**MAINTENANCE / OPERATIONAL /**

**PLACARDING PROCEDURES MANUAL**

**Including Aircraft GVI (G650), GVI (G650ER)**



**Revision 1a**

**November 06, 2014**

**GAC DOC. No. GVI-0**



**2014 Gulfstream Aerospace Corporation**

**DISCLAIMER FOR MAINTENANCE / OPERATIONAL / PLACARDING**

**PROCEDURES MANUAL (GAC DOC. No. GVI-0)**

The technical information presented herein has been determined to be correct at time of publication. However, should a

direct conflict exist between this and other official publications, e.g., Master Minimum Equipment List (MMEL), Airplane

Flight Manuals (AFM), Maintenance Manuals, those publications take precedence.

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**General Information**

Gulfstream has developed this manual to assist operators in development of their Maintenance, Operational, and Placarding Procedures (MOP) for the Gulfstream VI aircraft as required by the Federal Aviation Administration (FAA) Advisory Circular 91-67 dated July 28, 1991. This manual is intended for use in **conjunction** with the Gulfstream Aerospace GVI (G650), GVI (G650ER) Master Minimum Equipment List (MMEL), Revision 1a, dated November 06, 2014. Operators must apply to local FAA office for approval of a specific MEL and MOP for their aircraft. Part 91 operators should be aware that the published MMEL is intended for 14 CFR 121, 125, 129 and 135 operations as specified in the preamble. 14 CFR 91 operators must obtain a 14 CFR 91 Preamble from the local FAA office.

This manual’s revision number will reflect the last issued FAA approved MMEL revision number. Updates to this manual prior to the next FAA approved MMEL revision will be identified by a point and a letter following the assigned FAA revision number, e.g., first update will be reflected as Revision 1a.

The Aircraft Discrepancy Log Sheet where all inoperative items will be noted is referred to as **ADLS** throughout this document. Those items marked with three asterisks (\*\*\*) are optional items. Those items which are not production installed items will require the operator to develop specific maintenance, operational and placarding procedures for their installation.

The following was accomplished by the Original GVI Maintenance, Operational, and Placarding Manual. Users should review and become familiar with the manual.

1. Formatted manual in a table format similar to MMEL.

2. Electronically formatted in Microsoft Word for Windows

3. Corrected technical errors throughout the manual.

4. Corrected typographical errors throughout the manual.

Note: If errors are noted in this manual, submit a fax providing details and suggested corrections for the error to Gulfstream Technical Publications at (912) 965-3520.

Note: If assistance is needed regarding the MMEL, MEL or MOP implementation or usage, contact the local FAA office.

***NOTICE NOTICE NOTICE***

Any time an item in the MMEL calls for an (M) procedure to be accomplished prior to dispatch with the listed item inoperative, the definitions at the beginning of the MMEL states that these procedures are normally accomplished by maintenance personnel. However, other personnel may be qualified and authorized to perform certain functions. The ultimate responsibility for the accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. In short, a properly trained flight crew member may perform an (M) procedure such as but not limited to pulling and collaring circuit breakers, changing light bulbs, changing or moving Display Units, making adjustments to seats, verifying proper operation of systems or components, swapping connectors from an inoperative unit to an operative unit, and/or closing/locking of doors if that crew member has been trained to do so. It is recommended that training records be kept at the home base of operations for personnel that have been trained to perform (M) procedures. The applicable paragraph from the MMEL is below.

15."(M)" symbol 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 authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel. 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.

Any Circuit Breaker (CB) references used in this document apply to either “mechanical” or “electronic” (SSPC) type circuit breakers.

**The FAA recently revised 14 CFR to address Extended Operations (ETOPS) of Multi-Engine Airplanes. The new rule applies to GAC airplanes operated under 14 CFR Part 135 on stage lengths where the single engine cruise segment exceeds 180 minutes. On those flights, the MMEL becomes more restrictive for certain items. Those items have been identified in this MMEL revision by the words, "Except for ER operations, . . .”.**

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Revision Dates for Gulfstream GVI (G650), GVI (G650ER) FAA MOPP:

For an explanation of changes, refer to the G650 FAA MMEL Highlights of Change page.

|  |  |  |
| --- | --- | --- |
| **Material Dated:** | **Reflects Update Type:** | **Number:** |
| October 01, 2012 | Original | 0 |
| February 26, 2013 | Revision | 0a |
| April 04, 2014 | Revision | 1 |
| November 06, 2014 | Revision | 1a |
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| **MINIMUM NAVIGATION EQUIPMENT** | | **FMS** | **POSITION SENSORS** | | | | **NOTE** |
| **GPS** | **DME/DME** | **VOR/DME** | **IRS** |  |
| **FMS Modes** | **Enroute** | **1** | **1** | **1** | **1** | **1** | **A, B** |
| **Terminal** | **1** | **1** | **1** | **1** | **1** | **A, B** |
| **Approach** | **1** | **1** | **1** | **1** |  | **A, B, F** |
| **RNAV and RNP Operations** | **MNPS**  AC 91-70x  AC 120-33 | **2** | **2** |  |  | **2** | **A, B, C** |
| **RNP (General)**  AC 90-105 | **1** | **1** | **1** | **1** | **1** | **A, B** |
| **RNP 10**  FAA Order 8400.12x | **2** | **1** | **1** | **1** | **1** | **A, B, C, D** |
| **B-RNAV**  EASA AMC 20-4  AC 90-96A | **1** | **1** | **1** | **1** |  | **A** |
| **RNP 4**  FAA Order 8400.33x | **2** | **2** |  |  |  | **A, C** |
| **RNP 2**  AC 90-105 | **1** | **1** | **1** |  |  | **A, B, D** |
| **RNAV 2**  AC 90-100A | **1** | **1** | **1** |  | **1** | **A, B, E** |
| **RNP 1**  AC 90-105 | **1** | **1** | **1** |  |  | **A, B** |
| **RNAV 1**  AC 90-100A | **1** | **1** | **1** |  | **1** | **A, B, E** |
| **P-RNAV**  AC 90-96A/JAA TGL-10 | **1** | **1** | **1** |  |  | **A, B, F** |
| **Approaches With**  **Required Position Sensors** | **RNAV-WAAS**  **LPV** AC 90-107 | **1** | **1** |  |  |  | **A** |
| **RNAV-BARO**  AC 90-105 | **1** | **1** |  |  |  | **A** |
| **RNP AR**  AC 90-101 | **2** | **2** |  |  |  | **A** |

*NOTES:*

* 1. When more than one position sensor is available, the FMS will select the one with the lowest EPU.
  2. The FMS may use any one of the indicated position sensors.

1. Aircraft may be flown on routes requiring two Long Range Navigation (LRN) systems provided that two FMS’s, two GPS position sensors or two Inertial Reference System (IRS) position sensors are operational or one GPS and one IRS sensor are operational.
2. Aircraft may be flown on routes requiring one LRN system provided that one FMS, one GPS sensor, or one IRS position sensor is operational.
   1. Limited to 5.0 hours of IRS-only navigation after the last GPS, DME/DME, or VOR/DME update.
   2. When DME/DME position sensor is used, one IRS position sensor must be available to bridge gaps in DME infrastructure. This is referred to on charts as DME/DME/IRU.
   3. P-RNAV does not require IRS support for the DME/DME position sensor.
   4. VOR, VOR/DME, TACAN or VOR/DME RNAV approaches.

RVSM Operations are authorized:

The following equipment must be operative:

* 2 Air Data Systems (must be two of the following: 1, 2, 3)
* 1 ATC Transponder with both altitude reporting systems operative on remaining transponder
* 1 Flight Guidance Computer with operable autopilot “altitude hold” function
* 1 Altitude Alerting System
* Traffic Alert and Collision Avoidance System (TCAS II)

NAT MNPS Operations are authorized:

To meet navigation accuracy requirements, two independent long range navigational systems must be operative.

B-RNAV (RNAV 5 or RNP5) Operations are authorized:

While at least one FMS is operating, and while at least one of the following pieces of equipment is operating: GPS / VOR and DME / IRS

Aircraft may be dispatched in B-RNAV area provided the following is complied with:

For IRS only, B-RNAV capability is provided for up to 2 hours without FMS sensor updating.

One VOR/DME must be available as a NAV source (possibility to revert to conventional navigation means in case loss of last B-RNAV system).

RNP10 Operations are authorized:

Aircraft may be dispatched in RNP10 area provided:

At least two Flight Management Systems are operative and at least two GPS are operative,

or

At least two IRS are operative.

For IRS only, RNP10 capability is provided for up to 5.0 hours in duration without FMS sensor updating.

P-RNAV (RNAV 1 or RNAV 2) Operations are authorized:

At least two Flight Management Systems are operative and either of the following navigation modes such that EPU does not exceed RNP requirements:

* HYBRID
* GPS
* DME / DME
* VOR / DME

FANS 1/A Operations are authorized

The following equipment must be operative:

* 2 MCDU's
* SATCOM for overwater or remote area flights
* 1 VHF Datalink radio for overland flights
* 1 CMF (Communications Management Function or Datalink Function)
* 1 HF radio for overwater or remote area flights

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| 1. Cabin Altitude Indicator (Overhead Panel) | C | 1 | 0 | May be inoperative provided cabin altitude is available on EICAS Synoptic display. | None required. | None required. | An Inoperative Placard will be placed adjacent to Cabin Altitude Indicator and will be noted on ADLS. |
|  | C | 1 | 0 | May be inoperative provided:  a) Cabin Pressure Selector Panel is operative, and  b) Pressurization is operated in AUTO mode. | None required. | None required. | An Inoperative Placard will be placed adjacent to Cabin Altitude Indicator and will be noted on ADLS. |
|  | C | 1 | 0 | May be inoperative provided:  a) Cabin Differential Pressure Indicator is operative, and  b) A chart is provided to crew to convert Cabin Differential Pressure to Cabin Altitude.  NOTE: See AOM Section 10-01-00, Figure 10. | None required. | None required. | An Inoperative Placard will be placed adjacent to Cabin Altitude Indicator and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provided airplane is operated in unpressurized configuration. | None required. | To operate the airplane unpressurized, select manual pressurization and slew outflow valve to full open position with both engine bleeds and air conditioning packs selected ON if available. If not, select RAM Air ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed adjacent to Cabin Altitude Indicator and will be noted on ADLS. |

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| 2. Cabin Differential  Pressure Indicator | D | 1 | 0 | May be inoperative provided cabin differential pressure is available on EICAS Synoptic display. | None required. | None required. | An Inoperative Placard will be placed adjacent to Cabin Differential Pressure Indicator and will be noted on ADLS. |
|  | C | 1 | 0 | May be inoperative provided:  a) Cabin Pressure Selector Panel is operative, and  b) Pressurization is operated in AUTO mode. | None required. | None required. | An Inoperative Placard will be placed adjacent to Cabin Differential Pressure Indicator and will be noted on ADLS. |
|  | D | 1 | 0 | May be inoperative provided:  a) Cabin Altitude Indicator is operative, and  b) A chart is provided to crew to convert Cabin Altitude to Cabin Differential Pressure.  NOTE: See AOM Section 10-01-00, Figure 10. | None required. | None required. | An Inoperative Placard will be placed adjacent to Cabin Differential Pressure Indicator and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provided airplane is operated in unpressurized configuration. | None required. | To operate the airplane unpressurized, select manual pressurization and slew outflow valve to full open position with both engine bleeds and air conditioning packs selected ON if available. If not, select RAM Air ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed adjacent to Cabin Differential Pressure Indicator and will be noted on ADLS. |

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| 3. Cabin Rate of Climb  Indicator | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be placed adjacent to Cabin Rate of Climb Indicator and will be noted on ADLS. |
| 4. Automatic Pressurization  Control Systems | B | 2 | 0 | (O) Except for ER operations, may be inoperative provided:  a) Manual Pressurization Control System is operative,  b) Cabin Altitude and Differential Pressure Indicators are operative,  c) Cabin Rate of Climb Indicator is operative,  d) Autopilot is operative, and  e) Airplane is operated in accordance with AFM Limitations. | None required. | Flight crew will ensure required items e.g. Manual Pressurization Control System, Cabin Altitude and Cabin Rate of Climb Indicator and Auto Pilot are functional. AFM, Section 2, Normal Procedures, Before Starting Engines. Flight crew will operate airplane in accordance with AFM, Section 1, Limitations, Cabin Pressurization Control and Section 3, Abnormal Procedures, Loss of Automatic Pressurization Control. For Taxi, Takeoffs and Landings - Max Cabin Pressure Differential 0.3 psi.  To operate the airplane unpressurized, select manual pressurization and slew outflow valve to full open position with both engine bleeds and air conditioning packs selected ON if available. If not, select RAM Air ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard stating “AUTO INOP” will be placed above FAULT / MANUAL Switch and will be noted on ADLS. |
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| 4. Automatic  Pressurization  Control Systems  (continued) |  |  |  |  |  |  |  |
|  | B | 2 | 0 | (O) Except for ER operations, may be inoperative provided airplane is operated in unpressurized configuration. | None required | To operate the airplane unpressurized, select manual pressurization and slew outflow valve to full open position with both engine bleeds and air conditioning packs selected ON if available. If not, select RAM Air ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard stating "AUTO INOP" will be placed above FAULT / MANUAL Switch and will be noted on ADLS. |
| 5. Manual Pressurization  Control System | C | 1 | 0 | May be inoperative provided both Automatic Pressurization Control Systems are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 6. Semi-Auto  Pressurization  Control System | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 7. Cabin Altitude Pressure  Warning System | C | 1 | 0 | May be inoperative provided:  a) Cabin Altitude and Differential Pressure Indicators are operative,  b) Cabin Oxygen On Warning System is operative, and  c) Airplane is operated in accordance with AFM Limitations. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by the flight crew and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provided airplane is operated in unpressurized configuration. | None required. | To operate the airplane unpressurized, select manual pressurization and slew outflow valve to full open position with both engine bleeds and air conditioning packs selected ON if available. If not, select RAM Air ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed in a prominent position to be seen by the flight crew and will be noted on ADLS. |
| 8. Pressurization Thrust  Recovery Outflow Valve  Position Indicator | C | 1 | 0 | May be inoperative provided all other components of the Cabin Pressure Control Panel and Cabin Pressure Indicator are operative. | None required. | None required. | An Inoperative Placard will be placed on Outflow Valve Position Indicator and will be noted on ADLS. |
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| 9. Cockpit Zone  Temperature Control  System & Cabin Zone  Temperature Control  Systems | C | 3 | 2 |  | None required. | None required. | An Inoperative Placard will be placed adjacent to Cockpit/Cabin Temperature Indicator and will be noted on ADLS. |
|  | C | 3 | 1 | (O) May be inoperative provided:  a) Ram Air is operative, and  b) Airplane is operated in unpressurized configuration. | None required. | To operate the airplane unpressurized, select manual pressurization and slew outflow valve to full open position with both engine bleeds and air conditioning packs selected ON if available. If not, select RAM Air ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed adjacent to Cockpit/Cabin Temperature Indicator and will be noted on ADLS. |
| 1) Automatic System | C | 3 | 0 | May be inoperative provided:  a) Associated manual control system is operative, and  b) Associated temperature indicator is operative. | None required. | None required. | An Inoperative Placard will be placed on AUTO half of capsule of Cockpit/Cabin Temperature Selectors and will be noted on ADLS. |
| 2) Manual Systems | C | 3 | 0 | May be inoperative provided:  a) Associated automatic control system is operative, and  b) Associated temperature indicator is operative. | None required. | None required. | An Inoperative Placard will be placed on MANUAL half of capsule of Cockpit/Cabin Temperature Selectors and will be noted on ADLS. |
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| 10. Cockpit/Cabin Zone  Temperature Indicators  (Overhead Panel) | D | 3 | 0 | May be inoperative provided associated Automatic Temperature Control System is operative. | None required. | None required. | An Inoperative Placard will be placed on affected Temperature Indicator face and will be noted on ADLS. |
|  | D | 3 | 0 | May be inoperative provided associated zone temperature is available on EICAS Synoptic display. | None required. | None required. | An Inoperative Placard will be placed on affected Temperature Indicator face and will be noted on ADLS. |
|  | D | 3 | 0 | May be inoperative provided associated Manual Temperature Control System is operative. | None required. | None required. | An Inoperative Placard will be placed on affected Temperature Indicator face and will be noted on ADLS. |
| 11. Duct Temperature  Indicators  (Overhead Panel) | D | 3 | 0 | May be inoperative provided associated duct temperature is available on EICAS Synoptic display. | None required. | None required. | An Inoperative Placard will be placed on overhead panel below the Zone/Duct Switch and will be noted on ADLS. |
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| 12. Environmental Control  System (ECS) Packs |  |  |  |  |  |  |  |
| 1) Pressurized  Configuration | C | 2 | 1 | Except for ER operations, may be inoperative provided:  a) Inoperative ECS Pack is selected OFF,  b) Bleed Air Isolation Valve is CLOSED and OPERATIVE, and  c) Airplane is operated in accordance with AFM Limitations. | None required. | None required. | An Inoperative Placard will be placed adjacent to affected "ECS PACK" Switch and will be noted on ADLS. |
| 2) Unpressurized  Configuration | C | 2 | 0 | Except for ER operations, may be inoperative provided:   1. Thrust Recovery Outflow Valve is operative, 2. Rear baggage compartment is not used (empty), and 3. Internal baggage door remains OPEN. | None required. | None required. | An Inoperative Placard will be placed adjacent to affected "ECS PACK" Switches and will be noted on ADLS. |
| 13. Air Conditioning  System Pack Inlet  Valves | C | 2 | 1 | (M) Except for ER operations, may be inoperative provided:  a) Affected Valve is CLOSED and deactivated electrically,  b) Associated Air Conditioning Pack is selected OFF, and  c) Airplane is operated in accordance with AFM Limitations. | Maintenance will ensure affected Valve is "CLOSED" and electrically deactivated when associated Air Conditioning Pack switch is selected "OFF". Associated Air Conditioning CB must NOT be pulled. Refer to AMM, chapter 21-21-00. Flight crew may perform maintenance function if maintenance is unavailable.  Flight crew may accomplish this task if properly qualified and authorized.  CAUTION: Pulling (de-energizing) associated Air Conditioning CB will cause valve to open, allowing airflow to restart. | None required. | An Inoperative Placard will be placed on or below affected ECS Pack Switch and will be noted on ADLS. |

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| 14. Thrust Recovery  Outflow Valve  System (TROV) | C | 1 | 0 | (M) (O) May be inoperative provided:  a) Outflow valve is positioned to full OPEN position and electrically isolated,  b) Airplane is operated in unpressurized configuration, and  c) Extended overwater operations are not conducted. | Maintenance will ensure Outflow Valve is positioned to full OPEN position and electrically de-energized by pulling the CAB PRESS MAN CTL circuit breaker.  Flight crew may accomplish this task if properly qualified and authorized. | To operate the airplane unpressurized, refer to AFM Section 3-21-60. Also refer to 4-10-50 in the event that smoke is detected in the baggage compartment. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) AC Motors | C | 2 | 1 | May be inoperative provided:  a) DC motor is operative, and  b) Airplane is operated in accordance with AFM Limitations. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 15. Pressure Relief  Valve | C | 1 | 0 | (O) May be inoperative provided:  a) Cabin differential pressure and cabin altitude displays are operative,  b) Selected cabin altitude is 1,000 feet higher than normal cabin altitude for the cruise flight level, and  c) Flight crew monitors actual cabin differential pressure and maintains it at or below 9.5 psi. | None required. | Flight Crew will ensure:  a) Cabin Differential Pressure and Cabin Altitude Displays are operative.  b) Select Semi-Auto Operation and selected Cabin Altitude is 1,000 feet higher than normal Cabin Altitude for cruise flight level.  c) Monitor actual Cabin Differential Pressure and maintain it at or below 9.5 psi. | An Inoperative Placard will be placed on Cabin Pressure Control Panel and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provided airplane is operated in unpressurized configuration. | None required. | To operate the airplane unpressurized, select manual pressurization and slew outflow valve to full open position with both engine bleeds and air conditioning packs selected ON if available. If not, select RAM Air ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed on Cabin Pressure Control Panel and will be noted on ADLS. |
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| 16. Cabin Pressure  Indicator and  Control Panel |  |  |  |  |  |  |  |
| 1) Manual Light | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Control Panel and will be noted on ADLS. |
| 2) Flight/Landing Switch  (Light Function Only) | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Control Panel and will be noted on ADLS. |
| 3) Fault/Manual Switch  (Light Function Only) | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Control Panel and will be noted on ADLS. |
| 4) Auto/Semi Switch  (Light Function Only) | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Control Panel and will be noted on ADLS. |

