MJC-8 Q400
PRO/TRAINING EDITION
Version 1.0

MINIMUM EQUIPMENT LIST

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Q400

DEFINITIONS

1. System Definitions.

System numbers are based on the Air Transport Association (ATA) Specification and items are numbered sequentially.

a. "Item" (Column 1) means the equipment, system, component, or function listed in the "Item" column. Repair interval categories (A, B, C, and D) are listed on right side of column 1. Repair intervals are described in definition 22.

b. "Number Installed" (Column 2) is the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MEL. Should the number be a variable (e.g., passenger cabin items) a number is not required.

c. "Number Required for Dispatch" (Column 3) is the minimum number (quantity) of items required for operation provided the conditions specified in Column 4 are met.

NOTE: Where the MMEL shows a variable number required for dispatch, the MEL must reflect the actual number required for dispatch or an alternate means of configuration control approved by the Administrator.

d. "Remarks or Exceptions" (Column 4) in this column includes a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.

e. A vertical bar (change bar) in the margin indicates a change, addition or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next MMEL revision.

2. "Airplane Flight Manual" (AFM) is the document required for type certification and approved by the responsible FAA Aircraft Certification Office. The FAA approved AFM for the specific aircraft is listed on the applicable Type Certificate Data Sheet.

a. "CFM" means the FAA-approved Bombardier Q400 Company Flight Manual.

3. "As required by FAR" means that the listed item is subject to certain provisions (restrictive or permissive) expressed in the Federal Aviation Regulations operating rules. The number of items required by the FAR must be operative. When the listed item is not required by FAR it may be inoperative for the length of time specified by its repair category. The term “14 CFR” may be substituted for “FAR” in MMELs or operator MELs.

4. Each inoperative item must be placarded to inform and remind Crewmembers and maintenance personnel of the equipment condition.

NOTE: To the extent practical, placards should be located adjacent to the control or indicator for the item affected; however, unless otherwise specified, placard wording and location will be determined by the operator.

5. "-" symbol in Column 2 and/or Column 3 indicates a variable number (quantity) of the item installed.

6. "Deleted" in the remarks column after a sequence item indicates that the item was previously listed but is now required to be operative if installed in the aircraft.

7. As used in MMELs, “ER” refers to Extended Operations (ETOPS) of an airplane with operational approval to conduct ETOPS in accordance with the applicable regulations.

8. "Federal Aviation Regulations" (FAR) means the applicable portions of the Federal Aviation Act and Federal Aviation Regulations.

9. "Flight Day" means a 24 hour period (from midnight to midnight) Eastern local time, during which at least one flight is initiated for the affected aircraft.

10. "Icing Conditions" means an atmospheric environment that may cause ice to form on the aircraft (structural) or in the engine(s) (induction).

11. Alphabetical symbol in Column 4 indicates a proviso (condition or limitation) that must be complied with for operation with the listed item inoperative.

12. "Inoperative" means a system and/or component malfunctions to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within its approved operating limit(s) or tolerance(s).

13. "Notes:" in Column 4 provides additional information for crewmember or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the provisos.

14. Inoperative components of an inoperative system: Inoperative items which are components of a system which is inoperative are usually considered components directly associated with and having no other function than to support that system. (Warning/caution systems associated with the inoperative system must be operative unless relief is specifically authorized per the MEL).

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.

16. "(O)" symbol indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item inoperative. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorized to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's manual or MEL.

NOTE: The (M) and (O) symbols are required in the operator's MEL unless otherwise authorized by the Administrator.

17. "Deactivated" and "Secured" means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of securing or deactivating will be established by the operator.

18. "Visual Flight Rules" (VFR) is as defined in FAR Part 91. This precludes a pilot from filing an Instrument Flight Rules (IFR) flight plan.

19. "Visual Meteorological Conditions" (VMC) means the atmospheric environment is such that would allow a flight to proceed under the visual flight rules applicable to the flight. This does not preclude operating under Instrument Flight Rules.

20. "Visible Moisture" means an atmospheric environment containing water in any form that can be seen in natural or artificial light; for example, clouds, fog, rain, sleet, hail, or snow.

21. "Passenger Convenience Items" Deleted see NEF #30.

22. Repair Intervals: All users of an MEL approved under FAR 121, 125, 129 and 135 must effect repairs of inoperative systems or components, deferred in accordance with the MEL, at or prior to the repair times established by the following letter designators:

Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the operator's approved MEL. For time intervals specified in “calendar days” or “flight days”, the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (flights, flight legs, cycles, hours, etc.) repair tracking begins at the point when the malfunction is deferred in accordance with the operator’s approved MEL.

Category B. Items in this category shall be repaired within three (3) consecutive calendar days (72 hours) excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight on the 26th and end at midnight on the 29th.

Category C. Items in this category shall be repaired within ten (10) consecutive calendar days (240 hours) excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight on the 26th and end at midnight on February 5th.

Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours) excluding the day the malfunction was recorded in the aircraft maintenance log and/or record. The letter designators are inserted adjacent to Column 2.

An operator who has the authorization to use an MEL also has the authority to approve extensions to the maximum repair interval for category B and C items provided the responsible Flight Standards District Office (FSDO) is notified within 24 hours of the MEL extension. The operator is not authorized to extend A and D items in the MEL. Misuse of the MEL extension authority may result in the operators OpSpecs/Mspecs being amended by removing the authority for the operator to use the MEL extension authority and/or use an MEL.

23. Electronic fault alerting system - General

New generation aircraft display system fault indications to the flight crew by use of computerized display systems. Each aircraft manufacturer has incorporated individual design philosophies in determining the data that would be represented. The following are customized definitions specific to the De-HAVILLAND (DASH 8 SERIES 400) to help determine the level of messages affecting the aircraft's dispatch status.

h. De-HAVILLAND (DASH 8 SERIES 400) Series 400 aircraft are equipped with a Caution/Warning Panel that annunciates all cautions and warnings. Advisory messages are displayed by the Electronic Indication System (EIS) or individual advisory lights supplied in the cockpit. “Class 1 failures” and failures that prevent continued operation of a specific Line Replacement Unit or channel and are annunciated via advisory messages: caution, warning, or advisory lights in the flight compartment. Dispatch with such posted failures is to be in accordance with the MMEL. “Class 2 failures” are failures which do not prevent continued system function. These faults will not be annunciated to the Flight Crew and the absence of the higher level alert (warning, caution, advisory) indicates that the System/component is operating within its approved operating limits or tolerances. Such faults would be evident during maintenance interrogation performed during maintenance activities. Class 2 faults do not affect dispatch and will be listed in the Fault Isolation Manual (FIM). Class 2 faults will be left to the discretion of the operators when these faults are to be rectified.

24. “Administrative control item" means an item listed by the operator in the MEL for tracking and informational purposes. It may be added to an operator’s MEL by approval of the Principal Operations Inspector provided no relief is granted, or provided conditions and limitations are contained in an approved document (i.e. Structural Repair Manual, airworthiness directive, etc.). If relief other than that granted by an approved document is sought for an administrative control item, a request must be submitted to the Administrator. If the request results in review and approval by the FOEB, the item becomes an MMEL item rather than an administrative control item.

25. "***" symbol in Column 1 indicates an item which is not required by regulation but which may have been installed on some models of aircraft covered by the MMEL. This item may be included on the operator's MEL after the approving office has determined that the item has been installed on one or more of the operator's aircraft. The symbol, however, shall not be carried forward into the operator's MEL. It should be noted that neither this policy nor the use of this symbol provides authority to install or remove an item from an aircraft.

26. "Excess Items" means those items that have been installed that are redundant to the requirements of the FARs.

27. "Day of Discovery" is the calendar day an equipment/instrument malfunction was recorded in the aircraft maintenance log and or record. This day is excluded from the calendar days or flight days specified in the MEL for the repair of an inoperative item of equipment. This provision is applicable to all MEL items, i.e., categories "A, B, C, and D."

28. "Considered Inoperative", as used in the provisos means that item must be treated for dispatch, taxi, and flight purposes as though it were inoperative. The item shall not be used or operated until the original deferred item is repaired. Additional actions include: documenting the item on the dispatch release (if applicable), placarding, and complying with all remarks, exceptions, and related MMEL provisions, including any (M) and (O) procedures and observing the repair category.

29. "Is not used" in the provisos, remarks or exceptions for an MMEL item may specify that another item relieved in the MMEL “is not used.” In such cases, Crewmembers should not activate, actuate, or otherwise utilize that component or system under normal operations. It is not necessary for the Operators to accomplish the (M) procedures associated with the item. However, operational requirements must be complied with, and an additional placard must be affixed, to the extent practical, adjacent to the control or indicator for the item that is not used to inform Crewmembers that a component or system is not to be used under normal operations.

30. Non-Essential Equipment and Furnishings (NEF) are those items installed on the aircraft as part of the original type certification, supplemental type certificate, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that if inoperative, damaged or missing have no effect on the aircraft’s ability to be operated safely under all operational conditions. These non-essential items may be installed in areas including, but not limited to, the passenger compartment, flight deck area, service areas, cargo areas, Crew rest areas, lavatories, and galley areas. NEF items are not items already identified in the MEL or CDL of the applicable aircraft. They do not include items that are functionally required to meet the certification rule or for compliance with any operational rule. Operator’s NEF process shall not provide for deferral of items within serviceable limits identified in the manufacturer’s maintenance manual or operator’s approved maintenance program such as wear limits, fuel/hydraulic leak rate, oil consumption, etc. Cosmetic items that are fully serviceable but worn or soil may be deferred under an operator’s NEF process.

31. As used in MMELs, Heavy Maintenance Visit (HMV) is a scheduled C-check/D-check or airworthiness maintenance program inspection when the aircraft is scheduled to be out of the service for 4 or more days.

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21	**AIR CONDITIONING**							
20-1	Distribution Damper	C	1	0	May be inoperative. **Flight Crew Deferral Permitted**			Inoperative Distribution Damper must be placarded in the flight compartment.
20-2	Recirculation Fan Pre-Mod 4-126236 and Mod 4-126211 or Mod 4-126212	C	1	0	(M) May be inoperative provided Fan is deactivated. **Flight Crew Deferral Permitted**	Set the "RECIRC" switch on the AIR CONDITIONING Panel to the "OFF" position.		Placard the AIR CONDITIONING Panel with "RECIRC FAN TO REMAIN OFF".
20-3	Flow (Pack) Control and Shutoff Valve	C	1	0	(M) May be inoperative provided: a) The Valve is secured in the open position, b) The Nacelle Shutoff Valves are verified operative, and c) Both digital (AUTO) channels of the ECU are verified operative.	1. Gain access to the Aft Equipment Bay via access panel 311AB. 2. Locate the Flow Control and Shutoff Valve, directly overhead, left of center. 3. Remove the locking pin from its normally installed position on the valve, held by a retaining cable. (This allows the valve servo air to bleed to ambient.) 4. Use a wrench to turn the crank on the flow control and shutoff valve to the open position. 5. Install the locking pin to prevent the crank from moving closed.		Inoperative Flow (Pack) Control and Shutoff Valve must be placarded in the flight compartment.
Cont'd…						**Continued…**		

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21	**AIR CONDITIONING**							
20-3 **Cont'd…**	Flow (Pack) Control and Shutoff Valve **Continued…**					6. Close access panel 311AB. 7. Observing all related precautions, start and run engines 1 and 2 and allow engines to stabilize at FLT IDLE. 8. On the L. DC circuit breaker panel, pull breaker ECS/BA L AUTO and ECS/BA R MAN and on the R. DC circuit breaker ECS/BA L MAN. 9. At the AIR CONDITIONING panel, on the overhead console, select the: CABIN OFF/MAN/AUTO/PACKS switch to AUTO FLT COMP OFF/ MAN/AUTO/PACKS switch to OFF No. 1 BLEED switch to OFF No. 2 BLEED switch to OFF RECIRC FAN switch to OFF CABIN and FLT COMP temp control knobs to mid-range. 10. If APU is operating, ensure APU BLEED is switched OFF. 11. Confirm that no airflow is evident from the cockpit and cabin vents. **Continued…**		

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21	**AIR CONDITIONING**							
20-3 **Cont'd…**	Flow (Pack) Control and Shutoff Valve **Continued…**					12. At the AIR CONDITIONING panel, on the overhead console, select the: CABIN OFF/MAN/AUTO/PACKS switch to OFF FLT COMP OFF/MAN/AUTO/PACKS switch to OFF No. 1 BLEED switch to OFF No. 2 BLEED switch to ON 13. Confirm that no airflow is evident from the cockpit and cabin vents. 14. Select CABIN COMP OFF/MAN/AUTO/PACKS switch to AUTO and observe that some level of airflow is initiated. 15. Note the present temperature on the CABIN and FC DUCT TEMP GAUGE. 16. Rotate the CABIN and FLT COMP temperature control knobs to full COOL. **Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
20-3 **Cont'd…**	Flow (Pack) Control and Shutoff Valve **Continued…**					17. After waiting approximately 60-90 seconds, confirm that the observed temperature trend is decreasing from ambient. (Note that the rate at which the trend changes will be dependent upon the differential of the ambient temperature compared to the maximum cold air temperature of 3 degrees C. Similarly, the maximum high temperature is 71 degrees C). 18. Rotate the CABIN and FLT COMP temperature control knobs to full WARM and confirm that after waiting approximately 60 - 90 seconds, the observed temperature trend increases. 19. Return temperature control knobs to mid-range. 20. On the L. DC circuit breaker panel, close breaker ECS/BA L AUTO, and on the R. DC circuit breaker pull ECS/BA R AUTO. **Continued…**		

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21	**AIR CONDITIONING**							
20-3 **Cont'd…**	Flow (Pack) Control and Shutoff Valve **Continued…**					21. At the AIR CONDITIONING panel, on the overhead console, select the: CABIN OFF/MAN/AUTO/PACKS switch to OFF FLT COMP OFF/MAN/AUTO/PACKS switch to AUTO No. 1 BLEED switch to OFF No. 2 BLEED switch to ON RECIRC FAN switch to OFF CABIN and FLT COMP temperature control knobs to mid-range 22. Confirm that no airflow is evident from the cockpit and cabin vents. 23. At the AIR CONDITIONING panel, on the overhead console, select the: CABIN OFF/MAN/AUTO/PACKS switch to OFF FLT COMP OFF/MAN/AUTO/PACKS switch to OFF No. 1 BLEED switch to ON No. 2 BLEED switch to OFF **Continued…**		

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21	**AIR CONDITIONING**							
20-3 **Cont'd…**	Flow (Pack) Control and Shutoff Valve **Continued…**					24. Confirm that no airflow is evident from the cockpit and cabin vents. 25. Select FLT COMP OFF/MAN/AUTO/PACKS switch to AUTO and observe that some level of airflow is initiated. 26. Note the present temperature on the CABIN and FC DUCT TEMP GAUGE. 27. Rotate the CABIN and FLT COMP temperature control knobs to full COOL. 28. After waiting approximately 60-90 seconds, confirm that the observed temperature trend is decreasing from ambient. (Note that the rate at which the trend changes will be dependent upon the differential of the ambient temperature compared to the maximum cold air temperature of 3 degrees C. Similarly, the maximum high temperature is 71 degrees C). **Continued…**		

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21	**AIR CONDITIONING**							
20-3	Flow (Pack) Control and Shutoff Valve **Continued…**					29. Rotate the CABIN and FLT COMP temperature control knobs to full WARM and confirm that after waiting approximately 60 - 90 seconds, the observed temperature trend increases. 30. Return temperature control knobs to mid-range. 31. On the L. DC circuit breaker panel, close breaker ECS/BA R MAN, and on the R. DC circuit breaker close ECS/BA R AUTO and ECS/BA L MAN. 32. Shut down engines.		
20-4	Display Cooling Fans	C	3	2	One may be inoperative.			Inoperative Display Cooling Fan must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
20-5	SIDE WINDOW DEMIST Vent Controls	A	2	1	One may be inoperative provided: a) Aircraft is dispatched for three flight days, and b) Airflow from the side window vent on the inoperative side is confirmed by the Pilot. **Flight Crew Deferral Permitted**			Inoperative Side Window must be placarded in the flight compartment.
		C	2	0	(M) May be inoperative provided the affected side(s) is failed in open position.	To gain access to the Side Window Outlet flow control valve do the following steps: 1. In the cockpit sidewall trim panels, remove the screws which attach the lower sidewall panel to the aircraft structure. 2. Carefully pull the lower sidewall panel to disengage the tape fastener at the bottom from the aircraft structure. 3. Remove the lower sidewall panel and put it on a clean dry surface. 4. Gain access to the Side Window Demist Outlet Flow Control Valve and move the lever to the fully open position. 5. Put the lower sidewall panel in position to the aircraft structure.		Inoperative Side Window must be placarded in the flight compartment.
Cont'd…						**Continued…**		

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21	**AIR CONDITIONING**							
20-5	SIDE WINDOW DEMIST Vent Controls **Continued…**					6. Align the screw holes in the lower sidewall panel to the screw holes in the aircraft structure. 7. Engage the tape fastener at the bottom of the lower sidewall panel to the aircraft structure. 8. Install the screws.		
20-6	Low Level Vent Controls	A	2	1	One may be inoperative provided; a) Aircraft is dispatched for three flight days, and b) Airflow from the side window vent, on the side with the inoperative low level vent, is confirmed by the Pilot **Flight Crew Deferral Permitted**			Inoperative Low Level Vent must be placarded in the flight compartment.
		C	2	0	(M) May be inoperative provided Low Level Vent position is confirmed and lever moved to closed position.	To gain access to the Low Level Vent Flow Control Valve do the following steps: 1. On the Nose Fuselage remove the screws which attach the access panel to the nose fuselage. 2. Remove the panel in order to gain access to the Low Level Vent Flow Control Valve. 3. Move the lever to the fully closed position. 4. Install the panel back to its position.		Inoperative Low Level Vent must be placarded in the flight compartment.

SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
20-7	FLT COMPT GASPERS (Small and Large)	C	4	2	May be inoperative provided at least one Large Gasper (vent) is operative. **Flight Crew Deferral Permitted**			Inoperative Flight Compartment Gaspers must be placarded in the flight compartment.
		A	4	0	May be inoperative for one flight day. **Flight Crew Deferral Permitted**			Inoperative Flight Compartment Gaspers must be placarded in the flight compartment.
20-8	Aft Baggage Compartment Vent Valves 1) Inlet and outlet vent valves	C	2	0	(M)(O) May be inoperative in closed position provided: a) Inlet and outlet vent valves (shut off valves) are deactivated, b) VENT VALVE INLT and VENT VALVE OUTLT CLOSED advisory lights are verified illuminated prior to each flight, and c) Live animals are not carried. **Flight Crew Deferral Permitted** **Continued…**	Inlet and outlet valve failed in closed position: 1. Pull and collar circuit breaker CGO VENT VLS on the R Main CB Panel. 2. On the Fire Protection Panel verify VENT VALVE INLT and VENT VALVE OUTLT CLOSED advisory lights are illuminated.	1. Flight Crew to verify VENT VALVE INLT and VENT VALVE OUTLT CLOSED advisory lights are illuminated prior to takeoff. 2. Flight Crew to verify that no live animals are being carried.	Inoperative AFT BAGGAGE VENT Valves must be placarded in the flight compartment.

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21	**AIR CONDITIONING**							
20-8	Aft Baggage Compartment Vent Valves							
	1) Inlet and outlet vent valves **Continued…**	C	2	0	(O) May be inoperative provided procedures are established and used to ensure the compartment remains empty, or verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), or Fly Away Kits. **Flight Crew Deferral Permitted**		Prior to each departure the Flight Crew will verify that the cargo compartment is empty with the exception of approved ballast materials.	Inoperative AFT BAGGAGE VENT Valves must be placarded in the flight compartment.
	2) VENT VALVE INLT and VENT VALVE OUTLT CLOSED advisory lights	C	2	0	(O) May be inoperative provided procedures are established and used to ensure the compartment remains empty, or verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), or Fly Away Kits. **Continued…**		Prior to each departure the Flight Crew will verify that the cargo compartment is empty with the exception of approved ballast materials.	Inoperative VENT VALVE INLT and VENT VALVE OUTLT CLOSED advisory lights must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
30-1	CABIN PRESS Warning Light	C	1	0	(O) May be inoperative provided flight is conducted at or below 10,000 feet MSL. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited.	Inoperative CABIN PRESS warning light must be placarded in the flight compartment.
30-2	Cabin ALT Indicator	C	1	0	(O) May be inoperative provided: a) The Cabin DIFF Pressure Indicator is verified operative, and b) A chart is provided to convert cabin differential pressure to cabin altitude.		Operations over Mountainous Terrain are prohibited. 1. Verify that the DIFF pressure indicator operates normally using method B on ground and method A in flight. **Method A (in flight prior to landing)** 1. Monitor DIFF pressure indicator on CABIN indication panel during the flight. 2. Use chart provided by CPCS placard on the overhead panel in the Flight Compartment for converting differential pressure and aircraft altitude to cabin altitude.	Inoperative Cabin ALT indicator must be placarded in the flight compartment.
Cont'd…							**Continued …**	

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
30-2	Cabin ALT Indicator **Continued…**						**Method B (on ground)** 1. Select the following on the CABIN PRESSURE CONTROL PANEL: a) AUTO/MAN/DUMP switch - AUTO. b) FWD OUTFLOW knob - CLSD. 2. Ensure all doors are closed, start No. 1 engine and select power lever to FLT IDLE. OR Start APU (ensuring there is air in the Reservoir Tank to inflate the door seals). 3. Ensure that Cabin DIFF Pressure Indicator on Cabin Indication Panel is at zero psi. Record DIFF reading. 4. If running engine make the following selections on AIR CONDITIONING panel: a) BLEED 1 switch - BLEED b) BLEED flow control selector - MAX OR If running APU, select BL AIR OPEN on APU Control Panel. 5. Advance PLA #2 to the take-off rating detent, greater than 60 degrees. **<u>WARNING</u>: ENSURE THAT CABIN DIFFERENTIAL PRESSURE DOES NOT EXCEED 1.0 PSI.** 6. Check the following indication on CABIN INDICATION MODULE: DIFF (PSI) - equal to 0.2 ±0.1 psi **Continued …**	

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21	**AIR CONDITIONING**							
							7. Reduce PLA to DISC. 8. Ensure aircraft depressurizes normally when PLA is moved below 60 degrees.	
30-3 **Cont'd…**	Cabin DIFF Pressure Indicator	C	1	0	(O) May be inoperative provided: a) The Cabin ALT Indicator is verified operative, and b) A chart is provided to convert cabin altitude to cabin differential pressure. **Flight Crew Deferral Permitted**		1. Verify operation of Cabin ALT Indicator using Method B on the ground or Method A (in flight prior to landing). 2. In case of automatic control failure, carry out unpressurized flight in accordance with AFM. **Method A (In flight prior to landing)** 1. Monitor the cabin altitude during the flight. 2. Use chart provided by CPCS placard on the overhead panel in the flight compartment for converting cabin altitude and aircraft altitude to differential pressure. **Method B (On ground)** 1. Select the following on the CABIN PRESSURE CONTROL PANEL: a) AUTO/MAN/DUMP switch - AUTO. b) FWD OUTFLOW knob - CLSD. 2. Ensure all doors are closed, start No. 1 engine and select power lever to FLT IDLE. OR Start APU (ensuring there is air in the Reservoir Tank to inflate the door seals). 3. Ensure that CAB ALT on CABIN indication panel is at field altitude (±100 ft). Record ALT reading. **Continued …**	Inoperative DIFF Pressure Indicator must be placarded in the flight compartment.

SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
30-3	Cabin DIFF Pressure Indicator **Continued…**						4. If running engine make the following selections on AIR CONDITIONING panel: a) BLEED 1 switch - BLEED b) BLEED flow control selector - MAX OR If running APU, select BL AIR OPEN on APU Control Panel. 5. Advance PLA #2 to the take-off rating detent, greater than 60 degrees. **<u>WARNING</u>: ENSURE THAT CABIN DIFFERENTIAL PRESSURE DOES NOT EXCEED 1.0 PSI.** 6. Check the following indication on CABIN indication panel: CABIN ALT - descent towards 400 (±150 ft) less than value taken in step (3) when stabilized, record CAB. ALT reading. 7. Depressurize the aircraft.	
30-4	Cabin RATE Indicator	C	1	0	May be inoperative provided all other instruments and functions of the Pressurization System are operative. **Flight Crew Deferral Permitted**			Inoperative Cabin Rate of Climb Indicator must be placarded in the flight compartment

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
30-5	Cabin Pressure Control System 1) AUTO and MAN Mode	A	2	0	(M)(O) May be inoperative provided: a) The FWD OUTFLOW valve and DUMP functions are verified operative, b) The AFT OUTFLOW valve is verified open, c) The flight is conducted in an unpressurized configuration, at or below 10,000 feet MSL, and d) Repairs are made within three flight days.	**<u>WARNING</u>: INSTALL LANDING GEAR GROUND LOCK PINS TO THE MAIN LANDING GEAR. ENGAGE THE NOSE LANDING GEAR GROUND LOCK.** 1. Start and run #1 engine OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals). 2. Close all doors. 3. If running engine, with engine in stabilized operation, at the AIR CONDITIONING panel on the overhead console, select #1 BLEED switch to the BLEED position, CABIN PACK switch to "AUTO", and BLEED flow selector to MAX. OR If running APU, on APU Control Panel, select BL AIR OPEN and CABIN PACK to AUTO. 4. At the Cabin Pressure Control Panel (CPCP), select the AUTO/MAN/DUMP switch to the MAN position, and the FWD OUTFLOW knob to the CLSD position. At the Co-pilot's side console, select the FW OUTFLOW VALVE selector to NORMAL.	Operations over Mountainous Terrain are prohibited. Unpressurized Flight: 1. AUTO/MAN/DUMP switch – DUMP 2. BLEED 1 and BLEED 2 switches – BLEED 1 and BLEED 2 3. Oxygen – As required	Inoperative Cabin Pressure Control system must be placarded in the flight compartment.
Cont'd…								

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21	**AIR CONDITIONING**							
30-5	Cabin Pressure Control System 1) AUTO and MAN Mode **Continued…**					**Continued …** 5. Advance PLA #2 to the take-off rating detent, greater than 60 degrees. 6. At the CPCP, select and hold the MAN DIFF switch to the INCR position and check that the cabin begins to pressurize as indicated on the DIFF indicator on the CABIN INDICATION MODULE. Hold the switch until the DIFF indication reads 2 ±0.2 psi, then release the MAN DIFF switch. 7. At the CPCP, slowly turn the FWD OUTFLOW knob to OPEN, and check that the cabin begins to depressurize as indicated on the CABIN INDICATION MODULE. 8. Slowly turn the FW OUTFLOW knob to the CLSD position and check that the cabin starts to pressurize as indicated on the CABIN INDICATION MODULE. 9. At the Co-pilot's side console, move the FWD OUTFLOW VALVE SELECTOR to the NORMAL position and check that the cabin remains pressurized.		
Cont'd…						**Continued …**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
30-5	Cabin Pressure Control System 1) AUTO and MAN Mode **Continued…**					10. At the CPCP, set the AUTO/MAN/DUMP switch to DUMP and check that the cabin begins to depressurize as indicated on the CABIN INDICATION MODULE. This indicates that the aft outflow valve has opened properly.		
	Cabin Pressure Control System 2) AUTO Mode	A	1	0	(M) (O) May be inoperative provided: a) MAN control is verified operative, b) The FWD OUTFLOW control and the DUMP function are verified operative, c) Cabin RATE Indicator, Cabin ALT Indicator, and Cabin DIFF Pressure Indicator, verified operative, and d) Repairs are made within three flight day.	Verification of Manual control, Dump function and FW Outflow valve control on ground. 1. Apply DC electrical power adequate to support the Main Busses. 2. Ensure all doors are closed. 3. Start No. 1 engine and stabilize at FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals). 4. Select the following on the CABIN ALTITUDE panel: a) AUTO/MAN/DUMP switch - MAN. b) FWD OUTFLOW knob - CLSD position.	Refer to QRH, PRESSURIZATION-MANUAL MODE OPERATION for operations procedures.	Inoperative Cabin Pressure Control system must be placarded in the flight compartment.
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
30-5	Cabin Pressure Control System 2) AUTO Mode **Continued…**					5. If engine running, select the following on the AIR CONDITIONING panel: a) BLEED 1 switch - BLEED b) BLEED flow control selector - MAX OR If running APU, select BL AIR OPEN on APU Control Panel. 6. Advance right power lever to more than minimum take-off power. 7. Control the cabin pressure rate through MAN/DIFF toggle switch on the CABIN ALTITUDE panel, selected to INCR to the value of minus 300 ft/min as observed on the CAB RATE indication on the CABIN INDICATION MODULE. 8. Observe normal operation of CAB DIFF indication increasing and make note of the CAB ALT level (downward). 9. Without changing the rate of pressurization, select FWD OUTFLOW VALVE selector on co-pilot's side console panel to OPEN and check that the CAB ALT begins to increase.		
Cont'd…						**Continued …**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
30-5	Cabin Pressure Control System 2) AUTO Mode **Continued…**					10. Return FWD OUTFLOW VALVE selector on Co-pilot's side console panel to NORMAL and check that the CAB ALT starts to decrease. 11. On the CABIN ALTITUDE panel, select the FWD OUTFLOW knob to INCR and observe that CAB ALT increases. 12. Return the knob to the CLSD position and confirm the CAB ALT decreases. 13. Set AUTO/MAN/DUMP switch on DUMP position and check that the CAB ALT increases. 14. Set AUTO/MAN/DUMP switch on MAN position. 15. Depressurize aircraft - MAN/DIFF via the toggle switch selected to DECR. 16. Shut down engine OR APU.		
	3) MAN Mode	C	1	0	(M) May be inoperative provided: a) AUTO control is verified operative, b) FWD OUTFLOW control and DUMP function are verified operative, c) Cabin RATE Indicator, Cabin ALT Indicator, and Cabin DIFF Pressure Indicator are verified operative.	Verification of Automatic and AFT outflow valve Dump function and FW Outflow valve DUMP function. 1. Apply DC electrical power adequate to support the Main Busses. 2. Ensure all doors are closed. 3. Start No. 1 engine and stabilize at FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals). **Continued …**		Inoperative Cabin Pressure Control system must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21 **Cont'd…** 30-5	**AIR CONDITIONING** Cabin Pressure Control System 3) MAN Mode **Continued…**					4. Select the following on the CABIN ALTITUDE panel: a) AUTO/MAN/DUMP switch - AUTO. b) FWD OUTFLOW knob - CLSD. c) LDG ALT - field altitude minus 600 ft. 5. Ensure that CAB ALT on CABIN INDICATION MODULE is at field altitude ±100 ft and record ALT reading. 6. If running engine, select the following on the AIR CONDITIONING panel: a) BLEED 1 switch to BLEED b) BLEED flow control selector - MIN OR If running APU, select BL AIR OPEN on APU Control Panel. 7. Check that CAB ALT on CABIN INDICATION MODULE reads 30 ft (±20 ft) less than reading taken in step (5). 8. Select BLEED flow control selector to MAX and check that CAB ALT indicator reads 150 ft (±75 ft) less than the reading taken in step (5) and record reading. **Continued …**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21 **Cont'd…** 30-5	**AIR CONDITIONING** Cabin Pressure Control System 3) MAN Mode **Continued…**					9. Advance right power lever to more than minimum takeoff power. 10. Check the following indication on CABIN INDICATION MODULE: a) RATE (FPM) - up to 300 ft/min DOWN, then steady. b) CAB ALT - descent towards 400 ft (±150 ft) less than value taken in step (5) then steady. c) Record CAB. ALT reading. d) DIFF (PSI) - equal to 0.2 psi (0.1 psi) 11. At the Cabin Pressure Control Panel, select the AUTO/MAN/DUMP switch to DUMP and observe on the CABIN INDICATION MODULE that the DIFF drops to zero and the CAB ALT rises to field elevation. 12. Return the switch to the AUTO position and observe the CAB DIFF increases. 13. Select FWD OUTFLOW VALVE selector on the Co-pilot's side console panel to OPEN and check that CABIN DIFF decreases. 14. Select FWD OUTFLOW VALVE selector to NORMAL position and check that aircraft increases CAB DIFF pressure. **Continued …**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**					15. Select power levers to FLT IDLE and depressurize aircraft. 16. Shut down engine OR APU.		
30-6	Aft Valves							
	1) Aft Outflow Valve	C	1	0	(M)(O) May be inoperative provided: a) The AFT OUTFLOW valve is verified open, and b) Flight is conducted in an unpressurized configuration, at or below 10,000 feet MSL.	1. Apply DC electrical power adequate to support the Main Busses. 2. Ensure all doors are closed. 3. Start No. 1 engine and stabilize at FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals. 4. Select the following on the CABIN ALTITUDE panel: a) AUTO/MAN/DUMP switch - MAN b) FWD OUTFLOW knob - CLSD position. 5. If running engine, select the following on the AIR CONDITIONING panel: a) BLEED 1 switch - BLEED b) BLEED flow control selector - MAX. OR If running APU, select BL AIR OPEN on APU Control Panel. 6. Advance PLA #2 to the take-off detent, greater than 60 degrees.	Operations over Mountainous Terrain are prohibited. Carry out unpressurized flight in accordance Abnormal and Emergency Manual, UNPRESSURIZED FLIGHT.	AUTO and MAN pressurization must be placarded inoperative in the flight compartment.
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
30-6	Aft Valves 1) Aft Outflow Valve **Continued…**					7. Attempt to control the cabin pressure rate through MAN/DIFF toggle switch on the CABIN ALTITUDE panel, selecting to INCR, and observing the CAB RATE and CAB DIFF indications on the CABIN INDICATION MODULE. 8. Observe that the aircraft does not allow pressurization and that the CAB ALT level does not change. 9. On the CABIN ALTITUDE panel, set AUTO/MAN/DUMP switch to DUMP position. 10. Shut down engine or APU.		
	2) Aft Safety Valve	C	1	0	(M)(O) May be inoperative provided; a) The AFT OUTFLOW valve is verified open, and b) Flight is conducted in an unpressurized configuration, at or below 10,000 feet MSL.	1. Apply DC electrical power adequate to support the Main Busses. 2. Ensure all doors are closed. 3. Start No. 1 engine and stabilize at FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals. 4. Select the following on the CABIN ALTITUDE panel: a) AUTO/MAN/DUMP switch - MAN b) FWD OUTFLOW knob - CLSD position.	Operations over Mountainous Terrain are prohibited. Carry out unpressurized flight in accordance with the Abnormal and Emergency Manual, UNPRESSURIZED FLIGHT.	AUTO and MAN pressurization must be placarded inoperative in the flight compartment.
Cont'd…						**Continued…**		

