
SERVICE BULLETIN

N° **139-707**

OPTIONAL

DATE: November 7, 2023

REV. : /

TITLE

ATA 23 – SATCOM FLIGHTCELL DZMX 4G-WIFI KIT INSTALLATION

REVISION LOG

First Issue

1. PLANNING INFORMATION

A. EFFECTIVITY

Part I

AW139 helicopters from S/N 31700 onwards and from S/N 41501 onwards.

Part II

AW139 helicopters from S/N 31400 to S/N 31699 and from S/N 41300 to S/N 41499.

Part III

AW139 helicopters from S/N 31400 onwards and from S/N 41300 onwards.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to provide the necessary instruction on how to perform the installation of the kit SATCOM Flightcell DZMX 4G-WIFI.

LH issued this SB for the following reason:

Helicopter Reliability/Maintainability	
Product Improvement	
Obsolescence	
Customization	✓
Product/Capability Enhancement	

E. DESCRIPTION

Leonardo Helicopters has developed this Service Bulletin in order to install the kit SATCOM Flightcell DZMX 4G-WIFI P/N 4G4390F01111.

Part I of this SB provides instructions on how to install the SATCOM Flightcell DZMX complete provision P/N 3G4390A01812, which contains the structural provision P/N 3G5311A12311 and the electrical provision P/N 3G4390A01912.

Part II of this SB provides the instructions on how to install the SATCOM Flightcell DZMX (4G) complete provision P/N 3G4390A01811, which contains the structural provision P/N 3G5311A12311 and the electrical provision P/N 3G4390A01911.

Part III provides the information on how to install the SATCOM FLIGHTCELL DZMX 4G-WIFI removable parts P/N 3G4390A03011, which consists of two antennas (SATCOM and cellular) and of a DZMX transceiver

F. APPROVAL

The technical content of this Service Bulletin is approved under the authority of DOA nr. EASA.21.J.005. For helicopters registered under other Aviation Authorities, before applying the Service Bulletin, applicable Aviation Authority approval must be checked within Leonardo Helicopters customer portal.

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives.

If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

G. MANPOWER

To comply with this Service Bulletin the following MMH are deemed necessary.

Part I: approximately one-hundred and twenty-two (122) MMH;

Part II: approximately one-hundred and twenty-two (122) MMH;

Part III: approximately eight (8) MMH.

MMH are based on hands-on time and can change with helicopter configuration, personnel and facilities available. MMH are not comprehensive of the overall hours necessary to get access to work areas and to remove all the equipment that interferes with the application of the prescribed instructions.

H. WEIGHT AND BALANCE

PART I

WEIGHT (kg)	ARM (mm)	MOMENT (kg-mm)
		6.9
LONGITUDINAL BALANCE	8530	58857
LATERAL BALANCE	-175	-1207.5

PART II

WEIGHT (kg)	ARM (mm)	MOMENT (kg-mm)
		7.1
LONGITUDINAL BALANCE	7323	51993.3

LATERAL BALANCE -200 -1420

PART III

WEIGHT (kg)		0.92
	ARM (mm)	MOMENT (kg·mm)
LONGITUDINAL BALANCE	4778	4395.76
LATERAL BALANCE	-178	-163.76

I. REFERENCES

I.1 PUBLICATIONS

Following Data Modules refer to AMP:

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM01 39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance	I, II, III
DM02 39-A-06-41-00-00A-010A-A	Access doors and panels general data	I, II, III
DM03 39-A-11-00-01-00A-720A-A	Decal install procedure	I, II, III
DM04 39-E-23-97-01-00A-720A-A	Telephone transceiver install procedure	III
DM05 39-E-23-97-02-00A-720A-A	Antenna install procedure	III
DM06 39-E-23-97-03-00A-720A-A	Satellite/GPS antenna install procedure.	III
DM07 39-E-23-97-00-00A-366A-A	Airborne telephone system resistance check	III
DM08 39-E-23-97-00-00A-320A-A	Airborne telephone system operation test	III
DM09 39-A-24-91-04-00A-920A-K	Integrally lighted panel replacement	III

Following Data Modules refer to CSPP:

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM10 CSPP-A-20-10-13-00A-622A-D	Electrical contacts crimp	I, II
DM11 CSPP-A-20-40-00-02A-711A-D	Threaded fasteners - Tighten procedure	III

I.2 ACRONYMS & ABBREVIATIONS

- AMDI Aircraft Material Data Information
- AMP Aircraft Maintenance Publication
- APAC Asia PACific
- CB Circuit Breaker
- CSPP Common Standard Practices Publication

DC	Direct Current
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
LHD	Leonardo Helicopter Division
MMH	Maintenance Man Hours
P/N	Part Number
S/N	Serial Number
STA	Station

I.3 ANNEX

N.A.

J. PUBLICATIONS AFFECTED

AW139 AMP

AW139 IPD

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

A.1 PARTS

PART I

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	4G4390F01111		KIT SATCOM FLIGHTCELL DZMX 4G-WIFI	REF	.		-
2	3G4390A01812		SATCOM FLIGHTCELL DZMX (4G) COMPLETE PROVISION	REF	..		-
3	3G5311A12311		STRUCTURAL PROVISION	REF	...		-
4	3G5315A34051		Reinforcement	1	....		139-707L1
5	3G5315A61632		Ground plate assy	1	....		139-707L1
6	3G5315A61732		Cover assy	1	....		139-707L1
7	3G5316A92351	3G5316A92351A	LH support	1	....		139-707L1
8	3G5317A35851		Plate reworked	1	....		139-707L1
9	3G5317A37631		Cover assy	1	....		139-707L1
10	3G5355A06151		Bonding layer	1	....	(1)	139-707L1
11	999-7000-07-104		Terminal	2	....		139-707L1
12	A236A03AB		Rubber edging	1.2 m	....		139-707L1
13	A297A05TW02		Rivet	21	....		139-707L1
14	A297A05TW03		Rivet	4	....		139-707L1
15	A298A05TW02		Rivet	1	....		139-707L1
16	A299A05TW02		Rivet	9	....		139-707L1
17	A407A3C2P		Anchor nut	6	....		139-707L1
18	NAS1097AD5-6	A879A05L150	Rivet	0.1 kg	....	(2)	139-707L1
19	MS27039-1-08		Screw	8	....		139-707L1
20	NAS1149D0316K	NAS1149C0316B NAS1149C0316R	Washer	4	....		139-707L1
21	NAS1149D0332K		Washer	4	....		139-707L1
22	3G4390A01912		ELECTRICAL PROVISION	REF	...		-
23	3G9A01A56201	3G4390A01912A6R or	SATCOM Flightcell DZMX C/A (A1A562)	1	....		139-707L1
24	3G9A02A49201	3G4390A01912A5R	SATCOM Flightcell DZMX C/A (A2A492)	1	....		139-707L1
25	3G9A03A24602	3G9A03A24602A2R	SATCOM Flightcell DZMX C/A (A3A246)	1	....		139-707L1
26	3G9A03A24702	3G9A03A24702A2R	SATCOM Flightcell DZMX C/A (A3A247)	1	....		139-707L1
27	3G9A03A24803	3G9A03A24803A2R	SATCOM Flightcell DZMX C/A (A3A248)	1	....		139-707L1
28	3G9B01A95101		SATCOM Flightcell DZMX C/A (B1A951)	1	....		139-707L1
29	3G9D03A21801		SATCOM Flightcell DZMX C/A (D3A218)	1	....		139-707L1
30	3G9D03A21901		SATCOM Flightcell DZMX C/A (D3A219)	1	....		139-707L1
31	667-407XB15T1W- 59		Cover	1	....		139-707L1
32	999-2701-02-296		Decal	2	....		139-707L1
33	A366A3E12C75		Stud	1	....		139-707L1
34	A388A3E08C75	A366A3E32C75	Stud	2	....		139-707L1
35	A388A3E06C		Standoff	9	....		139-707L1
36	A388A3E08C		Standoff	1	....		139-707L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
37	A388A3E10C		Standoff	1	....		139-707L1
38	A631A01A		Support	1	....		139-707L1
39	AW001CB05H		Clamp	2	....		139-707L1
40	AW001CL001-N6		Support	6	....		139-707L1
41	AW001CL005C01-X1		Support	1	....		139-707L1
42	AW001TL3A06		Anchor nut	1	....		139-707L1
43	AW001TL3A08		Anchor nut	1	....		139-707L1
44	AW001TL3A08T		Anchor nut	1	....		139-707L1
45	AW002FT109		Grommet	5	....		139-707L1
46	AW002FT112		Grommet	43	....		139-707L1
47	AW002FT113		Grommet	3	....		139-707L1
48	AW002FT115		Grommet	2	....		139-707L1
49	AW002FT402		Grommet	4	....	(4)	139-707L1
50	ED300A515P1		Decal	1	....		139-707L1
51	ED300A515P2		Decal	1	....		139-707L1
52	ED300A515P3		Decal	1	....		139-707L1
53	ED300A515P4		Decal	1	....		139-707L1
54	ED300A515P5		Decal	1	....		139-707L1
55	ED300E136P1		Decal	1	....		139-707L1
56	ED300E137P1		Decal	1	....		139-707L1
57	ED300E137P2		Decal	1	....		139-707L1
58	ED300J1105		Decal	1	....		139-707L1
59	ED300J1107		Decal	1	....		139-707L1
60	ED300J3123		Decal	1	....		139-707L1
61	ED300J3125		Decal	1	....		139-707L1
62	ED300P3123		Decal	1	....		139-707L1
63	ED300P3125		Decal	1	....		139-707L1
64	M85049/95-16A-A		Retainer	1	....		139-707L1
65	M85049/95-18A-A		Retainer	1	....		139-707L1
66	MS21043-3		Nut	3	....		139-707L1
67	MS24693-C276		Screw	1	....		139-707L1
68	MS25281-R15		Clamp	37	....		139-707L1
69	MS25281-R16		Clamp	3	....		139-707L1
70	MS25281-R20		Clamp	2	....		139-707L1
71	MS25281-R9		Clamp	5	....		139-707L1
72	MS25281-R12		Clamp	1	....	(5)	139-707L1
73	NAS43DD3-50N		Spacer	2	....		139-707L1
74	MS9592-022		Bracket	1	....		139-707L1
75	MS9592-027		Bracket	1	....		139-707L1
76	NAS1149D0332J		Washer	4	....		139-707L1
77	NAS1149DN416J		Washer	8	....		139-707L1
78	NAS1190E3P17AK		Screw	3	....		139-707L1
79	NAS1190E3P18AK		Screw	6	....		139-707L1
80	NAS1190E3P22AK		Screw	1	....		139-707L1
81	NAS1190E3P30AK		Screw	1	....		139-707L1
82	NAS1190E3P36AK		Screw	3	....		139-707L1
83	NAS1190E3P6AK		Screw	3	....		139-707L1
84	NAS1190E3P7AK		Screw	7	....		139-707L1
85	NAS1802-06-7		Screw	6	....	(6)	139-707L1
86	NAS1802-06-9		Screw	2	....	(7)	139-707L1
87	NAS1802-3-10		Screw	1	....		139-707L1
88	NAS1802-3-11		Screw	3	....		139-707L1
89	NAS1802-3-16		Screw	5	....		139-707L1
90	NAS1802-3-23		Screw	2	....		139-707L1
91	NAS1802-3-24		Screw	1	....		139-707L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
92	NAS1802-3-25		Screw	3	....		139-707L1
93	NAS1802-3-26		Screw	1	....		139-707L1
94	NAS1802-3-35		Screw	1	....		139-707L1
95	NAS1802-3-9		Screw	5	....		139-707L1
96	NAS43DD3-15N		Spacer	1	....		139-707L1
97	NAS43DD3-30N		Spacer	3	....		139-707L1
98	NAS43DD3-40N		Spacer	7	....		139-707L1
99	NAS43DD3-45N		Spacer	1	....		139-707L1
100	NAS43DD3-47N		Spacer	1	....		139-707L1
101	NAS43DD3-52N		Spacer	3	....		139-707L1
102	NAS43DD3-55N		Spacer	1	....		139-707L1
103	NAS43DD3-60N		Spacer	3	....		139-707L1
104	NAS43DD3-90N		Spacer	1	....		139-707L1
105	MS3320-3		Circuit Breaker CB516	1	...		139-707L1
106	ED300CB516		Decal	1	...		139-707L1
107	A556A-T20		Electrical Wire	2.5 m	...		139-707L1
108	MS25036-149		Contact	1	...		139-707L1
109	M39029/56-351		Contact	1	...		139-707L1
110	3G2490LXXXXX		Integrally lit auxiliary C/B panel	1	...	(8)	-
111	3G5310P32311		SATCOM FLIGHTCELL STRUCTURAL PROVISION VARIANT	REF	.	(9)	-
112	3G5315P11951		LH support	REF	..	(10) (9)	-
113	MS27039-1-05		Screw	2	..	(9)	-
114	NAS1149D0332J		Washer	2	..	(9)	-
115	NAS1836-3-13		Insert	4	..	(9)	-

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
116	4G4390F01111		KIT SATCOM FLIGHTCELL DZMX 4G-WIFI	REF	.		-
117	3G4390A01811		SATCOM FLIGHTCELL DZMX (4G) COMPLETE PROVISION	REF	..		-
118	3G5311A12311		STRUCTURAL PROVISION	REF	...		-
119	3G5315A34051		Reinforcement	1	....		139-707L2
120	3G5315A61632		Ground plate assy	1	....		139-707L2
121	3G5315A61732		Cover assy	1	....		139-707L2
122	3G5316A92351	3G5316A92351A	LH support	1	....		139-707L2
123	3G5317A35851		Plate reworked	1	....		139-707L2
124	3G5317A37631		Cover assy	1	....		139-707L2
125	3G5355A06151		Bonding layer	1	....		139-707L2
126	999-7000-07-104		Terminal	2	....		139-707L2
127	A236A03AB		Rubber edging	1.2 m	....		139-707L2
128	A297A05TW02		Rivet	21	....		139-707L2
129	A297A05TW03		Rivet	4	....		139-707L2
130	A298A05TW02		Rivet	1	....		139-707L2
131	A299A05TW02		Rivet	9	....		139-707L2
132	A407A3C2P		Anchor nut	6	....		139-707L2
133	NAS1097AD5-6		Rivet	0.1 kg	....		139-707L2
134	MS27039-1-08		Screw	8	....		139-707L2
135	NAS1149D0316K	NAS1149C0316B NAS1149C0316R	Washer	4	....		139-707L2
136	NAS1149D0332K		Washer	4	....		139-707L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
137	3G4390A01911		SATCOM FLIGHTCELL DZMX ELECTRICAL PROVISION	REF	..		-
138	3G9A01A56201	3G4390A01912A6R or	SATCOM Flightcell DZMX C/A (A1A562)	1	...		139-707L2
139	3G9A02A49201	3G4390A01912A5R	SATCOM Flightcell DZMX C/A (A2A492)	1	...		139-707L2
140	3G9A03A24601		SATCOM Flightcell DZMX C/A (A3A246)	1	...		139-707L2
141	3G9A03A24701		SATCOM Flightcell DZMX C/A (A3A247)	1	...		139-707L2
142	3G9A03A24801		SATCOM Flightcell DZMX C/A (A3A248)	1	...		139-707L2
143	3G9B01A95101		SATCOM Flightcell DZMX C/A (B1A951)	1	...		139-707L2
144	3G9D03A21801		SATCOM Flightcell DZMX C/A (D3A218)	1	...		139-707L2
145	3G9D03A21901		SATCOM Flightcell DZMX C/A (D3A219)	1	...		139-707L2
146	667-312NF17R3		Cover	1	...		139-707L2
147	A366A3E12C75		Stud	1	...		139-707L2
148	A366A3E32C		Stud	1	...		139-707L2
149	A366A3E32C75		Stud	1	...		139-707L2
150	A388A3E06C		Standoff	16	...		139-707L2
151	A388A3E08C		Standoff	1	...		139-707L2
152	A388A3E16C		Standoff	1	...		139-707L2
153	A631A01A		Spacer	1	...		139-707L2
154	AW001CB03H		Clamp	46	...		139-707L2
155	AW001CL001-N6		Support	5	...		139-707L2
156	AW001TL3A06		Anchor nut	2	...		139-707L2
157	AW002FT112		Grommet	2	...		139-707L2
158	AW002FT113		Grommet	17	...		139-707L2
159	AW002FT115		Grommet	4	...		139-707L2
160	AW002FT401		Grommet	5	...		139-707L2
161	AW002FT402		Grommet	1	...		139-707L2
162	ED300A515P1		Decal	1	...		139-707L2
163	ED300A515P2		Decal	1	...		139-707L2
164	ED300A515P3		Decal	1	...		139-707L2
165	ED300A515P4		Decal	1	...		139-707L2
166	ED300A515P5		Decal	1	...		139-707L2
167	ED300E136P1		Decal	1	...		139-707L2
168	ED300E137P1		Decal	1	...		139-707L2
169	ED300E137P2		Decal	1	...		139-707L2
170	ED300J1105		Decal	1	...		139-707L2
171	ED300J1107		Decal	1	...		139-707L2
172	ED300J3123		Decal	1	...		139-707L2
173	ED300J3125		Decal	1	...		139-707L2
174	ED300P3123		Decal	1	...		139-707L2
175	ED300P3125		Decal	1	...		139-707L2
176	M85049/95-16A-A		Plate	1	...		139-707L2
177	M85049/95-18A-A		Plate	1	...		139-707L2
178	MS21043-3		Nut	5	...		139-707L2
179	MS25281-R12		Clamp	5	...		139-707L2
180	MS25281-R15		Clamp	2	...		139-707L2
181	MS25281-R16		Clamp	17	...		139-707L2
182	MS25281-R20		Clamp	2	...		139-707L2
183	MS9592-022		Bracket	1	...		139-707L2
184	MS9592-027		Bracket	1	...		139-707L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
185	NAS1149D0332J		Washer	31	...		139-707L2
186	NAS1149DN416J		Washer	8	...		139-707L2
187	NAS1190E3P12AK		Screw	2	...		139-707L2
188	NAS1190E3P15AK		Screw	1	...		139-707L2
189	NAS1190E3P16AK		Screw	3	...		139-707L2
190	NAS1190E3P17AK		Screw	1	...		139-707L2
191	NAS1190E3P19AK		Screw	1	...		139-707L2
192	NAS1190E3P23AK		Screw	3	...		139-707L2
193	NAS1190E3P26AK		Screw	5	...		139-707L2
194	NAS1190E3P6AK		Screw	14	...		139-707L2
195	NAS1190E3P8AK		Screw	2	...		139-707L2
196	NAS1802-06-7		Screw	6	...		139-707L2
197	NAS1802-06-9		Screw	2	...		139-707L2
198	NAS1802-3-10		Screw	2	...		139-707L2
199	NAS1802-3-20		Screw	2	...		139-707L2
200	NAS1802-3-22		Screw	1	...		139-707L2
201	NAS1802-3-23		Screw	2	...		139-707L2
202	NAS1802-3-24		Screw	1	...		139-707L2
203	NAS1802-3-25		Screw	2	...		139-707L2
204	NAS1802-3-32		Screw	1	...		139-707L2
205	NAS1802-3-9		Screw	3	...		139-707L2
206	NAS43DD3-15N		Spacer	1	...		139-707L2
207	NAS43DD3-25N		Spacer	2	...		139-707L2
208	NAS43DD3-35N		Spacer	4	...		139-707L2
209	NAS43DD3-40N		Spacer	2	...		139-707L2
210	NAS43DD3-45N		Spacer	2	...		139-707L2
211	NAS43DD3-50N		Spacer	2	...		139-707L2
212	NAS43DD3-55N		Spacer	2	...		139-707L2
213	NAS43DD3-70N		Spacer	5	...		139-707L2
214	NAS43DD3-80N		Spacer	1	...		139-707L2
215	NAS43DD3-90N		Spacer	2	...		139-707L2
216	3G2490LXXXXX		Integrally lit auxiliary C/B panel	1	...	(8)	-
217	3G5310P32311		SATCOM FLIGHTCELL STRUCTURAL PROVISION VARIANT	REF	.	(9)	-
218	3G5315P11951		LH support	REF	..	(10) (9)	-
219	MS27039-1-05		Screw	2	..	(9)	-
220	NAS1149D0332J		Washer	2	..	(9)	-
221	NAS1836-3-13		Insert	4	..	(9)	-

PART III

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
222	4G4390F01111		KIT SATCOM FLIGHTCELL DZMX 4G-WIFI	REF	.		-
223	3G4390A03011		SATCOM FLIGHTCELL DZMX 4G-WIFI REMOVABLE PARTS	REF	..		-
224	ANP_00033		Antenna cell	1	...		139-707L3
225	ANP_00043		Antenna SATCOM	1	...		139-707L3
226	AW001CK03LC		Lacing cord	5 m	...		139-707L3
227	AW001GH040A		Conductive gasket	1	...		139-707L3
228	AW001GH041A		Conductive gasket	1	...		139-707L3
229	DZP_04-800-BEW	DZP_04-800-BFW DZP_04-800-BJW DZP_04-800-BPW	DZMX transceiver (Rev 4)	1	...	(11)(13) (14)	-

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
230	3G4390I00131	3G4390I00231 3G4390I00331	DZMX transceiver	REF	...	(14) (15)(16)	-
231	A016A004B1		Identification plate	1	....		-
232	DZP_04-800-BEW	DZP_04-800-BPW DZP_04-800-BFW	DZMX transceiver (Rev 6.2)	1	....		-
233	ED300A515		Decal	1	...		139-707L3
234	ED300E136		Decal	1	...		139-707L3
235	ED300E137		Decal	1	...		139-707L3
236	EN6049-006-25-5		Self-wrap braid	5 m	...		139-707L3
237	EN6049-006-32-5		Self-wrap braid	5 m	...		139-707L3
238	MS20995C15		Lock wire	0.45 kg	...		139-707L3
239	MS24693-C273	MS24693C273	Screw	4	...		139-707L3
240	MS27039-1-13		Screw machine	4	...		139-707L3

Refer also to IPD for the spares materials required to comply with the AMP DMs referenced in the accomplishment instructions.

A.2 CONSUMABLES

The following consumable materials, or equivalent, are necessary to accomplish this Service Bulletin:

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
241	AWMS05-001 TY I,CL B,GR 2, Code No. 99999999000015245	Adhesive MC-780 (C355)	AR	(3)	I, II
242	199-05-002 TY I,CL 2, Code No. 900000581	Adhesive epoxy EA9309.3NA (C231)	AR	(3)	I, II
243	199-05-002 TY II,CL 2, Code No. 900004603	Adhesive epoxy EA934NA (C397)	AR	(3)	I, II
244	AW001CK03LC	Tie strap	AR	(3)	I
245	A582A25 or EN6049-006-25-5	Nomex	AR	(3) (12)	I
246	A582A32 or EN6049-006-32-5	Nomex	AR	(3) (12)	I, II
247	AWMS05-001, CL B4, Code No. 99999999000015246	Sealant MC780 B-4	AR	(3)	I
248	MS20995C15	Lockwire	AR	(3)	I, III
249	MIL-DTL-81706, Class 1A & 3, Form II, Code No. 531050460	ALODINE 1200 Conversion coating (C597)	AR	(3)	I, II
250	AWMS28-002, Type I, Class 1, Grade A or B, Code No. /007I-X1_001	AEROWAVE 2003 Epoxy primer (C596)	AR	(3)	I, II
251	MS9226-03	Lock wire	AR	(3)	III
252	900004953 or AW001CK03LC	Tape	AR	(3)	II
253	-	Adhesive CB200-40 (C356)	AR	(3)	II

Refer also to AMDI for the consumable materials required to comply with the AMP DM referenced in the accomplishment instructions.

A.3 LOGISTIC MATRIX

In order to apply this Service Bulletin, the following Logistic P/N can be ordered in accordance with the applicable notes:

LOGISTIC P/N	Q.TY (PER HELO)	NOTE	PART
139-707L1	1	-	
3G2490LXXXXX	1	(8)	
MS27039-1-05	2	(9)	Part I
NAS1149D0332J	2	(9)	
NAS1836-3-13	4	(9)	
139-707L2	1	-	
3G2490LXXXXX	1	(8)	
MS27039-1-05	2	(9)	Part II
NAS1149D0332J	2	(9)	
NAS1836-3-13	4	(9)	
139-707L3	1	-	
DZP_04-800-BEW	1	(11)(13) (14)	
DZP_04-800-BFW	1	(11)(13) (14)	
DZP_04-800-BJW	1	(11)(13) (14)	
DZP_04-800-BPW	1	(11)(13) (14)	Part III
3G4390I00131	1	(14) (15)(16)	
3G4390I00231	1	(14) (15)(16)	
3G4390I00331	1	(14) (15)(16)	

NOTES

- (1) This item may already be installed on the helicopter. In that case, skip installing steps for this item in Accomplishment Instructions.
- (2) If P/N A879A05L150 is requested, order qty 1 not 0.1 kg
- (3) Item to be procured as local supply.
- (4) P/N AW002FT112 can be used as alternative to this item.
- (5) P/N MS25281-R15 can be used as alternative to this item.
- (6) P/N NAS1802-04-7 can be used as alternative to this item.
- (7) P/N NAS1802-04-9 can be used as alternative to this item.
- (8) The P/N is not properly completed because it is depending on the helicopter configuration. Customers must contact Product Support Engineering (engineering.support.lhd@leonardocompany.com) to request the new auxiliary CB panel at least three months in advance from the scheduled application of this Service Bulletin.
- (9) Perform this variant only if the LH bracket P/N 3G5350A12551 is already installed on the helicopter
- (10) This item is obtained by reworking P/N 3G5316A92351.

- (11) The P/N of the DZMX transceiver changes according to the region of operation:

REGION	P/N
Europe/APAC	DZP_04-800-BEW (Rev 4)
Americas	DZP_04-800-BFW (Rev 4)
APAC/South America	DZP_04-800-BPW (Rev 4)
Japan	DZP_04-800-BJW (Rev 4)

- (12) Indicated P/N refer to a specific size. The last digits can be different based on the actual required installation.
- (13) This item can be installed as P/N DZP_04-800-XXX only if provided in Rev. 4. In case it is provided as Rev. 6.2, it must be remarked with Leonardo P/N 3G4390I00X31. The DZMX transceiver Revision is visible on the Flightcell Decal installed on the transceiver, next to the P/N DZP_04-800-XXX (see Figure 28).
- (14) These items are alternative.
- (15) This item can be ordered in quantity. Quantity 1 is needed per helicopter.
- (16) The P/N of the DZMX transceiver LHD P/N 3G4390I00X31 changes according to the region of operation:

REGION	P/N	LHD P/N
Europe	DZP_04-800-BEW (Rev 6.2)	3G4390I00131
South America	DZP_04-800-BPW (Rev 6.2)	3G4390I00231
Americas/B14	DZP_04-800-BFW (Rev 6.2)	3G4390I00331

B. SPECIAL TOOLS

N.A.

