N 5164

Airframe Hours: 4710.2 Airframe Cyc/Lndgs: 2154

Effective August 9, 2018 this aircraft Registration changed from N372BG to N272BG. All work performed IAW Exterior Paint/Placard Layout Drawing for S/N 5164 Drawing# GC529060025 and Ident Strapping Drawing# CE513240411.

I certfy that all maintenance performed on this Aircraft has been in accordance with the applicable manufacturer's maintenance manuals and current Federal Aviation Administration Regulations and Approved for Return To Service with repect to work performed.

Signed: A. Andino
A&P #3222132

For Berwind Aviation, Philadelphia, PA 19153, 215-365-5252

Federal Aviation Administration

Memorandum

Date: 19 September 2018

To: AFS 750 Aircraft Registration

From: Michael E. Masterson ASI, EA-17 Philadelphia FSDO

Subject: Certificate of Airworthiness N272BG

Issued new Certificate of Airworthiness for Gulfstream GV-SP G-550 aircraft with registration # N272BG, S/N 5164, aircraft registration was changed from N372BG.

Attached:

New Certificate of Airworthiness for N272BG

Old Certificate of Airworthiness for N372BG

Signed statement of request.

Copy of logbook entry reflecting registration change on aircraft.

Michael E. Masterson ASI EA-17
610-595-1500 ext 254
Michael.masterson@faa.gov

US Department of Transportation
Federal Aviation Administration

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

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

Electronic Tracking Number

For FAA Use Only

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

1. Aircraft

Nationality and Registration Mark	Serial No.
N372BG	5164

Make	Model	Series
Gulfstream	GV-SP (G550)	

2. Owner

Name *(As shown on registration certificate)*: Contrail Aviation LLC

Address *(As shown on registration certificate)*:
Address: 5 Hog Island Road
City: Philadelphia State: Pa
Zip: 19153-3809 Country: U.S.A

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME	Gulfstream	*(As described in Item 1 above)*	5164
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address
Name: William L Pizor Jr
Address: 968 Spring City Road
City: Phoenixville State: Pa
Zip: 19460 Country: U.S.A

B. Kind of Agency
- [X] U. S. Certificated Mechanic
- [ ] Foreign Certificated Mechanic
- [ ] Certificated Repair Station
- [ ] Certificated Maintenance Organization
- [ ] Manufacturer

C. Certificate No.: 2919279

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

Extended range fuel per 14 CFR Part 43 App. B ☐

Signature/Date of Authorized Individual: William L Pizor 6-1-17

7. Approval for Return to Service

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

BY
- [ ] FAA Flt. Standards Inspector
- [ ] FAA Designee
- [ ] Manufacturer
- [X] Repair Station
- [ ] Maintenance Organization
- [ ] Inspection Authorization
- [ ] Persons Approved by Canadian Department of Transport
- Other *(Specify)*

Certificate or Designation No. 2919279

Signature/Date of Authorized Individual: William L Pizor 6-1-17

FAA Form 337 (10/06)

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.)

Gulfstream GV-SP(G550) sn5164

N372BG — Nationality and Registration Mark

12-20-2016 — Date

Installed Talon Aerospace LLC STC ST04177AT, issued September 24, 2014, in accordance with Master Document List (MDL) MDL-728-01 Revision 4 September 17, 2014 - as listed on the Approved Model List (AML) AML-728-01Revision 6 May 26, 2016 Item 38.

Installation Instructions Reference: LED Replacement General Purpose Lamps (INS-728-01 Revision 1 April 18, 2016) Part Numbers TAE0728-1 / TAE0728-1D, TAE 0628-1 / TAE0628-2, TAE0528-1 / TAE0528-1X / TAE0528-1W / TAE0528-2 / TAE0528-2W for Various Part 25 Aircraft

Instructions for Continued Airworthiness: Reference Talon Aerospace Maintenance Manual Supplement (AA-728-01) for Landing, Taxi, Turn, Scan and Logo Lights - Part Numbers TAE0728-1 / TAE0728-1D, TAE 0628-1 / TAE0628-2, TAE0528-1 / TAE0528-1X / TAE0528-1W / TAE0528-2 / TAE0528-2W for All Category Aircraft

Reference: Electrical Load Statement (ELA-728-01) Revision 3 Dated 14 April 2016 Power added as a result of this alteration is less than the power used by the OEM lamps. Therefore the power consumption as a result of this modification is negligible to the overall aircraft power system. No adjustments needed.

Reference: Structural Substantiation Report (STR-728-01) Revision 2 Dated 2 May 2016 There are no structural changes to the aircraft for installation of this modification.

Weight and Balance changes: are negligible Landing light + .235 lbs, Taxi light + .130 lbs. No W&B changes made at this time.

Reference: Component Maintenance Manual with Illustrated Parts List 33-42-02 Revision 3 Dated 29 April 2016 End.

Wm Pope

[X] Additional Sheets Are Attached

U.S. Department
of Transportation
**Federal Aviation
Administration**

Small Airplane Directorate
Aircraft Certification Office
1701 Columbia Avenue
Atlanta, Georgia 30337

Ken Martin
Talon Aerospace, LLC
233 Cahaba Valley Parkway
Pelham, AL 35124

Dear Mr. Martin:

We have completed our evaluation of your Supplemental Type Certificate, FAA Project Number ST14465AT-T, and find that you have satisfactorily demonstrated compliance with the applicable certification regulations. Accordingly, we have enclosed STC ST04177AT, which indicates our approval of the Installation of Talon Aerospace LED Replacement General Purpose Lamps.

This STC is official Federal Aviation Administration (FAA) approval of your modification and may be used to authorize identical modifications on other aircraft of the same model, subject to the limitations noted on the certificate. It may be transferred or otherwise made available to another party by means of a licensee arrangement in accordance with Federal Aviation Regulation (FAR) 21.47. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission. You are required to advise this office within 30 days after the transfer when you transfer or grant licensee rights to the STC in order that we may take the necessary recording or reissuance action.

As recipient of this approval, except as provided in FAR 21.3(d), you are required to report any failure, malfunction, or defect in any product or part manufactured by you that you have determined has resulted or could result in any of the occurrences listed in FAR 21.3(c). The report should be communicated initially by telephone to the Manager, Atlanta Aircraft Certification Office, telephone number (404) 474-5500, within 24 hours after it has been determined that the failure has occurred. In addition, written notification to the Certification Office, at the above address is required. FAA Form 8010-4 (Malfunction or Defect Report) or any other appropriate format is acceptable in transmitting the required details.

If you plan to manufacture replacement or modification parts for sale in conformance with approved data listed on the Certificate, you are required to comply with FAR 21.303. A Parts Manufacturer Approval (PMA) may be issued under the provisions of 14 FAR 21.303 when you submit a statement certifying you have established the Quality System as required by 14 FAR 21.307. Your statement may be in letter form, with reference to STC ST04177AT, and should be addressed to the Federal Aviation Administration, Small Airplane Directorate,

Attention: Manager, Atlanta Manufacturing Inspection District Office, 1701 Columbia Avenue, Atlanta, Georgia 30337.

Please contact Bryan Long of this office for any questions or further discussion at (404) 474-5578.

Sincerely,

Melvin D. Taylor, Manager,
Atlanta Aircraft Certification Office

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

Number ST04177AT

This certificate issued to

Talon Aerospace, LLC
233 Cahaba Valley Parkway
Pelham, AL. 35124

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 25 of the Federal Aviation Regulations.

Original Product Type Certificate Number: See attached

Make: FAA Approved Model List (AML)

Model: Document Talon Aerospace AML-728-01 for a list of Approved Airplane Models

Description of Type Design Change:

Installation of a Talon Aerospace LED Replacement General Purpose Lamps in accordance with Master Document List MDL-728-01, Revision 4, dated September 17, 2014, or later FAA approved revision.

Limitations and Conditions:

This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the interrelationship between this change and any of those other previously approved modifications will produce no adverse affect upon the airworthiness of that airplane. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission. Instructions for Continued Airworthiness (ICA), Document Number AA-728-01, Revision 0, dated August 20, 2014, or later FAA accepted revision must be made available to the operator at the time of installation.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: October 18, 2013

Date of issuance: September 24, 2014

Date reissued:

Date amended:

By direction of the Administrator

(Signature)

Melvin D. Taylor, Manager,
Atlanta Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

Letter of Authorization

This Letter of Authorization ("LOA") has been granted as of June 10th, 2016 to Berwind Aviation, having its principle place of business at 5 Hog Island Road, Philadelphia PA 19153 (herein referred to as "Customer") by Talon Aerospace LLC, having its principal place of business at 233 Cahaba Valley Parkway, Pelham, Alabama 35124 (herein after referred to as "Talon Aerospace") either or both of which may be referred to herein as a "Party" or the "Parties", respectively.

Whereas, Talon Aerospace is the holder of Supplemental Type Certificate (STC) ST04177AT.

Whereas, Customer desires to install and maintain LED sealed beam replacement lamps covered under the STC on customer aircraft.

Grant of Authorization & License to Use STC ST04177AT

In accordance with Title 14, Code of Federal Regulations (CFR) §21.120, Talon Aerospace authorizes Customer to use STC ST04177AT and its associated data package to alter aircraft as follows:

- Customer is authorized to install and maintain LED sealed beam replacement lamps including TAE0728-1, and TAE0528-1 as long as they are obtained from Talon's authorized distributor, Avio-Diepen, at standard list prices or special program pricing.
- Customer may install and maintain the lamps in accordance with this authorization at any of the Customer locations or at their assigned MROs.
- Authorization to use the STC is subject to the installation on aircraft listed on the latest revision of the Approved Model List included in the STC.
- Talon grants Customer a royalty free, worldwide, irrevocable license to use STC ST04177AT as long as used in accordance with this authorization.

In Witness Thereof, Talon Aerospace has executed this Agreement through their duly authorized representative.

Talon Aerospace LLC

By: *Ken Martin*

Ken Martin, Vice President Product Development

FAA APPROVED MODEL LIST (AML)
for
INSTALLATION OF TALON AEROSPACE GENERAL PURPOSE LED LAMPS,
INCLUDING PART NUMBERS TAE0728-1, TAE0728-1D, TAE0628-1, TAE0628-2, TAE0528-1, TAE0528-1X, TAE0528-1W, TAE0528-2 and TAE0528-2W, TAE0428-1, TAE0428-1W, TAE0428-2, and TAE0428-2W, Bracket Assembly K428-B3-LGL-001 and K428-B3-LGL-002. MD88 Logo Light Kit K528-D9-LGL-001, K428-B5-LGL-001, K428-B5-LGL-002, K428-B5-LGL-003, K428-B5-LGL-004. K428-A3-LGL-001, K428-A3-LGL-001W, K428-B7-LGL-001, K428-B7-LGL-002, K428-B7-LGL-003, K438-B7-LGL-004

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
1	Airbus	A300 A300, Model B2-1A A300, Model B2-1C A300, Model B4-2C A300, Model B2K-3C A300, Model B4-103 A300, Model B2-203 A300, Model B4-203 A310 A310, Model 204 A310, Model 221 A310, Model 222 A310, Model 203 A310, Model 322 A310, Model 324 A310, Model 304 A310, Model 325 A300-600 A300, Model B4-601 A300, Model B4-603 A300, Model B4-620 A300, Model B4-605R A300, Model B4-622R A300, Model F4-605R A300, Model F4-622R A300, Model C4-605R Variant F A300, Model B4-622	A35EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

F.A.A. APPROVED
ATLANTA AIRCRAFT CERTIFICATION OFFICE CENTRAL REGION
BY:
DATE: 5/26/2016

Issue Date:
MAY 2 6 2016

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
2	Airbus	A318 Series A318-111, A318-112, A318-121, A318-122, A319 Series A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320 Series A320-111, A320-211, A320-212, A320-214 A320-231 A320-232 A320-233 A320-271n A321 Series A321-111, A321-112, A321-131, A321-211 A321-212 A321-213, A321-231 A321-232	A28NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

Issue Date: MAY 2 0

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
3	Airbus	A330-200 Series A330-201, A330-202, A330-203, A330-223, A330-243 A330-200 Freighter Series A330-223F, A330-243F A330-300 Series A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343	A46NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01 A3-004	Rev 0, 3/14/14 Rev 1, 4/18/16	N/A	
4	Airbus	A340-200 Series A340-211, A340-212, A340-213 A340-300 Series A340-311, A340-312, A340-313 A340-500 Series A340-541 A340-600 series A340-642	A43NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01 A3-004	Rev 0, 3/14/14 Rev 1, 4/18/16	N/A	4

Issue Date: MAY 26 2016

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
5	ATR	ATR42-200 ATR42-300 ATR42-320 ATR42-500 ATR72-101 ATR72-201 ATR72-102 ATR72-202 ATR72-211 ATR72-212 ATR72-212A	A53EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

Issue Date: MAY 26 2016

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					DRAWING NUMBER	REVISION AND DATE		
6	Beechcraft	HS.125 Series F3B HS.125 Series F3B/RA BH.125 Series 400A DH.125 Series 400A HS.125 Series 400A HS.125 Series 400B HS.125 Series 400B/1 HS.125 Series 401B HS.125 Series 403A(C) HS.125 Series 403B HS.125 Series F400B HS.125 Series F403B BH.125 Series 600A HS.125 Series 600B HS.125 Series 600B/1 HS.125 Series 600B/2 HS.125 Series 600B/3	A3EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

Issue Date: MAY 26 2016

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
6	Beechcraft	HS.125 Series F600B HS.125 Series 700A HS.125 Series 700B BAe.125 Series 800A BAe.125 Series 800A (C-29A) BAe.125 Series 800A (U-125) BAe.125 Series 800B BAe.125 Series 1000A F3B BAe.125 Series 1000B Hawker 800 Hawker 800 (U-125A) Hawker 1000 Hawker 800XP Hawker 850XP Hawker 900XP Hawker 750	A3EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
7	Boeing	707-100 Long Body 707-200 707-100B Long Body 707-100B Short Body	4A21	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
8	Boeing	707-300 Series 707-400 Series 707-300B Series 707-300C Series	4A26	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
9	Boeing	737-100 Series 737-200 Series 737-200C Series 737-300 Series 737-400 Series 737-500 Series 737-600 Series 737-700 Series 737-800 Series 737-700C Series 737-900 Series 737-900ER Series	A16WE	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01 B3-004	Rev 0, 3/14/14 Rev 1, 8/11/15	N/A	

Issue Date: MAY 26 2016

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
10	Boeing	747-100 Series 747-200B Series 747-200F Series 747-200C Series 747SR Series 747SP Series 747-100B Series 747-300 Series 747-100B SUD Series 747-400 Series 747-400D Series 747-400F Series 747-8F Series 747-8 Series	A20WE	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
11	Boeing	757-200Series, 757-200PF Series, 757-200CB Series, 757-300 Series	A2NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01 B5-004	Rev 0, 3/14/14 Rev 1, 9/10/15	N/A	
12	Boeing	767-200 Series, 767-300 Series, 767-300F Series, 767-400ER Series	A1NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
13	Boeing	777-200 Series 777-300 Series 777-300ER Series 777-200LR Series 777F Series	T00001SE	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01 B7-004	Rev 0, 3/14/14 Rev 1, 4/18/16	N/A	
14	Boeing	787-8	T00021SE	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

Issue Date: MAY 26 2016

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					DRAWING NUMBER	REVISION AND DATE		
15	Boeing	DC-9-11 DC-9-12 DC-9-13 DC-9-14 DC-9-15 DC-9-15F DC-9-21 DC-9-31 DC-9-32 DC-9-32 (VC9C) DC-9-32F DC-9-32F (C-9A, C-9B) DC-9-33F DC-9-34 DC-9-34F DC-9-41 DC-9-51 DC-9-81 (MD-81) DC-9-82 (MD-82) DC-9-83 (MD-83) DC-9-87 (MD-87) MD-88 MD-90-30 717-200	A6WE	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01 D9-004	Rev 0, 3/14/14 Rev 0, 8/20/15	N/A	

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
16	Boeing	DC-10-10 DC-10-10F DC-10-15 DC-10-30 DC-10-30F DC-10-40 DC-10-40F MD-10-10F MD-10-30F MD-11 MD-11F	A22WE	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

Issue Date: MAY 26 2016

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
17	Bombardier	CL-600-1A11 (CL-600) CL-600-2A12 (CL-601) CL-600-2B16 (CL-601-3A Variant) CL-600-2B16 (CL-601-3R Variant) CL-600-2B16 (CL-604 Variant) CL-600-2B19 (Regional Jet Series 100 & 440) CL-600-2C10 (Regional Jet Series 700, 701 & 702) CL-600-2D15 (Regional Jet Series 705) CL-600-2D24 (Regional Jet Series 900) CL-600-2E25 (Regional Jet Series 1000)	A21EA	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

Issue Date: MAY 26 2016

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
18	Bombardier	BD-100-1A10	T00005NY	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
19	Bombardier	BD-700-1A10 BD-700-1A11	T00003NY	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
20	Bombardier	DHC-8-100 Series DHC-8-200 Series DHC-8-300 Series DHC-8-400 Series	A13NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
21	Bombardier	CL-215-1A10 CL-215-6B11 (CL-215T Variant) CL215-6B11 (CL-415 Variant)	A14EA	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 1, 4/18/16	N/A	

Issue Date: MAY 2 0 2016

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
22	Cessna	500 550 S550 552 560 560XL	A22CE	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
23	Cessna	650	A9NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
24	Cessna	680	T00012WI	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
25	Cessna	750	T00007WI	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
26	Dassault Aviation	Falcon 10	A33EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
27	Dassault Aviation	Falcon 2000 Falcon 2000EX	A50NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
28	Dassault Aviation	Falcon 7X	A59NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
29	Dassault Aviation	Mystere-Falcon 50 Mystere-Falcon 900 Falcon 900EX	A46EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
30	Dassault Aviation	Falcon Jet Falcon Falcon Jet Falcon Series C Falcon Jet Falcon Series D Falcon Jet Falcon Series E Falcon Jet Falcon Series F Falcon Jet Falcon Series G Mystere-Falcon 20-C5 Mystere-Falcon 20-D5 Mystere-Falcon 20-E5 Mystere-Falcon 20-F5	A7EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
31	EADS CASA	C-212-CB C-212-CC C-212-CD C-212-CE C-212-CF C-212-DF C-212-DE	A32EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
32	EADS CASA	Model CN-235 CN-235-100 CN-235-200 CN-235-300 C-295	A21NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
33	Embraer	EMB-145 EMB-145ER EMB-145MR EMB-145LR EMB-135ER EMB-135LR EMB-135KE EMB-135KL EMB-135BJ EMB-145XR EMB-145MP EMB-145EP	T00011AT	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
34	Embraer	ERJ 170-100 STD ERJ 170-100 LR ERJ 170-100 SU ERJ 170-100 SE ERJ 170-200 STD ERJ 170-200 LR ERJ 170-200 SU	A56NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
35	Embraer	ERJ 190-100 STD ERJ 190-100 LR ERJ 190-100 IGW ERJ 190-100 ECJ ERJ 190-200 STD ERJ 190-200 LR ERJ 190-200 IGW	A57NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
36	Fokker	F.27 Mark 100 F.27 Mark 200 F.27 Mark 300 F.27 Mark 400 F.27 Mark 500 F.27 Mark 600 F.27 Mark 700 F.27 Mark 050	A-817	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
37	Fokker	Fellowship F.28 Mark 1000 F.28 Mark 2000 F.28 Mark 3000 F.28 Mark 4000 F.28 Mark 0100 F.28 Mark 0070	A-817	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

Issue Date: MAY 2 [illegible]

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
38	Gulfstream	G-1159 G-1159A G-1159B G-IV GV GV-SP GIV-X	A12EA	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
39	Gulfstream	GVI	T00015AT	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
40	Gulfstream	1125 Westwind Astra Astra SPX Gulfstream 100 Gulfstream G150	A16NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
41	Gulfstream	Galaxy Gulfstream 200	A53NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
42	Gulfstream	Gulfstream G280	A61NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

Issue Date: MAY 2 6 2006

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
43	Learjet	24 24A 24B 24B-A 24C 24D 24D-A 24E 24F 24F-A 25 25A 25B 25C 25D 25F 28 29 31 31A 35 36 35A (C-21A) 36A 55 55B 55C 60	A10CE	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
44	Learjet	45	T00008WI	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	47

Issue Date: MAY 2[illegible]

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AFM SUPPLEMENT NUMBER/DATE	AML AMENDMENT DATE
					DRAWING NUMBER	REVISION AND DATE		
45	Saab AB, Saab Aerosystems	340A (SAAB/SF340 A) SAAB 340B	A52EU	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	
46	Saab AB, Saab Aerosystems	SAAB 2000	A47NM	14 CFR Part 25, Amend. 25-1 through 25-123	INS-728-01	Rev 0, 3/14/14	N/A	

F. A. A.
APPROVED
ATLANTA AIRCRAFT CERTIFICATION
OFFICE CENTRAL REGION
BY:
DATE: 5/26/2016

Issue Date: MAY 26 2016

TALON AEROSPACE

Installation Instructions

LED Replacement General Purpose Lamps

TAE0728-1, TAE0728-1D
TAE0628-1 / TAE0628-2
TAE0528-1 / TAE0528-1X / TAE0528-2 / TAE0528-1W / TAE0528-2W

For

Various Part 25 Aircraft

Prepared By: _____ **Date:** 4/18/16

Checked by: _____ **Date:** 4/18/16

Approved by: _____ **Date:** 4/18/16

RECORD OF REVISIONS

Rev	Date	Pages Affected	Description Of Revision	Approved By
0	3/14/14	All	Initial Release	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez
1	See Front Page	3	Added Part Numbers TAE0728-1D and TAE0528-1X.	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez

INSTALLATION INSTRUCTIONS

INTRODUCTION

The Talon Aerospace LED replacement lamps are "plug and play" assemblies that are one for one replacements for the existing PAR 36, PAR 46 and PAR 64 incandescent lamps currently in use as landing, turn / taxi, engine and wing scan, and logo lights. They are essentially replacement lamps that are repairable and designed to last the life of the aircraft.

Refer to the particular Aircraft Maintenance Manual for installation in the various positions used for installation and aiming of the lamps (if required).

When applying torque to the screws connecting the wire to the terminals, hold the terminal with an open end wrench to avoid breaking the seal.

Following is a list of the part numbers and applications;

TAE0728-1	PAR 64. Landing light for large air transport aircraft. Spot beam
TAE0728-1D	PAR 64. Taxi/Take-Off light for large transport aircraft. Dual mode, High and Low Beam.
TAE0628-1	PAR 46. Landing light for some commuter and business jets. Spot beam.
TAE0628-2	PAR 46. Taxi/Turn light. Wide horizontal beam.
TAE0528-1	PAR 36. Cool white. Spot beam.
TAE0528-1X	PAR 36. Cool white. Spot Beam. High intensity.
TAE0528-2	PAR36. Cool white. Wide horizontal beam.
TAE0528-1W	PAR 36. Warm white. Spot beam.
TAE0528-2W	PAR 36. Warm white. Wide horizontal beam.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Maintenance Manual Supplement

For

Talon Aerospace

Landing, Taxi, Turn, Scan and Logo Lights

Part Numbers

TAE0728-1/ TAE0728-1D

TAE0628-1 / TAE0628-2

TAE0528-1 / TAE0528-1X / TAE0528-1W / TAE0528-2 / TAE0528-2W

For

All Transport Category Aircraft

EFFECTIVITY

ALL

AA-728-01

RECORD OF REVISIONS

Rev	Date	Pages Affected	Description Of Revision	Approved By
0	8/20/14	All	Initial Release	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez
1	12/19/14	4	Paragraph 6. Inserted statement on inspection intervals.	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez
2	4/7/15	5 6	Note 1 revised airworthiness limitation statement Paragraph 4 and 5 revised statement on inspection intervals.	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez
3	1/15/16	1 6 8	Added TAE0728-1D and TAE0528-1X. Paragraph 4. Inspection Intervals, changed to C Check or 24 months. Revised wording, Paragraph 2.	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez

EFFECTIVITY

ALL

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

TABLE OF CONTENTS

EFFECTIVITY

ALL

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

INTRODUCTION

This manual contains Instructions for Continued Airworthiness for the LED Replacement PAR 36, PAR 46 and PAR 64 Lamps, used as Landing, Taxi, Turn, Scan and Logo Lights on various air transport aircraft. These lamps include the following part numbers; TAE0728-1 (landing), TAE0628-1 (landing), TAE0628-2, (taxi) and TAE0528-1 and -1W, as well as TAE0528-2 and -2W (turn, taxi, engine/wing scan and logo) as manufactured by TALON AEROSPACE.