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21	**AIR CONDITIONING**							
30-6	Aft Valves 2) Aft Safety Valve **Continued…**					5. If running engine, select the following on the AIR CONDITIONING panel: a) BLEED 1 switch - BLEED b) BLEED flow control selector - MAX. OR If running APU, select BL AIR OPEN on APU Control Panel. 6. Advance PLA #2 to the take-off detent, greater than 60 degrees. 7. Attempt to control the cabin pressure rate through MAN/DIFF toggle switch on the CABIN ALTITUDE panel, selecting to INCR, and observing the CAB RATE and CAB DIFF indications on the CABIN INDICATION MODULE. 8. Observe that the aircraft does not allow pressurization and that the CAB ALT level does not change. 9. On the CABIN ALTITUDE panel, set AUTO/MAN/DUMP switch to DUMP position. 10. Shut down engine or APU.		
50-1	Air Cycle Machines (ACM)	C	2	1	May be inoperative provided the associated PACKS switch is selected and remains OFF.			Inoperative Air Cycle Machine must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
50-2	Turbine Shut-Off Valves	C	2	1	(M) May be inoperative provided: a) Turbine Shut-Off Valve is secured in the Closed position, b) Associated PACKS switch is selected and remains OFF.	1. Manually operate and lock the associated Turbine Shut-Off Valve in the closed position by first removing the locking pin on the Turbine Shut-Off Valve from its normally installed position on the valve. 2. Use a wrench to turn the crank on the valve to the closed position. 3. Install the locking pin to maintain the valve in the locked position.		Inoperative Air Cycle Machine - related to the failed Turbine Shut-Off Valve (TSOV) - must be placarded in the flight compartment.
50-3	Pack Bypass Valve	C	2	1	(M) One may be inoperative provided: a) Pack Bypass Valve is locked in the closed position, and b) Associated PACKS switch is selected and remains OFF.	Manually operate and lock the associated valve in the closed position with the locking screw as follows: 1. Remove the locking screw from the actuator housing. It has a retaining cable. 2. Turn the valve to the closed position. The linkage crank has a hex head to use a wrench to turn the valve. 3. Install the locking screw in the hole in the actuator housing that is nearest to the linkage crank. This will lock the valve in closed position.		Placard the associated Pack Bypass Valve on the Air---Conditioning panel in the flight compartment as INOP.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-1	CABIN TEMP CONTROL							
	1) AUTO and MAN Modes	C	1	0	(M) May be inoperative provided: a) The associated CABIN PACK is considered inoperative, is selected and remains OFF, and b) FLT COMP TEMP CONTROL is verified operative.	1. Start either No. 1 or No. 2 engine and select POWER lever to FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals. 2. If running engine select AIR CONDITIONING controls as follows: a) Applicable BLEED 1 or 2 switch - BLEED 1 or 2. b) OFF-MAN-AUTO PACKS switches to MAN. c) TEMP CONTROL selectors to mid positions. d) BLEED flow selector to - MAX. e) RECIRC fan - RECIRC. OR If running APU, select BL AIR OPEN on APU Control Panel and select AIR CONDITIONING controls as follows: a) OFF-MAN-AUTO PACKS switches to MAN. b) TEMP CONTROL selectors to mid positions. c) RECIRC fan - RECIRC.		Inoperative CABIN TEMP CONTROL Mode(s) must be placarded in the flight compartment.
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-1	CABIN TEMP CONTROL 1) AUTO and MAN Modes **Continued…**					3. Allow the air conditioning system to stabilize. (Note CABIN DUCT, FC DUCT and CABIN temperatures on TEMPERATURE GAUGE using the GAUGE SWITCH). 4. AUTO Mode Inoperative - Verify Manual Flight Comp Temp Control Operates Normally a) Select FLT COMP PACK switch to MAN position. b) Rotate the FLT COMP CONTROL rotary knob to full WRM position. c) After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is increasing, using the Temperature Gauge. d) Rotate the FLT COMP CONTROL rotary knob to full COOL position. e) After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is decreasing, using the Temperature Gauge. f) Return the temperature control knobs to mid-range position.		
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-1	CABIN TEMP CONTROL 1) AUTO and MAN Modes **Continued…**					5. MAN Mode Inoperative - Verify Auto Flight Comp Temp Control Operates Normally a) Select FLT COMP PACK switch to AUTO position. b) Rotate the FLT COMP CONTROL rotary knob to full WRM position. c) After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is increasing, using the Temperature Gauge. d) Rotate the FLT COMP CONTROL rotary knob to full COOL position. e) After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is decreasing, using the Temperature Gauge. f) Return the temperature control knobs to mid-range position.		
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-1	CABIN TEMP CONTROL **Continued…**							
	2) AUTO Mode	C	1	0	(M) May be inoperative provided: a) MAN control is verified operative, and b) DUCT TEMP indicator is verified operative.	1. Start either No. 1 or No. 2 engine and select POWER lever to FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals. 2. If running engine select AIR CONDITIONING controls as follows: a) Applicable BLEED 1 or 2 switch - BLEED 1 or 2. b) OFF-MAN-AUTO PACKS switches to MAN. c) TEMP CONTROL selectors to mid positions. d) BLEED flow selector to - MAX. e) RECIRC fan - RECIRC. OR If running APU, select BL AIR OPEN on APU Control Panel and select AIR CONDITIONING controls as follows: a) OFF-MAN-AUTO PACKS switches to MAN. b) TEMP CONTROL selectors to mid positions. c) RECIRC fan - RECIRC. **Continued…**		Inoperative CABIN TEMP CONTROL Mode(s) must be placarded in the flight compartment.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-1	CABIN TEMP CONTROL 2) AUTO Mode **Continued…**					3. Allow the air conditioning system to stabilize. (Note CABIN DUCT, FC DUCT and CABIN temperatures on TEMPERATURE GAUGE using the GAUGE SWITCH). 4. Select CABIN PACK switch to MAN position. 5. Rotate the CABIN TEMP CONTROL rotary knob to full WRM position. 6. After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is increasing, using the Temperature Gauge. 7. Rotate the CABIN TEMP CONTROL rotary knob to full COOL position. 8. After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is decreasing, using the Temperature Gauge. 9. Return the temperature control knobs to mid-range position.		
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-1 3) MAN Mode **Cont'd…**	CABIN TEMP CONTROL	C	1	0	(M) May be inoperative provided AUTO control is verified operative.	1. Start either No. 1 or No. 2 engine and select POWER lever to FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals. 2. If running engine select AIR CONDITIONING controls as follows: a) Applicable BLEED 1 or 2 switch - BLEED 1 or 2. b) OFF-MAN-AUTO PACKS switches to MAN. c) TEMP CONTROL selectors to mid positions. d) BLEED flow selector to - MAX. e) RECIRC fan - RECIRC. OR If running APU, select BL AIR OPEN on APU Control Panel and select AIR CONDITIONING controls as follows: a) OFF-MAN-AUTO PACKS switches to MAN. b) TEMP CONTROL selectors to mid positions. c) RECIRC fan - RECIRC.		Inoperative CABIN TEMP CONTROL Mode(s) must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-1	CABIN TEMP CONTROL 3) MAN Mode **Continued…**					3. Allow the air conditioning system to stabilize. (Note CABIN DUCT, FC DUCT and CABIN temperatures on TEMPERATURE GAUGE using the GAUGE SWITCH). 4. Select CABIN PACK switch to AUTO position. 5. Rotate the CABIN TEMP CONTROL rotary knob to full WRM position. 6. After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is increasing, using the Temperature Gauge. 7. Rotate the CABIN TEMP CONTROL rotary knob to full COOL position. 8. After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is decreasing, using the Temperature Gauge. 9. Return the temperature control knobs to mid-range position. 10. Select appropriate engine or APU BLEED switch to OFF and OFF/MAN/AUTO PACKS switches of OFF.		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-2	DUCT TEMP GAUGE	C	1	0	(O) May be inoperative provided Flight Attendant Temperature Control is operative and flights are conducted in accordance with AFM Supplement 85, "OPERATION WITH INOPERATIVE CAB DUCT/CABIN/FC DUCT GAUGE". **Flight Crew Deferral Permitted**		Operations to be conducted in accordance with	Inoperative DUCT TEMP GAUGE or individual function must be placarded in the flight compartment.
	1) CABIN Temperature	C	1	0	May be inoperative provided Flight Attendant Temperature Control is operative. **Flight Crew Deferral Permitted**			Inoperative DUCT TEMP GAUGE or individual function must be placarded in the flight compartment.
	2) CAB DUCT Temperature	C	1	0	(O) May be inoperative provided flights are conducted in accordance with AFM Supplement 85, OPERATION WITH INOPERATIVE CAB DUCT/CABIN/FC DUCT GAUGE. **Flight Crew Deferral Permitted**			Inoperative DUCT TEMP GAUGE or individual function must be placarded in the flight compartment.
	3) FC DUCT Temperature	C	1	0	(O) May be inoperative provided flights are conducted in accordance with AFM Supplement 85, OPERATION WITH INOPERATIVE CAB DUCT/CABIN/FC DUCT GAUGE. **Flight Crew Deferral Permitted**			Inoperative DUCT TEMP GAUGE or individual function must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-3	FLT COMP TEMP CONTROL							
	1) AUTO and MAN Modes	C	2	0	(M) May be inoperative provided: a) The associated FLT COMP PACK is considered inoperative and is selected and remains OFF, and b) CABIN TEMP CONTROL (AUTO & MANUAL) is verified operative.	1. Start either No. 1 or No. 2 engine and select POWER lever to FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals. 2. If running engine select AIR CONDITIONING controls as follows: a) Applicable BLEED 1 or 2 switch – BLEED 1 or 2. b) OFF_MAN_AUTO PACKS switches to MAN c) TEMP CONTROL selectors to mid positions d) BLEED flow selector to – MAX. e) RECIRC fan – RECIRC OR If running APU, select BL AIR OPEN on APU Control Panel and select AIR CONDITIONING controls as follows: a) OFF_MAN_AUTO PACKS switches to MAN b) TEMP CONTROL selectors to mid positions. c) RECIRC Fan – RECIRC.		Inoperative FLT COMP TEMP CONTROL Mode(s) must be placarded in the flight compartment.
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-3	FLT COMP TEMP CONTROL 1) AUTO and MAN Modes **Continued…**					3. Allow the air conditioning system to stabilize. (Note CABIN DUCT, FC DUCT and CABIN temperatures on TEMPERATURE GAUGE using the GAUGE SWITCH. **AUTO and MAN modes Inoperative – Verify Cabin Temp Control Operates Normally** 4. AUTO Mode Inoperative - Verify Manual Cabin Temp Control Operates Normally a) Select CABIN PACK switch to MAN position. b) Rotate the CABIN CONTROL rotary knob to full WRM position. c) After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is increasing using the Temperature Gauge. d) Rotate the CABIN TEMP CONTROL rotary knob to full COOL position. e) After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is decreasing using the Temperature Gauge.		
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-3	FLT COMP TEMP CONTROL 1) AUTO and MAN Modes **Continued…**					f) Return the temperature control knobs to mid-range position. 5. MAN Mode Inoperative - Verify Auto Cabin Temp Control Operates Normally a) Select CABIN PACK switch to AUTO position. b) Rotate the CABIN CONTROL rotary knob to full WRM pos. c) After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is increasing using the Temperature Gauge. d) Rotate the CABIN CONTROL rotary knob to full COOL position. e) After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is decreasing using the Temperature Gauge. f) Return the temperature control knobs to mid-range position.		
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-3	FLT COMP TEMP CONTROL **Continued…**							
	2) AUTO Mode	C	1	0	(M) May be inoperative provided: a) MAN control is verified operative, and b) DUCT TEMP indicator is verified operative.	1. Start either No. 1 or No. 2 engine and select POWER lever to FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals. 2. If running engine select AIR CONDITIONING controls as follows: a) Applicable BLEED 1 or 2 switch – BLEED 1 or 2. b) OFF_MAN_AUTO PACKS switches to MAN c) TEMP CONTROL selectors to mid positions d) BLEED flow selector to – MAX. e) RECIRC fan – RECIRC OR If running APU, select BL AIR OPEN on APU Control Panel and select AIR CONDITIONING controls as follows: a) OFF_MAN_AUTO PACKS switches to MAN b) TEMP CONTROL selectors to mid positions. c) RECIRC Fan – RECIRC. **Continued …**		Inoperative FLT COMP TEMP CONTROL Mode(s) must be placarded in the flight compartment.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21 60-3 **Cont'd…**	**AIR CONDITIONING** FLT COMP TEMP CONTROL 2) AUTO Mode **Continued…**					3. Allow the air conditioning system to stabilize. (Note CABIN DUCT, FC DUCT and CABIN temperatures on TEMPERATURE GAUGE using the GAUGE SWITCH. **AUTO Mode Inoperative - Verify Manual Control Operates Normally** 1. Select FLT COMP PACK switch to MAN position. 2. Rotate the FLT COMP TEMP CONTROL rotary knob to full WRM position. 3. After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is increasing using the Temperature Gauge. 4. Rotate the FLT COMP TEMP CONTROL rotary knob to full COOL position. 5. After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is decreasing using the Temperature Gauge. 6. Return the temperature control knobs to mid-range position.		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-3	FLT COMP TEMP CONTROL **Continued…**							
	3) MAN Mode	C	1	0	(M) May be inoperative provided AUTO control is verified operative.	**MAN Mode Inoperative – Verify Auto Cabin Temp Control Operates Normally** 1. Start either No. 1 or No. 2 engine and select POWER lever to FLT IDLE, OR start APU (ensuring there is air in the Reservoir Tank to inflate the door seals. 2. If running engine select AIR CONDITIONING controls as follows: a) Applicable BLEED 1 or 2 switch – BLEED 1 or 2. b) OFF_MAN_AUTO PACKS switches to MAN c) TEMP CONTROL selectors to mid positions d) BLEED flow selector to – MAX. e) RECIRC fan – RECIRC OR If running APU, select BL AIR OPEN on APU Control Panel and select AIR CONDITIONING controls as follows: a) OFF_MAN_AUTO PACKS switches to MAN b) TEMP CONTROL selectors to mid positions. c) RECIRC Fan – RECIRC. **Continued…**		Inoperative FLT COMP TEMP CONTROL Mode(s) must be placarded in the flight compartment.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-3	FLT COMP TEMP CONTROL 3) MAN Mode **Continued…**					3. Allow the air conditioning system to stabilize. (Note CABIN DUCT, FC DUCT and CABIN temperatures on TEMPERATURE GAUGE using the GAUGE SWITCH. **MAN Mode Inoperative - Verify Automatic Control Operates Normally** 1. Select FLT COMP PACK switch to AUTO position. 2. Rotate the FLT COMP TEMP CONTROL rotary knob to full WRM position. 3. After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is increasing, using the Temperature Gauge. 4. Rotate the FLT COMP TEMP CONTROL rotary knob to full COOL position. 5. After waiting approximately 60 to 90 seconds, confirm that the observed temperature trend is decreasing using the Temperature Gauge. 6. Return the temperature control knobs to mid-range position. 7. Select appropriate engine or APU BLEED switch to OFF and OFF/MAN/AUTO PACKS switches to OFF.		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-4	Flight Attendant Control Panel-Cabin Temperature Control and Indication	C	-	0	One or all functions /indications may be inoperative provided cabin temperature control is available from the flight deck. **NOTE**: Flight Attendant control of cabin temperature is not available if MANUAL cabin temperature control is selected in the cockpit. **Flight Crew Deferral Permitted**			Placard the Flight Attendant Control Panel to indicate the Cabin Temperature Control and CABIN TEMP indication or an individual function is inoperative.
	1) Temperature Display	C	1	0	(O) May be inoperative provided cabin temperature indication in the cockpit air conditioning panel is operative and this information will be given to the Flight Attendant as required. **Flight Crew Deferral Permitted**		Flight attendant A will communicate with flight deck every 30 minutes using cabin to flight deck interphone to obtain cabin temperature.	Placard the Flight Attendant Control Panel to indicate the Cabin Temperature Control and CABIN TEMP indication or an individual function is inoperative.
	2) Temperature Display Test Switch	C	1	0	May be inoperative. **Flight Crew Deferral Permitted**			Placard the Flight Attendant Control Panel to indicate the Cabin Temperature Control and CABIN TEMP indication or an individual function is inoperative.
	3) Temperature Display Switch	C	1	0	May be inoperative. **Flight Crew Deferral Permitted**			Placard the Flight Attendant Control Panel to indicate the Cabin Temperature Control and CABIN TEMP indication or an individual function is inoperative.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
21	**AIR CONDITIONING**							
60-4	Flight Attendant Control Panel-Cabin Temperature Control and Indication **Continued...**							
	4) Temperature Scale	C	1	0	May be inoperative. **Flight Crew Deferral Permitted**			Placard the Flight Attendant Control Panel to indicate the Cabin Temperature Control and CABIN TEMP indication or an individual function is inoperative.
	5) F/A Control Enabled Advisory Light	C	1	0	May be inoperative. **Flight Crew Deferral Permitted**			Placard the Flight Attendant Control Panel to indicate the Cabin Temperature Control and CABIN TEMP indication or an individual function is inoperative.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
22	**AUTO FLIGHT**							
10-1	A/P DISENG Annunciators (Glareshield)	B	2	1	May be inoperative when Autopilot is used in any axis. **Flight Crew Deferral Permitted**			Placard inoperative Autopilot Disengage Annunciators in the flight compartment.
		A	2	0	May be inoperative provided: a) Autopilot is considered inoperative, and b) Repairs are made within one flight day. **Flight Crew Deferral Permitted**			Placard inoperative Autopilot Disengage Annunciators in the flight compartment.
10-2	Autopilot							
	1) Autopilot	A	1	0	(O) May be inoperative provided: a) Approach minimums do not require its use, and b) Repairs are made within one flight day. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited. The Flight Crew will verify that the applicable approach is not predicated on Autopilot use.	Placard inoperative Autopilot in the flight compartment.
	2) AP PITCH TRIM	A	1	0	(M)(O) May be inoperative provided: a) Autopilot is considered inoperative and not used, b) Flaps are limited to 15 degrees or less, and c) Repairs are made within one flight day. **Flight Crew Deferral Permitted**	1. Apply DC power to the aircraft. 2. Verify that "PITCH TRIM" caution light is not illuminated. 3. Using Pilot's manual trim switch set the Elevator Trim nose up and confirm that trim occurs using the pitch trim indicator. Repeat the test for nose down Elevator Trim and confirm the indication. 4. Repeat item 2 using Co-pilot's manual trim switch.	The Flight Crew will review procedures in QRH AP PITCH TRIM FAIL under AUTO FLIGHT. Additionally, Flight Crew will limit flaps to 15 degrees or less.	Placard inoperative Autopilot in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
22	**AUTO FLIGHT**							
10-3	Tactile Control Steering (TCS) Switches	B	2	0	May be inoperative provided Autopilot is disengaged prior to manual control column movement. **Flight Crew Deferral Permitted**			Inoperative TCS switch(es) must be placarded on the control column handwheel(s).
		C	2	1	May be inoperative on the non-flying Pilot side. **Flight Crew Deferral Permitted**			Inoperative TCS switch(es) must be placarded on the control column handwheel(s).
10-4	Flight Guidance Control Panel (FGCP)							
	1) IAS Selector	B	1	0	(O) May be inoperative provided VS or VNAV is operative and is used for altitude changes. **Flight Crew Deferral Permitted**		When using Autopilot, Flight Crew will select VS or VNAV for all altitude changes. If VS or VNAV is not operational, the Flight Crew will disengage Autopilot for all altitude changes.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
		B	1	0	(O) May be inoperative provided Autopilot is disengaged for altitude changes. **Flight Crew Deferral Permitted**		The Flight Crew will disengage Autopilot for all altitude changes.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
	2) VS Selector	B	1	0	(O) May be inoperative provided IAS or VNAV is operative and is used for altitude changes. **Flight Crew Deferral Permitted**		When using Autopilot, Flight Crew will select IAS or VNAV for all altitude changes. If IAS or VNAV is not operational, the Flight Crew will disengage Autopilot for all altitude changes	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
		B	1	0	(O) May be inoperative provided Autopilot is disengaged for altitude changes.		The Flight Crew will disengage Autopilot for all altitude changes.	Inoperative flight guidance selectors/lights must be placarded in the flight

