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AgustaWestland AW189

MASTER MINIMUM EQUIPMENT LIST

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AW189
MASTER MINIMUM EQUIPMENT LIST (EASA)

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TITLE:

AW189 MASTER MINIMUM EQUIPMENT LIST (MMEL)

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REVISION HISTORY

ISSUE	CHANGE DESCRIPTION	ISSUE DATE	APPROVAL
A	First issue	15/05/2014	N\A
B **N. PAG. 63**	NEW ITEMs Item 18-1; Item 23-6, Item 23-7, Item 23-8, Item 23-9, Item 25-11; Item 25-12; Item 25-13; Item 25-14; Item 25-15; Item 26-2; Item 30-3a, -3b, Item 30-4, Item 30-5, Item 30-6, Item 30-7, Item 30-8a, -8b, -8c, Item 31-4, Item 33-10, Item 33-11, Item 33-12, Item 33-13, Item 33-14, Item 33-15, Item 34-8b, -8c, Item 34-13, Item 46-1, Item 52-7 Item 97-1 UPDATED ITEMs Item 21-4 (typo corrected) Item 23-3 (added GSM); Item 25-1 (wording aligned with AW169/CS-MMEL following customer request), Item 25-7 (“M” procedure became “O” procedure), Item 30-1 (“M” procedure became “O” procedure, wording aligned with AW169), Item 30-2 (dispatch conditions modified) Item 33-7 (wording aligned with AW169/CS-MMEL following customer request), Item 34-6 (“M” procedure became “O” procedure and dedicated procedure has been introduced for the new search (weather) radar), Item 34-8a (added words “no FIPS/LIPS”), Item 34-9 (correct number required for the dispatch from “–” to “0”)	12/06/2017	EASA approved with Approval Number 10062016 dated 03/07/2017

ISSUE	CHANGE DESCRIPTION	ISSUE DATE	APPROVAL
	Item 34-10 (“M” procedure became “O” procedure), Item 56-1, (modified to take into account the insertion of FIPS & LIPS) Item 71-1 (dispatch conditions modified) Modifications until chapter 2 are identified by change bars in the right hand margin		
C **N. PAG. 55**	<u>New Items</u> - Item 21-11. - Item 23-10. - Item 25-16. - Item 28-1. - Item 28-2. - Item 28-3. - Item 34-14. - Item 34-15. - Item 49-1. - Item 71-2. - Item 93-1. - Item 93-2. - Item 93-3. <u>Updated Items</u> - Item 21-3, 21-4 (ECS ACCB) M procedure revised. - Item 25-13 (Rescue Hoist Camera) revised to cover all the available hoist configurations (i.e. Single, Double, Single Foldable) and to define the relevant (O) procedure. - Items 30-4 (Main Rotor Non-critical zone Heating (“MR DEGR” CAS displayed)), 30-5 (Main Rotor critical zone Heating (“MR FAIL” CAS displayed)), 30-6 (Tail Rotor Heating - one pair (“TR DEGR” CAS displayed)), 30-7 (Tail Rotor Blades Heating function (“TR FAIL” CAS displayed)) dispatch condition revised to deactivate the item itself instead of the entire system it is part of, and procedure O converted to M consequently. - Item 30-6 (Tail Rotor Heating - one pair (“TR DEGR” CAS displayed)) and 30-7 (Tail Rotor Blades Heating function (“TR FAIL” CAS displayed)) rectification interval revised to “C” on cases where it was “B”. - Item 31-3 (CDS DU) dispatch condition and procedures revised to address allowed combinations of inoperative DUs. - Dispatch condition of Item 34-4 updated according to introduction of Item 34-14 (GBAS). - Preamble updated according to up-to-date standard as per CS-MMEL	04/11/2020	EASA approved with Approval Number 10075101 dated 07/12/2020

ISSUE	CHANGE DESCRIPTION	ISSUE DATE	APPROVAL
D **N. PAG. 56**	<u>New Items</u> - Item 71-3a.	12/02/2021	EASA approved with Approval Number 10075765 dated 03/03/2021
E **N. PAG. 57**	<u>Updated Items</u> - Item 18-1 to add "***" mark. - Item 71-3a to specify "GE" engine manufacturer. <u>New Items</u> - Item 71-3b added as "Reserved" for future CT7-2E1 analysis evolution. - Item 71-3c.	12/10/2021	EASA approved with Approval Number 10078043 dated 22/12/2021

European Union Aviation Safety Agency

MASTER MINIMUM EQUIPMENT LIST

AW189

This Master Minimum Equipment List (MMEL) is originally approved by the European Union Aviation Safety Agency (EASA) with the Type Certificate (EASA TC No. R. 510) as part of the Operational Suitability Data (OSD) as per Regulation (EU) 748/2012 as amended by Regulation (EU) No. 69/2014.
Subsequent revisions approvals are reported in the Log of Revision.

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PREAMBLE

The purpose of this document is to provide a MMEL for the AW189 H\C.

Introduction

The following is applicable for operators under European air operations regulations (Regulation Air Operations). Paragraph 1.c.2 of Annex I to Article 5 (essential requirements for airworthiness) of Regulation (EC) No 216/2008 (the 'Basic Regulation') requires that all equipment installed on an aircraft required for type certification or by operating rules shall be operative. However, paragraph 2.a.3 of Annex IV to Article 8 (essential requirements for air operations) of the Basic Regulation also allows the use of a Minimum Equipment List (MEL) where compliance with certain equipment requirements is not necessary in the interests of safety under all operating conditions. Experience has shown that with the various levels of redundancy designed into aircraft, operation of every system or installed items may not be necessary when the remaining operative equipment can provide an acceptable level of safety.

Purpose and Limitations

This Master Minimum Equipment List (MMEL) is developed by the applicant and holders of Type Certificate and approved by the European Aviation Safety Agency to improve aircraft use and thereby providing more convenient and economic air transportation for the public. This MMEL includes those items related to airworthiness, air operations, airspace requirements and other items the Agency finds may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations; it does not contain obviously required items such as main rotor, tail rotor and transmission. In order to maintain an acceptable level of safety, the MMEL establishes limitations on the duration of and conditions for operation with inoperative items. Unless specifically allowed by this MMEL, an inoperative item may not be removed from the aircraft.

This MMEL includes items which have been based only on European operational requirements using associated guidance developed by the Agency. These items could be adapted to the applicable operational requirements when these differ from the European operational requirements, if permitted by the State of the Operator, for the approval of the MEL. In this case the MEL content is still considered to be in conformity with the content of this MMEL.

These items are summarised in the table below:

ITEM	
33-11	Anti-collision Light System

Utilization

The MMEL is the basis for the development of individual operator's MEL which take into consideration the operator's particular aircraft equipment configuration and operational conditions. An operator's MEL may differ in format from the MMEL, but shall not be less restrictive than the MMEL. The individual operator's MEL, when approved, allows operation of the aircraft with inoperative items of equipment for a certain period of time until rectification can be accomplished. The MEL cannot deviate from Airworthiness Directives, or any other additional mandatory requirements. It is important to remember that all items related to the airworthiness and the operational regulations of the aircraft not listed on the MMEL shall be operative. Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures and other restrictions as prescribed in this MMEL shall be specified in the MEL to ensure that an acceptable level of safety is maintained. It is important that rectifications be accomplished at the earliest opportunity.

When an item is discovered to be inoperative, it is reported by making an entry in the continuing airworthiness record system or the operator's technical log, as applicable. Following sufficient fault identification, the item is then either rectified or deferred following the MEL or other approved means of compliance acceptable to the competent authority and the Agency prior to further operation. MEL conditions and limitations do not relieve the operator from determining that the aircraft is in a condition for safe operation with items inoperative. Prior to operation with any item inoperative acceptance by the crew is required in accordance with the continuing airworthiness management procedures.

Operators shall establish a controlled and sound rectification programme including the parts, personnel, facilities, procedures and schedules to ensure timely rectification. Operators should include guidance in the MEL to deal with any failures which occur between the commencement of the flight and the start of the take-off. When developing the MEL, compliance with the stated intent of the preamble, definitions and the conditions and limitations specified in this MMEL is required.

Multiple Inoperative Items

Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. The exposure to additional failures during continued operation with inoperative items shall also be considered. Wherever possible, account has been taken in this MMEL of multiple inoperative items. However, it is unlikely that all possible combinations of this nature have been accounted for. Therefore, when operating with multiple inoperative items, the inter-relationships between those items and the effect on aircraft operation and crew workload shall be considered.

Rectification Interval Extensions

This MMEL has been evaluated taking into account a one-time extension of the rectification intervals of category B, C and D.

DEFINITIONS AND EXPLANATORY NOTES

1. "Alternate procedures are established and used" or similar statement means that alternate procedures (if applicable), to the affected process, must be drawn up by the operator as part of the MEL approval process, so that they have been established before the MEL document has been approved. Such alternate procedures are normally included in the associated operations (O) procedure.
2. "Any in excess of those required by regulations" means that the listed item is required by applicable legislation (e.g. Part OPS, Single European Sky legislation or the applicable airspace requirements) must be operative and only excess items may be inoperative. When the item is not required, it may be inoperative for the time specified by its rectification interval category. Whenever this condition is used in the MMEL, the applicable regulations for the intended flight routes and the resulting dispatch restrictions need to be clarified at the operator's MEL level.
3. "As required by (operational) regulations" means that the listed item of equipment is subject to certain provisions (restrictive or permissive) expressed in the applicable legislation (e.g. regulation Air Operations, Single European Sky legislation or the applicable airspace requirements). When the equipment is not required, it may be inoperative for the time specified by its rectification interval category.
4. "Calendar Day" means a 24-hour period from midnight to midnight based on either UTC or local time, as selected by the operator. All calendar days are considered to run consecutively.
5. "Commencement of flight" is the point when an aircraft begins to move under its own power for the purpose of preparing for take-off.

6. “Considered Inoperative” as used in the dispatch conditions means that item must be treated for dispatch, taxiing and flight purposes as though it were inoperative. The item shall not be used or operated until the original deferred item is repaired. Additional actions include: documenting the item on the dispatch release (if applicable), placarding, and complying with all remarks, exceptions, and related MMEL provisions, including any (M) and (O) procedures and observing the rectification interval.
7. “Daylight” means the period between the beginning of morning civil twilight and the end of evening civil twilight relevant to the local aeronautical airspace; or such other period, as may be prescribed by the appropriate authority.
8. “Day of discovery” means the calendar day that a malfunction was recorded in the aircraft maintenance record/log book.
9. “Deactivated” means when not all equipment interfaces (e.g. electrical, hydraulic, pneumatic, optical, mechanical) are removed and the equipment is set to a NON OPERATIVE status (i.e. it does not perform its nominal function and not any other), by the available settings (i.e. command input set to OFF or similar), although the equipment itself is still in place and held in its standard position.
10. "Deleted" in the remarks column after a sequence item indicates that the item was previously listed but is now required to be operative if installed in the aircraft.
11. “Extended Overwater Flight”: Refer to CAT.IDE.H.300.
12. “Ferry Flight” refers to delivery flights for the purpose of returning an aircraft to base, moving an aircraft from one base of operations to another or moving an aircraft to or from a maintenance facility for repairs, overhaul or other work. Authorized flight crew is the minimum flight crew necessary to conduct the flight. No passengers are authorized on board.
13. “Flight”, for the purposes of this MMEL, means the period of time between the moment when the rotor of the helicopter starts to turn for the purpose of taking off, until the moment when the rotor is stopped after the helicopter finally comes to rest at the end of the flight.
14. “Flight Day” means a 24-hour period from midnight to midnight based on either UCT or local time, as selected by the operator, during which at least one flight is initiated for the affected aircraft.
15. "Icing Conditions" means an atmospheric environment that may cause ice to form on the aircraft (structural) or in the engine(s) (induction).
16. “If installed” means that the item is either optional or is not required to be installed on all aircraft covered by the MMEL.
17. “Inoperative” means that the item does not accomplish its intended purpose or is not consistently functioning within its approved operating limits or tolerances.
18. “Intended flight route” corresponds to any point on the route including diversions to reach alternate aerodromes required to be selected by the operational rules.
19. “Item” means component, instrument, equipment, system or function.
20. “(M)” indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally these procedures are accomplished by maintenance personnel, however, other personnel may be qualified and authorised to perform certain functions. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the Operator’s Manual or MEL.