C. INDUSTRY SUPPORT INFORMATION

Customization.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

- a) Shape the cables in order to prevent interference with the structure and the other existing installations, using where necessary suitable lacing cords.
- b) Exercise extreme care during drilling operations to prevent instruments, cables and hoses damage.
- c) After drilling, remove all swarf and sharp edges. Apply on bare metal a light film of primer unless the hole is used for ground connection.
- d) During the installation of bonding braids or components requiring grounding, clean the surface structure in order to obtain a good ground contact.
- e) Let adhesive cure at room temperature for at least 24 hours unless otherwise specified.
- f) Exposed thread surface and nut must be protect using a layer of tectyl according to MIL-C-16173 grade I.
- g) All lengths are in mm.

PART I

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 1 thru 15 and 29 thru 32, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the complete provision P/N 3G4390A01812 as described in the following procedure:
 - 2.1 With reference to Figure 1 thru 4, 29 and 30, perform the structural provision P/N 3G5311A12311 as described in the following procedure:
 - 2.1.1 With reference to Figure 1 View A, install the plate reworked P/N 3G5317A35851 on the interseat console P/N 3G5326A00134 by means of n°4 quick-release fasteners.
 - 2.1.2 With reference to Figure 1 View B-B, drill n°2 holes Ø6.20±6.35 thru the Lower frame STA 8150 P/N 3P5340A10852 in accordance with the

dimensions shown. Prepare the surfaces to assure a good ground contact.

- 2.1.3 With reference to Figure 1 View B-B, install n°2 anchor nuts P/N A407A3C2P on the Lower frame STA 8150 P/N 3P5340A10852 by means of adhesive epoxy EA9309NA (C231).

NOTE

Perform step 2.1.4, only if the LH bracket P/N 3G5350A12551 is installed on the helicopter. Otherwise if NOT installed perform steps from 2.1.5 to 2.1.7.

- 2.1.4 With reference to Figures 29 and 30, perform the SATCOM Flightcell structural provision variant P/N 3G5310P32311 as described in the following procedure:

- 2.1.4.1 With reference to Figure 29 View looking outboard LH side, remove the LH bracket P/N 3G5350A12551 with related hardware. Retain the existing hardware for later reuse.
- 2.1.4.2 With referenced to Figure 29 Detail A and Section B-B, remove n°2 inserts P/N NAS1836-3-13 and fill the two holes by means of adhesive EA9309.3NA (C021).
- 2.1.4.3 With reference to Figure 30, rework the LH support P/N 3G5316A92351 drilling n°6 pilot holes in accordance with the dimensions shown. Remark the LH support P/N 3G5316A92351 as LH support P/N 3G5315P11951.

NOTE

Align the support holes with those existing on the structure.

- 2.1.4.4 With reference to Figure 29 Detail A and Section C-C, temporarily locate the LH support P/N 3G5315P11951 on the structure tail assy, in accordance with the dimensions shown and countermark n°4 position-holes.
- 2.1.4.5 With reference to Figure 29 Section C-C, drill n°4 holes Ø11.48÷11.61 previously countermarked on the structure tail assy.
- 2.1.4.6 With reference to Figure 29 Detail A and Section C-C, install n°4 inserts P/N NAS1836-3-13 by means of adhesive EA 934 NA (C397).

- 2.1.4.7 With reference to Figure 29 Detail A and Section C-C, temporarily locate the LH support P/N 3G5315P11951 on the structure tail assy in accordance with new insert positions and enlarge n°6 holes up to $\text{Ø}5.156\pm 5.283$.
- 2.1.4.8 With reference to Figure 29 Detail A and Section C-C, install the LH support P/N 3G5315P11951 by means of n°2 screws P/N MS27039-1-05, n°2 washers P/N NAS1149D0332J and the existing hardware previously retained.
- 2.1.5 With reference to Figure 1 Detail M, drill n°9 rivet holes thru the LH support P/N 3G5316A92351 and the structure assy tail P/N 3G5350A00236 in accordance with the dimensions shown. Prepare the surface to assure a good ground contact.
- 2.1.6 With reference to Figure 1 Detail M, install the LH support P/N 3G5316A92351 on the structure assy tail P/N 3G5350A00236 by means of n°9 rivets P/N A299A05TW02.
- 2.1.7 With reference to Figure 2 Section N-N, perform the cut-out on the LH support P/N 3G5316A92351 in accordance with the dimensions shown. Prepare the surface for corrosion protection of electrical bonding areas by means of chemical conversion coating (C597).
- 2.1.8 With reference to Figure 4 View E and Figure 3 View H, perform the indicated cut-out on the bonding layer P/N 3G5355A06151 and on the RW tail gearbox fairing in accordance with the dimensions shown.
- 2.1.9 With reference to Figure 4 View E, apply the bonding layer P/N 3G5355A06151 on the inner RW tail gearbox fairing.
- 2.1.10 With reference to Figure 4 View E, temporary locate the ground plate assy P/N 3G5315A61632 on the RW tail gearbox fairing and countermark n°25 rivet holes positions.
- 2.1.11 With reference to Figure 4 View E, drill n°25 rivet holes in the previously marked positions thru the RW tail gearbox fairing and the bonding layer P/N 3G5355A06151 in accordance with the dimensions shown. Prepare the surface to assure a good ground contact.
- 2.1.12 With reference to Figure 4 View E, install the ground plate assy P/N 3G5315A61632 on the bonding layer P/N 3G5355A06151 and RW tail gearbox fairing by means of n°4 rivets P/N A297A05TW03 and n°21 rivets P/N A297A05TW02.

- 2.1.13 With reference to Figure 4 View J, install the terminal P/N 999-7000-07-104 on the cover assy P/N 3G5315A61732 by means of n°1 rivet P/N A298A05TW02 and adhesive MC-780 (C355).

NOTE

Perform the following step only if Part III is not intended to be embodied immediately after Part I.

- 2.1.14 With reference to Figure 4 Section F-F, install the cover assy P/N 3G5315A61732 on the ground plate assy P/N 3G5315A61632 by means of n°4 washers P/N NAS1149D0332K and n°4 screws P/N MS27039-1-08.
- 2.1.15 With reference to Figure 2 Section K-K, remove the existing grommet P/N MS35489-20 from the left profile P/N 3G5340A07351, and increase the diameter of the hole in accordance with the dimensions shown. Protect the indicated surface, apply epoxy primer (C596).
- 2.1.16 With reference to Figure 2 Section K-K, install the rubber edging P/N A236A03AB on the left profile P/N 3G5340A07351.
- 2.1.17 With reference to Figure 2 View C-C and Section D-D, perform the indicated cut-out on the rear lower panel, in accordance with dimensions shown. Seal all around the performed cut-out by means of adhesive epoxy EA934NA (C397).
- 2.1.18 With reference to Figure 2 View C-C and Section D-D, install the reinforcement P/N 3G5315A34051 on the rear lower panel, by means of adhesive EA9309NA (C231).
- 2.1.19 With reference to Figure 2 View C-C and Section D-D, drill n°4 holes $\varnothing 6.35 \pm 0.48$ thru the reinforcement P/N 3G5315A34051 in accordance with the dimensions shown. Prepare the surfaces to assure a good ground contact.
- 2.1.20 With reference to Figure 2 View C-C and Section D-D, install n°4 anchor nut P/N A407A3C2P on the reinforcement P/N 3G5315A34051 by means of adhesive epoxy EA9309NA (C231).
- 2.1.21 With reference to Figure 2 View C-C, drill n°1 rivet hole thru the reinforcement P/N 3G5315A34051 in accordance with the dimensions shown.
- 2.1.22 With reference to Figure 2 View C-C, install the terminal P/N 999-7000-07-104 on the reinforcement P/N 3G5315A34051 by means of n°1 rivet P/N NAS1097AD5-6 and adhesive MC-780 (C355).

NOTE

Perform the following step only if Part III is not intended to be embodied immediately after Part I.

- 2.1.23 With reference to Figure 2 View C-C and Section D-D, install the cover assy P/N 3G5317A37631 on the reinforcement P/N 3G5315A34051 by means of n°4 washers P/N NAS1149D0316K and n°4 screws P/N MS27039-1-08.
- 2.2 With reference to Figures 5 thru 15, 31 and 32, perform electrical provision P/N 3G4390A01912 as described in the following procedure:
 - 2.2.1 With reference to Figure 8 Detail A, install the support P/N A631A01A.
 - 2.2.2 With reference to Figure 8 Detail A, install in locations n°1 and n°2, n°2 supports P/N AW001CL001-N6

NOTE

If required, add extra supports at STA 8300, WL 1250, BL -600 and at STA 7200.

- 2.2.3 With reference to Figure 5 and Figure 10 View looking down interseat console, install in locations n°1, n°2 and n°3, n°3 supports P/N AW001CL001-N6.
- 2.2.4 With reference to Figure 5 and Figure 11 View looking rear from STA 6700 to STA 8700 LH side, install in location n°1 the standoff P/N A388A3E08C.
- 2.2.5 With reference to Figure 5 and Figure 11 View looking rear from STA 6700 to STA 8700 LH side, install in location n°2 the bracket P/N MS9592-027 and the stud P/N A366A3E12C75 by means of the washer P/N NAS1149D0332J and the nut P/N MS21043-3.
- 2.2.6 With reference to Figure 5 and Figure 11 View looking rear from STA 6700 to STA 8700 LH side, install in location n°3 the anchor nut P/N AW001TL3A08T.
- 2.2.7 With reference to Figure 11 View looking rear from STA 6700 to STA 8700 LH side, install the bracket P/N MS9592-022 by means of the existing hardware.
- 2.2.8 With reference to Figure 5 and Figure 13 View looking tail LH side and Figure 14 View D-D, install in the locations n°1, n°2, n°4, n°5, n°6, n°8, n°9, n°10 and n°11, n°9 standoff P/N A388A3E06C.

NOTE

The anchor nut P/N AW001TL3A06 can be slightly repositioned if necessary.

- 2.2.9 With reference to Figure 5 and Figure 13 View looking tail LH side, install in the location n°3 the anchor nut P/N AW001TL3A06.
- 2.2.10 With reference to Figure 5 and Figure 13 View looking tail LH side, install in the location n°7 the support P/N AW001CL005C01-X1.
- 2.2.11 With reference to Figure 14 View D-D, install in the location n°12 the support P/N AW001CL001-N6.
- 2.2.12 With reference to Figure 15 View looking tail rotor, install in the location n°1 the standoff P/N A388A3E10C.
- 2.2.13 With reference to Figure 15 View looking vertical tail fin, install in the location n°2 the standoff P/N A388A3E08C75.
- 2.2.14 With reference to Figure 15 View looking vertical tail fin, install in the locations n°2 and n°3, n°2 the standoffs P/N A388A3E08C75.
- 2.2.15 With reference to Figure 15 View looking vertical tail fin, install in the location n°4 the anchor nut P/N AW001TL3A08.

NOTE

Use the edging P/N A236A on edges which are liable to cause damage to cable assemblies or where abrasion may occur.

NOTE

Install the tubing braided P/N A582A where protection against chafing and prevention of contact with structure may occur, but the tubing protection is not substitute for good routing practice.

- 2.2.16 Route the following C/A:
 - 3G9A01A56201 SATCOM FLIGHTCELL DZMX C/A (A1A562)
 - 3G9A02A49201 SATCOM FLIGHTCELL DZMX C/A (A2A492)
 - 3G9A03A24602 SATCOM FLIGHTCELL DZMX C/A (A3A246)
 - 3G9A03A24702 SATCOM FLIGHTCELL DZMX C/A (A3A247)
 - 3G9A03A24803 SATCOM FLIGHTCELL DZMX C/A (A3A248)
 - 3G9B01A95101 SATCOM FLIGHTCELL DZMX C/A (B1A951)
 - 3G9D03A21801 SATCOM FLIGHTCELL DZMX C/A (D3A218)
 - 3G9D03A21901 SATCOM FLIGHTCELL DZMX C/A (D3A219)

- 2.2.17 With reference to Figure 8 Detail A, install the grommet P/N AW002FT402 on the C/A A3A246, C/A A3A247 and C/A A3A248.

NOTE

If required, rework the plate P/N 3G5317A35851 to accommodate the installation of the connectors.

- 2.2.18 With reference to Figure 7 View looking left cockpit and pedestal, fix the connector J1107 to the plate reworked P/N 3G5317A35851 by means of the retainer P/N M85049/95-18A-A, n°4 washers P/N NAS1149DN416J and n°4 screws P/N NAS1802-06-7.

- 2.2.19 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, and with reference to Figure 7 View looking left cockpit and pedestal, install the decal P/N ED300J1107 in adjacent area.

NOTE

If required, rework the plate P/N 3G5317A35851 to accommodate the installation of the connectors.

- 2.2.20 With reference to Figure 7 View looking left cockpit and pedestal, fix the connector J1105 and the cover P/N 667-407XB15T1W-59 to the plate reworked P/N 3G5317A35851 by means of the retainer P/N M85049/95-16A-A, n°4 washers P/N NAS1149DN416J, n°2 screws P/N NAS1802-06-7 and n°2 screws P/N NAS1802-06-9.

- 2.2.21 In accordance with AMP 39-A-11-00-01-00A-720A-A, and with reference to Figure 7 View looking left cockpit and pedestal, install the decal P/N ED300J1105 in adjacent area.

- 2.2.22 With reference to Figure 10 View looking down interseat console, install the clamp P/N MS25281-R15, the clamp P/N MS25281-R12, the grommet P/N AW002FT112 and n°3 grommets P/N AW002FT402 by means of n°2 screws P/N NAS1802-3-9.

- 2.2.23 With reference to Figure 9 View looking down cabin floor, install n°6 clamps P/N MS25281-R15, n°2 clamp P/N MS25281-R20, n°6 grommets P/N AW002FT112 and n°2 grommets P/N AW002FT115 by means of n°2 screws P/N NAS1802-3-11, n°5 screws P/N NAS1802-3-16, n°1 screw P/N NAS1802-3-9 and n°1 spacer P/N NAS43DD3-30N.

- 2.2.24 With reference to Figure 11 View looking rear from STA 6700 to STA 8700 LH side, install n°2 clamps P/N MS25281-R15, n°2 clamps P/N MS25281-R16, n°2 grommets P/N AW002FT112 and n°2

- grommets P/N AW002FT113 by means of n°2 screws P/N NAS1802-3-9, n°1 screw P/N NAS1190E3P17AK, n°1 screw P/N NAS1802-3-26, n°2 washers P/N NAS1149D0332J n°2 nuts P/N MS21043-3, n°1 spacer P/N NAS43DD3-15N, n°1 spacer P/N NAS43DD3-60N and n°1 spacer P/N NAS43DD3-40N.
- 2.2.25 With reference to Figure 11 View looking rear from STA 6700 to STA 8700 LH side, remove the existing hardware and install n°3 clamps P/N MS25281-R15, n°1 clamp P/N MS25281-R16, n°3 grommets P/N AW002FT112 and n°1 grommets P/N AW002FT113 by means of n°3 screws P/N NAS1190E3P36AK, n°1 screw P/N NAS1802-3-25, n°1 spacer P/N NAS43DD3-55N and n°3 spacer P/N NAS43DD3-52N.
- 2.2.26 With reference to Figure 13 View looking tail LH side, install n°7 clamps P/N MS25281-R15 and n°8 grommets P/N AW002FT112 by means of n°6 screws P/N NAS1190E3P7AK and n°1 screw P/N NAS1802-3-11.
- 2.2.27 With reference to Figure 13 View looking tail LH side, install n°3 clamps P/N MS25281-R15 and n°3 grommets P/N AW002FT112 by means of the existing hardware.
- 2.2.28 With reference to Figure 13 View looking tail LH side, remove the existing hardware and install n°3 clamps P/N MS25281-R15 and n°3 grommets P/N AW002FT112 by means of n°2 screws P/N NAS1190E3P17AK, n°1 screw P/N NAS1802-3-25, n°2 spacers P/N NAS43DD3-30N and n°1 spacer P/N NAS43DD3-47N.
- 2.2.29 With reference to Figure 14 View D-D, install n°5 clamps P/N MS25281-R9, n°5 grommets P/N AW002FT109 by means of n°3 screws P/N NAS1190E3P6AK, n°2 screws P/N NAS1802-3-23 and n°1 spacer P/N NAS43DD3-50N.
- 2.2.30 With reference to Figure 15 View looking vertical tail fin, install n°3 clamps P/N MS25281-R15, n°3 grommets P/N AW002FT112 by means of n°1 screw P/N NAS1802-3-10, n°1 screws P/N NAS1190E3P22AK n°1 screws P/N NAS1190E3P30AK, n°1 washer P/N NAS1149D0332J, n°1 spacer P/N NAS43DD3-60N and n°1 spacer P/N NAS43DD3-90N.
- 2.2.31 With reference to Figure 15 View looking vertical tail fin, remove the existing hardware and install n°7 clamps P/N MS25281-R15, n°7 grommets P/N AW002FT112 by means of n°6 screw P/N NAS1190E3P18AK, n°1 screws P/N NAS1802-3-35, n°6 spacer P/N NAS43DD3-40N and n°1 spacer P/N NAS43DD3-60N.

- 2.2.32 With reference to Figure 15 View looking tail rotor, install n°2 clamps P/N AW001CB05H by means of washer P/N NAS1149D0332J and screw P/N NAS1190E3P7AK.
- 2.2.33 With reference to Figure 15 View looking tail rotor, remove the existing hardware and install n°2 clamps P/N MS25281-R15, n°2 grommets P/N AW002FT112 by means of screw P/N NAS1802-3-24, screw P/N NAS1802-3-25, and spacer P/N NAS43DD3-45N.
- 2.2.34 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, and with reference to Figure 8 Detail A, install the decals P/N ED300A515P1, P/N ED300A515P2, P/N ED300A515P3, P/N ED300A515P4, P/N ED300A515P5.
- 2.2.35 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, and with reference to Figure 12 Detail E, install the decals P/N ED300J3123, P/N ED300J3125, P/N ED300P3123, P/N ED300P3125 and n°2 decals P/N 999-2701-02-296.
- 2.2.36 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, and with reference to Figure 14 View D-D, install the decal P/N ED300E136P1.
- 2.2.37 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, and with reference to Figure 15 View looking tail rotor, install the decals P/N ED300E137P1 and P/N ED300E137P1.
- 2.2.38 Modify the Auxiliary C/B panel on the overhead panel, as described in the following procedure:

NOTE

Customer must contact AW139 PSE at least 3 months in advance of embodiment date of this Service Bulletin in order to collect the exact W/D applicable to helicopter configuration.

- 2.2.38.1 With reference to AMP DM 39-A-24-91-04-00A-920A-K, remove from the Overhead C/B panel the existing integrally lit panel and install the new integrally lit panel P/N 3G2490LXXXXX.
- 2.2.38.2 Install circuit breaker P/N MS3320-3 in the indicated position on the new integrally lit panel P/N 3G2490LXXXXX; apply decal P/N ED300CB516 in an adjacent area.
- 2.2.38.3 Perform the electrical connection between pin 2 of CB516 and pin C of connector PL1J3 by means of A556A-T20 wire. Use electrical

contact P/N MS25036-149 for pin 2 of CB516 and electrical contact P/N M39029/56-351 for pin C of PL1J3.

- 2.2.39 In accordance with CSPP-A-20-10-13-00A-622A-D and with reference to Figure 8 View looking left nose and Detail A, and Figure 32 Wiring Diagram, perform the electrical connections of the C/A A1A562 to the connectors A7-6P1 and to the DC ground TB149.
- 2.2.40 In accordance CSPP-A-20-10-13-00A-622A-D and with reference to Figure 7 View looking left cockpit and pedestal, Figure 8 Detail A, and Figure 31 Wiring Diagram, perform the electrical connections of the C/A A1A562 to the connectors P127, TB123P1, TB129-3 and TB150-1.
- 2.2.41 In accordance with CSPP-A-20-10-13-00A-622A-D and with reference to Figure 8 View looking left nose and Detail A, and Figure 31 Wiring Diagram, perform the electrical connections between the connector A515P1 and the connector TB147P1.
- 2.2.42 In accordance CSPP-A-20-10-13-00A-622A-D and with reference to Figure 7 View looking left cockpit and pedestal, and Figure 31 Wiring Diagram, perform the electrical connections between the connector J127 and the connector PL1P3.
- 2.2.43 In accordance with CSPP-A-20-10-13-00A-622A-D and with reference to Figure 7 View looking left cockpit and pedestal, Figure 8 Detail A, and Figure 32 Wiring Diagram, perform the electrical connections of the C/A A2A492 to the connector A515P2.
- 2.2.44 With reference to Figure 7 View looking left cockpit and pedestal, and Figure 31 Wiring Diagram, perform the electrical connection of the connector TB123P1 to the DC ground TB123.
- 2.2.45 With reference to Figure 7 View looking left cockpit and pedestal, and Figure 31 Wiring Diagram, perform the electrical connection of the connector P127 to the connector J127, and the connector PL1P3 to the CB panel PL1.
- 2.2.46 With reference to Figure 12 Detail E, and Figure 32 Wiring Diagram, perform the electrical connection of the connector J3123 to the connector P3123, and the connector J3125 to the connector P3125. Connect the connectors P3123 and P3125 to the terminal P/N 999-7000-07-105 by means of lockwire P/N MS20995C15.

NOTE

Perform the following steps 2.2.47 and 2.2.48 only if Part III is not intended to be embodied immediately after Part I.

- 2.2.47 With reference to Figure 8 Detail A and Figure 10 Detail B, protect and stow the connector A515P3, A515P4, A515P5 and E136P1 by means of the tie strap P/N AW001CK03LC, the nomex P/N EN6049-006-25-2 and n°4 plug-protective (if available).
 - 2.2.48 With reference to Figure 8 Detail A and Figure 10 Detail C, protect and stow the connector A515P1 and A515P2 by means of the tie strap P/N AW001CK03LC, the nomex P/N EN6049-006-32-5 and n°2 plug-protective (if available).
 - 2.2.49 Perform a pin-to-pin continuity check of all the electrical connections made.
3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6)
 4. Return the helicopter to flight configuration and record for compliance with Part I of this Service Bulletin on the helicopter logbook.
 5. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

As an alternative, send the attached compliance form to the following mail box:

engineering.support.lhd@leonardo.com

and (for North, Central and South America) also to:

AWPC.Engineering.Support@leonardocompany.us

PART II

1. In accordance with DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with DM 39-A-06-41-00-00A-010A-A and with reference to Figures 1 thru 4 and 18 thru 27, 29 thru 32, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the SATCOM FLIGHTCELL DZMX (4G) complete provision P/N 3G4390A01811 as described in the following procedure:
 - 2.1 With reference to Figures 1 thru 4, 29 and 30, perform the structural provision P/N 3G5311A12311 as described in the following procedure:
 - 2.1.1 With reference to Figure 1 View A, install the plate reworked P/N 3G5317A35851 on the interseat console P/N 3G5326A00134 by means of n°4 quick-release fasteners.
 - 2.1.2 With reference to Figure 1 View B-B, drill n°2 holes $\text{Ø}6.20 \pm 6.35$ thru the Lower frame STA 8150 P/N 3P5340A10852 in accordance with the dimensions shown. Prepare the surfaces to assure a good ground contact.
 - 2.1.3 With reference to Figure 1 View B-B, install n°2 anchor nuts P/N A407A3C2P on the Lower frame STA 8150 P/N 3P5340A10852 by means of adhesive epoxy EA9309NA (C231).

NOTE

Perform step 2.1.4, only if the LH bracket P/N 3G5350A12551 is installed on the helicopter. Otherwise if NOT installed perform steps from 2.1.5 to 2.1.7.

- 2.1.4 With reference to Figures 29 and 30, perform the SATCOM Flightcell structural provision variant P/N 3G5310P32311 as described in the following procedure:
 - 2.1.4.1 With reference to Figure 29 View looking outboard LH side, remove the LH bracket P/N 3G5350A12551 with related hardware. Retain the existing hardware for later reuse.
 - 2.1.4.2 With referenced to Figure 29 Detail A and Section B-B, remove n°2 inserts P/N NAS1836-3-13 and fill the two holes by means of adhesive EA9309.3NA (C021).

- 2.1.4.3 With reference to Figure 30, rework the LH support P/N 3G5316A92351 drilling n°6 pilot holes in accordance with the dimensions shown. Remark the LH support P/N 3G5316A92351 as LH support P/N 3G5315P11951.

NOTE

Align the support holes with those existing on the structure.

- 2.1.4.4 With reference to Figure 29 Detail A and Section C-C, temporarily locate the LH support P/N 3G5315P11951 on the structure tail assy, in accordance with the dimensions shown and countermark n°4 position-holes.
- 2.1.4.5 With reference to Figure 29 Section C-C, drill n°4 holes $\varnothing 11.48 \div 11.61$ previously countermarked on the structure tail assy.
- 2.1.4.6 With reference to Figure 29 Detail A and Section C-C, install n°4 inserts P/N NAS1836-3-13 by means of adhesive EA 934 NA (C397).
- 2.1.4.7 With reference to Figure 29 Detail A and Section C-C, temporarily locate the LH support P/N 3G5315P11951 on the structure tail assy in accordance with new insert positions and enlarge n°6 holes up to $\varnothing 5.156 \div 5.283$.
- 2.1.4.8 With reference to Figure 29 Detail A and Section C-C, install the LH support P/N 3G5315P11951 by means of n°2 screws P/N MS27039-1-05, n°2 washers P/N NAS1149D0332J and the existing hardware previously retained.
- 2.1.5 With reference to Figure 1 Detail M, drill n°9 rivet holes thru the LH support P/N 3G5316A92351 and the structure assy tail P/N 3G5350A00236 in accordance with the dimensions shown. Prepare the surface to assure a good ground contact.
- 2.1.6 With reference to Figure 1 Detail M, install the LH support P/N 3G5316A92351 on the structure assy tail P/N 3G5350A00236 by means of n°9 rivets P/N A299A05TW02.
- 2.1.7 With reference to Figure 2 Section N-N, perform the cut-out on the LH support P/N 3G5316A92351 in accordance with the dimensions shown. Prepare the surface for corrosion protection of electrical bonding areas by means of chemical conversion coating (C597).

