ATTACHMENT 3

TO

SYSTEM SAFETY & CERTIFICATION GROUP
CHAIRMAN'S FACTUAL REPORT

ERA14MA271

Gulfstream G-IV

Drawing 1159SCF451 – Gust Lock Sector

RECORD DRAWINGS & E.O.'S

MODEL	RD DWG. NO.	E.O. NO	APL NO
GIV		G1	1080-1106

[redacted]

GAC REL INFO			
PRIM NO.			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCE UNLESS SPECIFIED

[redacted]

DRAWN BY

CHECKED BY

GROUP LDR

SECT HD

TECH APPRVL

WEIGHTS

PRO. ENGR

[redacted]

Gulfstream Aerospace Corporation

CONTROL SECTORS AND SUPPORT ASSEMBLY

POWER PLANT - COCKPIT FLOOR

GULFSTREAM IV

SIZE	CODE IDENT NO.		
A	[redacted]	1159 SCF 451	K

SUPPLIER CONTROL DRAWING

SCALE: NONE

SHEET 1 OF 31

[redacted]

REVISIONS

CHANGE	ITEM NO.	SHEET NUMBER	ENGRG ORDER	DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD

[redacted]

Gulfstream Aerospace Corporation

CODE IDENT NO	SIZE		
	A	1159 SCF 451	K
SCALE		SHEET 2	

[redacted]

REVISIONS

CHANGE	ITEM NO.	SHEET NUMBER	ENGRG ORDER	DESCRIPTION	CHANGED BY AND DATE	ENGRG APPD

[redacted]

Gulfstream Aerospace Corporation

CODE IDENT NO	SIZE		
	A	1159 SCF 451	K
SCALE		SHEET 2.1	

[redacted]

REVISIONS						
CHANGE	ITEM NO.	SHEET NUMBER	ENGRG ORDER	DESCRIPTION	CHANGED BY AND DATE	ENGR'G APPD

[redacted]

Gulfstream Aerospace Corporation	CODE IDENT NO.	SIZE	1159SCF451	K
	SCALE: 1/1		SHEET 2.2	

REVISIONS

CHANGE	ITEM NO.	SHEET NUMBER	ENGRG ORDER	DESCRIPTION	CHANGE BY AND DATE	ENG APPD

[redacted]

GULFSTREAM AEROSPACE CORPORATION

1159SCF451 K

SHEET 2,3

[redacted]

REVISIONS

CHANGE	ITEM NO.	SHEET NUMBER	ENGRG ORDER	DESCRIPTION	CHANGE BY AND DATE	ENG APPD
[redacted]						

GULFSTREAM AEROSPACE CORPORATION

1159SCF451 K

SHEET 2.4

[redacted]

10/30/01

SUPPLIERS LISTED ARE ACCEPTABLE SOURCES

GAC PART NUMBER	I&T	SUPPLIERS NAME ADDRESS OR CODE IDENT & PART NUMBER	SUPPLIER DRAWINGS		QUALIFICATION TEST PLAN	ACCEPTANCE TEST PLAN	DESIGN APPR
			DWG NUMBER AND REVISION	PRODUCT SPECIFICATION			
[redacted]							

S & T IDENTIFICATION AND TRACEABILITY IN ACCORDANCE WITH: S-SERIAL CONTROL, L-LOT CONTROL, E-EXEMPT

SUPPLIER CONTROL DRAWING

Gulfstream Aerospace Corporation

SIZE	CODE IDENT NO.		
A		1159 SCF 451	K
SCALE			SHEET 3

1. SCOPE

1.1 Scope - This specification embodies the design engineering and performance requirements for the construction of a cockpit control pedestal assembly. This assembly is intended for use in the Gulfstream Aerospace Corporation (GAC) Gulfstream IV commercial jet executive type transport airplane.

2. APPLICABLE DOCUMENTS

2.1 [redacted]

MIL-D-8513-1	Drawing and Data Lists, Preparation of, for Special Support Equipment
MIL-D-9402B	Design of Electrical Equipment in Aircraft General Specification for
MIL-D-70327	Drawings, Engineering and Associated Lists
MIL-STD-810	Environmental Testing, Aeronautical and Associated Equipment, General Specification for
MIL-F-18372 (Aer)	Flight Control Systems; Design, Installation and Test of, Aircraft (General Specification for)
MIL-F-007179B	Finishes and Coatings; General Specification for Protection of Aircraft and Aircraft Parts
MIL-G-23827	Grease, Aircraft and Instruments (for Low and High Temperatures)
MIL-H-6088C	Heat Treatment of Aluminum Alloys; Process for (Aircraft Applications)
MIL-H-006875C	Heat Treatment of Steels (Aircraft), Process for
MIL-I-631C	Insulation, Electrical, Synthetic Resin Composition, Non-Rigid
MIL-I-6181D	Interference Limits, Tests and Design Requirements
MIL-I-6866B-1	Inspection, Penetrant, Methods for
MIL-I-6868	Inspection Process, Magnetic Particle
MIL-I-8500B	Interchangeability and Replaceability of Component Parts for Aircraft
MIL-M-3171A-1	Magnesium Alloy, Processes for Corrosion, Protection of
MIL-P-8585A	Primer, Zinc Chromate, for Aircraft Use
MIL-P-17091B	Polymide (Nylon) Plastic, Rigid; Molded Parts, Rods and Flats
MIL-P-23377D	Primer Costings - Epoxy Polyamide Chemical and Solvent Resistant