    Note: The (M) symbols are required in the operator’s MEL.
21. “Master Minimum Equipment List” means a document approved by the Agency that establishes the aircraft equipment allowed to be inoperative under conditions specified therein for a specific type of aircraft.
22. “Minimum Equipment List” means a document established as specified under 8.a.3. of Annex IV to Regulation (EC) No 216/2008 and approved by the competent authority, in accordance with ORO.MLR.105, that authorises an operator to dispatch an aircraft with aircraft equipment inoperative as per CAT.IDE.A/H.105 or NCC.IDE.A/H.105 under the conditions specified therein.

23. “Notes” provide additional information for flight crew or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the dispatch conditions.
24. “Number Installed” is the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MMEL. Should the number be a variable (e.g. passenger cabin items), or not applicable, a number is not required; a “-” is then inserted.

    Note: Where the MMEL shows a variable number installed, the MEL should reflect the actual number installed, as far as practical.
25. “Number required for dispatch” is the minimum number (quantity) of items required for operation provided the conditions specified are met. Should the number be a variable (e.g. passenger cabin items) or not applicable, a number is not required; a “-” is then inserted.

    Note: Where the MMEL shows a variable number required for dispatch, the MEL should reflect the actual number required for dispatch, as far as practical, or an alternate means of configuration control approved by the competent authority.
26. “(O)” indicates a requirement for a specific operational procedure which must be accomplished in planning for and/or operating with the listed item inoperative. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorised to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator’s manual or MEL.

    Note: The (O) symbols are required in the operator’s MEL.
27. “Placarding”: Each inoperative item must be placarded, as applicable, to inform and remind the crew members and maintenance personnel of the item’s condition.

    Note: To the extent practical, placards should be located adjacent to the control or indicator for the item affected; however, unless otherwise specified, placard wording and location will be determined by the operator.
28. “Rectification intervals”: Inoperative items or components, deferred in accordance with the MEL, must be rectified at or prior to the rectification intervals established by the following letter designators:

    - Category A: No standard interval is specified. However, items in this category shall be rectified in accordance with the conditions stated in the MMEL.
        - (i) Where a time period is specified in calendar days or flight days, the interval excludes the day of discovery.
        - (ii) Where a time period is specified other than in calendar days or flight days, it shall start at the point when the defect is deferred in accordance with the operator’s approved MEL.
    - Category B: Items in this category shall be rectified within three (3) calendar days, excluding the day of discovery.
    - Category C: Items in this category shall be rectified within ten (10) calendar days, excluding the day of discovery.
    - Category D: Items in this category shall be rectified within one hundred and twenty (120) calendar days, excluding the day of discovery.
29. “Remarks or Exceptions” include statements either prohibiting or allowing operation with a specific number of items inoperative, provisos (conditions and limitations), notes, (M) and/or (O) symbols, as appropriate for such operation.

30. “Rotorcraft Flight Manual” (RFM) means the document required for type certification and approved by the Agency. The RFM for the specific aircraft is listed on the applicable Type Certificate Data Sheet.
31. "Secured" means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of securing is indicated in the guidelines for (O) and (M) procedures section as applicable.
32. “Series of fights” indicates the minimum number of flights necessary to fly to the nearest repairing station.
33. "Visual Flight Rules" (VFR) and “Instrument Flight Rules” (IFR) operations are defined in Regulation (EU) No 923/2012 of 26/09/2012 and Regulation (EU) 2016/1185 of 20/07/2016. Reference to any VFR operation in the “Remarks or Exceptions” Column precludes a pilot from filing an IFR flight plan.
34. "Visual Meteorological Conditions" (VMC) are meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than the minima specified in ICAO Annex II “Rules of the Air”. This does not preclude operating under Instrument Flight Rules.
35. “Visible Moisture” means an atmospheric environment containing water in any form that can be seen in natural or artificial light; for example, clouds, fog, mist, rain, sleet, hail, or snow.
36. “-” in the Number Installed Column (respectively Number Required for Dispatch Column) indicates a variable number (quantity) of the item installed (respectively item required) or not applicable.

    Note: Where the MMEL shows a variable number installed, the MEL should reflect the actual number installed, as far as practical.
37. “***” symbol in Column 1 indicates an item which is not required by regulation but which may have been installed on some models of aircraft covered by this MMEL. This item may be included on the operator's MEL after the approving office has determined that the item has been installed on one or more of the operator's aircraft. The symbol, however, shall not be carried forward into the operator's MEL. It should be noted that neither this policy nor the use of this symbol provide authority to install or remove an item from an aircraft.

SYSTEMS INVOLVED

ATA Code	System	Pages	MMEL Revision
18	Vibration and Noise Analysis and Attenuation	1	E
21	Air Conditioning	1	C
23	Communications	1	C
25	Equipment\Furnishings	3	C
26	Fire Protection	1	B
28	Fuel	1	C
30	Ice and Rain Protection	4	C
31	Indicating\Recording	2	C
32	Landing Gear	1	A
33	Lights	2	C
34	Navigation	2	C
46	Systems Integration and Display	1	B
49	Airborne Auxiliary Power	1	C
52	Doors	1	B
56	Windows	1	B
63	Main Rotor Drive	1	A
71	Powerplant	1	E
93	Surveillance	1	C
95	Crew Escape and Safety	1	A
97	Image Recording	1	B

ACRONYMS

ACCB	Air Conditioning Control Box
ADELT	Automatically Deployable ELT
ADF	Automatic Direction Finder
ADS	Air Data System
AFCS	Automatic Flight Control System
AMP	Aircraft Maintenance Publications
ANSP	Air Navigation Service Provider
APU	Auxiliary Power Unit
ATA	Air Transport Association
AVCS	Active Vibration Control System
CB	Circuit Breaker
CAS	Crew Alerting System
CDS	Cockpit Display System
CVR	Cockpit Voice Recorder
DEGR	Degraded
DME	Distance Measuring Equipment
DU	Display Unit
EAFR	Enhanced Airborne Flight Recorder
EASA	European Aviation Safety Agency
ECDU	Electrical Control and Display Unit
ECS	Environmental Control System
ELT	Emergency Locator Transmitter
FDR	Flight Data Recorder
FIPS	Full Ice Protection System
FLIR	Forward Looking InfraRed
FM	Frequency Modulation
FMS	Flight Management System
FOD	Foreign Object Damage
GBAS	Ground Based Augmentation System
GE	General Electric
GLONASS	GLObal NAvigation Satellite System
GPS	Global Positioning System
GSM	Global System for Mobile communication
H\C	Helicopter
HEC	Human External Cargo
HEELS	Helicopter Emergency Egress Lighting System
HF	High Frequency

HO	Hoist Operator
HTAWS	Helicopter Terrance Avoidance Warning System
HUMS	Health Usage and Monitoring System
IAS	Indicated Air Speed
IBF	Inlet Barrier Filter
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IPS	Ice Protection System
JAR	Joint Aviation Requirements
KIAS	Knots Indicated Air Speed
L\G	Landing Gear
LIPS	Limited Ice Protection System
LH	Left Hand
LH	Leonardo Helicopters
MB	Marker Beacon
MCDU	Multi-Function Control Display Unit
MEL	Minimum Equipment List
MFD	Multifunction Flight Display
MMEL	Master Minimum Equipment List
MR	Main Rotor
MRLD	MR Lower Distributor
N\A	Not Applicable
NDC	Notification of Design Change
OAT	Outside Air Temperature
OSD	Operational Suitability Data
PAC	Power Assurance Check
PI	Power Index
P\N	Part Number
RCP	Reversion Control Panel
RFM	Rotorcraft Flight Manual (it may also refer to Optional Equipment Supplement)
RH	Right Hand
SHE	SAFRAN Helicopter Engines
SLD	Supercooled Large Droplets
SOV	Shut-Off Valve
S.p.a.	Società per Azioni
TCAS	Traffic Collision Avoidance System
TR	Tail Rotor

TRD	Tail Rotor Distributor
UHF	Ultra-High Frequency
UTC	Universal Coordinated Time
VFR	Visual Flight Rules
VHF	Very High Frequency
VMC	Visual Meteorological Conditions
VOR	VHF Omnidirectional Range
WSHLD	Windshield

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
18	**VIBRATION AND NOISE ANALYSIS AND ATTENUATION**				
-1 ***	Active Vibration Control System (AVCS)	**D**	**1**	**0**	**(O)(M)** May be inoperative provided that the system is deactivated and secured

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
		Rectification Interval	Number Installed	Number required for dispatch	
21	**AIR CONDITIONING**				
- 1	Cockpit Ventilation Fan	**C**	**2**	**0**	**(M)** May be inoperative provided one or both crew storm windows are operational
- 2	Cabin Ventilation Fan	**C**	**2**	**0**	**(M)** May be inoperative
- 3 ***	Cockpit Evaporator Assembly	**D**	**2**	**0**	**(M)** The cockpit air conditioning may be inoperative provided the affected air conditioning is deactivated and secured.
- 4 ***	Cabin Evaporator Assembly	**D**	**1**	**0**	**(M)** The cabin air conditioning may be inoperative provided the affected air conditioning is deactivated and secured.
- 5	Heater Bleed Air Shut-off Valve (APU)	**C**	**1**	**0**	**(O)** May be inoperative in the failed closed position if heating during start phase is not required
- 6	Heater Bleed Air Shut-off Valve (Engines)	**C**	**2**	**0**	**(M)** May be inoperative in the failed closed position if heating is not required.
- 7	Temperature Control Valve	**C**	**1**	**0**	**(O)** May be inoperative provided APU and Engines Bleed shut-off valves are kept closed and the heating is not required.
- 8	Heating Control Box	**C**	**1**	**0**	**(O)** May be inoperative provided: a) APU and Engines Bleed shut-off valves are kept closed and the heating is not required, OR b) heating system is only operated in MANUAL mode, selected from the ECS control panel.
- 9	Heater Overheat Thermal Switch	**C**	**1**	**0**	**(O)** May be inoperative provided APU and Engines Bleed shut-off valves are kept closed and the heating is not required.
- 10	Duct Temperature Sensor	**C**	**1**	**0**	**(O)** May be inoperative provided heating system is only operated in “MANUAL” mode
-11 ***	Air Conditioning System	**D**	**1**	**0**	**(O)(M)** May be inoperative provided that, according to system configuration, either any failed section of the Air Conditioner (cabin, cockpit) or the Air Conditioning System as a whole is not selected and is deactivated and secured. Note: In any case, forced ventilation is still available (via VENT FAN switches) and, with Control Panel P\N 8G2150V02551 only, air conditioning could be available in either forward or aft zone according to the displayed CAS message

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(1)	System & Sequence Numbers Item	(2)	Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
23	**COMMUNICATIONS**					
- 1	Cockpit Audio Control Panel (ACP53-002)	**C**	**2**	**1**		One may be inoperative for VFR flight, when not required for the intended route
- 2	Basic Communications System (VHF)	**C**	**2**	**1**		One may be inoperative for VFR flight, when not required for the intended route
- 3 ***	Optional Communications System (FM, HF, UHF, Satcomm, GSM, etc.)	**D**	**-**	**-**		Any in excess of those required by Operational Requirements may be inoperative.
- 4 ***	Cabin Speaker/ Speaker Amplifier (PSA 251)	**C**	**-**	**0**		**(O)** May be inoperative provided: a) Alternate normal and emergency procedures and/or operating restrictions are established and utilized; b) Pilot gives appropriate oral briefing to passengers;
		D	**-**	**0**		c) For non-passenger carrying operations;
-5 ***	Cabin Audio Control Panel (ACP51-100)	**C**	**1**	**0**		**(O)** May be inoperative provided Pilot gives appropriate oral briefing to passengers
-6 ***	Polycon wireless intercom system	**D**	**1**	**0**		May be inoperative provided that HEC operation are not conducted.
-7 ***	External Loudspeakers	**D**	**1**	**0**		May be inoperative provided that it is not required for the intended mission
-8	Cockpit Headset	**C**	**-**	**2**		Any in excess of those required for each required crew member may be inoperative provided for Single Pilot operations a spare headset is operative
-9	Cabin Headset	**C**	**-**	**-**		May be inoperative
-10 ***	Airborne Flight Recorder Camera	**D**	**1**	**0**		**(M)** May be inoperative provided that the applicable operational requirements are met

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
		Rectification Interval	Number Installed	Number required for dispatch	
25	**EQUIPMENT\FURNISHING**				
- 1	Passenger Seat	**C**	**-**	**-**	**(M)** May be inoperative provided that: a) does not block an emergency exit, b) does not restrict any passenger from accessing any emergency exit, c) is secured and placarded “DO NOT OCCUPY” Note: A seat with an inoperative or missing seat belt or harness is considered inoperative.
		C	**-**	**-**	In case of failure of one or more seat floor fixing hardware, the dispatch is allowed provided that: a) the inoperative seat is removed, b) the cabin configuration is in accordance with the certified configurations (refer to RFM)
- 2 ***	Emergency Locator Transmitter (ELT)	**C**	**-**	**-**	As required by Operational Requirements.
- 3 ***	Automatically Deployable Emergency Locator Transmitter (ADELT)	**C**	**-**	**-**	As required by Operational Requirements.
-.4 ***	First Aid Kit	**D**	**-**	**-**	Any in excess of those required may be incomplete or missing provided required distribution is maintained.
- 5	Passenger Convenience Item(s)	**D**	**-**	**0**	(**O**)(**M**) Passenger convenience items, as expressed in this MMEL are those related to passenger convenience, comfort or entertainment such as, but not limited to, galley equipment, movie equipment, stereo equipment, overhead reading lamps, etc. Items addressed elsewhere in this document shall not be included. (**M**) and (**O**) procedures may be required and included in the air carrier’s appropriate document.
- 6 ***	Torches	**C**	**-**	**-**	One or more may be inoperative provided each required crew member assigned to position has an operative torch.
- 7 ***	Life-rafts and survival ELT	**D**	**2**	**-**	**(O)** Any in excess of the minimum required may be missing or inoperative.
- 8 ***	Survival Equipment	**D**	**-**	**-**	**(M)** Any in excess of the minimum required may be missing or inoperative
- 9 ***	Lifejackets	**D**	**-**	**-**	**(M)** Any in excess of the minimum required may be missing or inoperative, provided the required distribution of serviceable lifejackets is maintained.