These Instructions are provided as required by the Code of Federal Regulations Title 14 Part 25 Section 25.1529 and Part 21 Section 21.50(b).

The instructions apply only to the component part numbers listed above. Be sure the part numbers on the LED lamps are listed on the title page before performing any of these instructions.

In addition to supplying all owners of the Landing, Taxi, Turn, Scan and Logo Lights with this initial Maintenance Manual Supplement, Talon Aerospace will provide all revisions and updates to this manual to the owner in a timely manner as mandated by FAA Order 8110.54A.

Initial Maintenance Manual Supplements and all subsequent revisions and updates will be mailed in hard copy form to the Landing, Taxi, Turn, Scan and Logo Lights owner, and/or provided in electronic format and directed to departments or personnel as specified by the owner.

If you feel that this manual does not meet your needs per the above mentioned Regulations, feel free to contact Talon Aerospace for clarification or additional information.

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AIRWORTHINESS LIMITATIONS

1. Notes.

A. The LED Landing, Taxi, Turn, Engine-Wing Scan and Logo Lights should be removed and the LED Board assemblies replaced if light intensity is no longer adequate for the intended purpose as reported by flight crews or maintenance personnel.

B. "The Airworthiness Limitations section is FAA-approved and specifies inspections and other maintenance required under §43.16 and § 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved".

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

DESCRIPTION AND OPERATION

1. **Description.** The LED Landing, Taxi, Turn, Engine-Wing Scan and Logo Lights consist of the following components; aluminum housing, a power supply to convert the AC voltage to DC voltage, the LED assembly, the optical assembly, and a lens and bezel, along with a back cap, a harness, gaskets and hardware to seal the units against the environment. These units connect to the aircraft electrical system as the original incandescent lamps do. They are "plug and play", requiring no alteration to the aircraft. In addition to providing longer life than the incandescent lamps that they replace, these units are repairable.

2. **Basic Control and Operation.** The Par 64 Landing and Par 46 Landing/Taxi Lights operate on either 26 VAC or 28 VDC, while the Par 36 Runway Turn Off/Engine/Wing Scan/Logo Light operates on 13 or 26 VAC or 28VDC. All lamps are controlled by the same switches in the cockpit that control the current lamps. There are no special procedures or limitations that apply to the operation of the Landing, Taxi, Turn, Scan and Logo Lamps.

3. **Warnings and Cautions.** There no special warnings and cautions concerning the Talon Aerospace Landing, Taxi, Turn, Scan and Logo Lights. These lights use LED technology and eliminate the high temperatures associated with incandescent lamps, thereby eliminating any injuries to personnel associated with the incandescent lamps.

4. **Inspections.** Inspection intervals: Inspections to be performed during Aircraft C Check interval or at 24 months of operation.

   With the units installed in their respective housings, inspect the Talon Aerospace LED Landing, Taxi, Turn, Scan and Logo Lights for the following:

   Lenses cracked, or if nicked or scratched deeper than .03 inches
   Any corrosion is found deeper than .03 inches, or covers more than 20 percent of the metal surface
   3 or more individual LEDs failed on the LED board
   If the part fails or if any damage is noted during inspections requiring removal

   If any of the above conditions are found, remove the Talon LED Landing, Taxi, Turn, Scan and Logo Lights and route to repair shop for repair in accordance with Talon Aerospace Component Maintenance Manual & IPL 33-42-02.

5. **Hard Landing, Hail Damage or Bird Strike.** Perform an inspection for damage as in paragraph 4 and action accordingly.

6. Leading Particulars.

DESCRIPTION	DATA
Landing Light TAE0728-1 / TAE0728-1D	
Dimensions:	
Diameter	8.0 In. (203.2 mm)
Height	2.75 In. (69.85 mm)
Weight (Approx.):	2.00 lb. (0.907 kg)
Voltage:	28 VDC or 26 VAC
Landing / Taxi Light TAE0628-1 and TAE0628-2	
Dimensions:	
Diameter	5.75 In. (146.05 mm)
Height	2.75 In. (69.85 mm)
Weight (Approx.):	0.99 lb. (0.449 kg)
Voltage:	28 VDC or 26 VAC
Taxi / Turn / Engine-Wing Scan / Logo Light TAE0528-1, TAE0528-1X, TAE0528-1W, TAE0528-2 and TAE0528-2W	
Dimensions:	
Diameter	4.5 In. (114.3 mm)
Height	2.1 In. (53.34 mm)
Weight (Approx.):	0.60 lb. (0.27 kg)
Voltage:	28 VDC or 13/26 VAC

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

REMOVAL AND REPLACEMENT

Removal and replacement of the Talon Aerospace LED Landing, Taxi, Turn, Scan and Log Lights is to be accomplished in accordance with the applicable Aircraft Maintenance Manual.

TESTING AND FAULT ISOLATION

After removal from the aircraft due to failure, Testing and Fault Isolation of the Talon Aerospace LED Landing, Taxi, Turn, Scan and Logo Lights is to be accomplished in accordance with the Talon Aerospace Component Maintenance Manual 33-42-02.

Component Maintenance Manual
With
Illustrated Parts List

For

Talon Aerospace

LED Landing, Taxi/Take-Off, Taxi, Turn, Scan and Logo Lights

Part Numbers

TAE0728-1 / TAE0728-1D

TAE0628-1 / TAE0628-2

TAE0528-1 / TAE0528-1W / TAE0528-1X / TAE0528-2 / TAE0528-2W

33-42-02

29 April 2016
Revision 3

RECORD OF REVISIONS

Retain this record in the front of the manual. On receipt of revisions, insert revised pages in manual. Enter revision number, date issued, date inserted and initials.

REVISION NUMBER	DATE ISSUED	DATE INSERTED	BY
0	7/27/2014		
1	4/8/2015		
2	8/13/2015		
3	4/29/2016		

RECORD OF TEMPORARY REVISIONS

REVISION NUMBER	REVISION DATE	DATE INSERTED	BY	DATE REMOVED	BY

SERVICE BULLETINS

SERVICE BULLETIN NUMBER	REVISION NUMBER	DATE ADDED TO MANUAL

LIST OF EFFECTIVE PAGES

TABLE OF CONTENTS

INTRODUCTION

This manual contains Instruction for Continued Airworthiness with Illustrated Parts List (IPL) for the LED Replacement PAR 36, PAR 46 and PAR 64 Lamps, used as Landing, Taxi, Turn, Scan and Logo Lights on various air transport aircraft. These LED lamps include the following part numbers; TAE0728-1 (landing), TAE0728-1D (dual mode taxi/take-off), TAE0628-1 (landing), TAE0528-1X (landing), TAE0628-2, (taxi) and TAE0528-1 and -1W as well as TAE0528-2 and -2W (turn, taxi, engine/wing scan and logo) as manufactured by TALON AEROSPACE.

These Instructions are provided as required by the Code of Federal Regulations Title 14 Part 25 Section 25.1529 and Appendix H to Part 25.

The instructions apply only to the component part numbers listed above. Be sure the part numbers on the LED lamps are listed on the title page before performing any of these instructions.

In addition to supplying all owners of the LED Landing, Taxi, Turn, Scan and Logo Lights with this initial Component Maintenance Manual, Talon Aerospace will provide all revisions and updates to this manual to the owner in a timely manner as mandated by FAA Order 8110.54.

Initial Component Maintenance Manuals and all subsequent revisions and updates will be mailed in hard copy form to the LED Landing, Taxi, Turn, Scan and Logo Lights owner, and/or provided in electronic format and directed to departments or personnel as specified by the owner.

If you feel that this manual does not meet your needs per the above mentioned Regulations, feel free to contact Talon Aerospace for clarification or additional information.

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AIRWORTHINESS LIMITATIONS

1. Notes.

A. The LED Landing, Taxi, Turn, Engine-Wing Scan and Logo Lights should be removed and the LED Board assemblies replaced if light intensity is no longer adequate for the intended purpose as reported by flight crews or maintenance personnel.

B. "The Airworthiness Limitations section is FAA-approved and specifies inspections and other maintenance required under §43.16 and § 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved".

DESCRIPTION AND OPERATION

1. Description. (Refer to Figure 1, 2 and 3). The LED Landing, Taxi, Turn, Engine-Wing Scan and Logo Lights consist of the following components; aluminum housing, a power supply to convert the AC voltage to DC voltage, the LED assembly, the optical assembly, and a lens and bezel, along with a back cap, a harness, gaskets and hardware to seal the units against the environment. These units connect to the aircraft electrical system as the original incandescent lamps do. They are "plug and play", requiring no alteration to the aircraft.

2. Basic Control and Operation. The Par 64 LED Landing and Par 46 LED Landing/ Taxi Lights operate on either 26 VAC or 28 VDC, while the Par 36 LED Runway Turn Off/Engine/Wing Scan/Logo Light operates on 13 or 26 VAC or 28VDC. All lamps are controlled by the same switches in the cockpit that control the current lamps. There are no special procedures or limitations that apply to the operation of the LED Landing, Taxi, Turn, Scan and Logo.

DESCRIPTION AND OPERATION

3. Leading Particulars.

DESCRIPTION	DATA
LED Landing Light TAE0728-1 and TAE0728-1D	
Dimensions:	
Diameter	8.0 In. (203.2 mm)
Height	2.75 In. (69.85 mm)
Weight (Approx):	2.00 lb (0.907 kg)
Voltage:	28 VDC or 26 VAC
LED Landing / Taxi Light TAE0628-1 and TAE0628-2	
Dimensions:	
Diameter	5.75 In. (146.05 mm)
Height	2.75 In. (69.85 mm)
Weight (Approx):	0.99 lb (0.449 kg)
Voltage:	28 VDC or 26 VAC
LED Landing/Taxi / Turn / Engine-Wing Scan / Logo Light TAE0528-1, TAE0528-1W, TAE0528-1X, TAE0528-2 and TAE0528-2W	
Dimensions:	
Diameter	4.5 In. (114.3 mm)
Height	2.1 In. (53.34 mm)
Weight (Approx):	0.60 lb (0.27 kg)
Voltage:	28 VDC or 13/26 VAC

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TESTING AND FAULT ISOLATION

1. Notes.

A. This section outlines the proper testing procedures for the LED Landing, Taxi, Turn, Scan and Logo Lamps.

B. Tests should be conducted in the order below and all failed items should be replaced or repaired before continuing testing.

C. Refer to Table 901 on page 801 for a list of tools, fixtures and equipment needed for testing. Equivalent substitutes are acceptable.

2. Pretest Procedures.

A. Review any shipping tags or forms to determine cause for removal from aircraft.

B. Wipe the LED Landing, Taxi, Turn, Scan and Logo Lamps with a clean cloth to remove dirt, dust and foreign material.

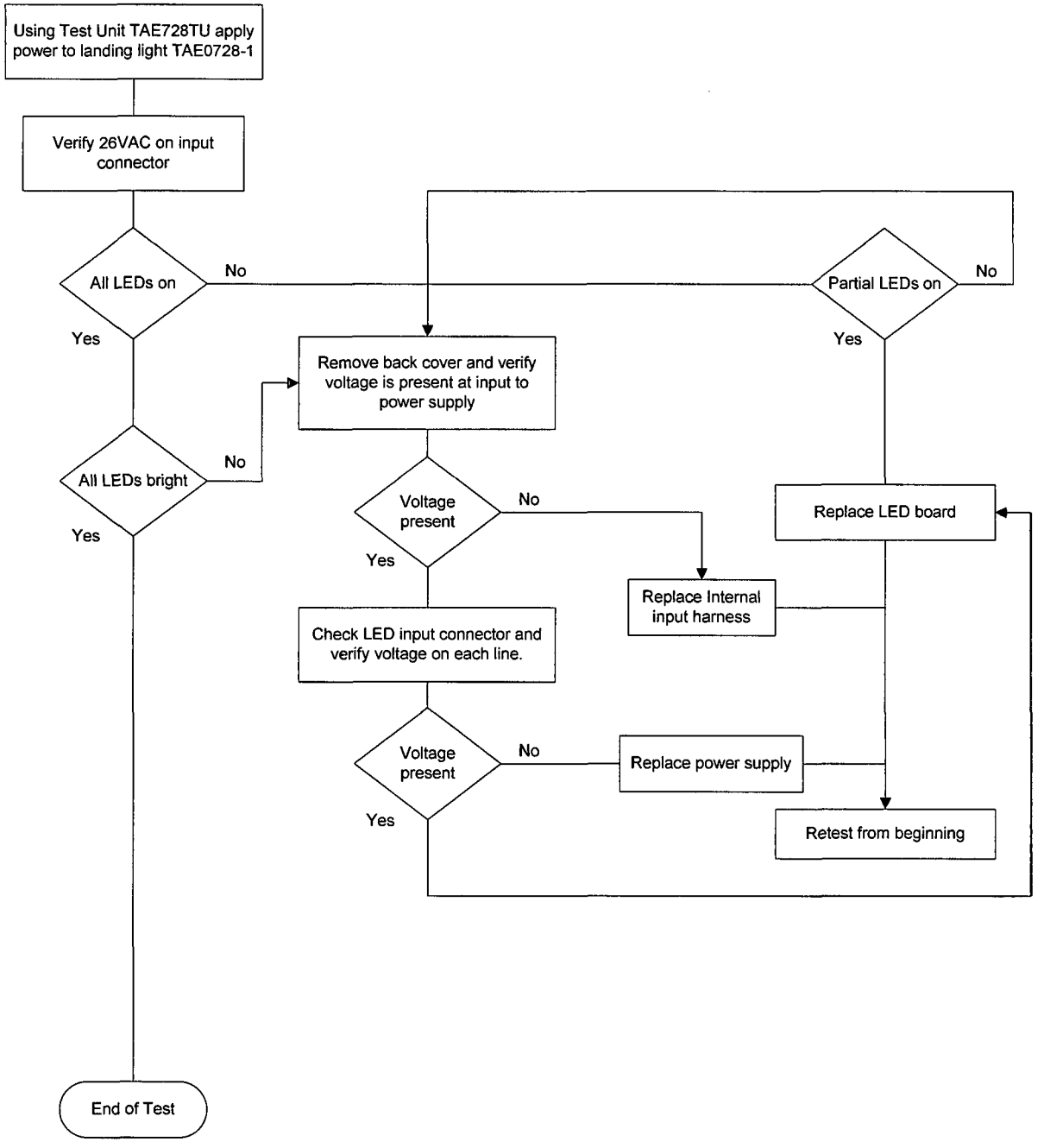
C. Visually inspect the component for signs of missing, broken, bent or cracked parts. Damaged parts shall be replaced before the component light is tested.

TESTING AND FAULT ISOLATION

3. Testing of LED Landing Light TAE0728-1.

NOTE: Refer to IPL Figure 1 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

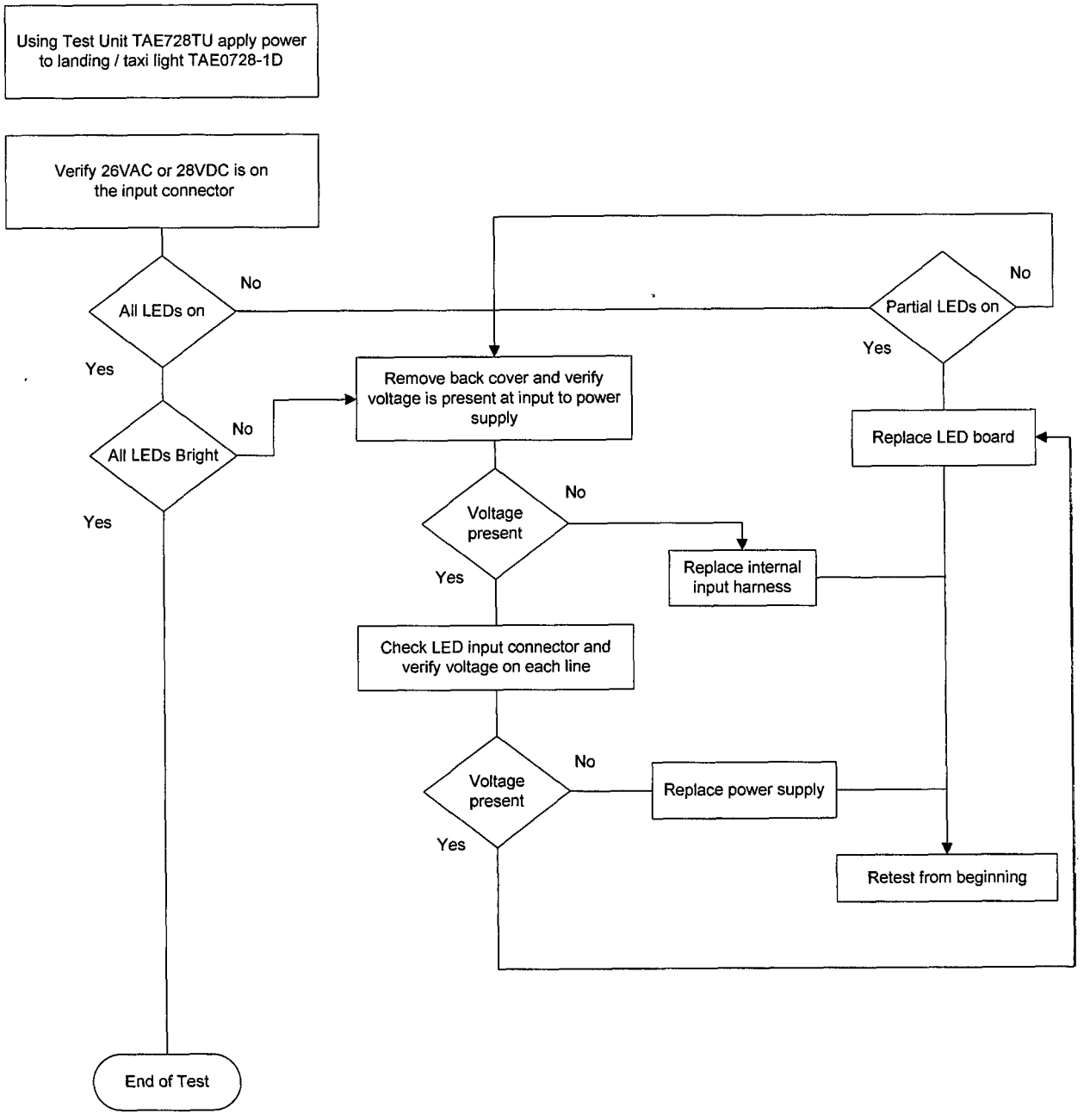
CAUTION: DO NOT APPLY POWER TO UNIT UNTIL INSTRUCTED TO DO SO.



4. Testing of LED Dual Mode Taxi/Take-Off Light TAE0728-1D.

NOTE: Refer to IPL Figure 1 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

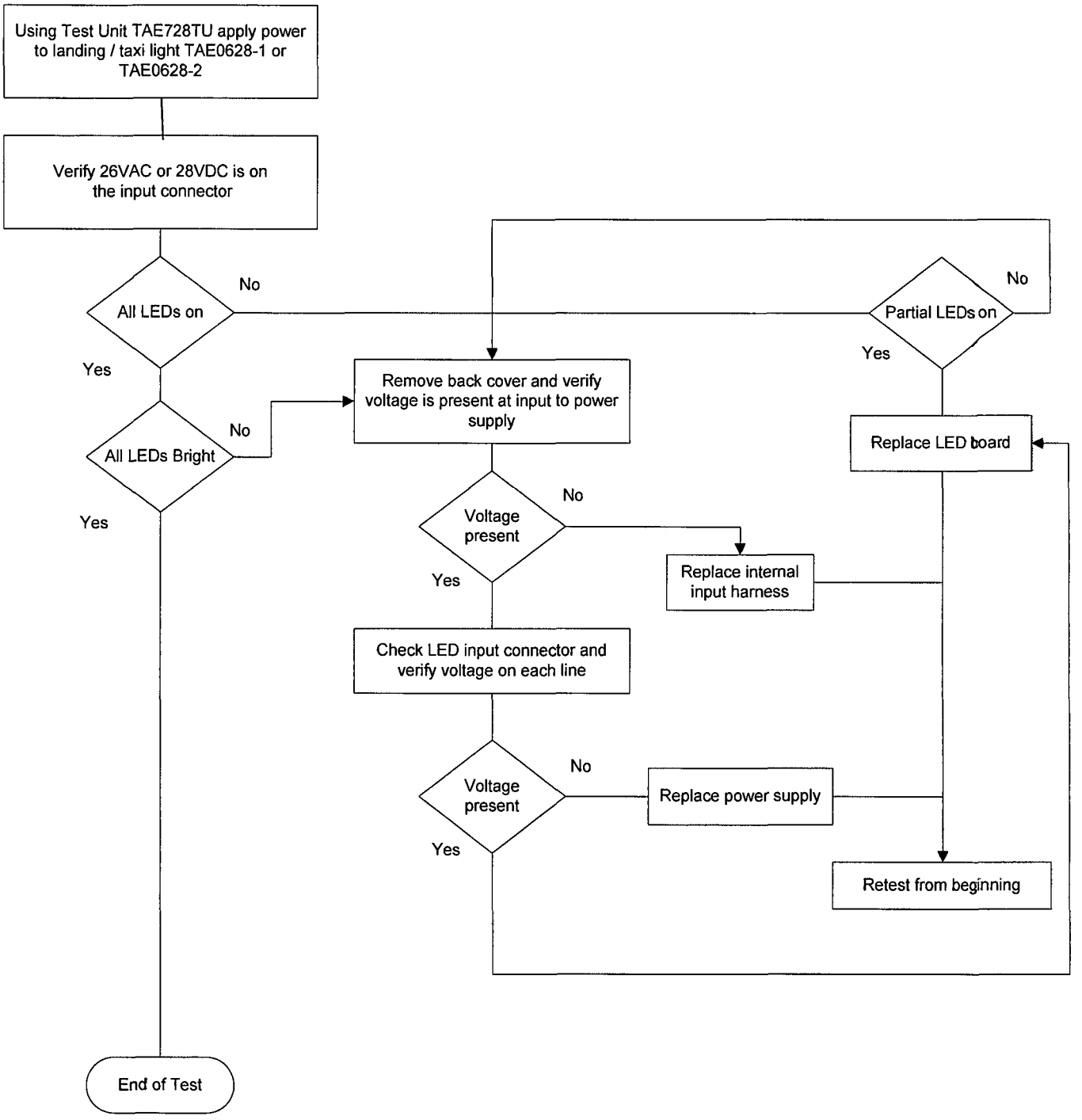
CAUTION: DO NOT APPLY POWER TO UNIT UNTIL INSTRUCTED TO DO SO.