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| 17. Semi Mode CPCS  (SMC) | B | 1 | 0 | May be inoperative provided:  a) Auto system (Cabin Pressure Control Panel) is operative, and  b) Semi mode is considered inoperative. | None required. | None required. | An Inoperative Placard will be placed on Selector Panel and will be noted on ADLS. |
| 18. Remote Filter  (Pressure Relief  Valve PRV) | B | 1 | 0 |  | None required. | None required. | A Placard indicating filter is removed will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 19. CPAM (Cabin  Pressure Acquisition  Module) | C | 1 | 0 | May be inoperative provided both auto systems are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 20. Ram Air System |  |  |  |  |  |  |  |
| 1) Pressurized  Configuration | C | 1 | 0 | May be inoperative provided:  a) Automatic Pressurization Control System is operative,  b) Manual Pressurization Control System is operative,  c) Bleed Air Pressure Regulating and Shut-Off Systems are operative, and  d) Airplane is operated in accordance with AFM Limitations and Procedures. | None required. | None required. | An Inoperative Placard will be placed adjacent to the Ram Air Switch to be viewed by the flight crew and will be noted on the ADLS |
| 2) Unpressurized  Configuration | C | 1 | 0 | (O) May be inoperative provided:  a) Aircraft is operated in unpressurized configuration, and  b) Airplane is operated in accordance with AFM Limitations and Procedures. | None required. | To operate the airplane unpressurized, select manual pressurization and slew outflow valve to full open position with both engine bleeds and air conditioning packs selected ON if available. If not, select RAM Air ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed adjacent to the Ram Air Switch to be viewed by the flight crew and will be noted on the ADLS. |
| 21. PSU Fan | C | 1 | 0 | (O) May be inoperative provided:   1. Ambient Temperature is 95 degrees F (35 degrees C) or cooler, 2. TRU electrical loads are 50% or less, 3. Right main TRU is operative, and   d) Both Environmental Control System (ECS) Packs are operative. | None required. | Flight crew will:   1. Minimize ground operation time, especially during hot weather. 2. During Ground operation, monitor TRU load – limit load to 50%.   c) For ground operation longer than 15 minutes ensure main and baggage doors are closed, APU air is selected “ON” and outflow valve is fully OPEN. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Autothrottle Systems | C | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Performance  Management Systems  (SmartPerf/TOLD) | C | 2 | 0 | May be inoperative provided Performance Handbook is immediately available to the flight crew. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3. Control Wheel  Autopilot Disconnect  Buttons | C | 2 | 1 | May be inoperative provided:   1. Autopilot is not used below 1,500 feet AGL, 2. Approach minimums do not require the use of the autopilot, and 3. Airplane is piloted from the side with operative button. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. Autothrottle  Disconnect Buttons  (on Thrust Lever  Handles) | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided Autothrottle is not used. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 5. Autothrottle Engage /  Disengage Switches  (on Thrust Lever Stem) | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be placed on Thrust Lever Stem and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided Autothrottle is not used. | None required. | None required. | An Inoperative Placard will be placed on Thrust Lever Stem and will be noted on ADLS. |
| 6. Touch Control  Steering Switches  (TCS) | D | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 7. Flight Guidance  Computers (FGC) /  Autopilots (Flight  Directors) | C | 2 | 1 | (M) (O) Except for ER operations or where en route operations or approach minimums require its use, may be inoperative provided airplane is operated in accordance with AFM Limitations.  NOTE: FGC/AP is required for MNPS, RVSM, RNP and PRNAV operations. | Maintenance will pull and reset the affected MAU Channel and Guidance Panel circuit breakers in attempt to reset the FGC/AP. If FGC/AP does not recover, no further action required. | Flight crew will observe AFM limitations in the event the operative FGC/AP fails. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 8. Takeoff/Go-Around  (TO/GA) Buttons (on  Power Lever Handles) | C | 2 | 1 | May be inoperative provided approach minimums do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be viewed by the flight crew and will be noted on ADLS. |
|  | C | 2 | 0 | (O) May be inoperative provided:  a) Both power levers are operated manually for takeoff and go-around, and  b) Autopilot and Flight Director are not used below 500 feet or MDA, whichever is higher.  NOTE: Flight Director Takeoff and Go-Around guidance and Autothrottles are not available with both TO/GA switches inoperative. Missed approach if needed must be selected via the MCDU. | None required. | Flight Director and Autothrottle are not available for Takeoff or Go-Around with both TO/GA buttons inoperative. Flight crew shall use raw data and manual throttles for takeoff and go-around. For takeoff, once airborne and above 500 ft AGL, Pilot Monitoring (PM) shall select desired lateral mode (HDG or LNAV) on guidance panel as directed by pilot-flying (PF). Additionally, PNF shall select desired vertical mode (FLCH or VS or FPA) and engage autothrottle as directed by PF. For go-around, after flaps and landing gear have been retracted and airplane is above 500 ft AGL, PNF shall select desired lateral mode (HDG or LNAV) and vertical mode (FLCH or VS or FPA) on guidance panel and engage autothrottle at direction of PF. | An Inoperative Placard will be displayed in a prominent position to be viewed by the flight crew and will be noted on ADLS. |
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| 1. Communications D  Systems (VHF, UHF) | D | - | 0 | Any in excess of those required by 14 CFR may be inoperative provided it is not powered by the Emergency AC Bus, Emergency DC Bus, Battery Bus, Battery Direct Bus, or the DC Transfer Bus and not required for emergency procedures. | None required. | None required.  NOTE: No. 1 VHF COMM must be operative – powered by the emergency bus. | An Inoperative Placard will be placed adjacent to affected Radio Frequency MCDU and will be noted on ADLS. |
|  |  |  |  | NOTE: Comm 1, NAV 1 and ATC 1 are powered by the Emergency Bus. |  |  |  |
| 1) VHF Communication Control Panels |  |  |  |  |  |  |  |
| \*\*\* a) Frequency  Transfer  Light | C | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\* b) Frequency C  Transfer  Switch | C | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\* c) Frequency C  Selector  Knob | C | - | 2 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\* d) Frequency C  Indication | C | - | 2 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 2. Cockpit Voice A  Recorder (CVR)  with Flight Data  Recorder (FDR)  Installed | A | 1 | 0 | May be inoperative provided:   1. Flight Data Recorder (FDR) is operative, and 2. Repairs are made within three flight days.   NOTE: Part 91 operators should refer to 14 CFR 91.609 for additional relief. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1. Independent   \*\*\* Power Source | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| Cockpit Voice  Recorder (CVR)  (Operator Other Than a  Holder of an Air  Carrier or Commercial  Operator Certificate) | A | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1. Independent   \*\*\* Power Source | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 3. Selective Call Systems  (SELCAL) | C | - | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | One crew member shall monitor the appropriate frequency. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | 0 | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Channels | C | - | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew will ensure:  a) SELCAL decoder monitors audio from the VHF and HF communications transceivers,  b) Recognizes receipt of the tone set assigned to the airplane, and  c) Provides the flight compartment with call alert signals. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | 0 | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 4. Emergency  Locator  Transmitter  (ELT) |  |  |  |  |  |  |  |
| \*\*\* 1) Survival  Type ELTs | D | - | - | Any in excess of those required by 14 CFR may be inoperative or missing. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Fixed ELTs | A | - | 0 | (M) May be inoperative provided:  a) System is deactivated, and  b) Repairs are made within 90 days. | Maintenance will pull and collar the ELT circuit breaker. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | A | - | 0 | May be missing provided repairs are made within 90 days. | None required. | None required. | An Inoperative Placard will be displayed in view of the pilot to show “ELT not installed” and will be noted on ADLS. |
|  | D | - | - | (M) Any in excess of those required by 14 CFR may be inoperative provided system is deactivated. | Maintenance will pull and collar the ELT circuit breaker. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | - | Any in excess of those required by 14 CFR may be missing. | None required. | None required. | An Inoperative Placard will be displayed in view of the pilot to show “ELT not installed” and will be noted on ADLS. |

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| 5. Crewmember  \*\*\* Interphone System | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
| 1. Passenger   Configuration |  |  |  |  |  |  |  |
| a) Flight Deck to Cabin, Cabin to  Flight Deck  Function | B | - | - | (O) May be inoperative provided:   1. Flight deck to cabin and cabin to flight deck interphone functions operate normally on at least 50% of the cabin handsets, 2. On wide-body airplanes, flight deck to cabin and cabin to flight deck interphone function operates normally at one door for each pair of exit doors, and 3. Alternate communications procedures between the affected flight attendants station(s) are established and used. | None required. | Flight crew may use the PA to communicate with the cabin crew or speak to the cabin crew directly in either the cockpit or cabin to pass information. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
| (continued) |  |  |  | NOTE: Any station function(s) that is operative may be used. |  |  |  |

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| 5. Crewmember  \*\*\* Interphone System (continued) |  |  |  |  |  |  |  |
| b) Cabin to Cabin  Function | B | 2 | 0 | (O) May be inoperative provided alternate communications procedures between the affected Flight Attendants station(s) are established and used.  NOTE: Any station function(s) that is operative may be used. | None required. | Cabin crew may use the PA to communicate with the cabin crew or speak to the cabin crew directly in either the cockpit or cabin to pass information. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
|  | B | - | - | (O) May be inoperative provided:   1. Cabin to cabin interphone functions operate normally on at least fifty percent of the cabin handsets, 2. On wide-body airplanes, cabin to cabin interphone function operates normally at one door for each pair of exit doors, and 3. Alternate communications procedures between the affected flight attendants stations are established and used.   NOTE: Any station function(s) that is operative may be used. | None required. | Cabin crew may use the PA to communicate with the cabin crew or speak to the cabin crew directly in either the cockpit or cabin to pass information. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
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| 5. Crewmember  \*\*\* Interphone System  (continued) |  |  |  |  |  |  |  |
| 1. Flight Deck to Ground |  |  |  |  |  |  |  |
| 1. Large Turbojet Powered Airplanes Operating under Part 121 | C | 1 | 0 | (O) Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided:   1. Alternate procedures are established and used, and 2. Nose gear/forward fuselage service interphone face operates normally. | None required. | Flight crew may use hand signals for communications with ground crew. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
|  | C | 1 | 0 | (O) Service interphone flight deck to ground/ground to flight deck function may be inoperative provided:   1. Alternate procedures are established and used, and 2. Nose gear/forward fuselage flight interphone jack operates normally. | None required. | Flight crew may use hand signals for communications with ground crew. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
|  | B | - | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew may use hand signals for communications with ground crew. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
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| 5. Crewmember  \*\*\* Interphone System  (continued) |  |  |  |  |  |  |  |
| 1. Flight Deck to Ground (cont’d) |  |  |  |  |  |  |  |
| 1. All other Aircraft / Operations | C | - | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew may use hand signals for communications with ground crew. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
|  | D | - | 0 | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
| 6. Interphone Systems  \*\*\* | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Interphone System and will be noted on ADLS. |
| 7. Cockpit Speakers | C | 2 | 0 | May be inoperative provided:  a) Affected speaker is not required for aural warnings, and  b) An operative headset is provided for each person on cockpit duty. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 8. Passenger Address  \*\*\* Systems (PA) |  |  |  |  |  |  |  |
| 1) Passenger  Configuration | B | 1 | 0 | (O) May be inoperative provided:   1. Alternate, normal and emergency procedures, and/or operating restrictions are established and used, and 2. Flight attendant alerting system (audio and visual) operates normally.   NOTE: Any station function(s) that is operative may be used. | None required. | Flight crew will coordinate with cabin crew prior to the flight. Flight crews may use the flight deck-to-cabin interphone system to pass information to the cabin crew. Also, the flight crew may speak to the cabin crew directly in either the cockpit or cabin to pass information. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provided:  a) PA not required by 14 CFR, and  b) Alternate, normal and emergency procedures, and/or operating restrictions are established and used.  NOTE: Any station function(s) that is operative may be used. | None required. | Flight crew will coordinate with cabin crew prior to the flight. Flight crews may use the flight deck-to-cabin interphone system to pass information to the cabin crew. Also, the flight crew may speak to the cabin crew directly in either the cockpit or cabin to pass information. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1. Lavatory Speakers | C | - | - | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew will personally check to see if the lavatory with the inoperative speaker is vacant. If not, advise person concerning the announcement. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 8. Passenger Address  \*\*\* Systems (PA)  (continued) |  |  |  |  |  |  |  |
| 2) Cargo Only  Configuration  (Courier / Supernumerary Address System) | C | 1 | 0 | (O) May be inoperative provided alternate, normal and emergency procedures are established and used. | None required. | Flight crew may speak directly in either the cockpit or cabin to pass information. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | 1 | 0 | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1. Lavatory Speaker | C | 1 | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew will personally check to see if the lavatory with the inoperative speaker is vacant. If not, advise person concerning the announcement. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | 1 | 0 | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9. Satellite  \*\*\* Communication  Systems | D | - | 0 | May be inoperative provided procedures do not require their use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 10. Prerecorded  \*\*\* Passenger  Announcement Systems | D | - | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew will comply with proviso in remarks column by using manual PA system to inform passengers. In addition, the flight crew or cabin crew may give direct oral instructions to the passengers. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11. Flight Deck Hand  Microphones  HOLDER OF AN AIR CARRIER OR COMMERCIAL OPERATOR CERTIFICATE | C | - | 0 | May be inoperative provided associated boom microphone operates normally. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | 0 | Any in excess of those required by regulation may be inoperative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| Flight Deck Hand  Microphones  OPERATOR OTHER  THAN A HOLDER OF AN AIR CARRIER  OR COMMERCIAL  OPERATOR  CERTIFICATE | D | - | 0 | Any in excess of those required by regulation may be inoperative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | - | 0 | May be inoperative provided associated boom microphone operates normally. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 12. Flight Deck Headsets  Earphones/Headphones  and Boom  Microphones  HOLDER OF AN AIR  CARRIER OR  COMMERCIAL  OPERATOR  CERTIFICATE |  |  |  |  |  |  |  |
| 1) Headset Boom  Microphones | A | - | 0 | May be inoperative provided:  a) Associated hand microphone is installed and operates normally, and  b) Repairs are made within three (3) flight days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | - | Any in excess of those required by regulation may be inoperative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Headset  Earphones / Headphones | C | - | 1 | May be inoperative provided associated flight deck speaker operate normally. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | - | Any in excess of those required by regulation may be inoperative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3) Active Noise Canceling / Reduction Function | D | - | 0 | May be inoperative provided normal audio function of headset is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 12. Flight Deck Headsets  Earphones/Headphones  and Boom  Microphones  OPERATOR OTHER  THAN A HOLDER OF  AN AIR CARRIEROR COMMERCIAL  OPERATOR  CERTIFICATE  (continued) | D | - | - | Any in excess of those required by regulation may be inoperative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Headset Boom  Microphones | A | - | 0 | May be inoperative provided:  a) Associated hand microphone is installed and operates normally, and  b) Repairs are made in accordance with applicable regulations. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | - | Any in excess of those required by regulation may be inoperative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Headset  Earphones / Headphones | C | - | 1 | May be inoperative provided associated flight deck speaker operates normally. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3) Active Noise Canceling / Reduction Function | D | - | 0 | May be inoperative provided normal audio function of headset is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 13. Alerting Systems  \*\*\* (Audio/Visual) |  |  |  |  |  |  |  |
| \*\*\* 1) Passenger  Configuration |  |  |  |  |  |  |  |
| \*\*\* a) Flight Deck Call  Visual Alerting  System | B | 1 | 0 | May be inoperative provided the flight deck audio alerting system is operative.  NOTE: The flight deck audio alerting must always be operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\* b) Flight Attendant  Visual Alerting  System | B | 1 | 0 | (O) May be inoperative provided:  a) PA system is operative,  b) If affected visual alerting system is used for Lavatory Smoke Detector Alerting, an alternate Lavatory Smoke Detector Alert (audio or visual) is installed and operative, and  c) Alternate procedures for contacting flight attendants are established and used.  NOTE 1: Passenger to Attendant Call System (excluding wheelchair accessible lavatory call system required by 14 CFR) is considered Non-Essential Equipment and Furnishings (NEF).  NOTE 2: Any visual alerting system function(s) that operatives normally may be used. | None required. | Flight crew will coordinate with the flight attendant prior to departure. Alternate means include use of the PA, internal phone system, or a series of chimes from the NO SMOKE / SEAT BELT ON / OFF feature. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 13. Alerting Systems  \*\*\* (Audio/Visual) (continued) |  |  |  |  |  |  |  |
| \*\*\* c) Flight Attendant  Audio Alerting  System | B | - | 0 | (O) May be inoperative provided:  a) PA system is operative,  b) If affected audio alerting system is used for Lavatory Smoke Detector Alerting an alternate Lavatory Smoke Detector Alert (visual or audio) is installed and operative, and  c) Alternate procedures for contacting flight attendants are established and used.  NOTE 1: Passenger to Attendant Call System (excluding wheelchair accessible lavatory call system required by 14 CFR) is considered Non-Essential Equipment and Furnishings (NEF).  NOTE 2: Any audio alerting system function(s) that operatives normally may be used. | None required. | Flight crew will coordinate with the flight attendant prior to departure. Alternate means include use of the PA, internal phone system, or a series of chimes from the NO SMOKE / SEAT BELT ON / OFF feature. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 14. Handset Systems |  |  |  |  |  |  |  |
| 1. Passenger   Configuration |  |  |  |  |  |  |  |
| a) Flight Deck | C | 1 | 0 | (O) May be inoperative provided:  a) Flight deck to cabin communication is operative, and  b) Alternate procedures are established and used. | None required. | Flight crew will use the PA or direct oral communications as necessary. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| (continued) | D | 1 | 0 | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 14. Handset Systems |  |  |  |  |  |  |  |
| 1. Passenger   Configuration  (continued) |  |  |  |  |  |  |  |
| b) Cabin | B | - | - | (O) May be inoperative provided:   1. Fifty percent of cabin handsets operate normally, 2. On wide-body airplanes, one handset must operate normally at each pair of exit doors, and 3. Alternate communications procedures between the affected flight attendants station(s) are established and used.   NOTE 1: An operative handset at an inoperative flight attendant seat shall not be counted to satisfy the fifty percent requirement.  NOTE 2: Any handset(s) function(s) that is operative may be used. | None required. | Flight crew will ensure alternate procedures are established and used. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 15. Radio Tuning Functions |  |  |  | See item 34-36 MCDU for Radio Tuning Function relief. |  |  |  |
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| 16. High Frequency (HF)  Communication  Systems | D | - | - | Any in excess of those required by 14 CFR may be inoperative. | None required. | None required. | An Inoperative Placard will be placed adjacent to affected Interphone System and will be noted on ADLS. |
|  | C | 2 | 1 | (O) May be inoperative while conducting operations that require two LRCS provided:  a) SATCOM Voice or Data Link operates normally,  b) Alternate procedures are established and used,  c) SATCOM Voice coverage is available over the intended route of flight, and  d) If SATCOM Voice is to be used over the intended route of flight, SATCOM Voice short codes (INMARSAT) or direct dial commercial numbers (IRIDIUM) must be available. If not available, prior coordination with the appropriate ATS (FIR) facility is required. | None required. | The flight crew shall perform the SATCOM preflight test on the Datalink Manager menu. Refer to the OM for additional details. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  |  |  |  | NOTE: SATCOM Voice is to be used only as a backup to normal HF Communications. |  |  |  |
| 17. NAV/COM Radio | C | 1 | 0 | May be inoperative provided operations do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 18. Datalink System  (CMF) | C | 2 | 0 | (O) May be inoperative provided alternate procedures are established and used.  NOTE 1: Datalink system is required for ADS-C and/or CPDLC operation.  NOTE 2: Datalink must be operative whenever flights in RNP 4 airspace are conducted. | None required. | Flight crew will use voice over VHF/HF to relay pertinent information to the air traffic management system. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | 2 | 0 | May be inoperative provided routine procedures do not require its use.  NOTE 1: Datalink system is required for ADS-C and/or CPDLC operation.  NOTE 2: Datalink must be operative whenever flights in RNP 4 airspace are conducted. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 19. Modular Radio Cabinet  (MRC) Power Supplies | A | 2 | 1 | May be inoperative provided:   1. Associated Comm and Nav radios and opposite ATC are operative, and 2. Repairs are made within one flight day. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  |  |  |  | NOTE: Dispatch is acceptable with a MRC 1 or MRC 2 failed and EICAS blue message “APM FAIL” and “ASCB FAIL” displayed. |  |  |  |
| 20. Headsets |  |  |  | Combined with Item 12 in Revision 1. |  |  |  |
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| 21. Controller Pilot Data  Link Communications  (CPDLC) |  |  |  |  |  |  |  |
| 1) ATN B1  \*\*\* (PM-CPDLC/Link 2000+) | D | 1 | 0 | (O) May be inoperative provided alternate procedures do not require its use. | None required. | Flight crew will use voice over VHF/HF or SATCOM to relay pertinent information to the air traffic management system. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) FANS 1/A  \*\*\* (ADS-C/CPDLC) | D | 1 | 0 | (O) May be inoperative provided enroute operations do not require its use. | None required. | Flight crew will use voice over VHF/HF or SATCOM to relay pertinent information to the air traffic management system. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Engine Generators | B | 2 | 1 | Except for ER operations, may be inoperative provided:  a) APU Generator is used for all phases of flight,  b) Airplane is operated at or below FL 450, and  c) RAT is operative. | None required. | None required. | An Inoperative Placard will be placed above affected Generator Switch on Electric Power Control Panel (EPCP) and will be noted on ADLS. |
| 2. APU Generator | B | 1 | 0 | (M) (O) Except for ER operations, may be inoperative provided:  a) Both Engine Generators are operative, and  b) RAT is operative. | Maintenance will pull and collar APU GCU PWRcircuit breaker.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will ensure:  a) BOTH Engine Driven Generators are operative by reference to the AC synoptic and the absence of failure message on CAS.  b) RAT is operative. | An Inoperative Placard will be placed above AUX PWR Switch on EPCP and will be noted on ADLS. |
|  | C | 1 | 0 | (M) Except for ER operations, may be inoperative provided APU is not used. | Maintenance will pull and collar APU CTRL 1 and  APU CTRL 2.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed above AUX PWR Switch on EPCP and will be noted on ADLS. |
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| 3. Transformer-Rectifier  Units (TRUs) | B | 5 | 4 | (M) May be inoperative provided:  a) Both Generators are operative,  b) Both essential TRUs are operative,  c) Auxiliary TRU is operative,  d) APU Generator is operative,  e) Both Battery chargers are operative,  f) Both Main Airplane Batteries are operative,  g) Inoperative TRU circuit breaker on the Power Distribution Box is pulled and collared, and  h) Provided alternate cabin, galley, and lavatory lighting procedures are established and used. | Maintenance will pull and collar affected TRU CTRL CB on Power Distribution Box (PDB). Maintenance will ensure AUX TRU is operative and both essential TRUs are operative.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. Main Airplane Battery  Chargers | B | 2 | 1 | (M) May be inoperative provided:  a) Both Engine Generators are operative,  b) APU Generator is operative,  c) Associated Battery Charger circuit breaker on the Power Distribution Box is pulled and collared, and  d) RAT is operative. | Maintenance will pull and collar CB of associated Battery Charger (located on PDB). Maintenance can verify associated Battery Charger by utilizing Operational Test located in Refer to AMM Chapter 24-34-03.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed above Battery Charger Circuit Breakers and will be noted on ADLS. |
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| 5. Main Airplane  Batteries | B | 2 | 1 | (M)(O) May be inoperative provided:  a) Both engine driven generators are operative,  b) Associated Main Battery cables are secured,  c) Associated Main Battery Charger circuit breaker on the Power Distribution Box is pulled and collared.  d) Associated Main Battery circuit breaker is pulled and collared,  e) All TRU’s are operative, and  f) RAT is operative.  NOTE: APU start in flight shall NOT be attempted prior to RAT deployment in the event both engine driven generators fail. | Maintenance will ensure:   1. Associated "BATT CHGR" and "BATT CTRL" circuit breaker is pulled and collared, 2. Associated battery cables are disconnected and secured, and 3. The remaining functional battery is in the Left Main Battery Position.   Refer to AMM chapter 24-34-00. | Flight crew will ensure that the APU start in flight shall NOT be attempted prior to RAT deployment in the event both engine driven generators fail. | An Inoperative Placard will be placed on affected “BATT 1”, "BATT 2" Master Switch on the Electric Master Panel and will be noted on ADLS. |
| 6. Battery Ammeters  (Overhead Panel) | C | 2 | 0 | May be inoperative provided:  a) Associated voltmeter is operative, and  b) Both battery charger fail messages are operative. | None required. | None required. | An Inoperative Placard will be placed on affected Battery Ammeter and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided battery ammeter indications are available in EICAS. | None required. | None required. | An Inoperative Placard will be placed on affected Battery Ammeter and will be noted on ADLS. |
| 7. Battery Voltmeters | C | 2 | 1 | May be inoperative provided associated ammeter is operative. | None required. | None required. | An Inoperative Placard will be placed on Voltmeter and will be noted on ADLS. |
|  | C | 2 | 1 | May be inoperative provided Battery Voltmeter indication is available on EICAS. | None required. | None required. | An Inoperative Placard will be placed on Voltmeter and will be noted on ADLS. |
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| 8. Electrical Power  System EICAS  Displays |  |  |  |  |  |  |  |
| 1) L Gen Voltmeter | C | 1 | 0 | May be inoperative if the frequency and loadmeter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) L Gen Frequency  Meter | C | 1 | 0 | May be inoperative if the voltmeter and loadmeter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3) L Gen Loadmeter | C | 1 | 0 | May be inoperative if the voltmeter and frequency meter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4) R Gen Voltmeter | C | 1 | 0 | May be inoperative if the frequency and loadmeter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5) R Gen Frequency  Meter | C | 1 | 0 | May be inoperative if the voltmeter and loadmeter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 6) R Gen Loadmeter | C | 1 | 0 | May be inoperative if the voltmeter and frequency meter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 8. Electrical Power  System EICAS  Displays (continued) |  |  |  |  |  |  |  |
| 7) APU Voltmeter | C | 1 | 0 | May be inoperative if the frequency meter and loadmeter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 8) APU Frequency  Meter | C | 1 | 0 | May be inoperative if the voltmeter and loadmeter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9) APU Loadmeter | C | 1 | 1 | May be inoperative if the voltmeter and frequency meter are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 10) Ext AC Pwr Voltmeter | D | 1 | 0 | May be inoperative when external power is not used. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11) Ext AC Pwr  Frequency Meter | D | 1 | 0 | May be inoperative when external power is not used. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 12) Ext AC Loadmeter | D | 1 | 0 | May be inoperative when external power is not used. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 8. Electrical Power  System EICAS  Displays (continued) |  |  |  |  |  |  |  |
| 13) Main and Essential  TRU Voltmeters | C | 4 | 0 | May be inoperative if loadmeters are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 14) Main and Essential  TRU Loadmeters | C | 4 | 0 | May by inoperative if the voltmeters are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 15) Ext DC Pwr Voltmeter | D | 1 | 0 | May be inoperative if the loadmeter is operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | 1 | 0 | May be inoperative if external DC power is not in use. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 16) Ext DC Pwr Loadmeter | D | 1 | 0 | May be inoperative if the voltmeter is operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| (continued) | D | 1 | 0 | May be inoperative if external DC power is not in use. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 8. Electrical Power  System EICAS  Displays (continued) |  |  |  |  |  |  |  |
| 17) Battery Ammeters | C | 2 | 0 | May be inoperative provided the battery ammeters in overhead panel are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 18) Battery Voltmeters C | C | 2 | 0 | May be inoperative provided battery voltmeters in overhead panel are operative. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9. Master Power Switch  Lights (L GEN, R  GEN, APU GEN, EXT  PWR) | C | 4 | 3 | May be inoperative provided associated AC loadmeter and voltmeter are operative and selected for monitoring on the AC Synoptic. | None required. | None required. | An Inoperative Placard will be placed on affected Master Power Switch and will be noted on ADLS. |
| 10. Battery Temperature  \*\*\* Indicating System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11. External Power  System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 12. Ground Service Bus  System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 13. 50Hz/60Hz AC  Electrical Power  Systems | D | 2 | 0 | (M)(O) May be inoperative provided affected circuit breaker is pulled and collared. | Maintenance will pull and collar affected circuit breaker.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will brief the passengers on the items that are inoperative with the failure of the power source for cabin entertainment. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 14. IRU Back Up  Batteries (Forward  and Aft Emergency  Avionics Battery) | B | 2 | 1 | (M) May be inoperative provided the affected battery is located in the Aft position (#2 IRU and #3 IRU backup battery position).  NOTE 1: EICAS message “IRU Sec Pwr 2 - 3 Fail” will be displayed. Each MAIN AC BUS can be powered by the L GEN, R GEN and APU.  NOTE 2: IRU No. 1 is powered by the Fwd Emerg Batt or by the L ESS DC BUS. Only one IRS is required for the flight controls to remain in Normal Mode. | Maintenance will move the affected battery to the aft battery position. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 15. Remote Interface Unit  (RIU) Channel (SSPC  Controller Fault L-R) | C | 4 | 3 | One (1) channel of a single RIU may be failed provided:   1. Remaining RIU (PRI or SEC SSPC) is operational, and 2. All other components of the electrical system are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Overwater Equipment | D | - | - | As required by 14 CFR.  NOTE: See 14 CFR Part 91.205, 91.509or 135.167. | None required. | None required. | If installed, an Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Passenger Seats | D | - | - | May be inoperative provided:  a) Seat does not block an Emergency Exit,  b) Seat does not restrict any passenger from access to the main airplane aisle, and  c) The affected seat(s) are blocked and placarded "DO NOT OCCUPY". | None required. | None required. | A "Do Not Occupy" Placard will be placed on affected seat and will be noted on ADLS. |
|  |  |  |  | NOTE 1: A seat with an inoperative seat belt is considered inoperative. |  |  |  |
|  |  |  |  | NOTE 2: Inoperative seats do not affect the required number of Flight Attendants. |  |  |  |
|  |  |  |  | NOTE 3: Affected seat(s) may include the seat(s) behind and/or adjacent outboard seats. |  |  |  |
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| 2. Passenger Seats (continued) |  |  |  |  |  |  |  |
| 1) Recline Mechanism | D | - | - | (M) May be inoperative and seat occupied provided seat back is secured in the full upright position. | Maintenance will ensure seat back is secured in full upright position. | None required. | A "Do Not Operate Recline" Placard will be placed of affected seat not secured in upright position and will be noted on ADLS. |
|  | D | - | - | May be inoperative and seat occupied provided seat back is immovable in full upright position. | None required. | None required. | A "Do Not Operate Recline" Placard will be placed of affected seat not secured in upright position and will be noted on ADLS. |
| \*\*\* 2) Underseat Baggage  Restraining Bars | C | - | - | (O) May be inoperative provided:   1. Baggage is not stowed under seat with inoperative restraining bar, 2. Associated seat is placarded “DO NOT STOW BAGGAGE UNDER THIS SEAT”, and 3. Procedures are established to alert Cabin Crew of inoperative restraining bars. | None required. | Flight crew will advise cabin crew which seat is affected and mark this seat with a tag or placard visible to crew and passengers. | A "Do Not Stow Baggage Under This Seat" Placard will be placed of affected seat and will be noted on ADLS. |
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| 2. Passenger Seats (continued) |  |  |  |  |  |  |  |
| 3) Armrests |  |  |  |  |  |  |  |
| a) Armrests with  Recline Mechanism | D | - | - | (M) May be inoperative or missing and seat occupied provided:  a) Armrest does not block an Emergency Exit,  b) Armrest does not restrict any passenger from access to the main airplane aisle, and  c) If armrest is missing, seat is secured in the full upright position. | Maintenance will ensure seat is secured in the full upright position if armrest is missing. | None required. | An Inoperative Placard will be placed of affected seat armrest and will be noted on ADLS. |
| b) Armrest without  Recline Mechanism | D | - | - | May be inoperative or missing and seat occupied provided:   1. Armrest does not block an Emergency Exit, and 2. Armrest does not restrict any passenger from access to the main airplane aisle. | None required. | None required. | An Inoperative Placard will be placed of affected seat armrest and will be noted on ADLS. |
| \*\*\* 4) Swivel Mechanism | C | - | - | May be inoperative provided:  a) Associated seat does not block an Emergency Exit,  b) Associated seat does not restrict any passenger from access to the main airplane aisle, and  c) Associated seat remains in takeoff position. | None required. | None required. | A "Do Not Operate Swivel" Placard will be placed of affected seat mechanism and will be noted on ADLS. |
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| 2. Passenger Seats (continued) |  |  |  |  |  |  |  |
| \*\*\* 5) Divan High  Backs | C | - | - | May be inoperative provided:  a) Associated seat does not block an Emergency Exit,  b) Associated seat does not restrict any passenger from access to the main airplane aisle, and  c) Associated seat remains in takeoff position. | None required. | None required. | An Inoperative Placard will be placed of affected seat and will be noted on ADLS. |
| \*\*\*6) Electrical /  Electronic Systems / Components | C | - | - | (M) May be inoperative and seat occupied provided associated component(s) is deactivated. | Maintenance will disconnect bag and stow the electrical connectors.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3. Crewmember Shoulder  Harnesses | B | - | - | Any in excess of those required by flight deck crew members (including official observer in observer's seat) may be inoperative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. Observer Seat(s) |  |  |  |  |  |  |  |
| 1) Primary Observer Seat (including  associated  equipment) | A | - | - | May be inoperative provided:   1. A passenger seat in the passenger cabin is made available to an FAA inspector for the performance of official duties, and   b) Repairs are made within two (2) flight days. | None required. | None required. | A "Do Not Occupy" Placard will be placed on affected seat and will be noted on ADLS.  NOTE: Does not apply to Part 91 operators. |
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| 1. Observer Seat(s) |  |  |  |  |  |  |  |
| 1) Primary Observer Seat (including  associated  equipment) (continued) |  |  |  |  |  |  |  |
|  | A | - | - | May be inoperative provided:  a) Required minimum safety equipment (safety belt and oxygen) is available,  b) Seat is acceptable to the FAA inspector for performance of official duties, and  c) Repairs are made within two (2) flight days. | None required. | None required. | A "Do Not Occupy" Placard will be placed on affected seat and will be noted on ADLS.  NOTE: Does not apply to Part 91 operators. |
|  |  |  |  | NOTE 1: These provisos are intended to provide for occupancy of the above seats by an FAA inspector when the minimum safety equipment (oxygen and safety belt) is functional and the inspector determines the conditions to be acceptable. |  |  |  |
|  |  |  |  | NOTE 2: The pilot-in-command will determine if the minimum safety equipment is functional for other persons authorized to occupy any observer seat(s). |  |  |  |
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| 4. Observer Seat(s) (continued) |  |  |  |  |  |  |  |
| 2) Observer Seat Not  Required by 14 CFR (including  associated  equipment) | D | - | 0 | NOTE: The pilot-in-command will determine if the minimum safety equipment is functional for other persons authorized to occupy any observer seat(s). | None required. | None required. | A "Do Not Occupy" Placard will be placed on affected seat and will be noted on ADLS.  NOTE: Does not apply to Part 91 operators. |
| 5. Megaphones  \*\*\* | D | - | - | Any in excess of those required by 14 CFR may be inoperative or missing provided:  a) Inoperative megaphone is removed from passenger cabin,   1. Associated placard is removed or obscured, and 2. Required distribution is maintained. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 6. Flotation Devices | D | - | - | Any in excess of those required by 14 CFR may be inoperative. Inoperative equipment will be removed from airplane.  NOTE: Flotation Devices are available to meet 14 CFR 91.205, 91.509 or 135.167 distribution requirements. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 7. "Fasten Seat Belt While  \*\*\* Seated” Signs or  Placards | C | - | - | One or more signs or placards may be illegible or missing provided a legible sign or placard is readable from each occupied passenger seat. | None required. | None required. | A "Do Not Occupy" Placard will be placed on any affected seat from which signs are not readable and will be noted on ADLS. |