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(1) System & Sequence Numbers Item		(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
25	**EQUIPMENT\FURNISHING**				
- 10 ***	Chart Holder	**D**	**2**	**0**	May be inoperative provided: a) Single Pilot Night VFR and Single Pilot IFR operations are not conducted b) Limitations set by Operational Requirements are applied
- 11 ***	Rescue hoist system (UTC Aerospace)	**D**	**1**	**0**	**(O)(M)** May be inoperative provided that the system is not required for the intended mission and it is deactivated, secured and stowed.
- 12 ***	Dual rescue hoist system (UTC Aerospace)	**D**	**-**	**0**	**(O)(M)** Both rescue hoists may be inoperative provided that they are not required for the intended mission and are deactivated, secured and stowed.
		D	**-**	**1**	**(O)(M)** Single hoist may be inoperative provided that: a) The inoperative system is deactivated, secured and stowed; b) The crew is instructed which hoist is operative.
-13 ***	Recue Hoist Camera	**D**	**1**	**0**	**(O)** May be inoperative provided it is electrically deactivated and secured
- 14 ***	Cargo Hook	**D**	**1**	**0**	**(O)(M)** May be inoperative provided that the system is not required for the intended mission and it is deactivated, secured and stowed
- 15 ***	Cargo Hook monitoring camera	**D**	**2**	**0**	May be inoperative provided that a) Cargo Hook System is considered inoperative OR b) Other means are available to monitor the cargo hook and attached load.
-16 ***	Single Foldable Hoist	**D**	**1**	**0**	**(O)(M)** May be inoperative provided that the system is not required for the intended mission and it is deactivated, secured and stowed
		C	**1**	**0**	**(O)(M)** Boom movement function may be inoperative with boom blocked in RETRACTED position provided that: a) The hoist and hoist boom are electrically deactivated and secured (and stowed for hoist only), AND b) Airspeed is limited to 80 KIAS as per RFM Supplement 55 limitation, AND c) The hoist is considered inoperative
		C	**1**	**0**	**(O)** Boom movement function may be inoperative with boom blocked in STOWED position provided that: a) The hoist boom is electrically deactivated and secured, AND b) Avoid any selection of boom position while performing hoist operations as per RFM Supplement 55

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(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
25	**EQUIPMENT\FURNISHING**				
-16	Single Foldable Hoist				
***					
	(Continued)	**C**	**1**	**0**	**(O)** Boom movement function may be inoperative with boom blocked in EXTENDED position provided that: a) The hoist boom is electrically deactivated and secured, AND b) Airspeed is limited to 80 KIAS as per RFM Supplement 55 limitation, AND c) Avoid any selection of boom position while performing hoist operations as per RFM Supplement 55

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
26	**FIRE PROTECTION**				
- 1 ***	Portable Fire Extinguisher	**D**	**-**	**1**	**(M)** Any in excess of one may be inoperative provided the required distribution is maintained and Operational Requirements are met
- 2	Baggage Smoke Detector System	**C**	**1**	**0**	**(O)** May be inoperative provided that a) the Baggage Compartment Smoke Detector System is secured and deactivated and b) the baggage compartment is completely empty.

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(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
28	**FUEL**				
-1	Main Tanks Fuel Probes	**B**	**4**	**3**	One probe in one tank may be inoperative provided that: a) The affected tank is verified to be full before flight, AND b) FUEL LOW and FUEL LOW FAIL cautions are not displayed for any tank. Note: the above is applicable to both Basic and Underbelly Fuel System installations
-2 *****	Underbelly Tanks Fuel Probes	**C**	**6**	**5**	One probe in one underbelly tank may be inoperative provided that: a) The main tanks are verified to be full before flight, AND b) FUEL LOW and FUEL LOW FAIL cautions are not displayed for any main tank, AND c) Referring to Item 28-1, only one upper fuel probe is admitted to be inoperative, while all lower fuel probes must be operative. Note: the above is applicable to Underbelly Fuel System installation only
-3 *****	Main Tanks Fuel Boost Pump for Underbelly Fuel System	**B**	**4**	**3**	**(O)** Only one pump may be inoperative provided that: a) The affected pump as identified in the MFD maintenance page is deactivated and secured, AND b) All fuel probes (Item 28-1 and Item 28-2) are operative. Note: the above is applicable to Underbelly Fuel System installation only

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
		Rectification Interval	Number Installed	Number required for dispatch	
30	**ICE AND RAIN PROTECTION**				
- 1	Windshield Wiper and Washing System	**C**	**1**	**0**	**(O)** May be inoperative provided that the helicopter is not operated in precipitation or other conditions requiring use of the washing/wiping system
- 2	Pitot Heaters	**A**	**2**	**0**	May be inoperative for ten calendar days provided: a) OAT>4°C (39 degrees F), OR b) Operations are not conducted in visible moisture when OAT≤4°C and c) **I**tems 34-8 and 34-9 are operative
- 3a	FIPS system	**D**	**1**	**0**	**(O)** May be inoperative provided that: a) flights in icing conditions are not conducted and b) the system is deactivated and secured.
-3b	LIPS System	**D**	**1**	**0**	**(M)** May be inoperative provided that: a) flights in icing conditions are not conducted and b) the system is deactivated and secured.
- 4	Main Rotor Non-critical zone Heating (“MR DEGR” CAS displayed)	**A**	**1**	**0**	May be inoperative provided that: a) Dispatch in icing condition (FIPS envelope) is not allowed from a station where repair is possible, AND b) Only one flight or a series of flights in icing condition necessary to reach the repair station are allowed
		A	**1**	**0**	May be inoperative for three calendar days provided that: a) flying is conducted inside the “IPS failed envelope” icing condition and; b) the aircraft has the ability to vacate the icing conditions at any time, with the availability of a band of positive air temperature of at least 500 ft height into which the aircraft can descend to de-ice naturally and c) only dual pilot operations are conducted and d) items 30-8a and 34-8b are operative.
		D	**1**	**0**	**(M)** May be inoperative provided that: a) flights in icing conditions are not conducted AND b) MR heating is deactivated and secured. Note: In any case, the following functions are available: - Windshield Heating, for defog purposes. - Ice Detection, to promptly advise about inadvertent entry in icing conditions

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(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
30	**ICE AND RAIN PROTECTION**				
- 5	Main Rotor critical zone Heating ("MR FAIL" CAS displayed)	**A**	**1**	**0**	**(M)** May be inoperative for three calendar days provided that: a) flying is conducted inside the "IPS failed envelope" icing condition and; b) the aircraft has the ability to vacate the icing conditions at any time, with the availability of a band of positive air temperature of at least 500 ft height into which the aircraft can descend to de-ice naturally and c) only dual pilot operations are conducted and d) items 30-8a and 34-8b are operative.
		D	**1**	**0**	**(M)** May be inoperative provided that: a) flights in icing conditions are not conducted AND b) MR heating is deactivated and secured. Note: In any case, the following functions are available: - Windshield Heating, for defog purposes. - Ice Detection, to promptly advise about inadvertent entry in icing conditions
- 6	Tail Rotor Heating – one pair ("TR DEGR" CAS displayed)	**A**	**1**	**0**	May be inoperative provided that: a) Dispatch in icing condition (FIPS envelope) is not allowed from a station where repair is possible, AND b) Only one flight or a series of flights in icing condition necessary to reach the repair station are allowed
		C	**1**	**0**	May be inoperative provided that: a) flying is conducted inside the "IPS failed envelope" icing condition and; b) the aircraft has the ability to vacate the icing conditions at any time, with the availability of a band of positive air temperature of at least 500 ft height into which the aircraft can descend to de-ice naturally and c) only dual pilot operations are conducted and d) items 30-8a and 34-8b are operative.
		D	**1**	**0**	**(M)** May be inoperative provided that: a) flights in icing conditions are not conducted AND b) TR heating is deactivated and secured. Note: In any case, the following functions are available: - Windshield Heating, for defog purposes. - Ice Detection, to promptly advise about inadvertent entry in icing conditions

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
		Rectification Interval	Number Installed	Number required for dispatch	
30	**ICE AND RAIN PROTECTION**				
- 7	Tail Rotor Heating – all blades (both pairs – "TR FAIL" CAS displayed)	**C**	**1**	**0**	**(M)** May be inoperative provided that: a) flying is conducted inside the "IPS failed envelope" icing condition and; b) the aircraft has the ability to vacate the icing conditions at any time, with the availability of a band of positive air temperature of at least 500 ft height into which the aircraft can descend to de-ice naturally and c) only dual pilot operations are conducted items 30-8a and 34-8b are operative.
		D	**1**	**0**	**(M)** May be inoperative provided that: a) flights in icing conditions are not conducted AND b) TR heating is deactivated and secured. Note: In any case, the following functions are available: - Windshield Heating, for defog purposes. - Ice Detection, to promptly advise about inadvertent entry in icing conditions
- 8a	Ice detector (FIPS installed)	**A**	**2**	**0**	**(M)** May be inoperative provided that: a) Both ice detectors are deactivated and secured, b) Dispatch in icing condition is not allowed from a station where repair is possible, and c) Only one flight or a series of flights in icing condition necessary to reach the repair station are allowed
		D	**2**	**0**	**(O)** May be inoperative provided that: a) operations in known or forecasted icing conditions are not conducted and b) the FIPS is considered inoperative as per item 30-3a
-8b	Ice detector (LIPS installed)	**A**	**2**	**1**	**(O)(M)** One may be inoperative provided that: a) Affected ice detector is deactivated and secured, b) Dispatch in limited icing condition is not allowed from a station where repair is possible, and c) Only one flight or a series of flights in icing condition necessary to reach the repair station are allowed Note**:** Alternate means to determine icing condition must be considered
		D	**2**	**0**	**(M)** May be inoperative provided that a) operations in known or forecasted limited icing conditions are not conducted and the LIPS is considered inoperative as per item 30-3b

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(1)	System & Sequence Numbers Item	(2)	(3)
		Rectification Interval	Number Installed

30	**ICE AND RAIN PROTECTION**			(4) Number required for dispatch	(5) Remarks or Exceptions
-8c	Ice detector (stand-alone)	**D**	**1**	**0**	**(O)** May be inoperative provided that it is deactivated and secured.
- 9	OAT sensors				Refer to Item 34-8
- 10	Heated windshield				Refer to Item 56-1

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
31	**INDICATING\RECORDING**				
- 1 ***	Combination Recorder (Combined CVR/FDR Unit)	**B**	**1**	**0**	May be inoperative provided applicable Operational Requirements are met
- 2	Clock	**C**	**2**	**0**	As required by Operational Requirements.
-3	CDS Display Unit	**C**	**4**	**3**	**(O)** One copilot CDS DU may be inoperative provided that: a) The affected DU is deactivated and secured, AND b) The H\C is operated Dual Pilot with pilot in command on RH side, OR c) The H\C is operated Single Pilot as applicable provided that relevant limitations as per RFM Supplement 3 are complied with. Note: AP TEST FAIL caution displayed. On the MFD AFCS ATP page verify that only the “PFDS O/O” fields on ARINC429 buses section are “amber”. No additional FAILED messages are allowed
		C	**4**	**2**	**(O)** Both copilot CDS DUs may be inoperative for single pilot operations only, provided that: a) Any affected DU is deactivated and secured, AND b) AFCS Collective Upper Modes are not engaged, AND c) Relevant limitations as per RFM Supplement 3 are complied with. Note: AP TEST FAIL caution displayed. On the MFD AFCS ATP page verify that only the “PFDS O/O” fields on ARINC429 buses section are “amber”. No additional FAILED messages are allowed
		C	**4**	**3**	**(O)** One pilot CDS DU may be inoperative provided that: a) The affected DU is deactivated and secured, AND b) The H\C is operated IFR VMC, AND c) The H\C is operated dual pilot. Note: AP TEST FAIL caution displayed. On the MFD AFCS ATP page verify that only the “PFDS O/O” fields on ARINC429 buses section are “amber”. No additional FAILED messages are allowed

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(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
31	**INDICATING\RECORDING**				
-3	CDS Display Unit (Continued)	**A**	**4**	**1**	**(O)** One pilot and both copilot CDS DUs may be inoperative for one single pilot Ferry Flight provided that: a) Any affected DU is deactivated and secured, AND b) The H\C is operated VFR Day, AND c) AFCS Collective Upper Modes are not engaged. Note: AP TEST FAIL caution displayed. On the MFD AFCS ATP page verify that only the “PFDS O/O” fields on ARINC429 buses section are “amber”. No additional FAILED messages are allowed
- 4 ***	HUMS (Health Usage and Monitoring System) sensors	**D**	**-**	**0**	One or more may be inoperative

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(1) System & Sequence Numbers Item		(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
32	**LANDING GEAR**				
- 1	Landing Gear Indicating / Warning System on L\G control Panel	**C**	**1**	**0**	**(M)** May be inoperative provided that: a) The Landing Gear Lever is secured in L\G extended position b) The Extended Landing Gear limitations of the RFM Section 1 are complied with.