- 2.1.8 With reference to Figure 4 View E and Figure 3 View H, perform the indicated cut-out on the bonding layer P/N 3G5355A06151 and on the RW tail gearbox fairing in accordance with the dimensions shown.
- 2.1.9 With reference to Figure 4 View E, apply the bonding layer P/N 3G5355A06151 on the inner RW tail gearbox fairing.
- 2.1.10 With reference to Figure 4 View E, temporary locate the ground plate assy P/N 3G5315A61632 on the RW tail gearbox fairing and countermark n°25 rivet holes positions.
- 2.1.11 With reference to Figure 4 View E, drill n°25 rivet holes in the previously marked positions thru the RW tail gearbox fairing and the bonding layer P/N 3G5355A06151 in accordance with the dimensions shown. Prepare the surface to assure a good ground contact.
- 2.1.12 With reference to Figure 4 View E, install the ground plate assy P/N 3G5315A61632 on the bonding layer P/N 3G5355A06151 and RW tail gearbox fairing by means of n°4 rivets P/N A297A05TW03 and n°21 rivets P/N A297A05TW02.
- 2.1.13 With reference to Figure 4 View J, install the terminal P/N 999-7000-07-104 on the cover assy P/N 3G5315A61732 by means of n°1 rivet P/N A298A05TW02 and adhesive MC-780 (C355).

NOTE

Perform the following step only if Part III is not intended to be embodied immediately after Part II.

- 2.1.14 With reference to Figure 4 Section F-F, install the cover assy P/N 3G5315A61732 on the ground plate assy P/N 3G5315A61632 by means of n°4 washers P/N NAS1149D0332K and n°4 screws P/N MS27039-1-08.
- 2.1.15 With reference to Figure 2 Section K-K, remove the existing grommet P/N MS35489-20 from the left profile P/N 3G5340A07351, and increase the diameter of the hole in accordance with the dimensions shown. Protect the indicated surface, apply epoxy primer (C596).
- 2.1.16 With reference to Figure 2 Section K-K, install the rubber edging P/N A236A03AB on the left profile P/N 3G5340A07351.
- 2.1.17 With reference to Figure 2 View C-C and Section D-D, perform the indicated cut-out on the rear lower panel, in accordance with dimensions shown. Seal all around the performed cut-out by means of adhesive epoxy EA934NA (C397).

- 2.1.18 With reference to Figure 2 View C-C and Section D-D, install the reinforcement P/N 3G5315A34051 on the rear lower panel, by means of adhesive EA9309NA (C231).
- 2.1.19 With reference to Figure 2 View C-C and Section D-D, drill n°4 holes Ø6.35÷6.48 thru the reinforcement P/N 3G5315A34051 in accordance with the dimensions shown. Prepare the surfaces to assure a good ground contact.
- 2.1.20 With reference to Figure 2 View C-C and Section D-D, install n°4 anchor nut P/N A407A3C2P on the reinforcement P/N 3G5315A34051 by means of adhesive epoxy EA9309NA (C231).
- 2.1.21 With reference to Figure 2 View C-C, drill n°1 rivet hole thru the reinforcement P/N 3G5315A34051 in accordance with the dimensions shown.
- 2.1.22 With reference to Figure 2 View C-C, install the terminal P/N 999-7000-07-104 on the reinforcement P/N 3G5315A34051 by means of n°1 rivet P/N NAS1097AD5-6 and adhesive MC-780 (C355).

NOTE

Perform the following step only if Part III is not intended to be embodied immediately after Part II.

- 2.1.23 With reference to Figure 2 View C-C and Section D-D, install the cover assy P/N 3G5317A37631 on the reinforcement P/N 3G5315A34051 by means of n°4 washers P/N NAS1149D0316K and n°4 screws P/N MS27039-1-08.
- 2.2 With reference to Figures 18 thru 27, 31 and 32, perform the SATCOM FLIGHTCELL DZMX (4G) electrical provision P/N 3G4390A01911 as described in the following procedure:
 - 2.2.1 With reference to Figure 21, install n°2 supports P/N AW001CL001-N6 by means of adhesive CB200-40 (C356) in accordance with the dimensions reported on the table.
 - 2.2.2 With reference to Figure 23, install n°2 supports P/N AW001CL001-N6 by means of adhesive CB200-40 (C356), in accordance with the dimensions reported on the table.
 - 2.2.3 With reference to Figure 24, install the standoff P/N A388A3E08C by means of adhesive CB200-40 (C356), in accordance with the dimensions reported on the table.

- 2.2.4 With reference to Figure 24, install the stud P/N A366A3E12C75 by means of adhesive CB200-40 (C356), in accordance with the dimensions reported on the table.
- 2.2.5 With reference to Figure 25, install n°3 standoffs P/N A388A3E06C and the support P/N AW001CL001-N6 by means of adhesive CB200-40 (C356), in accordance with the dimensions reported on the table.
- 2.2.6 With reference to Figure 26, install n°11 standoffs P/N A388A3E06C and the standoff P/N A388A3E16C by means of adhesive CB200-40 (C356), in accordance with the dimensions reported on the table.
- 2.2.7 With reference to Figure 27, install n°2 anchor nuts P/N AW001TL3A06, the stud P/N A366A3E32C75, n°2 standoffs P/N A388A3E06C and the stud P/N A366A3E32C, by means of adhesive CB200-40 (C356), in accordance with the dimensions reported on the table.

NOTE

Use the edging P/N A236A on edges which are liable to cause damage to cable assemblies or where abrasion may occur.

NOTE

Install the tubing braided P/N A582A where protection against chafing and prevention of contact with structure may occur, but the tubing protection is not substitute for good routing practice.

- 2.2.8 With reference to Figures 18 thru 27 and Figures 31 and 32 Wiring Diagram, lay down the following cable assemblies on the existing routes unless otherwise indicated on the figures:
- SATCOM FLIGHTCELL DZMX C/A (A1A562)
 - SATCOM FLIGHTCELL DZMX C/A (A2A492)
 - SATCOM FLIGHTCELL DZMX C/A (A3A246)
 - SATCOM FLIGHTCELL DZMX C/A (A3A247)
 - SATCOM FLIGHTCELL DZMX C/A (A3A248)
 - SATCOM FLIGHTCELL DZMX C/A (B1A951)
 - SATCOM FLIGHTCELL DZMX C/A (D3A218)
 - SATCOM FLIGHTCELL DZMX C/A (D3A219)
- 2.2.9 With reference to Figures 18 thru 27, secure the cable assemblies laid down at the previous step by means of existing hardware and lacing cords.

- 2.2.10 With reference to Figure 22, remove n°5 existing screws and install n°5 clamps P/N MS25281-R16, n°5 grommets P/N AW002FT113 and n°5 spacers P/N NAS43DD3-70N on the cable assemblies A3A246, A3A247 and A3A248, by means of n°5 screws P/N NAS1190E3P26AK. Refer to Figure 19 for details.
- 2.2.11 With reference to Figure 22, remove n°2 existing screws and install n°2 clamps P/N MS25281-R16 and n°2 grommets P/N AW002FT113 on the cable assemblies A3A246, A3A247 and A3A248, by means of n°2 screws P/N NAS1190E3P8AK. Refer to Figure 19 for details.
- 2.2.12 With reference to Figure 22, remove n°1 existing screw and install n°1 clamp P/N MS25281-R16, n°1 grommet P/N AW002FT113 and n°1 spacer P/N NAS43DD3-45N on the cable assemblies A3A246, A3A247 and A3A248 by means of n°1 screw P/N NAS1190E3P19AK. Refer to Figure 19 for details:
- 2.2.13 With reference to Figure 22, remove n°1 existing screw and install n°1 clamp P/N MS25281-R16 and n°1 grommet P/N AW002FT113 on the cable assemblies A3A246, A3A247 and A3A248, by means of n°1 screw P/N NAS1802-3-10. Refer to Figure 19 for details.
- 2.2.14 With reference to Figure 22, remove n°1 existing screw and install n°1 clamp P/N MS25281-R16 n°1 grommet P/N AW002FT113 and n°1 spacer P/N NAS43DD3-80N on the cable assemblies A3A246, A3A247 and A3A248, by means of n°1 screw P/N NAS1802-3-32. Refer to Figure 19 for details.
- 2.2.15 With reference to Figure 22, remove n°1 existing screw and install n°1 clamp P/N MS25281-R16 n°1 grommet P/N AW002FT113 and n°1 spacer P/N NAS43DD3-40N on the cable assemblies A3A246, A3A247 and A3A248, by means of n°1 screw P/N NAS1802-3-20. Refer to Figure 19 for details.
- 2.2.16 With reference to Figure 24, remove n°1 existing screw and install n°1 clamp P/N MS25281-R16 n°1 grommet P/N AW002FT113 and n°1 spacer P/N NAS43DD3-55N on the cable assemblies A3A246, A3A247 and A3A248, by means of n°1 screw P/N NAS1802-3-25. Refer to Figure 19 for details.
- 2.2.17 With reference to Figure 24, remove existing screw. Install the bracket P/N MS9592-022 on the structure by means of existing hardware.
- 2.2.18 With reference to Figure 24, install n°1 clamp P/N MS25281-R16 and n°1 grommet P/N AW002FT113 on the cable assemblies A3A246,

- A3A247 and A3A248. Fix them to the bracket installed at the previous step by means of the screw P/N NAS1802-3-9, the nut P/N MS21043-3, and n°2 washers P/N NAS1149D0332J.
- 2.2.19 With reference to Figure 24, remove n°1 existing screw and install n°1 clamp P/N MS25281-R16 n°1 grommet P/N AW002FT113 and n°1 spacer P/N NAS43DD3-55N on the cable assemblies A3A246, A3A247 and A3A248, by means of n°1 screw P/N NAS1802-3-25. Refer to Figure 19 for details.
 - 2.2.20 With reference to Figure 24, remove n°3 existing screws and install n°3 clamps P/N MS25281-R16 and n°3 grommets P/N AW002FT113 on the cable assemblies A3A246, A3A247 and A3A248, by means of n°3 screws P/N NAS1190E3P23AK. Refer to Figure 19 for details.
 - 2.2.21 With reference to Figure 27 View looking tail rotor, remove n°1 existing screw and install n°2 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219, by means of n°1 screw P/N NAS1802-3-20. Refer to Figure 19 for details.
 - 2.2.22 With reference to Figure 27 View looking tail rotor, remove n°2 existing screw and install n°2 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them by means of n°1 spacer P/N NAS43DD3-35N and n°1 screw P/N NAS1802-3-24. Refer to Figure 19 for details.
 - 2.2.23 With reference to Figure 27 View looking vertical tail fin, remove n°3 existing screws and install n°6 clamps P/N AW001CB03H and n°3 spacers P/N NAS43DD3-35N on the cable assemblies D3A218 and D3A219, by means of n°3 screws P/N NAS1190E3P16AK. Refer to Figure 19 for details.
 - 2.2.24 With reference to Figure 21 Detail A, install the spacer P/N A631A01A and the grommet P/N AW002FT402 on the cable assemblies A3A246, A3A247 and A3A248.
 - 2.2.25 With reference to Figure 23 View looking up interseat console, install n°2 clamps P/N MS25281-R20 and n°2 grommets P/N AW002FT115 on the cable assemblies A3A246, A3A247 and A3A248. Fix them to the structure by means of n°2 washers P/N NAS1149D0332J and n°2 screws P/N NAS1802-3-9. Refer to Figure 19 for details.
 - 2.2.26 With reference to Figure 23 View looking up interseat console, install n°2 grommets P/N AW002FT115 on the cable assemblies A3A246, A3A247 and A3A248.

- 2.2.27 With reference to Figure 24 View looking rear, install the clamp P/N MS25281-R15 and the grommet P/N AW002FT112 on the cable assemblies A3A246 and A3A247. Fix them on the standoff previously installed by means of the spacer P/N NAS43DD3-40N, the washer P/N NAS1149D0332J and the screw P/N NAS1190E3P17AK. Refer to Figure 19 for details.
- 2.2.28 With reference to Figure 24, install the bracket P/N MS9592-027 on the stud previously installed by means of the spacer P/N NAS43DD3-15N, the washer P/N NAS1149D0332J and the nut P/N MS21043-3.
- 2.2.29 With reference to Figure 24, install the clamp P/N MS25281-R15 and the grommet P/N AW002FT112 on the cable assemblies A3A246 and A3A247. Fix them on the bracket installed at the previous step by means of n°2 washers P/N NAS1149D0332J and n°1 nut P/N MS21043-3.
- 2.2.30 With reference to Figure 25 View D-D, install n°3 clamps P/N MS25281-R12 and n°3 grommets P/N AW002FT401 on the cable assembly A3A248. Fix them to the standoffs previously installed by means of n°3 washers P/N NAS1149D0332J and n°3 screws P/N NAS1190E3P6AK. Refer to Figure 19 for details.
- 2.2.31 With reference to Figure 25 View D-D, install n°2 clamps P/N MS25281-R12 and n°2 grommets P/N AW002FT401 on the cable assembly A3A248. Fix them to the existing hardware by means of n°2 spacers P/N NAS43DD3-50N, n°2 washers P/N NAS1149D0332J and n°2 screws P/N NAS1802-3-23. Refer to Figure 19 for details.
- 2.2.32 With reference to Figure 26, install n°4 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them to the standoffs previously installed by means of n°2 spacers P/N NAS43DD3-25N, n°2 washers P/N NAS1149D0332J and n°2 screws P/N NAS1190E3P12AK. Refer to Figure 19 for details.
- 2.2.33 With reference to Figure 26, install n°18 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them to the standoffs previously installed by means of n°9 washers P/N NAS1149D0332J and n°9 screws P/N NAS1190E3P6AK. Refer to Figure 19 for details.
- 2.2.34 With reference to Figure 26, install n°2 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them on the standoff previously installed by means of the washer P/N NAS1149D0332J and the screw P/N NAS1190E3P15AK. Refer to Figure 19 for details.

- 2.2.35 With reference to Figure 27 View looking Vertical tail fin, install n°2 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them on the existing anchor nut by means of the washer P/N NAS1149D0332J and the screw P/N NAS1802-3-10. Refer to Figure 19 for details.
- 2.2.36 With reference to Figure 27 View looking vertical tail fin, install n°4 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them on the standoffs previously installed by means of n°2 washers P/N NAS1149D0332J and n°2 screws P/N NAS1190E3P6AK. Refer to Figure 19 for details.
- 2.2.37 With reference to Figure 27 View looking vertical tail fin, install n°2 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them on the stud previously installed by means of the spacer P/N NAS43DD3-90N, the washer P/N NAS1149D0332J and the nut P/N MS21043-3. Refer to Figure 19 for details.
- 2.2.38 With reference to Figure 27 View looking vertical tail fin, install n°2 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them on the anchor nut previously installed by means of the spacer P/N NAS43DD3-45N, the washer P/N NAS1149D0332J and the screw P/N NAS1802-3-22. Refer to Figure 19 for details.
- 2.2.39 With reference to Figure 27 View looking tail rotor, install n°2 clamps P/N AW001CB03H on the cable assemblies D3A218 and D3A219. Fix them on the stud previously installed by means of the spacer P/N NAS43DD3-90N, the washer P/N NAS1149D0332J and the nut P/N MS21043-3. Refer to Figure 19 for details.
- 2.2.40 With reference to Figure 20, connect the connector J1107 by means of the plate P/N M85049/95-18A-A, n°4 washers P/N NAS1149DN416J and n°4 screws P/N NAS1802-06-7. Apply the decal P/N ED300J1107 on the plate.
- 2.2.41 With reference to Figure 20, connect the connector J1105 by means of the plate P/N M85049/95-16A-A, the cover P/N 667-312NF17R3, n°4 washers P/N NAS1149DN416J, n°2 screws P/N NAS1802-06-7 and n°2 screws P/N NAS1802-06-9. Apply the decal P/N ED300J1105.
- 2.2.42 In accordance with DM 39-A-11-00-01-00A-720A-A and with reference to Figure 21 Detail A, apply the decal P/N ED300A515P3.
- 2.2.43 In accordance with 39-A-11-00-01-00A-720A-A and with reference to Figure 21 Detail A, apply the decals reported below:

- Decal P/N ED300A515P1
 - Decal P/N ED300A515P2
 - Decal P/N ED300A515P3
 - Decal P/N ED300A515P4
 - Decal P/N ED300A515P5
- 2.2.44 In accordance with DM 39-A-11-00-01-00A-720A-A and with reference to Figure 25 View D-D, apply the decal P/N ED300E136P1.
- 2.2.45 In accordance with DM 39-A-11-00-01-00A-720A-A and with reference to Figure 25 Detail E, apply the decals reported below:
- Decal P/N ED300P3123
 - Decal P/N ED300J3123
 - Decal P/N ED300P3125
 - Decal P/N ED300J3125
- 2.2.46 In accordance with DM 39-A-11-00-01-00A-720A-A and with reference to Figure 27 View looking tail rotor, apply the decal P/N ED300E137P1 and the decal P/N ED300E137P2.
- 2.2.47 In accordance with CSPP-A-20-10-13-00A-622A-D and with reference to Figures 31 and 32 Wiring Diagram, perform the electrical connections of the cable assy A1A562 to the connectors A7-6P1, P127, TB123P1 and to the terminal boards TB129-3, TB149 and TB150-1.
- 2.2.48 In accordance with CSPP-A-20-10-13-00A-622A-D and with reference to Figures 31 and 32 Wiring Diagram, perform the electrical connections of the cable assy A2A492 to the connectors A515P1, A515P2 and TB147P1.
- 2.2.49 In accordance with CSPP-A-20-10-13-00A-622A-D and with reference to Figures 31 and 32 Wiring Diagram, perform the electrical connections of the cable assy B1A951 to the connectors J127 and PL1P3.
- 2.2.50 With reference to Figure 25 Detail E and Figure 32 Wiring Diagram, connect the connector P3123 to the connector J3123.
- 2.2.51 With reference to Figure 25 Detail E and Figure 32 Wiring Diagram, connect the connector P3125 to the connector J3125.

NOTE

Perform the following step only if Part III is not intended to be embodied immediately after Part II.

- 2.2.52 With reference to Figure 18 Detail B and Detail C, protect and stow by means of the tie strap P/N AW001CK03LC, the nomex P/N A582A32 and protective plugs (if available) the following connectors:
- A515P1, A515P2, A515P3, A515P4 and A515P5;
 - E316P1.

NOTE

Perform the following step only if Part III is not intended to be embodied immediately after Part II.

- 2.2.53 With reference to Figure 27 View Looking Tail Rotor, stow the connectors E137P1 and E137P2 to the plate previously installed.
- 2.2.54 Modify the Auxiliary C/B panel on the overhead panel, as described in the following procedure:

NOTE

Customer must contact AW139 PSE at least 3 months in advance of embodiment date of this Service Bulletin in order to collect the exact W/D applicable to helicopter configuration.

- 2.2.54.1 With reference to AMP DM 39-A-24-91-04-00A-920A-K, remove from the Overhead C/B panel the existing integrally lit panel and install the new integrally lit panel P/N 3G2490LXXXXX.
- 2.2.54.2 Install circuit breaker P/N MS3320-3 in the indicated position on the new integrally lit panel P/N 3G2490LXXXXX; apply decal P/N ED300CB516 in an adjacent area.
- 2.2.54.3 Perform the electrical connection between pin 2 of CB516 and pin C of connector PL1J3 by means of A556A-T20 wire. Use electrical contact P/N MS25036-149 for pin 2 of CB516 and electrical contact P/N M39029/56-351 for pin C of PL1J3.
- 2.2.55 Perform a pin-to-pin continuity check of all the electrical connections made.
3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6)
4. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.

5. Gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

As an alternative, send the attached compliance form to the following mail box:

engineering.support.lhd@leonardo.com

and (for North, Central and South America) also to:

AWPC.Engineering.Support@leonardocompany.us

PART III

1. In accordance with DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with DM 39-A-06-41-00-00A-010A-A and with reference to Figures 16, 17, and 28, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the SATCOM Flightcell DZMX 4G-WIFI removable parts P/N 3G4390A03011 as described in the following procedure:
 - 2.1 With reference to Figure 16 View A-A, remove the lockring P/N AW001YC01RED.

NOTE

Perform following step, only if Part I or Part II of this SB has NOT been performed immediately before to Part III.

- 2.2 With reference to Figure 16 Detail B and Detail C, and Figure 17 View looking interseat console LH side, free the connectors and remove the protective plugs, tie strap P/N AW001CK03LC, the nomex P/N EN6049-006-25-5, the nomex P/N EN6049-006-32-5 and the nomex P/N A582A32.

NOTE

Perform the following step only if the DZMX transceiver has been provided as P/N DZP_04-800-XXX in Rev.4.

- 2.3 In accordance with AMP DM 39-E-23-97-01-00A-720A-A and with reference to Figure 16 Iso view and Figure 17 View looking interseat console LH side, install the DZMX transceiver. Install alternative P/N according to the specified region:
 - P/N DZP_04-800-BEW – Region: Europe/APAC;
 - P/N DZP_04-800-BFW – Region: Americas;
 - P/N DZP_04-800-BPW – Region: APAC/South America;
 - P/N DZP_04-800-BJW – Region: Japan.

NOTE

Perform the following steps 2.4 and 2.5 only if the DZMX transceiver has been provided as P/N DZP_04-800-XXX in Rev.6.2.

NOTE

Perform the following step 2.4 only if the DZMX transceiver has been provided as DZP_04-800-XXX. If P/N 3G4390I00X31 ("X" digit according to the specified region) has been supplied in quantity, go to step 2.5

- 2.4 With reference to Figure 28, install the identification label P/N A016A004B1 to remark the DZMX transceiver as the P/N 3G4390I00X31 ("X" digit according to the specified region).
- 2.5 In accordance with AMP DM 39-E-23-97-01-00A-720A-A and with reference to Figure 16 Iso view and Figure 17 View looking interseat console LH side, install the DZMX transceiver. Install alternative P/N according to the specified region:
- P/N 3G4390I00131 - Region: Europe;
 - P/N 3G4390I00231 - Region: South America;
 - P/N 3G4390I00331 - Region: Americas/B14.
- 2.6 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, and with reference to Figure 16 View looking interseat console LH side, install the decal P/N ED300A515 on the DZMX transceiver.

NOTE

Perform following step, only if Part I or Part II of this SB has NOT been performed immediately before to Part III.

- 2.7 With reference to Figure 16 Detail B and Figure 17 View looking down rear floor right side, remove n°4 screws P/N MS27039-1-08, n°4 washers P/N NAS1149D0316K, the cover assy P/N 3G5317A37631, the tie strap P/N AW001CK03LC and the nomex P/N EN6049-006-25-5.
- 2.8 In accordance with AMP DM 39-E-23-97-02-00A-720A-A, and with reference to Figure 16 Detail B and Figure 17 View looking down rear floor right side, install the cell antenna P/N ANP_00033 and the conductive gasket P/N AW001GH040A. Connect to the terminal P/N 999-7000-07-104 by means of lockwire P/N MS20995C15.
- 2.9 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, and with reference to Figure 17 View looking down rear floor right side, install the decal

P/N ED300E136 on the cell antenna P/N ANP_00033.

NOTE

Perform following step, only if Part I or Part II of this SB has NOT been performed immediately before to Part III.

- 2.10 With reference to Figure 16 Detail C and Figure 17 View looking tail rotor, remove n°4 screws P/N MS27039-1-08, n°4 washers P/N NAS1149D0332K, the cover assy P/N 3G5315A61732, the tie strap P/N AW001CK03LC and the nomex P/N EN6049-006-32-5.
- 2.11 With reference to Figure 16 Iso view and Figure 17 View looking tail rotor, perform the installation of SATCOM antenna P/N ANP_00043 as described in the following procedure:

NOTE

During this procedure, remove the caps from the electrical connectors. Do this immediately before connect each electrical connector.

- 2.11.1 Install the SATCOM antenna P/N ANP_00043 and the gasket P/N AW001GH041A on the fairing 360CT by means of n°4 screws P/N°MS27039-1-13.
- 2.11.2 Tighten the four screws P/N°MS27039-1-13 to the standard torque value. Refer to CSPP-A-20-40-00-02A-711A-D.
- 2.11.3 Connect these coaxial connectors to the connectors of the SATCOM antenna P/N ANP_00043:
- The connector E137P1;
 - The connector E137P2.
- 2.11.4 Safety the connector E137P1 by means of lockwire P/N MS9226-03.
- 2.12 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, and with reference to Figure 17 View looking tail rotor, install the decal P/N ED300E137 on the SATCOM antenna P/N ANP_00043.
- 2.13 In accordance with AMP DM 39-E-23-97-00-00A-366A-A, perform the resistance check of the cell antenna P/N ANP_00033 and the SATCOM antenna P/N ANP_00043.
- 2.14 In accordance with AMP DM 39-E-23-97-00-00A-320A-A, perform the operation test of the airborne telephone system.
3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A, re-install all external panels, internal panels and internal liners previously removed.