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| 8. Storage Bins/Cabin,  \*\*\* Galley and Lavatory Storage Compartment / Closets | C | - | - | (M) May be inoperative provided:   1. Procedures are established to secure the affected bin, compartment or closet in the closed position, 2. Affected bin, compartment or closet is prominently placarded DO NOT USE, 3. Any emergency equipment located in affected compartment is considered inoperative, and 4. Affected bin, compartment or closet is not used for storage of any item(s) except for those permanently affixed.   NOTE: For overhead bins, if no partitions are installed, the entire overhead bin is considered inoperative. | Maintenance will verify that no emergency equipment is stored in the compartment, secure the compartment CLOSED and placard it against use for storage of any equipment. | None required. | An Inoperative Placard will be placed on affected Storage Bins/Cabin, Galley and Lavatory Storage Compartment / Closets and will be noted on ADLS. |
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| 8. Storage Bins/Cabin,  \*\*\* Galley and Lavatory Storage Compartment / Closets  (continued) | C | - | - | (M)(O) May be inoperative provided:   1. For non-retractable doors, affected door is removed, 2. For retractable doors, affected door is removed or secured in the retracted (fully open) position, 3. Affected bin, compartment or closet is not used for storage of any items, except those permanently affixed, 4. Affected bin, compartment or closet is prominently placarded DO NOT USE, 5. Procedures are established and used to alert crew members and passengers of inoperative bins, compartments or closets, and 6. Passengers are briefed that associated bin, compartment or closet is not used.   NOTE 1: For overhead bins, if no partitions are installed, the entire overhead bin is considered inoperative.  NOTE 2: Any emergency equipment located in the affected bin, compartment or closet (permanently affixed) is available for use. | Maintenance will verify that no emergency equipment is stored in the compartment, secure the compartment CLOSED and placard it against use for storage of any equipment. | Flight crew will ensure passengers are briefed that bin or compartment is not used. | An Inoperative Placard will be placed on affected Storage Bins/Cabin, Galley and Lavatory Storage Compartment / Closets and will be noted on ADLS. |
| \*\*\* 1) Storage Compartment  Key Locks | D | - | 0 | (M) May be inoperative in unlocked position provided doors can be secured by other means. | Maintenance will verify that no emergency equipment is stored in the compartment, secure the compartment CLOSED and placard it against use for storage of any equipment. | None required. | An Inoperative Placard will be placed on affected Storage Bins/Cabin, Galley and Lavatory Storage Compartment / Closets and will be noted on ADLS. |
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| 9. Cargo Restraint  \*\*\* Systems | A | - | - | (M) May be inoperative, or missing provided:   1. Acceptable cargo loading limits from an approved source, i.e., an Approved Cargo Loading Manual, or Weight and Balance Document are observed, and 2. Repairs are made prior to the completion of the next heavy maintenance visit. | Maintenance will provide acceptable cargo loading limits from an approved source, i.e., an Approved Cargo Loading Manual, or Weight and Balance Document are observed.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | - | - | May be inoperative, or missing provided cargo compartment remains empty. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 10. Flight Attendant  \*\*\* Seat Assembly (with **only** One Flight Attendant Seat) | A | 1 | 0 | (M)(O) Flight Attendant seat may be inoperative provided:   1. Affected seat not occupied, 2. Flight Attendant displaced by inoperative seat occupies the passenger seat most accessible to the inoperative seat, 3. Alternate procedures are established and used as published in crewmember manuals, 4. Folding type seat is stowed or secured in the retracted position, 5. Passenger seat assigned to flight attendant is placarded “FOR FLIGHT ATTENDANT ONLY”, and 6. Repairs are made within two (2) flight days.   NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative.  NOTE 2: A seat position with an inoperative or missing restraint is considered inoperative. | Maintenance will ensure:  a) Folding type seat is stowed or secured in the retracted position,  b) Passenger seat assigned to flight attendant is placarded “FOR FLIGHT ATTENDANT ONLY” and  c) Repairs are made within two (2) flight days. | Flight crew will ensure:  a) Affected seat or seat assembly is not occupied,  b) Flight attendant displaced by inoperative seat occupies the passenger seat most accessible to the inoperative seat, and  c) Alternate procedures are established and used as published in crewmember manuals. | An Inoperative Placard will be placed on affected Flight Attendant Seat and will be noted on ADLS. |
| (continued) |  |  |  | NOTE 3: The above provisos apply to flight attendant seats. Individual operators, when operating with inoperative seats, will consider the locations and combinations of seats to ensure that the proximity to exits and distribution requirements of applicable regulations are met. |  |  |  |