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
33	**LIGHTS**				
- 1	Position Light System	**C**	**1**	**0**	May be inoperative for VFR day operations.
- 2	Landing Lights	**C**	**2**	**0**	May be inoperative for day operations
		C	**2**	**1**	May be inoperative provided Operational requirements are respected.
- 3	Cockpit/ Flight Deck/Flight Compartment and Instrument Lighting System	**C**	**-**	**-**	(**O**) Individual lights may be inoperative provided remaining lights are sufficient to clearly illuminate all required instruments, controls, and other devices for which it is provided.
- 4	Cabin Lighting System	**C**	**1**	**-**	As required by Operational Requirements.
- 5	Emergency Lighting System (3x Cabin Floodlight)	**C**	**1**	**0**	May be inoperative for non-passenger carrying operations.
- 6 ***	Strobe Lights	**C**	**2**	**-**	As required by Operational Requirements.
- 7 ***	Helicopter Emergency Egress Lighting System (HEELS)	**D**	**-**	**0**	May be inoperative provided overwater operations are not conducted.
		B	**-**	**0**	May be inoperative for overwater operations not requiring the helicopter to be certified for ditching, when HEELS are not required by Operational Requirements.
		A	**-**	**-**	One element on each side of the passenger compartment and/or cockpit may be inoperative for 3 calendar days, when HEELS are not required by Operational Requirements.
- 8	Fasten Seat Belts annunciations	**C**	**-**	**-**	(**M**) One or more annunciations may be inoperative, provided it/they are placarded and an annunciation is visible from each occupied passenger seat
- 9	Stormlight	**B**	**2**	**0**	May be inoperative for VFR operations
- 10 ***	Searchlight (Trakka)	**D**	**1**	**0**	**(O)** May be inoperative provided it is stowed and electrically deactivated
-11	Anti-collision light	**A**	**1**	**0**	**(O)** May be inoperative for a single night flight when departing from an offshore or remote installation provided that: a) The appropriate Air Navigation Service Provider (ANSP) has been informed before departure, and b) All position lights are operative, and c) All landing lights are operative.
		B	**1**	**0**	May be inoperative for day operations provided that all navigation lights are operative
		B	**1**	**0**	May be inoperative for day VMC operations

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(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
33	**LIGHTS**				
-12 ***	Main and tail rotor tip lights	**D**	**5**	**0**	May be inoperative
-13 ***	Hoist searchlight (single and double hoist)	**-**	**-**	**-**	Refer to Item 33-2
-14 ***	Over door light	**D**	**2**	**0**	May be inoperative
-15 ***	Tail logo light	**D**	**2**	**0**	May be inoperative

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
		Rectification Interval	Number Installed	Number required for dispatch	
34	**NAVIGATION**				
- 1	VOR/ILS/MB, ADF	**C**	**-**	**1**	Any in excess of one may be inoperative for VFR flight when not required for the intended route
-2	DME	**C**	**1**	**0**	Maybe inoperative for VFR flight when not required for the intended route
-3	GPS	**C**	**2**	**1**	**(M)** One may be inoperative for VFR flight when not required for the intended route Note: according to the above, the GBAS approach capability is not available (i.e. item 34-14 (GBAS kit) is considered inoperative)
- 4	Radio Altimeter(s)	**C**	**2**	**1**	**(M)** One may be inoperative for VFR flight when not required for the intended route
- 5	Multifunction Control Display Unit (MCDU)	**C**	**2**	**1**	**(M)** One MCDU may be inoperative for VFR flight.
- 6 ***	Weather Radar System	**D**	**1**	**-**	**(O)** As required by Operational Requirements.
- 7	Transponder(s)	**C**	**-**	**0**	As required by Operational Requirements
- 8a	OAT/Free Air Temperature (no FIPS/LIPS installed)	**C**	**2**	**1**	(**O**) One OAT sensor may be inoperative provided that OAT Standby sensor (item 34-9) is operative.
- 8b	OAT/Free Air Temperature (FIPS installed)	**A**	**2**	**1**	**(O)** One OAT sensor may be inoperative provided that a) Dispatch in icing condition is not allowed from a station where repair is possible AND b) Only one flight or a series of flights in icing condition necessary to reach the repair station are allowed; AND c) Instructions as per Item 34-8a inoperative are complied with.
		C	**2**	**1**	**(O)** One OAT sensor may be inoperative provided that a) Instructions as per Item 34-8a inoperative are complied with AND b) the FIPS is considered inoperative as per item 30-3a.
- 8c	OAT/Free Air Temperature (LIPS installed)	**A**	**2**	**1**	**(O)** One may be inoperative provided that: a) Dispatch in limited icing condition is not allowed from a station where repair is possible, and b) Only one flight or a series of flights in icing condition necessary to reach the repair station are allowed c) Instructions as per item 34-8a are complied with.

(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
34	**NAVIGATION**				
- 8c	OAT/Free Air Temperature (LIPS installed)				
	(Continued)	**C**	**2**	**1**	**(O)(M)** May be inoperative provided that a) operations in known or forecasted limited icing conditions are not conducted and b) the LIPS is considered inoperative as per item 30-3b instruction as per item 34-8a are complied with.
- 9	OAT/Free Air Temperature Standby	**C**	**1**	**0**	OAT Standby sensor may be inoperative provided both OAT/Free Air Temperature sensors (item 34-8) are operative
- 10 ***	Traffic Collision Avoidance System II (TCAS II)	**C**	**1**	**-**	**(O)** As required by Operational Requirements.
- 11	Flight Management System (FMS) Database	**C**	**1**	**0**	(**O**) Navigation Database may be out of currency provided: a) Current Aeronautical Charts are used to verify Navigation Fixes prior to dispatch, and b) Procedures are established and used to verify status and suitability of Navigation Facilities used to define route of flight. Approach navigation radios are manually tuned and identified
- 12	Stand-by Magnetic Compass	**B**	**1**	**0**	May be inoperative for VFR flight
- 13	Helicopter Terrain Awareness and Warning System (HTAWS)	**C**	**1**	**0**	**(O)** May be inoperative provided that the system is inhibited (i.e. switched off)
-14 ***	GBAS Kit	**D**	**1**	**0**	**(M)** May be inoperative for VFR flight provided that the applicable operational requirements are met and the item is deactivated and secured
		D	**1**	**0**	**(M)** May be inoperative for IFR flight provided that: a) The applicable operational requirements are met, AND b) Item 34-1, Item 34-3, Item 34-5, Item 34-12 are operative c) The item is deactivated and secured
-15 ***	GLONASS Kit	**D**	**1**	**0**	**(O)** May be inoperative provided that the item is deactivated and secured

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(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
46	**SYSTEM INTEGRATION AND DISPLAY**	Rectification Interval	Number Installed	Number required for dispatch	
- 1	Mission Console	**D**	**1**	**0**	May be inoperative provided it is not required for the intended mission

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(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
49	**AIRBORNE AUXILIARY POWER**				
-1 ***	APU IBF	**B**	**1**	**0**	**(M)** With door blocked in closed position, may be inoperative provided that: a) The IBF bypass door actuator is electrically deactivated and secured, AND b) H\C usage in adverse meteorological conditions (e.g. sand storm) is prohibited
		B	**1**	**0**	**(M)** With door blocked in open position along the stroke to reach the closed position (i.e. APU IBF OPEN CAS extinguished), may be inoperative provided that: a) The IBF bypass door actuator is electrically deactivated and secured, AND b) H\C usage in adverse meteorological conditions (e.g. sand storm) is prohibited
		B	**1**	**0**	**(M)** With IBF not providing APU IBF OPEN CAS when the bypass door is open, may be inoperative provided that: a) The IBF bypass door actuator is electrically deactivated and secured, AND b) Confirm intakes clear of any obstructions before each flight as per RFM Supplement 52 Normal Procedures.

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(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
52	**DOORS**				
- 1	External Power Door Caution Light	**C**	**1**	**0**	May be inoperative provided a visual check verifies that the door is closed and latched prior to flight
- 1	Cockpit Door Alert System	**C**	**1**	**0**	**(O)** May be inoperative provided a visual check verifies the door is closed and locked prior to each flight.
- 2	Cabin Doors Cockpit Alert System	**C**	**1**	**0**	**(O)** May be inoperative provided a visual check verifies the door is closed and locked prior to each flight.
- 3	Baggage Door Alert System	**C**	**1**	**0**	**(O)** May be inoperative provided a visual check verifies the door is closed and locked prior to each flight.
- 4	Nose Door Alert System	**C**	**1**	**0**	**(O)** May be inoperative provided a visual check verifies the door is closed and locked prior to each flight.
- 5	DC Ext PWR Door Alert System	**C**	**1**	**0**	**(O)** May be inoperative provided a visual check verifies the door is closed and locked prior to each flight.
- 6	AC Ext PWR Door Alert System	**C**	**1**	**0**	**(O)** May be inoperative provided a visual check verifies the door is closed and locked prior to each flight.
- 7 ***	Electrical Foldable Footstep system	**D**	**1**	**0**	**(O)** May be inoperative provided that both (LH and RH) footsteps are in the fully retracted position and the system is electrically secured and deactivated.
	Footstep lights	**D**	**-**	**0**	May be inoperative

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(1)	System & Sequence Numbers Item	(2)	Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
56	**WINDOWS**					
- 1a ***	Heated windshield (if FIPS/LIPS is not installed)	**D**	**2**	**0**		**(O)** May be inoperative provided the system is deactivated and secured.
-1b ***	(if FIPS is installed)	**A**	**2**	**1**		**(M)** One heated windshield may be inoperative provided that: a) Dispatch in icing condition is not allowed from a station where repair is possible, and b) The flight is conducted from the side where the heater is operative, and c) Only one flight or a series of flights in icing condition necessary to reach the repair station are allowed. Note: for single pilot operations the heated windshield operative must be the right side.
		D	**2**	**0**		**(O)** May be inoperative provided that the FIPS is considered inoperative (see item 30-3a)
- 1c ***	(if LIPS is installed)	**A**	**2**	**1**		**(M)** One heated windshield may be inoperative provided that: a) Dispatch in limited icing condition is not allowed from a station where repair is possible, and b) The flight is conducted from the side where the heater is operative, and c) Only one flight or a series of flights in icing condition necessary to reach the repair station are allowed
		D	**2**	**0**		**(M)** May be inoperative provided that the LIPS is considered inoperative (see item 30-3b)

Aircraft	Revision No:	A	Page
AW189	Date	**12/05/2014**	**63-1**

(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
63	**MAIN ROTOR DRIVE**				
- 1	Rotor Brake	**D**	**1**	**0**	**(M)** May be inoperative provided: a) Inspection determines the calliper is in the down position, and b) System is deactivated and secured