4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6)
5. Return the helicopter to flight configuration and record for compliance with Part III of this Service Bulletin on the helicopter logbook.
6. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

As an alternative, send the attached compliance form to the following mail box:

engineering.support.lhd@leonardo.com

and (for North, Central and South America) also to:

AWPC.Engineering.Support@leonardocompany.us

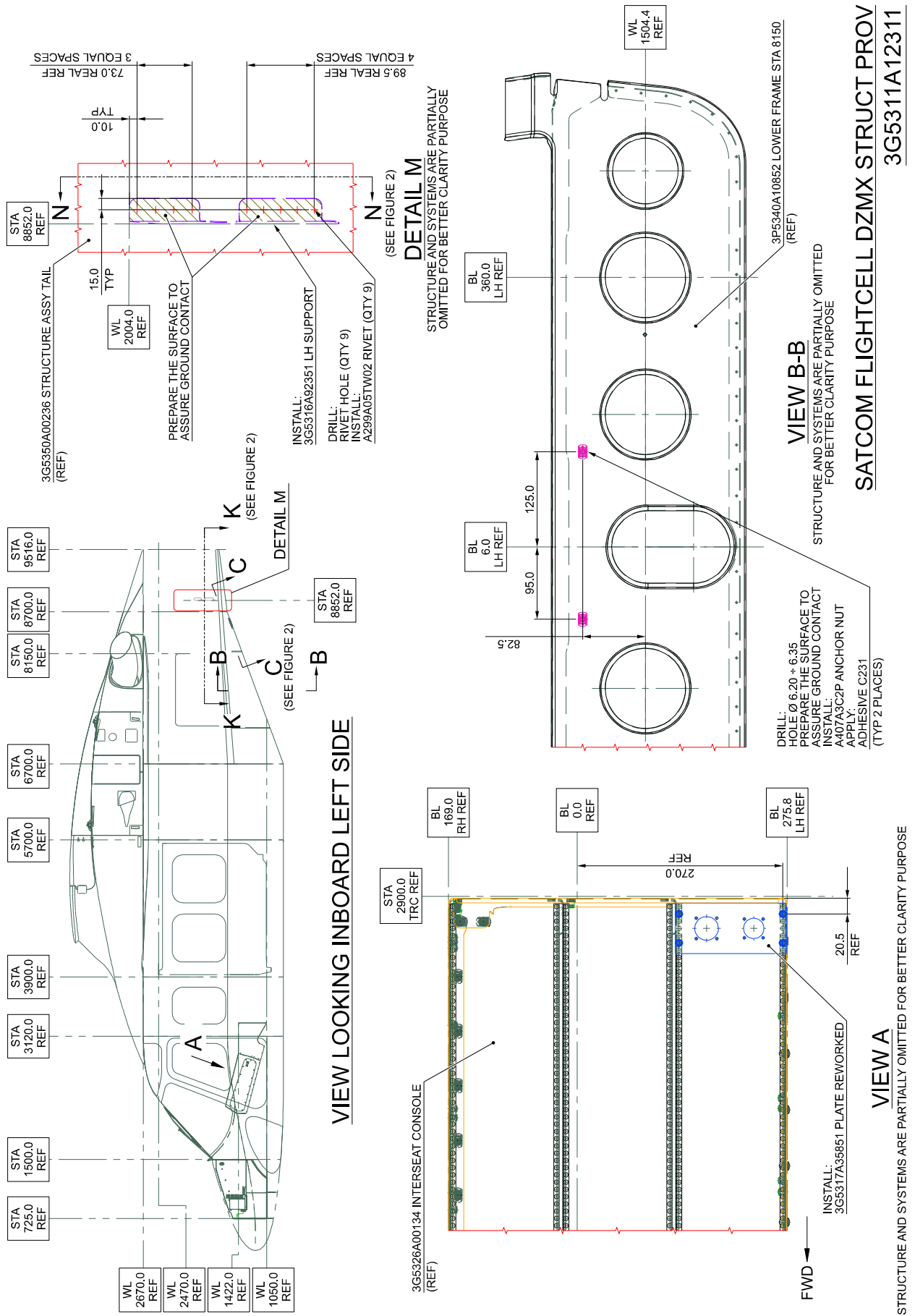


Figure 1

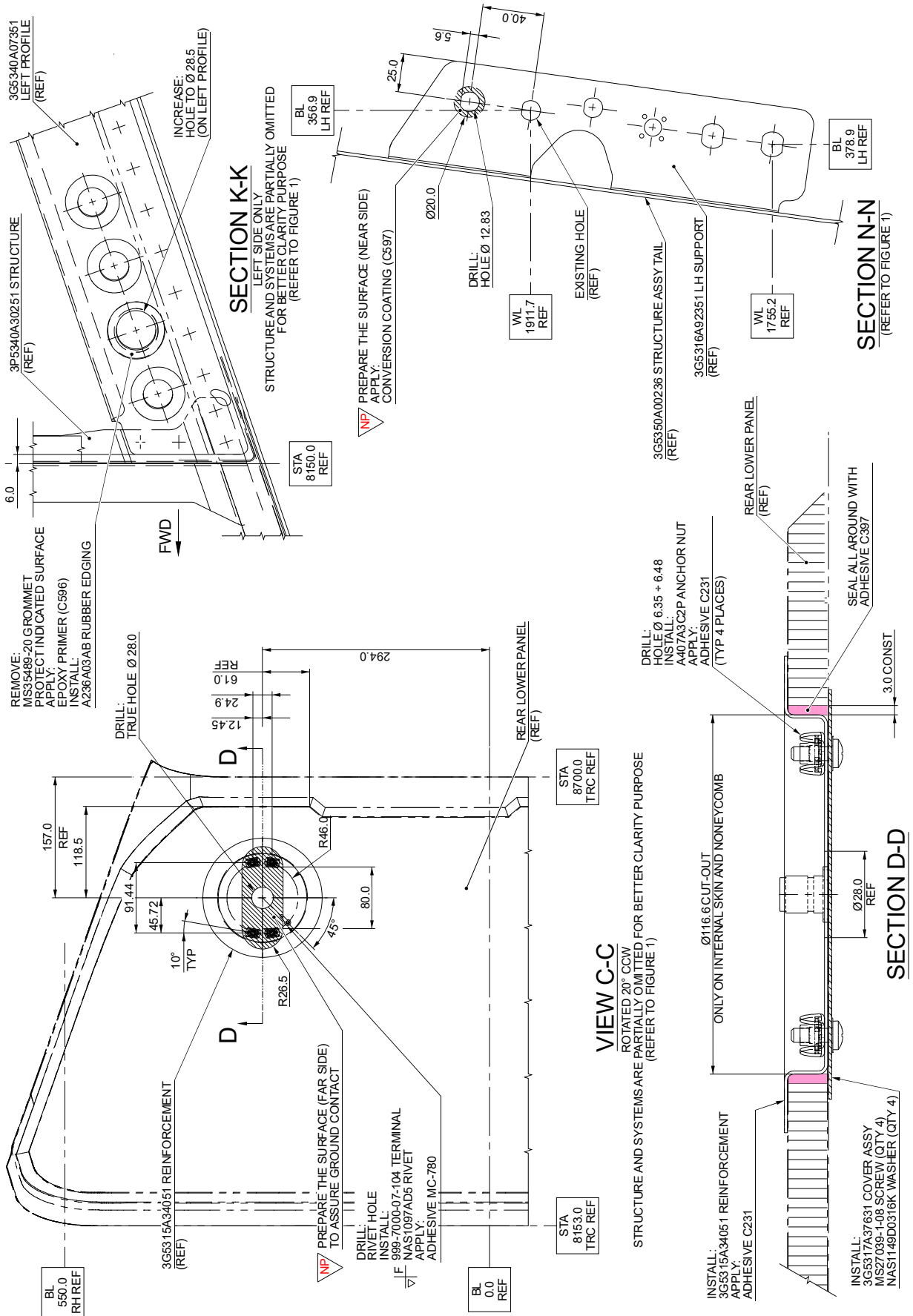
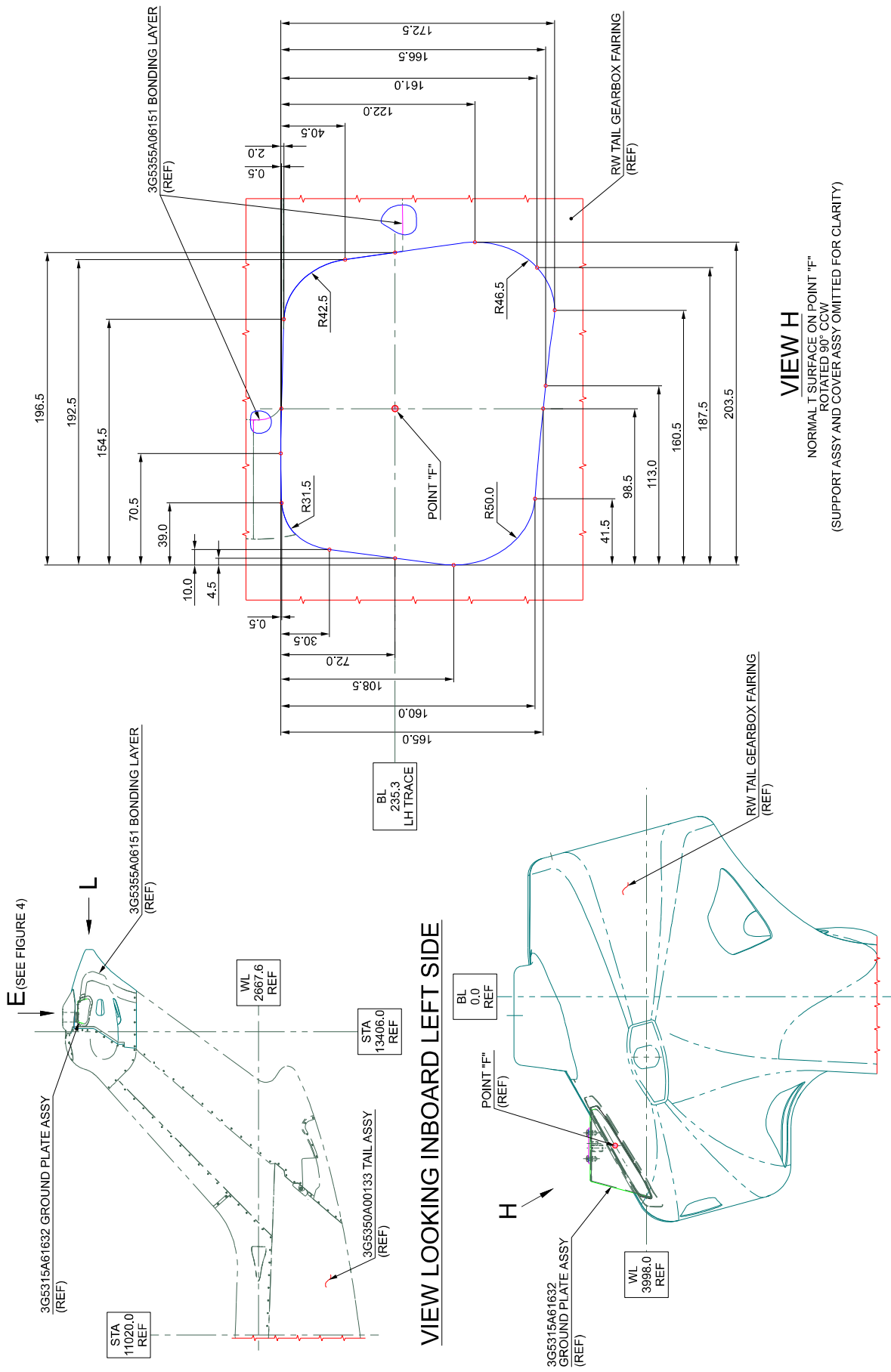


Figure 2

S.B. N°139-707 OPTIONAL
DATE: November 7, 2023
REVISION: /



VIEW LOOKING INBOARD LEFT SIDE

VIEW L

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 3

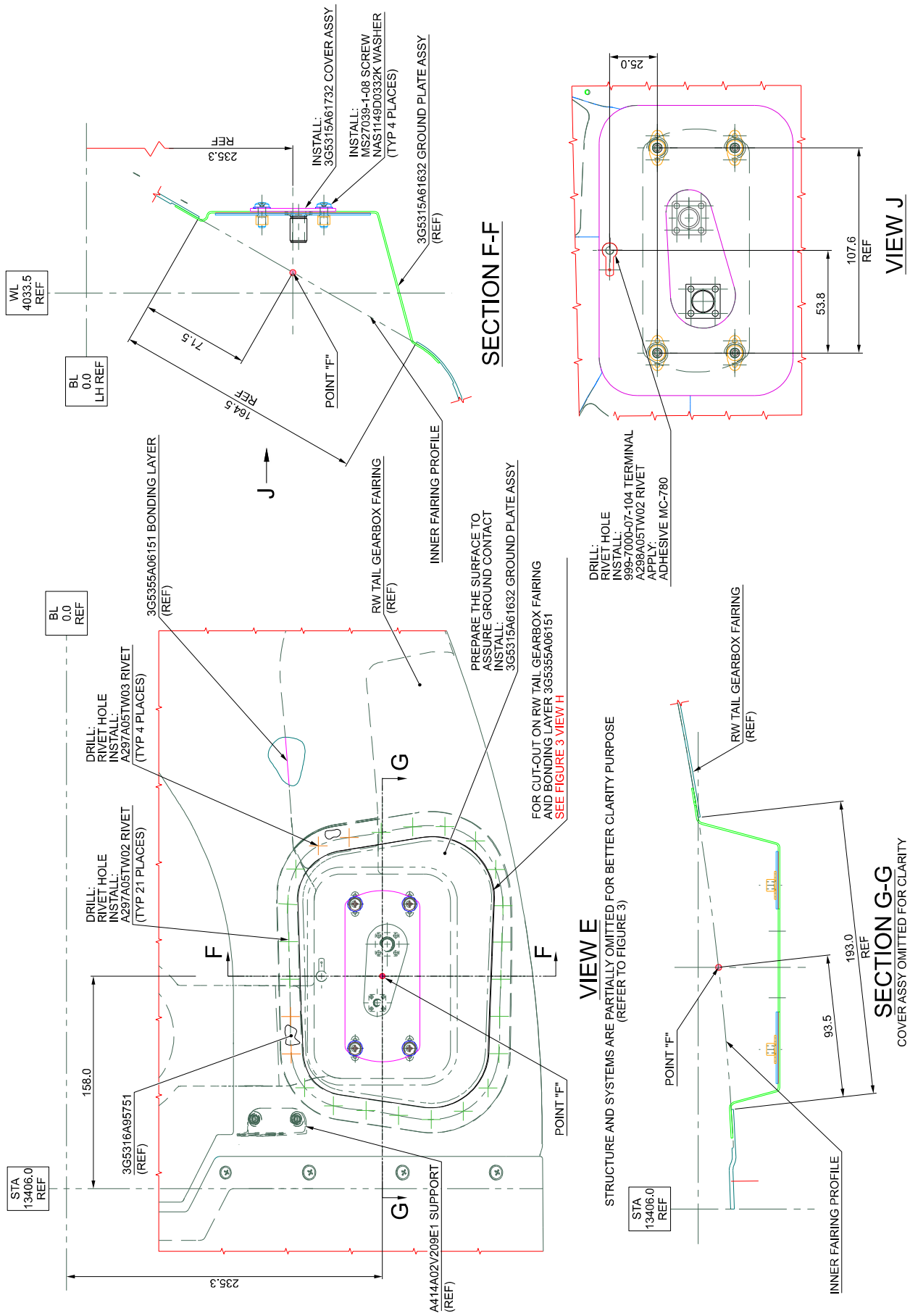
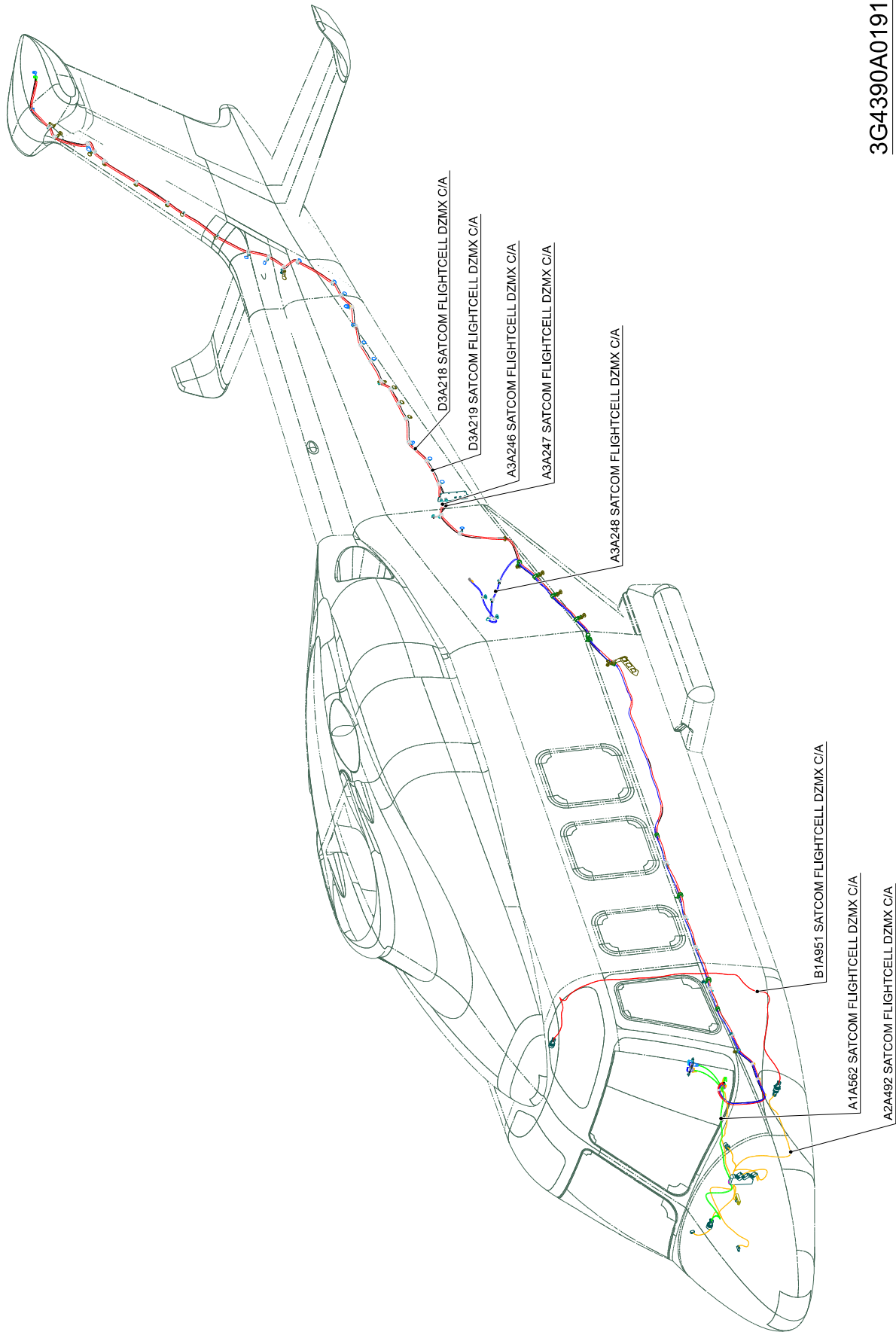