5. Testing of LED Landing / Taxi Light TAE0628-1 or TAE0628-2.

NOTE: Refer to IPL Figure 2 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

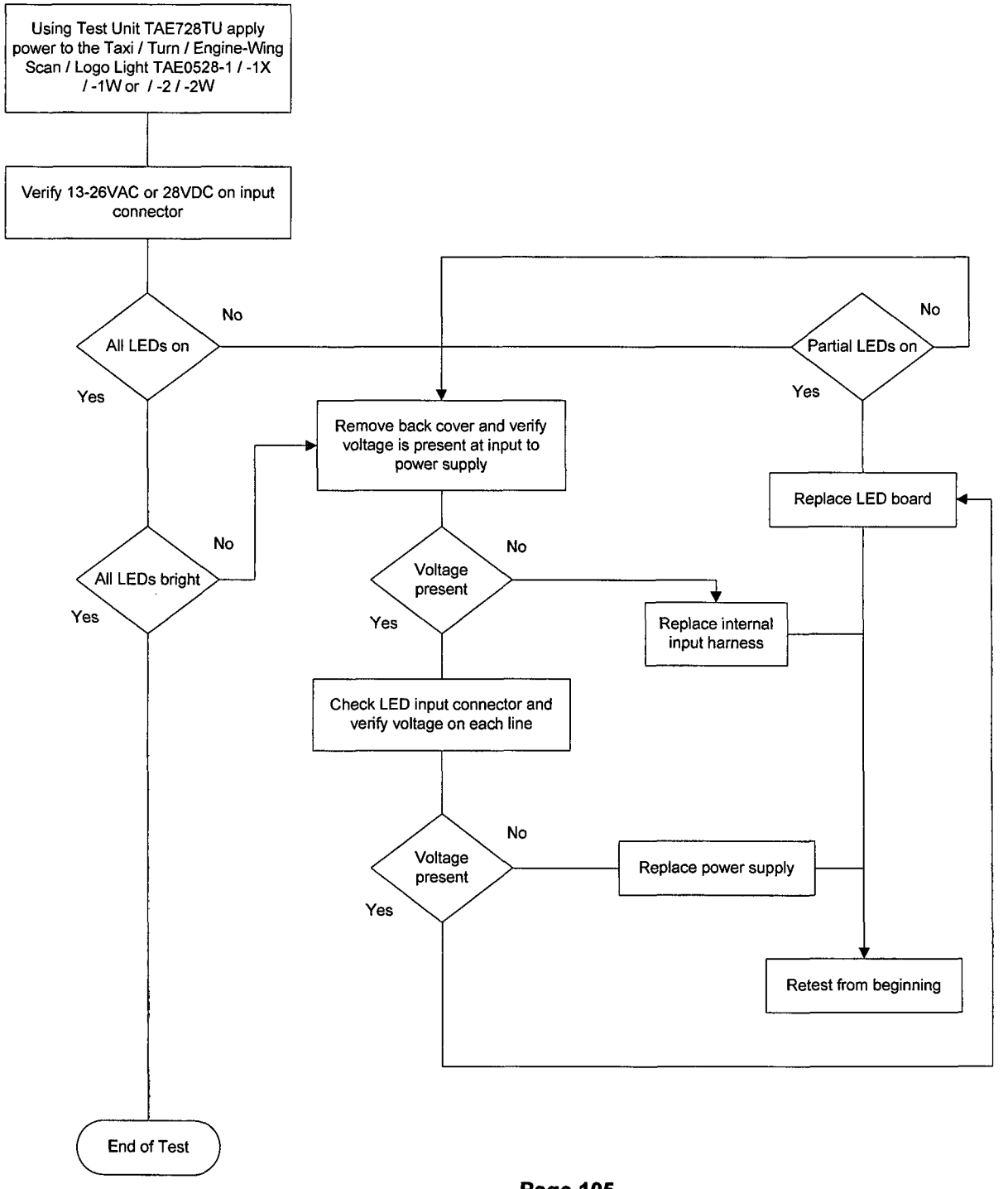
CAUTION: DO NOT APPLY POWER TO UNIT UNTIL INSTRUCTED TO DO SO.



6. Testing of LED Landing / Taxi / Turn / Engine-Wing Scan/ Logo Light TAE0528-1, TAE0528-1X, TAE0528-1W, TAE0528-2, TAE0528-2W

NOTE: Refer to IPL Figure 3 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

CAUTION: DO NOT APPLY POWER TO UNIT UNTIL INSTRUCTED TO DO SO.



DISASSEMBLY- LED Landing Light TAE0728-1 and Taxi/Take-Off Light TAE0728-1D

A. This section outlines the proper method of disassembly for the LED Landing Light and Taxi/Take-Off Light.

B. Disassemble only to the extent required to replace defective parts.

C. Refer to the Table on page 903 for a list of materials needed for assembly (including storage). Equivalent substitutes are acceptable.

2. Disassembly.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING AND TAXI/TAKE-OFF LIGHT IN A DISASSEMBLED STATE.*

NOTE: Refer to IPL Figure 1 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

A. Before disassembly, wipe exterior surfaces with a clean cloth to remove dirt, dust and other foreign materials.

B. When disassembling LED Landing and Taxi/Take-Off Light (refer to IPL Fig.1 page 902 and 903 for more information) unscrew Bezel (2) from housing (5) using TAE728-100 Spanning Wrench. This will allow the Lens (1), Optics Assembly (3) and Gasket (11) to be removed.

C. To remove the Power Supply Assy. (6) remove Screws (16) from Cap (7), then Screws (15). This allows the Power Supply Assy. (6), Heat Thermal, PWS (10), Cap (7), and Back Gasket (12) to be removed.

D. To remove LED Board (4) remove Screws (15) and pull up the LED Board (4) and Heat Thermal (9).

E. To remove Harness (13) from Brass Standoff (18) remove Locknuts (19). Pull Shoulder Washer (21) and flat washer (20) from Standoff (18)..

F. To remove Key (8) remove Screw (16)

DISASSEMBLY- LED Landing / Taxi Light TAE0628-1 and TAE0628-2

A. This section outlines the proper method of disassembly for the LED Landing / Taxi Light.

B. Disassemble only to the extent required to replace defective parts.

C. Refer to the Table on page 905 for a list of materials needed for assembly (including storage). Equivalent substitutes are acceptable.

2. Disassembly.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING / TAXI LIGHT ASSEMBLY IN A DISASSEMBLED STATE.*

NOTE: Refer to IPL Figure 2 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

A. Before disassembly, wipe exterior surfaces with a clean cloth to remove dirt, dust and other foreign materials.

B. When disassembling LED Landing/Taxi Light (refer to IPL Fig.2 page 904 and 905 for more information) unscrew Bezel (2) from housing (5) using TAE628-100 Spanning Wrench. This will allow the Lens (1), Optics Assembly (3) and Gasket (10) to be removed.

C. To remove the Power Supply Assy (6) remove Screws (16) to remove Cap (7), then Screws (15). This allows the Power Supply Assy. (6), Heat Thermal, PWS (12), Cap (7), and Back Gasket (11) to be removed.

D. To remove LED Board (4) remove Screws (15) and pull up LED Board (4) and Heat Thermal (9).

E. To remove Harness (13) from Brass Standoff (21) remove Locknuts (18). Pull Shoulder Washer (19) and flat washer (20) from Standoff (21).

F. To remove Key (8) remove Screw (17)

DISASSEMBLY- LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light TAE 0528-1, TAE0528-1X, TAE0528-1W, TAE0528-2 and TAE0528-2W

A. This section outlines the proper method of disassembly for the LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light.

B. Disassemble only to the extent required to replace defective parts.

C. Refer to the Table on page 907 for a list of materials needed for assembly (including storage). Equivalent substitutes are acceptable.

2. Disassembly.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING / TAXI / TURN / SCAN / LOGO LIGHT IN A DISASSEMBLED STATE.*

NOTE: Refer to IPL Figure 3 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

A. Before disassembly, wipe exterior surfaces with a clean cloth to remove dirt, dust and other foreign materials.

B. When disassembling LED Landing/Taxi/Turn/Engine-Wing Scan/Logo Light (refer to IPL Fig.3 page 906 and 907 for more information) unscrew Bezel (2) from housing (5) using TAE528-100 Spanning Wrench. This will allow the Lens (1), Optics Assembly (3) and Gasket (10) to be removed.

C. To remove the Power Supply Assy. (6) remove Screws (17) and Cap (7). Then remove Screws (17) to allow the Power Supply Assy. (6), Heat Thermal, PWS (9), Cap (7), and Back Gasket (11) to be removed.

D. To remove LED Board (4) remove Screws (16) and pull up LED Board (4) and Heat Thermal (8).

E. To remove Harness (12) from Brass Standoff (20) remove Locknuts (21). Pull Shoulder Washer (18) and flat washer (19) from Standoff (20).

F. To remove Key (13) remove Screw (15)

CLEANING

1. Notes.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LIGHTS IN A DISASSEMBLED STATE.*

A. This section outlines the proper method of cleaning the LED Landing / Taxi / Turn / Scan / Logo Lights.

A. Refer to the Tables on page 903, 905, and 907 as required for a list of materials needed for assembly (including storage). Equivalent substitutes are acceptable.

2. Cleaning Procedures.

NOTE: Refer to IPL Figure 1, 2, or 3 as required for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

A. Clean metal parts in Cleaning Compound. Use a cleaning brush to remove ground-in deposits. Use dry cloth to remove all excess Cleaning Compound.

B. Clean lens (3) with Plastic Cleaner and a clean cloth. Use dry cloth to remove all excess cleaning material.

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REPAIR- LED Landing Light TAE0728-1 and Taxi/Take-Off Light TAE0728-1D

1. Notes.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING AND TAXI/TAKE-OFF LIGHT IN A DISASSEMBLED STATE.*

NOTE: Refer to IPL Figure 1 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration.

A. The LED Landing Light TAE0728-1 and Taxi/Take-Off Light TAE0728-1D repair should be limited to the removal and replacement of failed or damaged parts.

B. Parts can be replaced using the Disassembly instructions provided on page 301.

C. For overhaul of the LED Landing and Taxi/Take-Off Light contact a TALON AEROSPACE representative at the following address:

TALON AEROSPACE (4FSN4)
Product Support
233 Cahaba Valley Parkway.
Pelham, Alabama 35124
Telephone: (205) 403-6589
FAX: (205) 403-6590
support@talonaerospace.com

REPAIR- LED Landing / Taxi Light TAE0628-1 and TAE0628-2

1. Notes.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING / TAXI LIGHT IN A DISASSEMBLED STATE.*

NOTE: Refer to IPL Figure 2 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration Parts List Reference Chart.

A. LED Landing / Taxi light repair should be limited to the removal and replacement of failed or damaged parts.

B. Parts can be replaced using the Disassembly instructions provided on page 302.

C. For parts required during overhaul of Landing / Taxi Light contact a TALON AEROSPACE representative at the following address:

TALON AEROSPACE (4FSN4)
Product Support
233 Cahaba Valley Parkway.
Pelham, Alabama 35124
Telephone: (205) 403-6589
FAX: (205) 403-6590
support@talonaerospace.com

REPAIR- LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light TAE0528-1, TAE0528-1X, TAE0528-1W, TAE0528-2 and TAE0528-2W

1. Notes.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING, TAXI, TURN, SCAN AND LOGO LIGHT IN A DISASSEMBLED STATE.*

NOTE: Refer to IPL Figure 3 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration Parts List Reference Chart.

A. The LED Landing, Taxi, Turn, Engine-Wing Scan, Logo light repair should be limited to the removal and replacement of failed or damaged parts.

B. Parts can be replaced using the Disassembly instructions provided on page 303.

C. For parts required during overhaul of Landing, Taxi, Turn, Engine-Wing Scan and Logo Light contact a TALON AEROSPACE representative at the following address:

TALON AEROSPACE (4FSN4)
Product Support
233 Cahaba Valley Parkway.
Pelham, Alabama 35124
Telephone: (205) 403-6589
FAX: (205) 403-6590
support@talonaerospace.com

ASSEMBLY- LED Landing Light TAE0728-1 and Taxi/Take-Off Light TAE0728-1D

1. Notes.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING AND TAXI/TAKE-OFF LIGHT ASSEMBLY IN A DISASSEMBLED STATE.*

A. This section outlines the proper method for assembly and storing the LED Landing and Taxi/Take-Off Light Assembly.

B. Examine the parts for damage.

C. Repair damaged parts before assembly. Refer to REPAIR, section 601, for details.

D. Refer to the Tables on pages 801 and 802 for a list of materials needed for assembly (including storage). Equivalent substitutes are acceptable.

2. Assembly of Landing and Taxi/Take-Off Light Assembly.

NOTE: Refer to IPL Figure 1 page 902 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration. Use Thread locker compound on all screws.

A. Place Heat Thermal (9) and LED Board (4) into Heat Sink (5). Torque Screws (14) to 2.4 IN.LB.

B. Install Optics Assembly (3) onto LED Board (4), gently inserting the feet into corresponding holes. Then Place Gasket (11) and Lens (1) onto Heat Sink and screw Bezel (2) onto Heat Sink (5) using TAE728-100 Spanning Wrench to 12 IN.LB. Use anti-seize compound on Heatsink and Bezel threads to avoid binding.

C. Solder Harness (13) into Power Supply Assembly (6) via solder cups in accordance with IPC J-STD-001. Solder must meet ANSI/J-STD-006.

D. Place Heat Thermal, PWS (10) into Heat Sink (5), then install Power Supply Assembly (6) into Heat Sink (5), gently sliding it over the pins of LED Board (4) to make a secure connection. Screw Power Supply Assembly (6) into Heat Sink (5) using 3x Screws (15) tightened to 2.4 IN.LB.

E. Place Back Gasket (12) on Heat Sink (5), then Assemble Harness (13) to Brass Standoffs (18) using Locknut (19) and Nylon Washers (20) and (21) through Cap (7) as shown in Figure 1. Tighten Locknuts to 10 IN.LB. For Landing Light TAE0728-1 there is no polarity and either lead can be mounted to either standoff. For Taxi/Take-Off Light TAE0728-1D polarity is important. Power Supply Assembly (6) is marked with H, L, N. Ensure that each lead is attached to the Brass Standoff (18) which is marked the with same letter on Back Cap (7). The marking on the Back Cap (7) is to be facing out after assembly.

F. Attach Cap (7) to Heat Sink (5) using Screws (16) torqued to 8 IN. LB. Attach Data Plate (14) with self-adhesive backing and Attach Screws (22) and Washers (23) to Brass Standoffs (18) with 2 IN.LB.

G. Purge unit and then fill with Nitrogen through Key hole in Heat Sink (5) and attach Key (8) to Heat Sink (5) with Screw (17). Use RTV3145 to seal the unit in case of small leaks around screws.

3. Storage of LED Landing and Taxi/Take-Off Light Assembly.

A. Before storing, wipe exterior surfaces with a clean cloth to remove dirt, dust and other foreign materials.

B. Preserve the LED Landing Light Assembly in accordance with Method 44 of MIL-STD-2073.

C. Place LED Landing and Taxi/Take-Off Light Assembly in a plastic bag with ESD protection.

D. Place the LED Landing and Taxi/Tak-Off Light Assembly in the unit container with cushion and dunnage sufficiently above, below and around the Landing Light Assembly.

E. Mark the outside of the unit container in accordance with MIL-STD-129. Include repair dates and location.

ASSEMBLY- LED Landing / Taxi Light TAE0628-1 and TAE0628-2

1. Notes.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING / TAXI LIGHT ASSEMBLY IN A DISASSEMBLED STATE.*

A. This section outlines the proper method for assembly and storing the LED Landing / Taxi Light Assembly.

B. Examine the parts for damage.

C. Repair damaged parts before assembly. Refer to REPAIR, section 602, for details.

D. Refer to the Tables on pages 801 and 802 for a list of materials needed for assembly (including storage). Equivalent substitutes are acceptable.

2. Assembly of Landing Light Assembly.

NOTE: Refer to IPL Figure 2 page 904 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration. Use Thread locker compound on all screws.

A. Place Heat Thermal (9) and LED Board (4) into Heat Sink (5). Torque Screws (15) to 2.4 IN.LB.

B. Install Optics Assembly (3) onto LED Board (4), gently inserting the feet into corresponding holes. Then place Lens (1) and Gasket (10) onto Heat Sink (5) and screw Bezel (2) onto Heat Sink (5) using TAE628-100 Spanning Wrench to 10 IN.LB. Use anti-seize compound on Heatsink and Bezel threads to avoid binding.

C. Solder Harness (13) into Power Supply Assembly (6) via solder cups in accordance with IPC J-STD-001. Solder must meet ANSI/J-STD-006.

D. Place Heat Thermal, PWS (12) into Heat Sink (5), then install Power Supply Assembly (6) into Heat Sink (5), gently sliding it over the pins of LED Board (4) to make a secure connection. Screw Power Supply Assembly (6) into Heat Sink (5) using 3x Screws (15) tightened to 2.4 IN.LB.

E. Place Back Gasket (11) on Heat Sink (5), then assemble Harness (13) to Brass Standoffs (21) using Locknut (18) and Nylon Washers (19) and (20) and Rubber Washers (24) through Cap (7) as shown in Figure 1. Tighten Locknuts to 10 IN.LB.

F. Attach Cap (7) to Heat Sink (5) using Screws (15) torqued to 8 IN. LB. Attach Data Plate (13) with self-adhesive backing and Attach Screws (22) and Washers (23) to Brass Standoffs (21) with 2 IN.LB.

H. Purge unit and then fill with Nitrogen through Key hole in Heat Sink (5) and attach Key (8) to Heat Sink (5) with Screw (17). Use RTV3145 to seal the unit in case of small leaks around screws.

3. Storage of LED Landing / Taxi Light Assembly.

A. Before storing, wipe exterior surfaces with a clean cloth to remove dirt, dust and other foreign materials.

B. Preserve the LED Landing Light Assembly in accordance with Method 44 of MIL-STD-2073.

C. Place LED Landing Light Assembly in a plastic bag with ESD protection.

D. Place the LED Landing Light Assembly in the unit container with cushion and dunnage sufficiently above, below and around the Landing Light Assembly.

E. Mark the outside of the unit container in accordance with MIL-STD-129. Include repair dates and location.

ASSEMBLY- LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light TAE0528-1, TAE0528-1X, TAE0528-1W, TAE0528-2 and TAE0528-2W

1. Notes.

***CAUTION**: OBSERVE STANDARD ESD PROCEDURES WHILE HANDLING THE LED LANDING / TAXI / TURN / SCAN / LOGO LIGHT ASSEMBLY IN A DISASSEMBLED STATE.*

A. This section outlines the proper method for assembly and storing the LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light.

B. Examine the parts for damage.

C. Repair damaged parts before assembly. Refer to REPAIR, section 603, for details.

D. Refer to the Tables on pages 801 and 802 for a list of materials needed for assembly (including storage). Equivalent substitutes are acceptable.

2. Assembly of LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light Assembly.

NOTE: Refer to IPL Figure 3 page 906 for an illustration. Numbers in parentheses ( ) refer to item numbers on the illustration. Use Thread locker compound on all screws.

A. Place Heat Thermal (8) and LED Board (4) into Heat Sink (5). Torque Screws (16) to 2.4 IN.LB.

B. Install Optics Assembly (3) onto LED Board (4), gently inserting the feet into corresponding holes. Then Place Gasket (10) and Lens (1) onto Heat Sink (5) and screw Bezel (2) onto Heat Sink (5) using TAE528-100 Spanning Wrench to 10 IN.LB. Use anti-seize compound on Heatsink and Bezel threads to avoid binding.

C. Solder Harness (12) into Power Supply Assembly (6) via solder cups in accordance with IPC J-STD-001. Solder must meet ANSI/J-STD-006.

D. Place Heat Thermal, PWS (9) into Heat Sink (5), then install Power Supply Assembly (6) into Heat Sink (5), gently sliding it over the pins of LED Board (4) to make a secure connection. Screw Power Supply Assembly (6) into Heat Sink (5) using 2x Screws (17) tightened to 2.4 IN.LB.

E. Place Back Gasket (11) on Heat Sink (5), then Assemble Harness (12) to Brass Standoffs (20) using Locknut (21) and Nylon Washers (18) and (19) and Rubber Washers (24) through Cap (7) as shown in Figure 1. Tighten Locknuts (21) to 10 IN.LB.

F. Attach Cap (7) to Heat Sink (5) using Screws (17) torqued to 8 IN. LB. Attach Data Plate (14) with self-adhesive backing and Attach Screws (22) and Washers (23) to Brass Standoffs (20) with 2 IN.LB.

I. Purge unit and then fill with Nitrogen through Key hole in Heat Sink (5) and attach Key (13) to Heat Sink (5) with Screw (15). Use RTV3145 to seal the unit in case of small leaks around screws.

3. Storage of LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light Assembly.

A. Before storing, wipe exterior surfaces with a clean cloth to remove dirt, dust and other foreign materials.

B. Preserve the LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light Assembly in accordance with Method 44 of MIL-STD-2073.

ASSEMBLY-Landing / Taxi / Turn / Engine-Wing Scan / Logo Light TAE0528-1, TAE0528-1X, TAE0528-1W, TAE0528-2 and TAE0528-2W

C. Place LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light Assembly in a plastic bag with ESD protection.Place the LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light Assembly in the unit container with cushion and dunnage sufficiently above, below and around the Taxi / Turn / Scan / Logo Light Assembly.

D. Mark the outside of the unit container in accordance with MIL-STD-129. Include repair dates and location.

SPECIAL TOOLS, FIXTURES AND EQUIPMENT

1. Notes.

A. This section outlines the proper information for special tools, fixtures and equipment used for TESTING, DISASSEMBLY, CLEANING, CHECKS, REPAIR and ASSEMBLY of the LED Light Assembly Components.

B. Refer to the table below for a list of Special Tools, Fixtures and equipment. Equivalent substitutes may be used.

Table 901. Special Tools, Fixtures and Equipment List

NOMENCLATURE	PART/MODEL NUMBER	USED FOR	FIGURE NUMBER
Variable Regulated Power Supply (0 to 130 VAC, 400 Hz, 3A min)	Model 1500 Ectron Corp. San Diego, CA (24856) Or equivalent	Testing and Fault Isolation	NA
Multimeter (AC and DC Voltage/Ohms/Amps)	Model Fluke 45 Fluke Corporation 6920 Seaway Blvd Everett, WA 98203, USA Or equivalent	Testing and Fault Isolation	NA
Bench Test Unit	Model TAE728TU Talon Aerospace 233 Cahaba Valley Pkwy Pelham, Al 35124	Testing and Fault Isolation	NA
Common Hand tools (screwdrivers, pliers, wrenches, etc.)	Various	Assembly and disassembly	NA
Torque Screw Driver, Inch Lbs. Kit 2-36 Inch Lbs.	Model 304T0036 Sturtevant Richmond 555 Kimberly Drive Carol Stream, IL 60188 Or equivalent	Torque screws where noted during assembly stage	NA
Spanning Wrenches	Model TAE728-100 Model TAE628-100 Model TAE528-100 Talon Aerospace 233 Cahaba Valley Pkwy Pelham, Al 35124	Assembly and disassembly	NA
Hold Down Fixtures	Model TAE728HD Model TAE628HD Model TAE528HD Talon Aerospace 233 Cahaba Valley Pkwy Pelham, Al 35124	Assembly and disassembly	NA

MATERIAL LIST

Refer to the table below for the authorized List of Materials. Equivalent substitutes may be used.

Table 802. Material List

NOMENCLATURE	SPECIFICATION	MANUFACTURER
Cleaning Cloth	MIL-C-35043	Commercially Available
Plastic Cleaner	MIL-C-18767A	Commercially Available
Cleaning Compound	MIL-DTL-5541	Commercially Available
ESD Bag, Plastic	MIL-PRF-81705-D-Type I (ESD/EMI Opaque Static Shielding)	Commercially Available
Cushion and Dunnage	PPP-C-1752, Unicellular, Polyethylene Foam	Commercially Available
Adhesive Tape	PPP-T-60	Commercially Available
Thread locker	Mil-S-46163A Loctite 222MS	Commercially Available
RTV Coating	MIL-A-46146 Dow Corning RTV-3145	Commercially Available
Anti-Seize Compound	Loctite C5A Copper Anti Seize	Commercially Available

ILLUSTRATED PARTS LIST

1. Notes.

A. This section provides an illustrated breakdown of components making up the LED Landing / Taxi / Turn / Engine-Wing Scan / Logo Light Systems. All parts are listed, except for parts which lose their identities by being permanently fastened to other parts or are part of an assembly not subject to disassembly.