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
22	**AUTO FLIGHT**							
Cont'd…					**Flight Crew Deferral Permitted**			compartment.
10-4	Flight Guidance Control Panel (FGCP) **Continued...**							
	3) VNAV Selector	B	1	0	(O) May be inoperative provided VS or IAS is operative and is used for altitude changes. **Flight Crew Deferral Permitted**		When using Autopilot, Flight Crew will select VS or IAS for all altitude changes. If VS or IAS is not operational, the Flight Crew will disengage Autopilot for all altitude changes.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
		B	1	0	(O) May be inoperative provided Autopilot is disengaged for altitude changes. **Flight Crew Deferral Permitted**		The Flight Crew will disengage Autopilot for all altitude changes.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
	4) ALT Selector	B	1	0	(O) May be inoperative provided basic Altitude Hold mode is operative. **Flight Crew Deferral Permitted**		The Flight Crew will verify altitude hold mode is functioning normally by checking the DMI and ensuring, through maintenance control, system has been functioning normally.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
	5) ALT SEL	A	1	0	(O) May be inoperative provided : a) Altitude alerter is considered inoperative, and b) Repairs are made within three flight days. **Flight Crew Deferral Permitted**		Prior to departure the Flight Crew will brief on altitude alerter is considered inoperative and altitude call outs by PM at 1,000 ft., 500 ft., 100 ft. prior to assigned altitude will be conducted.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
	6) Pitch/Rate Thumb Wheel	B	1	0	(O) May be inoperative provided VS and IAS are considered inoperative. **Flight Crew Deferral Permitted**		Prior to departure the Flight Crew will brief on VS and IAS modes are considered inoperative and PM will call out vertical speed in excess of 1,500 fpm.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
22	**AUTO FLIGHT**							
Cont'd…								
10-4	Flight Guidance Control Panel (FGCP) **Continued…**							
	7) HDG Selector	B	1	0	(O) May be inoperative provided basic Heading mode and Heading bugs are operative. **Flight Crew Deferral Permitted**		Prior to departure the Flight Crew will verify basic heading mode and heading bugs are functioning normally by checking DMI and ensuring, through maintenance control, system has been functioning normally.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
	8) NAV Selector	B	1	0	(O) May be inoperative provided NAV Source selectors and Course selectors are operative. **Flight Crew Deferral Permitted**		Prior to departure the Flight Crew will verify NAV source selections and Course selections are functioning normally by checking DMI and ensuring, through maintenance control, system has been functioning normally.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
	9) APPR Selector	B	1	0	(O) May be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		The Flight Crew will utilize HDG mode and VS mode with pitch wheel input to maintain approach guidance. The PM will call out airspeed deviation +/-10 kts, greater than 1,000 fpm and right or left of course as applicable.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
	10) BC Selector	B	1	0	(O) May be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		The Flight Crew will utilize HDG mode for lateral guidance. The PM will call out airspeed deviation +/-10kts, greater than 1,000 fpm and right or left of course as applicable.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
	11) AP Selector Indication	B	2	0	(O) May be inoperative provided Primary Flight Display (PFD) Flight Mode Annunciator		The Flight Crew will verify that the PFD and FMA is operational prior to selection of AP.	Inoperative flight guidance selectors/lights must be

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
22 **Cont'd…**	**AUTO FLIGHT**				(FMA) is operative. **Flight Crew Deferral Permitted**			placarded in the flight compartment.
10-4	Flight Guidance Control Panel (FGCP) **Continued…**							
	12) HSI SEL Selector Indication	B	2	0	(O) May be inoperative provided Primary Flight Display (PFD) Flight Mode Annunciator (FMA) is operative. **Flight Crew Deferral Permitted**		The Flight Crew will verify that the PFD and FMA is operational prior to selection of AP.	Inoperative flight guidance selectors/lights must be placarded in the flight compartment.
10-5	Yaw Damper System	A	1	0	(M) (O) May be inoperative provided: 1. Autopilot is considered inoperative, and 2. Repairs are made within one flight day.	1. Pull and collar circuit breakers: YD AU (E3); APAU ROLL (E2); APAU PITCH (E1); on the avionics circuit breaker panel. 2. If the Y/D actuator has failed, perform a rudder travel check to confirm full rudder movement using the PFCS Indicator on the MFD. 3. If the Y/D actuator has failed in a position other than the center position (i.e., Failed in an extended or retracted position), the Y/D actuator must be replaced prior to dispatch.	Operations over Mountainous Terrain are prohibited.	Inoperative Yaw Damper/Actuator must be placarded in the flight compartment. Placard Flight Guidance Controller (Autopilot Switch) on glareshield panel if both switches are inoperative.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
22	**AUTO FLIGHT**							
10-6	A/P DIS Switches (On Control Wheels)	C	2	1	One may be inoperative provided: a) The Autopilot is not used below 1500 feet AGL, and b) Approach minimum do not require the use of the Autopilot. **Flight Crew Deferral Permitted**			Inoperative Autopilot Disengage Switches must be placarded in the flight compartment.
		B	2	0	(O) May be inoperative provided the Autopilot is not used. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited	Inoperative Autopilot Disengage Switches must be placarded in the flight compartment. Placard Flight Guidance Controller (Autopilot Switch) on glareshield panel if both switches are inoperative.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
10-1	Communication Systems Transmitters and Receivers (VHF, HF and UHF)	C	2	1	(O) Any in excess of those required by FAR 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. **Flight Crew Deferral Permitted**		1) One VHF communication system may be inoperative for Part 91 operations only. 2) VHF #1 must be operative as it is powered through the L Battery Bus.	Inoperative HF, VHF and UHF Communications Systems must be placarded in the flight compartment.
10-2	"Flitefone System" (or equivalent)				Not installed on MJC8-Q400 aircraft.			
20-1	SELCAL System				Not installed on MJC8-Q400 aircraft.			
20-2	1) Aircraft Communications Addressing and Reporting System (ACARS)	C	1	0	(O) May be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		The Flight Crew will: a) Use VHF communication to obtain weather information, performance data (when necessary) from Dispatch via ARINC, and the relay of any other information that may normally be obtained through ACARS. b) Contact station operations or dispatch to report out, off, on, and in times, and c) Log flight times on the Aircraft Flight Log.	Inoperative ACARS System must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
30-1	Alerting System (Chime/Light)							
	1) Passenger Configuration							
	a) Flight Deck Call Light	B	1	0	May be inoperative provided the flight deck chime operates normally. **NOTE**: The flight deck chime must always be operative. **Flight Crew Deferral Permitted**			Inoperative Chime/Light alerting function must be placarded in the Flight Compartment and the Passenger Compartment.
	b) Flight Attendant Call Light	B	1	0	(O) May be inoperative provided: a) PA system operates normally, b) If affected light alert is used for lavatory smoke detector alerting, an alternate lavatory smoke detector alert (chime or light) is installed and operates normally, and c) Alternate procedures for contacting Flight Attendants are established and used. **NOTE 1:** Passenger to Attendant Call System is considered a passenger convenience item. **NOTE 2:** Any light alert function(s) that operates normally may be used. **Flight Crew Deferral Permitted**		The Flight Crew will verify that the PA system is functioning normally and will use PA system to communicate with Flight Attendants and/or passengers. The "A" Flight Attendant will verbally inform the captain of the total passenger count, that the main cabin door is closed and that the cabin is secured.	Inoperative Chime/Light alerting function must be placarded in the Flight Compartment and the Passenger Compartment.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
30-1	Alerting System (Chime/Light) 1) Passenger Configuration **Continued...**							
	c) Flight Attendant Chime	B	-	0	(O) May be inoperative provided: a) PA system operates normally, b) If affected audio alert is used for lavatory smoke detector alerting, an alternate lavatory smoke detector alert (chime or light) is installed and operates normally, and c) Alternate procedures for contacting Flight Attendants are established and used **NOTE 1**: Passenger to Attendant Call System is considered a passenger convenience item. **NOTE 2**: Any audio alerting system function(s) that operates normally may be used. **Flight Crew Deferral Permitted**		The Flight Crew will verify that the PA system is functioning normally and will use PA system to communicate with Flight Attendants and/or passengers. The "A" Flight Attendant will verbally inform the captain of the total passenger count, that the main cabin door is closed and that the cabin is secured.	Inoperative Chime/Light alerting function must be placarded in the Flight Compartment and the Passenger Compartment.
30-2	Pre-Recorded Announcement (Passenger Briefing) System	C	1	0	(O) May be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		Flight attendant B will perform passenger briefing using P.A. system.	Inoperative Passenger Briefing/Entertainment System must be placarded in the passenger compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
30-3	PACIS (Passenger Address and Cabin Interphone System)							
	1) Passenger Address System (Passenger Configuration)	B	1	0	(O) May be inoperative provided: a) Alternate, normal and emergency procedures and/or operating restrictions are established and used, and b) Flight Attendant alerting system (chime and call light) operates normally. **NOTE**: Any station function(s) that operates normally may be used. **Flight Crew Deferral Permitted**		a) Brief the passengers by facing them and giving the briefing loudly enough that all passengers can hear it. b) Flight deck/cabin interphone (two-way) and "call" chime function will be utilized for normal and emergency communications between the Flight Crew and Flight Attendant.	Inoperative Passenger Address System (PA) must be placarded in the flight compartment and the passenger compartment.
		C	1	0	(O) May be inoperative provided: a) PA not required by FAR, and b) Alternate, normal, and emergency procedures and/or operating restrictions are established and used. **NOTE**: Any station function(s) that operates normally may be used.		Aircraft can only be operated under Part 91 operations. No revenue passengers or cargo can be carried. The flight deck door will stay open for flight so that communications between Pilots and Flight Attendants are not impaired.	Inoperative Passenger Address System (PA) must be placarded in the flight compartment and the passenger compartment.
	a) Lavatory Speaker	C	1	0	**Flight Crew Deferral Permitted** (O) May be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		1. The Captain shall notify the Flight Attendants that the lavatory speaker is inoperative. 2. If an announcement has been made, a Flight Attendant shall knock on the door and speak loudly to inform the occupant of necessary information.	Inoperative lavatory speaker must be placarded in the lavatory compartment.

Cont'd…

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23	**COMMUNICATIONS**							
30-3	PACIS (Passenger Address and Cabin Interphone System) **Continued …**							
	2) Courier/ Supernumerary Address System (Cargo Configuration)				Not applicable to MJC8-Q400			
	3) Crewmember Interphone System(s) (Passenger Configuration)							
	a) Flight Deck to Cabin, Cabin to Flight Deck Functions	B	2	1	(O) May be inoperative provided: a) Flight deck to cabin and cabin to flight deck interphone functions operate normally on at least fifty percent of the cabin handsets, and b) Alternate Communications procedures between the affected Flight Attendants station (s) are established and used. **NOTE:** Any station function(s) that operate normally may be used. **Flight Crew Deferral Permitted**		a) The Flight Crew will verify that the PA system is functioning normally and will use PA system to communicate with the Flight Attendant and/or passengers. b) The Flight Attendant will verbally inform the captain of the total passenger count, that the main cabin door is closed and that all passengers are seated.	Inoperative Interphone System must be placarded in the flight compartment and the passenger compartment.
	b) Cabin to Cabin Function	B	2	0	(O) May be inoperative provided alternate communications procedures between the affected Flight Attendants stations are established and used. **NOTE:** Any station function(s) that operate normally may be used **Flight Crew Deferral Permitted**		As directed by "A" Flight Attendant, both Flight Attendants will communicate face to face.	Inoperative Interphone System must be placarded in the flight compartment and the passenger compartment.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
30-3	PACIS (Passenger Address and Cabin Interphone System) **Continued …**							
	3) Crewmember Interphone System(s) (Cargo Configuration)				Not applicable to MJC8-Q400 aircraft.			
	4) Handset System (Passenger Configuration)							
	a) Cabin	B	3	2	(O) May be inoperative provided: a) Fifty percent of cabin handsets operate normally, and b) Alternate communications procedures between the affected Flight Attendants station(s) are established and used. **NOTE 1**: An operative handset at inoperative Flight Attendant seat shall not be counted to satisfy the fifty percent requirements. **NOTE 2**: Any handset(s) function(s) that operate normally may be used. **Flight Crew Deferral Permitted**		The Flight Attendant assigned to affected position will communicate face to face with other Flight Attendant.	Inoperative handset must be placarded in the flight compartment and the passenger compartment.
	5) Handset System (Cargo Configuration)				Not applicable to MJC8-Q400 aircraft.			

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
30-4	Active Noise and Vibration Suppression System	D	1	0	(M) May be inoperative. **NOTE 1**: Aircraft may be dispatched with system operative in DEGRADE mode with ANVS SYS DEGRADED lamp illuminated on the Maintenance Panel. **Flight Crew Deferral Permitted.**	**NOTE**: It is recommended that the controller remain installed and powered until a replacement is available. 1. Press the PAUSE button rather than turning the system OFF. **NOTE**: If symptoms of hammering noise from ATVAs (Active Tuned Vibration Attenuators) become noticeable perform Step 2. 2. Select ANVS OFF at the control panel or pull and collar the associated ANVS circuit breakers on the right DC circuit breaker panel R Secondary/NVS A2, B2, C2, and D2. **NOTE**: PBMS (Propeller Balancing Monitoring System) will not be available, if installed.		Inoperative Active Noise and Vibration Suppression (ANVS) System must be placarded on the Flight Attendant Control Panel.
	a) DEGRADE Mode	D	1	0	System may be operated in DEGRADE Mode.			Active Noise and Vibration Suppression (ANVS) System operating in DEGRADE Mode must be placarded on the Flight Attendant Control Panel.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
40-1	Service Interphone System (Flight Compartment to Ground Crew)	C	1	0	(O) May be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		Refer to FOM Chapter 6 – Pushback, Taxi, and Towing for inoperative headset/interphone procedures.	Inoperative Service Interphone System must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
50-1	Boom Microphone Push-To-Talk (PTT) Switches	C	4	2	(M) May be inoperative provided one switch at each pilot's position is verified operative.	Verify that one switch at each Pilot's position is operative. **FOR FAILURE CONDITIONS OF THE PTT SWITCH(ES) FAILING TO TRANSMIT:** 1. No maintenance check is required. 2. Placard the respective PTT switch as INOP. **FOR FAILURE CONDITIONS OF THE PTT SWITCH(ES) CAUSING CONTINUOUS TRANSMIT:** Pilot and Co-pilot Control Column PTT Switch 1. Open the following circuit breakers: a) "PLT AUDIO" - on L ESSENTIAL dc bus b) "Co-pilot AUDIO" - on R ESSENTIAL dc bus 2. Ensure personnel and equipment are clear of aircraft elevator surfaces. 3. Pull back appropriate control column to access forward face of column. 4. Remove the appropriate retainer plate from forward face.		Inoperative Boom Microphone Push-To-Talk switches must be placarded in the flight compartment.
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
50-1	Boom Microphone Push-To-Talk (PTT) Switches **Continued…**					5. Disconnect the wires to the PTT switch at the appropriate terminal junction: a) Pilot's switch at terminal junction 9811-TB"A" pin B1. b) Co-pilot switch at the terminal junction 9811-TB"H" pin C1. 6. Tape and stow the disconnected wires. 7. Close the circuit breakers opened in step (1) above. 8. At the ARCDU respective of the PTT switch, move the MIC select knob to "INT" position. At the opposite ARCDU, select "SERV/INT VOL" and speaker "SPKR VOL" to on, adjusting both to about mid-listening level. Using the affected PTT switch and respective BOOM MIC, confirm that no voice communication is possible over opposite cockpit speaker. 9. Install retainer plate.		
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
50-1	Boom Microphone Push-To-Talk (PTT) Switches **Continued…**					PTT Switch on Nose Wheel Steering Tiller 1. Open the following circuit breakers: a) "PLT AUDIO" - on L ESSENTIAL dc bus b) "NLG STEER CONT 1" - L Main. c) "NLG STEER CONT 2" - RMain. 2. Remove side panel from Pilot's side console to gain access to 3251-P3. 3. Disconnect 3251-P3 and remove wire 2350-2514A-22N-4 from pin 5. 4. Tape and stow wire and reconnect 3251-P3. 5. Close the circuit breakers. 6. At the Pilot's audio control panel respective of the PTT switch, move the MIC select knob to "INT" position. At the Co-pilot's audio control panel, select "SERV/INT VOL" and speaker "SPKR VOL" to on, adjusting both to about mid-listening level. Using the nose wheel steering tiller PTT switch and respective BOOM MIC, confirm that no voice communication is possible over opposite cockpit speaker.	
Cont'd…						**Continued…**		