Figure 4

S.B. N°139-707 OPTIONAL
DATE: November 7, 2023
REVISION: /



3G4390A01912
SATCOM FLIGHTCELL DZMX ELECTRICAL PROVISION

Figure 5

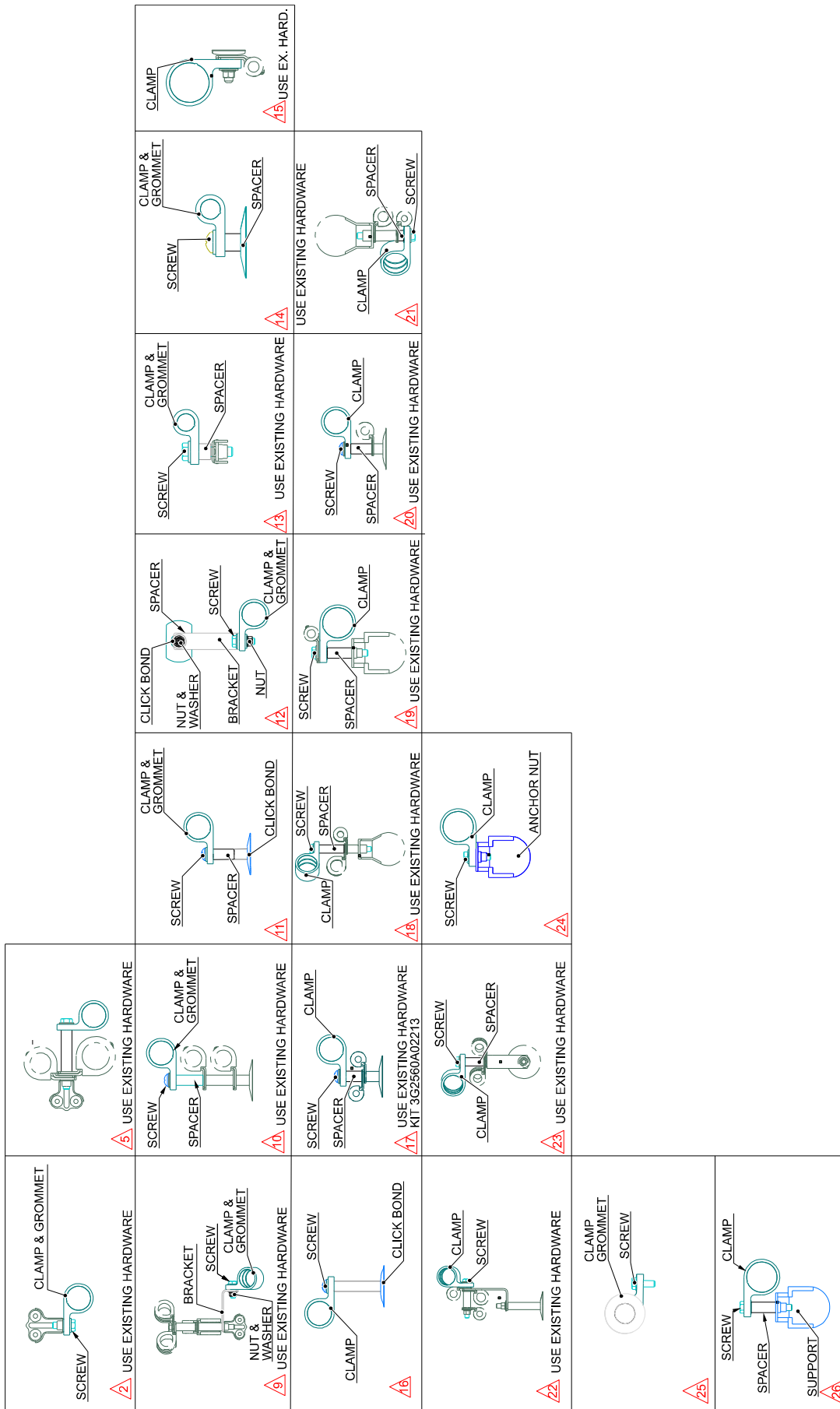


Figure 6

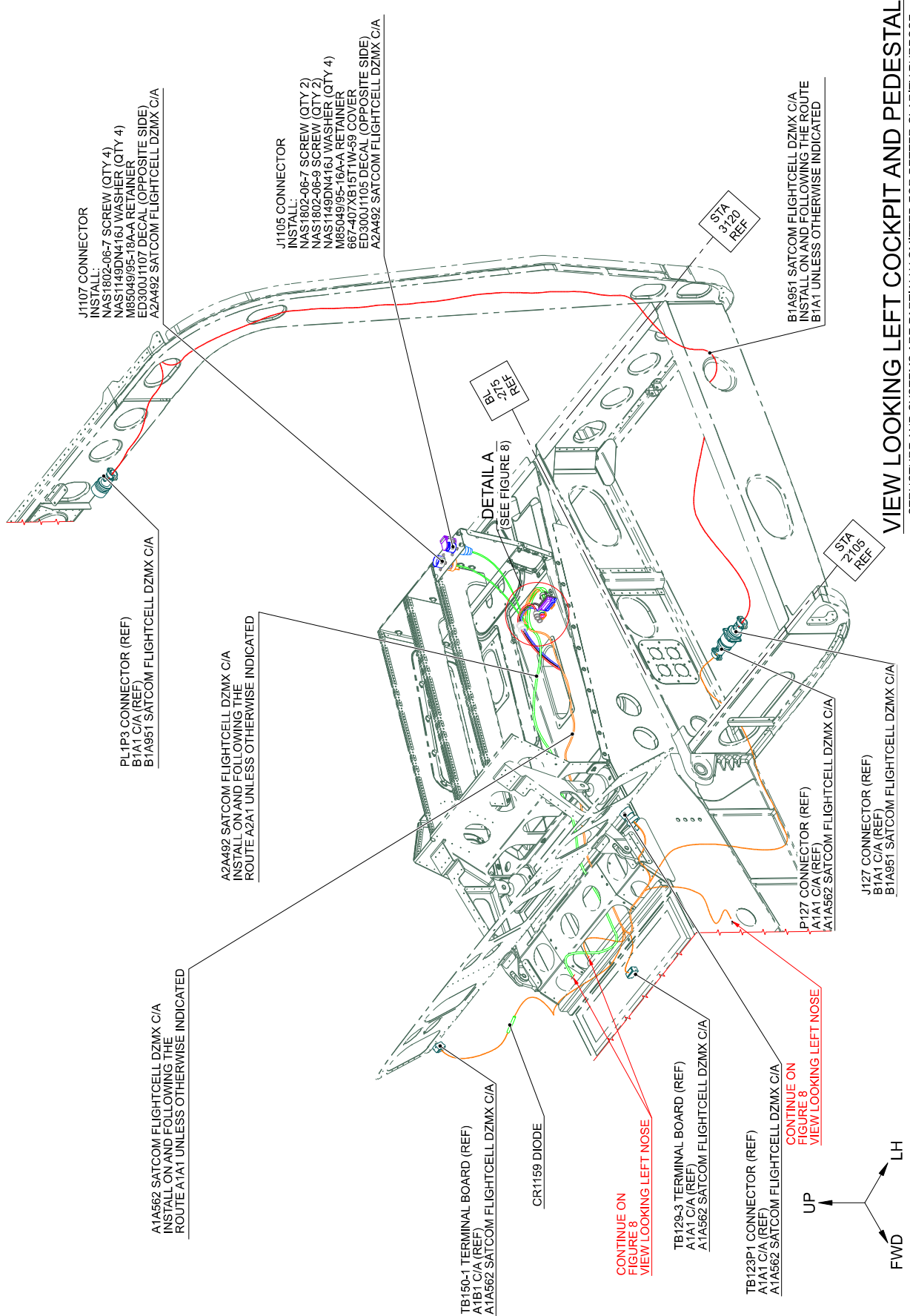
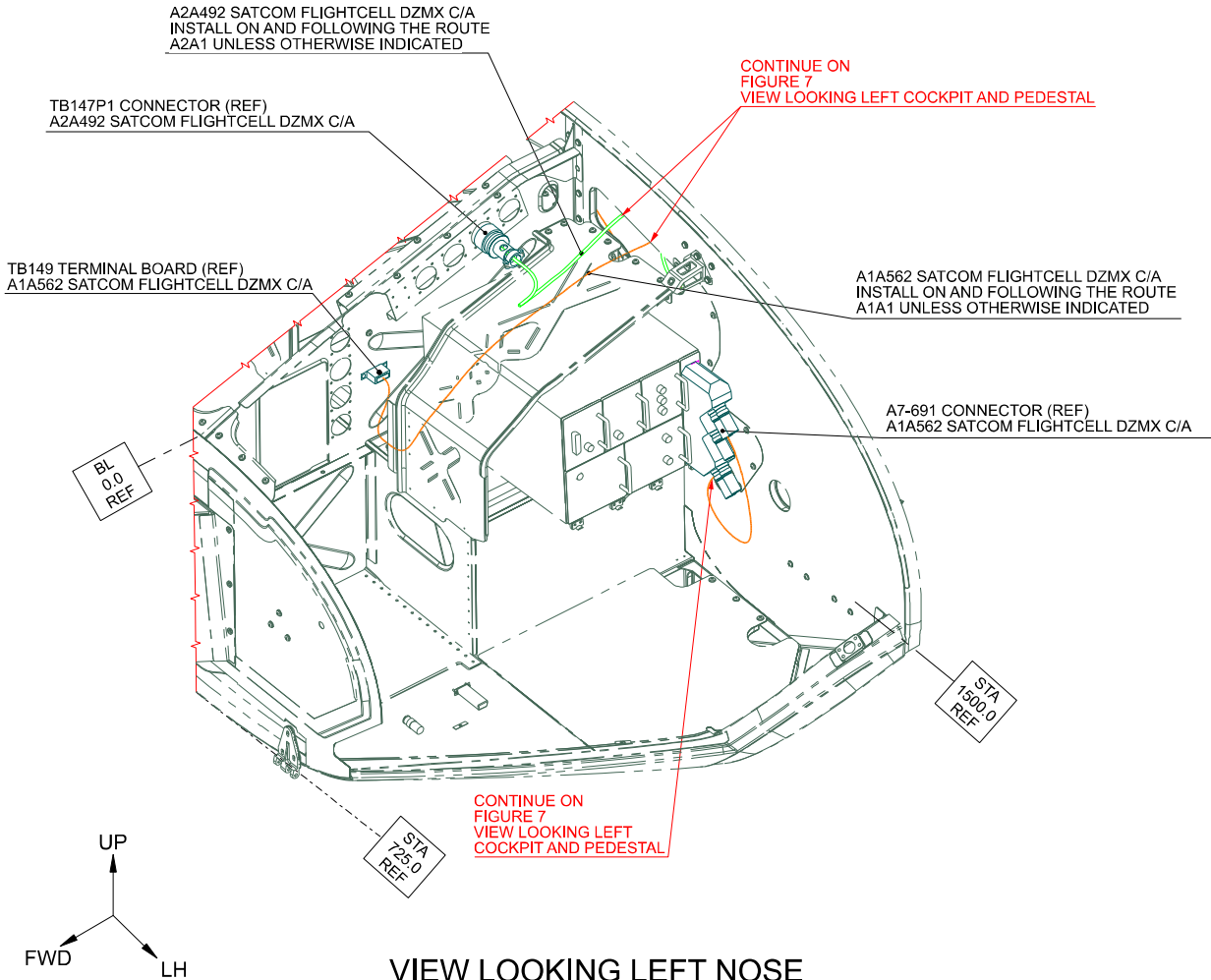
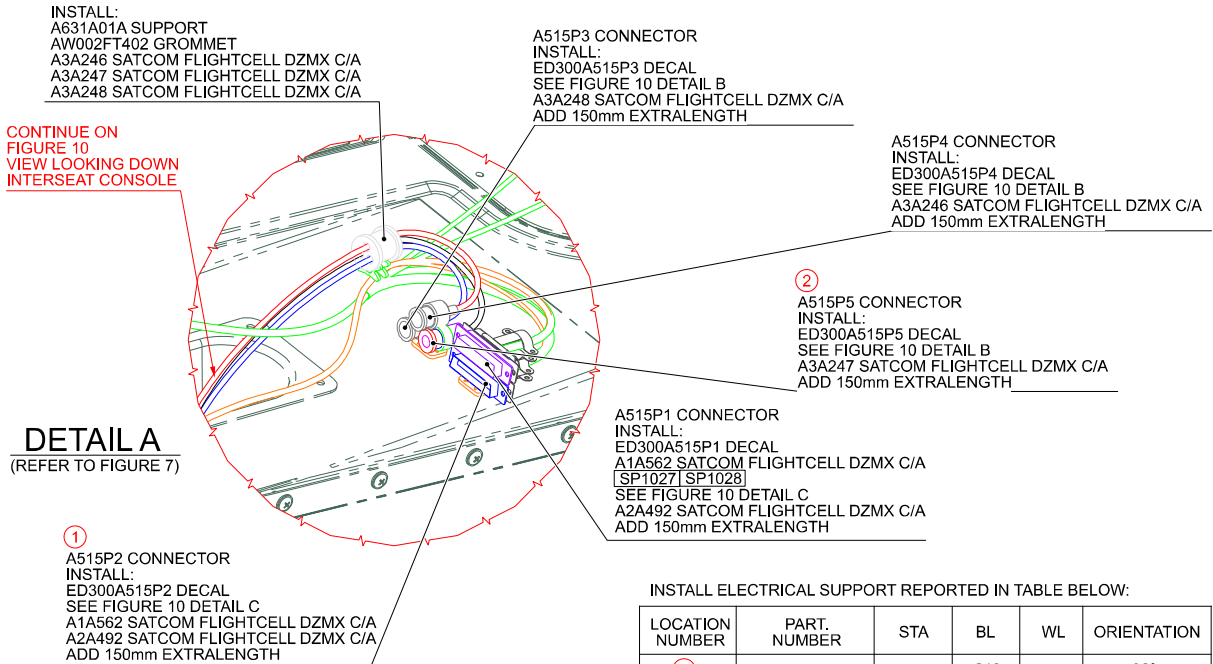


Figure 7



VIEW LOOKING LEFT NOSE

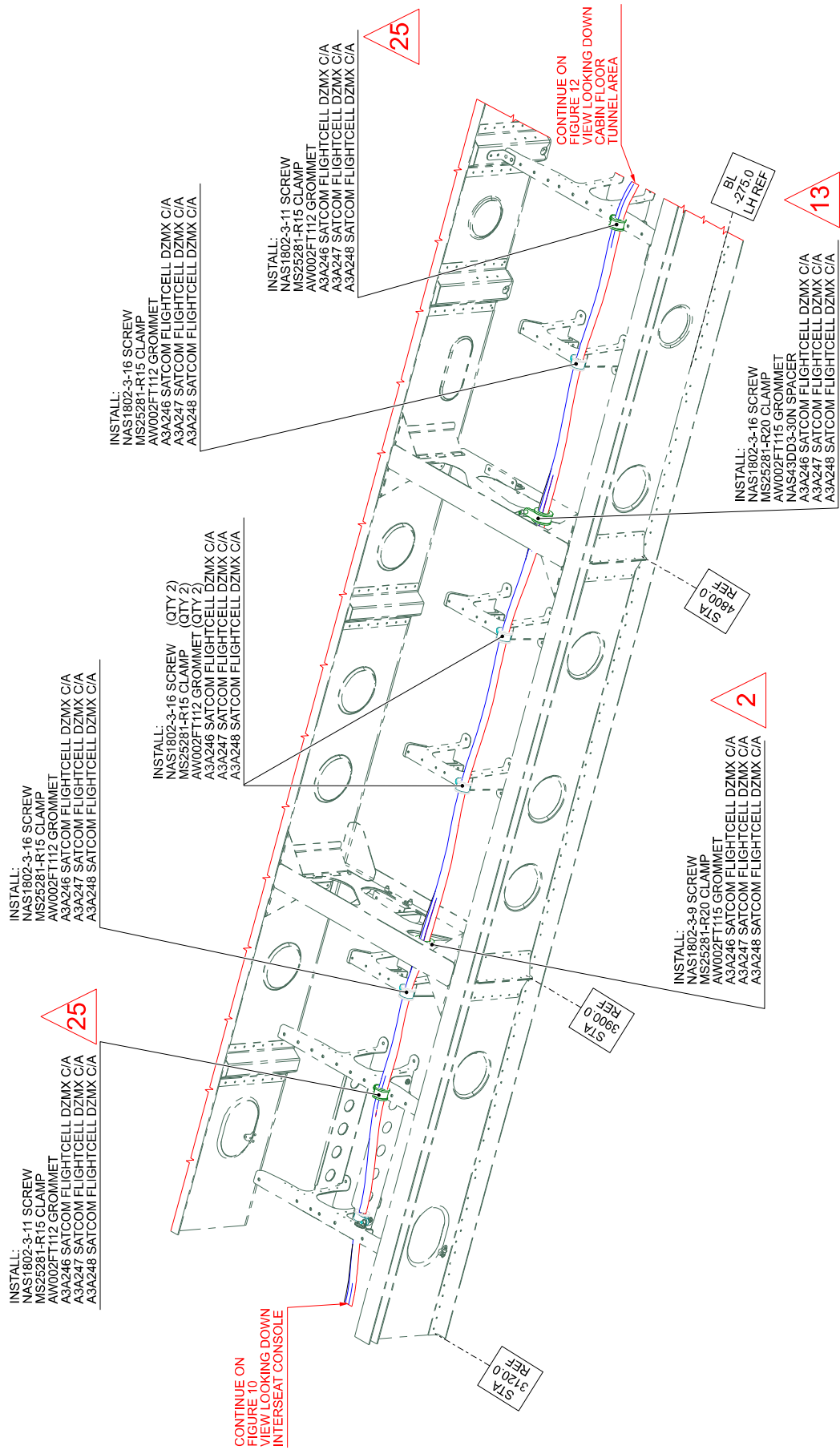
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

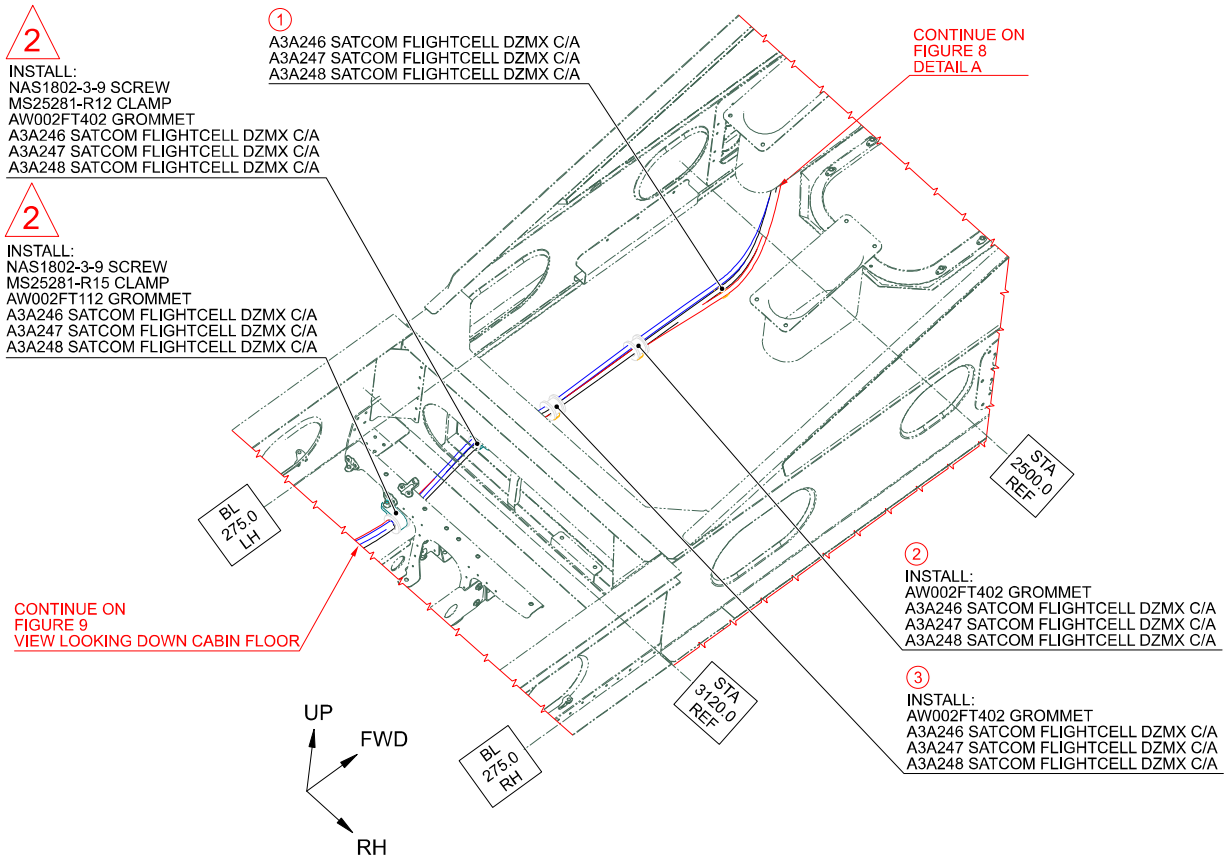
LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
①	AW001CL001-N6	2679	-213	1174	90°
②	AW001CL001-N6	2679	-168	1174	90°

Figure 8



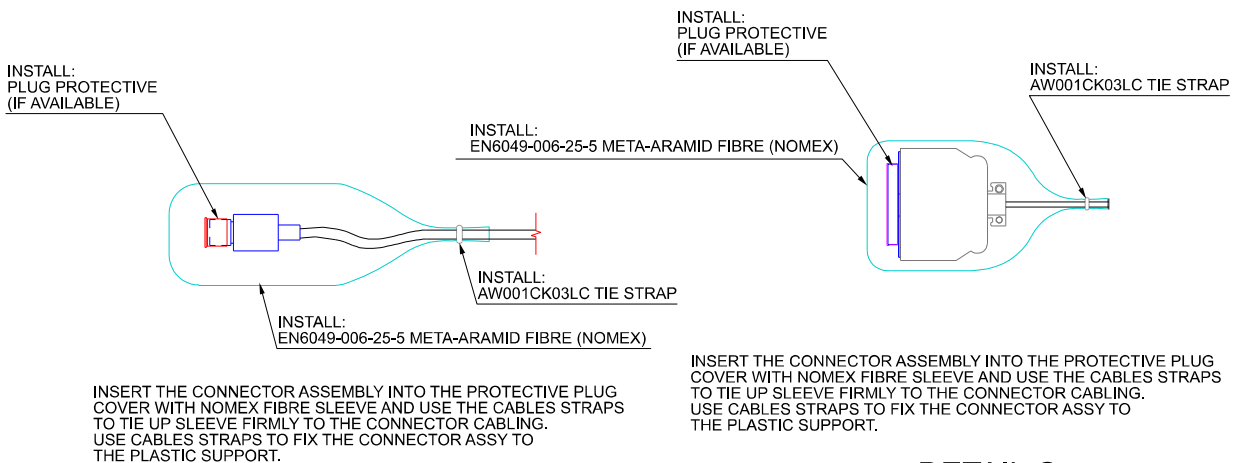
VIEW LOOKING DOWN CABIN FLOOR
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 9



VIEW LOOKING DOWN INTERSEAT CONSOLE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



DETAIL B

(REFER TO FIGURE 8 AND FIGURE 14)

DETAIL C

(REFER TO FIGURE 8)

INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
①	AW001CL001-N6	2625	-124	1037	0°
②	AW001CL001-N6	2789	-124	1037	-
③	AW001CL001-N6	2953	-124	1037	0°

Figure 10

S.B. N°139-707 OPTIONAL

DATE: November 7, 2023

REVISION: /

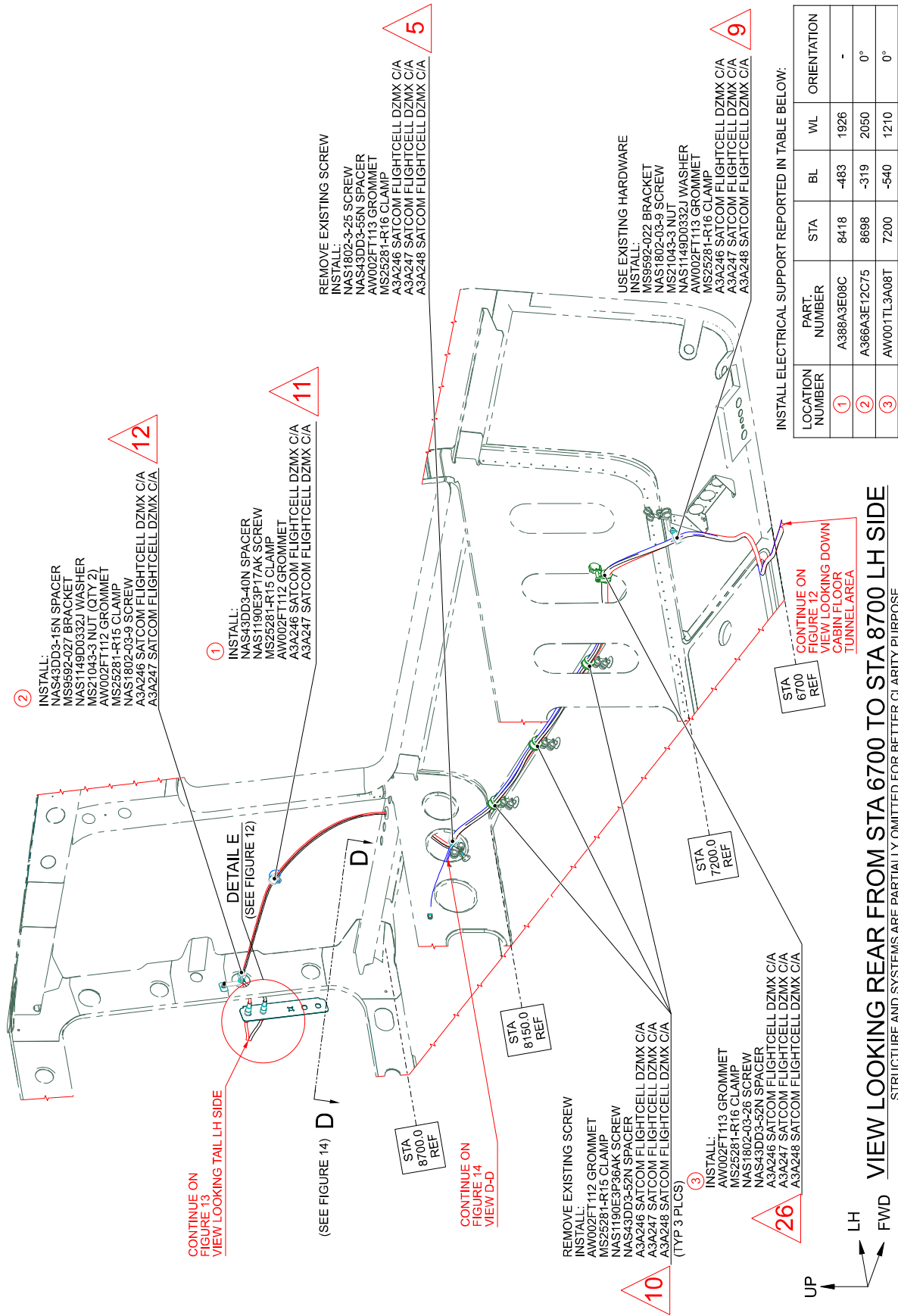
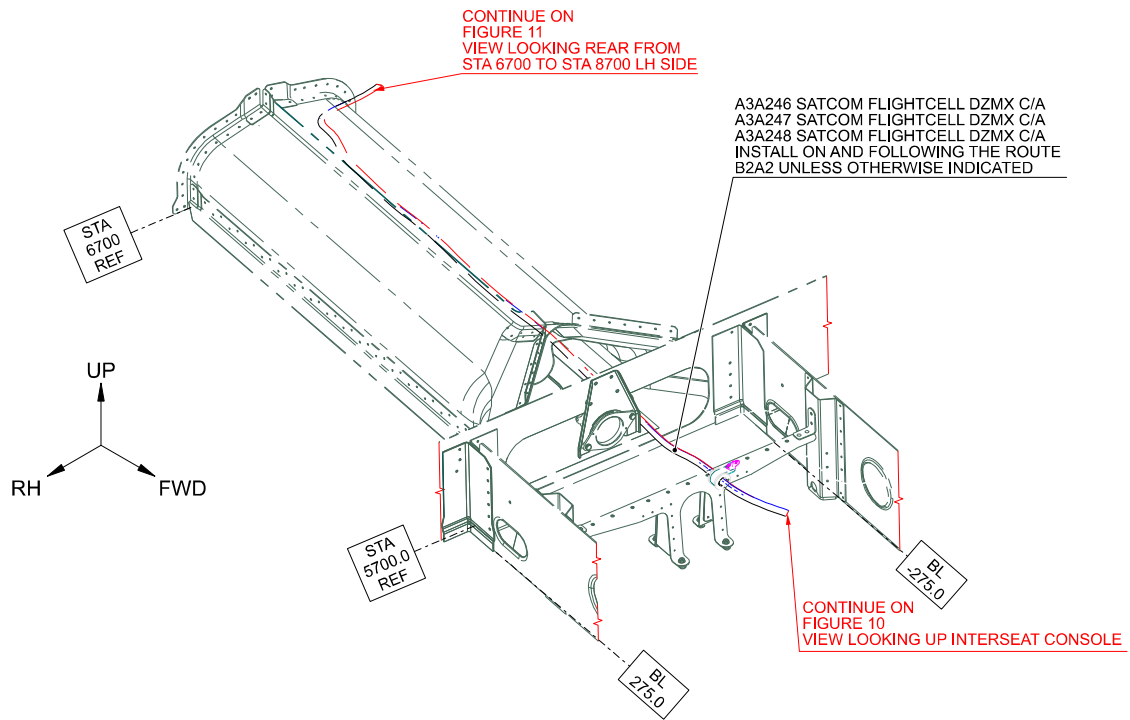
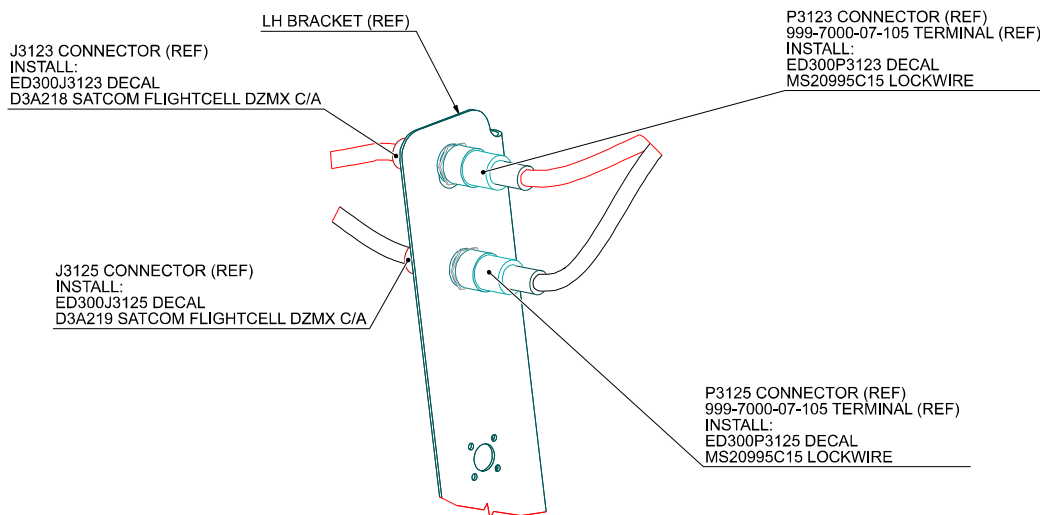


Figure 11



VIEW LOOKING DOWN CABIN FLOOR TUNNEL AREA

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

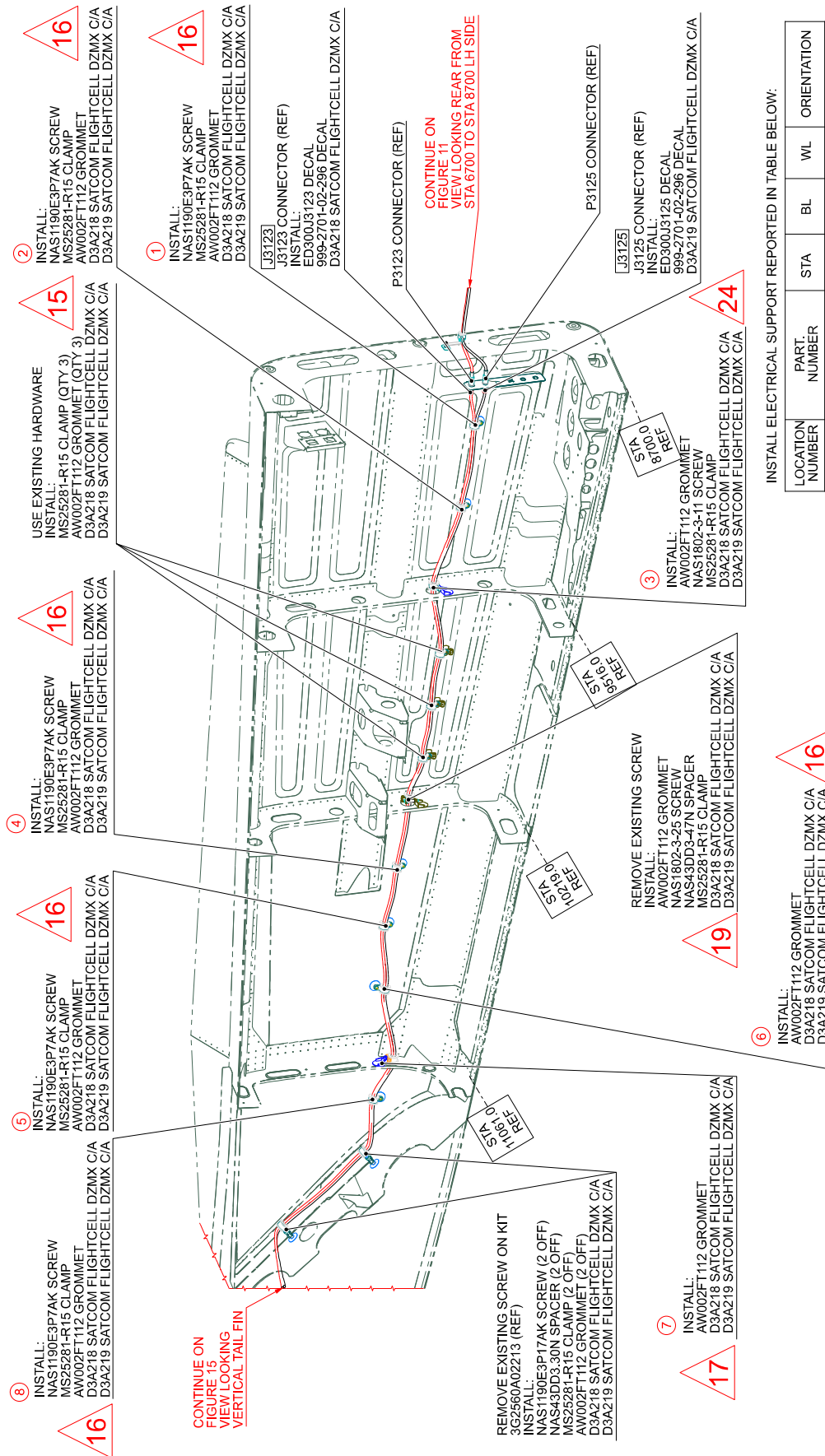


DETAIL E

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 11)