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| 10. Flight Attendant  \*\*\* Seat Assembly (with **only** One Flight Attendant Seat)  (continued) |  |  |  |  |  |  |  |
|  | D | 1 | 0 | (M) May be inoperative provided:  a) Flight Attendant is not required by 14 CFR,  b) Affected seat is not occupied, and  c) Folding type seat stows automatically or is secured in the retracted position. | Maintenance will ensure:   1. Folding type seat is stowed or secured in the retracted position, and 2. Passenger seat assigned to flight attendant is placarded “FOR FLIGHT ATTENDANT ONLY”. | None required. | An Inoperative Placard will be placed on affected Flight Attendant Seat and will be noted on ADLS. |
|  |  |  |  | NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative. |  |  |  |
|  |  |  |  | NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative. |  |  |  |
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| 10. Flight Attendant  \*\*\* Seat Assembly (single or dual position) (for Aircraft with **More** than One Flight Attendant Seat) |  |  |  |  |  |  |  |
| 1) Required Flight Attendant Seats | B | - | - | (M)(O) One seat position or assembly (dual position) may be inoperative provided:  a) Affected seat position or seat assembly is not occupied,  b) Flight Attendant(s) displaced by inoperative seat occupies either an adjacent flight attendant seat or the passenger seat most accessible to the inoperative seat(s) so as to most effectively perform assigned duties,  c) Alternate procedures are established and used as published in crewmember manuals,  d) Folding type seat is stows automatically or is secured in the retracted position, and  e) Passenger seat assigned to flight attendant is placarded “FOR FLIGHT ATTENDANT ONLY”. | Maintenance will ensure:  a) Folding type seat is stowed or secured in the retracted position, and  b) Passenger seat assigned to flight attendant is placarded “FOR FLIGHT ATTENDANT ONLY”.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will ensure:  a) Affected seat is not occupied, and  b) Flight attendant displaced by inoperative seat occupies the passenger seat most accessible to the inoperative seat. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  |  |  |  | NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative. |  |  |  |
|  |  |  |  | NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative. |  |  |  |
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| 10. Flight Attendant  \*\*\* Seat Assembly (single or dual position) (for Aircraft with **More** than One Flight Attendant Seat) |  |  |  |  |  |  |  |
| 1) Required Flight Attendant Seats (continued) |  |  |  | NOTE 3: Individual operators when operating with inoperative seats will consider the locations and combinations of seats to ensure that the proximity to exits and distribution requirements of the applicable 14 CFR are met. |  |  |  |
|  |  |  |  | NOTE 4: If one side of a dual seat assembly is inoperative and a flight attendant is displaced to the adjacent seat, the adjacent seat must operate normally. |  |  |  |
| 2) Excess Flight Attendant Seats | C | - | - | (M) May be inoperative provided:  a) Affected seat is not occupied, and  b) Folding type seat stows automatically or is secured in the retracted position.  NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative.  NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative. | Maintenance will ensure:  a) Folding type seat is stowed or secured in the retracted position, and  b) Passenger seat assigned to flight attendant is placarded “FOR FLIGHT ATTENDANT ONLY”.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3) All Cargo Configuration | D | - | - | May be inoperative provided affected seat or seat assembly is not occupied. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 11. Galley/Cabin Waste  Receptacles Access  Doors/Covers | C | - | - | (M)(O) May be inoperative provided:  a) Container is empty and the access is secured to prevent waste introduction into the compartment, and  b) Procedures are established to ensure that sufficient galley / cabin waste receptacles are available to accommodate all waste that may be generated on a flight. | Maintenance will ensure container is empty and the access is secured to prevent waste introduction into the compartment.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will ensure procedures are established to ensure that sufficient galley waste receptacles (trash bags are considered receptacles) are available to accommodate all waste that may be generated. | An Inoperative Placard will be placed on affected Galley / Cabin Waste Receptacles Access Doors/Covers and will be noted on ADLS. |
| 1. Exterior Lavatory   Door Ashtrays |  |  |  |  |  |  |  |
| 1) Airplanes with  multiple  exterior lavatory  door ashtrays  installed | A | - | - | Up to and including 50 percent may be missing or inoperative for 10 days. | None required. | None required. | An Inoperative Placard will be placed on affected Exterior Lavatory Door Ashtray and will be noted on ADLS. |
|  | A | - | - | More than 50 percent may be missing or inoperative for 3 days.  NOTE: Crew lavatories are included in the total aircraft exterior lavatory door ashtray count. | None required. | None required. | An Inoperative Placard will be placed on affected Exterior Lavatory Door Ashtray and will be noted on ADLS. |
| 2) Airplanes with  only one exterior  lavatory door ashtray installed | A | 1 | - | May be missing or inoperative for 10 days. | None required. | None required. | An Inoperative Placard will be placed on affected Exterior Lavatory Door Ashtray and will be noted on ADLS. |
| 13. External Camera  \*\*\* System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 14. Emergency Vision  Assurance System  (EVAS) | C | 2 | 0 | May be inoperative or removed. | None required. | None required. | An Inoperative Placard will be placed on vertical adjustment handle and will be noted on ADLS. |
| 15. Pilot Seat(s) |  |  |  |  |  |  |  |
| 1) Vertical  Adjustment | C | - | - | (M) May be inoperative provided:  a) Seat is secured at the individual crewmember’s requirements, and  b) Fore-Aft adjustment is operative. | Maintenance will secure seat as required by proviso a) and ensure that seat is able to move full fore and aft on its track. | None required. | An Inoperative Placard will be placed on vertical adjustment handle and will be noted on ADLS. |
| 2) Armrest | C | - | - | (M) May be inoperative provided:  a) Affected armrest is in the upright position or removed, and  b) Seat is acceptable to the affected crewmember. | Maintenance will ensure armrest is in the up position or removed. | None required. | An Inoperative Placard will be placed on affected arm rest and will be noted on ADLS. |
| 3) Recline  Adjustment | C | - | - | (M) May be inoperative provided:  a) Seat is secured at a position acceptable to the affected crewmember, and  b) Seat is able to move full Fore-Aft on its track. | Maintenance will secure seat as required by proviso a) and ensure that seat is able to move full fore and aft on its track. | None required. | An Inoperative Placard will be placed on recline adjustment handle and will be noted on ADLS. |
| 4) Lumbar Support | C | - | - | May be inoperative provided seat is acceptable to the affected crewmember. | None required. | None required. | An Inoperative Placard will be placed on the pilot’s seat adjustment to lumbar support area and will be noted on ADLS. |
| 5) Thigh Support | C | - | - | May be inoperative provided seat is acceptable to the affected crewmember. | None required. | None required. | An Inoperative Placard will be placed on the pilot’s seat adjustment to thigh support area and will be noted on ADLS. |
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| 15. Pilot Seat(s) (continued) |  |  |  |  |  |  |  |
| 6) Fore-Aft Adjustment | B | - | - | (M)(O) May be inoperative provided:  a) Seat is secured at the individual crewmember’s requirements, and  b) Seat position permits full rudder pedal movement. | Maintenance will secure seat as required by proviso a) and ensure that seat still permits full rudder pedal movement. | Prior to flight, the crew will ensure that the pilot using the affected seat can achieve full rudder pedal movement. | An Inoperative Placard will be placed on the pilot’s seat adjustment to fore-aft adjustment handle and will be noted on ADLS. |
| 16. Rudder Pedal  Adjustment | C | 2 | 0 | (M) May be inoperative provided:  a) Adjustments can be secured in a position that suits individual pilot(s), and  b) Position of pedal(s) permits normal full flight control movement. | Maintenance will ensure adjustments can be secured in a position that suits individual pilot(s) requirements and position of pedal(s) permits normal full flight control movement. Flight crew may perform (M) procedures if maintenance is not available. | None required. | An Inoperative Placard will be on the rudder pedal adjustment handle and will be noted on ADLS. |
| 17. Keyed Locks | D | - | 0 | May be inoperative provided the associated access panel, door, compartment, or cap is verified secure before each departure. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 18. Airplane Ladders | C | - | 0 | (O) May be inoperative or removed. | None required. | Flight crew will ensure inoperative ladder is secured or removed prior to each departure. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Ladder Hardware  (Pit Pins,  Lanyards, etc.) | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 19. Baggage Compartment  \*\*\* Shelves |  |  |  |  |  |  |  |
| \*\*\* 1) Shelf Stowage  Straps | D | - | 0 | May be inoperative or removed provided the shelves remain in the down position. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 2) Shelf Support  Straps | D | - | 0 | May be inoperative or removed provided the shelves remain in the stowed (up) position and are not used. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 20. Crewmember  Flashlight Holder  Assemblies (including  Flashlight) | C | - | 0 | May be inoperative or missing provided crewmember has a flashlight of equivalent characteristics readily available. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 21. Non-Essential Equipment and Furnishings (NEF) Equipment and  Furnishings (NEF) | D | - | 0 | May be inoperative, damaged or missing provided item(s) is deferred in accordance with operator’s NEF deferral program. The NEF program, procedures and processes are outlined in the operator’s (insert name) Manual. (M) and (O) procedures, if required, must be available to flight crew and included in appropriate operator’s document. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  |  |  |  | NOTE: Exterior lavatory door ash trays are not considered NEF items. |  |  |  |
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| 22. Automatic External  \*\*\* Defibrillator (AED)  and/or Associated  Equipment | A | - | 0 | (O) May be incomplete, missing or inoperative provided:  a) AED is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and  b) Repairs are made within one (1) flight. | None required. | Flight crew will ensure AED unit is placarded “DO NOT USE THIS UNIT. SOME REQUIRED ITEMS MAY BE MISSING.”, and repairs are made within one (1) flight. | An Inoperative Placard will be will be placed on Automatic External Defibrillator and/or Associated Equipment and will be noted on ADLS. |
|  | D | - | - | Any in excess of those required by 14 CFR may be incomplete, missing, or inoperative. | None required. | None required. | An Inoperative Placard will be will be placed on Automatic External Defibrillator and/or Associated Equipment and will be noted on ADLS. |
| 23. Emergency Medical  \*\*\* Kit (EMK) and/or  Associated Equipment | A | - | 0 | (O) May be incomplete, missing or inoperative provided:  a) EMK is sealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and  b) Repairs or replacements are made within one (1) flight. | None required. | Flight crew will ensure EMK unit is placarded “DO NOT USE THIS UNIT. SOME REQUIRED ITEMS MAY BE MISSING.”, and repairs are made within one (1) flight. | An Inoperative Placard will be will be placed on Emergency Medical Kit (EMK) and/or Associated Equipment and will be noted on ADLS. |
|  | D | - | - | Any in excess of those required by 14 CFR may be incomplete missing, or inoperative. | None required. | None required. | An Inoperative Placard will be will be placed on Emergency Medical Kit (EMK) and/or Associated Equipment and will be noted on ADLS. |

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| 24. First Aid Kit (FAK)  and/or Associated  Equipment | A | - | - | (O) If more than one is required by 14 CFR, only one of the required first aid kits may be incomplete, missing or inoperative provided:  a) FAK is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and  b) Repairs or replacements are made within one (1) flight. | None required. | Flight crew will ensure FAK unit is placarded “DO NOT USE THIS UNIT. SOME REQUIRED ITEMS MAY BE MISSING.”, and repairs are made within one (1) flight. | An Inoperative Placard will be will be placed on First Aid Kit and/or Associated Equipment and will be noted on ADLS. |
|  | D | - | - | Any in excess of those required by 14 CFR may be incomplete, missing or inoperative. | None required. | None required. | An Inoperative Placard will be will be placed on First Aid Kit and/or Associated Equipment and will be noted on ADLS. |
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| 25. Cabin Management System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 1) Cabin Power Bus  Controller (043A1) | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 2) Advanced Cabin  Server  (428A4, 428A5) | D | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 3) GCMS Controllers  (179A5, 179A6) | D | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 4) I/O Concentrators  (178A1, 178A2) | D | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
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| 25. Cabin Management System (continued) |  |  |  |  |  |  |  |
| \*\*\* 5) Aft I/O  Concentrators  (178A3, 178A4) | D | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 6) AVS Switching  Nodes | D | 6 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 7) Galley Touch  Screen  (502S2) | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 8) Vestibule Touch  Screen  (482S1) | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 9) Maintenance  Server | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on or near the corresponding Cabin Management System to be seen by flight crew and will be noted on ADLS. |

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| 1. Portable Fire  Extinguishers | D | - | - | Any in excess of those required by 14 CFR may be inoperative or missing provided:  a) Inoperative fire extinguisher is tagged inoperative, removed from the installed location, and placed out of sight so it can not be mistaken for a functional unit, and  b) Required distribution is maintained.  NOTE: Flight crew will ensure operative fire extinguishers are available to meet 14 CFR 91.513 or 135.155 distribution requirements, i.e., one near cockpit, one in cabin, are required for dispatch. | None required. | None required. | If installed, an Inoperative Placard will be placed on Pressure Charge Gauge of affected extinguisher and will be noted on ADLS. |
| 2. Wing Overheat  Warning Systems | C | 2 | 0 | Except for ER operations, may be inoperative provided:  a) Wing Anti-ice is not used, and  b) Airplane is not operated in known or forecast icing conditions. | None required. | None required. | An Inoperative Placard will be placed adjacent to affected Wing Anti-Ice Switch and will be noted on ADLS. |
| 3. APU Fire Detection  System | C | 1 | 0 | (M) Except for ER operations, may be inoperative provided:  a) APU is not used,  b) Both engine driven generators are operative,  c) RAT is operative, and  d) APU CONT #1 and APU CONT #2 circuit breakers are pulled and collared. | Maintenance will ensure APU CTRL #1 and APU CTRL #2 circuit breakers are pulled and collared.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on APU "MASTER" Switch and will be noted on ADLS. |
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| 4. Rear Baggage  Compartment Smoke  Detector Systems | C | - | 0 | May be inoperative provided:  a) Internal baggage door remains OPEN, and  b) Airplane is operated at or below FL 40,000 feet. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | - | 0 | May be inoperative provided:  a) Rear baggage compartment is not used,  b) Internal baggage door remains CLOSED,  c) Flight crew investigates baggage compartment for possible fire in the event the "Aft Equipment Hot" message displays, and  d) Airplane is operated in accordance with AFM Limitations. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 5. Lavatory Smoke  \*\*\* Detection Systems | C | - | - | (M)(O) For each lavatory, the lavatory smoke detection system may be inoperative provided:  a) Lavatory waste receptacle is empty,  b) Associated lavatory door is locked closed and placarded, "INOPERATIVE - DO NOT ENTER", and  c) Lavatory is used only by crewmembers.  NOTE 1: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.  NOTE 2: Lavatory Smoke Detection System is not required for all cargo operations. | Maintenance will ensure Lavatory Smoke Detector CB is pulled and collared.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will inspect lavatory to ensure Lavatory Waste Receptacle is empty and lavatory door is locked closed. In addition, flight crew will ensure lavatory is NOT used for any purpose. | An Inoperative Placard will be placed on Lavatory Door stating "Inoperative - Do Not Enter" and will be noted on ADLS.  NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers. In addition, Lavatory Smoke Detection System is not required for all cargo operations. |
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| 6. Lavatory Fire  \*\*\* Extinguisher Systems | C | - | - | For each lavatory, the lavatory fire extinguisher system may be inoperative provided Lavatory Smoke Detector system is operative. | None required. | None required. | An Inoperative Placard will be placed on the Lavatory Fire Extinguisher and will be noted on ADLS. |
|  | C | - | - | (M)(O) For each lavatory, the lavatory fire extinguisher system may be inoperative provided:   1. Lavatory waste receptacle is empty, 2. Associated lavatory door is locked closed and placarded, "INOPERATIVE - DO NOT ENTER", and 3. Lavatory is used only by crewmembers.   NOTE 1: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.  NOTE 2: A Lavatory Fire Extinguisher System is not required for all-cargo operations. | Maintenance will verify Lavatory Waste Receptacle is empty.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will inspect lavatory to ensure Lavatory Waste Receptacle is empty and Lavatory Door is LOCKED CLOSED. In addition, flight crew will ensure Lavatory is NOT used for any purpose. | An Inoperative Placard will be placed on Lavatory Door stating "Inoperative Do Not Enter" and will be noted on ADLS. |
| 7. Galley Smoke  \*\*\* Detection Systems | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Galley Smoke Detector and will be noted on ADLS. |

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| 8. Galley Fire  \*\*\* Extinguishing Systems | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Galley Fire Extinguisher and will be noted on ADLS. |
| 9. Engine Fire  Detection Systems | C | 2 | 1 | One complete loop (A or B) may be inoperative provided the Fault Switch/ Light is pressed to isolate the faulty loop and illuminate the OFF portion of the switch light. | None required. | None required. | An Inoperative Placard is placed next to either A or B Switch/Light and will be noted on ADLS. |
| 10. Flame Detectors  \*\*\* | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11. Electronic Equipment  Rack Overheat  Warning System | C | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 12. Passenger  \*\*\* Compartment  Closet Smoke  Detectors | D | - | 0 | May be inoperative provided door remains OPEN for visual check from crew stations. | None required. | None required. | An Inoperative Placard will be placed on Passenger Compartment Closet Smoke Detectors and will be noted on ADLS. |
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| 13. Entranceway Baggage  \*\*\* Compartment Smoke  Detectors | D | - | - | May be inoperative provided door remains OPEN for visual check from crew stations. | None required. | None required. | An Inoperative Placard will be placed on Entranceway Baggage Compartment Smoke Detectors and will be noted on ADLS. |
| 14. Cargo Compartment  \*\*\* Fire Detection /  Suppression Systems | C | - | 0 | May be inoperative provided associated cargo compartment remains empty.  NOTE 1: Does not preclude the Carriage of empty cargo containers, pallets, ballast, etc.  NOTE 2: Class E cargo compartments require only the installation of smoke or fire detection systems (not suppression). | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Automatic Ground  Spoiler System | C | 1 | 0 | (O) May be inoperative provided airplane is operated in accordance with AFM Limitations. | None required. | Flight crew will ensure airplane is operated in accordance with AFM, Section 1, Limitations, and Automatic Ground Spoilers. (Ground Spoiler may be inoperative for takeoff provided Anti-Skid is operative and 20 degrees flaps are used for takeoff and cowl/wing anti-ice isn’t used for takeoff.) | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Control Wheel Pitch  Trim Switches | C | 2 | 1 | (O) May be inoperative provided:  a) Pilot flying has operative switch, and  b) Backup Pitch Trim Switch is operative. | None required. | Pilot flying shall be seated in position with operative switch. | An Inoperative Placard will be placed next to Pitch Trim Switch and will be noted on ADLS. |
| 3. Autopilot Pitch Servos | C | 2 | 1 | (M) May be inoperative provided the inoperative servo circuit breaker(s) is pulled and collared. | Maintenance will ensure affected circuit breaker(s) is pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. Autopilot Roll Servos | C | 2 | 1 | (M) May be inoperative provided the inoperative servo circuit breaker(s) is pulled and collared. | Maintenance will ensure affected circuit breaker(s) is pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5. Single FCC Channel | A | 4 | 3 | (M) May be inoperative provided:   1. Failed channel is in the FCC Channel 1A or Channel 2B position, 2. Inoperative channel circuit breaker is pulled and collared, and 3. Repairs are made within five (5) flight days. | Maintenance will ensure Failed channel is in the FCC Channel 1A or Channel 2B position, and inoperative channel circuit breaker is pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 6. Inboard Spoiler Pair | A | 1 | 0 | (M)(O) May be inoperative provided:   1. Left and Right Inboard Spoiler circuit breakers are pulled and collared, 2. Repairs are made within one (1) flight day, 3. Flight crew will ensure airplane is operated in accordance with AFM, Section 5, Performance and correction factor is applied for takeoff and landing, 4. Maximum cruise altitude is limited to 43,000 feet, 5. Anti-skid is operative, 6. 20 degrees flaps are used for takeoff, and 7. Rated EPR power is used for takeoff.   NOTE: EICAS message “Spoiler Panel Fail” will be displayed. | Maintenance will ensure that the Left and Right Inboard Spoiler circuit breakers are pulled and collared. | Flight crew will ensure airplane is operated in accordance with AFM, Section 5, Performance and correction factor is applied for takeoff and landing, (Inboard Spoiler pair may be inoperative for takeoff provided Anti-Skid is operative and 20 degrees flaps are used for takeoff and cowl/wing anti-ice isn’t used for takeoff.) Maximum cruise altitude is limited to 43,000 feet. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 7. Backup Flight Control Unit (BFCU) | A | 1 | 0 | (M) May be inoperative provided:   1. BFCU circuit breaker is pulled and collared, and 2. Repairs are made within five (5) flight days. | Maintenance will ensure that the BFCU circuit breaker is pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 8. Control Wheel  Position Sensors |  |  |  |  |  |  |  |
| 1) FCC RVDTs | A | 8 | 7 | May be inoperative provided repairs are made within ten (10) flight days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) BFCU RVDTs | A | 2 | 1 | May be inoperative provided repairs are made within ten (10) flight days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9. Control Column  Position Sensors |  |  |  |  |  |  |  |
| 1) FCC RVDTs | A | 8 | 7 | May be inoperative provided repairs are made within ten (10) flight days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) BFCU RVDTs | A | 2 | 1 | May be inoperative provided repairs are made within ten (10) flight days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 10. Rudder Pedal  Position Sensors |  |  |  |  |  |  |  |
| 1) FCC RVDTs | A | 4 | 3 | May be inoperative provided repairs are made within ten (10) flight days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) BFCU RVDT | A | 1 | 0 | (M) May be inoperative provided:   1. BFCU circuit breaker is pulled and collared, and 2. Repairs are made within ten (10) flight days. | Maintenance will ensure that the BFCU circuit breaker is pulled and collared | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11. Speed Brake Handle  Position Sensors | A | 4 | 3 | May be inoperative provided repairs are made within ten (10) flight days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 12. Stick Shakers | A | 2 | 1 | (M) May be inoperative provided:   1. Inoperative Shaker circuit breaker is pulled and collared, 2. Flight crew briefs the remaining operative stall warning indications prior to each takeoff and approach, and 3. Repairs are made within three (3) flight days.   NOTE: 1: For IRS dispatch relief, see ATA 34 NAVIGATION, Item 2. 1) Attitude Reference Sensors (IRS 1-2-3).  NOTE 2: For AHRS dispatch relief, see ATA 34 NAVIGATION, Item 2. 2) Attitude Heading Reference System (AHRS 1-2). | Maintenance will ensure failed Shaker circuit breaker is pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Fuel Tank  Temperature Systems | C | 2 | 0 | (O) May be inoperative provided:  a) Total Air Temperature is used as an indication of fuel temperature,  b) Airplane is operated in accordance with AFM Limitations, and  c) Both Fuel Low Quantity Warning Systems are operative. | None required. | Flight crew will ensure Total Air Temperature (TAT) is used as indication of fuel temperature and airplane is operated in accordance with AFM, Section 1, Limitations, Powerplant EICAS Indications. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1. EICAS or MCDU   Fuel Quantity Indicating Systems | C | 2 | 1 | (M)(O) May be inoperative provided associated Standby Fuel Quantity Indicating System or EICAS Fuel Quantity Indicating System is operative. | Maintenance will ensure tanks are filled using Standby Fuel Quantity Indicating System or EICAS Fuel Quantity Indicating System. | Flight crew will ensure associated Standby Fuel Quantity Indicating System or EICAS Fuel Quantity Indicating System is operative. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | 2 | 1 | (M)(O) Except for ER operations, either Left or Right Fuel Quantity display may be inoperative provided:  a) Both tanks are completely filled using over wing refueling,  b) Both fuel flow meters are operative,  c) After takeoff, power is set by matching fuel flow indications on both engines, and  d) Flight crew maintains a log of fuel burned.  NOTE: Maximum over wing fuel load is approximately 43,650 lbs (19,840 kg) / 6,476 gal (24,512 lit). | Maintenance will ensure BOTH tanks are completely filled using over wing method of refueling.  NOTE: Do not pull Fuel Qty circuit breaker as this disables Fuel Level Low caution message. | Flight crew will ensure:   1. Both Fuel Flow Indicating Systems are operative. 2. After takeoff, power is set by matching Fuel Flow indications on both engines. 3. A log of fuel burned is maintained.   NOTE: Total Fuel indication will be INVALID with inoperative indicator. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 2. EICAS or MCDU  Fuel Quantity  Indicating Systems  (continued) |  |  |  |  |  |  |  |
|  | C | 2 | 1 | (M)(O) Except for ER operations, either Left or Right Fuel Quantity display may be inoperative provided:   1. Affected tank is defueled before each refueling, 2. Affected tank is fueled with a known quantity of fuel,   c) Both fuel flow meters are operative,   1. After takeoff, power is set by matching fuel flow indications on both engines, and 2. Flight crew maintains a log of fuel burned.   NOTE 1: Maximum over wing fuel load is approximately 43,650 lbs (19,840 kg) / 6,476 gal (24,512 lit).  NOTE 2: Total fuel indications will be invalid with an inoperative indicator. | Maintenance will Defuel affected tank before each refueling and refuel it with Known quantity of fuel. | Flight crew will ensure:   1. Both fuel flow meters are operative, 2. After takeoff, power is set by matching fuel flow indications on both engines, and 3. A log of fuel burned is maintained.   NOTE: Total fuel indication will be INVALID with inoperative indicator. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3. Fuel Quantity  Indicating System  Channel | C | 2 | 1 | One channel may be inoperative provided both fuel flow meters are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 4. Fuel Low Quantity  Warning Systems | C | 2 | 0 | (O) May be inoperative provided:  a) Both Fuel Quantity Indicating Systems are operative,  b) All Fuel Boost Pumps are operative,  c) Fuel Crossflow Valve is OPENED when either wing tank contains 2,000 pounds or less fuel, and  d) Both Fuel Tank Temperature Systems are operative. | None required. | Flight crew will ensure:  a) BOTH Fuel Quantity Indicating Systems and all Fuel Boost Pumps are operative. (AFM, Section 2, Normal Procedures, Before Starting Engines, Normal Engine Ground Start and After Starting Engines)  b) Fuel Crossflow Valve is OPENED when either wing tank contains 2,000 pounds or less fuel. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5. Fuel Boost Pumps | C | 4 | 3 | (O) Except for ER operations, may be inoperative provided:  a) Fuel Crossflow Valve is OPEN and operative,  b) Fuel Intertank Valve is operative,  c) Both Fuel Low Quantity Warning Systems are operative, and  d) Airplane is operated in accordance with AFM Limitations. | None required. | Flight crew will ensure:   1. Fuel Crossflow Valve is OPEN and operative, and Intertank Valve is operative. AFM, Section 2, Normal Procedures, Before Starting Engines. 2. BOTH Fuel Low Quantity Warning Systems are operative. AFM, Section 2, Normal Procedures, Before Starting Engines.   c) Verify compliance with AFM, Section 3, Abnormal Procedures, Fuel Boost Pump Failure. | An Inoperative Placard will be placed on Affected Fuel Boost Pump "ON/OFF" Switch and will be noted on ADLS. |