MIL-P-6909	Plates, Information and Identification
MIL-Q-9858	Quality Program Requirements
MIL-S-6715-2	Springs, Helical, Aircraft
MIL-S-8805	Switch Assemblies and Actuators Push Button and Limit
MIL-S-7742A	Screw Threads, Standard Aeronautical
MIL-W-22759/16	Wire, Electrical, 660 Volt Copper Aircraft
MIL-W-5088B (ASG)-1	Wiring, Aircraft; Installation of

STANDARDS

Military

MIL-STD-838	Lubrication of Aircraft, General Specification for
MS33588 (ASG)	Nuts and Plate Nuts - Self-Locking, Functional Limitations
AND10087	Screw - Installation and Limitations for Usage of Self-Tapping
MS20219	Pulley, Groove, Secondary Control, Aircraft
MS33540C	Safety Wiring - General Practices for
MS33586	Metals - Definition of Dissimilar

OTHER PUBLICATIONS AND DRAWINGS

MIL-HDBK-5	Strength of Material, Aircraft Elements
AN-N-5b	Nuts, Self-Locking, 250^{o}F
GRUMMAN AEROSPACE STANDARD G 412	Groove Swaged Bearing Housing
GRUMMAN AEROSPACE STANDARD G 413	Swaging Bearing Housing

[redacted]

2.2 [redacted]

2.3

2.3.1

2.3.2 [redacted]

3. REQUIREMENTS

3.1 Parts and Materials - All materials used shall conform to the requirements of the applicable specifications. Materials which are not covered by specification shall be of the best quality and be compliant with current civil and military manufacturing practices.

3.1.1 [redacted]

3.1.2 [redacted]

3.1.3 [redacted]

3.1.4 [redacted]

3.1.5 [redacted]

3.1.6 [redacted]

3.1.7 [redacted]

3.2 [redacted]

3.2.1 [redacted]

3.2.1.1 Power Sectors - Two sector/bellcrank assemblies, one for each engine shall be controlled by connecting rods from the throttle levers.

[redacted]

3.2.1.2 [redacted]

3.2.1.3 Gust Lock Sectors - One sector/bellcrank assembly shall be controlled by connecting rod from the gust lock lever.

(e) An interlocking device operated by the gust lock in the locked position shall prevent advancing of either throttle beyond $6^{0} \pm 1^{0}$ from the idle position. Failure of the gust lock system shall not permit the interlock interfering with the throttle sector movement. The gust lock system shall be designed as to prevent inadvertent actuation.

3.2.1.4

3.2.1.4 [redacted]

3.2.1.5 Housing - The sector assembly housing shall contain all units of this specification. It shall be ready for installation less cables, connecting rods and hardware for mounting.

3.2.1.6 [redacted]

[redacted]