Figure 12

S.B. N°139-707 OPTIONAL
DATE: November 7, 2023
REVISION: /



INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
1	A388A3E06C	8998	-395	1911	-
2	A388A3E06C	9266	-378	1973	-
3	AW001TL3A06	9515	-294	1993	0°
4	A388A3E06C	10426	-289	2069	-
5	A388A3E06C	10615	-275	2098	-
6	A388A3E06C	10819	-261	2129	-
7	AW001CL005C01-X1	11060	-220	2112	180°
8	A388A3E06C	11182	-234	2094	-

VIEW LOOKING TAIL LH SIDE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 13

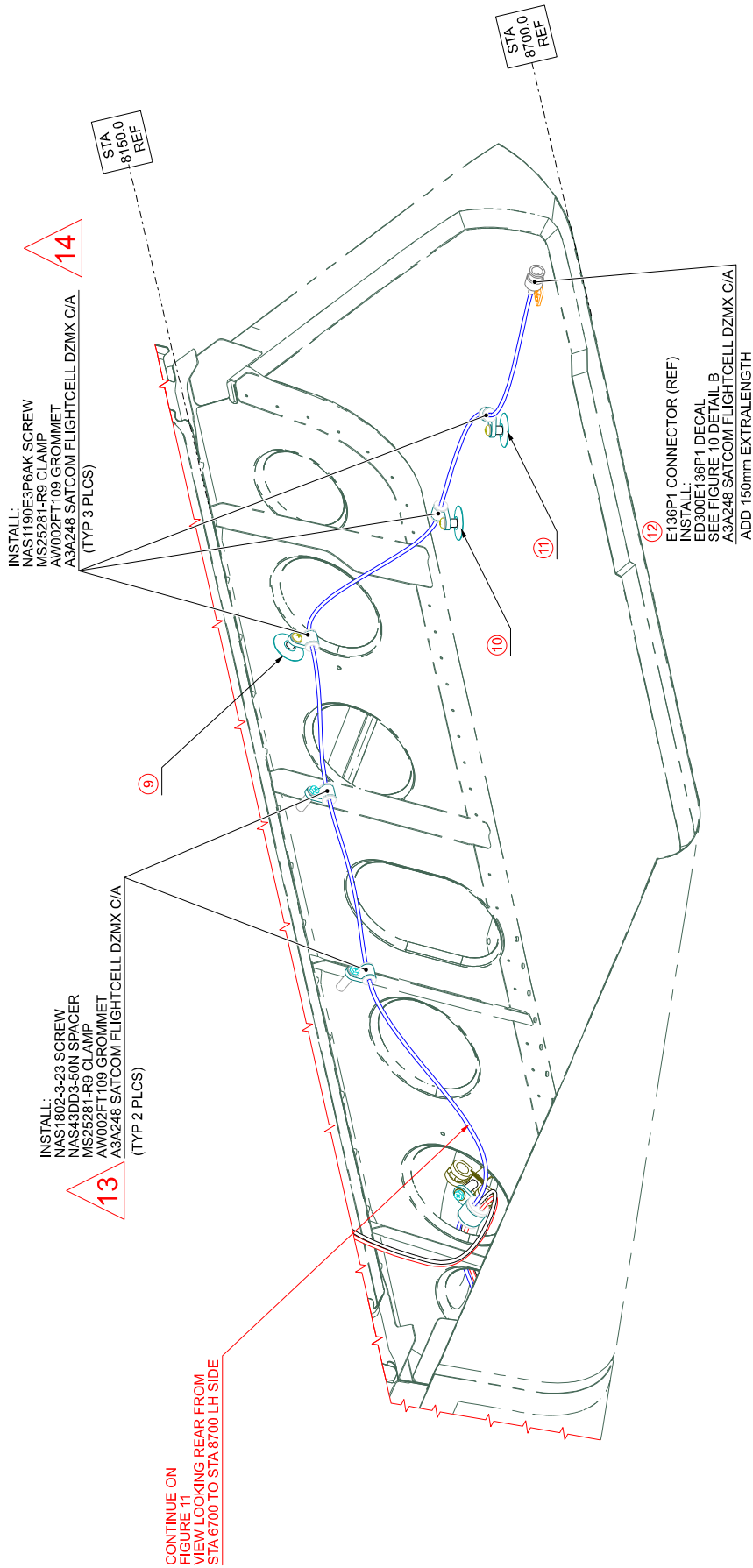


Figure 14

VIEW D-D

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 11)

INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
9	A388A3E06C	8151	294	1558	-
10	A388A3E06C	8268	390	1424	-
11	A388A3E06C	8440	344	1488	-
12	AW001CL001-N6	8612	350	1552	-

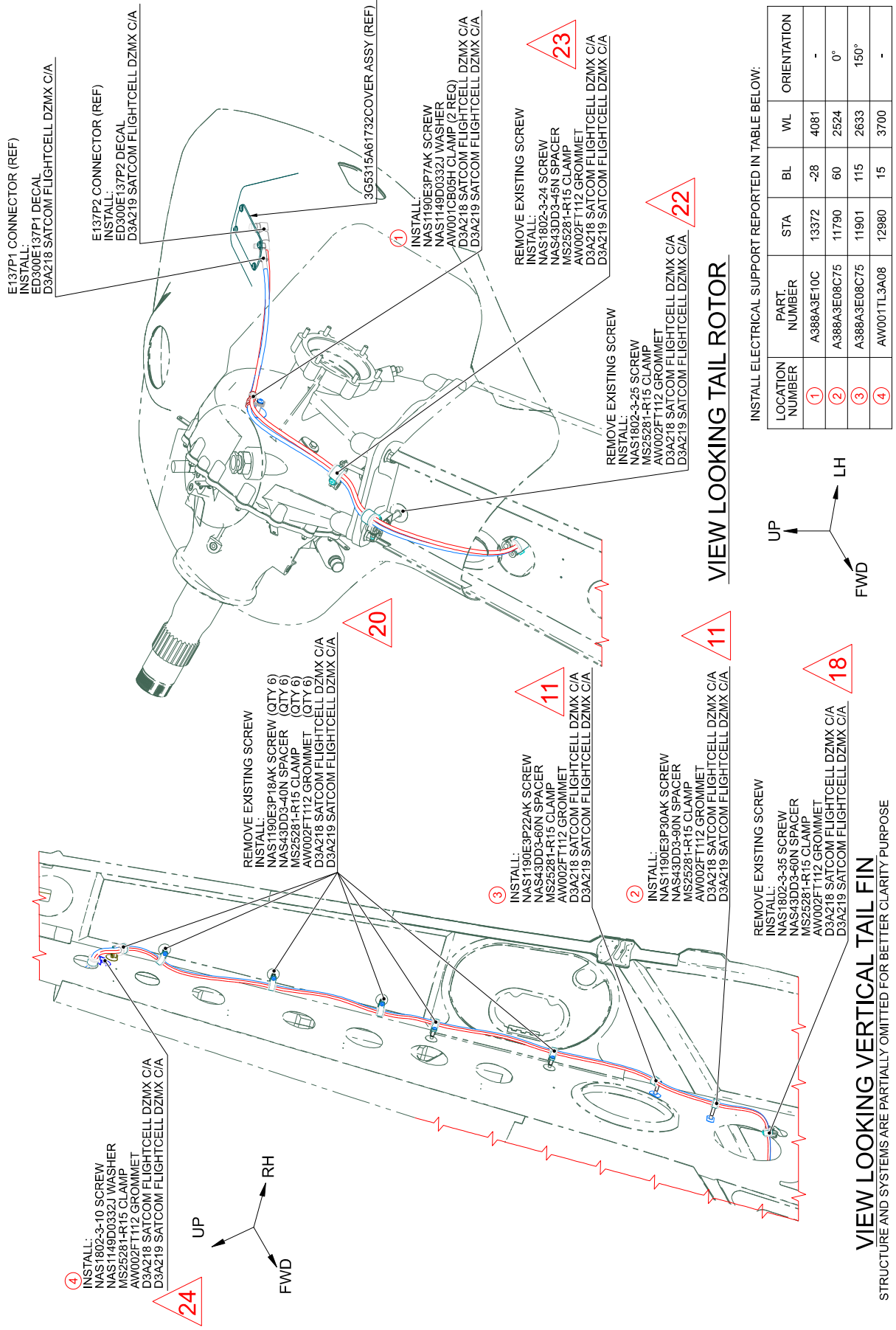
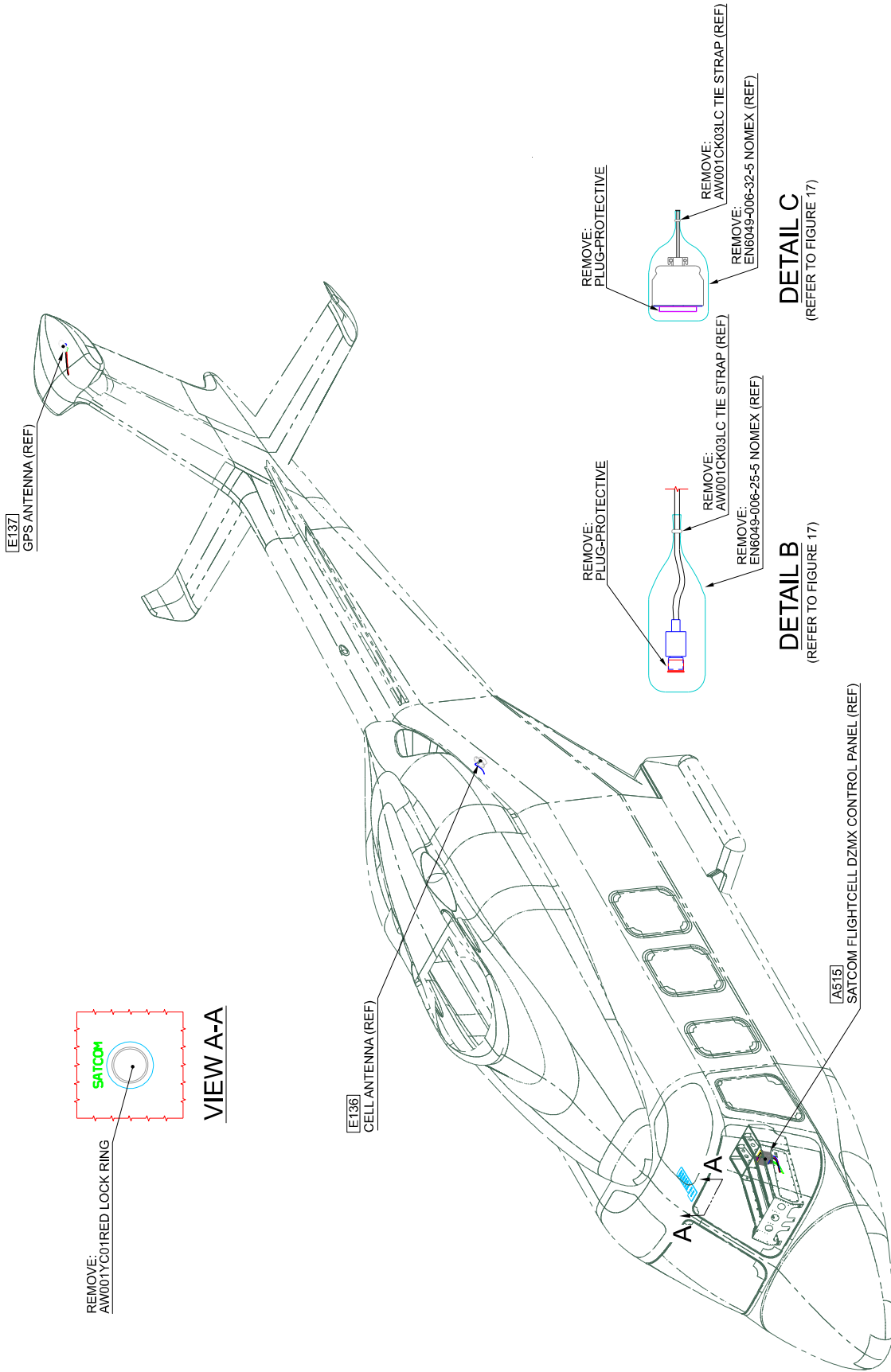


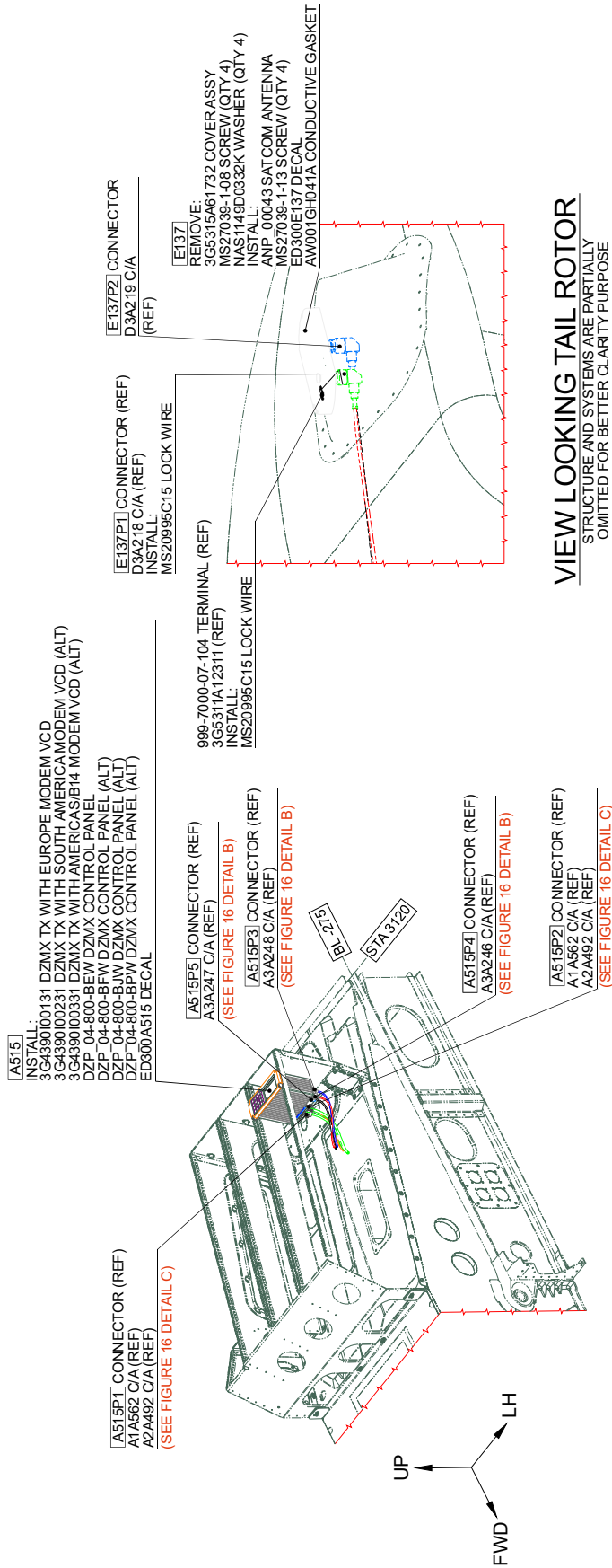
Figure 15



3G4390A03011
SATCOM FLIGHTCELL DZMX 4G-WIFI REMOVABLE PARTS

ISO VIEW
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 16

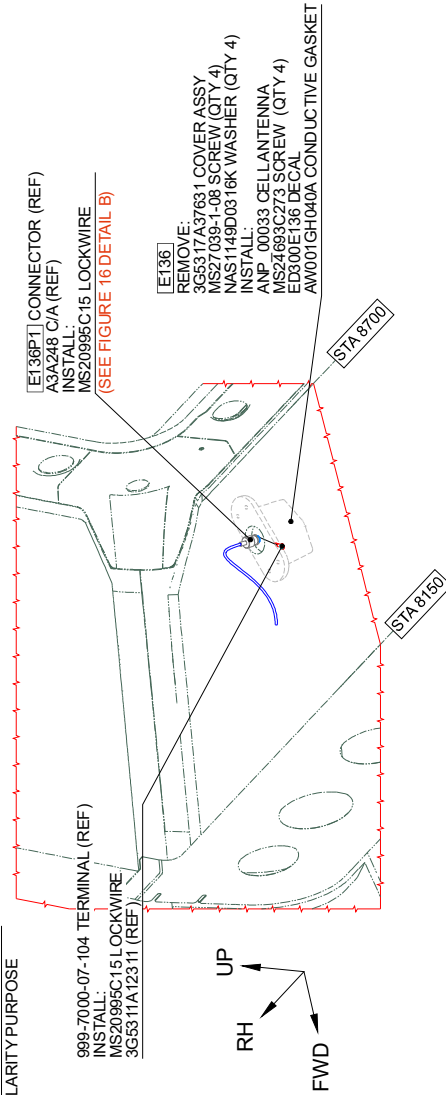


VIEW LOOKING TAIL ROTOR

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

VIEW LOOKING INTERSEAT CONSOLE LH SIDE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



VIEW LOOKING DOWN REAR FLOOR RH SIDE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 17