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| 6. Fuel Intertank  Valve | C | 1 | 0 | (M) Except for ER operations, may be inoperative provided:  a) All Fuel Boost Pumps are operative,  b) Fuel Crossflow Valve is operative,   1. Fuel Quantity Indicating System is operative, and 2. Intertank Valve is verified CLOSED and electrically deactivated. | Maintenance will deactivate the intertank valve by pulling and collaring appropriate Fuel Intertank circuit breaker.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on Fuel Intertank Valve Switch and will be noted on ADLS. |
| 7. Heated Fuel Return  Systems (HFRS) | C | 2 | 0 | May be inoperative provided:  a) Flight crew monitors fuel tank temperature, and  b) Airplane is operated in accordance with AFM Limitations. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 8. Fuel Boost Pump  Warning Systems | C | 4 | 3 | (O) Except for ER operations, may be inoperative provided:  a) Fuel Crossflow Valve is operative,  b) Fuel Intertank Valve is operative, and  c) Airplane is operated in accordance with AFM Limitations. | None required. | The flight crew will ensure the Fuel Crossflow Valve and Fuel Intertank is operative; AFM, Section 2, Normal Procedures, Before Starting Engines and Fuel Synoptic and that AFM, Section 3, Abnormal Procedures, Fuel Boost Pump Failure are complied with. | An Inoperative Placard will be placed on affected Boost Pump Warning Annunciator and will be noted on ADLS. |

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| 9. Fuel Crossflow Valve |  |  |  |  |  |  |  |
| 1) Failed CLOSED | C | 1 | 0 | (O) Except for ER operations, may be inoperative provided:  a) All Fuel Boost Pumps are operative,  b) Fuel Intertank Valve is operative,  c) Fuel Quantity Indicating System is operative,  d) Fuel Intertank Valve is OPEN when either wing tank contains 2,000 pounds or less fuel, and  e) Airplane is operated in accordance with AFM Limitations.  NOTE: Avoid uncoordinated maneuvers when Fuel Intertank Valve is OPEN. | None required. | Flight crew will comply with provisos a), b) and c) using AFM Section 2, Normal Procedures and Fuel Synoptic. Flight crew will OPEN Fuel Intertank Valve when either wing tank contains 2000 lb or less fuel. Airplane is operated in accordance with AFM, Section 1, Limitations, Fuel Balance (1000 lb takeoff, 2000 lb en route). | An Inoperative Placard will be placed on Fuel Crossflow Valve Switch and will be noted on ADLS. |
| 2) Failed OPEN | C | 1 | 0 | (O) Except for ER operations, may be inoperative provided:  a) All Fuel Boost Pumps are operative,  b) Fuel Intertank Valve is operative,  c) Fuel Quantity Indicating System is operative,  d) Airplane is operated in accordance with AFM Limitations,  e) Fuel tank temperature system must be operative, and  f) Flight crew monitors fuel tank temperature.  NOTE 1: Heated Fuel Return will be inoperative.  NOTE 2: Avoid uncoordinated maneuvers when Fuel Intertank Valve is OPEN. | None required. | Flight crew will use Normal Procedures and Fuel Synoptic to ensure:  a) All Fuel Boost Pumps are operative,  b) Fuel Intertank Valve is operative,  c) Fuel Quantity Indicating System is operative.   1. Fuel tank temperature system is operative. | An Inoperative Placard will be placed on Fuel Crossflow Valve Switch and will be noted on ADLS. |

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| 10. Pressure Fueling  System (Single  Point Refueling) | D | 1 | 0 | (M) May be inoperative provided procedures are established to deactivate Pressure Fueling System.  NOTE: Maximum over wing fuel load is approximately 43,650 lbs (19,840 kg) / 6,476 gal (24,512 lit). | Maintenance will ensure Pressure Fueling System is deactivated by selecting the REMOTE FUELING SHUTOFF Switch on the overhead panel to CLOSED Flight crew may perform maintenance function if maintenance is unavailable.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on Pressure Refueling Port and between Left and Right Remote Fueling Shutoff Switches and will be noted on ADLS. |
| 11. Ground Service  Control Panel  (next to refueling port) | D | 1 | 0 | NOTE: Airplane can be pressure refueled using the SMC’s. | None required. | None required. | An Inoperative Placard will be placed on Ground Service Control Panel and will be noted on ADLS. |
| 12. Automatic Fueling  System | D | 1 | 0 | NOTE: Both tanks can be filled using over wing refueling. Maximum over wing fuel load is approximately 43,650 lbs (19,840 kg) / 6,476 gal (24,512 lit). | None required. | None required. | An Inoperative Placard will be placed on Automatic Fueling System and will be noted on ADLS. |
| 13. Fuel Cap Chains | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 14. Single Point Refueling  Cap | C | 1 | 0 | May be inoperative or missing provided the single point refueling receptacle is checked for leaks before every takeoff. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 15. SMC REFUEL  Control Menu | D | 1 | 0 | May be inoperative provided the Ground Service Control Panel is operational. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Brake Accumulator  Pressure Gauges  (Main Wheelwell) | D | 2 | 0 | May be inoperative provided:  a) Cockpit Brake Accumulator Pressure Indicator (BAPI) is operative, and  b) Brake Synoptic Page Accumulator Indication is operative. | None required. | None required. | An Inoperative Placard will be placed on face of Accumulator Pressure Indicator and will be noted on ADLS. |
| 2. Auxiliary Hydraulic  Pump Pressure Indication | C | 1 | 0 | May be inoperative provided:   1. Cockpit Brake Accumulator Pressure indicator (BAPI) is operative, and 2. Prior to engine start, Auxiliary Pump operation and pressure must be verified on the BAPI (inboard parking brake pressure). | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3. Power Transfer Unit  (PTU) Hydraulic  Pressure Indication | C | 1 | 0 | (O) May be inoperative provided:  a) Left Hydraulic Pressure indication is operative, and  b) PTU Hydraulic system is operative. | None required. | Flight crew will ensure Hydraulic Pressure Indication is operative and Power Transfer Unit operation is verified by performing successful flap operational test with only right engine running. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. PTU Hydraulic Pump  (Auto Mode) | C | 1 | 0 | May be inoperative provided:   1. Manual mode is verified to be operative before every flight, and 2. Manual mode is selected on for each takeoff and landing. | None required. | None required.  NOTE: With right engine running, select PTU ON. Verify PTU pressure is present (3000 psi +300/-400). | An Inoperative Placard will be placed on Power Transfer Unit Arm Switch and will be noted on ADLS. |
| 5. Auxiliary Hydraulic  Pump (Auto Mode) | C | 1 | 0 | May be inoperative provided the Auxiliary pump is selected ON for takeoff and landing. | None required. | None required. | An Inoperative Placard will be placed on Auxiliary Hydraulic Pump Arm Switch and will be noted on ADLS. |

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| 6. Left Hydraulic System  Quantity Indicator  (Fluid Quantity  Indicator - Aft  Equipment Area) | D | 1 | 0 | (O) May be inoperative provided quantity is checked by reservoir indicator or using hydraulic quantity indication on hydraulic synoptic before each departure. | None required. | Flight crew will verify the hydraulic quantity level on the reservoir sight gauge or hydraulic synoptic prior to each flight. Refer to AMM chapter 12-15-00. | An Inoperative Placard will be placed on Ground Service Control Panel and will be noted on ADLS. |
| 7. Right Hydraulic  System Quantity  Indicator (Fluid  Quantity Indicator -  Aft Equipment Area) | D | 1 | 0 | (O) May be inoperative provided quantity is checked by reservoir indicator or using hydraulic quantity indication on hydraulic synoptic before each departure. | None required. | Flight crew will verify the hydraulic quantity level on the reservoir sight gauge or hydraulic synoptic prior to each flight. Refer to AMM chapter 12-15-00. | An Inoperative Placard will be placed on Ground Service Control Panel and will be noted on ADLS. |
| 8. Left Hydraulic System  Quantity Indication  (EICAS) | C | 1 | 0 | May be inoperative provided:   1. Quantity is checked by reservoir indicator or Ground Service Control Panel Left Hydraulic Quantity indicator before each departure, 2. PTU is manually selected on for takeoff and landing, and 3. Only one quantity indicating system is failed.   NOTE: System pressure must be present for an accurate reading. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9. Right Hydraulic  System  Quantity Indication  (EICAS) | C | 1 | 0 | May be inoperative provided:   1. Quantity is checked by reservoir indicator or Ground Service Control Panel Right Hydraulic Quantity indicator before each departure, and 2. Only one quantity indicating system is failed.   NOTE: System pressure must be present for an accurate reading. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 10. Left Hydraulic  Reservoir Temperature  Sensors | C | 2 | 0 | (M) May be inoperative provided quantity is checked by reservoir indicator before each departure.  NOTE: System pressure must be present for an accurate reservoir indication reading. With both sensors failed, EICAS quantity will not be temperature compensated. | Before each departure, maintenance must verify correct hydraulic quantity at the reservoir. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11. Right Hydraulic  Reservoir Temperature  Sensors | C | 2 | 0 | (M) May be inoperative provided quantity is checked by reservoir indicator before each departure.  NOTE: System pressure must be present for an accurate reservoir indication reading. With both sensors failed, EICAS quantity will not be temperature compensated. | Before each departure, maintenance must verify correct hydraulic quantity at the reservoir. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 12. Hydraulic Reservoir  Replenishing System | D | 1 | 0 | (M) May be inoperative provided hydraulic reservoirs are replenished as needed using approved servicing techniques. | Airplane may continue in service provided maintenance personnel replenish hydraulic reservoirs as needed using approved servicing techniques. Refer to AMM 12-15-00. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 13. Brake Accumulator  Pressure Gauge  (cockpit Brake  Accumulator Pressure Indicator (BAPI)) | C | 1 | 0 | May be inoperative provided the Brake Synoptic Page Accumulator Indication is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 14. Brake Synoptic Page  Accumulator Pressure  Indication | C | 1 | 0 | May be inoperative provided the Brake Accumulator Pressure indicator (BAPI) is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 15. Brake Accumulator  Pressure Transducer  (inboard or outboard) | C | 2 | 1 | One may be inoperative provided:   1. Brake system page brake pressure indications are operative, and 2. BAPI is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Cowl Anti-Ice  Pressure Indication  Systems | B | 2 | 0 | (M) Except for ER operations, may be inoperative provided that with the affected engine running and affected Cowl Anti-Ice selected ON, the affected valve is verified OPEN.  NOTE: Cowl Anti-Ice operation can be verified by the hot air discharge from the engine nacelle Cowl Anti-Ice Exhaust port. | Maintenance will verify the valve is OPEN when selected ON. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | B | 2 | 0 | Except for ER operations, may be inoperative provided airplane is operated at greater than +10 deg. C SAT. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | B | 2 | 0 | Except for ER operations, may be inoperative provided:   1. Airplane is operated in VMC, and 2. Airplane is not operated in visible moisture. | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Wing Anti-Ice  Systems | C | 2 | 0 | Except for ER operations, may be inoperative provided airplane is not operated in known or forecast icing conditions. | None required. | None required. | An Inoperative Placard will be placed on affected Wing Anti-Ice "OFF/AUTO/ ON" Switch and will be noted on ADLS. |
| 1) Automatic  Functions | C | 2 | 0 | May be inoperative provided airplane is operated in accordance with AFM Limitations. | None required. | None required.  Refer to AFM Section 1-30-10 and 1-30-20. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 3. Windshield Heat  Systems | C | 2 | 1 | Except for ER operations, may be inoperative provided airplane is not operated in known or forecast icing conditions. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Windshield Heat  Sensors | D | 4 | 2 | One sensor may be inoperative for each Windshield Heat System. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. Side Window Heat  Systems | C | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Side Window  Heat Sensors | D | 6 | 3 | Two of three Side Window Heat Sensors may be inoperative for each Side Window Heat System. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Side Window  Heat Sensors | C | 6 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 5. Anti-Ice Heater  Switch Lights | B | 4 | 0 | (M)(O) May be inoperative provided all other elements of the anti-ice heater indicating system are verified to operate normally. | Maintenance will check all other elements of Probe Heat Control Switch and ensure them to be functional. Refer to AMM chapter 30-31-01. | Flight crew will ensure all other elements of Probe Heat Indicating Switch are functioning normally, i.e. when probe heat is selected ON, appropriate EICAS fail message extinguishes. | An Inoperative Placard will be placed on Probe Heat Switch and will be noted on ADLS. |
| 6. Ice Detection  Systems | C | 2 | 0 | (O) May be inoperative provided airplane is operated in accordance with alternate AFM procedures.  NOTE: With Ice Detection Systems inoperative, automatic anti-ice is not available. | None required. | Refer to AFM Section 1-30-10, 1-30-20, and 1-30-30. Cowl Anti-Ice shall be selected ON manually any time visible moisture is present and the SAT is +10°C or less.  Wing Anti-Ice should be selected ON manually if icing conditions are imminent or immediately upon detection of ice formation on the wings, winglets or windshield edges. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 7. Cowl Anti-Ice  Systems | C | 2 | 0 | (M) Except for ER operations, may be inoperative provided:  a) Affected Valve(s) are verified CLOSED, and  b) Airplane is not operated in known or forecast icing conditions. | Maintenance will ensure affected Cowl Anti-Ice Valve(s) is/are verified closed IAW RR EMM, task # 30-21-01-040-801.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on or next to affected Cowl Anti-Ice Switch indicting valve position and will be noted on ADLS. |
|  | C | 2 | 1 | (M) May be inoperative provided:  a) Affected Valve is verified OPEN,  b) All components of both HP Bleed Air Systems are operative,   1. Both Environmental Control System (ECS) Packs are operative,   d) Performance Computer is initialized with COWL ANTI-ICE selected ON for either takeoff or landing when COWL ANTI-ICE valve is pressurized, and  e) Airplane is operated in accordance with AFM Limitations and Performance. | Maintenance will ensure:   1. BOTH HP Bleed Air Systems and BOTH Environmental Control System (ECS) Packs are operative. 2. Select the affected Cowl Anti-Ice switch ON and ensure that the affected valve circuit breaker is pulled or in the OPEN position. Refer to AMM, chapter 21-21-00, 30-21-01 and 36-12-00.   Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on or next to affected Cowl Anti-Ice Switch indicting valve position and will be noted on ADLS. |
| 1) Automatic  Functions | C | 2 | 0 | May be inoperative provided airplane is operated in accordance with alternate AFM procedures. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 8. Cowl Pressure  Differential  Indication System | C | 1 | 0 | May be inoperative provided Cowl Anti-Ice Pressure Indications are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9. Windshield Surface  Seal Protection  Systems | D | 2 | 0 | May be inoperative provided airplane is not operated in precipitation within 5 NM of the airport of takeoff or intended landing. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 10. Cabin Window Heat  System | D | 1 | 0 | (M) May be inoperative provided:  a) Cabin Window Heat switch is selected OFF, and  b) Cabin Window Heat System circuit breakers are pulled and collared. | Maintenance will ensure:  a) Cabin Window Heat switch is selected OFF, and  b) Cabin Window Heat System circuit breakers are pulled and collared.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1. Cabin Window Heating Elements | D | - | 0 | (M) May be inoperative provided the associated Window Heat circuit breakers are pulled and collared. | Maintenance will pull and collar the affected cabin window heat system circuit breakers. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Clocks (Cockpit) | D | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be placed on affected Clock face and will be noted on ADLS. |
| 2. Flight Data  Recorder (FDR)  Systems | C | - | 1 | Any in excess of those required by 14 CFR may be inoperative. | None required. | None required. | An Inoperative Placard will be placed on FDR Control Panel and will be noted on ADLS. |
| Includes FDR function  of Combined Voice and Flight Data Recorder  (CVFDR) | A | - | 0 | May be inoperative provided:  a) Cockpit Voice Recorder (CVR) is operative,  b) Airplane is not dispatched from a designated airport as listed in the operator’s MEL unless:  1. The FDR failure occurs after pushback but before takeoff, or  2. The FDR repair was attempted but was not successful.  c) In those cases where repair is attempted but not successful, the airplane may be dispatched on a flight or series of flights until the next designated airport where repair must be accomplished prior to dispatch, and  d) Repairs are made within three (3) flight days. | None required. | None required. | An Inoperative Placard will be placed on FDR Control Panel and will be noted on ADLS. |
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| 2. Flight Data  Recorder (FDR)  Systems (continued) |  |  |  |  |  |  |  |
| FDR Recording  Parameters required  by 14 CFR | A | - | - | Up to three (3) recording parameters may be inoperative provided:   1. Cockpit Voice Recorder (CVR) is operative, and 2. Repairs are made within 20 calendar days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| FDR Recording  Parameters not  required by 14 CFR | A | - | - | May be inoperative provided repairs are made prior to the completion of the next heavy maintenance visit. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| Flight Data Recorder  (FDR) Systems (Operator Other Than a Holder of an Air Carrier or Commercial Operator Certificate) | C | - | 1 | Any in excess of those required by 14 CFR may be inoperative. | None required. | None required. |  |
|  | A | - | 0 | May be inoperative provided repairs are made in accordance with applicable 14 CFRs. | None required. | None required. |  |
| 3. Brake Temperature  Monitoring System  (BTMS) | C | 1 | 0 | May be inoperative provided airplane is operated in accordance with AFM Appendix on Brake Kinetic Energy and Carbon Brake Cooling. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 4. G Monitor System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5. Electronic Checklist | C | 1 | 0 | May be inoperative provided the current AFM is carried on board the airplane. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 6. Security System  \*\*\* | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 7. Engine Cowl Open  Indicating System | D | 1 | 0 | May be inoperative provided right engine cowl is visually confirmed CLOSED before starting APU on the ground. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 8. Airplane Personality  Module (APM) | C | 4 | 3 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 9. Plastic Guard  Switch Covers | D | - | 1 | May be inoperative provided APU fire bottle switch cover is installed and operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 10. Configuration  Management Systems  (CMS) | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11. InfraRed Counter  \*\*\* Measuring System  (IRCM) or Directional  InfraRed Counter  Measurers System  (DIRCM) | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 12. Quick Access  \*\*\* Recorder (QAR) | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 13. XM Weather  \*\*\* Receiver | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Rudder Pedal  Steering System | C | 1 | 0 | May be inoperative provided:   1. Nose Wheel Tiller Steering System is operative, and 2. Left seat pilot performs the takeoff and landing tasks. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Variable Gain Nose  Wheel Steering | C | 1 | 0 | (O) May be inoperative provided the fixed gain steering mode is operative. | None required. | Flight crew will verify “NWS Fixed Gain” is annunciated on CAS prior to dispatch. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3. Nose Wheel Steering  Accessory Hardware  (Torque Link  Lanyards) | D | - | 0 | May be inoperative or missing. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. Tire Pressure  Monitoring System | D | 1 | 0 | May be inoperative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5. Nose Wheel Tire  Pressure Monitoring  Harness | D | 1 | 0 | (M) May be inoperative provided harness is deactivated and secured. | Maintenance will ensure that if the harness can not be connected normally, it has to be secured so it does not flail in the wind. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | 1 | 0 | (M) May be inoperative provided harness is removed. | Maintenance will ensure that if the harness can not be connected normally, it has to be removed. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 6. Emergency Landing  Gear Extension Bottle  Pressure Gauge  (Nose Wheelwell) | B | 1 | 0 | May be inoperative provided Emergency Landing Gear Extension Bottle Pressure Cockpit Indication (2/3 SUMMARY or 2/3 HYDRAULIC Synoptic Display Page) is operative and checked prior to each flight. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 7. Emergency Landing  Gear Extension Bottle  Pressure Cockpit  Indication | B | 1 | 0 | May be inoperative provided Emergency Landing Gear Extension Bottle Pressure Gauge (Nose Wheel well) is operative and checked prior to each flight. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 8. Landing Gear  Extension/Retraction  System  (Included dump valve,  gear handle and  blow down bottles) | A | 1 | 0 | (O) May be inoperative provided:  a) Airplane is operated with the landing gear in the extended position,  b) Landing gear handle remains in the down position,  c) Ground lock pins are installed to ensure that all three (3) Landing gears are LOCKED down throughout flight,  d) Both pilots use cockpit headsets,  e) Operations are not conducted in known or forecast icing conditions,  f) Extended over water operations are prohibited,  g) Flight is conducted in accordance with AFM Supplement No. G650-OMS-03 Landing Gear Extended Pre-Flight Planning and Performance,  h) Category II operations are prohibited,  i) EFVS operations below 200 feet above touchdown zone elevation are prohibited, and  j) Repairs are made within one (1) flight day. | None required. | Flight crew will install all three landing gear ground lock pins and ensure that the pin’s flags are removed prior to every takeoff. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Cockpit/Flight Deck/  Flight Compartment  Instrument Lighting  Systems (Excluding  EFIS and EICAS) | C | - | - | Individual lights may be inoperative provided remaining lights are:  a) Not an emergency bus,  b) Sufficient to clearly illuminate all required instruments, controls and other devices for which it is provided,  c) Positioned so that direct rays are shielded from flight crewmembers' eyes, and  d) Lighting configuration and intensity is acceptable to the flight crew.  NOTE 1: Individual button/switch lights and/or annunciation/indications are excluded from this relief.  NOTE 2: Unaided operation (without NVGs) may be permitted with inoperative NVG supplemental lights; cracked or missing filters. | None required. | None required. | An Inoperative Placard will be placed above the affected Lighting Rheostat and will be noted on ADLS. |
| 2. Passenger Cabin  Interior Illumination  Systems | D | - | - | May be inoperative provided:  a) Cabin emergency lighting is operative,  b) Sufficient lighting is operative for crew to perform required duties, and  c) Lighting configuration at dispatch is acceptable to flight crew. | None required. | None required. | An Inoperative Placard will be placed on affected Cabin Interior "ON/OFF" Switch and will be noted on ADLS. |
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| 3. Passenger Lighted  Information Signs | C | - | - | (M) May be inoperative provided:   1. Associated passenger seat or lavatory is not occupied from which a passenger lighted information sign is not readily legible, and 2. Associated seat or lavatory is blocked and placarded - DO NOT OCCUPY. | Maintenance will ensure:  a) Associated passenger seat or lavatory is not occupied, and  b) Associated seat or lavatory is blocked and placarded “DO NOT OCCUPY.” | None required. | An Inoperative Placard will be placed on associated seat or lavatory stating “DO NOT OCCUPY” and will be noted on ADLS. |
|  |  |  |  | NOTE: These conditions are not intended to prohibit lavatory use or inspections by crewmembers. |  |  |  |
|  | C | - | - | (O) May be inoperative and associated passenger seat or lavatory may be occupied provided:  a) PA System operates normally, and  b) PA System is used to notify passengers and cabin crew when associated sign(s) are placed ON or OFF. | None required. | Flight crew will ensure other means of communication are established if PA System does not operate. | An Inoperative Placard will be placed on inoperative PA System and will be noted on ADLS. |
| 1) All Cargo  Supernumerary/  Courier Area Lighted  Information Signs | C | - | - | (O) May be inoperative provided alternate procedures are established and used to notify couriers/supernumeraries when associated sign(s) are placed ON or OFF. | None required. | Flight crew will ensure alternate procedures are established when associated sign(s) are placed ON or OFF. | An Inoperative Placard will be placed in a prominent position to notify courier/ supernumerary when associated sign(s) are placed ON or OFF and will be noted on ADLS. |
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| 3. Passenger Lighted  Information Signs  (continued) |  |  |  |  |  |  |  |
| 2) Internal Baggage  Door Placard “DO NOT OPEN” Lighted Sign | C | 1 | 0 | (O) May be inoperative provided:  a) Procedures are established and used to alert crew members and passengers that airplane altitude is above 40,000 feet, and  b) Passengers are briefed that internal baggage compartment door must remain closed above 40,000 feet. | None required. | Flight crew will ensure that procedures are established and used to alert crew members and passengers that airplane altitude is above 40,000 feet, and passengers are briefed that internal baggage compartment door must remain closed above 40,000 feet. | An Inoperative placard will be placed on inoperative Passenger Lighted Information Signs and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provided airplane is operated at or below 40,000 feet. | None required. | Flight crew will ensure that airplane is operated at or below 40,000 feet. | An Inoperative placard will be placed on inoperative Passenger Lighted Information Signs and will be noted on ADLS. |
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| 3. Passenger Lighted  Information Signs  (continued) |  |  |  |  |  |  |  |
| The following pertains only to operations involving aircraft with 19 or less passenger seats, wherein certification or operating rules do not require a public address system or flight attendant. |  |  |  |  |  |  |  |
| 3) Passenger Lighted  Information Signs | C | - | - | (O) May be inoperative provided alternate procedures are established and used to notify cabin occupants. | None required. | Flight crew will use the PA if available or communicate directly by voice to the passengers when they should remain seated or not smoke. | An Inoperative placard will be placed on inoperative Passenger Lighted Information Signs and will be noted on ADLS. |
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| 4. Beacon Light LED  Element Banks | C | 2 | 0 | May be inoperative provided airplane is not operated at night. | None required. | None required. | An Inoperative Placard will be placed on Beacon Light "ON/OFF" Switch and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided Strobes are installed and operative. | None required. | None required. | An Inoperative Placard will be placed on Beacon Light "ON/OFF" Switch and will be noted on ADLS. |
|  | C | 2 | 1 | One Element Bank may be inoperative. | None required. | None required. | An Inoperative Placard will be placed on Beacon Light "ON/OFF" Switch and will be noted on ADLS. |
| 5. Wing-tip Strobes  (Anti-Collision Lights)  LED Element Banks  (per wing-tip) | C | 6 | 4 | One of three forward facing and one of three outboard facing banks may be inoperative at each wingtip position. | None required. | None required. | An Inoperative Placard will be placed on Strobe "ON/OFF" Switch and will be noted on ADLS. |
|  | C | 6 | 2 | May be inoperative provided:  a) At least one bank is operative at each wing-tip, and  b) Airplane is not operated at night. | None required. | None required. | An Inoperative Placard will be placed on Strobe "ON/OFF" Switch and will be noted on ADLS. |
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| 6. Tail Position Strobe  (Anti-Collision Lights)  LED Element Banks | C | 9 | 6 | One of three aft facing, one of three left facing and one of three right facing banks may be inoperative. | None required. | None required. | An Inoperative Placard will be placed on Position (Navigation) Light "ON/OFF" Switch and will be noted on ADLS. |
|  | C | 9 | 0 | May be inoperative provided:  a) At least two out of three forward facing and two out of three outboard facing banks are operative at each wing-tip, and  b) Airplane is not operated at night. | None required. | None required. | An Inoperative Placard will be placed on Position (Navigation) Light "ON/OFF" Switch and will be noted on ADLS. |
| 7. Wing-tip Position  Light LED Element  Banks (per wing-tip) | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be placed on Strobe "ON/OFF" Switch and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided airplane is not operated at night. | None required. | None required. | An Inoperative Placard will be placed on Strobe "ON/OFF" Switch and will be noted on ADLS. |
| 8. Tail Position Light  LED Element Banks | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be placed on Position (Navigation) Light "ON/OFF" Switch and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided airplane is not operated at night. | None required. | None required. | An Inoperative Placard will be placed on Position (Navigation) Light "ON/OFF" Switch and will be noted on ADLS. |