B. Find part numbers by locating the part on the illustration (note the item number). Locate the item number on the Illustrated Parts List. The corresponding part number will be shown on the same line.

2. Reference Chart Column Definitions.

A. Figure: Refers to the illustration number.

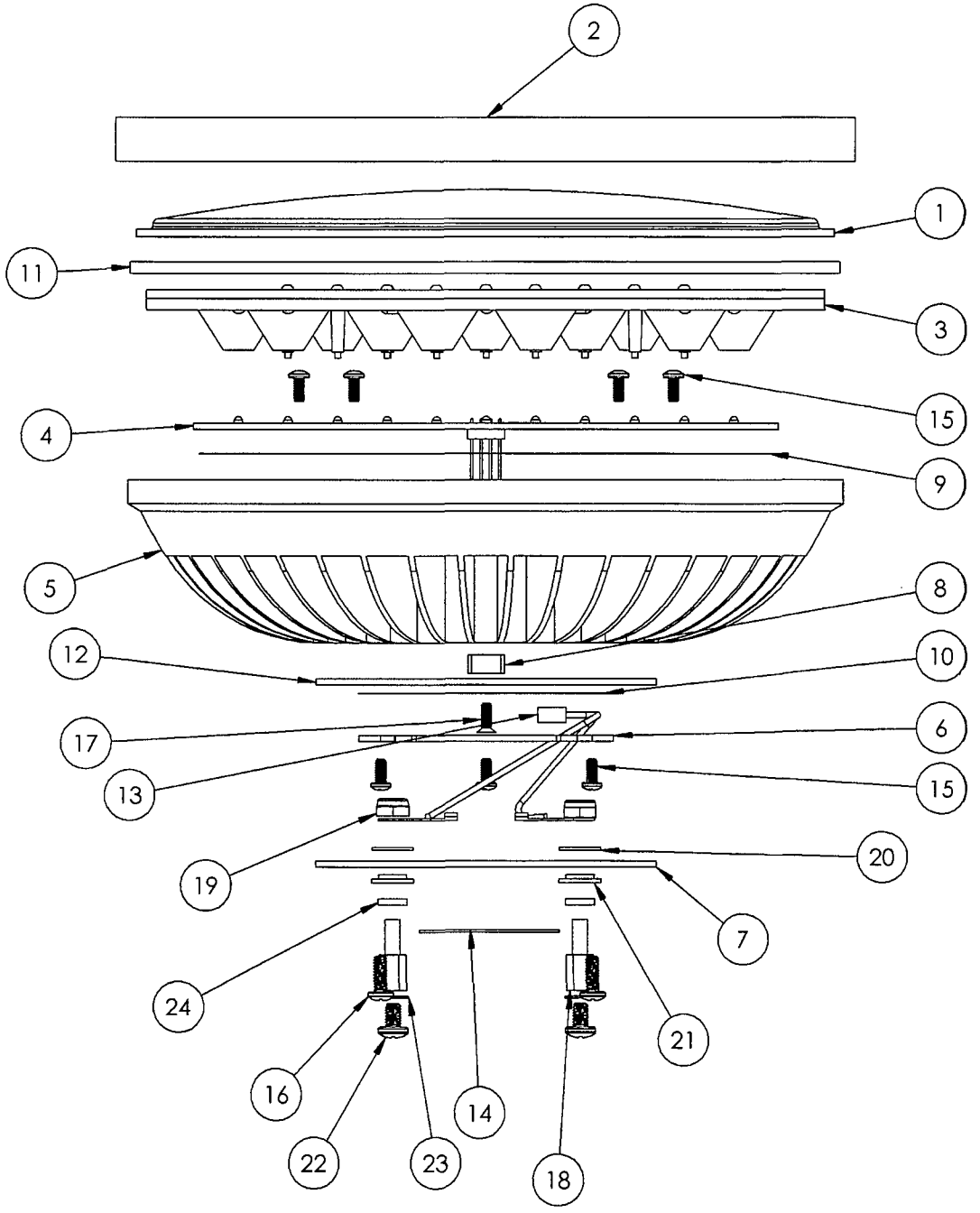
B. Item: Refers to the item number identifying individual parts on the corresponding Illustrated Parts List Illustration as indicated by the figure number.

C. Part Number: Defines the manufacturer part number for each illustrated item.

D. Nomenclature: Identifies parts by name.

E. Units per Assembly: Defines the quantity of each part listed needed to fully complete assembly of the anti-collision light.

ILLUSTRATED PARTS LIST



LED Landing Light PAR 64 TAE0728-1 and Taxi/Take-Off Liight TAE0728-1D

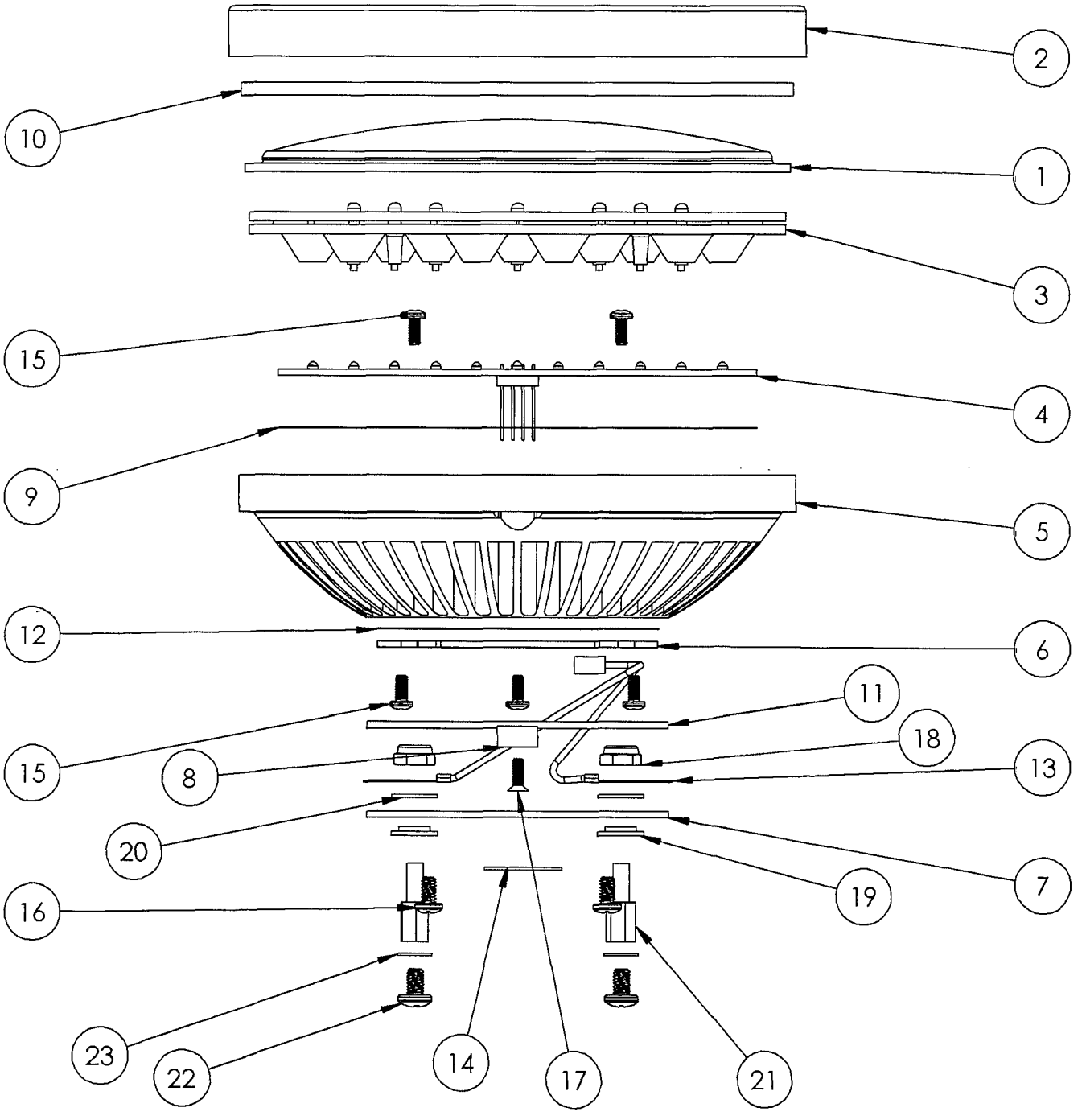
Figure 1

ILLUSTRATED PARTS LISTING (SEE FIGURE 1 ON PAGE 902)

Fig Item	PART NUMBER	Nomenclature	Units per Assembly
1- 1	728-001-1	LENS	1
2	728-002-1	BEZEL	1
3	728-003-1	OPTICS ASSEMBLY	1
4	728-004-1	LED BOARD	1
5	728-005-1	HEAT SINK	1
6	728-006-1/728-006-2 *	POWER SUPPLY ASSEMBLY	1
7	728-007-1/728-007-2 **	CAP	1
8	628-008-1	KEY	1
9	728-009-1	HEAT THERMAL	1
10	728-010-1	HEAT THERMAL, PWS	1
11	728-011-1	GASKET	1
12	728-014-1	BACK GASKET	1
13	728-015-1/728-015-2 ***	HARNESS	1
14	DP022/DP034 ****	DATA PLATE	1
15	MS 51957-13	SCREW, PH, #4-40 .250	9
16	MS51957-28	SCREW, PH, #6-32 X .375	4
17	MS24693-C3	SCREW, FH, #4-40 X .313	1
18	8732 *****	#8-32 X.375 BRASS STANDOFF	2 or 3
19	AN 364-832A *****	#8 THIN LOCK NUT	2 or 3
20	5610-503-31 *****	#8 ROUND FLAT WASHER	2 or 3
21	5607-93 *****	#8 SHOULDER WASHER	2 or 3
22	MS51957-41 *****	SCREW, PH, #8-32 X .25	2 or 3
23	MS35333-38 *****	#8 STAR LOCK WASHER	2 or 3

* For TAE0728-1 use Power Supply 728-006-1 and for TAE0728-1D use Power Supply 728-006-2
** For TAE0728-1 use Back Cap 728-007-1 and for TAE0728-1D use Back Cap 728-007-2
*** Note for TAE0728-1 use Harness 728-015-1 and for TAE0728-1D use Harness 728-015-2
**** Note For TAE0728-1 use Data Plate DP022 and for TAE0728-1D use Data Plate DP034
***** For TAE0728-1 use 2 ea of item 18-23, for TAE0728-1D use 3 ea

ILLUSTRATED PARTS LIST



LED Landing / Taxi PAR 46 TAE0628-1 and TAE0628-2

Figure 2

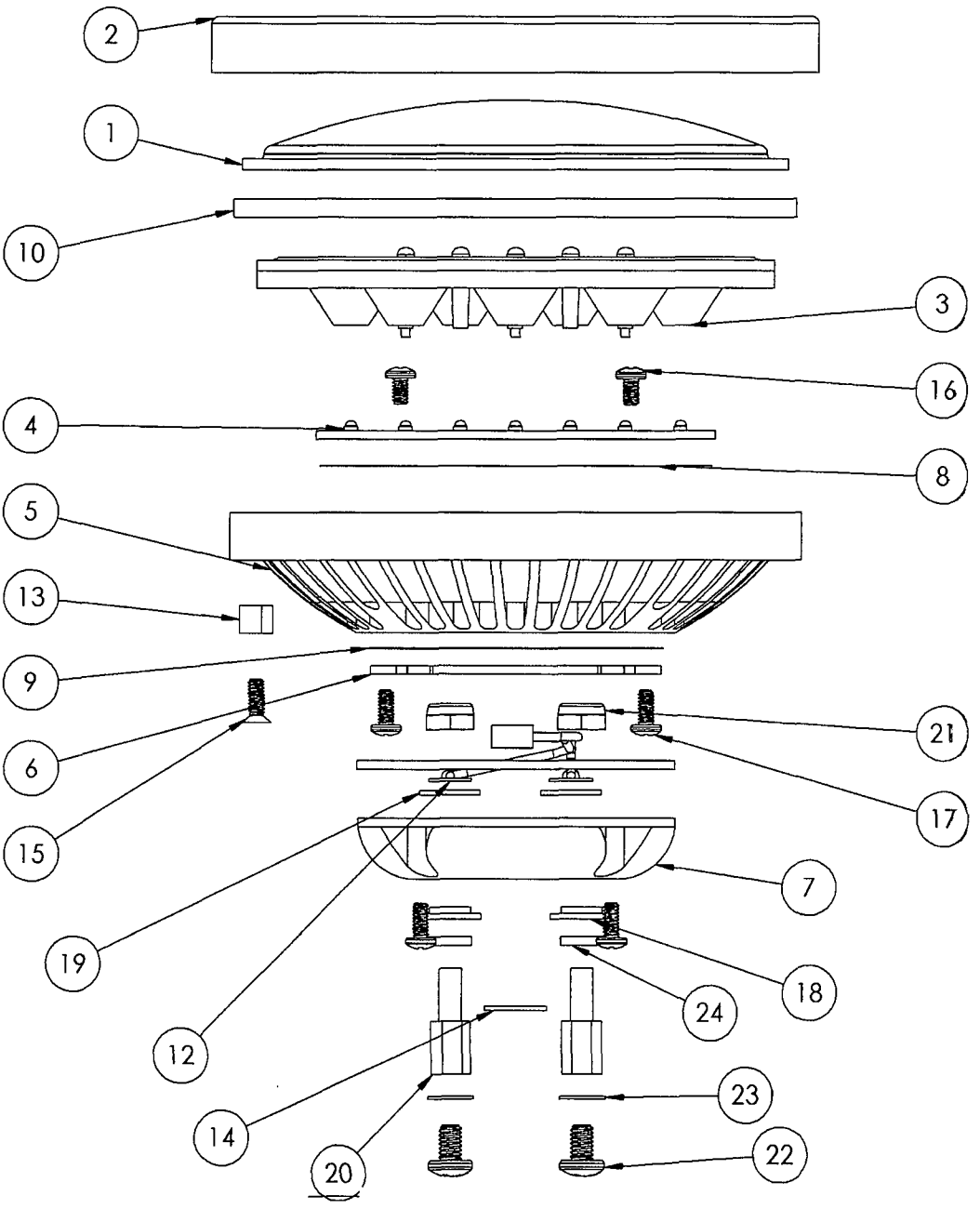
ILLUSTRATED PARTS LISTING (SEE FIGURE 2 ON PAGE 904)

Fig Item	PART NUMBER	Nomenclature	Units per Assembly
2- 1	628-001-1	LENS	1
2	628-002-1	BEZEL	1
3	628-003-1/628-003-2	OPTICAL ASSEMBLY	1
4	628-004-1	LED BOARD	1
5	628-005-1	HEAT SINK	1
6	628-006-1	POWER SUPPLY ASSEMBLY	1
7	628-007-1	BACK CAP	1
8	628-008-1	KEY	1
9	628-009-1	HEAT THERMAL	1
10	628-011-1	GASKET	1
11	628-014-1	BACK GASKET	1
12	728-010-1	HEAT THERMAL, PWS	1
13	728-015-1	HARNESS	1
14	DP020/DP021	DATA PLATE	1
15	MS 51957-13	SCREW, PH, #4-40 .250	7
16	MS51957-26	SCREW, PH, #6-32 X .250	4
17	MS24693-C3	SCREW, FH, #4-40 X .313	1
18	AN 364-832A	#8 THIN LOCK NUT	2
19	5607-93	#8 SHOULDER WASHER	2
20	5610-503-31	#8 ROUND FLAT WASHER	2
21	8732	#8-32 X.375 BRASS STANDOFF	2
22	MS51957-41	SCREW, PH, #8-32 X .25	2
23	MS35333-38	#8 STAR LOCK WASHER	2

* Note: For TAE0628-1 use optics assembly 628-003-1 and for TAE0628-2 use optics assembly 628-003-2

**Note: For TAE0628-1 use Data Plate DP020 and for TAE0628-2 use Data Plate DP021

ILLUSTRATED PARTS LIST



LED Taxi / Turn / Engine-Wing Scan / Logo Light PAR 36 TAE0528-1, TAE0528-1W, TAE0528-2 and TAE0528-2W

Figure 3

Fig Item	PART NUMBER	Nomenclature	Units per Assembly
3- 1	528-001-1	LENS	1
2	528-002-1	BEZEL	1
3	528-003-1/528-003-2 *	OPTICS ASSEMBLY	1
4	528-004-1/528-004-2 528-004-1X **	LED BOARD ASSEMBLY WARM	1
5	528-005-1	HEAT SINK	1
6	528-006-1	POWER SUPPLY ASSEMBLY	1
7	528-007-1	CAP	1
8	528-009-1	HEAT THERMAL	1
9	528-010-1	HEAT THERMAL, PWS	1
10	528-011-1	GASKET	1
11	528-014-1	BACK GASKET	1
12	528-015-1	HARNESS ASSEMBLY	1
13	628-008-1	KEY	1
14	DP016/DP017/DP018/DP019/DP033 ***	DATA PLATE	1
15	MS24693-C3	SCREW, FH, #4-40 X .313	1
16	MS51957-12	SCREW, PH, #4-40 X .188	4
17	MS 51957-13	SCREW, PH, #4-40 .250	6
18	5607-93	#8 SHOULDER WASHER	2
19	5610-503-31	#8 ROUND FLAT WASHER	2
20	8732	#8-32 X.375 BRASS STANDOFF	2
21	AN 364-832A	#8 THIN LOCK NUT	2
22	MS51957-41	SCREW, PH, #8-32 X .25	2
23	MS35333-38	#8 STAR LOCK WASHER	2

* Note: For TAE0528-1 and TAE0528-1W use Optics assembly 528-003-1 and for TAE0528-2 and TAE0528-2W use Optics assembly 528-003-2

** Note: For TAE0528-1 and TAE0528-2 use LED Board assembly 528-004-1 and for TAE0528-1W and TAE0528-2W use LED Board assembly 528-004-2. For TAE0528-1X use LED Board assembly 528-004-1X

***Note: For TAE0528-1 use Data Plate DP016, for TAE0528-1W use Data Plate DP017, for TAE0528-2 use Data Plate DP018 and for TAE0528-2W use Data Plate DP019.

Electrical Load Statement

For

Talon Aerospace
LED Replacement
General Purpose Lighting

Project Number ST14465AT-T

Prepared By: _____ **Date:** 4/14/16

Checked by: _____ **Date:** 4/14/16

Approved by: _____ **Date:** 4/14/16

RECORD OF REVISIONS

Rev	Date	Pages Affected	Description Of Revision	Approved By
0	3/18/14	All	Initial Release	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez
1	8/11/2015	5	Added part numbers TAE0428-1, -2, -1W and -2W.	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez
2	1/19/16	5	Removed lamp replaced part numbers with PAR type.	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez
3	See Front Page	5	1.2 Revised Table.	Prepared by: Ken Martin Checked by: Tyler Henderson Approved by: Jose Perez

TABLE OF CONTENTS

1.1 Purpose

This Electrical Load Statement identifies electrical loads that have been removed from the aircraft as the result of an alteration. Only the rated loads of the individual lamps are recorded in the load charts. The listed loads are based on the value published in the manufacturer's datasheets. The intent of this load statement is to show compliance with CFR part §25.1351(a) (1) (2), Amdt. 25-72

1.2 Loads

Talon Aerospace Part Number	Equivalent Size	Power Consumption	Lamp Replaced	Power Consumption	Difference
TAE0728-1	PAR 64	104 Watts	PAR 64	650 Watts	-546
TAE0728-1D High	PAR 64	104 Watts	PAR 64	600 Watts	-496
TAE0728-1D Low	PAR 64	28 Watts	PAR 64	400 Watts	-372
TAE0628-X *	PAR 46	83 Watts	PAR 46	450 Watts	-367
TAE0628-X *	PAR 46	83 Watts	PAR 46	250 Watts	-167
TAE0528-X **	PAR 36	28 Watts	PAR 36	250 Watts	-222
TAE0528-X **	PAR 36	28 Watts	PAR 36	150 Watts	-122
TAE0528-X	PAR 36	28 Watts	PAR 36	100 Watts	-72
TAE0428-X ***	PAR 20	14 Watts	HLX64621	100 Watts	-86
K428-A3-LGL-001	N/A	28 Watts	HLX64621 (2)	200 Watts	-172
K428-A3-LGL-001W	N/A	28 Watts	HLX64621 (2)	200 Watts	-172

*= TAE0628-1, TAE0628-2
**= TAE0528-1, TAE0528-1W, TAE0528-1X, TAE0528-2, TAE0528-2W
***= TAE0428-1, TAE0428-1W, TAE0428-2, TAE0428-2W

1.3 Conclusion

The power added as a result of this alteration is less than the power used by the OEM lamps.

Therefore the power consumption as a result of this modification is negligible to the overall aircraft power system.

Structural Substantiation Report

For

Talon Aerospace

Talon Aerospace
LED Replacement
General Purpose Lighting

Project Number ST14465AT-T

Prepared By: Kevin Martin **Date:** 5/2/16

Checked by: William B. Cotney Jr **Date:** 5/2/16

Approved by: James M Pozzi **Date:** 5/2/16

RECORD OF REVISIONS

Rev	Date	Pages Affected	Description Of Revision	Approved By
0	3/18/14	All	Initial Release	Prepared by: Tim Stacks Checked by: W.B. Cotney, Jr. Approved by: Ken Martin
1	8/20/15	5	Added K428-B3-LGL-001 & -002. K428-B5-LGL-001, -002, -003, and -004, K428-B7-LGL-001, -002, -003, -004.	Prepared by: Ken Martin Checked by: W.B. Cotney Jr. Approved by: Jose Perez
2	See Front Page	5	Added TAE0728-1D, TAE0528-1X, K428-A3-LGL-001 and -001W.	Prepared by: Ken Martin Checked by: W.B. Cotney Jr. Approved by: Jose Perez

TABLE OF CONTENTS

1 Introduction

1.1 Purpose

The purpose of this report is to provide a structural substantiation for the removal and the replacement of the OEM landing, turn, taxi, scan and logo lights with the Talon Aerospace LED replacement lamps.

1.2 Modification Description

The existing OEM landing, turn, taxi, scan and logo lights are removed and replaced with Talon Aerospace parts. There are no structural changes to the aircraft for the various Talon Aerospace LED replacement lamps.

The following table provides the part numbers and weights of the removed/replaced parts.

Talon Aerospace Part Number	Equivalent Size	Weight (lbs.)	Lamp Replaced	Weight (lbs.)	Difference
TAE0728-1	PAR64	2.000	Q4559	1.765	0.235
TAE0728-1D	PAR64	2.000	4557	1.765	0.235
TAE0628-1	PAR46	0.990	4580	0.830	0.160
TAE0628-2	PAR46	0.990	Q4554	0.830	0.160
TAE0528-1	PAR36	0.600	Q4631	0.470	0.130
TAE0528-1X	PAR36	0.600	4596	0.470	0.130
TAE0528-2	PAR36	0.600	4626	0.470	0.130
TAE0528-1W	PAR36	0.600	Q4631	0.470	0.130
TAE0528-2W	PAR36	0.600	4626	0.470	0.130
K428-A3-LGL-001	N/A	1.800	4358532 / 31-2581-X	3.000	1.200
K428-A3-LGL-001W	N/A	1.800	4358532 / 31-2581-X	3.000	1.200
K428-B3-LGL-001	N/A	1.600	81000-37601	2.200	0.600
K428-B3-LGL-002	N/A	1.600	81000-37601	2.200	0.600
K428-B5-LGL-001	N/A	1.600	4322252 4300181 4300181A	2.000	0.400
K428-B5-LGL-002	N/A	1.600	4322245 4300197 4300197A	2.000	0.400
K428-B5-LGL-003	N/A	1.600	4322275 4300167 4318746	2.000	0.400
K428-B5-LGL-004	N/A	1.600	4322268 4300174 4318769	2.000	0.400
K428-B7-LGL-001	N/A	1.600	4321554	2.000	0.400
K428-B7-LGL-002	N/A	1.600	4321561	2.000	0.400
K428-B7-LGL-003	N/A	1.600	4321577	2.000	0.400
K428-B7-LGL-004	N/A	1.600	4321584	2.000	0.400

1.3 Abbreviations

Abbreviation	Definition
BA	Balance Arm
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
OEM	Original Aircraft Manufacturer
STA	Fuselage Station
STC	Supplemental Type Certificate
WT	Weight

1.4 Units

Unless otherwise specified, all weights are given in pounds (lbs) and all moments are given in inch-pounds (in-lbs).

