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E-GS-20-0002

Rev E

**Master Drawing List,
Flap/Slat Actuator Supplemental Heaters
Gulfstream G150
STC No. ST01075DE**

REVISION STATUS

Rev.	Description	Approved	Date
IR	Initial Release	See cover sheet	
A	Updated Table 1 with latest revisions and added Cox & Co part drawings Removed Section 4, see E-GS-20-0017, <i>Electrical Load Analysis</i> , for ELA data.	D Rankin	08/28/2020
B	Updated Table 1 with latest revisions Added Section 1.2, Reference Document Updated Table 2, Weight & Balance data	L. Wilding	10/02/2020
C	Updated Table 1 with latest revisions	L. Wilding	10/09/2020
D	Added STC # to cover page Updated Table 1, Revisions. Updated Table 2, Weight & Balance data. Added Section 4, Electrical Load data.	L. Wilding	11/23/2020
E	Updated Table 1 for rev of PA-200124-521. Reference DCR-21-0005.	L Wilding	03/25/2021

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1. INTRODUCTION

This list identifies all drawings required to support the installation of a supplemental Flap/Slat Actuator Heating System (FSAHS) on the Gulfstream G150 aircraft. This list will be reviewed by structural, electrical systems, or other Designated Engineering Representative's (DERs) as specified in the Project Specific Certification Plan (PSCP), E-GS-20-0001. Acceptance of the data will be documented by a signature on, Federal Aviation Administration (FAA), Form 8110-3 *Statement of Compliance with Airworthiness Standards*, from the approving DER.

1.1. Definitions and Acronyms

DER	Designated Engineering Representative
ELA	Electrical Loads Analysis
FAA	Federal Aviation Administration
FSAHS	Flap/Slat Actuator Heating System
ODA	Organization Designation Authorization
PSCP	Project Specific Certification Plan
RLS	Release
STC	Supplemental Type Certificate
W&B	Weight and Balance

1.2. Reference Documents

Source	Document	Title
FAA	AC 43.13-1B CHG 1	Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair

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2. CONTROLLING DRAWING LIST

The design change presented to the Gulfstream G150 by this Supplemental Type Certificate (STC) is controlled in its entirety by the following drawings.

Table 1: STC Drawings

DWG NO.	DRAWING TITLE	EFF.	REV.	STATUS/ RLS. DATE
<u>MECHANICAL / INSTALLATION</u>				
PA-200124-303	RELAY MOUNTING BRACKET	ALL	A	10/07/2020
PA-200124-307	ELECTRICAL WIRING CONDUIT	ALL	A	10/07/2020
PA-200124-321	FSAHS CONTROL BOX MOUNTING ASSEMBLY	ALL	A	10/01/2020
PA-200124-501	FSAHS COCKPIT ANNUNCIATOR SWITCH INSTALL	ALL	A	10/01/2020
PA-200124-503	FLAP SLAT HEATER CONTROL BOX INSTL	ALL	C	11/18/2020
PA-200124-505	FLAP ACTUATOR HEATERS INSTL	ALL	C	10/08/2020
PA-200124-507	SLAT ACTUATOR HEATERS INSTL	ALL	B	10/08/2020
PA-200124-509	OVERHEAD PANEL OVERLAY MODIFICATION	ALL	IR	9/18/2020
PA-200124-521	ELECTRICAL INSTL, WIRE ROUTING	ALL	D	3/25/2021
PA-200124-523	FSAHS ELECTRICAL INSTALLATION	ALL	B	11/09/2020
PA-200124-805	HEATER CONTROL BOX SCD	ALL	A	11/18/2020
PA-200124-806	CLAMP HEATER ASSEMBLY SCD (OUTBD SLAT)	ALL	A	11/18/2020
PA-200124-807	CLAMP HEATER ASSEMBLY SCD (OUTBD FLAP)	ALL	A	11/18/2020
PA-200124-817	CLAMP HEATER ASSEMBLY SCD (MID/INBD SLAT/FLAP)	ALL	A	11/18/2020
PA-200124-827	CLAMP HEATER ASSEMBLY SCD (MID FLAP)	ALL	A	11/18/2020
<u>WIRE DIAGRAMS</u>				
PA-200124-901	FLAP/SLAT HEATER SYSTEM WIRE DIAGRAM	ALL	C	10/08/2020

3. WEIGHT AND BALANCE

The information in Table 2 is provided to adjust the, serial number specific, Weight and Balance (W&B) documents following installation of the STC equipment.

Table 2: G150 Weight and Balance Data

Location - Components (added)	Qty	Weight (lbs)	Arm (in)	Moment Arm (in-lbs)
Cockpit – Circuit Breakers, Annunciator, and Wiring	1	0.25	125.20	31.30
Right Cabin – Relay and wiring	1	1.10	233.62	256.98
Lower Fuselage – Control Box and mount	1	3.98	256.68	1021.59
Wings – 12 Heater assemblies	1	2.40	310.00	744.00
Wings and Fuselage -Wiring Install	1	13.62	288.00	3922.56
Total of STC System Install		21.35	279.93	5976.43

4. ELECTRICAL LOADS

Electrical load change presented by the incorporation of this installation must be documented by the installer and requires an amendment to the existing airplane electrical loads documents.

The electrical loads installed by this STC are listed in Table 3 (in-flight) and Table 4 (on-ground). These values are to be used in completing the updated subject aircraft electrical loads analysis. It is the installer's responsibility to document any other added or removed equipment that is not part of this STC.

Table 3: In-Flight Electrical Bus Load changes due to Installed Equipment

Equipment	Left Distribution Bus Loading	Left Generator and No 1 MAIN Bus Loading	Right Distribution Bus Loading	Right Generator and No 1 MAIN Bus Loading
	Increase	Increase	Increase	Increase
Flap Actuator Heaters	11.26 A	11.26 A	-	-
Slat Actuator Heaters	-	-	11.26 A	11.26 A

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