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| 9. Wing Inspection  Lights | C | 2 | 0 | May be inoperative provided an Ice Detection System is installed and operative. | None required. | None required. | An Inoperative Placard will be placed on Wing Inspection Light "ON/ OFF" Switch and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided portable lamp/light of adequate capacity for wing and/or control surface inspection is available for night operation in icing conditions. | None required. | None required. | An Inoperative Placard will be placed on Wing Inspection Light "ON/ OFF" Switch and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided airplane is not operated at night. | None required. | None required. | An Inoperative Placard will be placed on Wing Inspection Light "ON/ OFF" Switch and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided airplane is not operated in known or forecast icing conditions. | None required. | None required. | An Inoperative Placard will be placed on Wing Inspection Light "ON/ OFF" Switch and will be noted on ADLS. |
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| 10. Landing Lights | B | 2 | 1 | May be inoperative provided all three LED clusters of the taxi lights are operative. | None required. | None required. | An Inoperative Placard will be placed on affected Landing Light (L LDG) or (R LDG) "ON/OFF" Switch(es) and will be noted on ADLS. |
|  | C | 2 | 0 | May be inoperative provided airplane is not operated at night. | None required. | None required. | An Inoperative Placard will be placed on affected Landing Light (L LDG) or (R LDG) "ON/OFF" Switch(es) and will be noted on ADLS. |
| 11. Taxi Light System | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Taxi "ON/OFF" Switch and will be noted on ADLS. |
| 1) Individual LED Light Cluster | C | 3 | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Taxi "ON/OFF" Switch to indicate the inoperative light bulbs and will be noted on ADLS. |
| 12. Wing Tip Recognition  Lights and Taxi Lights  System | D | 4 | 0 |  | None required. | None required. | An Inoperative Placard will be placed on Wing Tip Taxi "ON/OFF" Switch and will be noted on ADLS. |
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| 13. Floor Proximity  \*\*\* Emergency Escape  Path Marking System  Lights | C | - | - | Individual lights may be inoperative provided it is verified that FAA approved minimum acceptable lighting levels specified in one of the following documents are complied with:  a) FAA engineering approval letter.  b) FAA approved report of the type design holder.  c) Limitations and Conditions section of the applicable Supplement Type Certificate (STC).  d) An FAA approved report incorporated in the Master Drawing List for the applicable STC. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 14. Pulse Light Systems  (Identification Lights) | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on affected Pulse Light System Light Switch and will be noted on ADLS. |
| 15. Logo Lights  System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on affected Logo Light Switch and will be noted on ADLS. |
| 16. Ramp Lights  \*\*\* System | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed on affected Ramp Light Switch and will be noted on ADLS. |

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| 17. Flashlight Charging  \*\*\* Systems | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 18. Aft Compartment  Lights (Boiler Room) | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be placed nest to Aft Compartment Light Switch and will be noted on ADLS. |
| 19. Cargo Compartment  \*\*\* Light | D | 1 | 0 | May be inoperative provided no emergency equipment is carried in the Cargo Compartment. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | 1 | 0 | May be inoperative provided an operative flashlight is installed in Cargo Compartment. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 20. Pylon Mounted  Exterior Baggage  Loading Light Systems | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 21. Wheel Well Lights | D | 3 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 22. Exterior Emergency  Evacuation Lighting  System | C | 1 | 0 | May be inoperative provided airplane is operated during daylight only. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 23. Service Door Lights | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 24. Dim and Test  Annunciator Channels | C | - | - | May be inoperative provided the switch capsule is not used in an emergency procedure where the actuation of the switch is not displayed elsewhere in the cockpit.  NOTE: The following switches 1-4 may not be inoperative: | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  |  |  |  | 1. GPWS / Ground Spoiler Override 2. TERRAIN Inhibit 3. CPCS Panel Flight/Landing (2) 4. Door Safety |  |  |  |
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| 25. Airstair Lights | D | - | 0 | May be inoperative provided an alternate means (e.g. flashlight) is used to illuminate the airstair. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 26. Dome Light | D | - | 0 | May be inoperative provided an alternate means (e.g. flashlight) is used to illuminate the vestibule area. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 27. Baggage Compartment  Light | D | 1 | 0 | May be inoperative provided no emergency equipment is carried in the baggage compartment. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | 1 | 0 | May be inoperative provided an operative flashlight is installed in the baggage compartment. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 28. Cockpit Flashlight | C | 2 | 1 | May be inoperative provided the operative flashlight is in good working order in accordance with the applicable 14 CFR. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Directional Compass  Reference Sensors  (IRS 1-2-3) | B | 3 | 2 | (O) May be inoperative provided:   1. Both PFD Heading Indicating Systems operate independently, and 2. Airplane is operated in accordance with AFM Limitations. | None required. | Flight crew will ensure that the same IRS is NOT used as the heading source for both pilots and airplane is in compliance with AFM speed limitations. | An Inoperative Placard will be placed on Mode Select Unit (MSU) and will be noted on ADLS. |
| 2. Attitude Reference  Sensors Inertial |  |  |  |  |  |  |  |
| 1) Inertial Reference System (IRS 1-2-3) | A | 3 | 2 | (O) May be inoperative provided:  a) Repairs are made within one (1) flight day,  b) Both PFD Attitude Indicating Systems operate independently,  c) Standby Multi-Function Controller (SMC) Attitude Indicators are operative,  d) Airplane is operated in accordance with AFM Limitations, and  e) Both AHRS sensors are operative. | None required. | Flight crew will ensure same IRS is NOT used as attitude source for both pilots and airplane is in compliance with AFM speed limitations. | An Inoperative Placard will be placed on MSU and will be noted on ADLS. |
| 1. Attitude Heading   Reference System (AHRS 1-2) | A | 2 | 1 | (O) May be inoperative provided:   1. Repairs are made within one (1) flight day, 2. Both PFD Attitude Indicating Systems operate independently, and 3. All three Attitude Reference Sensors (IRS 1-2-3) are operative. | None required. | Flight crew will ensure same IRS is NOT used as attitude source for both pilots and airplane is in compliance with AFM speed limitations. | An Inoperative Placard will be placed on MSU and will be noted on ADLS. |