2 Structural Substantiation

Structural substantiation is based on the comparative weights of the existing lights to the replaced lights.

3 Conclusion

Due to the weight differences of all assemblies and identicality to the original attachment schemes, it is concluded that the assemblies and installations analyzed in this report meet or exceed the original design. No further analysis is necessary.

US Department of Transportation
Federal Aviation Administration

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

Form Approved OMB No. 2120-0020 11/30/2007 | Electronic Tracking Number

For FAA Use Only

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

1. Aircraft	Nationality and Registration Mark: N372BG	Serial No.: 5164	
	Make: Gulfstream Aerospace	Model: GV-SP (G550)	Series:
2. Owner	Name *(As shown on registration certificate)*: Contrail Aviation LLC	Address *(As shown on registration certificate)*: Address 5 Hog Island Rd; City Philadelphia; State PA; Zip 19153-3809; Country United States	

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME	———	*(As described in Item 1 above)*	———
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address

Name Gulfstream Aerospace
Address W6365 Discovery Drive
City Appleton State WI
Zip 54914 Country United States

B. Kind of Agency

	U.S. Certificated Mechanic		Manufacturer
	Foreign Certificated Mechanic	C. Certificate No.	
X	Certificated Repair Station	G1FR100Y	
	Certificated Maintenance Organization		

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

Extended range fuel per 14 CFR Part 43 App. B ☐

Signature/Date of Authorized Individual

Matthew C Lute Matthew C Lute 14 SEP 2016

7. Approval for Return To Service

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

BY		FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
		FAA Designee	X	Repair Station		Inspection Authorization		Other *(Specify)*

Certificate or Designation No. G1FR100Y

Signature/Date of Authorized Individual

Matthew C Lute Matthew C Lute 14 SEP 2016

FAA Form 337 (10-06)

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.)

N372BG	14 SEP 2016
Nationality and Registration Mark	Date

Installed Crane Aerospace & Electronics Tire Sensor Assembly STC ST02408SE, issued 2 SEP 2014, in accordance with Master Document List (MDL) No. CCL83-022-01 REV – as listed on Approved Model List (AML) ST02408SE. Reference STC Letter of Authorization (LOA) dated 14 JUL 2016.

Updated weight and balance as required. See Weight and Balance report dated 13 SEP 2016.
Updated Equipment List as required. See Supplement Equipment List dated 13 SEP 2016.

----------END----------

☐ Additional Sheets Are Attached

US Department of Transportation
Federal Aviation Administration

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

Form Approved OMB No. 2120-0020 2/28/2011 | Electronic Tracking Number

For FAA Use Only

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

1. Aircraft

Nationality and Registration Mark	Serial No.	
N372BG	5164	
Make	**Model**	**Series**
Gulfstream Aerospace	GV-SP(G550)	

2. Owner

Name *(As shown on registration certificate)*	Address *(As shown on registration certificate)*
Contrail Aviation	Address: 5 hog Island Rd City: Philadelphia State: Pa Zip: 19153-3809 Country: United States

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☑	AIRFRAME	—	*(As described in Item 1 above)*	—
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	
Name: Gulfstream Aerospace Services Corporation	☐ U. S. Certificated Mechanic	☐ Manufacturer
Address: 7 Char Drive	☐ Foreign Certificated Mechanic	C. Certificate No.
City: Westfield State: MA	☑ Certificated Repair Station	
Zip: 01085 Country: USA	☐ Certificated Maintenance Organization	LEGR039G

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

Extended range fuel per 14 CFR Part 43 App. B	Signature/Date of Authorized Individual
☐	Paul Mumford Paul Mumford 10/25/2013

7. Approval for Return to Service

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

BY								
	☐	FAA Flt. Standards Inspector	☐	Manufacturer	☐	Maintenance Organization	☐	Persons Approved by Canadian Department of Transport
	☐	FAA Designee	☑	Repair Station	☐	Inspection Authorization		Other *(Specify)*

Certificate or Designation No.	Signature/Date of Authorized Individual
LEGR039G	John Cournoyer 10/25/2013

FAA Form 337 (10-06)

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.)

N372BG	10/25/2013
Nationality and Registration Mark	Date

CB 133A Modification- Relocation of Third Fire Bottle, dated January 17, 2013. Approved by STC ST01822AT-D dated July 31, 2011.

☐ Additional Sheets Are Attached

United States of America

Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

Number ST01822AT-D

This certificate issued to Gulfstream Aerospace Corporation
500 Gulfstream Road
Savannah, GA 31408

certifies that the change in the type design for the following product with the limitations and conditions thereof as specified hereon meets the airworthiness requirements of Part 25* *of the* Federal Aviation *Regulations. See Type Certificate Data Sheet* A12EA *for complete certification basis.*

Original Product - Type Certificate Number: A12EA

Make: Gulfstream

*See Page 3

Model: GV & GV-SP

Description of Type Design Change: Installation of an APU Fire Bottle in accordance with Gulfstream Aerospace Corporation Index List GC514428001 Rev L, dated July 31, 2011 or later FAA approved revision.

FAA accepted Airplane Flight Manual Supplement, GC51442M001, dated April 8, 1999 or later FAA approved revision is required for fully operational configurations (non-spare). For the model GV, Instructions for Continued Airworthiness, GC51442A001, Revision C, dated September 28, 2010 or later FAA accepted revision is required, and must be made available to the operator at the time of installation. For the model GV-SP, Instructions for Continued Airworthiness, CE52442A000, Revision A, dated October 04, 2010 or later FAA accepted revision is required, and must be made available to the operator at the time of installation.

Limitations and Conditions:

1. The installer must determine whether this design change is compatible with previously approved modifications.
2. If the holder agrees to permit another person to use this certificate to alter a product, the holder must give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: January 19, 1999

Date of issuance: April 08, 1999

Date reissued:

Date amended: July 31, 2011

By direction of the Administrator

Mitchell Cannon
(Signature)

FOR William S. Whitton, Jr.
ODA Lead Administrator, ODA-511131-CE
Gulfstream Aerospace Corporation
Savannah, Georgia

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

United States of America

Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number ST01822AT-D

Date Amended: July 31, 2011

Certification Basis:

The Certification Basis for Gulfstream Model GV is defined as:

(1) Title 14 CFR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-81 as defined by the TCDS A12EA for all areas not affected by the change.

(2) Title 14 CFR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-98 for the change and all areas affected by the change. The following lists the Federal Aviation Regulations complied with through Amendment Level 25-98:

25.1, 25.29, 25.301, 25.303, 25.305, 25.307, 25.561, 25.601, 25.603, 25.605, 25.609, 25.613, 25.619, 25.625, 25.901, 25.903 ,25.1195, 25.1197, 25.1199, 25.1201, 25.1301, 25.1309, 25.1316, 25.1321, 25.1322, 25.1351, 25.1353, 25.1357, 25.1431, 25.1438, 25.1519, 25.1529, 25.1541, 25.1581, 25.1585.

The Certification Basis for Gulfstream Model GV-SP is defined as:

Title 14 CFR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-98 as defined by the TCDS A12EA.

...END...

US Department Of Transportation **Federal Aviation Administration**

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

Form Approved OMB No. 2120-0020 11/30/2007 | Electronic Tracking Number

For FAA Use Only

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

1. Aircraft	Nationality and Registration Mark **N372BG**	Serial No. **5164**	
	Make **Gulfstream Aerospace**	Model **GV-SP (G550)**	Series
2. Owner	Name *(As shown on registration certificate)* **CONTRAIL AVIATION LLC**	Address *(As shown on registration certificate)* **5 HOG ISLAND RD PHILADELPHIA PA 19153-3809**	

3. For FAA Use Only

4. Type		**5. Unit Identification**			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME		*(As described in Item 1 above)*	
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency			
Gulfstream Aerospace Corporation **W6365 Discovery Drive** **Appleton, WI 54914**		U.S. Certificated Mechanic		Manufacturer
		Foreign Certificated Mechanic	C. Certificate No.	
	X	Certificated Repair Station	**G1FR100Y**	
		Certificated Maintenance Organization		

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

Extended range fuel per 14 CFR Part 43 App. B ☐	Signature/Date of Authorized Individual	
	Vincent L. Moehn	**10/08/2011**

7. Approval for Return to Service

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

BY								
		FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
		FAA Designee	X	Repair Station		Inspection Authorization		Other *(Specify)*

Certificate or Designation No. **G1FR100Y**	Signature/Date of Authorized Individual	
	Don T. Chambers	**10/08/2011**

FAA Form 337 (10-06)

NOTICE

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

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

Installed the 3rd Engine Fire Bottle per ASC 115, (Draft), in accordance with **STC ST01822AT-D,** dated 04/08/99, amended 07/31/2011.

Airplane Flight Manual Supplement No. **GC51 442M001,** dated 04/08/1999, is required for this approval and is inserted into the appropriate Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp Instructions for Continued Airworthiness Document No. **CE52 442A000,** Rev. A, dated 10/04/2010.

Deactivated the BBML System, bagged and stowed associated wiring in accordance with the below listed drawings of which are approved by Dennis N. Halle, AR-E-1107, Electrical Systems, (FAA Project No. TA-03-2011-0008) on FAA Form 8100-9, dated 10/06/2011.

DRAWING	SYSTEM
CE514290050, Rev. -	Cabin LAN
GC513030087, Rev. A	Satcom High Speed Data (Skylink)
GC513700325, Rev. B	Cockpit Switch Panels
GC513940345, Rev. A	Aux CB Panel (Mod)
GC514270277, Rev. A	Fax Interface
GC514280202, Rev. A	Wireless LAN (SBB)
GC514290057, Rev. B	Lan Server (BBML)
GC514300013, Rev. A	Voice Over IP (BBML)

Installed a **Honeywell/EMS HD-710** in accordance with Gulfstream Aerospace **STC ST03737AT-D,** issued 10/09/09, with the below listed deviations of which are approved by Dennis N. Halle, AR-E-1107, Electrical Systems, (FAA Project No. TA-03-2011-0008) on FAA Form 8100-9, dated 10/06/2011, and Structures Drawing List CE520000100, Rev. -, dated 10/06/11, of which is approved by William T. Riley, AR-E-1067 Structures, (FAA Project No. TA-03-2011-0008) on FAA Form 8100-9, dated 10/06/2011.

DRAWING	SYSTEM
CE513030175, Rev. -	Satcom High Speed Data (HD-710)
GC513940345, Rev. A	Aux CB Panel (Mod)
CE514290019, Rev. A	LAN Server (BBML) (Mod)
CE513910011, Rev. B	R EER CB Panel (Mod)
CE514984009, Rev. -	Wire Routing
GC511030299, Rev. A	Satcom (Mod)
GC513240350, Rev. B	Ident Strapping
CE514693065, Rev. A	Electrical Load Supplement for Gulfstream G550 S/N 5164
CE51303G065, Rev. -	Ground Test Plan EMS And Lynksys Routers And HP Media Drive
CE51303G065-5164, Rev. -	Ground Test Plan EMS And Lynksys Routers And HP Media Drive

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Document No. **GC51 303A011,** Rev. --, dated 09/16/09.

Installed the Broad Band Multi Link (BBML) System. accordance with STC ST02796AT-D, dated 01/21/05, amended 10/26/06.

Airplane Flight Manual Supplement No. **GC51 303M010,** dated 04/03/08, (-511 Configuration) is required for this approval and is inserted into the appropriate Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp Instructions for Continued Airworthiness Report No. **GC51 303A007,** Rev. B, dated 07/27/2010. (-511 Confiuration)

☒ Additional Sheets are attached.

Installed a new CNX-200 Unit in accordance with Structrural Drawing List CE520000100, Rev. -, dated 10/06/11, of which is approved by William T. Riley, AR-E-1067 Structures, (FAA Project No. TA-03-2011-0008) on FAA Form 8100-9, dated 10/06/2011.

Modified the aft R/H Lavatory Floor Structure to allow wiring feed through for the installation of the HD-710 System. Work was performed in accordance with Structural Drawing List CE520000100, Rev. -, dated 10/06/11, of which is approved by William T. Riley, AR-E-1067 Structures, (FAA Project No. TA-03-2011-0008) on FAA Form 8100-9, dated 10/06/2011.

Modified the aft Pressure Bulkhead to allow wiring feed through for the installation of the HD-710 System. Work was performed in accordance Structural Drawing List CE520000100, Rev. -, dated 10/06/11, of which is approved by William T. Riley, AR-E-1067 Structures, (FAA Project No. TA-03-2011-0008) on FAA Form 8100-9, dated 10/06/2011, and GAC Drawing CE544980010, Rev. -, dated 09/30/11, of which is approved by John X. Schober, AR-E-1068, Structures, on FAA Form 8100-9, dated 10/05/2011.

Installed 680 Door Assist Handle in accordance with Drawing List CE520000100, Rev. -, dated 10/06/11, of which is approved by William T. Riley, AR-E-1067 Structures, (FAA Project No. TA-03-2011-0008) on FAA Form 8100-9, dated 10/06/2011.

Incorporated the structural modification portion of ASC 090A in accordance with GAC Drawing 1159SB50847, Rev. B, of which is approved by Robert L. Caruthers, AR-E-1013 Structures, and Gregg Wizniak, AR-E-1009 Powerplant, (FAA Project No. TG-01-2010-0001) on FAA Form 8100-9, dated 08/30/10.

Modified the R/H Galley Soda Rack Assembly in accordance with GAC Drawing CE523120012, Rev. -, and GAC Drawing CE523120012, Rev. A1, of which are approved by William T. Riley, AR-E-1067 Structures, (FAA Project No. TA-03-2011-0008) on FAA Form 8100-9, dated 10/08/2011.

Aircraft wiring diagrams affected by the above installations are revised to reflect changes in system design or their interface to newly installed or modified systems as appropriate. All new single conductor wire meets MIL22759/16 and all new multi-conductor shielded wire meets MIL 27500.

Aircraft Weight & Balance was re-calculated.

----------End----------

US Department of Transportation
Federal Aviation Administration

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

Form Approved OMB No. 2120-0020 11/30/2007	Electronic Tracking Number
For FAA Use Only	

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation (49 U.S.C. §46301(a)).

1. Aircraft	Nationality and Registration Mark: **N372BG**	Serial No.: **5164**	
	Make: **GULFSTREAM AEROSPACE**	Model: **GV-SP (G550)**	Series:
2. Owner	Name (As shown on registration certificate): **CONTRAIL AVIATION LLC**	Address (As shown on registration certificate): Address: **5 HOG ISLAND RD**; City: **PHILADELPHIA**; State: **PA**; Zip: **19153-3809**; Country: **U.S.A.**	

3. For FAA Use Only

THE DATA IDENTIFIED HEREIN COMPLIES WITH THE APPLICABLE AIRWORTHINESS REQUIREMENTS AND IS APPROVED FOR THE ABOVE DESCRIBED AIRCRAFT, SUBJECT TO A CONFORMITY INSPECTION BY A PERSON AUTHORIZED IN FAR 43, SECTION 43.7.

DATE: 02-24-2011 SIGNATURE OF INSPECTOR: Paul G Reynolds DTW-FSDO

PAUL REYNOLDS

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

6. Conformity Statement

A. Agency's Name and Address

PENTASTAR AVIATION, LLC
7002 HIGHLAND ROAD
WATERFORD, MI 48327-1615

B. Kind of Agency

	U.S. Certificated Mechanic		Manufacturer
	Foreign Certificated Mechanic	C. Certificate No.	
X	Certificated Repair Station	**CRS BTVR626C**	
	Certificated Maintenance Organization		

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

Extended range fuel per 14 CFR Part 43 App. B.

Signature / Date of Authorized Individual: D_S.Long 02/24/11 Darrin Long

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in Item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration an d is ☒ Approved ☐ Rejected

BY							
	FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
	FAA Designee	X	Repair Station		Inspection Authorization		Other (*Specify*)

Certificate or Designation No.: **CRS BTVR626C**

Signature / Date of Authorized Individual: D_S.Long 02/24/11 Darrin Long

FAA Form 337 (10-06)

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.)

Aircraft Registration Number: N372BG Date Completed: 02/24/2011

The following Alteration was accomplished by Pentastar Aviation, LLC and details are on file under Work Order # AI10986

ANTI-COLLISION LIGHT ASSEMBLY MOD:

Removed existing bottom Anti-Collision Beacon Light Assembly (Grimes) P/N 30-2140-9 and installed (Whelen) P/N 01-0790088-15 in accordance with Whelen Model 90088( )–series LED Anti-Collision Light Assembly Installation Guide, Form No. 14002B and Pentastar Dwg. # 3368, Rev IR, dated 2/24/11. Performed successful Anti-Collision Beacon Light Operational Test per Gulfstream G550 Maintenance Manual 33-42-03.

Changes to aircraft's electrical loading are documented on Pentastar Electrical Load Summary Report # 11ELS-001, dated 02/24/2011.

The aircraft's Weight and Balance and equipment list have been revised to reflect this alteration.

Instructions for Continued Airworthiness pertaining to the on-condition light assembly are contained in the above mentioned Whelen Model 90088( )–series installation guide. A copy was provided to the owner/operator.

---------- END ----------

☐ Additional Sheets Are Attached

US Department of Transportation
Federal Aviation Administration

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

Form Approved OMB No. 2120-0020 11/30/2007	Electronic Tracking Number
For FAA Use Only	

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation (49 U.S.C. §46301(a)).

1. Aircraft	*Nationality and Registration Mark* N372BG	*Serial No.* 5164	
	Make GULFSTREAM AEROSPACE	Model GV-SP (G550)	Series
2. Owner	Name (As shown on registration certificate) CONTRAIL AVIATION LLC	Address (As shown on registration certificate) Address: 5 HOG ISLAND RD City: PHILADELPHIA State: PA Zip: 19153-3809 Country: USA	

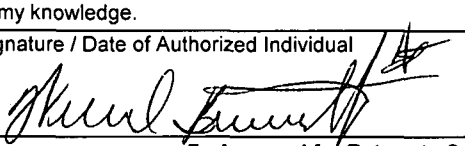
3. For FAA Use Only

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

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency			
PENTASTAR AVIATION, LLC **7002 HIGHLAND ROAD** **WATERFORD, MI 48327-1615**		U.S. Certificated Mechanic		Manufacturer
		Foreign Certificated Mechanic	C. Certificate No.	
	X	Certificated Repair Station	**CRS BTVR626C**	
		Certificated Maintenance Organization		

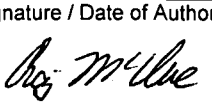
D. I certify that the repair and/or alteration made to the unit(s) identified in Item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and the information furnished herein Is true and correct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

Extended range fuel per 14 CFR Part 43 App. B.	Signature / Date of Authorized Individual	
		Willis Burnette 02/25/2011

7. Approval for Return to Service

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

BY		FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
		FAA Designee	X	Repair Station		Inspection Authorization		Other (*Specify*)

Certificate or Designation No.	Signature / Date of Authorized Individual	
CRS BTVR626C		Craig McClure 02/25/2011

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.)

Aircraft Registration Number: N372BG Date Completed: 02/25/2011

The following Alterations were accomplished by Pentastar Aviation, LLC and details are on file under Work Order # AI-10986.

60 Hz Outlet (MOD)

Installed 1 ea. 60Hz 115 Vac outlet in the Aft LH Baggage compartment in the existing BBML radio rack cabinet in accordance with Pentastar Dwg. # 2471, Rev IR, dated 02/25/2011, which is FAA-DER approved by DERY-410062-CE on FAA Form 8110-3, dated 02/25/2011.

Rechargeable Flashlight (MOD)

Relocated existing flashlight charging base from AFT Airstair storage compartment to behind pilot seat in accordance with Pentastar Dwg. # 25213, Rev IR, dated 02/25/2011, which is FAA-DER approved by DERY-410062-CE on FAA Form 8110-3, dated 02/25/2011.

AirCell Axxess II (MOD)

Installed an Aircell ATG-4000 Broadband Transceiver including Configuration Module (ACM), & interfaced to existing Aircell Axxess II system, existing Aircell Call Alerter (ACA) is replaced with Aircell Call Alerter (ACA-II), in accordance with Pentastar Dwg. # 23346, Rev IR, dated 02/25/2011, which is FAA-DER approved by DERY-410062-CE on FAA Form 8110-3, dated 02/25/2011.

The LRU's are located in the Aft LH Baggage compartment in the existing BBML radio rack cabinet.

Forward Air to Ground (ATG) antenna is installed on the belly (Ref FS 199) in accordance with Strong Aero Engineering Dwg. # N372BG-020211-1, Rev N/C, dated 02/02/11, "Aircell ATG Antenna Installation (FWD)", which is FAA-DER approved by DERT-605818-NM on FAA Form 8110-3, dated 02/20/2011. Reference Strong maintenance requirements for continued airworthiness # N372BG-020211, Rev IR, 02/02/11.

Aft Air to Ground (ATG) antenna is installed on the belly (Ref FS 695) in accordance with Strong Aero Engineering Dwg. # N372BG-020211-2, Rev N/C, dated 02/02/11, "Aircell ATG Antenna Installation (AFT)", which is FAA-DER approved by DERT-605818-NM on FAA Form 8110-3, dated 02/20/11.

Performed successful system ground check of the Aircell Axxess II system in accordance with Aircell Installation Manual # D12004, Rev E, dated March 2010, section 4; and ATG-4000 system in accordance with Aircell Installation Manual # D13485, Rev B, dated November 2009, section 4 with no defects noted.

Reference Pentastar Aviation, LLC Instructions for Continued Airworthiness Number 11CA-001, Revision IR, dated 02/23/2011 for the AirCell Axxess II with Broadband system.

Summary

The above listed maintenance requirements for continued airworthiness have been provided to the owner/operator for incorporation into the operator's maintenance manual and inspection program.

The aircraft's weight and balance report and equipment list have been revised to reflect these alterations.

The effect of these alterations on the aircraft's electrical loading are documented on Pentastar Electrical Load Summary Report # 11ELS-001, dated 02/24/2011.

- - - - - - - END - - - - - - -

☒ Additional Sheets Are Attached

PA11-007

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

STATEMENT OF COMPLIANCE WITH THE FEDERAL AVIATION REGULATIONS

DATE: 2/25/2011

AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION

MAKE	MODEL NO.	TYPE *(Airplane, Radio, Helicopter, etc.)*	NAME OF APPLICANT
Gulfstream	G-V-SP (G550)	Airplane	Pentastar Aviation, LLC

LIST OF DATA

IDENTIFICATION	TITLE
Drawings: 23346,	Pentastar Aviation, LLC - Wiring Diagram No. 23346, Revision IR, dated 2/25/2011, titled: Aircell Axxess II (MOD).
25213,	Wiring Diagram No. 25213, Revision IR, dated 2/25/2011, titled: Rechargeable Flashlight (MOD).
2471.	Wiring Diagram No. 2471, Revision IR, dated 2/25/2011, titled: 60 Hz Outlet (MOD).
	Notes: 1) This approval is for electrical engineering design data only and is not alteration approval. 2) The data listed above demonstrates compliance only with the regulations specified by paragraph and subparagraph listed below as "Applicable Requirements" 3) Compliance with additional FAA regulations not listed here may be required. 4) This form does not constitute FAA approval of all the engineering design data necessary for substantiation of compliance to necessary requirements for the entire alteration. ----END----

PURPOSE OF DATA
In support of major alteration for Gulfstream GV-SP (G550), serial number 5164 only. (N372BG)

APPLICABLE REQUIREMENTS *(List specific sections)*
14 CFR Parts: 25.1301 (a)(1-3); 25.1307 (c); 25.1322 (d); 25.1353 (a); 25.1357 (a)(c); 25.1431 (a)(c)(d).