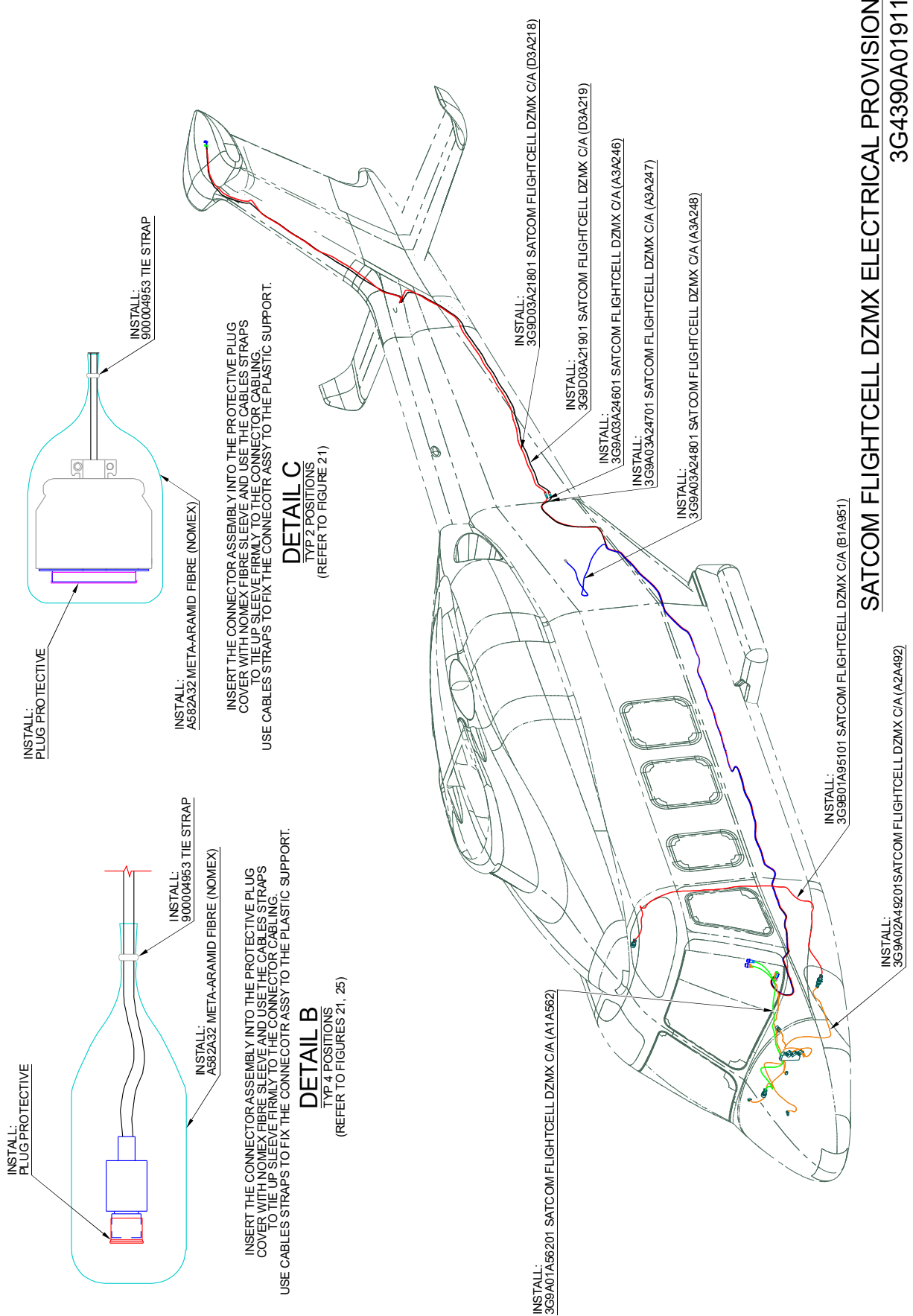


Figure 18

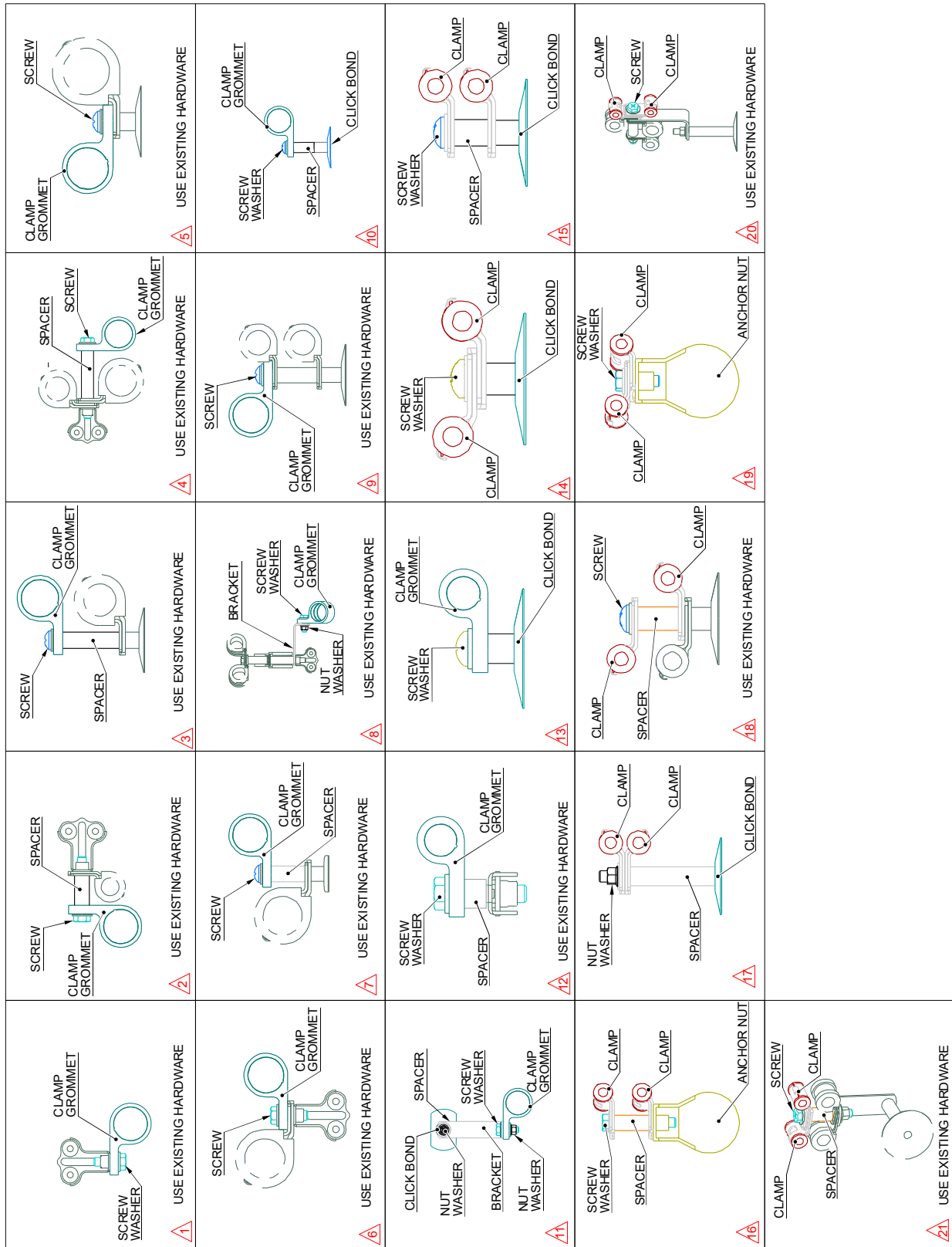
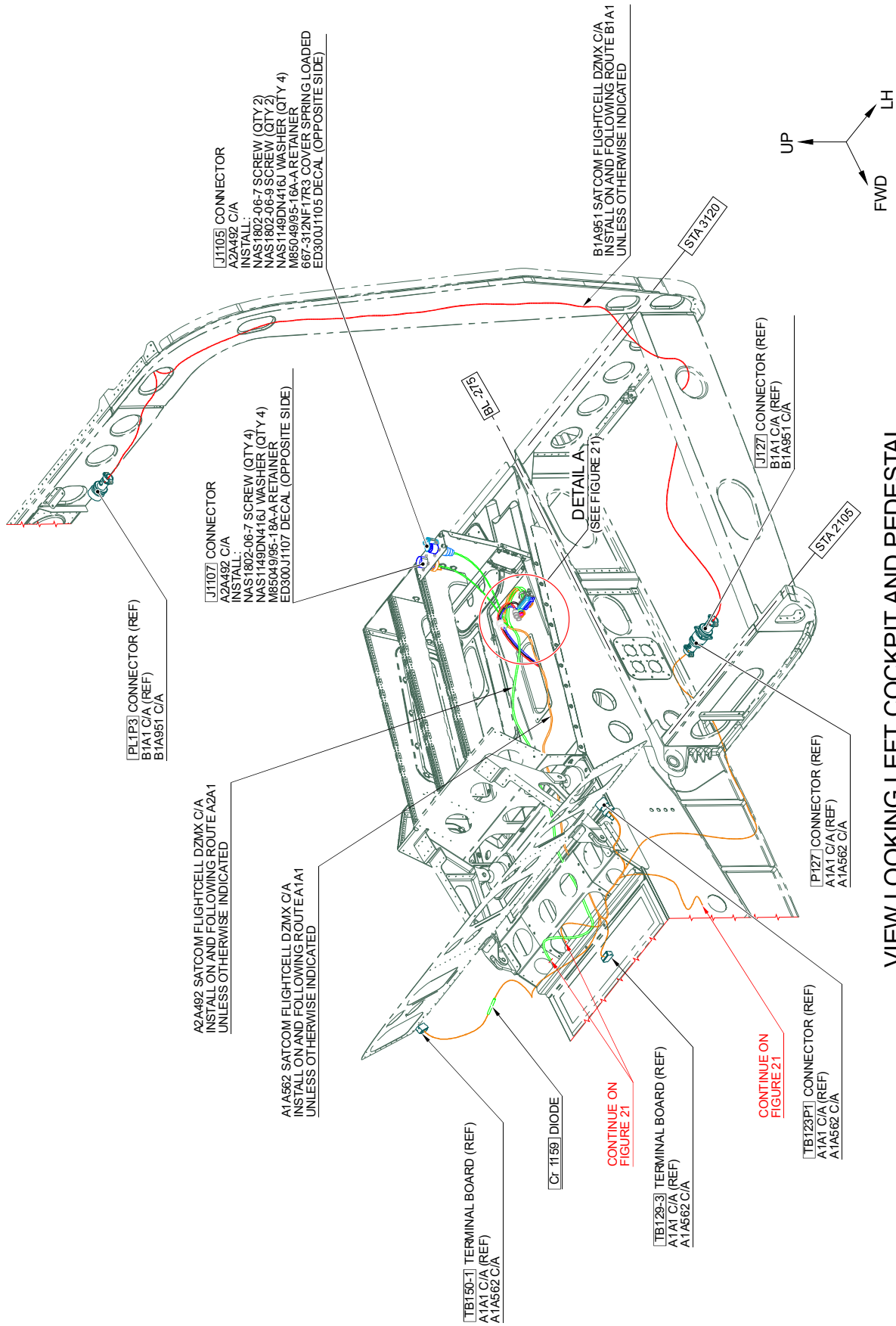
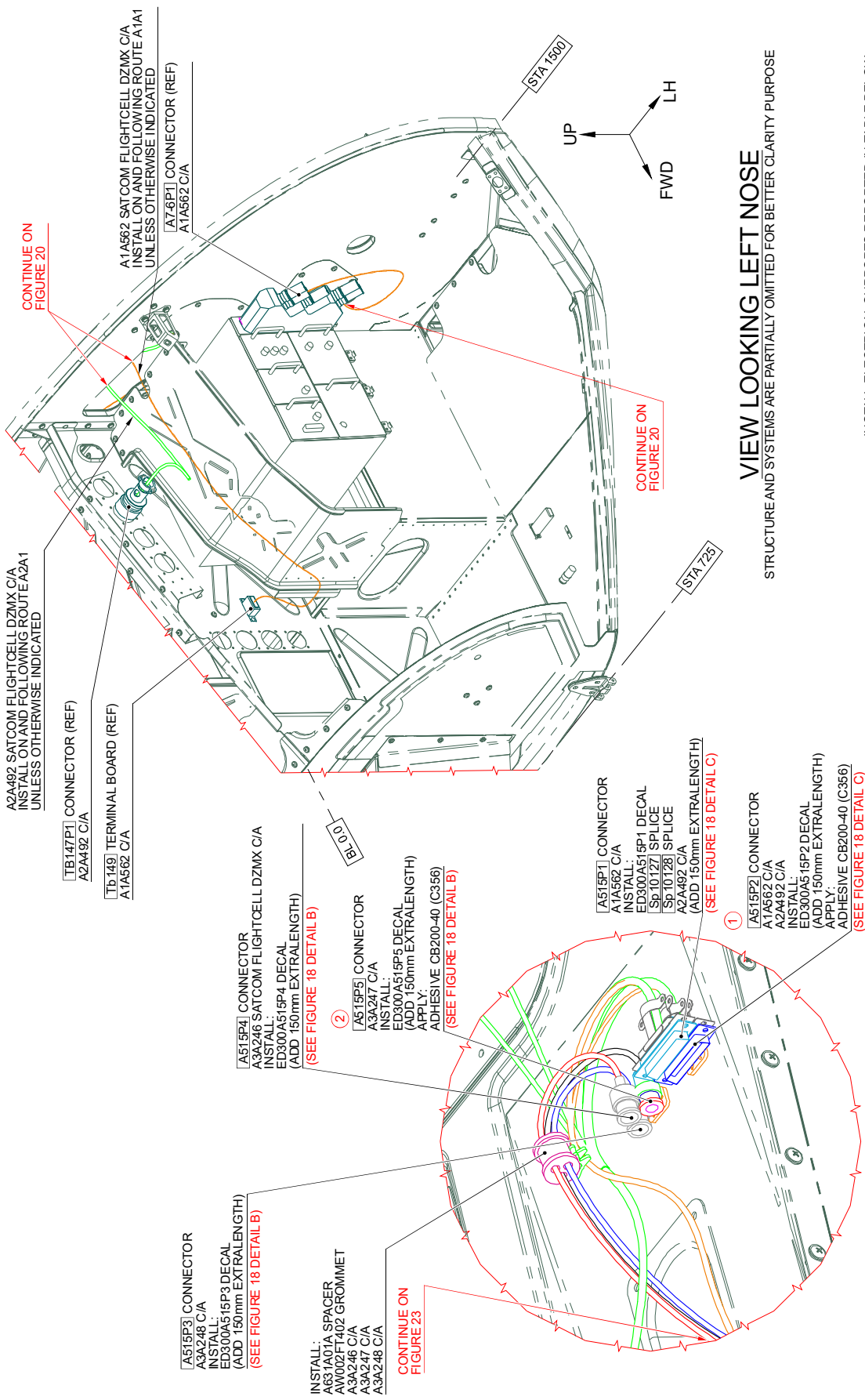


Figure 19



VIEW LOOKING LEFT COCKPIT AND PEDESTAL
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 20

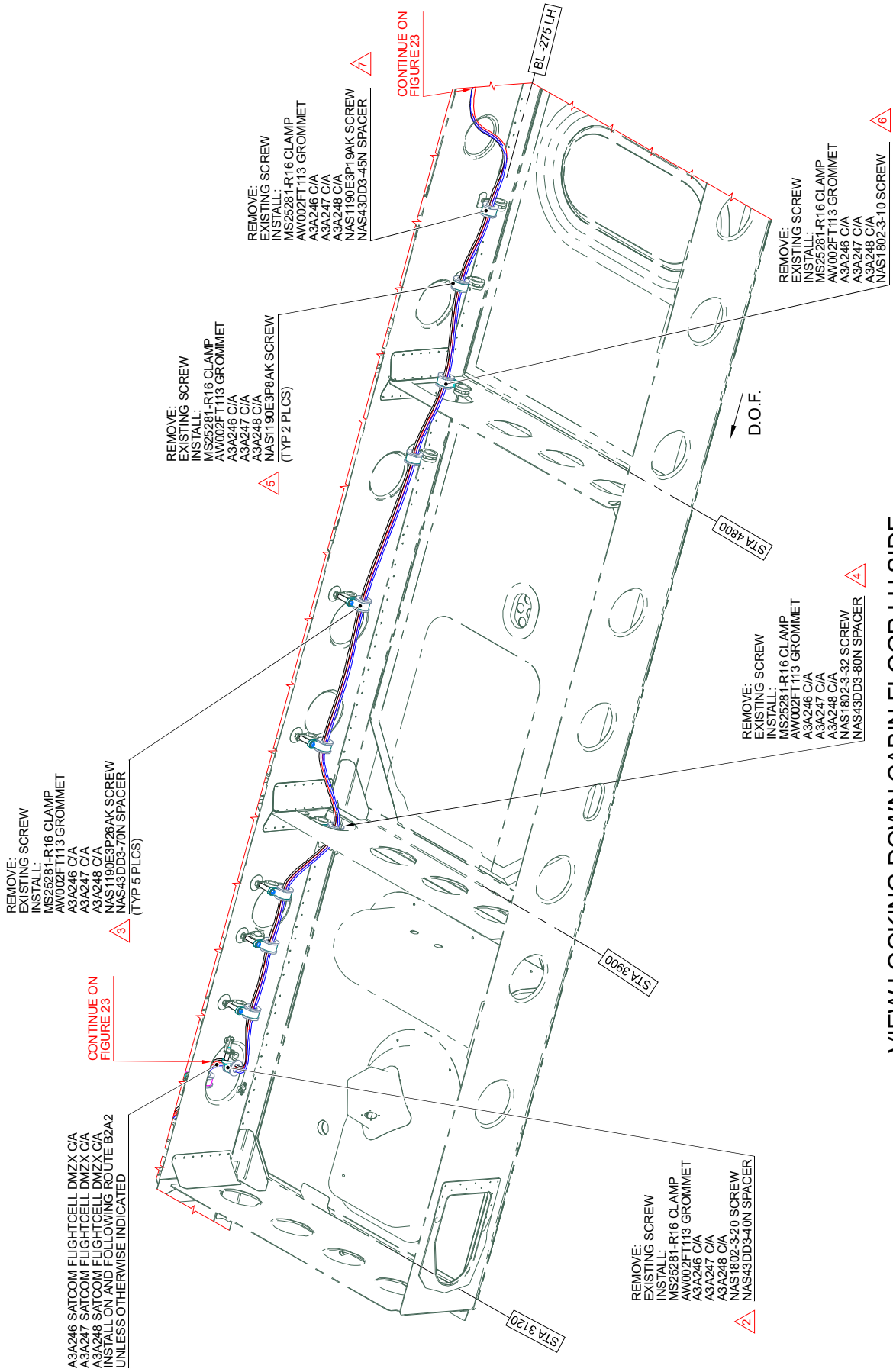


VIEW LOOKING LEFT NOSE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

INSTALL ELECTRICAL SUPPORTS REPORTED IN TABLE BELOW:

LOCATION NUMBER	P/N	STA	BL	WL	ORIENTATION
①	AW001CL001-N6	2679	-213	1174	90°
②	AW001CL001-N6	2679	-168	1174	90°

Figure 21



A3A246 SATCOM FLIGHTCELL DMZX C/A
A3A247 SATCOM FLIGHTCELL DMZX C/A
A3A248 SATCOM FLIGHTCELL DMZX C/A
INSTALL ON AND FOLLOWING ROUTE B2A2
UNLESS OTHERWISE INDICATED

VIEW LOOKING DOWN CABIN FLOOR LH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY/PURPOSE