3.2.2

3.2.2.1

3.2.3

3.2.4

3.2.4.1

3.2.4.2

3.2.4.3

3.2.5

3.3

3.3.1

3.3.2

3.3.3

3.3.4

3.3.5

3.3.6

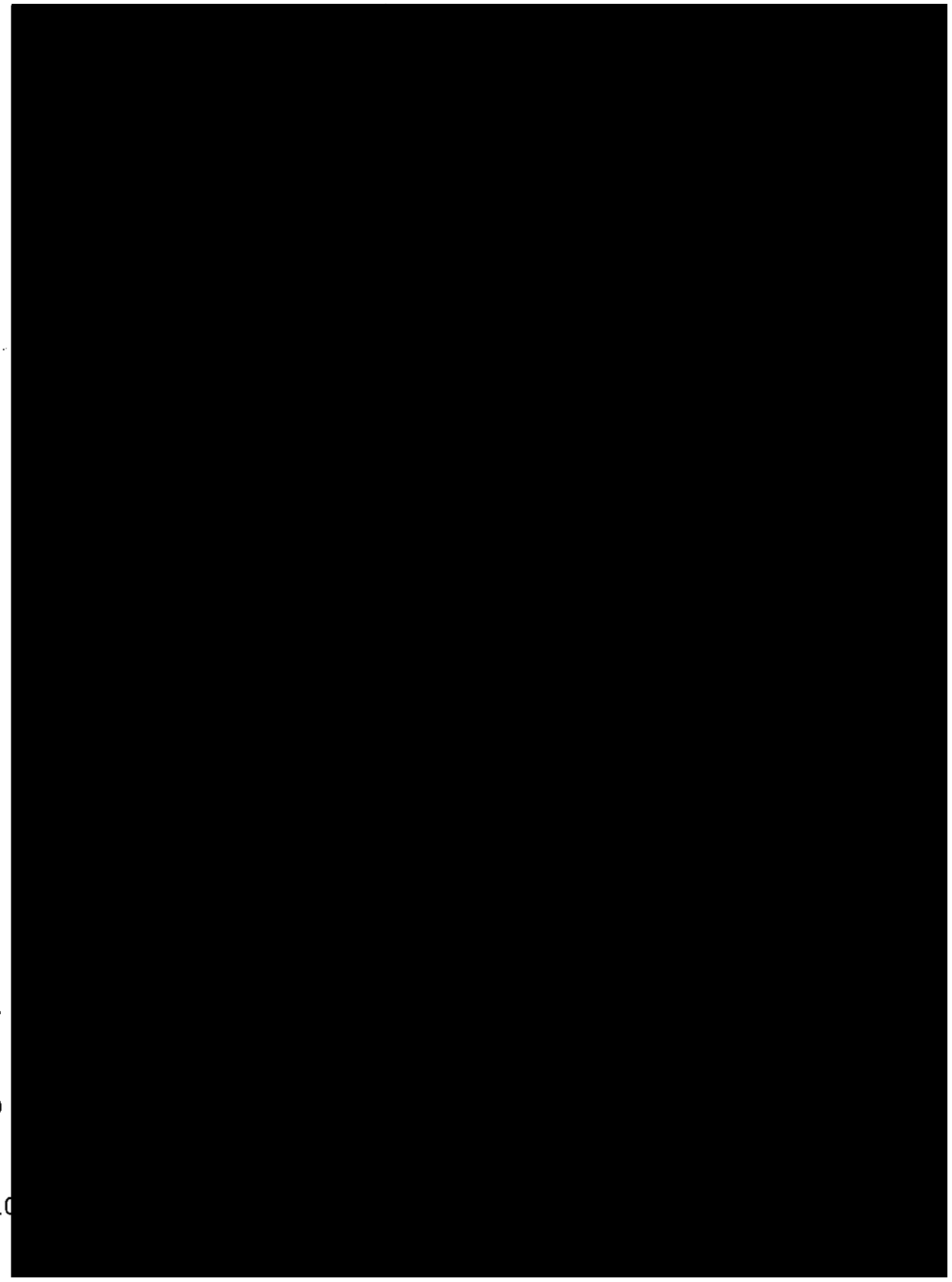
3.3.6.1

3.3.6.2

3.3.6.3

3.3.6.4

[redacted]



3.3.6.5

3.3.6.6

3.3.6.7

3.3.6.8

3.3.6.9

3.3.6.10

3.3.6.11 [redacted]

3.3.6.12

3.3.6.13

3.3.6.14

3.3.6.15

3.3.6.16

3.4

4. QUALITY ASSURANCE PROVISIONS

4.1 Classification of Tests - The inspection and testing equipment covered by this specification shall be classified as follows:

(a) Production Tests - Production tests are tests performed on samples representative of the production equipment to insure that design and performance are being maintained according to established standards.

(b) Inspection Tests - Inspection tests are tests performed on each assembly submitted for acceptance under contract.

4.3 Production Tests - Production tests shall be performed to insure that the quality of all manufactured assemblies is consistent with the quality of the approved assembly. Production tests shall be performed in accordance with GAC approved procedures at the place of manufacture, or at a GAC approved testing laboratory, under the surveillance of a GAC inspector.

4.3.1 [redacted]

4.3.2

4.3.3

4.3.4

4.4

4.4.1 Physical Compliance - The following are the minimum requirements for final inspection:

(a) Examination of Product - Examination for conformance of 1159SCF451 with drawings of vendor, GAC drawing and this specification. The deviations to this specification incurred by the vendor shall not be acceptable unless GAC approval is received in writing for each specific instance, prior to production of parts on contract.

(b) Functional Test - All items under "Functional Test" shall have prepared a standard performance record per specification MIL-E-5272C-1. Operation of sectors for this test shall be as required by the safety devices but each assembly must complete its cycle.

[redacted]

5.

5.1

6.

6.1

[redacted]

6.2

6.2.1

6.2.2

IMMENT=JAIME PROD VAULTVERY HOT DRAWID=1159SCF451 J 018- LAST FILE=00297 15:32
OUP=ENGS SUBGRP=SC SCALE= 0.5000 FMT=
TE= 1/28/02 TIME=07.33 ACCESS=NONE
GON ID=
OT=

[redacted]

GROUP CREW