CERTIFICATION - Under authority vested by direction of the Administrator and in accordance with conditions and limitations of appointment under Part 183 of the Federal Aviation Regulations, data listed above and on attached sheets numbered N/A have been examined in accordance with established procedures and found to comply with applicable requirements of the Federal Aviation Regulations.

I (We) Therefore
☐ **Recommend approval of these data**
☒ **Approve these data**

SIGNATURE(S) OF DESIGNATED ENGINEERING REPRESENTATIVE(S)	DESIGNATION NUMBERS(S)	CLASSIFICATION(S)
Craig E. McClure	DERY-410062-CE	Systems & Equipment

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

STATEMENT OF COMPLIANCE WITH THE FEDERAL AVIATION REGULATIONS

DATE: 02/20/11

AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION

MAKE	MODEL NO.	TYPE *(Airplane, Radio, Helicopter, etc.)*	NAME OF APPLICANT
GULFSTREAM	GV-SP	AIRPLANE	PENTASTAR AVIATION, LLC

LIST OF DATA

IDENTIFICATION	TITLE
DRAWING REFS:	
N372BG-020211-1 REV N/C, 02/02/11	"AIRCELL ATG ANTENNA INSTALLATION (FWD)"
N372BG-020211-2 REV N/C, 02/02/11	"AIRCELL ATG ANTENNA INSTALLATION (AFT)"
REPORT REF:	
N372BG-DT01 REV N/C, 02/02/11	"DAMAGE TOLERANCE ANALYSIS FOR THE GULFSTREAM GV-SP FWD AIRCELL ATG ANTENNA DOUBLER INSTALLATION"

Notes:

This approval is for engineering design data only. It indicates the data listed below demonstrates compliance only with the regulations specified by paragraph and subparagraph listed below as 'APPLICABLE REQUIREMENTS'. This form does not constitute FAA approval of all the engineering data necessary for substantiation of compliance to necessary requirements for the entire alteration/repair. Structural aspects are approved, electrical aspects are not included

The Aircell ATG (FWD) Antenna installation requires a Threshold Inspection and Repeat Inspections. These inspection limitations shall be provided by way of the Airplane Maintenance Manual Supplement for Continued Airworthiness, Report Ref; N372BG-ICAW-020211, Rev IR, 02/02/11

PURPOSE OF DATA

IN SUPPORT OF MAJOR ALTERATIONS TO SHOW COMPLIANCE WITH THE FOLLOWING REGULATIONS FOR ONE AIRCRAFT ONLY; S/N 5164, T/N N372BG

APPLICABLE REQUIREMENTS *(List specific sections)*

14 CFR Part 25.301(a)(b), Amdt 25-23; .303, Amdt 25-23; .305(a), Amdt 25-86; .307(a), Amdt 25-72; .365(a)(b)(d), Amdt 25-87; .561(a)(b)(3)(c), Amdt 25-91; .571(a)(b), Amdt 25-96; .601, Amdt 25-0; .603(a)(b)(c), Amdt 25-46; .605(a), Amdt 25-46; .607(a), Amdt 25-23; .609(a), Amdt 25-0; .613(a)(b)(c), Amdt 25-112; .625(a)(b), Amdt 25-72

CERTIFICATION - Under authority vested by direction of the Administrator and in accordance with conditions and limitations of appointment under Part 183 of the Federal Aviation Regulations, data listed above and on attached sheets numbered N/A have been examined in accordance with established procedures and found to comply with applicable requirements of the Federal Aviation Regulations.

I (~~We~~) Therefore
- ☐ **Recommend approval of these data**
- ☒ **Approve these data**

SIGNATURE(S) OF DESIGNATED ENGINEERING REPRESENTATIVE(S)	DESIGNATION NUMBER(S)	CLASSIFICATION(S)
TREVOR J. STRONG	DERT-605818-NM	STRUCTURES

ELECTRICAL LOAD SUMMARY REPORT

Pentastar Aviation, LLC.
7002 Highland Road
Waterford MI. 48327
Report No. 11ELS-001

Reg. No. N372BG
Model No. GAC GV-SP
Serial No. 5164
Work Order No. AI- 10986

PURPOSE

This Electrical Load Statement identifies electrical loads that have been removed from or added to the aircraft as a result of an alteration. The listed loads are calculated based on the maximum value published in the manufacturer's technical manuals. Only busses listed have been modified by Pentastar Aviation, LLC. (PA) For additional information on electrical loading, refer to the Aircraft's Electrical Load Analysis.

REMOVED LOADS

NO	Item Removed	CB TITLE	BUS TITLE	LOAD	CB Size
1	Bottom Beacon (Normal Operation)	BOT AC LT GND OPER	28VDC GND SVC	3 amp	5 amp
2	Bottom Beacon (Ground Operation)	BOT AC LT	28VDC R EES	3 amp	5 amp

ADDED LOADS

NO	Item Installed	CB TITLE	BUS TITLE	LOAD	CB Size
1	AIRCELL ATG-4000	ATG	28VDC MAIN	5.3 amp	10 amp
2	AIRCELL ACM	ACM	28VDC MAIN	1.0 amp	3 amp
3	Bottom Beacon (Normal Operation)	BOT AC LT GND OPER	28VDC GND SVC	3 amp	5 amp
4	Bottom Beacon (Ground Operation)	BOT AC LT	28VDC R EES	3 amp	5 amp

REVISED LOADS

BUSS	28VDC MAIN (SW)	28VDC GND SVC	28VDC R EES
CHANGE	+6.3 amp	0.0 amp	0.0 amp

INSTRUCTIONS

This summary of changes to the electrical loading is provided to the owner/operator of above identified Aircraft. It is the responsibility of such owner/operator to file a copy of this summary with the aircraft's records along with the existing load analysis documents.

PREPARED BY: CHECKED BY: APPROVED BY:

Dave Pemberton — 02/24/11 Date
Kurt Diffenbaugh — 02/24/11 Date
Craig McClure — 02/24/11 Date

Original to Design Records
Copy to Work Order
Copy Attach to Customer 337
Copy Attach to FAA 337
Copy Attach to 337 File

FAA

US Department Of Transportation **Federal Aviation Administration**

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

Form Approved OMB No. 2120-0020 11/30/2007 | Electronic Tracking Number

For FAA Use Only

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

1. Aircraft	Nationality and Registration Mark **N372BG**	Serial No. **5164**	
	Make **Gulfstream Aerospace**	Model **GV-SP (G550)**	Series
2. Owner	Name *(As shown on registration certificate)* **CONTRAIL AVIATION LLC**	Address *(As shown on registration certificate)* **5 HOG ISLAND RD PHILADELPHIA, PA 19153-3809**	

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME	———	*(As described in Item 1 above)*	———
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency			
Gulfstream Aerospace Corporation **W6365 Discovery Drive** **Appleton, WI 54914**		U.S. Certificated Mechanic		Manufacturer
		Foreign Certificated Mechanic	C. Certificate No.	
	X	Certificated Repair Station	**G1FR100Y**	
		Certificated Maintenance Organization		

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

Extended range fuel per 14 CFR Part 43 App. B ☐	Signature/Date of Authorized Individual	
	Robert J. Hellmann Robert J. Hellmann	03/26/2010

7. Approval for Return to Service

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

BY								
		FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
		FAA Designee	X	Repair Station		Inspection Authorization		Other *(Specify)*

Certificate or Designation No. **G1FR100Y**	Signature/Date of Authorized Individual	
	Robert J. Hellmann Robert J. Hellmann	03/26/2010

FAA Form 337 (10-06)

NOTICE

Weight and balance 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).

Reworked Credenza Cabinet Installing eight (8) port Ethernet Switch in the Credenza Cabinet in accordance with the following GAC Engineering Electrical Drawings of which are DER approved by by Peter Jobe DERY-830436-CE on FAA 8110-3 form dated 03/25/2010 :

DRAWING	SYSTEM
CE51 4290019, Rev.--	Lan Server (BBML)(Mod)
CE51 4940121, Rev.--	60 Hz Outlets (Mod)

Reworked Credenza Cabinet to accommodate below listed drawing in accordance with the following electrical GAC Engineering Structural Drawing of which are DER approved by by William T Riley DERY-831142-CE on FAA 8110-3 form dated 03/26/2010 :

DRAWING	SYSTEM
CE522360061, Rev.--	Lan Server (BBML)(Mod)

Electronic Cable and additional wire used complies with the burn testing requirements of FAR 25.869 (a)(4) Amendment 25-113 Appendix F Part I (a)(3) which is approved by Gary K. Palmer, DERY-605430-CE on FAA 8110-3 form dated 03/26/2010.

Installed Software for Certification Foxtrot (F) in accordance with Gulfstream Engineering Top Drawing No. 1159ASC57908 - Top Drawing ASC 908 Planeview Master Operating System Software Update (Cert Foxtrot) of which is approved under ODA Project No. ODA-T-2009-GEN-SA-001 on FAA 8100-9 form dated 10/29/2009.

The Aircraft Weight and Balance is negligible.

----------END----------

☐ Additional Sheets are attached.

US Department of Transportation
Federal Aviation Administration

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

Form Approved OMB No. 2120-0020 11/30/2007

Electronic Tracking Number

For FAA Use Only

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

1. Aircraft	Nationality and Registration Mark: N372BG	Serial No.: 5164	
	Make: Gulfstream	Model: GV-SP	Series: G550
2. Owner	Name *(As shown on registration certificate)*: Contrail Aviation LLC	Address *(As shown on registration certificate)*: Address 5 Hog Island Road; City Philadelphia; State PA; Zip 19153-3809; Country USA	

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME		*(As described in Item 1 above)*	
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address

Name Gulfstream Aerospace Corporation
Address 500 Gulfstream Road
City Savannah State GA
Zip 31408 Country USA

B. Kind of Agency

	U.S. Certified Mechanic
	Foreign Certified Mechanic
X	Certificated Repair Station
	Certificated Maintenance Organization
	Manufacturer

C. Certificate No.

GR4R216M: Accessory Class: I, II & III / Radio Class: I, II, III / Instrument Class: I, II & III, NDT Specialized Services, Airframe: All G-159, G-1159, G-1159A, G-IV, GIV-SP, GIV-X Series, GV, GV-SP Series, Astra, G100, Galaxy & G200 Series Aircraft, Powerplant: R/R MK-529, MK511-8, MK611-8 Series & BMW Rolls Royce 700-710 Series, TFE731-3A-200G, TFE731-3C-200G & PW306A

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

Extended range fuel per 14 CFR Part 43 App. B ☐

Signature/Date of Authorized Individual

Charles A. Ries 397 10/08/2009

7. Approval for Return to Service

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

BY								
		FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
		FAA Designee	X	Repair Station		Inspection Authorizations		Other *(Specify)*

Certificate or Designation No.: **GR4R216M**

Signature/Date of Authorized Individual

Charles A. Ries 397 10/08/2009

FAA Form 337 (10-06)

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 accomplished.)

Reference: Gulfstream Aerospace Corporation Work Order No. SC180396

N372BG	10/08/2009
Nationality and Registration Mark	Date

1. Complied with mid cabin credenza modification in accordance with Gulfstream Custom Engineering Drawing List CE52 005164 Rev. NC.
    - Reference FAA Form 8100-9 dated 10/07/2009 to substantiate Drawing CE52 2360058 Rev. NC. (Modification – Fax Drawer, Mid Cabin Credenza).

----------End----------

☐ Additional Sheets Are Attached

US Department Of Transportation **Federal Aviation Administration**

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

Form Approved OMB No. 2120-0020 11/30/2007

Electronic Tracking Number

For FAA Use Only

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

1. Aircraft	Nationality and Registration Mark **N372BG**	Serial No. **5164**	
	Make **Gulfstream Aerospace**	Model **GV-SP (G550)**	Series
2. Owner	Name *(As shown on registration certificate)* **CONTRAIL AVIATION LLC**	Address *(As shown on registration certificate)* **5 GOG ISLAND RD PHILADELPHIA PA 19153-3809**	

3. For FAA Use Only

4. Type		**5. Unit Identification**			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME	———	*(As described in Item 1 above)*	———
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency			
Gulfstream Aerospace Corporation **W6365 Discovery Drive** **Appleton, WI 54914**		U.S. Certificated Mechanic		Manufacturer
		Foreign Certificated Mechanic	C. Certificate No.	
	X	Certificated Repair Station	**G1FR100Y**	
		Certificated Maintenance Organization		

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

Extended range fuel per 14 CFR Part 43 App. B ☐	Signature/Date of Authorized Individual
	David L. Wellnitz *David L. Wellnitz* 08/12/08

7. Approval for Return to Service

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

BY								
		FAA Flt. Standards Inspector		Manufacturer		Maintenance Organization		Persons Approved by Canadian Department of Transport
		FAA Designee	X	Repair Station		Inspection Authorization		Other *(Specify)*

Certificate or Designation No. **G1FR100Y**	Signature/Date of Authorized Individual
	David L. Wellnitz *David L. Wellnitz* 08/12/08

FAA Form 337 (10-06)

NOTICE

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

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

Installed a new Honeywell WINN Graphic Weather System in accordance with the below listed Drawings of are DER approved by John X. Schober Jr., DERY-410129-CE, on FAA Form 8110-3 dated 08/11/08, and Peter Jobe, DERY-830436-CE, on FAA Form 8110-3 dated 08/12/08.

Drawing No.	Title
800-0032, Rev. G	Standard Avionics Components Installations
CE421040013, Rev.--	Antenna Installation – XM/WSI Weather Antenna
NIECO-A07936, Rev.--	NIECO To CE421040013 Antenna Installation – XM/WSI Weather Antenna
CE51 3060048, Rev.--	WX Briefer System
GC51 3700325, Rev. A	Cockpit Switch Panels
GC51 3910011, Rev. A	R EER CB Panel (MOD)
GC51 5020344, Rev. B	Cabin Entertainment
CE51 4693027, Rev.--	Electrical Load Supplement

Weight and Balance has been changed to reflect this installation.

----------END----------

UNITED STATES OF AMERICA

DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION Experimental		
	PURPOSE To Show Compliance with the Regulation		
B	MANUFACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N— 372BG		SERIAL NO. 5164
	BUILDER Gulfstream		MODEL GV-SP (G550)
E	DATE OF ISSUANCE 1-4-08		EXPIRY 2-3-08
	OPERATING LIMITATIONS DATED 1-4-08		ARE A PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE Emery P. Wiltse		DESIGNATION OR OFFICE NO. DARF-609001-CE

SUPERSEDED DARF-609001-CE 1/14/08

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

FAA FORM 8130-7 (10/82)

SEE REVERSE SIDE

A	This airworthiness certificate is issued under the authority of the Federal Aviation Act of 1958 and the Federal Aviation Regulations (FAR).
B	This airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production flight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire; and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable FAR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable FAR and in accordance with conditions and limitations which may be prescribed by the Administrator as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in FAR Part 21, Section 21.181 or 21.217.

U.S. Department
of Transportation
**Federal Aviation
Administration**

Small Airplane Directorate
Manufacturing Inspection District Office
6020 28th Avenue South, Room 103
Minneapolis, MN 55450-2700

EXPERIMENTAL OPERATING LIMITATIONS
RESEARCH AND DEVELOPMENT/SHOWING COMPLIANCE WITH THE REGULATIONS

MAKE: Gulfstream
MODEL: GV-SP (G550)
SERIAL NUMBER: 5164
REGISTRATION NUMBER: N372BG

SUPERSEDED DMRF-609001-CE 1/14/08

Retain these limitations in the aircraft during each flight.

1. No person may operate this aircraft unless FAA Form 8130-7 is displayed at the cabin or cockpit entrances so that it is visible to passengers or flightcrew members.

2. No person may operate this aircraft for other than the purpose of **RESEARCH AND DEVELOPMENT / SHOWING COMPLIANCE WITH THE REGULATIONS** to accomplish the flight operation outlined in the program letter dated December 18, 2007, which describes compliance with §21.193(d), and has been made available to the pilot in command of the aircraft. In addition, this aircraft must be operated in accordance with applicable air traffic and general operating rules of part 91 and all additional limitations herein prescribed under the provisions of §91.319(i).

3. All flights shall be conducted within the geographical area described as follows:

   1000 NM radius around the Outagamie County Regional Airport, Appleton, Wisconsin (ATW), excluding Canadian airspace. Except for takeoff and landing operations this aircraft must be operated over open water or in sparsely populated areas having light air traffic.

4. When changing between operating purposes of a multiple-purpose certificate (**Research and Development and Show Compliance**), the operator must determine that the aircraft is in a condition for safe operation and appropriate for the purpose intended. A record entry will be made by an appropriately rated person to document that finding in the aircraft logbook.

5. This aircraft must not be operated unless it is inspected and maintained in accordance with appropriate military technical publications and/or manufacturer's recommendations. The owner/operator must select, establish, identify, and use an inspection program as set forth in § 91.409(e), (f), (g), and (h). This inspection program must be recorded in the aircraft maintenance records.

6. The pilot in command of this aircraft must hold an appropriate category/class rating. If required for the type of aircraft to be flown, the pilot-in-command also must hold either an appropriate type rating or a letter of authorization issued by a FAA Flight Standards Operations Inspector.

7. This aircraft may be operated under VFR, day and/or night.

8. This aircraft may be operated under IFR, and must be properly equipped for instrument flight in accordance with § 91.205.

9. No person may operate this aircraft for carrying persons or property for compensation or hire.

10. No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight. The pilot shall record the names of the persons carried on each flight.

11. The pilot in command of this aircraft shall advise each person of the experimental nature of this aircraft, and explain that it does not meet the certification requirements of a standard certificated aircraft.

12. This aircraft must contain the placards, markings, etc., (or other operating instructions developed for an STC modification) required by §91.9.

13. This aircraft is prohibited from aerobatic flight; that is, an intentional maneuver involving an abrupt change in the aircraft's attitude, an abnormal attitude, or abnormal acceleration not necessary for normal flight.

14. The aircraft must not be used for glider towing, banner towing, or intentional parachute jumping.

15. No person may operate this aircraft unless within the preceding 12 calendar months it has had a condition inspection performed in accordance with Appendix D to Part 43, or other FAA-approved programs, and found to be in a condition for safe operation. This inspection will be recorded in the aircraft maintenance records.

16. Only FAA-certified mechanics with appropriate rating as authorized by § 43.3 may perform inspections required by these operation limitations.

17. Inspections must be recorded in the aircraft maintenance records showing the following or a similarly worded statement: "I certify that this aircraft has been inspected on (insert date) in accordance with the scope and detail of appendix D to part 43, or other FAA-approved programs, and was found to be in a condition for safe operation." The entry will include the aircraft's total time-in-service, and the name, signature, certificate number, and type of certificate held by the person performing the inspection.

18. If aircraft or engine operating limits are exceeded, an appropriate entry will be made in the aircraft records.

19. This aircraft must not be operated unless it is maintained and inspected in accordance with the requirements of Part 43.

20. The aircraft must display the word **EXPERIMENTAL** in accordance with §45.23(b).

21. The pilot in command of this aircraft shall notify the air traffic control tower of the experimental nature of this aircraft when operating into or out of airports with operating control towers. The pilot in command shall plan routing that will avoid densely populated areas and congested airways when operating VFR.

22. This aircraft does not meet the requirements of the applicable, comprehensive, and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation. The owner/operator of this aircraft must obtain written permission from another country's CAA prior to operating this aircraft in or over that country. That written permission must be carried aboard the aircraft together with the U.S. airworthiness certificate and, upon request, be made available to an FAA inspector or the CAA in the country of operation.

23. Aircraft instruments and equipment installed and used under §91.205 must be inspected and maintained in accordance with the requirements of parts 43 and 91. Any maintenance or inspection of this equipment must be recorded in the aircraft maintenance records.

24. Application must be made to the Minneapolis MIDO for any revision to these operating limitations.

25. In accordance with §47.45, the FAA Aircraft Registry must be notified within 30 days of any change to the aircraft registrant's address. Such notification is made by submitting a FAA Form 8050-1, Aircraft Registration Application, to AFS-750 in Oklahoma City, Oklahoma.

26. The pilot in command shall ensure all passengers carried onboard the aircraft are necessary for the purpose of the intended flight, and will list each passenger by name on an aircraft manifest.

These operating limitations are a part of a special airworthiness certificate issued: January 4, 2008

Date of Limitations Issuance: January 4, 2008

Date of Expiration: February 3, 2008

Issued By: _____

Emery P. Wiltse
DAR-609001-CE

SUPERSEDED
DARF-609001-CE
1/14/08

FAA FORM 8130-6, APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

Form Approved
O.M.B. No. 2120-0018

U.S. Department of Transportation
Federal Aviation Administration

APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

INSTRUCTIONS - Print or type. Do not write in shaded areas; these are for FAA use only. Submit original only to an authorized FAA Representative. If additional space is required, use attachment. For special flight permits complete Sections II, VI and VII as applicable.

I. AIRCRAFT DESIGNATION

1. REGISTRATION MARK	2. AIRCRAFT BUILDER'S NAME (Make)	3. AIRCRAFT MODEL DESIGNATION	4. YR. MFR.	FAA CODING
N372BG	Gulfstream	GV-SP (G550)	2007	DO NOT CODE PER
5. AIRCRAFT SERIAL NO.	**6. ENGINE BUILDER'S NAME (Make)**	**7. ENGINE MODEL DESIGNATION**		FAA ORDER 8130.29A
5164	Rolls Royce Deutschland	BR700-710C4-11		
8. NUMBER OF ENGINES	**9. PROPELLER BUILDER'S NAME (Make)**	**10. PROPELLER MODEL DESIGNATION**	**11. AIRCRAFT IS (Check if applicable)**	
2	N/A	N/A	☐ IMPORT	

II. CERTIFICATION REQUESTED

APPLICATION IS HEREBY MADE FOR: *(Check applicable items)*

A	1		STANDARD AIRWORTHINESS CERTIFICATE *(Indicate Category)*		NORMAL		UTILITY		ACROBATIC		TRANSPORT		COMMUTER		BALLOON		OTHER		
B		✓	SPECIAL AIRWORTHINESS CERTIFICATE *(Check appropriate items)*																
	7		PRIMARY																
	9		LIGHT-SPORT *(Indicate Class)*		AIRPLANE		POWER-PARACHUTE		WEIGHT-SHIFT-CONTROL		GLIDER		LIGHTER THAN AIR						
	2		LIMITED																
	5		PROVISIONAL *(Indicate Class)*	1		CLASS I													
				2		CLASS II													
	3		RESTRICTED *(Indicate operation(s) to be conducted)*	1		AGRICULTURE AND PEST CONTROL			2		AERIAL SURVEY			3		AERIAL ADVERTISING		
				4		FOREST *(Wildlife Conservation)*			5		PATROLLING			6		WEATHER CONTROL		
				0		OTHER *(Specify)*													
	4	✓	EXPERIMENTAL *(Indicate operation(s) to be conducted)*	1	✓	RESEARCH AND DEVELOPMENT			2		AMATEUR BUILT			3		EXHIBITION		
				4		AIR RACING			5		CREW TRAINING			6		MARKET SURVEY		
				0	✓	TO SHOW COMPLIANCE WITH THE CFR			7		OPERATING *(Primary Category)* KIT BUILT AIRCRAFT							
				8		OPERATING LIGHT-SPORT	8A		Existing Aircraft without an airworthiness certificate & do not meet § 103.1									
							8B		Operating Light-Sport Kit-Built									
							8C		Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190									
	8		SPECIAL FLIGHT PERMIT *(Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)*	1		FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE													
				2		EVACUATION FROM AREA OF IMPENDING DANGER													
				3		OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT													
				4		DELIVERING OR EXPORTING			5		PRODUCTION FLIGHT TESTING								
				6		CUSTOMER DEMONSTRATION FLIGHTS													
C	6	✓	MULTIPLE AIRWORTHINESS CERTIFICATE *(check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)*																

III. OWNER'S CERTIFICATION

A. REGISTERED OWNER *(As shown on certificate of aircraft registration)* — IF DEALER, CHECK HERE →

NAME	ADDRESS
Gulfstream Aerospace Corporation	500 Gulfstream Road MSC B-16 Savannah Georgia 31408-9643

B. AIRCRAFT CERTIFICATION BASIS *(Check applicable blocks and complete items as indicated)*

	AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET *(Give No. and Revision No.)* A12EA, revision 29	✓	AIRWORTHINESS DIRECTIVES *(Check if all applicable AD's are complied with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)* 2007-26
	AIRCRAFT LISTING *(Give page number(s))* N/A		SUPPLEMENTAL TYPE CERTIFICATE *(List number of each STC incorporated)* N/A

C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS

✓	CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417	TOTAL AIRFRAME HOURS 6.4 Hours	3	EXPERIMENTAL ONLY *(Enter hours flown since last certificate issued or renewed)*

D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.