Aircraft	Revision No:	E	Page
AW189	Date	**22/12/2021**	**71-1**

(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
71	**POWERPLANT**				
- 1	Heated Air intake ("1(2) INTAKE FAIL" CAS displayed")	**C**	**2**	**0**	**(O)** May be inoperative provided that: a) OAT>4°C (39 degrees F), OR b) Operations are not conducted in visible moisture when OAT≤4°C and c) items 34-8 and 34-9 are operative
-2 ***	Engine IBF (for GE CT7 family engine)	**A**	**2**	**1**	**(O)** With the engine IBF bypass door blocked in the closed position, one Ferry Flight can be performed provided that: a) The affected engine IBF bypass door is selected to the CLOSED position via the ECDU, AND b) The affected engine IBF bypass door is visually confirmed to be closed, AND c) The affected engine has positive PAC margin prior to take-off, AND d) The engine IBF main and bypass filters are free from large debris material, AND e) The affected engine IBF bypass door actuator is secured via ECDU
		B	**2**	**0**	**(O)** With the engine IBF bypass door in the open position and the 1(2) ENG IBF OPEN CAS message not indicated, flight can be performed provided that, for each affected engine: a) The engine IBF bypass door is selected to the OPEN position via the ECDU, AND b) The engine IBF bypass door is visually confirmed to be fully open, AND c) Visually confirm prior to take-off that the intakes are clear of any FOD/obstructions as per RFM Supplement 52 Normal Procedures, AND d) Engine maintenance is performed in accordance with the engine maintenance manual to limit the engine damage that can occur when operating in a sand/dirt/dust environment, AND e) Category A operations are prohibited as it is not possible to perform a PAC prior to take-off, AND f) The engine IBF bypass door actuator is secured via ECDU
-3a	GE FADEC System subcomponents subject to TLD - white "1(2) ENG TLD" message displayed (Short Term Dispatch) (for GE CT7 family engine - TLD certified (EECU SW v6.0 or above))	**A**	**-**	**-**	May be dispatched with system faults provided that repairs are made within time limit corresponding to Short Term Dispatch as defined in the engine manufacturer's maintenance manual
-3b	Reserved	**-**	**-**	**-**	N/A

Aircraft	Revision No:	E	Page
AW189	Date	**22/12/2021**	**71-1**

(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
71	**POWERPLANT**				
-3c	SHE FADEC System subcomponents subject to TLD - white "1(2) ENG TLD" message displayed (Short Term Dispatch) (for SHE ANETO-1K engine - TLD certified)	**A**	**-**	**-**	g) May be dispatched within time limit corresponding to Short Term Dispatch as defined in the engine manufacturer's maintenance manual provided that AFCS Collective Upper Modes are not engaged

Aircraft	Revision No:	C	Page
AW189	Date	**07/12/2020**	**93-1**

(1)	System & Sequence Numbers Item	(2) Rectification Interval	(3) Number Installed	(4) Number required for dispatch	(5) Remarks or Exceptions
93	**SURVEILLANCE**				
-1 ***	Video Downlink	**D**	**1**	**0**	**(O)** May be inoperative provided that it is not required for the intended mission and it is deactivated and secured
-2 ***	Video Recorder	**D**	**1**	**0**	**(O)** May be inoperative provided that it is not required for the intended mission and it is deactivated and secured
-3 ***	FLIR System	**D**	**1**	**0**	**(O)** May be inoperative provided that it is not required for the intended mission and it is deactivated and secured

Aircraft	Revision No:	A	Page
AW189	Date	**12/05/2014**	**95-1**

(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
		Rectification Interval	Number Installed	Number required for dispatch	
95	**CREW ESCAPE AND SAFETY**				
- 1 ***	Emergency Flotation Equipment	**D**	**-**	**-**	**(M)** As required by Operational Requirements

Aircraft	Revision No:	B	Page
AW189	Date	**03/07/2017**	**97-1**

(1)	System & Sequence Numbers Item	(2)	(3)	(4)	(5) Remarks or Exceptions
97	**IMAGE RECORDING**				
- 1	External Video Camera	**D**	**1**	**0**	May be inoperative
***					

GUIDELINES FOR (O) PROCEDURES

ATA	Item	(O) Procedure
18	-1	Active Vibration Control System Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the AVCS CTL and AVCS CP breakers by pressing the related button and verify that the status of the selected breaker change to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breakers are locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the AVCS CTL and AVCS CP breakers are locked
21	-5	Heater Bleed Air Shut-off Valve (APU) Set switch APU SOV on ECS Control Panel to OFF
21	-7	Temperature Control Valve Set Control knob on the ECS Control Panel to OFF
21	-8	Heating Control Box a) Set Control knob on the ECS Control Panel to OFF b) Set Control knob on the ECS Control Panel to MAN HTR (MANUAL mode)
21	-9	Heater Overheat Thermal Switch Set Control knob on the ECS Control Panel to OFF
21	-10	Duct Temperature Sensor Set Control knob on the ECS Control Panel to MAN HTR (MANUAL mode)
21	-11	Air Conditioning System a) With Control Panel P\N 8G2150V01551, avoid selection of AIR COND/HEATER switch to "AIR COND" position. b) With Control Panel P\N 8G2150V02551, select positions of the AIR COND section of the AIR COND/HEATER switch according to the following: - if "AFT COND FAIL" caution is displayed, select only "CREW" position. - if "FWD COND FAIL" caution is displayed, select only "PAX" position. - if "FWD-AFT COND FAIL" caution is displayed, avoid selection of any AIR COND position.
23	-4	Cabin Speaker/ Speaker Amplifier (PSA 251) Passenger briefing can be provided orally (without using Passenger Compartment Intercommunications System) by the pilot. It is the pilot responsibility to make sure that all the passengers can hear the briefing.
25	-5	Passenger Convenience Item(s) Procedures may be required and included in the air carrier's appropriate document.
25	-7	Life-rafts and survival ELT Crew member shall be informed that life-rafts are inoperative
25	-11	Rescue hoist system (UTC Aerospace) Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the HOIST CTL, HOIST PWR and HOIST CUT breakers by pressing the related button and verify that the status of the selected breaker change to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breakers are locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the HOIST CTL, HOIST PWR and HOIST CUT breakers are locked.
25	-12	Dual rescue hoist system (UTC Aerospace) Both rescue hoist inoperative Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the HOIST 1 CTL, HOIST 2 CTL and HOIST CUT breakers by pressing the related button and verify that the status of the selected breaker change to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breakers are locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the HOIST 1 CTL, HOIST 2 CTL and HOIST CUT 1 breakers are locked. Single rescue hoist inoperative (Note: in the following instructions the letter *n* substitutes "1" or "2", depending which hoist is failed). Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the HOIST *n* CTL breaker by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breaker is locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the HOIST *n* CTL breaker is locked. Note: DO NOT lock the HOIST CUT breaker

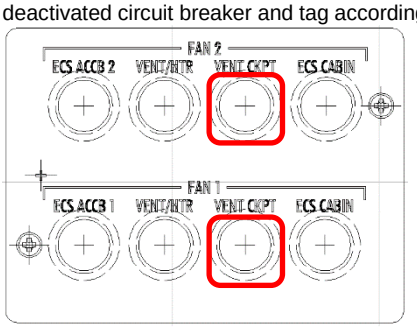
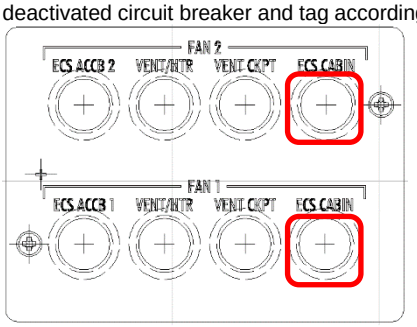
ATA	Item	(O) Procedure
25	-13	Rescue Hoist Camera Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the CB_MIS_HOIST_CAM breaker by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breaker is locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the CB_MIS_HOIST_CAM breaker is locked. Note: the above is applicable for the following Rescue Hoist configurations: Single, Double, Single Foldable.
25	-14	Cargo hook Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the CARGO REL breaker by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breakers are locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the CARGO REL breaker are locked.
25	-16	Single Foldable Hoist Rescue Hoist Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the HOIST CTL, HOIST PWR and HOIST CUT breakers by pressing the related button and verify that the status of the selected breaker change to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breakers are locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the HOIST CTL, HOIST PWR and HOIST CUT breakers are locked. Hoist Boom Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the HOIST FOLD breaker by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breaker is locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the HOIST FOLD breaker is locked.
26	-2	Baggage smoke detector system Prior to take-off the pilot must verify that the baggage compartment is empty. Furthermore, set to LCKD the following CB via ECDU, FIRE page: - BAG FIRE
28	-3	Underbelly Fuel System Fuel Boost Pump Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then FUEL According to the failed pump, lock the breaker listed below by pressing the related button and verify that the status of the selected breaker changes to LOCKED: - Pump 1 Side A failed: select SIDE_A_FUEL_PUMP1. - Pump 1 Side B failed: select SIDE_B_FUEL_PUMP1. - Pump 2 Side A failed: select SIDE_A_FUEL_PUMP2. - Pump 2 Side B failed: select SIDE_B_FUEL_PUMP2. Press RETURN and then OPERATIVE MODE. To verify that the breaker is locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then FUEL and verify that the breaker selected as per above is locked.
30	-1	Windshield Wiper System Set to LCKD the following CB via ECDU, WIPER CB page: - WIPER CPLT and/or - WIPER PLT
30	-3a	FIPS system Set to LCKD the following CB via ECDU, ELEC page: - IPS ESS and - IPS MAIN
30	-8a	Ice detector (FIPS installed) Refer to procedure for item 30-3a
30	-8b	Ice detector (LIPS installed) Crew must be informed that the reliability of ICE LIMIT CAS message and liquid water content indication are reduced. Therefore during flight, increased attention in monitoring PI variation, IAS, OAT, ice accretion type (on visible structure and SLD Marker), amount of water streaming on the heated windscreen, power increase and vibration is required in order to identify if the allowed limits in ice are reached and hence leaving icing conditions is required.
30	-8c	Ice detector (stand-alone) Set to LCKD the following CB via ECDU, MISC, ICE PROTECTION page: - ICE DETECTOR