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23	**COMMUNICATIONS**							
50-1	Boom Microphone Push-To-Talk (PTT) Switches **Continued…**					**CAUTION**: Ensure gear ground locks are engaged and control surfaces clear of personnel. 7. Pressurize HYD SYS #2. 8. Switch on nose wheel steering using "STEERING" switch on Pilot's side console. 9. Cycle steering tiller full travel in both direction and physically confirm nosewheel travel. 10. Confirm "NOSE STEERING" Caution Light is out. 11. Depressurize #2 HYD system. 12. Install retainer plate. **XMIT Switch on the Co-pilot Side Console** 1. Open the following circuit breakers: a) "Co-pilot AUDIO" - on R ESSENTIAL dc bus. b) "CO PLT CB PANEL LTS" - on R ESSENTIAL dc bus c) "PANEL LTS CO PLT FLT" - on R MAIN dc bus. 2. Remove Co-pilot side console side panel to gain access to connector 9811-P168. 3. Disconnect 9811-P168. Remove XMIT switch wire at connector pin		
Cont'd…						**Continued…**		

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23	**COMMUNICATIONS**							
50-1	Boom Microphone Push-To-Talk (PTT) Switches **Continued…**					4. Tape and stow disconnect wire. 5. Reconnect 9811-P168 and reinstall side panel. 6. Close the circuit breakers. 7. At the Co-pilot's audio control panel respective of the PTT switch, move the MIC select knob to "INT" position. At the Pilot audio control panel, select "SERV/INT VOL" and speaker "SPKR VOL" to on, adjusting both to about mid-listening level. Using the affected XMIT switch and Co-pilot's BOOM MIC, confirm that no voice communication is possible over opposite cockpit speaker. 8. Install the side panel.		
50-2	Headsets	D	1	0	May be inoperative provided one Headset at each required Flight Crew station is operative. **Flight Crew Deferral Permitted**			Placard in the flight compartment.
50-3	Flight Compartment Speakers	C	2	0	(M) May be inoperative provided headsets are installed and used by each person on Flight Compartment duty. **Flight Crew Deferral Permitted**	Confirm aural warnings are present in the headset respective to each of the failed speakers by selecting the ADC TEST 1/2 switch on the Pilot's side console and listening for the Overspeed Warning.		Placard inoperative Flight Compartment Speakers in the flight compartment.

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23	**COMMUNICATIONS**							
50-4	Boom Microphones (incl. Headset mics)	A	2	0	May be inoperative provided: a) Flight Data Recorder (FDR) is operative, and b) Repairs are made within three flight days. **Flight Crew Deferral Permitted**			Inoperative Boom Microphone(s) must be placarded in the flight compartment.
50-5	Flight Deck Handheld Microphones	C	2	1	May be inoperative provided associated boom microphones are operative. **Flight Crew Deferral Permitted**			Inoperative Flight Deck Handheld Microphones must be placarded in the flight compartment.
60-1	Static Dischargers	D	25	19	May be missing, including discharger base, provided no more than one is missing from each control surface cluster. **Flight Crew Deferral Permitted**			Static Dischargers inoperative must be placarded in the Flight Compartment.
70-1	Cockpit Voice Recorder	A	1	0	May be inoperative provided: a) The Flight Data Recorder is operative, and b) Repairs are made within three flight days. **Flight Crew Deferral Permitted**			Placard inoperative Cockpit Voice Recorder in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
23	**COMMUNICATIONS**							
80-1	ARCDU Radio Tuning Function (Aircraft with at least one FMS installed)	C	2	1	(O) May be inoperative provided: a) FMS Radio Tuning Function of the inoperative ARCDU in 'FMS' mode is checked daily, and b) The operative ARCDU Radio Tuning Function is verified operational in 'BOTH' or 'FMS' mode. **Flight Crew Deferral Permitted**		If previous flight has confirmed the tuning function of the operative ARCDU in "BOTH" mode the following procedure is not required. 1. Set operative ARCDU MODE selector to "BOTH" or "FMS" mode. 2. Confirm tuning of Pilot and Co-pilot communication and navigation frequencies. 3. Establish audio communication with tower. **"FMS" mode of radio tuning is checked daily on affected ARCDU:** 1. Set the failed ARCDU in "FMS" mode. 2. Use the FMS Control Display Unit -TUNE key for tuning the Pilot and Co-pilot communication and navigation frequencies. 3. Repeat step 2 for all applicable radio units.	Inoperative ARCDU1 or ARCDU2 tuning function must be placarded in the flight compartment.

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24	**ELECTRICAL POWER**							
20-1	AC GEN 1 and AC GEN 2 VOLT Indications (on ESID)	C	6	0	May be inoperative provided: a) Associated electrical cautions and/or warnings are operative, b) Associated AC GEN LOAD Indication(s) are operative, and c) Both DC Generators are operative. **Flight Crew Deferral Permitted**			Inoperative AC VOLT indication on ESID Electrical Page must be placarded in the flight compartment.
20-2	AC GEN 1 and AC GEN 2 LOAD Indications (on ESID)	C	6	0	May be inoperative provided: a) Associated electrical cautions and/or warnings are operative, b) Associated AC GEN VOLT Indications are operative, and c) Both DC Generators are operative. **Flight Crew Deferral Permitted**			Inoperative AC VOLT indication on ESID Electrical Page must be placarded in the flight compartment.
20-3	#1 AC GEN and #2 AC GEN Caution Lights	C	2	1	One may be inoperative provided; a) Associated AC GEN VOLT and AC GEN LOAD Indications are operative and are periodically monitored during flight, and b) Both AC Generators are verified operative prior to each flight. **Flight Crew Deferral Permitted**			Inoperative "AC GEN" Fail Caution Lights must be placarded in the flight compartment.
30-1	Transformer Rectifier Units (TRUs)	B	2	1	(M) One may be inoperative provided: a) Both DC Starter/Generators are operative, and b) Associated TRU is deactivated. **Flight Crew Deferral Permitted**	Open and collar failed L or R TRU circuit breaker on the 115 VAC circuit breaker panel.		Inoperative Transformer Rectifier Unit (TRU) must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
24	**ELECTRICAL POWER**							
30-2	DC Generator Control Unit-Start/Termination Function	B	2	0	(O) May be inoperative provided the start is manually terminated at 50% NH. **Flight Crew Deferral Permitted**		1. Carry out associated engine(s) start in sequence in accordance with the System Manual 2. Closely monitor associated NH indicator during starting and terminate start function by deselecting ENGINE START SELECT switch to center SELECT position (off) when NH indication shows positive acceleration beyond 50%.	Inoperative DC Generator control Unit must be placarded in the flight compartment.
30-3	BATT degrees Celsius Temperature Indications	C	3	0	(O) May be inoperative provided: a) The associated BAT HOT Warning Light(s) are verified operative, and b) The associated DC BATT LOAD Indication(s) are verified operative. **Flight Crew Deferral Permitted**		1. Perform test of Caution and Warning Panel to check that BAT HOT warning light illuminates. 2. Respective battery load indications are monitored for any trend increasing charging current (+). 3. If a battery overheat condition occurs, land immediately at the nearest suitable airport.	Inoperative Battery Temperature Indicator(s) must be placarded in the flight compartment.
30-4 **Cont'd…**	APU Generation System	D	1	0	(M) May be inoperative provided: a) The cause of the malfunction is determined, and b) Appropriate action is taken to ensure that no hazard exists.	1. At the tailcone, open the APU compartment access doors and visually confirm integrity of electrical, fuel, pneumatic connections, and fire detection loop. 2. Close APU access door. 3. Perform fire detection test of APU loop. 4. Start and run APU, confirm the "APU fault light" is not illuminated. **Continued…**		Inoperative APU Generation System must be placarded on the APU Control Panel near the GEN button.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
24	**ELECTRICAL POWER**							
30-4	APU Generation System **Continued…**					5. At the APU Control Panel, when the "READY" light is illuminated, select the "BLEED" switch to on and confirm airflow from vents. 6. Deselect "BLEED" and shut down APU. 7. Deselect "GEN", "BLEED" and shut down APU.		
		D	1	0	May be inoperative provided the APU is considered inoperative and is not used. **Flight Crew Deferral Permitted**			Inoperative APU Generation System must be placarded on the APU Control Panel near the GEN button.
30-5	DC GEN LOAD Indications	C	2	1	(O) One may be inoperative provided both DC Generators are operative. **Flight Crew Deferral Permitted**		Ensure all DC generators and TRUs operate normally using the following steps: 1. Check the load indications for the remaining channels. 2. Observe correct annunciation of caution lights, i.e. All DC GEN and TRU caution lights out.	Inoperative DC GEN LOAD Indicator(s) must be placarded in the flight compartment.
		C	2	1	(O) One may be inoperative provided the inoperative Indication is associated with a failed DC Generator. **Flight Crew Deferral Permitted**		Ensure all DC generators and TRUs operate normally using the following steps: 1. Check the load indications for the remaining channels. 2. Observe correct annunciation of caution lights, i.e. All DC GEN and TRU caution lights out.	Inoperative DC GEN LOAD Indicator(s) must be placarded in the flight compartment.

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24	**ELECTRICAL POWER**							
30-6	Generator Control System	B	2	1	(M) (O) One may be inoperative in the Generator mode only (DC GEN caution light illuminated) provided: a) Both Transformer Rectifier Units (TRUs) are verified operative, and b) Operations are conducted in compliance with Abnormal and Emergency Manual: OPERATION WITH ONE DC GENERATOR INOPERATIVE. **Flight Crew Deferral Permitted**	1. Start engine on affected side (i.e., side with DC Generator inoperative) to verify the start function operates normally 2. After Start select Condition lever to MAX and select power lever to FLT IDLE. Ensure all AC and DC electrical system circuit breakers are closed. 3. Ensure Battery Master, Main Battery, Auxiliary Battery and Standby Battery switches are selected to BATTERY MASTER, MAIN BATT, AUX BATT and STBY BATT positions respectively and select EXTERNAL POWER to OFF, on the DC CONTROL panel. 4. Select failed DC GEN switch to the OFF position on the DC CONTROL Panel. 5. At AC CONTROL panel select associated generator switch to GEN 1 or GEN 2 position. 6. Check that the respective AC GEN caution light goes out. 7. Select Electrical page on ESID. Check for 115 VOLTS indication on all phases. 8. Ensure TRU caution lights are out. **Continued…**	Operations are conducted in compliance with Abnormal and Emergency Manual OPERATION WITH ONE DC GENERATOR INOPERATIVE.	Inoperative DC Starter/Generator (generation mode inoperative) must be placarded at the DC CONTROL panel in the flight compartment.
Cont'd…								

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24	**ELECTRICAL POWER**							
30-6	Generator Control System **Continued…**					9. At ESID Electrical page, check that DC LOAD meter indicates a load when L TRU and R TRU are selected respectively and the L SEC and R SEC buses indicate 28 ±3 volts on the DC BUS VOLTS indicator when selected to associated DC bus. 10. Shut down engine.		
40-1	AC External Power System	D	1	0	(M) May be inoperative.	a) If inoperative condition is due to "pull-away" damage, inspect the wiring to the external power receptacle for condition and security. b) If door is missing, tape over the receptacle access hole. If the door is damaged, secure the door closed with speed tape.		Adjacent to EXT PWR switch and externally on the access door.
40-2	DC External Power System	D	1	0	(M) May be inoperative.	a) If inoperative condition is due to "pull-away" damage, inspect the wiring to the external power receptacle for condition and security. b) If door is missing, tape over the receptacle access hole. If the door is damaged, secure the door closed with speed tape.		Adjacent to EXT PWR switch and externally on the access door.

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24	ELECTRICAL POWER							

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25	**EQUIPMENT/FURNISHINGS**							
10-1	Forward Observer Seat (Including Associated Equipment) Associated equipment includes but is not limited to – Oxygen – (O) Condition 1 Seat belt – (O) Condition 2 Headset or Audio control system – (O) Condition 3 Lights – (O) Condition 4	A	1	0	(O) May be inoperative provided: a) 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 flight days. **Flight Crew Deferral Permitted**		CONDITION 1 - OXYGEN Observers Seat may be occupied with OXYGEN supply below pressure for 3 Flight Deck Crewmembers if flight is conducted below 10,000 ft. (without taking any economic or schedule penalties). or Observers Seat can not be occupied if flight can not be conducted below 10,000 ft. CONDITION 2 – SEAT BELT Seat may not be occupied. CONDITION 3 – HEADSET or AUDIO CONTROL SYSTEM Seat may be occupied if the Pilot In Command determines that the flight can be accomplished safely. CONDITION 4 - LIGHTS Seat may be occupied if the Pilot In Command determines that the flight can be accomplished safely.	Inoperative Forward Observer Seat must be placarded in the flight compartment.

Cont'd…

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25	**EQUIPMENT/FURNISHINGS**							
10-1	Forward Observer Seat (Including Associated Equipment) **Continued…**							
		A	1	0	May be inoperative provided; a) Required minimum safety equipment (safety belt and oxygen) is available, b) Seat is acceptable to the FAA inspector for the performance of official duties, and c) Repairs are made within two flight days. **NOTE 1**: These provisos are intended to provide for occupancy of the above seat 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. **Flight Crew Deferral Permitted**			Inoperative Forward Observer Seat must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
25	**EQUIPMENT/FURNISHINGS**							
10-2	Pilots' Seat							
	1) Vertical Adjustment	C	2	0	(M) Adjustment in a vertical mode may be inoperative provided: a) Seat is secured at the individual Crewmember's requirements, and b) Fore-aft adjustment operates normally.	1. Vertical adjustment metering pins are spring loaded to engage and lock in metering holes in vertical seat tubes. To adjust seat, manually unseat metering pins and position seat to desired height. Vertical adjustment metering pins will engage in vertical seat tubes and lock. 2. Have Crewmember sit in seat and adjust fore or aft to desired position. 3. Repeat steps (1) and (2) as required to achieve desired seat adjustment.		Inoperative Pilot's seat must be placarded in the Flight Compartment.
	2) Armrest	C	4	0	(M) May be inoperative provided armrest is removed.	Remove inoperative armrest from seat.		Inoperative Pilot's seat must be placarded in the Flight Compartment.
	3) Lumbar Support	C	2	0	May be inoperative in the lowest position provided seat is acceptable to the affected Crewmember. **Flight Crew Deferral Permitted**			Inoperative Pilot's seat must be placarded in the Flight Compartment.
	4) Lumbar Support Padding	D	2	0	May be worn or damaged if acceptable to the affected Crewmember. **Flight Crew Deferral Permitted**			Inoperative Pilot's seat must be placarded in the Flight Compartment.

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25 Cont'd…	**EQUIPMENT/FURNISHINGS**							
10-2	Pilots' Seat **Continued…**							
	5) Recline Mechanism	B	2	0	(M) May be inoperative provided backrest is secured in a position acceptable to the affected Crewmember.	1. Recline adjustment metering pins are spring loaded to engage and lock in metering holes. To adjust backrest of seat, manually unseat pins and adjust to desired angle of recline. Recline adjustment metering pins will lock in place. 2. Have Crewmember sit in seat and adjust desired angle of recline. 3. Repeat steps (1) and (2) as required to achieve desired seat adjustment		Inoperative Pilot's seat must be placarded in the Flight Compartment.
10-3	Pilot Seat Heaters (if installed)	D	2	0	(M) May be inoperative provided the affected heaters are deactivated. **Flight Crew Deferral Permitted**	Open and collar the Right Secondary Bus circuit breaker "SEAT HTRS FLT CREW" on the Right DC Circuit Breaker Panel.		Placard Pilot and Co-pilot seat "SEAT HEATER INOP" in the flight compartment.

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25	**EQUIPMENT/FURNISHINGS**							
10-4	Flightdeck Sun Visors	C	-	0	May be inoperative provided: a) Affected sun visor does not obstruct either Pilot's field of view for takeoff and landing, and b) Inoperative sun visor is acceptable for flight conditions to the operation Flight Crew. **Flight Crew Deferral Permitted**			Inoperative Flight Deck Sun Visor should be placarded.
		C	-	0	(M) May be inoperative provided: a) Affected Sun Visor is removed, and b) Removal of inoperative sun visor is acceptable for flight conditions to the operating Flight Crew.	Remove inoperative Sun Visor assembly by giving support to the Sun Visor assembly, removing the screws and washers and the Sun Visor assembly.		Inoperative Flight Deck Sun Visor should be placarded.
20-1	Non-Essential Equipment & Furnishings (NEF)	-	-	0	(O) May be inoperative; damaged or missing provided that the items(s) is deferred in accordance with the operator's NEF deferral program. The NEF program, procedures and processes are outlined in the operator's manual. (M) and (O) procedures, if required must be available to the Flight Crew and included in the operator's appropriate document. NOTE: Exterior lavatory door ashtrays are not considered NEF items.		Refer to Non-Essential Equipment and Furnishing List (NEF) Chapter at the end of this manual for (M) and (O) procedures.	