DATE OF APPLICATION	NAME AND TITLE *(Print or type)*	SIGNATURE
January 3, 2008	Carl Coonce, Manager, Final Phase Completions	

IV. INSPECTION AGENCY VERIFICATION

A. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: *(Complete the section only if 14 CFR part 21.183(d) applies.*

2	☐	14 CFR part 121 CERTIFICATE HOLDER *(Give Certificate No.)*	3	☐	CERTIFICATED MECHANIC *(Give Certificate No.)*	6	☐ CERTIFICATED REPAIR STATION *(Give Certificate No.)*
5	☐	AIRCRAFT MANUFACTURER *(Give name or firm)*					

DATE	TITLE	SIGNATURE

V. FAA REPRESENTATIVE CERTIFICATION

(Check ALL applicable block items A and B)

A. I find that the aircraft described in Section I or VII meets requirements for ☐ 4 ✓ THE CERTIFICATE REQUESTED ☐ AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE

B. Inspection for a special permit under Section VII was conducted by: ☐ FAA INSPECTOR ☐ CERTIFICATE HOLDER UNDER ☐ FAA DESIGNEE ☐ 14 CFR part 65 ☐ 14 CFR part 121 OR 135 ☐ 14 CFR part 145

DATE	DISTRICT OFFICE	4	DESIGNEE'S SIGNATURE AND NO.	1	FAA INSPECTOR'S SIGNATURE
1/4/08	CE-46		EMERY P. WILTSE DARF 609004-CE		

VI. PRODUCTION FLIGHT TESTING

A. MANUFACTURER

NAME | ADDRESS

B. PRODUCTION BASIS *(Check applicable item)*

- ☐ PRODUCTION CERTIFICATE *(Give production certificate number)* ⟶
- ☐ TYPE CERTIFICATE ONLY
- ☐ APPROVED PRODUCTION INSPECTION SYSTEM

C. GIVE QUANTITY OF CERTIFICATES REQUIRED FOR OPERATING NEEDS

DATE OF APPLICATION | NAME AND TITLE *(Print or Type)* | SIGNATURE

VII. SPECIAL FLIGHT PERMIT PURPOSES OTHER THAN PRODUCTION FLIGHT TEST

A. DESCRIPTION OF AIRCRAFT

REGISTERED OWNER | ADDRESS

BUILDER *(Make)* | MODEL

SERIAL NUMBER | REGISTRATION MARK

B. DESCRIPTION OF FLIGHT — CUSTOMER DEMONSTRATION FLIGHTS ☐ *(Check if applicable)*

FROM | TO

VIA | DEPARTURE DATE | DURATION

C. CREW REQUIRED TO OPERATE THE AIRCRAFT AND ITS EQUIPMENT

☐ PILOT ☐ CO-PILOT ☐ FLIGHT ENGINEER ☐ OTHER *(Specify)*

D. THE AIRCRAFT DOES NOT MEET THE APPLICABLE AIRWORTHINESS REQUIREMENTS AS FOLLOWS:

E. THE FOLLOWING RESTRICTIONS ARE CONSIDERED NECESSARY FOR SAFE OPERATION: *(Use attachment if necessary)*

F. CERTIFICATION – I hereby certify that I am the registered owner (or his agent) of the aircraft described above; that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is safe for the flight described.

DATE | NAME AND TITLE *(Print or Type)* | SIGNATURE

VIII. AIRWORTHINESS DOCUMENTATION (FAA/DESIGNEE use only)

✓	A. Operating Limitations and Markings in Compliance with 14 CFR Section 91.9, as applicable.		G. Statement of Conformity, FAA Form 8130-9 *(Attach when required)*
✓	B. Current Operating Limitations Attached		H. Foreign Airworthiness Certification for Import Aircraft *(Attach when required)*
	C. Data, Drawings, Photographs, etc. *(Attach when required)*	✓	I. Previous Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.183(a) CAR _____ (Original Attached)
✓	D. Current Weight and Balance information Available in Aircraft		
	E. Major Repair and Alteration, FAA Form 337 *(Attach when required)*	✓	J. Current Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.191(a)(b) *(Copy Attached)*
✓	F. This inspection Recorded in Aircraft Records		K. Light-Sport Aircraft Statement of Compliance, FAA Form 8130-15 *(Attach when required)*

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION Experimental		
	PURPOSE To Show Complaince with the Regulation		
B	MANU-FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 372BG		SERIAL NO. 5164
	BUILDER Gulfstream		MODEL GN-SP (G550)
E	DATE OF ISSUANCE 1-4-08		EXPIRY 2-3-08
	OPERATING LIMITATIONS DATED 1-4-08		ARE A PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE Emery P. Wiltse		DESIGNATION OR OFFICE NO. DART-609001-CE

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

FAA FORM 8130-7 (10/82)

SEE REVERSE SIDE

U.S. Department
of Transportation
**Federal Aviation
Administration**

Small Airplane Directorate
Manufacturing Inspection District Office
6020 28th Avenue South, Room 103
Minneapolis, MN 55450-2700

EXPERIMENTAL OPERATING LIMITATIONS
RESEARCH AND DEVELOPMENT/SHOWING COMPLIANCE WITH THE REGULATIONS

MAKE: Gulfstream
MODEL: GV-SP (G550)
SERIAL NUMBER: 5164
REGISTRATION NUMBER: N372BG

Retain these limitations in the aircraft during each flight.

1. No person may operate this aircraft unless FAA Form 8130-7 is displayed at the cabin or cockpit entrances so that it is visible to passengers or flightcrew members.

2. No person may operate this aircraft for other than the purpose of **RESEARCH AND DEVELOPMENT / SHOWING COMPLIANCE WITH THE REGULATIONS** to accomplish the flight operation outlined in the program letter dated December 18, 2007, which describes compliance with §21.193(d), and has been made available to the pilot in command of the aircraft. In addition, this aircraft must be operated in accordance with applicable air traffic and general operating rules of part 91 and all additional limitations herein prescribed under the provisions of §91.319(i).

3. All flights shall be conducted within the geographical area described as follows:

   1000 NM radius around the Outagamie County Regional Airport, Appleton, Wisconsin (ATW), excluding Canadian airspace. Except for takeoff and landing operations this aircraft must be operated over open water or in sparsely populated areas having light air traffic.

4. When changing between operating purposes of a multiple-purpose certificate (**Research and Development and Show Compliance**), the operator must determine that the aircraft is in a condition for safe operation and appropriate for the purpose intended. A record entry will be made by an appropriately rated person to document that finding in the aircraft logbook.

5. This aircraft must not be operated unless it is inspected and maintained in accordance with appropriate military technical publications and/or manufacturer's recommendations. The owner/operator must select, establish, identify, and use an inspection program as set forth in § 91.409(e), (f), (g), and (h). This inspection program must be recorded in the aircraft maintenance records.

6. The pilot in command of this aircraft must hold an appropriate category/class rating. If required for the type of aircraft to be flown, the pilot-in-command also must hold either an appropriate type rating or a letter of authorization issued by a FAA Flight Standards Operations Inspector.

7. This aircraft may be operated under VFR, day and/or night.

8. This aircraft may be operated under IFR, and must be properly equipped for instrument flight in accordance with § 91.205.

9. No person may operate this aircraft for carrying persons or property for compensation or hire.

10. No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight. The pilot shall record the names of the persons carried on each flight.

11. The pilot in command of this aircraft shall advise each person of the experimental nature of this aircraft, and explain that it does not meet the certification requirements of a standard certificated aircraft.

12. This aircraft must contain the placards, markings, etc., (or other operating instructions developed for an STC modification) required by §91.9.

13. This aircraft is prohibited from aerobatic flight; that is, an intentional maneuver involving an abrupt change in the aircraft's attitude, an abnormal attitude, or abnormal acceleration not necessary for normal flight.

14. The aircraft must not be used for glider towing, banner towing, or intentional parachute jumping.

15. No person may operate this aircraft unless within the preceding 12 calendar months it has had a condition inspection performed in accordance with Appendix D to Part 43, or other FAA-approved programs, and found to be in a condition for safe operation. This inspection will be recorded in the aircraft maintenance records.

16. Only FAA-certified mechanics with appropriate rating as authorized by § 43.3 may perform inspections required by these operation limitations.

17. Inspections must be recorded in the aircraft maintenance records showing the following or a similarly worded statement: "I certify that this aircraft has been inspected on (insert date) in accordance with the scope and detail of appendix D to part 43, or other FAA-approved programs, and was found to be in a condition for safe operation." The entry will include the aircraft's total time-in-service, and the name, signature, certificate number, and type of certificate held by the person performing the inspection.

18. If aircraft or engine operating limits are exceeded, an appropriate entry will be made in the aircraft records.

19. This aircraft must not be operated unless it is maintained and inspected in accordance with the requirements of Part 43.

20. The aircraft must display the word **EXPERIMENTAL** in accordance with §45.23(b).

21. The pilot in command of this aircraft shall notify the air traffic control tower of the experimental nature of this aircraft when operating into or out of airports with operating control towers. The pilot in command shall plan routing that will avoid densely populated areas and congested airways when operating VFR.

22. This aircraft does not meet the requirements of the applicable, comprehensive, and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation. The owner/operator of this aircraft must obtain written permission from another country's CAA prior to operating this aircraft in or over that country. That written permission must be carried aboard the aircraft together with the U.S. airworthiness certificate and, upon request, be made available to an FAA inspector or the CAA in the country of operation.

23. Aircraft instruments and equipment installed and used under §91.205 must be inspected and maintained in accordance with the requirements of parts 43 and 91. Any maintenance or inspection of this equipment must be recorded in the aircraft maintenance records.

24. Application must be made to the Minneapolis MIDO for any revision to these operating limitations.

25. In accordance with §47.45, the FAA Aircraft Registry must be notified within 30 days of any change to the aircraft registrant's address. Such notification is made by submitting a FAA Form 8050-1, Aircraft Registration Application, to AFS-750 in Oklahoma City, Oklahoma.

26. The pilot in command shall ensure all passengers carried onboard the aircraft are necessary for the purpose of the intended flight, and will list each passenger by name on an aircraft manifest.

These operating limitations are a part of a special airworthiness certificate issued: January 4, 2008

Date of Limitations Issuance: January 4, 2008 Date of Expiration: February 3, 2008

Issued By: _____

Emery P. Wiltse
DAR-609001-CE

Gulfstream
A GENERAL DYNAMICS COMPANY

EXPERIMENTAL AIRWORTHINESS PROGRAM LETTER

1. Registered Owner Information (as shown on Certificate of Registration):

Name	Address
Gulfstream Aerospace Corp.	500 Gulfstream Rd. MSC B-16 Savannah, GA 31408-9643

2. Aircraft Description:

Aircraft Registration	Aircraft Manufacturer	Year Mfg.
N764GA	Gulfstream	2007
Aircraft Serial No.	**Aircraft Model**	
5164	GV-SP (G550)	

3. Program Purpose

To flight test the aircraft under experimental airworthiness for the purposes of Research and Development and Showing Compliance to the Regulations for testing under STC Project ST6387CH-T, which will include flight operations for the forward cabin bulkhead electric pocket door and for fit and operation tests of cabin furnishings.

4. Estimated flight hours required: 30 hours

Estimated number of flights required: 8 flights

Estimated duration for program: 30 days

5. Flight Test Area Description (include address of base station)

The flight test area is defined as:

While at Appleton Wisconsin (ATW)
1000 NM radius around the Outagamie County Regional Airport, Appleton, Wisconsin (ATW), excluding Canadian airspace. Except for takeoff and landing operations this aircraft must be operated over open water or in sparsely populated areas having light air traffic.

6. Aircraft Configuration Description (attach drawings or photographs if necessary)

The aircraft will be configured with an aircraft interior accomplished under STC Project ST6387CH-T.

7. Date	Name & Title (type or print)	Signature
December 18, 2007	Carl C. Coonce, Manager, Final Phase Operations	

FAA

MAJOR REPAIR AND ALTERATION

(Airframe, Powerplant, Propeller, or Appliance)

US Department of Transportation
Federal Aviation Administration

Form Approved
OMB No. 2120-0020

For FAA Use Only
Office Identification

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

1. Aircraft	Make: **GULFSTREAM**	Model: **GV-SP (G550)**
	Serial No.: **5164**	Nationality and Registration Mark: **N764GA**
2. Owner	Name *(As shown on registration certificate)*: **GULFSTREAM AEROSPACE CORP**	Address *(As shown on registration certificate)*: **500 GULFSTREAM RD MSC B-16 SAVANNAH GA 31408-9643**

3. For FAA Use Only

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

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency		C. Certificate No.
Gulfstream Aerospace Corporation **W6365 Discovery Drive** **Appleton, WI 54914**		U.S. Certificated Mechanic	**G1FR100Y**
		Foreign Certificated Mechanic	
	X	Certified Repair Station	
		Manufacturer	

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

Date	Signature of Authorized Individual
01/15/2008	**Roy Dahlke** Roy Dahlke

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		Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection	Certificate or Designation No.	Signature of Authorized Individual
01/15/2008	**G1FR100Y**	**Roy Dahlke** Roy Dahlke

NOTICE

Weight and balance 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).

Converted aircraft from production (green) aircraft to a Seventeen (17) Passenger Corporate Executive Cabin Interior in accordance with Gulfstream Aerospace Corp. **STC ST02424CH-D** issued 01/14/2008.

Structural modifications required to complete the Corporate Interior Installations are found on: Structures 8110-3 Drawing List for GV-SP S/N 5164 #GC520000238, Rev.--, which are DER approved by Mark G. Shallow, DERY-410138-CE on FAA 8110-3 form dated 01/14/2008.

Mechanical System Drawing 8110-3 List for GV-SP S/N 5164 #GC520000239, Rev.-- which are DER approved by Mark G. Shallow, DERY-410138-CE on FAA 8110-3 form dated 01/14/2008 and by Roger W. Duffrin DERY- 405049-CE on FAA 8110-3 form dated 01/14/2008.

The Completion Stress Report #GC524965164, Rev.-- for GV-SP S/N 5164 is DER approved by Mark G. Shallow, DERY-410138-CE on FAA 8110-3 form dated 01/14/2008.

The following Interior Drawings are DER approved by Emery P. Wiltse DERY-609001-CE on FAA 8110-3 form dated 01/14/2008.: GC52804K010, Rev.-- - Interior Compliance Checklist and GC520000226, Rev.-- - Compliance Data List, GV-SP S/N 5164.

Materials (including finishes or decorative surfaces applied to the materials) used in the installation of the new Corporate interior have been tested in accordance with Gulfstream Aerospace Burn Test Procedures Manual GACA-BT-001M Rev. 1 dated 5/00. Materials meet the flammability requirements of FAR 25.853 (a) Appendix F Part I (a) (1), FAR 25.855 (d) Appendix F Part I (a) (2). The galley and lavatory waste compartments meet the flammability requirements of FAR 25.853 (h).

Electronic Cable and additional wire used complies with the burn testing requirements of FAR 25.869 (a)(4) Appendix F Part I (a)(3) Amendment 25-113 which is DER approved by Carin Demus, DERY-405143-CE on FAA 8110-3 forms dated 11/21/2007.

Thermal/acoustic insulation materials installed in the fuselage meet the flame propagation burn tests of FAR 25.856 (a) Appendix F Part VI which are DER approved by Herb Reed II, DERT-230293-CE on FAA 8110-3 forms dated 10/13/2007.

All single and double cabin seating, excluding the jumpseat, which is certified from production, comply with the requirements of FAR 25.853 (c), Amd. 25-116, Appendix F Part II and FAR 25.853 (a), Amd. 25-116, Appendix F Part I (a)(1)(ii) in accordance with Skandia Inc., Test Plan #16998 Rev. A dated 12/18/2007 and Rev. IR dated 12/12/2007. DER approval is by Donna J. Parrish, DERY-410100-CE on FAA 8110-3 forms dated 12/18/2007.

Airplane Flight Manual Supplement, **GC52204M024** Rev.--, dated 01/14/2008 is required for this approval and is inserted in the applicable Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Document No. **GC52801A480** dated 01/2007.

☒ Additional Sheets are attached.

Installed Electric Window Shades (ATG) in accordance with Gulfstream Aerospace Corp. **STC ST03290AT-D** Issued 11/21/06.

Airplane Flight Manual Supplement No. **GC51506M002** dated 11/21/06 is required for this approval and is inserted into the appropriate Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp Instructions for Continued Airworthiness Report No. **GC51 506A002** Rev.--, dated 11/15/2006.

Installed a Passenger Oxygen System (-103 config.) in accordance with Gulfstream Aerospace Corp. **STC ST02696AT-D**, Issued 08/19/2003.

Deviations are DER approved on Oxygen System STC #ST02696AT-D (-103 Config.) Deviation Drawing List #GC520000240 for GV-SP S/N 5164 Mark G. Shallow, DERY-410138-CE on FAA 8110-3 form dated 01/14/2008.and by Roger W. Duffrin DERY- 405049-CE on FAA 8110-3 form dated 01/14/2008.

Airplane Flight Manual Supplement, **GC51453M004** Rev. A dated 12/08/2004 is required for this approval and is inserted in the applicable Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference GAC Instructions for Continued Airworthiness, Document Number: **GC51453A003** Rev. B dated 08/25/2004.

Installed Interior Emergency Lights in accordance with Gulfstream Aerospace Corp. **STC ST02697AT-D**, Issued 08/20/2003.

Instructions for Continued Airworthiness: Reference GAC Instructions for Continued Airworthiness, Report Number: **GC51486A002**, Rev. A dated 02/12/2004.

Installed an External Camera System (Securaplane) in accordance with Gulfstream Aerospace **STC ST02715AT-D** issued 10/07/2003.

Airplane Flight Manual Supplement, **GC51505M006** Rev. A dated 09/21/2004 is required for this approval and is inserted in the applicable Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Document No. **GC51505A005** Rev. B dated 09/03/2004.

Installed a 115VAC/60 Hz Cabin Outlets System in accordance with Gulfstream Aerospace **STC ST02292CH-D** issued 11/17/2006.

Airplane Flight Manual Supplement, **GC51 494M000** Rev.-- dated 11/17/2006 is required for this approval and is inserted in the applicable Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Report No. **GC51494A000** Rev.-- dated 10/31/2006.

Installed an Airshow 4000 System in accordance with Gulfstream Aerospace **STC ST02048CH-D** issued 06/01/2005.

Airplane Flight Manual Supplement, **GC51504M000** Rev.- dated 06/01/2005 is required for this approval and is inserted in the applicable Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Document No. **GC51504A001** Rev. A dated 03/15/07.

Installed a Broad Band Multi-Link (BBML) System in accordance with Gulfstream Aerospace **STC ST02796AT-D** issued 01/21/05, last amended 10/26/2006.

Airplane Flight Manual Supplement, **GC51303M005** dated 05/08/2006 is required for this approval and is inserted in the applicable Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Document No. **GC51303A006** Rev.-- dated 06/27/2006.

Installed a Securaplane 500 Security System in accordance with Gulfstream Aerospace **STC ST02049CH-D** issued 06/01/2005.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Document No. **GC51456A000** Rev. A dated 03/15/2007.

Installed a Airshow RF/IF Remote Controller with Touchscreen Remote System to the Airshow Cabin Management System in accordance with Gulfstream Aerospace **STC ST01957CH-D** issued 09/21/04.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Document No. **GC51602A000** Rev.-- dated 09/21/2004.

Installed Emergency Vision Assurance System (EVAS) in accordance with Vision Safe Corporation **STC ST00892LA** issued 12/15/1999.

Airplane Flight Manual Supplement **No. 1** Rev. 1 dated 11/08/2004 is required for this approval and is inserted into the appropriate Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference EVAS ICA Document Number: 8017, Rev. 5 dated 02/12/2007 for Maintenance Requirements.

Installed **ASC 049** dated 05/02/2006 - Navigation (ATA 34) Lightning Sensor System (LSS) Installation using Gulfstream Aerospace **STC ST02915AT-D** issued 05/122005.

Airplane Flight Manual Supplement, **GC51 225M000** dated 05/12/2005 is required for this approval and is inserted in the applicable Airplane Flight Manual.

Instructions for Continued Airworthiness: Reference Gulfstream Aerospace Corp. Instructions for Continued Airworthiness Document No. **GC51 225A000** Rev.-- dated 04/05/2005.

DRAWING	SYSTEM
GC51 1070307, Rev.--	Call System
GC51 1790268, Rev.--	Cockpit Lights (Mod)
GC51 3700325, Rev.--	Cockpit Switch Panels
GC51 4620102, Rev.--	Rechargeable Flashlights (Mod)
GC51 4780310, Rev.--	Passenger Warning Signs
GC51 4990233, Rev.--	Spare Wires
GC51 6190204, Rev.--	Main Cabin Door Switch Relocation
GC51 5900239, Rev.--	Galley Lights
GC51 4530198, Rev.--	Oxygen System (Mod)
GC51 4860357, Rev.--	Interior Emergency Lights
GC51 4864149, Rev.--	Wire Routing Diagram Interior Emergency Lights
GC51 5410190, Rev.--	Galley Oven
GC51 5420031, Rev.--	Hot Cup
GC51 5430195, Rev.--	Coffee Maker
GC51 5460292, Rev.--	Galley Outlets
GC51 5480319, Rev.--	Water System (Mod)
GC51 6960296, Rev.--	Aft Lav Electrical
GC51 7460177, Rev.--	Thermal Electric Cooling Unit
GC51 4160341, Rev.--	Cabin Switch Block Diagram
GC51 5690329, Rev.--	Cabin Data Bus
GC51 5710257, Rev.--	VIP/Entertainment Switch Panels
GC51 5730250, Rev.--	Galley Switch Panels
GC51 3910011, Rev.--	R EER CB Panel (Mod)
GC51 3940345, Rev.--	Aux CB Panel (Mod)
GC51 5400308, Rev.--	Galley CB Panel
GC51 3034046, Rev.--	Wire Routing Diagram Radio Satcom HSD (Skylink)
GC51 4284102, Rev.--	Wire Routing Diagram Wireless LAN (BBML)
GC51 4294028, Rev.--	Wire Routing Diagram LAN Server (BBML)
GC51 4304014, Rev.--	Wire Routing Diagram Voice Over IP (BBML)
GC51 4564018, Rev.--	Wire Routing Diagram Security System
GC51 4934006, Rev.--	Wire Routing Diagram 60 Hz Converter
GC51 4944017, Rev.--	Wire Routing Diagram 60 Hz Outlets
GC51 4980134, Rev.--	Wire Routing
GC51 5054145, Rev.--	Wire Routing Diagram Camera System
GC51 5064139, Rev.--	Wire Routing Diagram Electric Window Shades
GC51 5540048, Rev.--	LH Galley Assembly
GC51 6540125, Rev.--	R/H Galley Annex Assembly
GC51 6940121, Rev.--	Aft LH Vanity Assembly

REPORT	SYSTEM
GC51 4696353, Rev.--	Electrical Load Analysis Supplement

Electrical / electronic aspects of the above listed electrical drawings are DER approved by Roger W. Duffrin DERY- 405049-CE on FAA 8110-3 forms dated 01/14/2008.