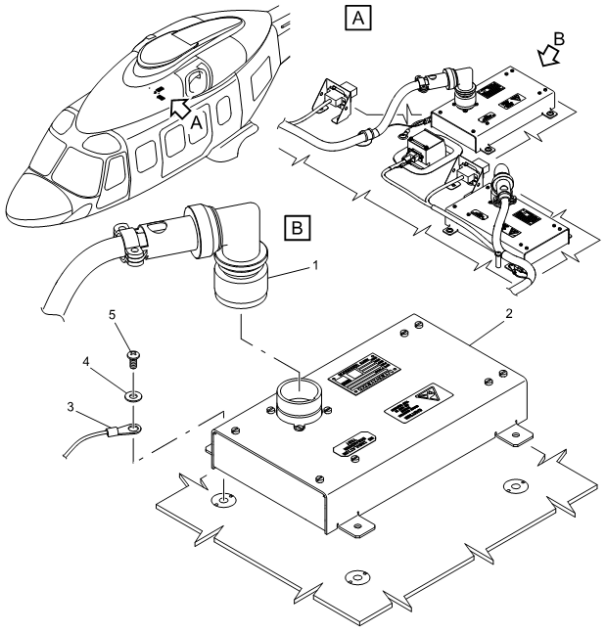
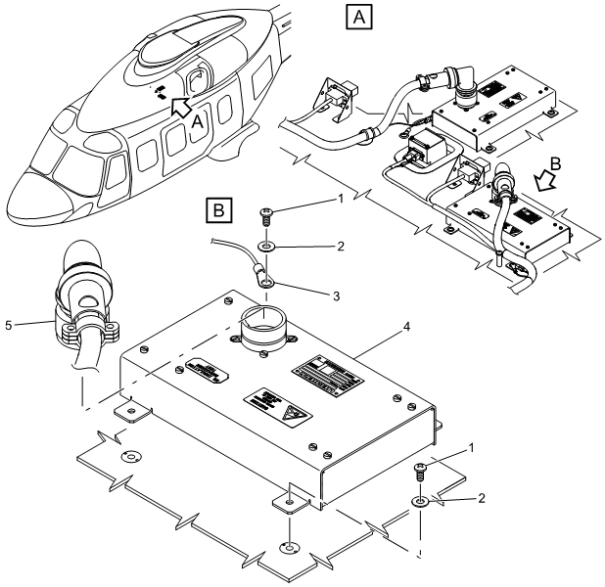
ATA	Item	(O) Procedure
31	-3	CDS Display Unit One Copilot CDS DU failed - Copilot PFD failed: force reversionary mode on Copilot MFD by setting to MFD the rotary switch CPLT on RCP. - Copilot MFD failed: force reversionary mode on Copilot PFD by setting to PFD the rotary switch CPLT on RCP. Both Copilot CDS DUs failed Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then DISPLAY Lock the PFD CPLT and MFD CPLT breakers by pressing the related button and verify that the status of each selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breakers are locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then DISPLAY and verify that the PFD CPLT and MFD CPLT breakers are locked. One Pilot CDS DU failed - Pilot PFD failed: force reversionary mode on Pilot MFD by setting to MFD the rotary switch PLT on RCP. - Pilot MFD failed: force reversionary mode on Pilot PFD by setting to PFD the rotary switch PLT on RCP. One Pilot and both Copilot CDS DUs failed a) for both Copilot CDS DUs: Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then DISPLAY Lock the PFD CPLT and MFD CPLT breakers by pressing the related button and verify that the status of each selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breakers are locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then DISPLAY and verify that the PFD CPLT and MFD CPLT breakers are locked. b) for Pilot CDS DU: - Pilot PFD failed: force reversionary mode on Pilot MFD by setting to MFD the rotary switch PLT on RCP. - Pilot MFD failed: force reversionary mode on Pilot PFD by setting to PFD the rotary switch PLT on RCP.
33	-3	Cockpit/ Flight Deck/Flight Compartment and Instrument Lighting System It is pilot's responsibility to check that: c) remaining lights are sufficient to clearly illuminate all required instruments, controls, and other devices for which it is provided, d) remaining lights are positioned so that direct rays are shielded from flight crewmembers' eyes, and e) lighting configuration and intensity is acceptable to the flight crew.
33	-10	Searchlight (Trakka) Set to LCKD the following CB via ECDU, LIGHT page - SEARCH LT
33	-11	Anti-collision lights a) Inform ANSP before departure that anti-collision light is inoperative. b) On the ECDU 1 or 2 press the LIGHTS button, then select POS LT on ON and verify that all the position lights are correctly illuminated. c) In the collective grip, with the RH/BOTH/LH select toggle switch on BOTH position, switch ON the Landing lights and verify that both lights illuminate. Through the four way momentary switch verify the manoeuvrability of the lights.
34	-6	Weather Radar System Basic weather radar Set to LCKD the following CB via ECDU, FLT SNSR CB page: - WXR - WXR INV Search weather radar Set to LCKD the following CB via ECDU, FLT SNSR CB page: - WXR
34	-8a	OAT/Free Air Temperature (no FIPS/LIPS installed) On RCP, select alternative ADS. Pilot can use OAT/Free Air Temperature Standby (34-9) for monitoring.
34	-8b	OAT/Free Air Temperature (FIPS installed) Dispatch condition number one ("A" interval) Refer to Item 34-8a Dispatch condition number two ("C" interval) Refer to Item 34-8a and to item 30-3a
34	-8c	OAT/Free Air Temperature (LIPS installed) Dispatch condition number one ("A" interval) On RCP, select alternative ADS. Pilot can use OAT/Free Air Temperature Standby (34-9) for monitoring. Crew must be informed that the reliability of ICE LIMIT CAS message and OAT indication are reduced. Therefore, during flight increased attention in monitoring PI variation, IAS, ice accretion type (on visible structure and SLD Marker), amount of water streaming on the heated windscreen, power increase and vibration is required in order to identify if the allowed limits in ice are reached and hence leaving icing conditions is required. Dispatch condition number two ("C" interval) Refer to Item 34-8a
34	-10	Traffic Collision Avoidance System II Set to LCKD the following CB via ECDU, FLT SNSR CB page: - TCAS II

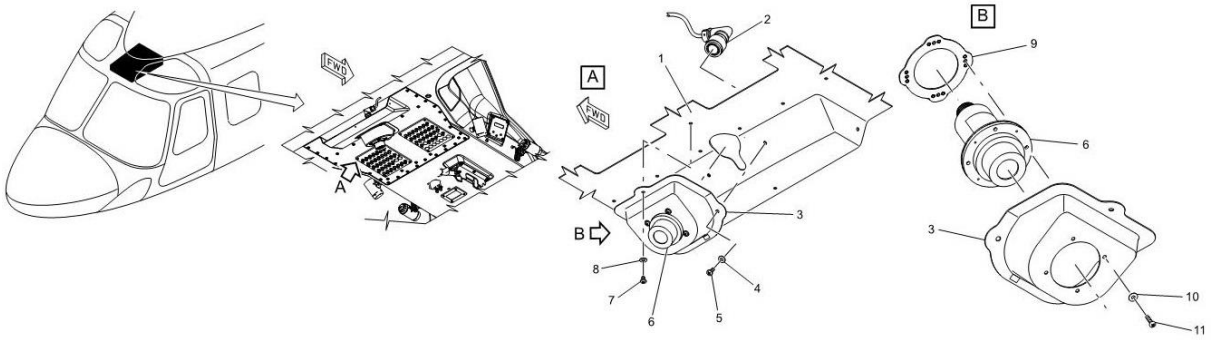
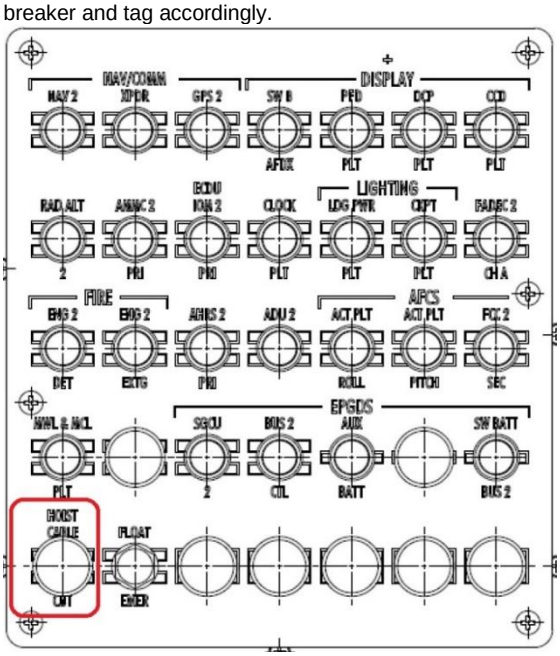
ATA	Item	(O) Procedure
34	-11	Flight Management System (FMS) Database It is pilot's responsibility to ensure up to date navigational charts and procedures are used.
34	-13	Helicopter Terrain Awareness and Warning System (HTAWS) Open the TAWS Virtual Panel Menu on the pilot or copilot MFD and select the TAWS INHIBIT function Crew to disregard any Terrain and Obstacle Avoidance Indications and alerts
34	-15	GLONASS Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then NAV. Lock the GLONASS breaker by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breaker is locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then NAV and verify that the GLONASS breaker is locked.
52	-1	Cockpit Door Alert System The crew must ensure that the door is closed and locked prior to take-off by verifying that a visual check has been performed.
52	-2	Cabin Doors Cockpit Alert System The crew must ensure that the door is closed and locked prior to take-off by verifying that a visual check has been performed.
52	-3	Baggage Door Alert System The crew must ensure that the door is closed and locked prior to take-off by verifying that a visual check has been performed.
52	-4	Nose Door Alert System The crew must ensure that the door is closed and locked prior to take-off by verifying that a visual check has been performed.
52	-5	DC Ext PWR Door Alert System The crew must ensure that the door is closed and locked prior to take-off by verifying that a visual check has been performed.
52	-6	AC Ext PWR Door Alert System The crew must ensure that the door is closed and locked prior to take-off by verifying that a visual check has been performed.
52	-7	Electrical foldable steps Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the STEP breaker by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. Stow the foldable steps in the retracted position and lock the ability to extend, through the "quick release pin"
56	-1a	Heated windshield (no FIPS / LIPS installed) Set to LCKD the following CB via ECDU, MISC, ICE PROTECTION page: - WSHLD HTR
56	-1b	Heated windshield (FIPS installed) Refer to procedure for item 30-3a
71	-1	Heated air intake Set to LCKD the following CB via ECDU, ENGINE CB page: - ENG1 INTK - ENG2 INTK To deactivate the not operative Engine Air intake Heater
71	-2	Engine IBF (for GE CT7 family engine) Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then ENGINE. According to the failed Engine IBF, lock the breaker listed below by pressing the related button and verify that the status of each selected breaker changes to LOCKED: - LH Engine IBF failed: select IBF_1_ENG. - RH Engine IBF failed: select IBF_2_ENG. Press RETURN and then OPERATIVE MODE. To verify that the breaker is locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then ENGINE and verify that each breaker selected as per above is locked.
93	-1	Video Downlink Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the VIDEO DNLK breaker by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breaker is locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the VIDEO DNLK breaker is locked.
93	-2	Video Recorder Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then COMM. Lock the DVAR breaker by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breaker is locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then COMM and verify that the DVAR breaker is locked.

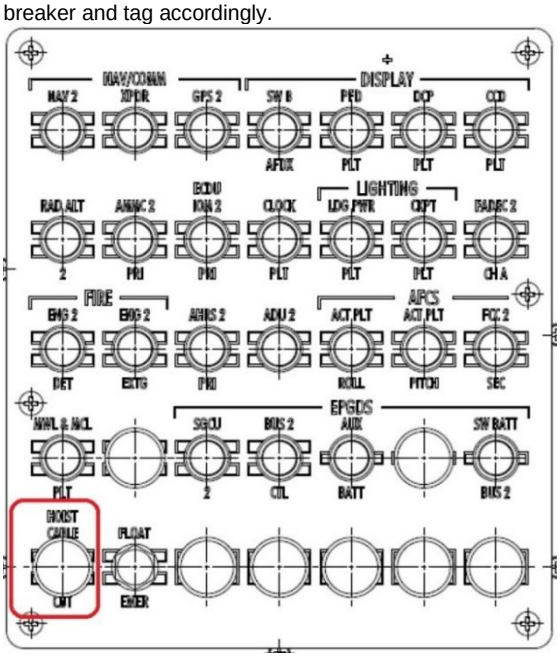
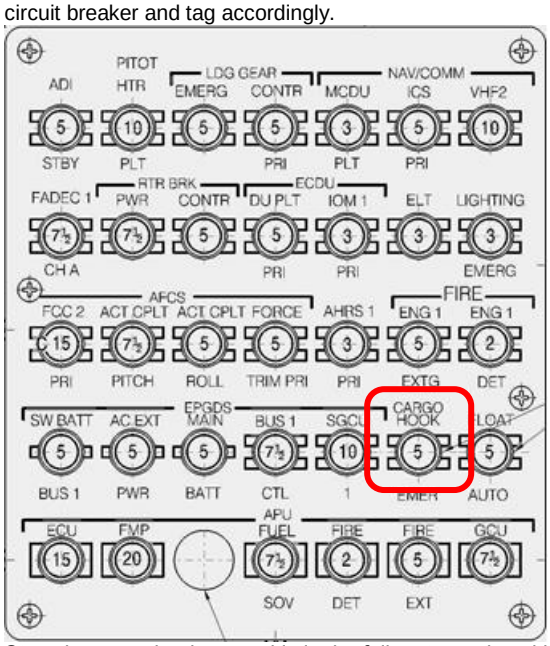
ATA	Item	(O) Procedure
93	-3	FLIR System Press the MNT pushbutton on the ECDU 1 (pilot side), select the MAINTENANCE MODE and then MISC. Lock the FLIR and FLIR LSR breakers by pressing the related button and verify that the status of the selected breaker changes to LOCKED. Press RETURN and then OPERATIVE MODE. To verify that the breakers are locked press the MNT pushbutton on the ECDU 1 (pilot side), press the two buttons at the bottom at the same time; with this operation the breaker page is reached. Select the SYSTEM CB LIST, then MISC and verify that the FLIR and FLIR LSR breakers are locked.