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25	**EQUIPMENT/FURNISHINGS**							
20-2	Overhead Stowage Bin(s) Cabin and Galley Storage Compartments/Closets	C	-	-	(M) (O) May be inoperative provided: a) Procedures are established to secure compartment/Closets CLOSED, b) Associated bin or compartment is prominently placed DO NOT USE, c) Any emergency equipment located in affected compartment is considered inoperative, and d) Affected compartment is not used for storage of any item(s) except for those permanently affixed. **NOTE 1:** For overhead storage compartments, if no partitions are installed, the entire overhead storage compartment is considered one compartment. **NOTE 2:** Any emergency equipment located in the associated compartment (permanently affixed) is available for use. **Flight Crew Deferral Permitted**	Ensure storage bin is empty other than those items permanently affixed and secure bin lid in closed position.	The Captain will brief the Flight Attendants on affected bin or compartment and instruct them to brief passengers not to use.	Associated bin or compartment is prominently placarded DO NOT USE.

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25	**EQUIPMENT/FURNISHINGS**							
20-4	Flight Attendant Seat Assembly							
	1) Required Flight Attendant Seats	B	2	1	(M)(O) One seat position or assembly may be inoperative provided: a) The affected seat position or seat assembly is not occupied, b) Flight Attendant(s) displaced by inoperative seat(s) occupies either an adjacent Flight Attendant seat or the passenger seat which is 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 stows automatically or is secured in the retracted position, and e) Passenger Seat assigned to Flight Attendant is placarded "FOR FLIGHT ATTENDANT ONLY".	Folding Flight Attendant's Seat must be secured in the retracted (up) position. **NOTE:** If the seat pan can not be secured in the retracted position, it must be removed (refer to Chapter 25, Section 22 of the Aircraft Maintenance Manual PSM 1-84-2).	If forward Flight Attendant seat is inoperative, "A" Flight Attendant will occupy seat 1B. If aft Flight Attendant seat is inoperative, "B" Flight Attendant will occupy seat 20B.	Inoperative Flight Attendant Seat must be placarded.

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25	**EQUIPMENT/FURNISHINGS**							
Cont'd… 20-4	Flight Attendant Seat Assembly 1) Required Flight Attendant Seats **Continued…**				**Continued…** **NOTES** 1. An automatic folding seat that will not stow automatically is considered inoperative. 2. A seat position with an inoperative or missing restraint system is considered inoperative. 3. 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 FAR are met. 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.			

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25	**EQUIPMENT/FURNISHINGS**							
20-5	Passenger Seats	C	-	0	(O)May be inoperative provided: a) Seat does not block an Emergency Exit, b) Seat does not restrict any passenger from access to the main aircraft aisle, and c) The affected seat(s) are blocked and placard "DO NOT OCCUPY". **NOTE 1:** A seat with an inoperative seat belt is considered inoperative. **NOTE 2**: Inoperative seat(s) 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. **Flight Crew Deferral Permitted**		1. Block off inoperative passenger seat if it can not be secured in an upright position, in order to prohibit its use. This may necessitate blocking off a seat row if passenger access to main aircraft aisle is restricted. 2. If Fire Blocking is torn or damaged affected seat cushion must be removed from aircraft.	Inoperative Passenger Seat(s) must be placarded DO NOT OCCUPY.
Cont'd…	1) Recline Mechanism	D	-	0	(M) May be inoperative and seat occupied provided the seat is secured in the full upright position.	Maintenance must be dispatched to lock seat in upright position.		Inoperative Passenger Seat(s) must be placarded.

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25	**EQUIPMENT/FURNISHINGS**							
20-5	Passenger Seats **Continued…**							
	2) Arm Rests a) Armrest with Recline Mechanism	D	-	0	(M) (O) May be inoperative or missing and seat occupied provided: a) Arm rest does not block an Emergency Exit b) Armrest does not restrict any passenger from access to the main aircraft aisle, and c) If armrest is missing, seat is secured in the full upright position	Maintenance must be dispatched to lock seat in upright position.	Prior to departure, "A" Flight Attendant will ensure effected seat's arm rest does not block an emergency exit and will not restrict any passenger from access to main aisle.	Inoperative Passenger Seat(s) must be placarded.
	b) Armrest without Recline Mechanism	D	-	-	May be inoperative or missing and seat occupied provided: a) Arm rest does not block an Emergency Exit b) Armrest does not restrict any passenger from access to the main aircraft aisle, and **Flight Crew Deferral Permitted**		Prior to departure, "A" Flight Attendant will ensure effected seat's arm rest does not block an emergency exit and will not restrict any passenger from access to main aisle.	Inoperative Passenger Seat(s) must be placarded.
20-6	"Fasten Seat Belt While Seated" and "No Smoking" Placards	C	-	0	One or more signs or placards may be illegible or missing provided a legible sign or placard is visible from each passenger seat. **Flight Crew Deferral Permitted**			Placard inoperative light.

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25	**EQUIPMENT/FURNISHINGS**							
20-7	Flight Attendant Seat Heaters (If Installed)	D	2	0	(M) May be inoperative provided the affected Heaters are deactivated..	1.) Open and clip the Left Secondary Bus circuit breaker "FLT/ATT SEAT HTRS" on the Left DC Circuit Breaker. 2). Placard affected Flight Attendant Seats with "SEAT HEATER INOP".		Placard affected Flight Attendant Seats with "SEAT HEATER INOP".
20-8	Flight Attendant Reading Light	C	2	0	(O) May be inoperative provided a suitable alternate light source is available. **Flight Crew Deferral Permitted**		Flight Attendant will notify the Captain of the inoperative light. Captain must verify Flight Attendant flashlight suitable for reading.	Placard appropriate Reading Light Switch.
20-9	Lavatory "No Smoking" Placard	C	-	0	May be missing or be illegible. **Flight Crew Deferral Permitted**			Placard in flight compartment or Flight Attendant Control Panel.
20-10	Passenger Service Unit (PSU)	C	-	0	(M) Passenger seats from which "No Smoking/Fasten Seat Belt" light is not readily legible shall not be occupied and must be blocked and placarded "DO NOT OCCUPY". **Flight Crew Deferral Permitted**	Block each seat in the passenger compartment from which an operative "No Smoking/Fasten Seat Belt" sign is not readily legible and placard the affected seat(s) "DO NOT OCCUPY".		Inoperative Passenger Service Unit must be placarded in the flight and passenger compartments.
		C	-	0	(O) The affected seat(s) may be occupied provided: a) The Crew Cabin Interphone System, Cabin Chime System and Passenger Address System are operative, and b) Procedures are established and used to alert and notify affected passengers when seat belts should be fastened and smoking prohibited. **Flight Crew Deferral Permitted**		Prior to departure a NO SMOKING announcement for entire flight will be made. Flight Attendant A will verify Crew cabin interphone system, cabin chime system and passenger address system operates normally. Each time the Flight Crew extinguishes or illuminates fasten seat belt sign, "A" Flight Attendant will ensure applicable passengers are notified.	Inoperative Passenger Service Unit must be placarded in the flight and passenger compartments.

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25	**EQUIPMENT/FURNISHINGS**							
20-11	Passenger Seats Baggage Restraining Bars	C	-	0	(O) May be inoperative provided: a) Baggage is not stowed under the seats with inoperative restraining bar, b) Associated seat is placarded "DO NOT STOW BAGGAGE UNDER THIS SEAT", and c) Procedures established to alert Cabin Crew of inoperative restraining bar. **Flight Crew Deferral Permitted**		The captain will brief Flight Attendants on inoperative restraining bar prior to each departure. Flight attendants will ensure no baggage is stowed under effected seat(s).	Place on seat back "Do not place baggage under seat"
40-1	Exterior Lavatory Door Ashtrays							
	1) Airplanes With More Than One Exterior Lavatory Door Ashtray Installed				Not installed on MJC8-Q400 aircraft.			
	2) Airplanes With Only One Exterior Lavatory Door Ashtray Installed	A	1	0	May be missing provided it is replaced within 3 calendar days. **Flight Crew Deferral Permitted**			Placard appropriate side of lavatory door indicating missing ashtray.

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25	**EQUIPMENT/FURNISHINGS**							
60-1	Emergency Locator Transmitter (ELT)							
	Fixed ELT	A	1	0	(M) May be inoperative provided: a) System is deactivated, and, b) Repairs are made within 90 days	Enter in the Flight Log the date of deactivation or initial removal, the make model, and serial number, and reason for deactivation or removal of the ELT.		Below or adjacent to captain's vertical speed indicator a placard is located in view of the captain that states, "ELT NOT INSTALLED"
		A	1	0	(M) May be missing provided repairs are made within 90 days.	Enter in the Flight Log the date of deactivation or initial removal, the make model, and serial number, and reason for deactivation or removal of the ELT.		Below or adjacent to captain's vertical speed indicator a placard is located in view of the captain that states, "ELT NOT INSTALLED"

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25	**EQUIPMENT/FURNISHINGS**							
60-2	First Aid Kit and/or Associated Equipment	A	2	1	(O) FAR 121.803 and 121.A require 2 FAKs for aircraft with 51-150 passenger seats. Only one of the required FAKs may be incomplete 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 1 flight. **Flight Crew Deferral Permitted**		Flight Crew to placard "NOT A FULLY SERVICEABLE UNIT."	On outside of FAK..
60-3 **Cont'd…**	Emergency Medical Equipment 1) Automated External Defibrillator (AED) and/or Associated Equipment	A	1	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 or replacements are made within 3 flights. **Flight Crew Deferral Permitted**		Flight Crew to placard "NOT A FULLY SERVICEABLE UNIT."	On outside of AED.

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25	**EQUIPMENT/FURNISHINGS**							
60-3	Emergency Medical Equipment **Continued…**							
	2) Emergency Medical Kit (EMK) and/or Associated Equipment	A	1	0	(O) May be incomplete, missing or inoperative provided: a) EMK 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 1 flight. **Flight Crew Deferral Permitted**		Flight Crew to placard "NOT A FULLY SERVICEABLE UNIT."	On outside of EMK.
	3) First Aid Kit (FAK) and/or Associated Equipment	A	2	1	(O) 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 1 flight. **Flight Crew Deferral Permitted**		Flight Crew to placard "NOT A FULLY SERVICEABLE UNIT."	On outside of FAK.

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25	**EQUIPMENT/FURNISHINGS**							
60-4	Flight Attendant Flashlights							
	1) Flashlights	C	2	0	(O) May be inoperative or missing provided the Flight Attendant assigned to the associated seat has a flashlight of equivalent characteristics readily available. **Flight Crew Deferral Permitted**		The captain will verify that the Flight Attendant stationed at the effected station has a flashlight of equivalent characteristics readily available.	Placard inoperative flashlight holder.
	2) Flashlight Holders	C	2	0	(M)(O) May be inoperative or missing provided alternate stowage provisions are provided. **Flight Crew Deferral Permitted**	Each Flight Attendant station has stowage container under seat.	Each Flight Attendant station has stowage container under seat.	Placard inoperative flashlight holder.
60-5	Galley Waste Receptacles Access Doors/Covers	C	-	0	(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 waste receptacles are available to accommodate all waste that may be generated on a flight.	Tape the surrounding areas of the Waste Receptacle flap and door to secure it closed.	Flight Attendant will ensure sufficient galley waste receptacles are available to accommodate all waste that may be generated on a flight.	Inoperative Galley Waste Receptacles Access Doors / Covers must be placarded in the flight compartment.

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25	**EQUIPMENT/FURNISHINGS**							
60-6	Flight deck Flashlights/ Flashlight Holders							
	1) Flashlights	C	2	0	(O) May be inoperative or missing provided that a flashlight of equivalent characteristics is readily available. **Flight Crew Deferral Permitted**		Each Pilot will ensure affected station he/she has a flashlight of equivalent characteristics. The flashlight must be readily available, stowed along side the Pilot seat.	Placard inoperative flashlight holder.
	2) Flashlight Holders	C	2	0	(O)(M) May be inoperative or missing provided alternate stowage provisions are provided. **Flight Crew Deferral Permitted**	1. Affected flashlight will be placed on right side upper stowage shelf area. 2. Placard normal stowage location with direction to alternate stowage location.	Affected flashlight will be placed on right side upper stowage shelf area and placarded appropriately.	Placard inoperative flashlight holder.

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25	**EQUIPMENT/FURNISHINGS**							
60-7	Airstair Door Ditching Dam	C	1	0	(M) May be inoperative provided: a) The ditching dam is secured in the stowed position, and b) Aircraft must not be dispatched for over water flights including takeoff and landing.	1. Verify that Ditching Dam is in stowed position. 2. Using appropriate tape, tape the following sides of ditching dam to the surrounding interior: a) The full length of upper edge. b) One half of left and right edge. 3. Tape over Ditching Dam Handle. 4. Ensure DITCHING DAM INOPERATIVE placards are posted in the following areas: a) Pilot glareshield panel. b) Ditching Dam.		Inoperative Airstair door Ditching Dam and flight compartment must be placarded.

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25	**EQUIPMENT/FURNISHINGS**							
60-8	Flotation Equipment (Crew and Passenger)	C	-	0				
	Infant Flotation Equipment	C	4	0	(O) May be missing. **Flight Crew Deferral Permitted**		The Captain will brief the Flight Attendants on the number of missing infant life vests. The Flight Attendants will ensure that there are not more infants onboard than infant life vests. Refer to the Flight Attendant Manual, Chapter 7, Infant Life Vest and Briefing.	Placard storage compartment to identify missing vest.
60-9	Automated External Defibrillator (AED)							

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26	**FIRE PROTECTION**							
10-1	Lavatory Smoke Detection System	C	1	0	(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. **NOTES** **1.** These provisos are not intended to prohibit lavatory use or inspection by Crewmembers. **Flight Crew Deferral Permitted**	1. Ensure lavatory waste receptacle is empty. 2. Lock lavatory door by inserting a pen or similar object in the hole located on the door slide latch and sliding it to the locked position.	Captain will brief Flight Attendant A that he/she must periodically inspect the lavatory regularly at intervals not exceeding 30 minutes. Operations over Mountainous Terrain Are prohibited.	1. Inoperative Lavatory Smoke Detection System must be placarded in the flight compartment. 2. Placard lavatory door "INOPERATIVE DO NOT ENTER".
10-2	Aft Baggage Compartment Smoke Detectors	C	2	1	(M) (O) May be inoperative provided: a) Affected smoke detector is deactivated, b) Inlet and outlet valve are deactivated in closed position, c) VENT VALVE INLT and VENT VALVE OUTLT CLOSED advisory lights are verified illuminated prior to each flight, and d) Live animals are not carried.	1. Pull the appropriate circuit breakers on the R Main Bus for inoperative smoke detectors as follows: a) LAV/CGO1 if forward installed smoke detector is inoperative. b) BAG/CGO2 if aft installed smoke detector is inoperative. 2. Disconnect, tape and stow electrical connector from affected smoke detector on unit. 3. Reset circuit breaker: a) LAV/CGO1 for forward installed smoke detector. b) BAG/CGO2 for aft installed smoke detector.	Flight Crew to ensure that no live animals are carried.	Inoperative Baggage Compartment Smoke Detector and deactivated aft Baggage Compartment Vent Valves must be placarded in the flight compartment.
Cont'd…						**Continued…**		

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26	**FIRE PROTECTION**							
10-2	Aft Baggage Compartment Smoke Detectors **Continued…**					4. On the R Main Bus pull and collar circuit breaker CGO VENT VALVES. 5. On the Fire Protection Panel verify VENT VALVE INLT and VENT VALVE OUTLT CLOSED advisory lights are illuminated.		

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26	**FIRE PROTECTION**							

10-3	Forward Baggage Compartment Smoke Detector	C	1	0	(M) (O) May be inoperative provided: a) Procedures are established and used to ensure the compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), or Fly Away Kits, and b) Smoke detector is deactivated if a continuous or intermittent SMOKE warning light is illuminated on the Caution/Warning Panel.	**NOTE**: If a continuous or intermittent Smoke warning light is illuminated on the Caution/Warning Panel, follow the procedure specified below. 1. Pull circuit breaker BAG/CGO2 on the Right Essential Bus. 2. Disconnect, tape and stow connector at the forward baggage compartment smoke detector. 3. Reset circuit breaker BAG/CGO2 on the Right Essential Bus. **NOTE**: If SMOKE warning light will not test for the forward baggage compartment placard the inoperative forward baggage compartment smoke detector in the flight compartment.	The Flight Crew will brief ramp personnel to ensure the compartment remains empty, or is verified to contain only empty cargo handling equipment, and/or approved ballast materials.	Inoperative Baggage Compartment Smoke Detectors must be placarded in the flight compartment.
10-4	APU Fire Detection System	D	1	0	(M) May be inoperative provided: a) The APU fuel shut-off valve is verified closed, and b) The APU is considered inoperative and is not used.	1. Turn all aircraft electrical power off. 2. Gain access to the APU Compartment Advance Pneumatic Detector (APD) through the APU access door 312AL. 3. Disconnect the electrical connector (2600-P26) from the APD. 4. Using a jumper pin assembly, jumper pins C & D of 2600-P26.		Inoperative APU Fire Detection System must be placarded in the flight compartment.

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26	**FIRE PROTECTION**							
Cont'd… 10-4	APU Fire Detection System **Continued…**					**Continued…** 5. Tape and stow electrical connector. 6. Cap connector 2600-J12 on the APD. 7. Apply DC power to aircraft buses. 8. Ensure the "CHECK FIRE DET" warning light has been extinguished in the cockpit. 9. Ensure APU POWER switchlight is selected off at overhead APU Control Panel. 10. Verify that APU FUEL VALVE annunciator light indicates CLOSED (white) on the APU Fire Protection Panel. 11. If the APU FUEL VALVE (APU fuel shut-off valve) annunciator light indicates OPEN (green) or both APU FUEL VALVE OPEN (green) and CLOSED (white) are extinguished on the APU Fire Protection Panel to verify that APU fuel shut-off valve is closed, use the following procedure: a) Pull and collar L ESS BUS circuit breaker APU FUEL SOV/IND. b) Attempt to start APU. If APU fails to start, then APU FUEL VALVE is closed.		