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| 1. Standby Multi-   Function Controllers  (SMC) | A | 2 | 1 | (M) (O) Right SMC may be inoperative provided:   1. FMS is the navigation source on both PFD’s, 2. Destination and alternate airports have either LPV, GPS or FMS overlay approaches available without NOTAM restrictions, 3. No other display system failures exist, 4. Associated Standby Multi-Function Controller circuit breaker is pulled and collared, 5. Alternate procedures are established and used, and 6. Repairs are made within one (1) flight day. | Maintenance will ensure the associated Standbv Multi-Function Controller circuit breaker(s) is pulled and collared. | FMS is the navigation source on both PFD’s.  Destination and alternate airports have either LPV, GPS, FMS overlay, or ILS approach available without NOTAM restrictions. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Standby   Multi-Function  Controllers (cont’d) |  |  |  |  |  |  |  |
| 1) Secondary Flight Displays (SFD) | C | 2 | 0 | Except for ER operations, the Attitude position indicator may be inoperative provided not required by 14 CFR. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | B | 2 | 0 | Attitude position indicator may be inoperative provided:  a) Operations are conducted in day VMC only, and  b) Operations are not conducted into known or forecast over-the-top conditions. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | 2 | 1 | (M) One may be inoperative provided:  a) Both PFD Attitude Indicating Systems operate independently, and  b) All three Attitude Reference Sensors (IRS 1-2-3) are operative. | Maintenance will ensure that failed side AHRS and Magnetometer circuit breakers are pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 3. Standby  Multi-Function  Controllers |  |  |  |  |  |  |  |
| 1) Secondary Flight  Displays (SFD)  (cont’d) |  |  |  |  |  |  |  |
| a) Standby Air Data  System (ADS 4) (Altitude and Airspeed Function) | C | 1 | 0 | May be inoperative provided:  a) Airplane is operated in day VMC only,  b) Both Engine Generators are operative, and  c) APU Generator is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| b) Standby Heading  Display | C | 2 | 0 | May be inoperative provided all three (3) Heading Reference Systems are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| c) NAV 1 / Glideslope / Localizer Function | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| d) DME Displays | C | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 4. Weather Radar  Systems | C | - | - | Except for ER operations, as required by 14 CFR. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5. VOR/ILS  Navigation Systems | C | - | - | As required by 14 CFR and no relief may be provided to an inoperative system or component if powered by an emergency bus. | None required. | None required. | An Inoperative Placard will be placed on affected RFMU and will be noted on ADLS. |
| 6. Marker Beacon  Systems | C | 2 | 0 | May be inoperative provided approach procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 7. Automatic Direction  Finding Systems | C | 1 | - | As required by 14 CFR. | None required. | None required. | An Inoperative Placard will be placed on or next to affected ADF Indicator and will be noted on ADLS. |
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| 8. ATC Transponder and  Automatic Altitude  Reporting Systems | B | 2 | 0 | May be inoperative provided:  a) Operations do not require its use, and  b) Before flight, approval is obtained from ATC facilities having jurisdiction over the planned route of flight. | None required. | None required. | An Inoperative Placard will be placed adjacent to MCDU and will be noted on ADLS. |
|  | D | - | 1 | Any in excess of those required by 14 CFR may be inoperative.  NOTE 1: Flight Director, Autopilot, and Transponder must use the same Air Data source for flight into RVSM airspace.  NOTE 2: Transponder and altitude reporting capability must be operative for flight into RVSM airspace.  NOTE 3: Both transponders must be operative for flight into RVSM airspace. | None required. | None required. | An Inoperative Placard will be placed adjacent to MCDU and will be noted on ADLS. |
| \*\*\*1) Elementary and  Enhanced Downlink  Airplane Reportable  Parameters not  Required by 14 CFR | A | - | 0 | May be inoperative provided:   1. Operations do not require its use, and 2. Repairs are made before completion of the next heavy maintenance visit. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 8. ATC Transponder and  Automatic Altitude  Reporting Systems  (continued) |  |  |  |  |  |  |  |
| \*\*\*2) ADS-B Squitter  Transmissions | D | - | 0 | May be inoperative provided operations do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | - | 0 | (O) May be inoperative provided alternate procedures are established and used.  NOTE: Any ADS-B Out function that operates normally may be used. | None required. | Flight crew will ensure to:   1. Select alternate transponder, if available.   If ATC ADS-B Transmitter Fail message persists:   1. Select ADS-B to OFF, 2. Inform Air Traffic Control, if required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9. Distance  Measuring Equipment  (DME) Systems | D | 2 | 0 | Except where en route operations or approach minimums require its use, any in excess of those required by 14 CFR may be inoperative.  NOTE: Those required by 14 CFR Part 91.205 or 135.165 are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 10. Radio Altimeter  Systems | C | 2 | 1 | (O) May be inoperative provided:   1. Remaining Radio Altimeter test results are satisfactory prior to dispatch, 2. Landing weather minimums or operating procedures do not required its use, 3. Other systems affected (EGPWS, TCAS, Autothrottle, Altimeter Ground Awareness Display, Synthetic Vision Primary Flight Display and automatic cowl/wing anti-icing are considered, and 4. Approach capability at destination and alternate airports must be assessed.   NOTE: Selection of RAD ALT inhibits Mode 6 advisories from GPWS which inhibits LPV approach capability. | None required. | Flight crew will assess approach capability at destination and alternate airports. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 11. Long Range  Navigation Systems  (IRS, GPS and  GNSSU) | C | - | - | May be inoperative except where en route operations or approach minimums require the use of GPS or GNSSU. | None required. | None required. | An Inoperative Placard will be placed on affected Instrument Controller and will be noted on ADLS. |
|  | C | - | - | As required by 14 CFR.  NOTE: IRS Navigation Function only. See Attitude Reference Sensors for IRS Attitude Function. | None required. | None required. | An Inoperative Placard will be placed on affected Instrument Controller and will be noted on ADLS. |
| 1) GNSSU WAAS (Wide Area Augmentation System or SBAS – Space Based Augmentation System) Function | C | 2 | 0 | WAAS function may be inoperative provided en route and approach procedures do not require its use.  NOTE: GPS must be operative for ADS-B Squitter Transmissions to broadcast accurate data. | None required. | None required. | An Inoperative Placard will be placed on affected Instrument Controller and will be noted on ADLS. |
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| 12. Terrain Awareness and  Warning System  (TAWS) |  |  |  |  |  |  |  |
| Class A TAWS  Equipment Required |  |  |  |  |  |  |  |
| 1) GPWS | A | 2 | 0 | (O) May be inoperative provided:  a) Alternate Procedures are established and used, and  b) Repairs are made within two (2) flight days. | None required. | Pilot Monitoring (PM) will monitor flight progress with reference to radio altimeter data and situational awareness and advise Pilot-Flying (PF) of adverse situations. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| a) Modes 1-4 | A | 4 | 0 | (O) May be inoperative provided:  a) Alternate Procedures are established and used, and  b) Repairs are made within two (2) flight days. | None required. | Pilot Monitoring (PM) will monitor flight progress with reference to radio altimeter data and situational awareness and advise Pilot-Flying (PF) of adverse situations. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| b) Test Mode | A | 1 | 0 | May be inoperative provided:  a) GPWS is considered inoperative, and  b) Repairs are made within two (2) flight days. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| c) Glideslope Deviation(s)  (Mode 5) | C | - | 1 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | B | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 12. Terrain Awareness and  Warning System  (TAWS) |  |  |  |  |  |  |  |
| Class A TAWS  Equipment Required  (continued) |  |  |  |  |  |  |  |
| \*\*\*d) Advisory Callouts | B | - | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | Pilot Monitoring (PM) will monitor flight progress with reference to radio altimeter data and situational awareness and advise Pilot-Flying (PF) of adverse situations. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | - | 0 | (O) May be inoperative provided:  a) Advisory callout not required by 14 CFR, and  b) Alternate procedures are established and used. | None required. | Pilot Monitoring (PM) will monitor flight progress with reference to radio altimeter data and situational awareness and advise Pilot-Flying (PF) of adverse situations. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\*e) Windshear Mode  (Reactive) | B | 1 | 0 | (O) May be inoperative provided alternate procedures are established and used.  NOTE: Operator’s alternate procedures should include reviewing windshear avoidance and windshear recovery procedures. | None required. | Flight crew will comply with AFM/AOM guidance in windshear situations and recommend procedures when encountering windshear. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provided:  a) Alternate procedures are established and used, and  b) Windshear Detection and Avoidance System (Predictive) is operative. | None required. | Flight crew will comply with AFM/AOM guidance in windshear situations and recommend procedures when encountering windshear. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 12. Terrain Awareness and  Warning System  (TAWS) |  |  |  |  |  |  |  |
| Class A TAWS  Equipment Required |  |  |  |  |  |  |  |
| 2) Terrain System – Forward Looking Terrain Avoidance (FLTA) and Premature Descent Alert (PDA) Functions | B | 1 | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | Pilot Monitoring (PM) will monitor flight progress with reference to radio altimeter data and situational awareness and advise Pilot-Flying (PF) of adverse situations. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\*3) Terrain Displays | C | - | 1 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | B | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\*4) Runway Awareness & Advisory System (RAAS) | C | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 13. Lightning Sensor  \*\*\* Systems (LSS) | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 14. Stormscope  \*\*\* | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 15. Traffic Alert and  Collision Avoidance  System (TCAS II) | B | 1 | 0 | (M) May be inoperative provided system is deactivated and secured, and en route or approach procedures do not require its use. | Maintenance or qualified flight crew will ensure system is deactivated by pulling and collaring TCAS Power CB. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Combined Traffic  Alert (TA) and  Resolution Advisory  (RA) Dual Display  System(s) | C | 2 | 1 | May be inoperative on the non-flying pilot side provided:   1. TA and RA visual display is operative on the flying pilot side, and 2. TA and RA audio function is operative on the flying pilot side. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Resolution Advisory  (RA) Display  System(s) | C | 2 | 1 | May be inoperative on the non-flying pilot side. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| (continued) | C | - | 0 | (O) May be inoperative provided:   1. Traffic Alert (TA) visual display and audio functions are operative, 2. TA only mode is selected by the crew, and 3. En route or approach procedures do not require its use. | None required. | Flight crew will verify that the RA Display System is NOT required for the en route and/or approach phase of the proposed flight. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 15. Traffic Alert and  Collision Avoidance  System (TCAS II)  (continued) |  |  |  |  |  |  |  |
| 3) Traffic Alert  Display System(s) | C | - | 0 | (O) May be inoperative provided:   1. RA visual display and audio functions are operative, and 2. En route or approach procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4) Audio Functions | B | 1 | 0 | May be inoperative provided en route or approach procedures do not require use of TCAS. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5) Airspace Selection  \*\*\* Function | C | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 16. Microwave Landing  \*\*\* Systems (MLS) | D | - | - | As required by 14 CFR. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 17. Guidance Panel Digital  Indications and Mode  Select Indications |  |  |  |  |  |  |  |
| 1) Speed Display | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 17. Guidance Panel Digital  Indications and Mode  Select Indications  (continued) |  |  |  |  |  |  |  |
| 2) Heading Display | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3) VS/FPA Display | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4) Altitude Select  Display | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5) LNAV | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 6) VNAV | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 17. Guidance Panel Digital  Indications and Mode  Select Indications  (continued) |  |  |  |  |  |  |  |
| 7) FLCH | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 8) Manual Speed | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9) Bank Select | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 10) BC Select | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11) Heading Select | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 17. Guidance Panel Digital  Indications and Mode  Select Indications  (continued) |  |  |  |  |  |  |  |
| 12) VS/FPA Select | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 13) Alt Hold Select | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 14) Approach | C | 1 | 0 | May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 15) PFD Command | C | 1 | 0 | (O) May be inoperative provided the associated value is available in the Primary Flight Display. | None required. | On initial power up of the airplane, the default is PFD command left PFD. If button is pushed several times, PFD command to the left PFD can be established by pulling and resetting Guidance Panel circuit breakers. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 18. Altitude Alerting  System | A | - | 0 | (O) May be inoperative provided:   1. Autopilot with altitude hold and altitude capture operates normally, 2. En route operations, i.e. RVSM, do not require its use, 3. Airplane does not depart from a designated airport (as listed in the operator’s MEL) where repair or replacement can be made, and 4. Repairs are made within three (3) flight days. | None required. | Flight crew will ensure Autopilot with Altitude Hold is operable.  NOTE: Flight into RVSM airspace is not allowed with inoperative Altitude Alerting System. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Aural Alert | C | - | 0 | May be inoperative provided:   1. Visual alert operates normally, and 2. Auto-pilot with altitude hold and altitude capture operates normally. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Visual Alert | C | - | 0 | May be inoperative provided:   1. Aural alert operates normally, and 2. Auto-pilot with altitude hold and altitude capture operates normally. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 19. Display Units | C | 4 | 3 | (M)(O) May be inoperative provided:   1. The unit is located in the DU 3 position, and 2. The pilot in the left seat flies the airplane. | Maintenance will move the inoperative display unit to the DU3 position. Refer to AMM Chapter 31-63-03.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will discuss alternate procedures for loss of a second display for all phases of flight including failures during takeoff, approach, landing, and go-around. It is required that the pilot in the left seat fly the airplane. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 20. Magnetometers | C | 2 | 0 | May be inoperative provided all three (3) IRS’s are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 21. Head Up Display  \*\*\* System | D | 1 | 0 | May be inoperative provided landing weather minimums or operating procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 22. Slip-Skid Indicators | B | 2 | 1 | May be inoperative provided:   1. Both SMC’s are installed and operative, and 2. An operative slip indication is obtained by selecting another IRS source via the SMC Display Controller. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | B | 2 | 0 | May be inoperative provided airplane is operated during day VMC conditions. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 23. Data LAN  Management  Unit (DLMU) | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 24. Air Data Systems  (ADS 1-2-3) | C | 4 | 3 | (M)(O) May be inoperative provided:   1. Standby ADS (ADS 4) is operational, 2. Manual Pressurization Control System is operative,   c) Cabin Altitude and Differential Pressure Indicators are operative,  d) Cabin Rate of Climb Indicator is operative,  e) Autopilot is operative, and  f) Airplane is operated in accordance with AFM Limitations.  NOTE: Two systems are required for operation in RVSM airspace. | Maintenance will pull and collar circuit breaker associated with failed Air Data System.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will ensure that an operative ADS is selected prior to departure. | An Inoperative Placard will be placed on Air Data Systems to be seen by flight crew and will be noted on ADLS. |
|  | C | 4 | 3 | (O) May be inoperative provided:   1. Airplane is operated in unpressurized configuration, and 2. Standby ADS (ADS 4) is operational. | None required. | Flight crew will ensure required items e.g. Manual Pressurization Control System, Cabin Altitude and Cabin Rate of Climb Indicator and Auto Pilot are functional. AFM, Section 2, Normal Procedures, Before Starting Engines. Flight crew will operate airplane in accordance with AFM, Section 1, Limitations, Cabin Pressurization Control and Section 3, Abnormal Procedures, Loss of Automatic Pressurization Control and Operating with One or More Air Data system(s) (ADS) Failed. For Taxi, Takeoffs, and Landings - Max Cabin Pressure Differential 0.3 psid. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 25. Airshow Controller  \*\*\* System | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Cockpit Airshow  \*\*\* Display System | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Cabin Airshow  \*\*\* Display System | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 26. Windshear Warning  and Flight Guidance  System (Reactive) | C | 1 | 0 | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew will comply with the AFM/AOM guidance on windshear conditions and the recommended procedures for windshear encounters. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 27. Windshear Detection  \*\*\* and Avoidance System  (Predictive) | C | - | 0 | (O) May be inoperative provided alternate procedures are established and used.  NOTE: RDR-4000 has predictive windshear detection capability (optional). | None required. | Flight crew will comply with the AFM/AOM guidance on windshear conditions and the recommended procedures for windshear encounters. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 28. Cockpit Video  \*\*\* Monitors | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 29. Heads Up Checklist  \*\*\* | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 30. Enhanced Vision  \*\*\* System (EVS) | D | 1 | 0 | NOTE: With EVS inoperative or with one or more EVS SSPCs pulled or tripped a blue “Landing Gear System Fault” CAS message may be displayed. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) EVS Window Heat  \*\*\* | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Secondary (non-HUD)  \*\*\* EVS Display Repeater | D | 1 | 0 | May be inoperative provided procedures are not dependent on its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 31. Terrain Server  Function/EGPWM  Modules | C | 2 | 0 | NOTE: Synthetic Vision PFD synthetic terrain will not be available with dual Terrain Server failures, but the full PFD may be used without restriction. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 32. Advanced Graphics  Module (AGM) | C | 4 | 3 | (M)(O) May be inoperative provided:   1. Inoperative AGM is located in the AGM 3 position, and 2. Crew actions for subsequent failures are established. | Maintenance will move the inoperative AGM module to the AGM 3 position.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will discuss the alternate procedures for sharing displays including if a display fails during all phases of flight including takeoff, approach, landing, and go-around. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | 4 | 3 | (O) May be inoperative provided:   1. Inoperative AGM is electronically switched to the AGM 3 position, resulting in DU 3 Red Xing, and 2. Crew actions for subsequent failures are established. | None required. | Flight crew will ensure:  a) The failed AGM is electronically switched to the number 3 position,  b) Verify that DU 3 is Red X’ed prior to dispatch,  c) Dim DU 3 to eliminate the Red X, and  d) Discuss alternate procedures for sharing displays in the event a second AGM or DU fails during any phase of flight  NOTE: Refer to AFM Section 2-08-240. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 33. Advanced Graphics  Module (AGM)  Database (does not  include charts) | C | - | 0 | May be out of currency provided:   1. Current IFR/VFR Aeronautical Charts or appropriate airport information charts are used to verify the information before dispatch, 2. Procedures are established and used to verify the status and suitability of Navigation Facilities used to define the route of flight, and 3. Approach Navigation Radios are manually tuned and identified. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 34. Cockpit Printer | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 35. Cursor Control  Devices | C | 2 | 0 | (M)(O) May be inoperative provided:   1. Both Standby Multi-Function Controllers (SMCs) are operative, and 2. Current terminal charts for the origin, destination and alternate airports are verified to be current and onboard the aircraft and available to the flight crew. | Maintenance will pull and collar the circuit breaker for the inoperative CCD. | Flight crew will ensure that terminal charts for the origin, destination and alternate airports are verified to be current and/or EFB’s are carried on board the aircraft prior to dispatch. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 36. Multi-function Control  Display Units (MCDU) | C | 3 | 2 | (M) May be inoperative provided:   1. The FMS functions and Radio Tuning functions are operative on the remaining MCDU’s, 2. All Display Units are operative, and 3. The inoperative MCDU is located in either the No. 1 or No. 2 position.   NOTE: MCDU 1 has Standby Engine instruments. MCDU 3 has Backup Radio Tuning functions. | Maintenance will perform procedures in accordance with AMM Chapter 34-60-03. The inoperative MCDU will be moved to either the No. 1 or No. 2 position. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Flight Management  System (FMS)  Function | B | 3 | 1 | Except where en route operations or approach minimums require its use, may be inoperative provided:   1. Affected system is not required for IRS alignment, 2. Long Range Navigation is not dependent on its use, and 3. Procedures do not require its use.   NOTE: Two (2) systems are required for dispatch into MNPS or RNP-10/4 airspace. RNP RNAV including PRNAV and BRNAV only require a single FMS. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| a) Navigation  Databases | C | - | - | Except where en route operations or minimums require a current database, may be out of currency provided:   1. Current Aeronautical Charts are used to verify Navigation fixes before dispatch, 2. Procedures are established and used to verify status and suitability of Navigation Facilities used to define route of flight, and 3. Approach Navigation Radios are manually tuned. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 36. Multi-function Control  Display Units (MCDU)  (continued) |  |  |  |  |  |  |  |
| 2) Radio Tuning Functions | B | 3 | 2 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 37. Charts Function | D | 2 | 0 | May be inoperative provided current aeronautical charts are carried onboard the airplane and available to the flight crew. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Charts Database | C | 4 | 0 | May be out of currency provided the terminal chart for the origin, destination, and alternate airports are verified to be current. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 38. Video Function | D | 1 | 0 | May be inoperative provided alternate procedures are established for the use of the Enhanced Vision System (EVS) display function. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 39. Automatic Dependent  \*\*\* Surveillance-Broadcast  (ADS-B) System | D | - | 0 | May be inoperative provided it is not required by 14 CFR.  NOTE: If ADS-B is installed in lieu of or as a replacement for 14 CFR required equipment, the repair category in the operator’s MEL will be the same as that of the 14 CFR required equipment. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 1) Cockpit Display and  \*\*\* Traffic Information  (CDTI) | D | - | 0 | NOTE: Cockpit Display Traffic Information (CDTI) display of data from other airplane systems may be used. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) CDTI Control Panel  \*\*\* | D | - | 0 | May be inoperative provided:   1. Flight ID can be set, and 2. Screen display is acceptable to the flight crew. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3) Data Link  \*\*\* Transmitter(s) | D | - | 0 | NOTE: In some airplanes the Data Link Transmission is an integral part of the transponder and relief is provided in that section. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4) Data Link Receivers  \*\*\* | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5) ADS-B Applications  \*\*\* | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 40. Synthetic Vision  \*\*\* Primary Flight Display  (SV-PFD) Functions | D | 2 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 41. CAS Scroll Switches | D | 2 | 0 | May be inoperative provided both CCD’s are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Passenger Oxygen  System and Supply | B | - | - | As required by 14 CFR. | None required. | None required.  NOTE: Minimum oxygen supply for dispatch will be computed from data in the applicable AFM Supplement for the Oxygen System STC with reference to the requirements of 14 CFR 91.211. | An Inoperative Placard will be placed on affected Oxygen Control Panel or Mask Unit and will be noted on ADLS. Additionally, affected seats shall be blocked and placarded. |
| 2. Cabin Oxygen ON  Warning System | C | 1 | 0 | May be inoperative provided:   1. Cabin Altitude and Differential Pressure Indicators are operative, and 2. Cabin Altitude Pressure Warning System is operative. | None required. | None required. | An Inoperative Placard will be placed above "ON" position on Oxygen Control Panel and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provide airplane is operated in unpressurized configuration. | None required. | To operate the airplane unpressurized, select manual pressurization and slew the outflow valve to the full open position with RAM Air selected ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed above "ON" position on Oxygen Control Panel and will be noted on ADLS. |
| 3. Oxygen Service Panel  Pressure Gauges | D | 2 | 0 | May be inoperative provided associated cockpit gauge is operative and monitored. | None required. | None required. | An Inoperative Placard will be placed on Oxygen Service Panel Gauges and will be noted on ADLS. |
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| 4. Portable Oxygen  \*\*\* Dispensing Units  (Bottle and Mask) | B | - | - | Any in excess of those required by 14 CFR may be inoperative or missing provided required distribution is maintained throughout airplane.  NOTE: Any bottle not properly serviced is considered inoperative and should be removed. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5. Oxygen Supply  Warning Systems | C | 2 | 0 | May be inoperative provided associated cockpit gauge is operative and monitored. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 6. Protective Breathing  \*\*\* Equipment (PBE) | D | - | - | Any in excess of those required by 14 CFR may be inoperative or removed provided location placarding is removed or obscured. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 7. Electronic Equipment  \*\*\* Rack Oxygen Pressure  Gauges | D | - | 0 | May be inoperative provided cockpit gauges are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 8. Cockpit Oxygen  Pressure Indications | C | 2 | 1 | (O) One may be inoperative provided:   1. Oxygen Service Panel Pressure Gauges are operative and checked before every takeoff, and 2. Crew Oxygen Off and Passenger Oxygen Off messages are not displayed on the CAS prior to every takeoff. | None required. | Flight crew will verify that sufficient oxygen is available for crew and passengers prior to every takeoff by checking the gauges in the oxygen service panel. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 9. Passenger Oxygen  Control Panel ALT  SELECT (High Alt)  Switch | C | 1 | 0 | May be inoperative provided airplane is operated from airports no higher than 14,500 feet in accordance with AFM Limitations. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 10. Therapeutic Oxygen | C | - | - | As required by 14 CFR. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Bleed Air Systems |  |  |  |  |  |  |  |
| 1) Pressurized  Configuration | C | 2 | 1 | (M) Except for ER operations, may be inoperative provided:   1. Inoperative Bleed Control Valve is CLOSED and deactivated electrically when associated Engine Bleed Air System is selected OFF, 2. Opposite Engine Bleed Air System is operative, 3. Isolation Valve is verified to be operative and selected OPEN, and 4. Airplane is operated in accordance with AFM Limitations. | Maintenance will CLOSE inoperative Bleed Control Valve and electrically deactivate affected system. If failure occurs with 1) Right Bleed Air Control Valve: Select Right Bleed Air Valve OFF utilizing R Eng Bleed Air Switch and Pull R BLD AIR CTL CMD Circuit Breaker (CB). 2) Left Bleed Air Control Valve: Select Left Bleed Air Valve OFF utilizing L Eng Bleed Air Switch and Pull L BLD AIR CTL CMD Circuit Breaker (CB). In addition, opposite Engine Bleed Air System and Isolation Valve will be verified operative and Isolation Valve selected OPEN. Refer to AMM chapter 36-12-00.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed above the affected Bleed Air Control Switch and will be noted on ADLS. |
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| 1. Bleed Air Systems  (continued) |  |  |  |  |  |  |  |
| 2) Unpressurized  Configuration | C | 2 | 0 | (M)(O) Except for ER operations, both may be inoperative provided:   1. Inoperative Bleed Control Valve is CLOSED and deactivated electrically when associated Engine Bleed Air System is selected OFF, 2. Airplane is not operated in forecast or known icing conditions, 3. Rear baggage compartment is not used (empty), 4. Internal baggage door remains OPEN, and 5. Airplane is operated in accordance with AFM Limitations. | Maintenance will ensure both Bleed Air Valves are CLOSED and deactivated electrically.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will ensure internal baggage door remains OPEN.  To operate the airplane unpressurized, select manual pressurization and slew the outflow valve to the full open position with RAM Air selected ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed above the affected Bleed Air Control Switch(es) and will be noted on ADLS. |
| 2. Bleed Air Hot Warning  Systems |  |  |  |  |  |  |  |
| 1) Pressurized  Configuration | C | 2 | 1 | (M) Except for ER operations, may be inoperative provided:   1. Associated Bleed Control Valve is CLOSED and deactivated electrically when associated Engine Bleed Air System is selected OFF, 2. Opposite Engine Bleed Air System is operative, 3. Isolation Valve is verified to be operative and selected OPEN, 4. Airplane is not operated in forecast or known icing conditions, and 5. Airplane is operated in accordance with AFM Limitations. | Maintenance will CLOSE associated Bleed Control Valve and electrically deactivate system. In addition, opposite Engine Bleed Air System and Isolation Valve will be verified operative and Isolation Valve selected OPEN. Refer to AMM chapter 36-12-00.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed above the affected Bleed Air Control Switch(es) and will be noted on ADLS. |
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| 2. Bleed Air Hot Warning  Systems (continued) |  |  |  |  |  |  |  |
| 2) Unpressurized  Configuration | C | 2 | 0 | (M)(O) Except for ER operations, may be inoperative provided:   1. Associated Bleed Control Valve is CLOSED and deactivated electrically when associated Engine Bleed Air System is selected OFF, 2. Airplane is not operated in forecast or known icing conditions, 3. Rear baggage compartment is not used (empty), 4. Internal baggage door remains OPEN, and 5. Airplane is operated in accordance with AFM Limitations. | Maintenance will ensure both Bleed Air Valves are CLOSED and deactivated electrically.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will ensure internal baggage door remains OPEN.  To operate the airplane unpressurized, select manual pressurization and slew the outflow valve to the full open position with RAM Air selected ON. Monitor cabin differential pressure to be nominally zero psid during the flight. | An Inoperative Placard will be placed above the affected Bleed Air Control Switch(es) and will be noted on ADLS. |
| 3. Isolation Valve | C | 1 | 0 | (M) May be inoperative provided:  a) Both Bleed Air Systems are operative,  b) Both Environmental Control Systems (ECS) Packs are operative,  c) Isolation Valve is electrically deactivated,  d) Isolation Valve is verified CLOSED, and  e) Airplane is operated in accordance with AFM Limitations.  NOTE: Valve must be OPENED manually during left engine start. | Maintenance will ensure BOTH Bleed Air System and Environmental Control System (ECS) Packs are operative. In addition, Isolation Valve is to be electrically deactivated and verified "CLOSED". Refer to AMM chapters 21-00-00 and 36-12-00.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on Isolation Valve Switch and will be noted on ADLS. |
| 4. Bleed Air System  Switch Capsule Lights | C | 4 | 0 | May be inoperative provided Bleed Air System indications are available on the Synoptic display. | None required. | None required. | An Inoperative Placard will be placed on Bleed Air System Switch Capsule Lights and will be noted on ADLS. |
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| 1. Potable Water  Systems | C | - | - | (M) Individual components may be inoperative provided:   1. Associated components are deactivated or isolated, 2. Associated system components are verified not to have leaks, and 3. Passengers are advised of the inoperative water system.   NOTE: Any portion of system which operates normally may be used. | Maintenance will ensure appropriate procedures are established to deactivate applicable system components and verify that components do not have leaks.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on Potable Water System and will be noted on ADLS. |
|  | C | - | - | (M) May be inoperative provided:   1. System is drained, and 2. Procedures are established to ensure that system is not serviced. | Maintenance will drain the system and placard the access door to prohibit servicing.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on Potable Water System and will be noted on ADLS. |
| 2. Lavatory Waste Systems (Including Wheelchair Accessible Lavatories) | C | - | - | (M) Individual components may be inoperative provided:   1. Associated components are deactivated or isolated, and 2. Associated system components are verified not to have leaks.   NOTE: Any portion of system which operates normally may be used. | Maintenance will drain the system and placard the access door to prohibit servicing.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on Lavatory Waste System and will be noted on ADLS. |
|  | C | - | - | (M) Associated lavatory system may be inoperative provided:   1. Associated components are deactivated or isolated to prevent leaks, and 2. Associated lavatory door is secured CLOSED and placarded “INOPERATIVE - DO NOT ENTER”.   NOTE: These provisos are not intended to prohibit inspections by crewmembers. | Maintenance will ensure appropriate procedures are established to deactivate applicable system components and verify that components do not have leaks. If maintenance is not available, flight crew may perform the procedure.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on Lavatory Waste System and will be noted on ADLS. |
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| 3. Lavatory Dump/Drain  System | C | - | - | (M) May be inoperative provided:  a) Dump valve is secured in the CLOSED and LOCKED position, and  b) System is checked for leaks before every flight. | Maintenance will ensure that dump valve is secured in the CLOSED and LOCKED position. If maintenance is not available, flight crew may perform the procedure.  Flight crew may accomplish this task is properly qualified and authorized. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. Vacuum Toilet  Holding Tank  Indicator | D | 1 | 0 | May be inoperative provided:   1. Tank is verified to be serviced prior to the first flight of the day, and 2. Tank is serviced after the last flight of the day. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Central Maintenance  Computer (CMC) | C | 1 | 0 | May be inoperative provided all faults are recorded after each flight. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | 1 | 0 | (M) May be inoperative or missing provided:   1. All faults are recorded after each flight, and 2. The CMC module is replaced with an Airflow Blockage Module (ABM) if the CMC module is removed from the MAU. | Maintenance will ensure CMC module is removed for maintenance and is replaced with an Air Blockage Module (ABM). Refer to AMM chapter 31-44-01. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Aircraft Health and Trend Monitoring System (AHTMS) |  |  |  |  |  |  |  |
| 1) Aircraft Health and Trend Monitoring Unit (AHTMU) | D | 1 | 0 | (M) May be inoperative provided associated circuit breaker is pulled and collared. | Maintenance will ensure that associated circuit breaker is pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Remote Data Concentrator (RDC) | D | 1 | 0 | (M) May be inoperative provided associated circuit breaker is pulled and collared. | Maintenance will ensure that associated circuit breaker is pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3) Wireless Data Networking Unit (WDNU) | D | 1 | 0 | (M) May be inoperative provided associated circuit breaker is pulled and collared. | Maintenance will ensure that associated circuit breaker is pulled and collared. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Electronic Flight Bag  \*\*\* Systems (EFBs) |  |  |  |  |  |  |  |
| \*\*\* 1) Class 3 EFBs | C | - | - | (O) May be inoperative provided alternate procedures are established and used.  NOTE: Any function, program or document which operates normally may be used. | None required. | Flight crew will establish alternate procedures to ensure required information normally provided by the EFB is available. These alternate procedures include using other means to acquire data through datalink, SATCOM or FliteFone, or over the VHF radio through either a FSS or Flight Watch. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | 0 | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Electronic Flight Bag  \*\*\* Systems (EFBs) (continued) |  |  |  |  |  |  |  |
| \*\*\* 2) Data Connectivity  (Class 2) | C | - | - | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew will establish alternate procedures to ensure required information normally provided by the EFB is available. These alternate procedures include using other means to acquire data through datalink, SATCOM or FliteFone, or over the VHF radio through either a FSS or Flight Watch. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | 0 | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| \*\*\* 3) Power Connection  (Class 1 & 2) | C | - | - | (O) May be inoperative provided alternate procedures are established and used. | None required. | Flight crew will establish alternate procedures to ensure required information normally provided by the EFB is available. These alternate procedures include using other means to acquire data through datalink, SATCOM or FliteFone, or over the VHF radio through either a FSS or Flight Watch. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| (continued) | D | - | - | May be inoperative provided procedures do not require its use. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Electronic Flight Bag  \*\*\* Systems (EFBs) (continued) |  |  |  |  |  |  |  |
| \*\*\* 4) Mounting Devise  (Class 2) | C | - | 0 | (M)((O) May be inoperative provided:  a) Associated EFB and hardware is secured by an alternate means or removed from airplane, and  b) Alternate procedures are established and used. | Maintenance will ensure EFB and hardware is secured by an alternate means or removed from airplane, and procedures do not require its use. | Flight crew will use other means to retrieve information provided by data connectivity, e.g., datalink to obtain current weather, uplink weather for graphical weather etc. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | D | - | 0 | (M) May be inoperative provided:  a) Associated EFB and hardware is secured by an alternate means or removed from airplane, and  b) Procedures do not require its use. | Maintenance will ensure EFB and hardware is secured by an alternate means or removed from airplane, and procedures do not require its use. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Auxiliary Power  Unit (APU) | C | 1 | 0 | (O) Except for ER operations, may be inoperative provided:  a) Both Engine Driven generators are operative, and  b) RAT is operative. | None required. | Flight crew will ensure:  a) BOTH Engine Driven Generators are operative. AFM, Section 2, Normal Procedure, After Starting Engines, and  b) RAT is operative, Section 2, Normal Procedure, Before Starting Engines. | An Inoperative Placard will be placed on APU "MASTER" Switch and will be noted on ADLS. |
| 2. APU EGT Indicators  (EICAS and Overhead) | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be placed on inoperative APU EGT Indicator and will be noted on ADLS. |
|  | C | 2 | 0 | Except for ER operations, may be inoperative provided:  a) APU is not operated,  b) Both Engine Driven generators are operative, and  c) RAT is operative. | None required. | None required. | An Inoperative Placard will be placed on inoperative APU EGT Indicator and will be noted on ADLS. |
| 3. APU Tachometers  (EICAS and Overhead) | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be placed on inoperative APU Tachometer Indicator and will be noted on ADLS. |
|  | C | 2 | 0 | Except for ER operations, may be inoperative provided :  a) APU is not operated,  b) Both Engine driven generators are operative, and  c) RAT is operative. | None required. | None required. | An Inoperative Placard will be placed on inoperative APU Tachometer Indicator and will be noted on ADLS. |