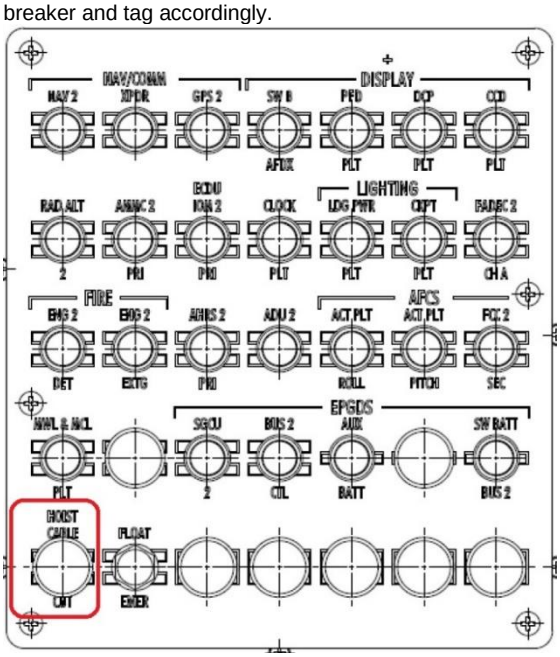
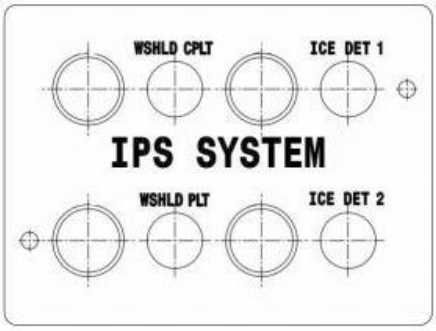
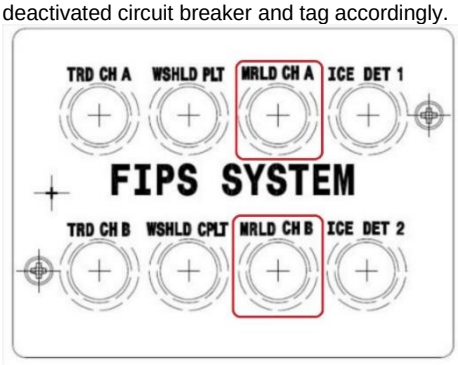
GUIDELINES FOR (M) PROCEDURES

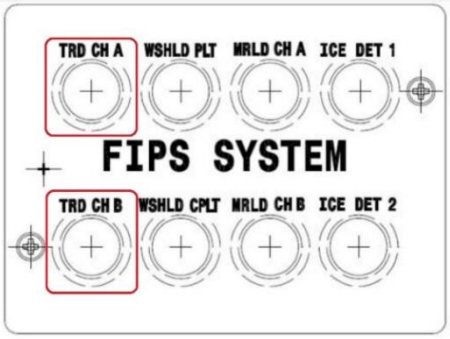
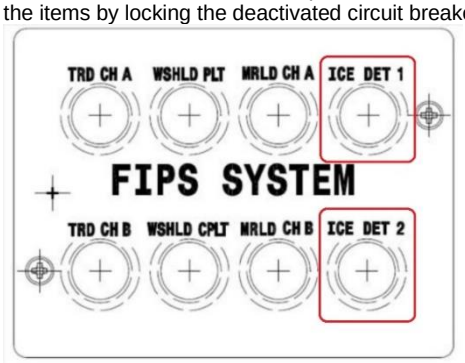
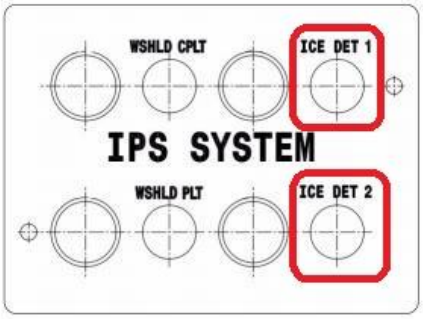
ATA	Item	(M) Procedure
18	-1	Active Vibration Control System (AVCS) Pull off the AVCS breaker installed on the nose bulkhead right side, secure the system by locking the deactivated circuit breaker and tag accordingly.
21	-1	Cockpit Ventilation Fan Pull off the breaker “VENT CKPT” relevant to the affected fan on the ECS circuit breaker panel, secure the system by locking the deactivated circuit breaker and tag accordingly. 
21	-2	Cabin Ventilation Fan Pull off the breaker “ECS CABIN” relevant to the affected fan on the ECS circuit breaker panel, secure the system by locking the deactivated circuit breaker and tag accordingly. 

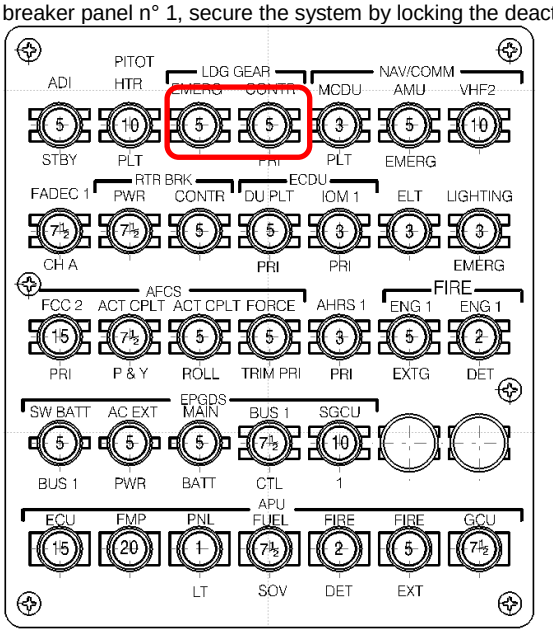
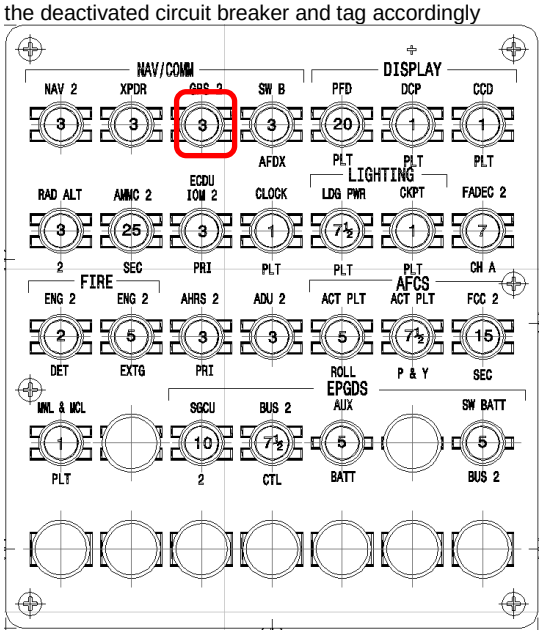
ATA	Item	(M) Procedure
21	-3	Cockpit Evaporator Assembly For Full ECS configuration, deactivate and secure the ACCB2 by disconnecting, isolating and stowing (secure) the related connector: 
21	-4	Cabin Evaporator Assembly For Full ECS configuration, deactivate and secure the ACCB1 by disconnecting, isolating and stowing (secure) the related connector: 
21	-6	Heater Bleed Air Shut-off Valve (Engines) Deactivate and secure the SoV in closed position. Disconnect, isolate and stow (secure) the proper connectors. Refer to the Maintenance Manual to determine and locate the proper connector.
21	-11	Air Conditioning System ECS configuration with Control Panel P\N 8G2150V01551 Deactivate and secure both the ACCB2 as per (M) procedure for Item 21-3 and the ACCB1 as per (M) procedure for Item 21-4. ECS configuration with Control Panel P\N 8G2150V02551 a) If "AFT COND FAIL" caution is displayed, deactivate and secure the ACCB1 as per (M) procedure for Item 21-4 b) If "FWD COND FAIL" caution is displayed, deactivate and secure the ACCB2 as per (M) procedure for Item 21-3 c) If "FWD-AFT COND FAIL" caution is displayed, deactivate and secure both the ACCB1 as per (M) procedure for Item 21-4 and the ACCB2 as per (M) procedure for Item 21-3

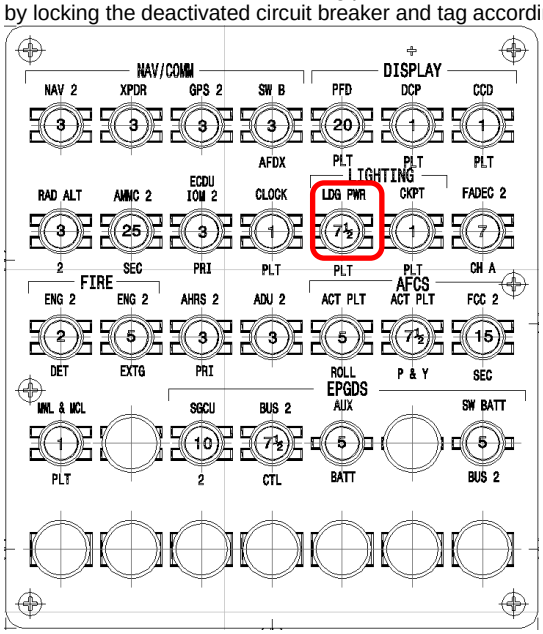
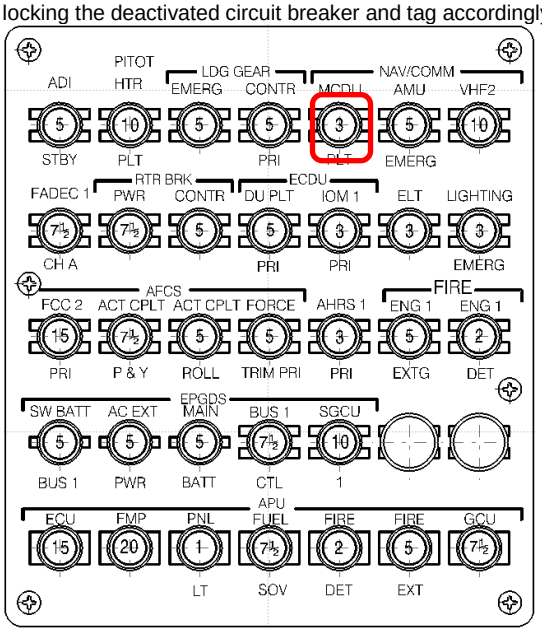
ATA	Item	(M) Procedure
23	-10	Airborne Flight Recorder Camera Deactivate and secure the EAFR Camera by disconnecting, isolating and stowing (secure) the related connector (2), accessible removing the Camera Fairing (3) from the Overhead Aft Panel (1): 
25	-1	Passenger Seat Secure passenger seat in the upright position and placard “DO NOT OCCUPY”. Make sure the placard is clearly visible and firmly secured. In case of failures related to one or more fast belt fixing points the remaining points must be blocked and fast belts fixed to prevent the possibility to have injury to others occupants. Removable parts such as headrest/arm if damaged must be removed and secured in the baggage compartment. In case of failures related to the fixing hardware capability of the seat to the floor the seat must be removed and the cabin configuration arranged to be in accordance to those reported in the RFM.
25	-5	Passenger Convenience Item(s) Procedures may be required and included in the air carrier’s appropriate document.
25	-8	Survival Equipment The inoperative equipment must be placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit. Prior to take-off the pilot must inform the passengers that the equipment is not operative.
25	-9	Lifejackets The inoperative lifejacket(s) must be placarded inoperative, removed from their location and placed out of sight so it cannot be mistaken for a functional unit. Prior to take-off the pilot must inform the passengers that the equipment is not operative
25	-11	Rescue Hoist Pull off the HOIST CABLE CUT breaker on the overhead circuit breaker panel; secure the system by locking the deactivated circuit breaker and tag accordingly.  Stow hoist cable by reeling in fully to compress hook bumper. According to RFM, the HO Pendant and bracket must be removed when Hoist operations are not envisaged. Refer to AMP for the procedure.