Figure 22

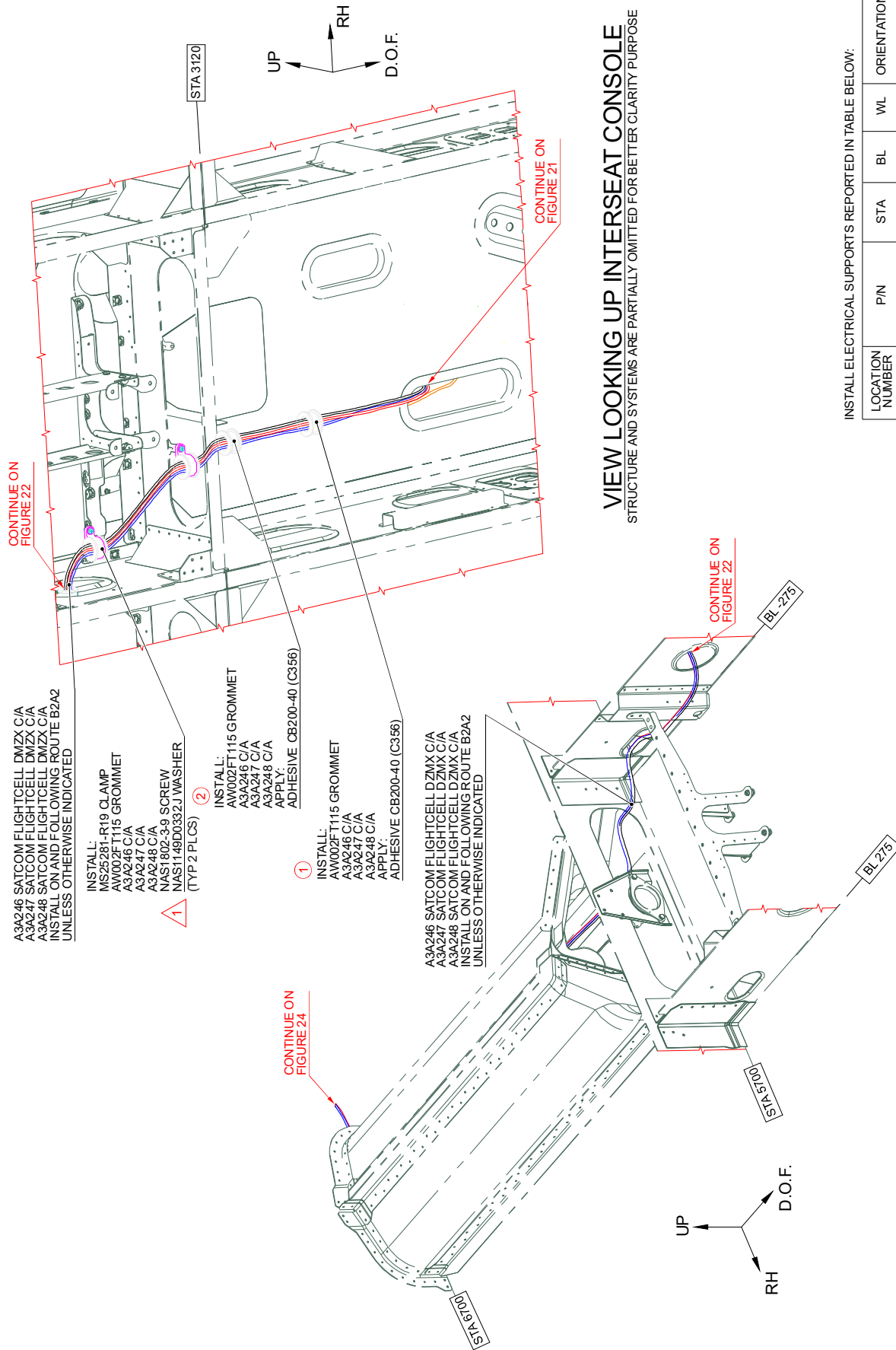


Figure 23

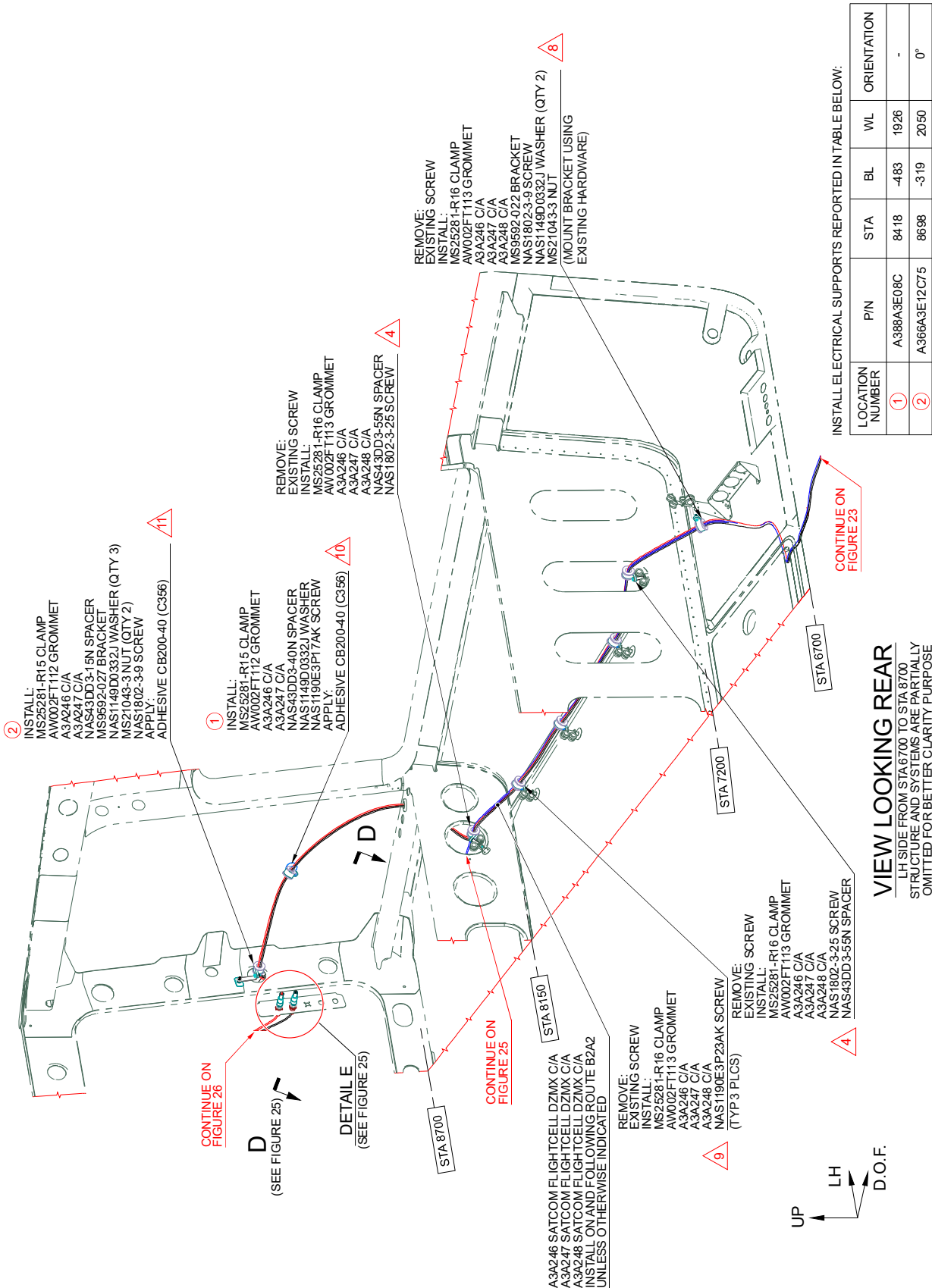


Figure 24

S.B. N°139-707 OPTIONAL
DATE: November 7, 2023
REVISION: /

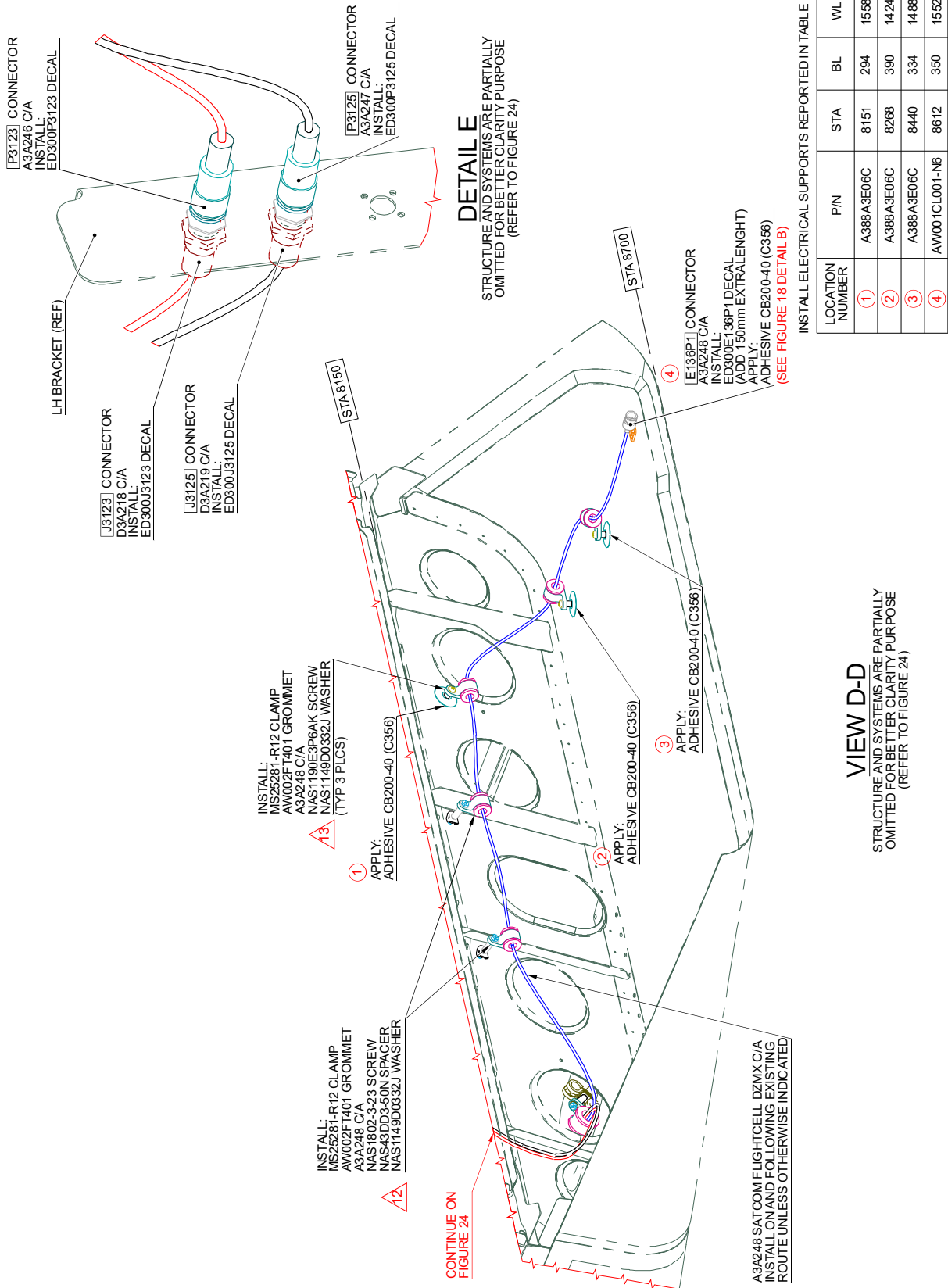


Figure 25

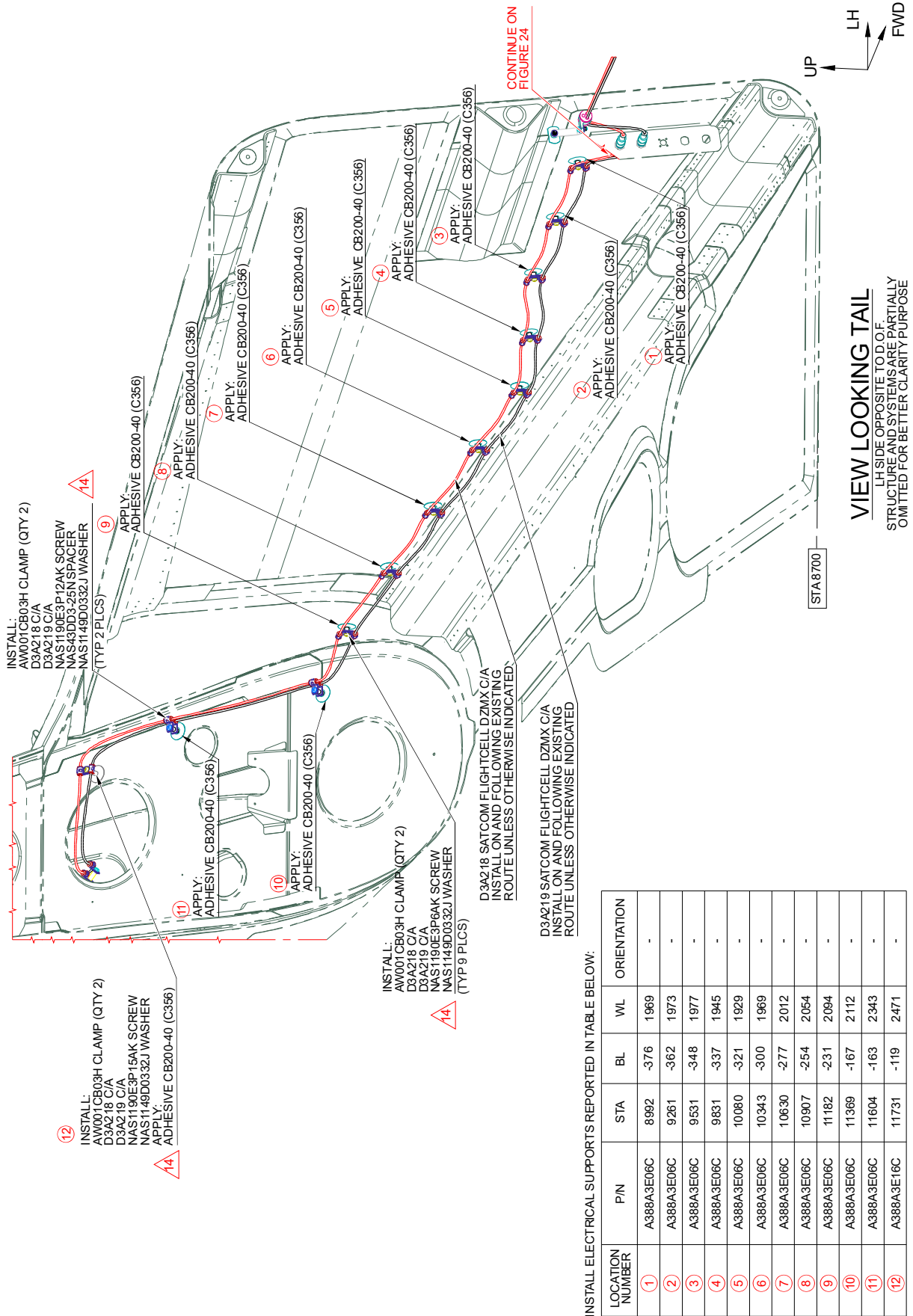


Figure 26

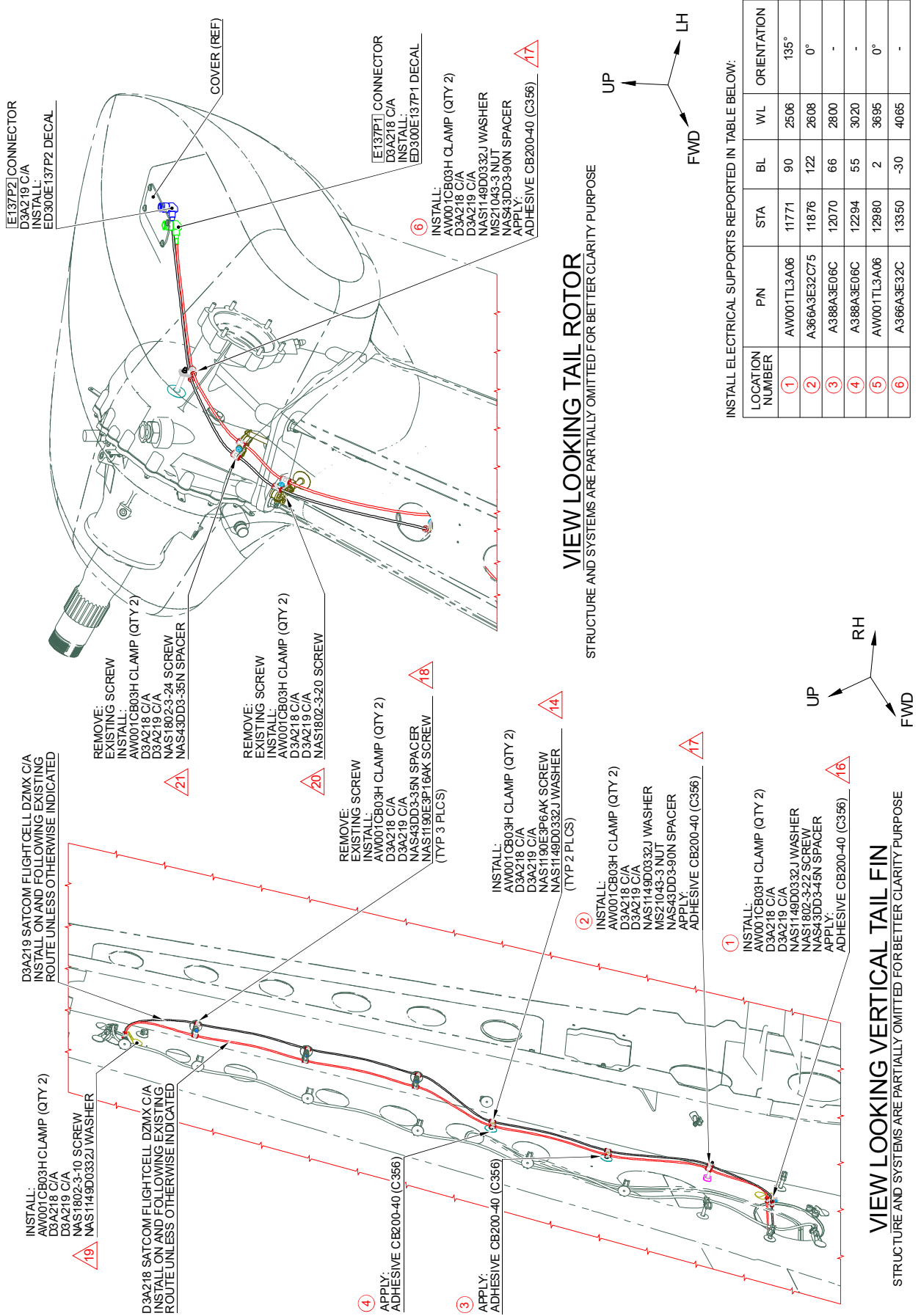
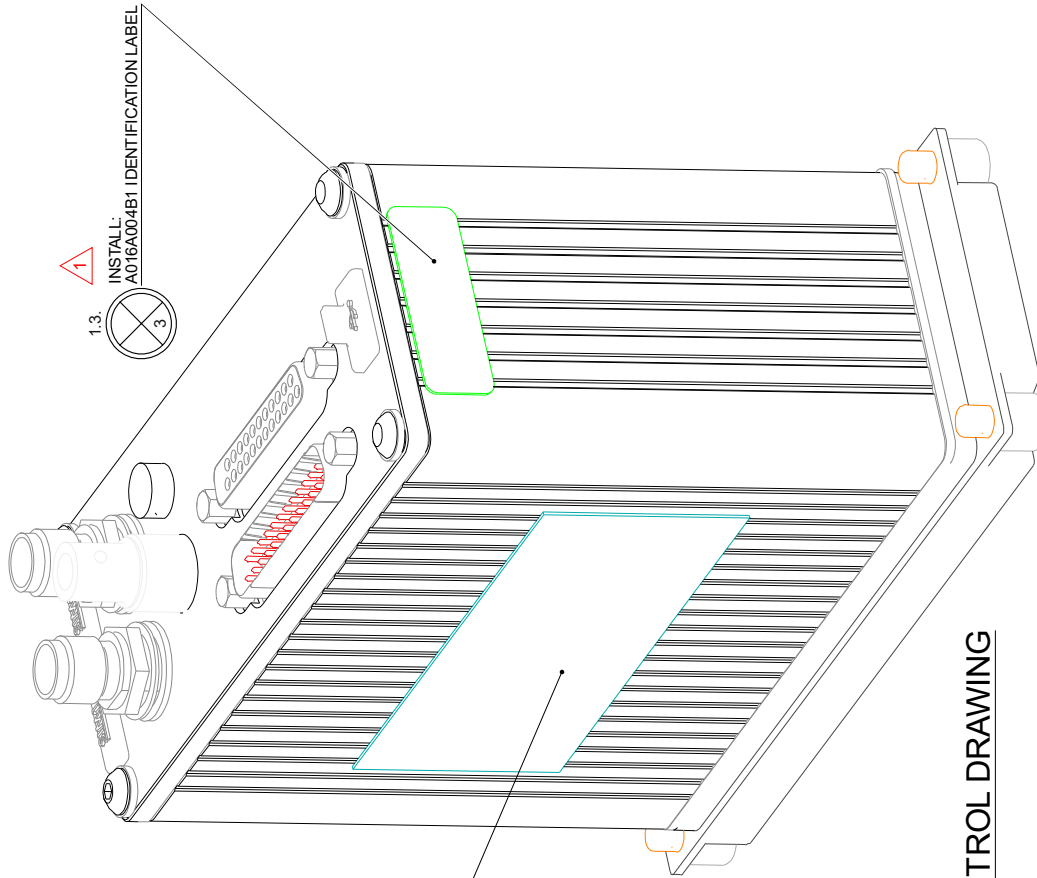


Figure 27

DESCRIPTION: FLIGHTCELL DZMX WITH SAT, EUROPE CELL AND WIFI/BT CAPABLE
 MANUFACTURER NAME: FLIGHTCELL INTERNATIONAL LTD.
 PART NUMBER: DZP_04-800-BEW
 REVISION NUMBER: IN ACCORDANCE WITH THE TECHNICAL NOTE 139G4390C002



1. DURING THE INCOMING INSPECTION CHECK THE INSTALLATION OF VENDOR IDENTIFICATION LABEL AS SHOWN BELOW:

Flightcell DZMx	
Flightcell International Ltd., Nelson, New Zealand	
S/N: XXXXXXXXXXXX	
Barcode Area	
Part No. DZP_04-800-BEW Rev No. 6.2	
Flightcell DZMx DZUS with Sat, Europe Cell & WiFi/BT Capable	
Cell 11ME1352255063691491 Sat1ME1 300425060912130	
FCC ID(s): Q639523, SQG-BT800, TFB-1004	
DO-160G En v.Cat [(A1)(B1)(F1)]XAB[U]G|HXXXXXZZAX|AC|XXXXXXXXXXXX Cage Code EBL17	

2. AFTER INCOMING INSPECTION APPLY LABEL A016A004B1 WITH Leonardo H.D. P/N 3G4390I00131 AS THE NEXT ASSEMBLY.
 3. VERIFY THAT THE FOLLOWING FIELDS ARE IN ACCORDANCE WITH THE TECHNICAL NOTE 139G4390C002:
 - MANUFACTURER P/N (or PIN)
 - CATALOG PIN

VENDOR CONTROL DRAWING

DZMX TX WITH EUROPE MODEM VCD
3G4390I00131

1 THE MANUFACTURER S/N TO BE INDELEBLY MARKED ON AW IDENTIFICATION PLATE IN SERIAL NUMBER AREA

Figure 28

SATCOM FLIGHTCELL STRUCTURAL PROVISION VARIANT
3G5310P32311

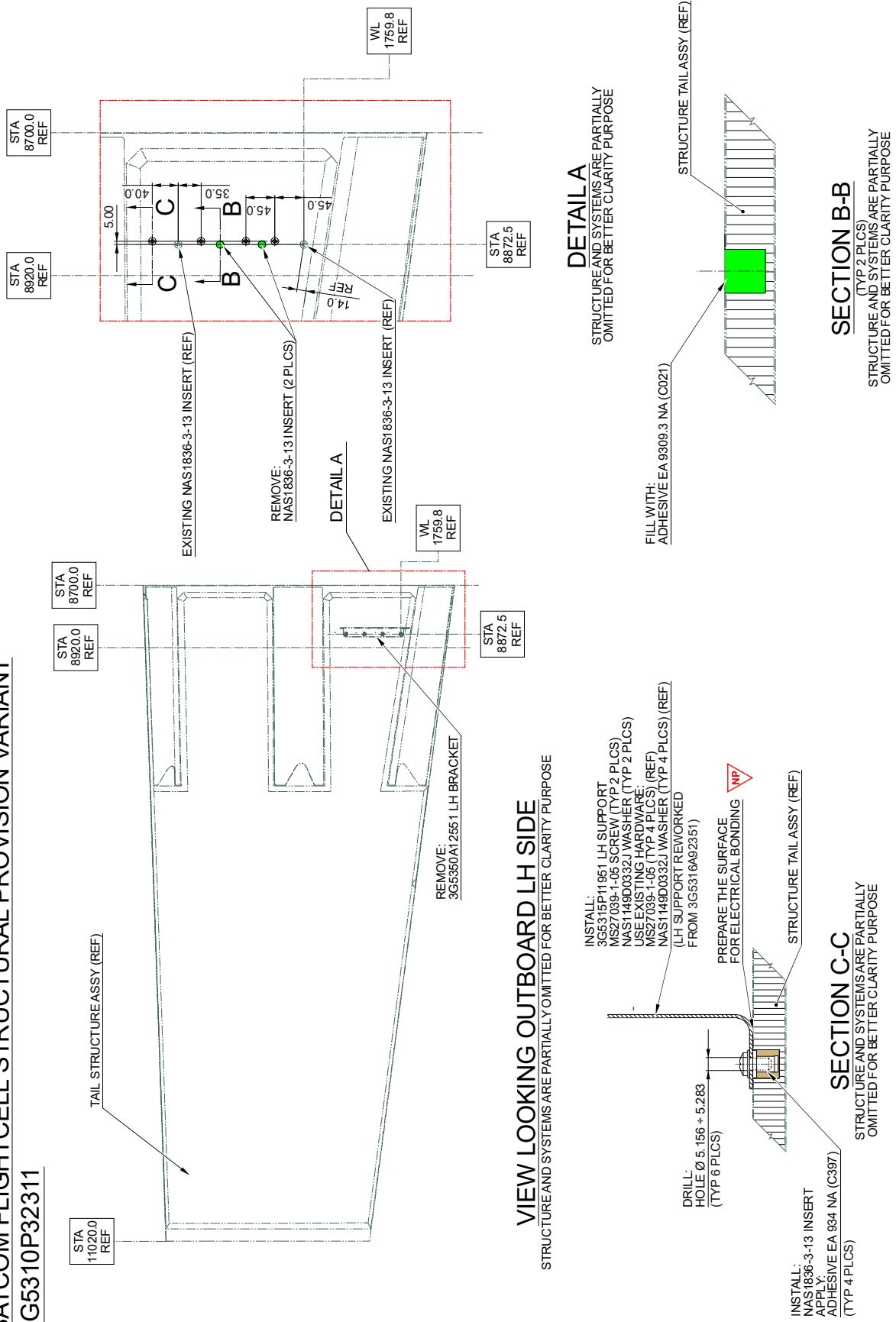


Figure 29

LH SUPPORT
3G5315P11951

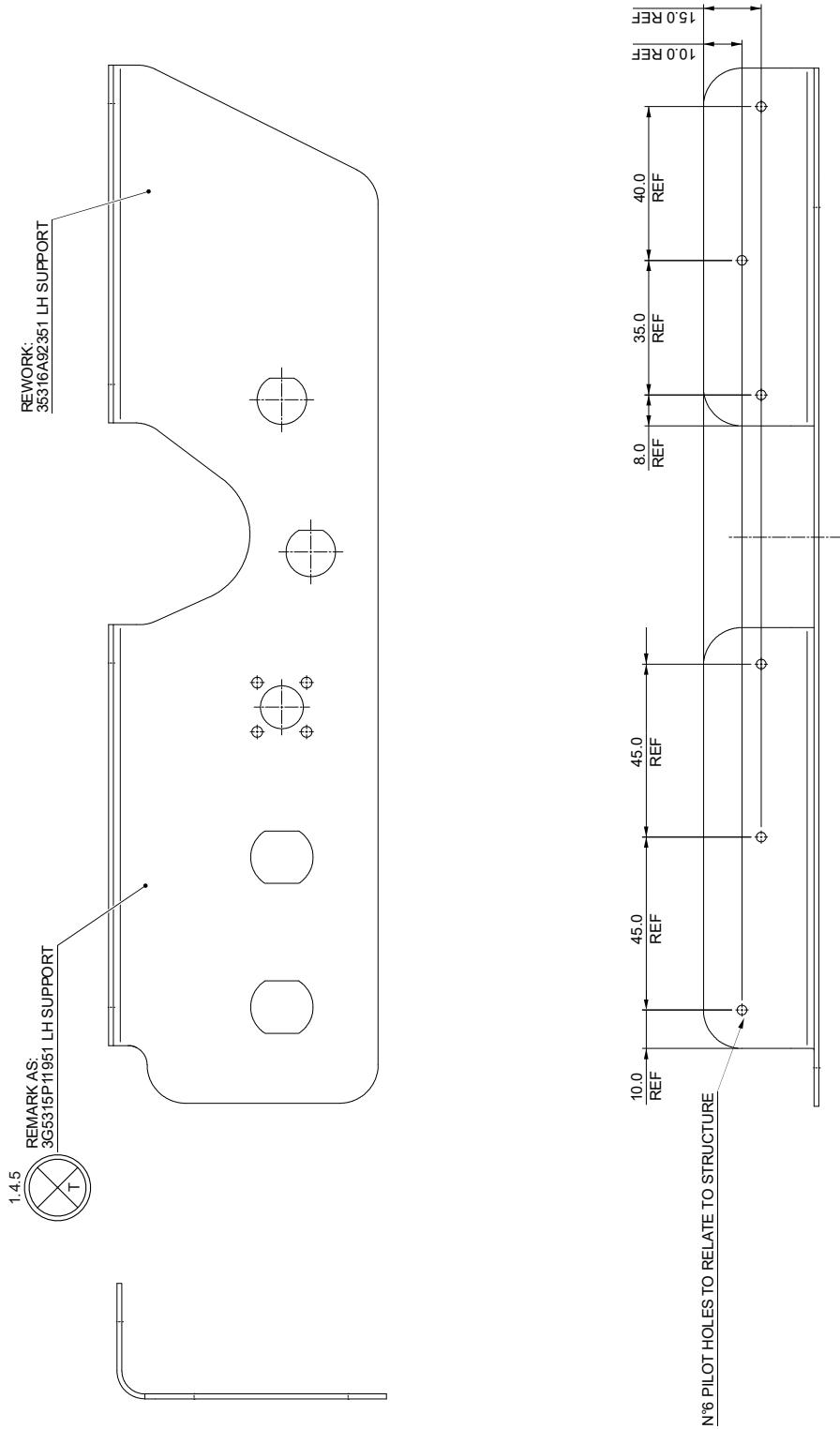
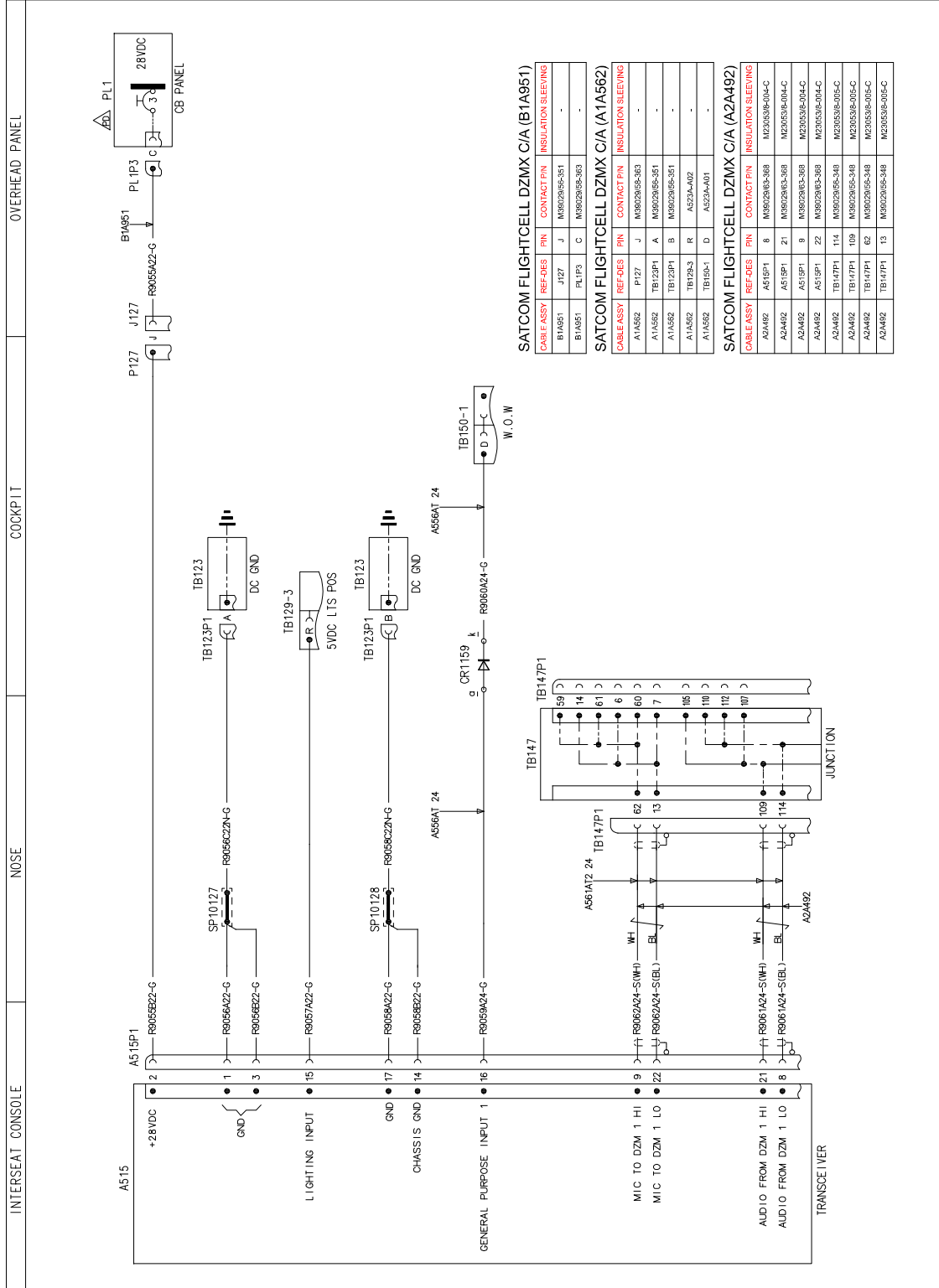


Figure 30

S.B. N°139-707 OPTIONAL
DATE: November 7, 2023
REVISION: /



DRAWING REF. KEY
 FEEDER BUSBARS
 322460W031**

SATCOM FLIGHTCELL DZMX C/A (B1A951)

CABLE ASSY	REF-DES	PIN	CONTACT PIN	INSULATION SLEEVING
B1A951	J127	J	M3802983-361	-
B1A951	PL1P3	C	M3802983-363	-

SATCOM FLIGHTCELL DZMX C/A (A1A562)

CABLE ASSY	REF-DES	PIN	CONTACT PIN	INSULATION SLEEVING
A1A562	P127	J	M3802983-363	-
A1A562	TB123P1	A	M3802983-361	-
A1A562	TB123P1	B	M3802983-361	-
A1A562	TB129-3	R	A523A-A02	-
A1A562	TB150-1	D	A523A-A01	-

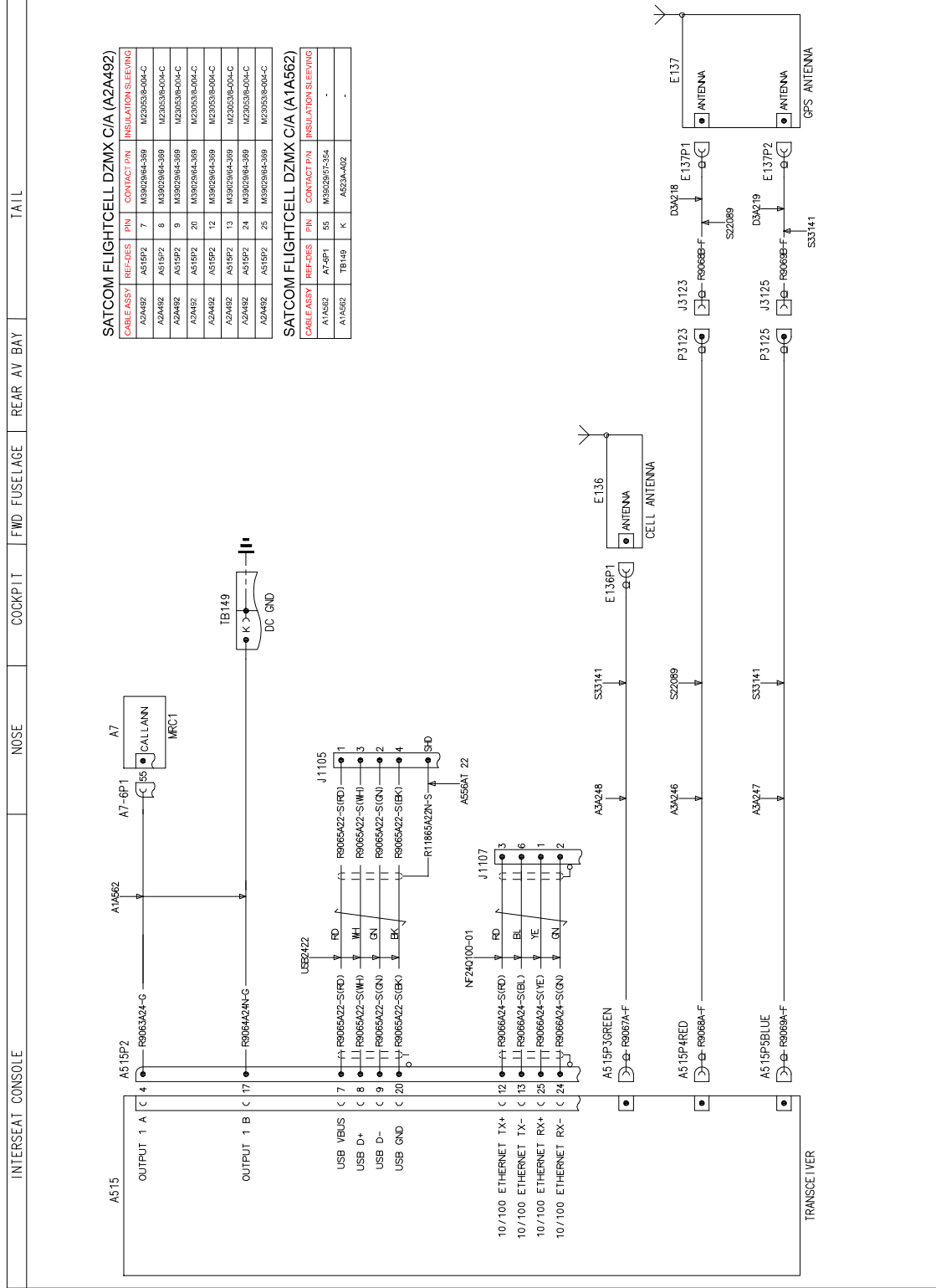
SATCOM FLIGHTCELL DZMX C/A (A2A492)

CABLE ASSY	REF-DES	PIN	CONTACT PIN	INSULATION SLEEVING
A2A492	A519P1	8	M3802983-368	M230538-0104-C
A2A492	A519P1	21	M3802983-368	M230538-0104-C
A2A492	A519P1	9	M3802983-368	M230538-0104-C
A2A492	A519P1	22	M3802983-368	M230538-0104-C
A2A492	TB147P1	114	M3802983-368	M230538-0105-C
A2A492	TB147P1	109	M3802983-368	M230538-0105-C
A2A492	TB147P1	62	M3802983-368	M230538-0105-C
A2A492	TB147P1	13	M3802983-368	M230538-0105-C

3G4390W02811
 WIRING DIAGRAM SATCOM FLIGHTCELL DZMX
 SHEET 1

FUNCTIONAL NOTES
 ALL CABLES ARE IN LOOM A1A562 UNLESS SPECIFIED
 ALL CABLES ARE OF TYPE A56A1 22 UNLESS SPECIFIED

Figure 31



FUNCTIONAL NOTES
ALL CABLES ARE IN LOW AS562Z UNLESS SPECIFIED
ALL CABLES ARE OF TYPE AS56A1 24 UNLESS SPECIFIED

Figure 32

Please send to the following address: LEONARDO S.p.A. CUSTOMER SUPPORT & SERVICES - ITALY PRODUCT SUPPORT ENGINEERING & LICENSES DEPT. Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA) - ITALY Tel.: +39 0331 225036 Fax: +39 0331 225988		SERVICE BULLETIN COMPLIANCE FORM		Date:
		Number:		
		Revision:		
Customer Name and Address:		Telephone:		
		Fax:		
		B.T. Compliance Date:		
Helicopter Model	S/N	Total Number	Total Hours	T.S.O.
Remarks:				
<p>Information:</p> <p>We request your cooperation in filling this form, in order to keep out statistical data relevant to aircraft configuration up-to-date. The form should be filled in all its parts and sent to the above address or you can communicate the application also via Technical Bulletin Application Communication Section placed in Leonardo AW Customer Portal - MyCommunications Area. We thank you beforehand for the information given.</p>				