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| 4. APU "READY" Light  System | C | 1 | 0 | May be inoperative provided APU is operated in accordance with AFM Limitations. | None required. | None required. | An Inoperative Placard will be placed on APU "READY" Light and will be noted on ADLS. |
| 5. APU Remote Oil  Quantity/Servicing  System | C | 1 | 0 | May be inoperative provided oil is checked before every flight. | None required. | None required. | An Inoperative Placard will be placed on APU Oil Quantity Indication System and will be noted on ADLS. |
| 6. APU Oil Pressure  \*\*\* Gauges | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be placed on APU Oil Pressure Gauges and will be noted on ADLS. |
| 7. APU Oil Temperature  \*\*\* Gauges | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be placed on APU Oil Temperature Gauges and will be noted on ADLS. |
| 8. APU Fuel Pressure  \*\*\* Gauges | D | - | 0 |  | None required. | None required. | An Inoperative Placard will be placed on APU Fuel Pressure Gauges and will be noted on ADLS. |
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| 9. APU Start Indicator  Light | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be placed on APU Start Indicator Light and will be noted on ADLS. |
| 10. APU Air Load Control  Valve | C | 1 | 0 | (M) May be inoperative provided valve is verified in CLOSED position. | Maintenance will ensure APU Air Load Valve is verified in a CLOSED position by Butterfly Plate Shaft Indicator.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 11. APU External Fire  Warning Alarm (Fire  Warning Bell) | C | 1 | 0 | May be inoperative provided APU operation is monitored in cockpit. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 12. APU Air Inlet Door  System | C | 1 | 0 | (M) Except for ER operations, may be inoperative provided:  a) APU Air Inlet door is secured fully CLOSED,  b) APU is not operated,  c) Both Engine Driven Generators are operative, and  d) RAT is operative. | Maintenance will ensure Air Intake Door is secured fully CLOSED by visually verifying door is CLOSED and pulling and collaring the APU door actuator circuit breaker.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on APU Control Panel and will be noted on ADLS. |
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| 13. Surge Control Valve | C | 1 | 0 | (O) Except for ER operations, may be inoperative provided:  a) APU is restricted to ground use only at pressure altitude of 8000 ft. or below,  b) Both Engine Driven generators are operative, and  c) RAT is operative. | None required. | Flight crew will ensure APU is restricted to ground use only at P.A. < 8000 ft. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 14. Ignition System  Channels | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 15. EGT Thermocouple  System | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 16. Temperature  Resistance Bulb (T2) | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 17. Inlet Pressure  Transmitter (P2) | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 18. RPM Speed Sensor  Channels | C | 2 | 1 |  | None required. | None required. | An Inoperative Placard will be placed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 19. APU Hour  Meter | C | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 20. Oil Temperature | C | 1 | 0 | May be inoperative provided airplane is operated in accordance with AFM Limitations | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 21. APU Start/Engine  \*\*\* Cowl Interrupt System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 22. Deprime Solenoid | C | 1 | 0 | (M) May be inoperative provided airplane is operated in accordance with AFM Limitations | Maintenance will verify Deprime Solenoid is inoperative by reference to MDAU. Maintenance will visually check APU oil level and perform APU start, run and shutdown per AFM procedures.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. External / Service Door   Warning Light System | C | 1 | 0 | (O) May be inoperative provided a crewmember verifies by visual inspection before each departure that the associated door is CLOSED and LOCKED / LATCHED.   * Engine Access (Left Engine) * Engine Access (Right Engine) * External Air * External Power * Forward Cowl (Left Engine) * Forward Cowl (Right Engine) * Fuel Drain Valve (Left Wing) * Fuel Drain Valve (Right Wing) * Fuel Hopper Drain (Left Wing) * Fuel Hopper Drain (Right Wing) * Fuel Service * Ldg Gear Maintenance * Nose Wheel Well * Oxygen Service * Radome * Security * Tail Compartment * Waste Service * Water Service * Wheel Well (Left Main Gear) * Wheel Well (Right Main Gear) | None required. | Flight crew will visually verify before each departure that the associated door is CLOSED and LOCKED/LATCHED. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Cargo Door Operating  \*\*\* System | C | 1 | 0 | May be inoperative provided a crewmember verifies by visual inspection before each departure that the associated door is CLOSED and LOCKED. | None required. | None required. | An Inoperative Placard will be placed Externally and Internally near door operating handles and will be noted on ADLS. |

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| 3. Cargo Door Warning  \*\*\* Light System | C | 1 | 0 | May be inoperative provided a crewmember verifies by visual inspection before each departure that the associated door is CLOSED and LOCKED. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 4. Lavatory Door | D | - | - | May be inoperative provided the affected door is secured OPEN or CLOSED for taxi, takeoff and landing.  NOTE: Included pop-up panels, latches, locks and handles. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5. Baggage Door Warning  System | C | 1 | 0 | May be inoperative provided a crewmember verifies by visual inspection before each departure that the associated door is CLOSED and LOCKED. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 6. Main Entry Door  Acoustic Curtain /  Door System | D | - | - |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 7. Main Entry Door  Warning System | C | 1 | 0 | (O) May be inoperative provided:   1. With the parking brake applied and the Main Door closed, the Main Door is visually confirmed latched and locked, 2. On line up and ready for takeoff, re-confirm the correct position of the following: 3. FLAP Handle 4. SPEED BRAKE Handle 5. PARK/EMERGE BRAKE Handle 6. Landing Gear Control Handle 7. Thrust Reverser Levers 8. GPWS/GND SPLR FLAP ORIDE Switch, and 9. Pitch, Rudder, and/or Roll Trim   NOTE 1: Main Door Advisory message will change to a Caution Main Door message once the parking brake is released. Caution message will change to a Warning message when power is advanced to takeoff. In addition, it will trigger an associated Aircraft Configuration Warning Message.  NOTE 2: Warning messages (Main Door and Aircraft Configuration) cannot be inhibited for takeoff and must be acknowledged. | None required. | Flight crew will visually confirm that the main entry door is latched and locked, and on line up and ready for takeoff re-confirm that the airplane is properly configured for takeoff. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 8. Overwing Exit Doors  Warning System  (indicating system  inoperative or  individual door(s)  warning indication) | C | 4 | 0 | (O) May be inoperative provided before each departure:   1. A crewmember verifies by visual inspection that in each of the four (4) Overwing Exit Doors the locking tabs are extended and engaged, and 2. All four (4) Overwing Exit Door Release Handles are stowed flush. | None required. | Flight crew will verify by visual inspection that each of the four doors locking tabs are extended and engage and the release handles are stowed flush. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 9. Internal Baggage Door  Warning System  (Cockpit Indications) | C | 1 | 0 | May be inoperative provided airplane is operated at or below FL400. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  | C | 1 | 0 | (O) May be inoperative provided:   1. Door is verified to be CLOSED and LOCKED by a crewmember prior to climbing above 40,000 ft after each use, and 2. Door is placarded “DO NOT ENTER” at or above 40,000 ft. | None required. | Flight crew will ensure that door is placarded, and procedures are established and used to alert crew members and passengers that airplane altitude is above 40,000 feet, and passengers are briefed that internal baggage compartment door must remain closed above 40,000 feet. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 10. Interior Pocket Doors | D | - | - | May be inoperative provided the affected door is secured OPEN for taxi, takeoff and landing.  NOTE: Includes pop-up panels, latches, locks and handles. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. EPA Tank Ejector  Pump | D | 2 | 0 | (M) May be inoperative provided maintenance procedures are established to drain tank:  a) Before the first flight of each day,  b) After three normal shutdowns, and  c) After two false (wet) starts. | Maintenance will perform procedures in accordance with AMM Chapter 71-71-02. If maintenance is not available, flight crew may perform the procedure. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Fuel Flow  Indication Systems |  |  |  |  |  |  |  |
| 1) EICAS | C | 2 | 1 | May be inoperative provided:  a) Associated EPR, LP and HP indicating systems are operative, and  b) Fuel quantity indicating systems are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) MCDU | C | 2 | 1 | May be inoperative provided:  a) Associated EPR, LP and HP indicating systems are operative, and  b) Fuel Quantity indicating systems are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Fuel Low Pressure  Warning Systems  (EICAS) | C | 2 | 1 | May be inoperative provided:  a) Associated Fuel Boost Pumps are operative, and  b) Airplane is operated at or below FL 200. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 3. Engine FADEC  Systems | A | 2 | 0 | (M)(O) Airplane may be dispatched with Blue “Engine Maintenance STD (###)” and/or “Engine Maintenance LTD” messages displayed on EICAS provided:   1. Repairs are made in accordance with times (hours) established by the BR700-725 A1-12 Time Limits Manual (GVI), chapter 5 (no extensions are authorized), and 2. FADEC faults are reviewed by flight crew before each takeoff. | Maintenance will ensure repairs are made in accordance with times (hours) established by the BR700-725 Type Certificate Data Sheet.  The times (hours) established for Engine Maintenance LTD (Long Term Dispatch) message is 500 engine hours. The times (hours) established for Engine Maintenance ### STD (Short Term Dispatch where ### is the number of hours remaining) is 150 engine hours when the fault is first logged. The hours remaining to affect the repair are automatically decreased by the system as engine time is accumulated. When the time remaining is zero, the fault automatically becomes a DND (Do Not Dispatch) fault.  Flight crew may accomplish this task if properly qualified and authorized. | Flight crew will review the FADEC faults prior to each takeoff. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Ignition Systems |  |  |  |  |  |  |  |
| 1) No. 1 Igniters | A | 2 | 1 | May be inoperative provided:  a) Both No. 2 Igniters are operative,  b) Takeoff runway does not have standing water, slush, or snow, and  c) Repairs are made within 150 flight hours. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) No. 2 Igniters | A | 2 | 1 | May be inoperative provided:  a) Both No. 1 Igniters are operative,  b) Takeoff runway does not have standing water, slush, or snow, and  c) Repairs are made within 150 flight hours. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Ignition ON  Indicator Systems | C | 2 | 0 | (M) May be inoperative provided both continuous systems are verified to be operative before each flight. | To check the igniters: Pull the L/R IGN #2 breaker. Select L & R airstart ignition switches ON. Verify igniters firing at the engines. Reset breakers. Pull L/R IGN #1 breaker. Select L & R airstart continuous ignition switches ON. Verify igniters firing at the engines. Reset breaker when complete. | None required. | An Inoperative Placard will be placed near affected Ignition "ON" Light and will be noted on ADLS. |

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| 1. HP Tachometer  Indications EICAS | C | 2 | 1 | May be inoperative on either engine provided associated LP, EPR and Fuel Flow Indicating Systems (EICAS or Standby) are operative for affected engine.  NOTE: Standby HP Indication may also be inoperative on both engines. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Engine Vibration  Monitor Systems  Sensors |  |  |  |  |  |  |  |
| 1) Primary  Sensors | C | 2 | 0 | May be inoperative provided associated secondary sensor system is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2) Secondary  Sensors | C | 2 | 0 | May be inoperative provided associated primary sensor system is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3. Standby Engine  Instruments on Multi-  Function Control  Display (MCDU) | C | 1 | 0 | May be inoperative provided associated EICAS indication is operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
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| 1. Thrust Reversers | C | 2 | 0 | (M) May be inoperative provided:  a) Affected Thrust Reverser is deactivated, stowed and LOCKED in forward thrust position, and  b) Airplane is operated in accordance with AFM Limitations and Procedures. | May be inoperative provided:  a) Affected Thrust Reverser is deactivated, stowed, and LOCKED in forward thrust position. Refer to AMM chapter 78-31-00.  b) Airplane is operated IAW AFM Limitations and Procedures.  NOTE: AFM Landing Distances are not affected by inoperative Thrust Reversers. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |

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| 1. Low Oil Pressure  Warning Systems | C | 2 | 1 | May be inoperative provided oil pressure indication for both engines are operative. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Engine Oil  Replenishment  System | D | 1 | 0 |  | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 3. Imminent Oil Filter  Blockage Indications | A | 2 | 1 | (M) May be inoperative provided:   1. CMC is checked and the “OIL FILTER IMMINENT 7934002 [L-R] ENG” fault message associated with Imminent Oil Filter Blockage is present, 2. Associated oil filter bypass pop up indicator is verified in normal (recessed) position before each engine start, 3. Oil filter is changed every flight day or every 15 flight hours, whichever occurs first, 4. All three Chip Detectors are checked and verified to be free of all debris in accordance with the AMM, 5. Procedures are in place to ensure all other DND (Do Not Dispatch) messages are addressed before dispatch, and 6. Repairs are made within three (3) flight days. | Maintenance will ensure:   1. Associated oil filter bypass pop up indicator is verified in normal (recessed) position before each engine start 2. Affected engine’s oil filter is replaced per AMM, 3. Fault is confirmed to be on the indication system, and 4. Procedures are in place to ensure all other DND (Do Not Dispatch) messages are addressed before dispatch. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| (continued) |  |  |  | NOTE: See on next page. |  |  |  |

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| 3. Imminent Oil Filter  Blockage Indications  (continued) |  |  |  | NOTE: Imminent Oil Filter Blockage will display an amber CAUTION “Engine Maintenance (L-R)” CAS message. Dispatch is allowed with this message displayed after complying with the required (M) procedure. |  |  |  |
| 4. Oil Quantity Indication  Systems (EICAS /  SMC / Ground Service  Control Panel) | C | 3 | 0 | May be inoperative provided the engine oil quantity is verified on the engine oil quantity gauge before each engine start. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 5. Oil Filter Pressure  Switch Fault Indications | C | 2 | 0 | (M) May be inoperative provided:  a) Associated oil filter bypass pop up indicator is verified in normal (recessed) position before each engine start,  b) Oil filter fault is not displayed in CMC,  c) Fault is confirmed to be on the indication system, and  d) Procedures are in place to ensure all other DND (Do Not Dispatch) messages are addressed before dispatch. | Maintenance will ensure associated oil filter bypass pop up indicator is verified in normal (recessed) position before each engine start.  Flight crew may accomplish this task if properly qualified and authorized. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
|  |  |  |  | NOTE: An amber “Engine Maintenance Required” message will still be displayed on the Crew Alerting System. Dispatch is allowed with this message displayed after complying with the required (M) procedure. |  |  |  |

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| 1. Engine Starting  Systems | C | 2 | 0 | (M)(O) May be inoperative provided:  a) Continuous Ignition System is operative,  b) Start Valve has not failed in OPEN position,  c) Start Valve is manually OPENED and CLOSED for engine starting,  d) Continuous Ignition, Engine Selector and Start Switches are switched to OFF when engine has reached self-sustaining speed, and  e) Engine start is accomplished in accordance with AFM Engine Start Valve Fails To Open Procedure. | Maintenance will ensure:  a) Start Valve has not failed in OPEN position,  b) Start Valve is manually OPENED and CLOSED for engine starting,  c) Airstart (Continuous) Ignition, Engine Selector and Start Switches are switched to OFF when engine has reached self sustaining speed, and  d) The Airstart Ignition System is operative.  The flight crew may perform this task if properly qualified and authorized. | Flight crew will ensure:  a) Start Valve has not failed in OPEN position.  b) Start Valve is manually OPENED and CLOSED for engine starting.  c) Airstart (Continuous) Ignition, Engine Selector and Start Switches are switched to OFF when engine has reached self-sustaining speed.  d) Engine Start is accomplished in accordance with AFM, Section 3, Abnormal Procedures, Engine Starting System. | An Inoperative Placard will be displayed in a prominent position to be seen by flight crew and will be noted on ADLS. |
| 2. Auto Start Systems | C | 2 | 0 | May be inoperative provided:  a) Alternate start system is operative, and  b) AFM procedures for alternate engine start are used to start engines. | None required. | None required. | An Inoperative Placard will be displayed in a prominent position to be seen by the flight crew and will be noted on the ADLS. |
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| 3. Start Valve Position  Indications | C | 2 | 0 | (M) May be inoperative provided:  a) Start Valve has not failed in OPEN position as verified by visual means through an access panel,  b) Ignition ON indication is operative during engine start, and  c) Start Valve is verified CLOSED following engine start by visual means. | Maintenance will ensure:  a) Start Valve has not failed in OPEN position,  b) Airstart ignition is operative,  c) Start Valve is manually OPENED and CLOSED for engine starting.  The flight crew may perform this task if properly qualified and authorized. | None required. | An Inoperative Placard will be placed on Start Valve Position Indicator and will be noted on ADLS. |
|  | C | 2 | 0 | (M) (O) May be inoperative provided:  a) Continuous Ignition System is operative,  b) Start Valve has not failed in OPEN position,  c) Start Valve is manually OPENED and CLOSED for engine starting,  d) Continuous Ignition, Engine Selector and Start Switches are switched to OFF when engine has reached self-sustaining speed, and  e) Engine start is accomplished in accordance with AFM Engine Start Valve Fails To Open Procedure. | Maintenance will ensure:  a) Start Valve has not failed in OPEN position,  b) Start Valve is manually OPENED and CLOSED for engine starting,  c) Airstart (Continuous) Ignition, Engine Selector and Start Switches are switched to OFF when engine has reached self sustaining speed, and  d) The Airstart Ignition System is operative.  The flight crew may perform this task if properly qualified and authorized. | Flight crew will comply with QRH procedures for Manually Overriding Starter Air Valve OM-09-03-40 found under Alternate Normal Procedures tab. | An Inoperative Placard will be placed on Start Valve Position Indicator and will be noted on ADLS. |

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| 4. Start Valve Position C  \*\*\* Indicator Lights | 2 | 0 | (M) May be inoperative provided:  a) Start Valve has not failed in OPEN position as verified by visual means through an access panel,  b) Start Valve is manually OPENED and CLOSED for engine starting in accordance with AFM Start Valve Failure procedure, and  c) Continuous Ignition, Engine Selector and Start switches are switched to the OFF position when engine has reached self-sustaining speed. | Maintenance will ensure  a) Start Valve has not failed in OPEN position,  b) Start Valve is manually OPENED and CLOSED for engine starting,  c) Airstart (Continuous) Ignition, Engine Selector and Start Switches are switched to OFF when engine has reached self sustaining speed, and  d) Airstart Ignition System is operative.  The flight crew may perform this task if properly qualified and authorized. | None Required. | An Inoperative Placard will be placed on Start Valve Position Indicator Lights and will be noted on ADLS. |
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