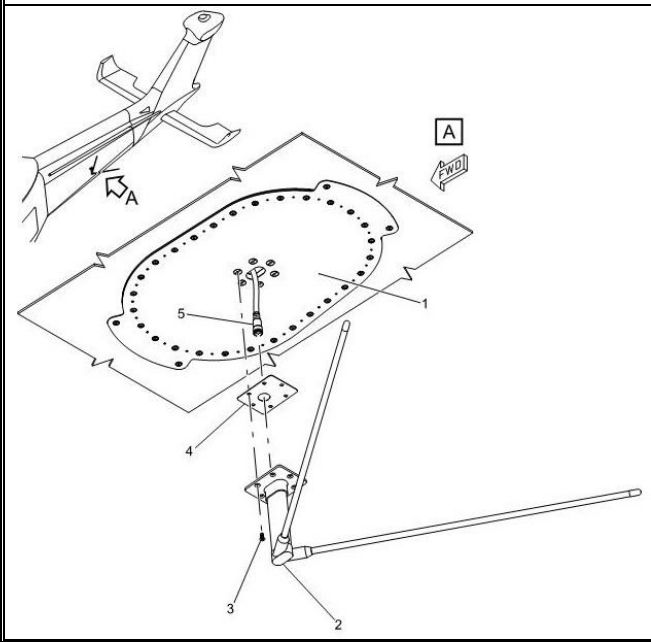
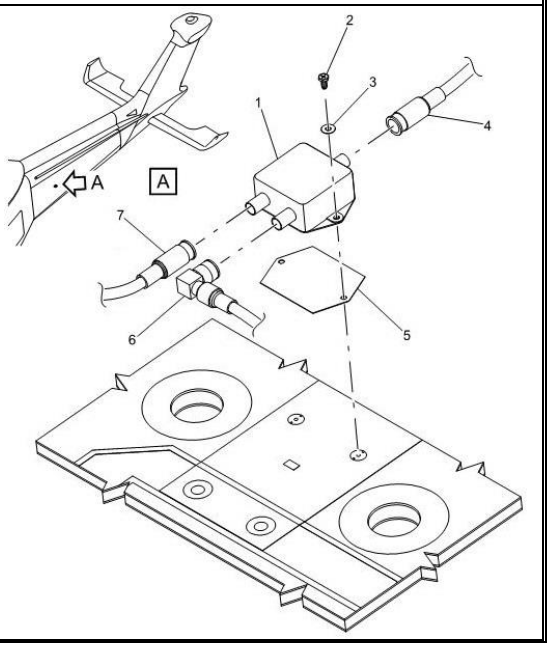
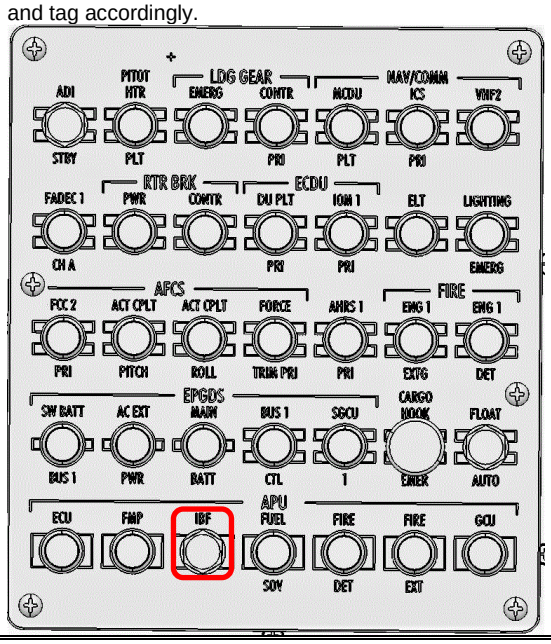
ATA	Item	(M) Procedure
25	-12	Dual Rescue Hoist Both rescue hoists inoperative Pull off the HOIST CABLE CUT breaker on the overhead circuit breaker panel; secure the system by locking the deactivated circuit breaker and tag accordingly.  Stow hoist cables by reeling in fully to compress hook bumper. According to RFM, the HO Pendant and bracket must be removed when Hoist operations are not envisaged. Refer to AMP for the procedure Single rescue hoist inoperative DO NOT pull off the HOIST CABLE CUT breaker on the overhead circuit breaker panel. Stow hoist cable by reeling in fully to compress hook bumper. According to RFM, the HO Pendant and bracket must be removed when Hoist operations are not envisaged. Refer to AMP for the procedure.
25	-14	Cargo Hook Pull off the CARGO REL EMERG breaker on the overhead circuit breaker panel; secure the system by locking the deactivated circuit breaker and tag accordingly.  Stow the cargo hook assembly in the fully retracted position as required by “Post-operation procedure“ according to Maintenance manual.

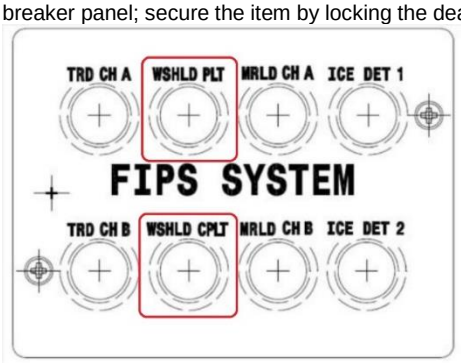
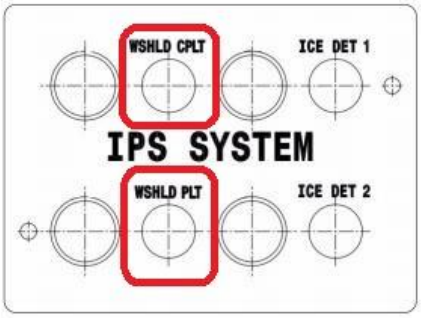
ATA	Item	(M) Procedure
25	-16	Single Foldable Hoist Rescue Hoist Pull off the HOIST CABLE CUT breaker on the overhead circuit breaker panel; secure the system by locking the deactivated circuit breaker and tag accordingly.  Stow hoist cable by reeling in fully to compress hook bumper. According to RFM, the HO Pendant and bracket must be removed when Hoist operations are not envisaged. Refer to AMP for the procedure.
26	-1	Portable Fire Extinguisher The inoperative fire extinguisher(s) must be tagged inoperative, removed from the installed location, and placed out of sight so it cannot be mistaken for a functional unit. Prior to take-off the pilot must inform the passengers that the equipment is not operative.
30	-3b	LIPS system Pull off all the circuit breakers on the LIPS system circuit breaker panel (see next figure); secure the system by locking the deactivated circuit breakers and tag accordingly. 
30	-4	Main Rotor Non-critical zone Heating Dispatch condition number three (“D” interval) Pull off the MRLD CH A and MRLD CH B breakers on the FIPS system circuit breaker panel; secure the system by locking the deactivated circuit breaker and tag accordingly. 

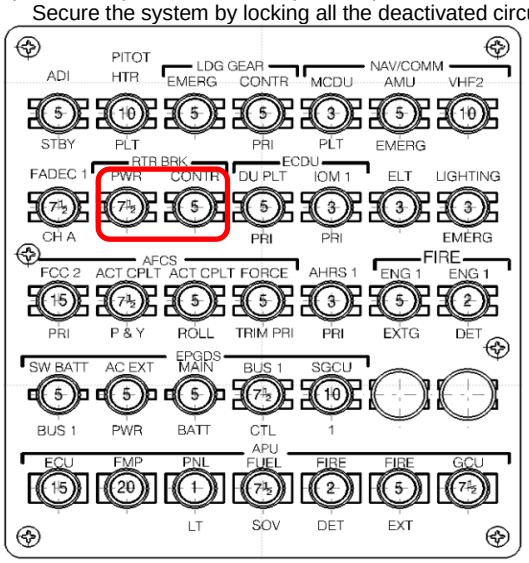
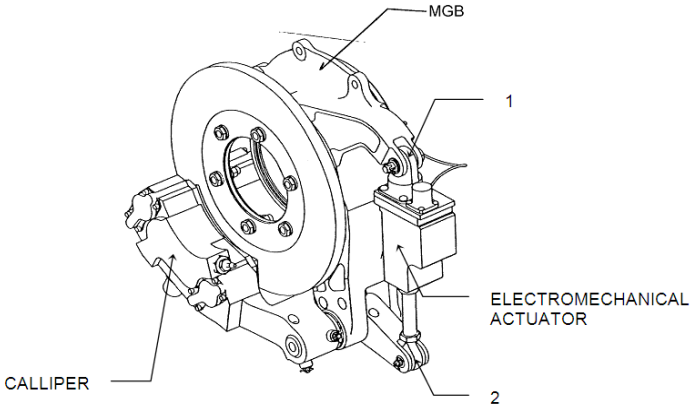
ATA	Item	(M) Procedure
30	-5	Main Rotor critical zone Heating Dispatch condition number one (“A” interval) Refer to procedure for item 30-4 - Dispatch condition number three (“D” interval). Dispatch condition number two (“D” interval) Refer to procedure for item 30-4 - Dispatch condition number three (“D” interval)
30	-6	Tail Rotor Heating – one blades pair Dispatch condition number three (“D” interval) Pull off the TRD CH A and TRD CH B breakers on the FIPS system circuit breaker panel; secure the system by locking the deactivated circuit breakers and tag accordingly 
30	-7	Tail Rotor Heating – all blades (both pairs) Dispatch condition number one (“A” interval) Refer to procedure for item 30-6 - Dispatch condition number three (“D” interval). Dispatch condition number two (“D” interval) Refer to procedure for item 30-6 - Dispatch condition number three (“D” interval)
30	-8a	Ice detectors (FIPS) Dispatch condition number one (“A” interval) To deactivate the ice detectors, pull off the ICE DET 1 and ICE DET 2 breakers on the FIPS system circuit breaker panel; secure the items by locking the deactivated circuit breakers and tag accordingly. 
30	-8b	Ice detectors (LIPS) Dispatch condition number one (“A” interval) To deactivate the affected ice detectors, pull off either the ICE DET 1 or ICE DET 2 breakers on the LIPS system circuit breaker panel; secure the item by locking the deactivated circuit breakers and tag accordingly.  Dispatch condition number two (“D” interval) Refer to procedure for item 30-3b

ATA	Item	(M) Procedure
32	-1	Landing Gear Indicating / Warning System on LG control Panel To secure the system, on ground, pull off the breakers “LDG GEAR CONTR” and “LDG GEAR EMERG” on the overhead circuit breaker panel n° 1, secure the system by locking the deactivated circuit breakers and tag accordingly 
33	-8	Fasten Seat Belts annunciations Placard the annunciation “INOPERATIVE”. Check that at least one operative annunciation is visible from each occupied passenger seat.
34	-3	GPS In case GPS 1 not working set to LCKD the following CB via ECDU, NAV CB page: - GPS 1 In case GPS 2 not working pull off the breaker “GPS 2” on the overhead circuit breaker panel n° 2 secure the system by locking the deactivated circuit breaker and tag accordingly 

ATA	Item	(M) Procedure
34	-4	Radio Altimeter(s) In case Radioaltimeter 1 not working set to LCKD the following CB via ECDU, FLT SNSR CB page: - RAD ALT 1 In case Radioaltimeter 2 not working pull off the breaker “RAD ALT 2” on the overhead circuit breaker panel n° 2 secure the system by locking the deactivated circuit breaker and tag accordingly 
34	-5	Multifunction Control Display Unit (MCDU) In case Pilot MCDU not working pull off the breaker “MCDU PLT” on the overhead circuit breaker panel n° 1, secure the system by locking the deactivated circuit breaker and tag accordingly  In case CPLT MCDU not working set to LCKD the following CB via ECDU, AMMS CB page: - MCDU CPLT
34	-8c	OAT for LIPS system To deactivate the LIPS refer to procedure for item 30-3b

ATA	Item	(M) Procedure
34	-14	GBAS Kit Deactivate and secure the GBAS antenna by disconnecting from the antenna coupler (B-1), isolating and stowing (secure) the related connector (B-4), accessible removing the tail belly inspection panel (A-1) from the tail belly: A  B 
49	-1	APU Inlet Barrier Filter Actuator Pull off the IBF APU breaker on the overhead circuit breaker panel; secure the system by locking the deactivated circuit breaker and tag accordingly. 

ATA	Item	(M) Procedure
56	-1b	Heated windshield (FIPS installed) To deactivate the affected windshield heater, pull off either the WSHLD PLT or WSHLD CPLT breakers on the FIPS system circuit breaker panel; secure the item by locking the deactivated circuit breakers and tag accordingly. 
56	-1c	Heated windshield (LIPS installed) Dispatch condition number one (“A” interval) To deactivate the affected windshield heater, pull off either the WSHLD PLT or WSHLD CPLT breakers on the LIPS system circuit breaker panel; secure the item by locking the deactivated circuit breakers and tag accordingly.  Dispatch condition number two (“D” interval) Refer to procedure for item 30-3b

ATA	Item	(M) Procedure
63	-1	Rotor Brake System Set one engine to FLT or IDLE. Open cowling and panels, verify the position of the calliper. a) If the calliper is in the down position pull the PWR circuit breaker on the RTR BRK section of the overhead circuit breaker panel. Secure the system by locking all the deactivated circuit breakers and tag accordingly.  b) If the calliper is in the up position remove the electromechanical actuator.  Secure the calliper in the down position connecting the bolt holes (1) and (2) with a tie-wrap strap. Secure the free connector of the actuator using a tie-wrap strap. Pull the PWR and the CONTR circuit breakers on the RTR BRK section of the overhead circuit breaker panel. Secure the system by locking all the deactivated circuit breakers and tag accordingly.
95	-1	Emergency Flotation Equipment Pull off the breaker " EMER FLOAT LH" on the overhead circuit breaker panel n° 1 and " EMER FLOAT RH" on the overhead circuit breaker panel n° 2, secure the system by locking the deactivated circuit breakers and tag accordingly