DRAWING	SYSTEM
GC51 1030299, Rev.--	Satcom (Mod)
GC51 1040322, Rev.--	Radio Telephone (System Removal)
GC51 1090297, Rev.--	Cockpit Audio (Mod)
GC51 3240350, Rev.--	Ident Strapping
GC51 1650117, Rev.--	Forward Cabin Disconnects
GC51 2650117, Rev.--	Aft Cabin Disconnects
GC51 3650132, Rev.--	Miscellaneous Disconnects
GC51 1990222, Rev.--	Aux Avionics Cooling
GC51 4230085, Rev.--	ELT (MOD)
GC51 5760195, Rev.--	Valance Panel Disconnects
GC51 6460090, Rev.--	Crew Galley/Refreshment
GC51 5930042, Rev.--	FWD Crew Refreshment Assembly
GC51 2030054, Rev.--	Aircell Iridium Satcom (Axxess II)
GC51 3030087, Rev.--	Satcom High Speed Data (Skylink)
GC51 4280202, Rev--	Wireless LAN (BBML)
GC51 4290057, Rev--	LAN Server (BBML)
GC51 4300013, Rev--	Voice Over IP (BBML)
GC51 4560199, Rev.--	Security System (Securaplane)
GC51 4630260, Rev.--	Nose External Switch Panel (Mod)
GC51 4930225, Rev.--	60HZ Converter (Mod)
GC51 4940274, Rev.--	60HZ Outlets

Electrical/electronic aspects of the above listed electrical drawings are DER approved by Calvin A Lewis DERY 405115-CE on FAA 8110-3 forms dated 01/09/2008.

DRAWING	SYSTEM
GC51 4520187, Rev.--	Cabin Temp Sensor Relocation
GC51 4570294, Rev.--	Cabin Temp Control (Mod)
GC51 4820307, Rev.--	Vestibule Electrical
GC51 5060177, Rev.--	Electric Window Shades
GC51 5810309, Rev.--	Cabin Effect Lights
GC51 5820317, Rev.--	Cabin Spot Lights
GC51 5840301, Rev.--	Aisle Lights
GC51 5870275 Rev.--	Closet Lights
GC51 5940098, Rev.--	Fwd Lavatory Assembly
GC51 5960288, Rev.--	Fwd Lavatory Electrical
GC51 6880086, Rev.--	Aft LH Closet Assembly
GC51 7880113, Rev.--	Aft RH Closet Assembly

Electrical / electronic aspects of the above listed electrical drawings are DER approved by Emery P. Wiltse DERY-609001-CE on FAA 8110-3 form dated 01/09/2008.

DRAWING	SYSTEM
GC51 4270277, Rev.--	Fax Interface
GC51 5010319, Rev.--	Cabin Audio
GC51 5020344, Rev.--	Cabin Entertainment
GC51 6010257, Rev.--	Cabin Headphones
GC51 7020133, Rev.--	Credenza Assembly
GC51 5050245, Rev.--	Camera System (AVS)
GC51 5050244, Rev.--	Camera System (Securaplane)
GC51 6020182, Rev.--	Remote Control (RF)
GC51 5040316, Rev.--	Cabin Display (Airshow 4000)

Electrical/electronic aspects of the above listed electrical drawings are DER approved by Peter Jobe DERY 830436-CE on FAA 8110-3 forms dated 01/11/2008.

Aircraft wiring diagrams affected by the above installations are revised to reflect changes in system design or their interface to newly installed or modified systems as appropriate. All new single conductor wire meets MIL22759/16 and all new multi-conductor shielded wire meets MIL 27500.

Reference GAC serialized Outfitters Equipment List and / or electrical drawings bill of materials for details on equipment installed in conjunction with this installation. Aircraft was re-weighed.

---------- End----------

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3 AIRCRAFT SERIAL NUMBER	4 CATEGORY
N372BG	Gulfstream GV-SP (G550)	5164	Transport

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:

Exemption 7946 25.813(e) Door Between Passenger Compartments
Exemption 8004 25.901(c) Single Failure Criteria
Exemption 8142 25.901(c) Single Failure Criteria

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	FAA REPRESENTATIVE	DESIGNATION NUMBER
R 8/21/07	Emery P. Wiltse	DART-609001-GL

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

FAA Form 8100-2 (8-82) GPO 892-804

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3. AIRCRAFT SERIAL NUMBER	4. CATEGORY
N764GA	Gulfstream GV-SP(G550)	5164	Transport

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:

Exemption No. 7946/25.813(e) Door Between Passenger Compartments
Exemption No. 8004-25.901(c) Single Failure Criteria
Exemption No. 8142-25.901(c) Single Failure Criteria

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	FAA REPRESENTATIVE	DESIGNATION NUMBER
A08/21/2007	Jessie K. Jones	ODARF100127CE

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

FAA FORM 8130-6, APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

Form Approved
O.M.B. No. 2120-0018

U.S. Department of Transportation
Federal Aviation Administration

APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

INSTRUCTIONS - Print or type. Do not write in shaded areas; these are for FAA use only. Submit original only to an authorized FAA Representative. If additional space is required, use attachment. For special flight permits complete Sections II, VI and VII as applicable.

I. AIRCRAFT DESIGNATION

1. REGISTRATION MARK	2. AIRCRAFT BUILDER'S NAME (Make)	3. AIRCRAFT MODEL DESIGNATION	4. YR. MFR.	FAA CODING
N764GA	Gulfstream Aerospace Corp.	GV-SP	2007	3980101
5. AIRCRAFT SERIAL NO.	**6. ENGINE BUILDER'S NAME (Make)**	**7. ENGINE MODEL DESIGNATION**		54005
5164	Rolls Royce	BR700-710C4-11		
8. NUMBER OF ENGINES	**9. PROPELLER BUILDER'S NAME (Make)**	**10. PROPELLER MODEL DESIGNATION**	**11. AIRCRAFT IS (Check if applicable)**	
(2)	N/A	N/A	☐ IMPORT	

II. CERTIFICATION REQUESTED

APPLICATION IS HEREBY MADE FOR: (Check applicable items)

A	1	✓	STANDARD AIRWORTHINESS CERTIFICATE (Indicate Category)		NORMAL		UTILITY		ACROBATIC	✓	TRANSPORT		COMMUTER		BALLOON		OTHER		
B			SPECIAL AIRWORTHINESS CERTIFICATE (Check appropriate items)																
	7		PRIMARY																
	9		LIGHT-SPORT (Indicate Class)		AIRPLANE		POWER-PARACHUTE		WEIGHT-SHIFT-CONTROL		GLIDER		LIGHTER THAN AIR						
	2		LIMITED																
	5		PROVISIONAL (Indicate Class)	1		CLASS I													
				2		CLASS II													
	3		RESTRICTED (Indicate operation(s) to be conducted)	1		AGRICULTURE AND PEST CONTROL		2		AERIAL SURVEY		3		AERIAL ADVERTISING					
				4		FOREST (Wildlife Conservation)		5		PATROLLING		6		WEATHER CONTROL					
				0		OTHER (Specify)													
	4		EXPERIMENTAL (Indicate operation(s) to be conducted)	1		RESEARCH AND DEVELOPMENT		2		AMATEUR BUILT		3		EXHIBITION					
				4		AIR RACING		5		CREW TRAINING		6		MARKET SURVEY					
				0		TO SHOW COMPLIANCE WITH THE CFR		7		OPERATING (Primary Category) KIT BUILT AIRCRAFT									
				8		OPERATING LIGHT-SPORT	8A		Existing Aircraft without an airworthiness certificate & do not meet § 103.1										
							8B		Operating Light-Sport Kit-Built										
							8C		Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190										
	8		SPECIAL FLIGHT PERMIT (Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)	1		FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE													
				2		EVACUATION FROM AREA OF IMPENDING DANGER													
				3		OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT													
				4		DELIVERING OR EXPORTING		5		PRODUCTION FLIGHT TESTING									
				6		CUSTOMER DEMONSTRATION FLIGHTS													
C	6		MULTIPLE AIRWORTHINESS CERTIFICATE (check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)																

III. OWNER'S CERTIFICATION

A. REGISTERED OWNER (As shown on certificate of aircraft registration) — IF DEALER, CHECK HERE → ☐

NAME	ADDRESS
Gulfstream Aerospace Corporation	500 Gulfstream Rd., Savannah, GA 31408-9643

B. AIRCRAFT CERTIFICATION BASIS (Check applicable blocks and complete items as indicated)

✓	AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET (Give No. and Revision No.) A12EA Rev. 29	✓	AIRWORTHINESS DIRECTIVES (Check if all applicable AD's are complied with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application) 2007-17-01
	AIRCRAFT LISTING (Give page number(s)) N/A		SUPPLEMENTAL TYPE CERTIFICATE (List number of each STC incorporated) N/A

C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS

✓	CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417	TOTAL AIRFRAME HOURS 4:19 Hrs.	3	EXPERIMENTAL ONLY (Enter hours flown since last certificate issued or renewed) N/A

D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.

DATE OF APPLICATION	NAME AND TITLE (Print or type)	SIGNATURE
8/20/07	Jason Lovicz, Production Manager	

IV. INSPECTION AGENCY VERIFICATION

A. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: (Complete the section only if 14 CFR part 21.183(d) applies.

2		14 CFR part 121 CERTIFICATE HOLDER (Give Certificate No.)	3		CERTIFICATED MECHANIC (Give Certificate No.)	6		CERTIFICATED REPAIR STATION (Give Certificate No.)
5		AIRCRAFT MANUFACTURER (Give name or firm)						

DATE	TITLE	SIGNATURE

V. FAA REPRESENTATIVE CERTIFICATION

(Check ALL applicable block items A and B)

A. I find that the aircraft described in Section I or IV meets requirements for ☐ THE CERTIFICATE REQUESTED ✓ | 4 ☐ AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE

B. Inspection for a special permit under Section VII was conducted by: ☐ FAA INSPECTOR ☐ CERTIFICATE HOLDER UNDER ☐ FAA DESIGNEE ☐ 14 CFR part 65 ☐ 14 CFR part 121 OR 135 ☐ 14 CFR part 145

DATE	DISTRICT OFFICE	4	DESIGNEE'S SIGNATURE AND NO.	1	FAA INSPECTOR'S SIGNATURE
8/20/07	CE42		Jesse K. Jones ODARF100127CE		

RECEIVED ATLANTA
AUG 23 2007
MIDO

FAA Form 8130-6 (10-04) Previous Edition Dated 5/01 May be Used Until Depleted, Except for Light-Sport Aircraft — NSN: 0052-00-024-7006

8/23/2007

VI. PRODUCTION FLIGHT TESTING

A. MANUFACTURER

NAME	ADDRESS

B. PRODUCTION BASIS *(Check applicable item)*

- ☐ PRODUCTION CERTIFICATE *(Give production certificate number)* →
- ☐ TYPE CERTIFICATE ONLY
- ☐ APPROVED PRODUCTION INSPECTION SYSTEM

C. GIVE QUANTITY OF CERTIFICATES REQUIRED FOR OPERATING NEEDS

DATE OF APPLICATION	NAME AND TITLE *(Print or Type)*	SIGNATURE

VII. SPECIAL FLIGHT PERMIT PURPOSES OTHER THAN PRODUCTION FLIGHT TEST

A. DESCRIPTION OF AIRCRAFT

REGISTERED OWNER	ADDRESS
BUILDER *(Make)*	MODEL
SERIAL NUMBER	REGISTRATION MARK

B. DESCRIPTION OF FLIGHT — CUSTOMER DEMONSTRATION FLIGHTS ☐ *(Check if applicable)*

FROM	TO	
VIA	DEPARTURE DATE	DURATION

C. CREW REQUIRED TO OPERATE THE AIRCRAFT AND ITS EQUIPMENT

☐ PILOT ☐ CO-PILOT ☐ FLIGHT ENGINEER ☐ OTHER *(Specify)*

D. THE AIRCRAFT DOES NOT MEET THE APPLICABLE AIRWORTHINESS REQUIREMENTS AS FOLLOWS:

E. THE FOLLOWING RESTRICTIONS ARE CONSIDERED NECESSARY FOR SAFE OPERATION: *(Use attachment if necessary)*

F. CERTIFICATION – I hereby certify that I am the registered owner (or his agent) of the aircraft described above; that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is safe for the flight described.

DATE	NAME AND TITLE *(Print or Type)*	SIGNATURE

VIII. AIRWORTHINESS DOCUMENTATION (FAA/DESIGNEE use only)

✓	A. Operating Limitations and Markings in Compliance with 14 CFR Section 91.9, as applicable.		G. Statement of Conformity, FAA Form 8130-9 *(Attach when required)*
	B. Current Operating Limitations Attached		H. Foreign Airworthiness Certification for Import Aircraft *(Attach when required)*
	C. Data, Drawings, Photographs, etc. *(Attach when required)*	✓	I. Previous Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.197(a)(3) CAR _____ (Original Attached)
✓	D. Current Weight and Balance Information Available in Aircraft		
	E. Major Repair and Alteration, FAA Form 337 *(Attach when required)*	✓	J. Current Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.183 (a) *(Copy Attached)*
✓	F. This inspection Recorded in Aircraft Records		K. Light-Sport Aircraft Statement of Compliance, FAA Form 8130-15 *(Attach when required)*

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3. AIRCRAFT SERIAL NUMBER	4. CATEGORY
N764GA	Gulfstream GV-SP	5164	Transport

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:

Exemption No. 7946 25.813 (e) Door Between Passenger Compartments
Exemption No. 8004 25.901 (c) Single Failure Criteria
Exemption No. 8142 25.901 (c) Single Failure Criteria

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	FAA REPRESENTATIVE	DESIGNATION NUMBER
08/20/2007	Jessie K. Jones	ODARF100127CE

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

FAA Form 8100-2 (8-82)

U.S. GPO-2001 - 668-455

FAA FORM 8130-6, APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

Form Approved
O.M.B. No. 2120-0018

U.S. Department of Transportation
Federal Aviation Administration

APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

INSTRUCTIONS - Print or type. Do not write in shaded areas; these are for FAA use only. Submit original only to an authorized FAA Representative. If additional space is required, use attachment. For special flight permits complete Sections II, VI and VII as applicable.

I. AIRCRAFT DESIGNATION

1. REGISTRATION MARK	2. AIRCRAFT BUILDER'S NAME (Make)	3. AIRCRAFT MODEL DESIGNATION	4. YR. MFR.	FAA CODING
N764GA	Gulfstream Aerospace Corp.	GV-SP (G550)	2007	3980203 5
5. AIRCRAFT SERIAL NO.	**6. ENGINE BUILDER'S NAME (Make)**	**7. ENGINE MODEL DESIGNATION**		
5164	Rolls Royce	BR700-710C4-11		54005
8. NUMBER OF ENGINES	**9. PROPELLER BUILDER'S NAME (Make)**	**10. PROPELLER MODEL DESIGNATION**	**11. AIRCRAFT IS (Check if applicable)**	
(2)	N/A	N/A	☐ IMPORT	

II. CERTIFICATION REQUESTED

APPLICATION IS HEREBY MADE FOR: *(Check applicable items)*

A	1	✓	STANDARD AIRWORTHINESS CERTIFICATE *(Indicate Category)*		NORMAL		UTILITY		ACROBATIC	✓	TRANSPORT		COMMUTER		BALLOON		OTHER	
B			SPECIAL AIRWORTHINESS CERTIFICATE *(Check appropriate items)*															
	7		PRIMARY															
	9		LIGHT-SPORT *(Indicate Class)*		AIRPLANE		POWER-PARACHUTE		WEIGHT-SHIFT-CONTROL		GLIDER		LIGHTER THAN AIR					
	2		LIMITED															
	5		PROVISIONAL *(Indicate Class)*	1		CLASS I												
				2		CLASS II												
	3		RESTRICTED *(Indicate operation(s) to be conducted)*	1		AGRICULTURE AND PEST CONTROL	2		AERIAL SURVEY	3		AERIAL ADVERTISING						
				4		FOREST *(Wildlife Conservation)*	5		PATROLLING	6		WEATHER CONTROL						
				0		OTHER *(Specify)*												
	4		EXPERIMENTAL *(Indicate operation(s) to be conducted)*	1		RESEARCH AND DEVELOPMENT	2		AMATEUR BUILT	3		EXHIBITION						
				4		AIR RACING	5		CREW TRAINING	6		MARKET SURVEY						
				0		TO SHOW COMPLIANCE WITH THE CFR	7		OPERATING *(Primary Category)* KIT BUILT AIRCRAFT									
				8	OPERATING LIGHT-SPORT	8A		Existing Aircraft without an airworthiness certificate & do not meet § 103.1										
						8B		Operating Light-Sport Kit-Built										
						8C		Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190										
	8		SPECIAL FLIGHT PERMIT *(Indicate operation(s) to be conducted, then complete Section VI or VII as applicable on reverse side)*	1		FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE												
				2		EVACUATION FROM AREA OF IMPENDING DANGER												
				3		OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT												
				4		DELIVERING OR EXPORTING	5		PRODUCTION FLIGHT TESTING									
				6		CUSTOMER DEMONSTRATION FLIGHTS												
C	6		MULTIPLE AIRWORTHINESS CERTIFICATE *(check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)*															

III. OWNER'S CERTIFICATION

A. REGISTERED OWNER *(As shown on certificate of aircraft registration)* — IF DEALER, CHECK HERE → ☐

NAME	ADDRESS
Gulfstream Aerospace Corporation	500 Gulfstream Rd., Savannah, GA 31408-9643

B. AIRCRAFT CERTIFICATION BASIS *(Check applicable blocks and complete items as indicated)*

✓	AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET *(Give No. and Revision No.)* A12EA Rev. 29	✓	AIRWORTHINESS DIRECTIVES *(Check if all applicable AD's are complied with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)* 2007-17-01
	AIRCRAFT LISTING *(Give page number(s))* N/A		SUPPLEMENTAL TYPE CERTIFICATE *(List number of each STC incorporated)* N/A

C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS

✓	CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR Section 91.417	TOTAL AIRFRAME HOURS 4:19Hrs.	3	EXPERIMENTAL ONLY *(Enter hours flown since last certificate issued or renewed)* N/A

D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.

DATE OF APPLICATION	NAME AND TITLE *(Print or type)*	SIGNATURE
08/21/07	Tom Sesock, Production Manager	

IV. INSPECTION AGENCY VERIFICATION

A. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: *(Complete the section only if 14 CFR part 21.183(d) applies.*

2		14 CFR part 121 CERTIFICATE HOLDER *(Give Certificate No.)*	3		CERTIFICATED MECHANIC *(Give Certificate No.)*	6 ✓	CERTIFICATED REPAIR STATION *(Give Certificate No.)* G02R813X
5		AIRCRAFT MANUFACTURER *(Give name or firm)*					

DATE	TITLE	SIGNATURE
08/21/07	Certification Inspector	

V. FAA REPRESENTATIVE CERTIFICATION

(Check ALL applicable block items A and B)

A. I find that the aircraft described in Section I or IV meets requirements for — ☐ THE CERTIFICATE REQUESTED; 4 ✓ AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE

B. Inspection for a special permit under Section VII was conducted by: ☐ FAA INSPECTOR ☐ CERTIFICATE HOLDER UNDER ☐ FAA DESIGNEE ☐ 14 CFR part 65 ☐ 14 CFR part 121 OR 135 ☐ 14 CFR part 145

DATE	DISTRICT OFFICE	4	DESIGNEE'S SIGNATURE AND NO.	1	FAA INSPECTOR'S SIGNATURE
08/21/07	CE42		Jessie K. Jones ODARF100127CE		

RECEIVED ATLANTA
AUG 24 2007
FSDO: 100-000-0247-006

MIDO

8/27/2007

VI. PRODUCTION FLIGHT TESTING

A. MANUFACTURER

NAME	ADDRESS

B. PRODUCTION BASIS *(Check applicable item)*

- ☐ PRODUCTION CERTIFICATE *(Give production certificate number)* →
- ☐ TYPE CERTIFICATE ONLY
- ☐ APPROVED PRODUCTION INSPECTION SYSTEM

C. GIVE QUANTITY OF CERTIFICATES REQUIRED FOR OPERATING NEEDS

DATE OF APPLICATION	NAME AND TITLE *(Print or Type)*	SIGNATURE

VII. SPECIAL FLIGHT PERMIT PURPOSES OTHER THAN PRODUCTION FLIGHT TEST

A. DESCRIPTION OF AIRCRAFT

REGISTERED OWNER	ADDRESS
BUILDER *(Make)*	MODEL
SERIAL NUMBER	REGISTRATION MARK

B. DESCRIPTION OF FLIGHT — CUSTOMER DEMONSTRATION FLIGHTS ☐ *(Check if applicable)*

FROM	TO	
VIA	DEPARTURE DATE	DURATION

C. CREW REQUIRED TO OPERATE THE AIRCRAFT AND ITS EQUIPMENT

☐ PILOT ☐ CO-PILOT ☐ FLIGHT ENGINEER ☐ OTHER *(Specify)*

D. THE AIRCRAFT DOES NOT MEET THE APPLICABLE AIRWORTHINESS REQUIREMENTS AS FOLLOWS:

E. THE FOLLOWING RESTRICTIONS ARE CONSIDERED NECESSARY FOR SAFE OPERATION: *(Use attachment if necessary)*

F. CERTIFICATION – I hereby certify that I am the registered owner (or his agent) of the aircraft described above; that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is safe for the flight described.

DATE	NAME AND TITLE *(Print or Type)*	SIGNATURE

VIII. AIRWORTHINESS DOCUMENTATION (FAA/DESIGNEE use only)

✓	A. Operating Limitations and Markings in Compliance with 14 CFR Section 91.9, as applicable.		G. Statement of Conformity, FAA Form 8130-9 *(Attach when required)*
	B. Current Operating Limitations Attached		H. Foreign Airworthiness Certification for Import Aircraft *(Attach when required)*
	C. Data, Drawings, Photographs, etc. *(Attach when required)*	✓	I. Previous Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.183 (a) CAR _____ (Original Attached)
✓	D. Current Weight and Balance information Available in Aircraft		
	E. Major Repair and Alteration, FAA Form 337 *(Attach when required)*	✓	J. Current Airworthiness Certificate Issued in Accordance with 14 CFR Section 21.183 (d) *(Copy Attached)*
✓	F. This inspection Recorded in Aircraft Records		K. Light-Sport Aircraft Statement of Compliance, FAA Form 8130-15 *(Attach when required)*

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3. AIRCRAFT SERIAL NUMBER	4. CATEGORY
N764GA	Gulfstream GV-SP(G550)	5164	Transport

5. AUTHORITY AND BASIS FOR ISSUANCE

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Exceptions:

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Exemption No. 8004 25.901 (c) Single Failure Criteria
Exemption No. 8142 25.901 (c) Single Failure Criteria

6. TERMS AND CONDITIONS

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DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
A08/21/2007	Jessie K. Jones	ODARF100127CE

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FAA Form 8100-2 (8-82) U.S. GPO-2001 - 668-455

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

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DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
08/29/2007	Jessie K. Jones	ODARF100127CE

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FAA Form 8100-2 (8-82) U.S. GPO-2001 - 668-455

Superceded by Standard C of A 5164 08/29/2007 Jessie K. Jones ODARF100127CE