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26	**FIRE PROTECTION**							
Cont'd… 10-4	APU Fire Detection System **Continued…**					**Continued…** **NOTE:** The APU may spin up momentarily, until residual fuel in the manifold is consumed. Also, the APU FADEC may log a fault for the uncommanded shutdown/ unsuccessful start. 12. Remove DC power from aircraft buses.		
20-1	APU Fire Extinguishing	D	1	0	(M) May be inoperative provided the APU is considered inoperative and is not used.	1. Turn all aircraft electrical power off. 2. Gain access to the APU fire-extinguishing bottle through access door 311 AB. 3. Disconnect the electrical connector (2600-P12) from the pressure-switch gauge. 4. Using a jumper pin assembly, jumper pins A & B of 2600-P12. 5. Tape and stow connector. 6. Cap connector 2600-J12 on fire bottle. 7. Apply power to aircraft DC electrical bus system. 8. Ensure the "CHECK FIRE DET" warning light has been extinguished in the cockpit. 9. Ensure APU POWER switchlight is selected off at overhead APU		Inoperative APU Fire Extinguishing System must be placarded in the flight compartment.

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26	**FIRE PROTECTION**							
Cont'd… 20-1	APU Fire Extinguishing **Continued…**					Control Panel. **Continued…** 10. Verify that APU FUEL VALVE annunciator light indicates CLOSED (white) on the APU Fire Protection Panel. 11. If APU FUEL VALVE annunciator light indicates OPEN (green) or both OPEN (green) and CLOSED (white) annunciators are extinguished, use the following procedure to confirm that the valve has closed: a) Apply DC power to aircraft buses. b) Pull and collar circuit breaker "APU FUEL SOV/IND" on Left Main 28 VDC Circuit Breaker Panel. c) Attempt to start APU. If APU fails to start, then the APU fuel shut-off valve is closed. **NOTE:** The APU may spin up momentarily, until residual fuel in the manifold is consumed. Also, the APU FADEC may log a fault for the uncommanded shutdown/ unsuccessful start.		

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26	**FIRE PROTECTION**							
20-2	Lavatory Fire Extinguishing System	C	1	0	(M) For each lavatory, the lavatory fire extinguishing system may be inoperative provided the lavatory smoke detection system operates normally.	1. Apply power to DC ESSENTIAL buses. 2. Ensure LAV/CGO1 circuit breaker on R ESSENTIAL bus is closed. Check that the green indicator light on the lavatory smoke detector illuminates. 3. Push and hold the Lavatory Smoke Detector Self Test Switch and observe the following: a) Audible warning sounds from smoke detector. b) A single "ping" on the PA chime. c) Red warning lamps illuminates on the overhead repeater lights and on the smoke detector. 4. Push and release the interrupt switch on the detector and observe the following: a) Audible warning from the detector stops. b) Red repeater lights and warning light on the Flight Attendant's panel extinguish. c) Red warning lamp on the detector remains illuminated. 5. Release the self-test switch and ensure the red warning lamp extinguishes.		Inoperative Lavatory Fire Extinguisher must be placarded in the lavatory and in the flight compartment.
Cont'd…						**Continued…**		

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26	**FIRE PROTECTION**							
						6. Remove the DC power from the essential buses.		
20-2	Lavatory Fire Extinguishing System **Continued…**	C	1	0	(M)(O) For each lavatory, the lavatory fire extinguishing system may be inoperative provided: a) Lavatory waste receptacle is empty, b) The lavatory door is locked closed and placarded "INOPERATIVE-DO NOT ENTER", and c) The lavatory is used only by Crewmembers. **NOTE 1**: These provisos are not intended to prohibit lavatory use or inspection by Crewmembers. **NOTE 2**: Lavatory smoke detection system is not required for all-cargo operations.	1. Ensure lavatory waste receptacle is empty. 2. Lock lavatory door by inserting a pen or similar object in the hole located on the door slide latch and sliding it to the locked position.	Crewmember to periodically inspect the lavatory at intervals not exceeding 30 minutes.	1. Inoperative Lavatory Fire Extinguisher must be placarded in the flight compartment. 2. Placard lavatory door "INOPERATIVE - DO NOT USE".
20-4 1) Low Rate Discharge Bottle (LRD) **Cont'd…**	Baggage Compartment Fire Extinguishers	C	1	0	(M) May be inoperative provided the forward and aft baggage compartments are empty. **NOTE**: Does not preclude the carriage of empty cargo containers, pallets, ballast, etc.	Placard both FWD and AFT baggage doors as "This compartment to remain empty"		Placard Fire Protection Panel in the flight compartment.

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26	**FIRE PROTECTION**							
20-4	Baggage Compartment Fire Extinguishers **Continued…**							
	2) High Rate Discharge Bottle (HRD)	C	2	0	(M) May be inoperative provided the associated baggage compartment is empty. **NOTE**: Does not preclude the carriage of empty cargo containers, pallets, ballast, etc.	Placard associated baggage door(s) as "This compartment to remain empty"		Placard Fire Protection Panel in the flight compartment.

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27	**FLIGHT CONTROLS**							
10-1	AIL TRIM Indicator	C	1	0	(M) May be inoperative provided, prior to each flight, the aileron trim is: a) Visually checked for full, free and correct movement, and b) Confirmed neutral.	1. Ensure areas in vicinity of ailerons are clear of obstacles and engines are not running. 2. Apply electrical power to essential DC bus system. 3. Ensure gust lock is not engaged. 4. Position an observer at left aileron and ensure left aileron has full and free movement as follows: a) At flight instrument center console aileron trim panel, press and hold aileron trim switch in LWD position and ensure left aileron is deflected up as noted by the observer. b) Press and hold trim switch in RWD position and ensure left aileron is deflected down as noted by the observer. c) Press and hold trim switch in LWD position until the left aileron is returned to neutral position as noted by the observer and the control wheels are in the laterally neutral position which indicates centered lateral trim. 5. Remove electrical power from DC essential buses.		Placard inoperative Aileron Trim Indicator in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
20-1	RUDDER TRIM Indicator	B	1	0	(O) May be inoperative provided, prior to each take-off, the rudder trim is: a) Visually checked for full, free and correct movement as indicated on the PFCS indicator, and b) Selected to neutral. **Flight Crew Deferral Permitted**		1. Apply DC power to the aircraft. 2. Pressurize #1 and #2 hydraulic systems using: a) AC Power, STBY HYD Pump ON, PTU Control ON. b) Start Engines. 3. Ensure that the Rudder Trim switch is in the neutral (center) position and verify rudder neutral position on the PFCS. 4. Confirm that when the rudder pedals are centered, the PFCS rudder indication also indicates centered. 5. Select Rudder Trim switch to full left and right and check for free and correct movement as indicated on the PFCS.	Placard inoperative Rudder Trim Indicator in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
20-2	Rudder Pedal Adjustment	C	2	0	(M)(O) May be inoperative provided rudder pedals can be secured in a position which meets individual Pilot requirements.	1. Turn the rudder adjustment handle, ensure the pedal adjustment shaft does not move forward or back. 2. Push and pull pedal, make sure the pedal does not move forward or back. 3. Open Access Panel 122AR or 121AL (as appropriate). 4. Visually inspect the rudder pedal adjustment lever and rudder input mechanism for condition and security. 5. Close the access panel. 6. Step on the rudder pedal; visually confirm that the rudder moves according to pedal's movement and no forth and back movement of the adjustment mechanism. 7. Adjust an appropriate position through Pilot seat adjustment.	Operate both rudder pedals to ensure that the adjustment mechanism is not free to move and that the rudder pedals are in a position which meets Pilot requirements.	Inoperative rudder pedal adjustment must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
30-1	AUTO PITCH TRIM FAIL	A	1	0	(M)(O) May be inoperative provided: a) Flap angles are limited to 15 degrees or less, and b) Repairs are made within one flight day. **Flight Crew Deferral Permitted**	1. Placard Auto Pitch Trim "INOP" on the glareshield.	Ensure landing distances are factored for maximum flaps 15 degrees as per the Performance Manual	Inoperative Auto Pitch Trim must be placarded in the flight compartment.
30-2	Stick Shaker	A	2	1	(M) (O) May be inoperative provided: a) The affected stick shaker is deactivated, b) The unaffected stick shaker is tested before each flight, c) Flight is not conducted into known or forecast icing conditions, and d) Repairs are made within two flight days. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	Tape and stow electrical connector of affected stick shaker.	Perform stall warning test of unaffected side prior to every flight.	The inoperative stick shaker must be placarded in the flight compartment.

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SYS/SEQ NUMBERS	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
30-4	Stall Warning System	A	2	1	(M)(O) May be inoperative provided: a) Affected Stall Warning System is deactivated, b) Stick Pusher is deactivated, c) Unaffected Stall Warning System is verified operative before each departure, d) Flight is not conducted into known or forecast icing conditions, e) Flight is conducted in accordance with Abnormal and Emergency Manual "OPERATION WITH ONE INOPERATIVE STALL WARNING AND/OR STICK PUSHER SYSTEM", and f) Repairs are made within two flight days. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	1. Pull and collar the STICK PUSHER circuit breakers on the avionics circuit breaker panel. 2. If #2 system is affected, pull and collar the circuit breaker for SPM 2 on the avionics circuit breaker panel. 3. If #1 system is affected, pulling the circuit breaker for SPM 1 on the avionics circuit breaker panel, will also cause the GPWS/EGPWS to be inoperative, and should be avoided if possible. (It is permissible to swap SPMs to ensure SPM 1 remains operational). 4. If SPM 1 CB is pulled, open an MEL item for the GPWS/ EGPWS IAW 34-40-4.	1. The Flight Crew will test unaffected stall warning by selecting STALL WARN TEST switch – Test 1 or Test 2 and observing correct indications. This test must be performed prior to each departure. 2. Operations are conducted in accordance with Abnormal and Emergency Manual "OPERATION WITH ONE INOPERATIVE STALL WARNING AND/OR STICK PUSHER SYSTEM".	Inoperative Stall Warning and Stick Pusher Systems must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
30-5	Stick Pusher System	A	1	0	(M)(O) May be inoperative provided: a) Stick Pusher is deactivated, b) Flight is not conducted into known or forecast icing conditions, c) Flight is conducted in accordance with AFM Supplement 11 "OPERATION WITH ONE INOPERATIVE STALL WARNING AND/OR STICK PUSHER SYSTEM", and d) Repairs are made within two flight days. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	1. Pull and collar the STICK PUSHER circuit breakers on the avionics circuit breaker panel. 2. Apply electrical power adequate to support the MAIN busses and confirm via the ESID Electrical Page indication that both DC Main busses are powered. 3. Ensure the aircraft is in weight-on-wheels mode. 4. At the Pilot's side console, select the STALL WARN switch to TEST 1 and then confirm Pilot's stick shaker operates and the #1 STALL SYST FAIL Caution light is not illuminated following the test. 5. Select the STALL WARN switch to TEST 2 and then confirm Co-pilot's stick shaker operates and the #2 STALL SYST FAIL Caution light is not illuminated following the test. Release the test switch. 6. Switch off supplied DC power.	Operations are conducted in accordance with the Abnormal and Emergency Manual "OPERATION WITH ONE INOPERATIVE STALL WARNING AND/OR STICK PUSHER SYSTEM".	Inoperative Stick Pusher System must be placarded in the flight compartment.

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27	**FLIGHT CONTROLS**							
30-6	#1 STALL SYST FAIL, #2 STALL SYST FAIL Caution Lights	A	2	0	(M) May be inoperative ON provided: a) It is confirmed that the illumination of the #1 and #2 STALL SYST FAIL caution lights occurred only on ground, b) The aircraft is dispatched in accordance with the applicable proviso(s) below, and c) Repairs are made within two flight days.	**All Cases At Time of Deferral:** 1. At the Central Maintenance Panel above the wardrobe shelf, select the CDS GND MAINT switch to the CDS position and confirm that the adjacent amber LED illuminates. 2. In the cockpit, at one of the ARCDUs, select the MAINT pushbutton and observe that the CDS MAIN MENU page is displayed. 3. Select the AVIONICS menu icon, then SYST REPORT TEST icon, and locate the SPMs. 4. Confirm reason(s) for SPM annunciating the respective STALL # SYST FAIL caution lights is due to "ADU1" and "ADU2", or "NO DATA FROM FADEC1" and "NO DATA FROM FADEC2", or "FPIU" or "STICK SHAKER" only. 5. Deselect CDS switch on Central Maintenance Panel.		Inoperative system leading to illumination of the # STALL SYST FAIL caution light, must be placarded in the flight compartment.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
30-6 **Cont'd…**	#1 STALL SYST FAIL, #2 STALL SYST FAIL Caution Lights **Continued…** 1) "ADU1" and "ADU2" on CDS	A	2	0	(M)(O) May be dispatched with the #1 STALL SYST FAIL and #2 STALL SYST FAIL caution lights ON provided: a) It is confirmed that the illumination of the #1 and #2 STALL SYST FAIL caution lights occurred only on ground, b) The stick pusher is de-activated, c) Flight is not conducted into known or forecast icing conditions, d) Flights are conducted in accordance with AFM Supplement 11 "OPERATION WITH ONE INOPERATIVE STALL WARNING AND/OR STICK PUSHER SYSTEM", and e) Repairs are made within two flight days. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	1. If the CDS has already been interrogated, and the cause of the fault has been identified as "ADU1" and "ADU2" proceed with step 2. If not, follow procedures for "All Cases at Time of Deferral" above before proceeding to step 2 of this procedure. 2. Pull and collar both Stick Pusher circuit breakers on the avionics circuit breaker panel. 3. Ensure the aircraft is in weight on wheel mode. 4. At the Pilot's side console, select the STALL WARN switch to TEST 1 and confirm that the Pilot's stick shaker operates. 5. Select STALL WARN switch to TEST 2 and confirm the Co-pilot's stick shaker operates. Release the test switch. 6. Switch off supplied DC power.	Operations are conducted in accordance with Abnormal and Emergency Manual "OPERATION WITH ONE INOPERATIVE STALL WARNING AND/OR STICK PUSHER SYSTEM".	Inoperative system leading to illumination of the # STALL SYST FAIL caution light, must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
30-6	#1 STALL SYST FAIL, #2 STALL SYST FAIL Caution Lights **Continued…**							
	2) "NO DATA FROM FADEC1" and "NO DATA FROM FADEC 2" on CDS	A	2	0	(M) May be dispatched with the #1 STALL SYST FAIL and #2 STALL SYST FAIL caution lights ON provided: a) It is confirmed that the illumination of the #1 and #2 STALL SYST FAIL caution lights occurred only on ground, b) Prior to each flight the Centralized Diagnostic System must be interrogated for the affected SPM to ensure that the PROPELLER DE-ICE failure is not indicated, and c) Repairs are made within two flight days.	**At Time of Deferral** 1. If the CDS has already been interrogated, and the cause of the fault has been identified as "NO DATA FROM FADEC1" and "NO DATA FROM FADEC2" proceed with step 2. If not, follow procedures for "All Cases at Time of Deferral" above before proceeding to step 2 of this procedure. **Prior to each Flight** 1. At the Central Maintenance Panel above the wardrobe shelf, select the CDS GND MAINT switch to the CDS position and confirm that the adjacent amber LED illuminates. 2. In the cockpit, at one of the ARCDUs, select the MAINT pushbutton and observe that the CDS MAIN MENU page displays. 3. Select the AVIONICS menu icon, then SYST REPORT TEST icon, and locate the SPMs. **Continued…**		Inoperative system leading to illumination of the # STALL SYST FAIL caution light, must be placarded in the flight compartment.
Cont'd…								

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27	**FLIGHT CONTROLS**							
30-6	#1 STALL SYST FAIL, #2 STALL SYST FAIL Caution Lights **Continued…** 2) "NO DATA FROM FADEC1" and "NO DATA FROM FADEC 2" on CDS **Continued…**					4. Confirm reason(s) for SPM annunciating the respective STALL # SYST FAIL caution light and ensure that failure shown is for NO DATA FROM FADEC only. Ensure that PROPELLER DE-ICE is not listed as a failure in the CDS. 5. Deselect CDS switch on Central Maintenance Panel.		
Cont'd…	3) "FPIU" on CDS	A	1	0	(M) May be dispatched with the #1 STALL SYST FAIL and #2 STALL SYST FAIL caution lights ON provided: a) It is confirmed that the illumination of the #1 and #2 STALL SYST FAIL caution lights occurred only on ground, b) Prior to each flight the Centralized Diagnostic System must be interrogated for the affected SPM to ensure that the PROPELLER DE-ICE failure is not indicated, c) Use of flaps limited to a maximum of 15°, d) Aircraft is not dispatched into known or forecast icing conditions, and e) Repairs are made within two flight days.	**All Cases At Time of Deferral:** 1. At the Central Maintenance Panel above the wardrobe shelf, select the CDS GND MAINT switch to the CDS position and confirm that the adjacent amber LED illuminates. 2. In the cockpit, at one of the ARCDUs, select the MAINT pushbutton and observe that the CDS MAIN MENU page displays. 3. Select the AVIONICS menu icon, then SYST REPORT TEST icon, and locate the SPMs. **Continued…**		Inoperative system leading to illumination of the # STALL SYST FAIL caution light, must be placarded in the flight compartment.

SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
30-6	#1 STALL SYST FAIL, #2 STALL SYST FAIL Caution Lights **Continued…** 3) "FPIU" on CDS **Continued…**				**NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	4. Confirm reason(s) for SPM annunciating the respective STALL # SYST FAIL caution lights is due to "ADU1" and "ADU2", or "NO DATA FROM FADEC1" and "NO DATA FROM FADEC2", or "FPIU" or "STICK SHAKER" only. 5. Deselect CDS switch on Central Maintenance Panel. **At Time of Deferral** 1. If the CDS has already been interrogated, and the cause of the fault has been identified as "FPIU" proceed with step 2. If not, follow procedures for "All Cases at Time of Deferral" above before proceeding to step 2 of this procedure. **Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
	#1 STALL SYST FAIL, #2 STALL SYST FAIL Caution Lights **Continued…** 3) "FPIU" on CDS **Continued…**					**Prior to each Flight** 1. At the Central Maintenance Panel above the wardrobe shelf, select the CDS GND MAINT switch to the CDS position and confirm that the adjacent amber LED illuminates. 2. In the cockpit, at one of the ARCDUs, select the MAINT pushbutton and observe that the CDS MAIN MENU page is displayed. 3. Select the AVIONICS menu icon, then SYST REPORT TEST icon, and locate the SPMs. 4. Confirm reason(s) for SPM annunciating the respective STALL # SYST FAIL caution light and ensure that failure shown is for NO DATA FROM FADEC only. Ensure that PROPELLER DE-ICE is not listed as a failure in the CDS. 5. Deselect CDS switch on Central Maintenance Panel. **Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
30-6	#1 STALL SYST FAIL, #2 STALL SYST FAIL Caution Lights **Continued…** 4) "STICK SHAKER" on CDS	A	1	0	(M) May be dispatched with the #1 STALL SYST FAIL and #2 STALL SYST FAIL caution lights ON provided: a) It is confirmed that the illumination of the #1 and #2 STALL SYST FAIL caution lights occurred only on ground, b) Prior to each flight the Centralized Diagnostic System must be interrogated for the affected SPM to ensure that the PROPELLER DE-ICE failure is not indicated, c) The affected stick shaker is deactivated, d) The unaffected stick shaker is tested before each flight, e) Flight is not conducted into known or forecast icing conditions, and f) Repairs are made within two flight days. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	**At Time of Deferral** 1. If the CDS has already been interrogated, and the cause of the fault has been identified as "FPIU" proceed with step 2. If not, follow procedures for "All Cases at Time of Deferral" above before proceeding to step 2 of this procedure. 2. Tape and stow electrical connector of affected stick pusher. **Prior to each Flight** 1. At the Central Maintenance Panel above the wardrobe shelf, select the CDS GND MAINT switch to the CDS position and confirm that the adjacent amber LED illuminates. 2. In the cockpit, at one of the ARCDUs, select the MAINT pushbutton and observe that the CDS MAIN MENU page is displayed. 3. Select the AVIONICS menu icon, then SYST REPORT TEST icon, and locate the SPMs. **Continued…**		Inoperative system leading to illumination of the # STALL SYST FAIL caution light, must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
	#1 STALL SYST FAIL, #2 STALL SYST FAIL Caution Lights **Continued …** 4) "STICK SHAKER" on CDS **Continued …**					4. Confirm reason(s) for SPM annunciating the respective STALL # SYST FAIL caution light and ensure that failure shown is for STICK PUSHER only. Ensure that PROPELLER DE-ICE is not listed as a failure in the CDS. 5. Deselect CDS switch on Central Maintenance Panel. 6. Perform stall warning test of unaffected side.		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
60-1	Roll Spoiler Caution Lights							
	1) ROLL SPLR INBD GND	C	1	0	(M)(O) May be inoperative provided: a) Associated Roll Spoiler (ground mode) is deactivated, and b) Appropriate AFM performance decrements are applied per AFM Supplement 17 "OPERATION WITH INOPERATIVE FLIGHT SPOILERS IN GROUND MODE".	1. Deactivate roll spoiler ground mode system by disconnecting, capping, and securing the electrical connector to one or both lift dump valves associated with the applicable spoiler pair. 2. Apply electrical power to the aircraft DC bus system. 3. Ensure that the control selections are as follows: a) No. 1 and No. 2 POWER levers are selected to FLT IDLE pos. b) Gust lock lever is engaged. c) ROLL DISC handle is in (engaged). d) Pilot's control wheels are in neutral position. e) FLIGHT/TAXI switch on left glareshield panel is selected and held in TAXI position. **Continued…**	Operations are conducted in accordance with Abnormal and Emergency Manual "OPERATION WITH INOPERATIVE FLIGHT SPOILERS IN GROUND MODE".	Inoperative ROLL SPLR INBD/OUTBD GND caution light must be placarded at the Caution/Warning Panel in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
60-1	Roll Spoiler Caution Lights **Continued…** 1) ROLL SPLR INBD GND **Continued…**					**WARNING: ALL PERSONS AND EQUIPMENT MUST BE CLEAR OF FLIGHT CONTROLS AND HYDRAULIC COMPONENTS WHEN YOU PRESSURIZE THE HYDRAULIC SYSTEMS. IF YOU DO NOT DO THIS, YOU CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO THE EQUIPMENT.** 4. Pressurize No. 1 and No. 2 aircraft hydraulic systems. 5. Visually confirm that all spoilers are in the down position (i.e. flush with wing surface) and PFCS indicator indicates SPOILERS down.		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
60-1	Roll Spoiler Caution Lights 1) ROLL SPLR INBD GND	C	1	0	(M)(O) May be inoperative provided: c) Associated Roll Spoiler (ground mode) is deactivated, and d) Appropriate AFM performance decrements are applied per AFM Supplement 17 "OPERATION WITH INOPERATIVE FLIGHT SPOILERS IN GROUND MODE".	1. Deactivate roll spoiler ground mode system by disconnecting, capping, and securing the electrical connector to one or both lift dump valves associated with the applicable spoiler pair. 2. Apply electrical power to the aircraft DC bus system.	Operations are conducted in accordance with Abnormal and Emergency Manual "OPERATION WITH INOPERATIVE FLIGHT SPOILERS IN GROUND MODE".	Inoperative ROLL SPLR INBD/OUTBD GND caution light must be placarded at the Caution/Warning Panel in the flightcompartment.
						3. Ensure that the control selections are as follows: a) No. 1 and No. 2 POWER levers are selected to FLT IDLE pos. b) Gust lock lever is engaged. c) ROLL DISC handle is in (engaged). d) Pilot's control wheels are in neutral position. e) FLIGHT/TAXI switch on left glareshield panel is selected and held in TAXI position. **WARNING: ALL PERSONS AND EQUIPMENT MUST BE CLEAR OF FLIGHT CONTROLS AND HYDRAULIC COMPONENTS WHEN YOU PRESSURIZE THE HYDRAULIC SYSTEMS. IF YOU DO NOT DO THIS, YOU**		

SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**					**CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO THE EQUIPMENT.** 4. Pressurize No. 1 and No. 2 aircraft hydraulic systems. 5. Visually confirm that all spoilers are in the down position (i.e. flush with wing surface) and PFCS indicator indicates SPOILERS down.		
Cont'd… 60-1	Roll Spoiler Caution Lights 1) ROLL SPLR INBD GND **Continued…**					6. Select FLIGHT/TAXI switch to FLIGHT position, and visually check that the associated roll spoilers remain in the down position and the PFCS indicator indicates SPOILERS in down position. 7. Ensure No. 1 and No. 2 POWER levers are at FLT IDLE position and operate flight spoilers and visually confirm full and free movement of inboard and outboard spoiler panels as indicated on PFCS indicator. 8. On Co-pilot's glareshield, select ANTI-SKID switch to TEST position. Check that INBD and OUTBD ANTISKID caution lights illuminate for approximately 6 seconds and then extinguish. 9. Remove aircraft hydraulic and electrical power.		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
60-1	Roll Spoiler Caution Lights **Continued…**							
	2) ROLL SPLR OUTBD GND	C	1	0	(M)(O) May be inoperative provided: a) Associated Roll Spoiler (ground mode) is deactivated, and Appropriate CFM performance decrements are applied per AFM Supplement 17 "OPERATION WITH INOPERATIVE FLIGHT SPOILERS IN GROUND MODE".	1. Deactivate roll spoiler ground mode system by disconnecting, capping, and securing the electrical connector to one or both lift dump valves associated with the applicable spoiler pair. 2. Apply electrical power to the aircraft DC bus system. 3. Ensure that the control selections are as follows: a) No. 1 and No. 2 POWER levers are selected to FLT IDLE pos. b) Gust lock lever is engaged. c) ROLL DISC handle is in (engaged). d) Pilot's control wheels are in neutral position. e) FLIGHT/TAXI switch on left glareshield panel is selected and held in TAXI position. **See WARNING next page…**	Operations are conducted in accordance with Abnormal and Emergency Manual "OPERATION WITH INOPERATIVE FLIGHT SPOILERS IN GROUND MODE".	Inoperative ROLL SPLR INBD/OUTBD GND caution light must be placarded at the Caution/Warning Panel in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27 **Cont'd…** 60-1	**FLIGHT CONTROLS** Roll Spoiler Caution Lights 2) ROLL SPLR OUTBD GND **Continued…**					**Continued from previous page…** **WARNING: ALL PERSONS AND EQUIPMENT MUST BE CLEAR OF FLIGHT CONTROLS AND HYDRAULIC COMPONENTS WHEN YOU PRESSURIZE THE HYDRAULIC SYSTEMS. IF YOU DO NOT DO THIS, YOU CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO THE EQUIPMENT.** 4. Pressurize No. 1 and No. 2 aircraft hydraulic systems. 5. Visually confirm that all spoilers are in the down position (i.e. flush with wing surface) and PFCS indicator indicates SPOILERS down. 6. Select FLIGHT/TAXI switch to FLIGHT position, and visually check that the associated roll spoilers remain in the down position and the PFCS indicator indicates SPOILERS in down position. 7. Ensure No. 1 and No. 2 POWER levers are at FLT IDLE position and operate flight spoilers and visually confirm full and free movement of inboard and outboard spoiler panels as indicated on PFCS indicator. **Continued on next page…**		

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27 **Cont'd…**	**FLIGHT CONTROLS**					**Continued from previous page…**		
60-1	Roll Spoiler Caution Lights 2) ROLL SPLR OUTBD GND **Continued…**					8. On Co-pilot's glareshield, select ANTI-SKID switch to TEST position. Check that INBD and OUTBD ANTISKID caution lights illuminate for approximately 6 seconds and then extinguish. 9. Remove aircraft hydraulic and electrical power.		
60-2	FLIGHT/TAXI Switch TAXI Position Lights	C	1	0	(O) May be inoperative provided: a) The FLIGHT/TAXI Switch operates in both the FLIGHT and TAXI positions, b) The ROLL INBD and ROLL OUTBD Spoiler Advisory Lights are verified operative, and c) Retraction of the spoilers is verified when the Switch is held in the TAXI position prior to each flight. **Flight Crew Deferral Permitted**		1. Ensure that control selections are as follows: a) No. 1 and No. 2 POWER levers are selected to the FLT IDLE position. b) Gust lock lever is disengaged. c) ROLL DISC handle is in. d) Pilot's control wheels are in neutral position. e) FLIGHT/TAXI switch is selected and held in TAXI position. 2. Apply AC and DC electrical power to aircraft buses. 3. Pressurize #1 and #2 hydraulic systems using: a) AC Power, STBY HYD Pump ON, PTU Control ON. or b) Start Engines.	Inoperative FLIGHT/TAXI switch must be placarded in the flight compartment.
Cont'd…							**Continued on next page…**	

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
27	**FLIGHT CONTROLS**							
60-2	FLIGHT/TAXI Switch TAXI Position Lights **Continued…**						**Continued from previous page…** 4. Confirm that all spoilers are retracted in down position and PFCS indicator indicates SPOILERS down. Confirm that SPOILERS advisory lights are all out. **NOTE:** Spoilers panels are in retracted "down" position when the spoiler panel is flush with the wing surface. 5. Select FLIGHT/TAXI switch to FLIGHT position. Check that all spoilers are extended, PFCS indicator indicates SPOILERS in UP position and SPOILERS advisory lights are illuminated. 6. Advance POWER levers until spoilers retract which shows on PFCS indicator and SPOILERS advisory lights go out. If the spoilers are extended, the advisory lights remain illuminated and the take-off warning horn sounds. 7. Remove hydraulic pressure applied in step (3). 8. Remove electrical power applied in step (2)	

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27	**FLIGHT CONTROLS**							
60-3	Spoiler Advisory Lights							
	1) ROLL INBD	B	1	0	(O) May be inoperative provided: a) All PFCS SPOILER indications on the MFD are operative and are periodically monitored, and b) Non-flying Pilot is briefed on their responsibility to observe and announce the spoilers (ground mode) on roll out.		Prior to each departure, the PM will be briefed on their responsibility to observe and announce the spoilers (ground mode) on each rollout. Additionally, the Flight Crew will periodically monitor MFD for proper spoiler indications.	Inoperative spoiler advisory light(s) must be placarded in the flight compartment.
Cont'd…					**Flight Crew Deferral Permitted**			

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27	**FLIGHT CONTROLS**							
60-3	Spoiler Advisory Lights **Continued…**							
	2) ROLL OUTBD	B	1	0	(O) May be inoperative provided: a) All PFCS SPOILER indications on the MFD are operative and are periodically monitored, and b) Non-flying Pilot is briefed on their responsibility to observe and announce the spoilers (ground mode) on roll out. **Flight Crew Deferral Permitted**		Prior to each departure, the PM will be briefed on their responsibility to observe and announce the spoilers (ground mode) on each rollout. Additionally, the Flight Crew will periodically monitor MFD for proper spoiler indications.	Inoperative spoiler advisory light(s) must be placarded in the flight compartment.
60-4	Roll Spoilers (Ground Mode System)	C	2	0	(M)(O) May be inoperative provided: a) Associated inboard or outboard pair of roll spoilers (ground mode) are deactivated, and b) Appropriate CFM performance decrements are applied per AFM Supplement 17 "OPERATION WITH INOPERATIVE FLIGHT SPOILERS IN GROUND MODE".	1. Deactivate roll spoiler ground mode system by disconnecting, capping, and securing the electrical connector to one or both lift dump valves associated with the applicable spoiler pair. 2. Apply electrical power to the aircraft DC bus system **Continued on next page…**	Operations are conducted in accordance with Abnormal and Emergency Manual "OPERATION WITH INOPERATIVE FLIGHT SPOILERS IN GROUND MODE".	Inoperative Roll Spoiler Ground Mode System(s) must be placarded in the flight compartment.

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27 **Cont'd…** 60-4	**FLIGHT CONTROLS** Roll Spoilers (Ground Mode System) **Continued…**					**Continued from previous page…** 3. Ensure that the control selections are as follows: a) No. 1 and No. 2 POWER levers are selected to FLT IDLE position, b) Gust lock lever is engaged, c) ROLL DISC handle is in (engaged), d) Pilots' control wheels are in neutral position, e) FLIGHT/TAXI switch on left glareshield panel is selected and held in TAXI position. **WARNING: ALL PERSONS AND EQUIPMENT MUST BE CLEAR OF FLIGHT CONTROLS AND HYDRAULIC COMPONENTS WHEN YOU PRESSURIZE THE HYDRAULIC SYSTEMS. IF YOU DO NOT DO THIS, YOU CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO THE EQUIPMENT.** 4. Pressurize No. 1 and No. 2 aircraft hydraulic systems. 5. Visually confirm that all spoilers are in the down position (i.e. flush with wing surface) and PFCS indicator indicates SPOILERS down.		

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27	FLIGHT CONTROLS							

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28	**FUEL**							
20-1	Pressure Refueling System	C	1	0	(M) May be inoperative provided the fuel transfer system is verified operative. **Flight Crew Deferral Permitted.**	1. Ensure at least 500 lbs fuel in each tank for fuel transfer. 2. Apply AC and DC power to aircraft electrical buses. 3. Ensure that the appropriate fuel system circuit breakers FUEL HLCU & REFUEL DEFUEL on L ESSENTIAL BUS, BATT REFUEL & REFUEL DEFUEL on R ESSENTIAL bus and FUEL AUX PUMP 1 & 2 on 115V AC Frequency Panel (three phase) are closed. **NOTE:** During fuel transfer, the donor TANK FUEL LOW caution light may come on momentarily due to collector bay fuel level falling faster than main tank level. 4. On the ESID, select the FUEL page at the fuel control transfer panel. 5. Transfer from Tank 1 to Tank 2: a) Fuel TRANSFER switch - TO TANK 2. b) Check both VALVES OPEN, TO TANK 2 TRANSFER SW arrow and TANK 1 AUX PUMP indication appears on the FUEL page of the MFD, and TANK 1 AUX PUMP ON advisory light illuminates. **Continued…**		Placard inoperative Pressure Refueling System in the flight compartment and on the External Refuel/Defuel Panel.
Cont'd…								

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28	**FUEL**							
20-1	Pressure Refueling System **Continued…**					6. At completion of transfer: a) Fuel TRANSFER switch - Off. b) Check both VALVE CLOSED indicators appear, TO TANK 2 TRANSFER SW arrow and TANK 1 AUX PUMP indication OFF on the FUEL page of the MFD, and TANK 1 AUX PUMP ON advisory light out. 7. Transfer from Tank 2 to Tank 1: a) Fuel TRANSFER switch - TO TANK 1. b) Check both VALVE OPEN, TO TANK 1 TRANSFER SW arrow and TANK 2 AUX PUMP indication appears on the FUEL page of the MFD, and TANK 2 AUX PUMP ON advisory light illuminates. 8. At completion of transfer: a) Fuel TRANSFER switch - Off. b) Check both VALVES CLOSED indicators appear, TO TANK 1 TRANSFER SW arrow and TANK 2 AUX PUMP indication OFF on the FUEL page of the MFD, and TANK 2 AUX PUMP ON advisory light out.		
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
28	**FUEL**							
20-1	Pressure Refueling System **Continued…**					**NOTE**: 1. Maximum fuel imbalance is indicated by the FUEL quantity readout on ED and fuel gauge pointers on FUEL page of the MFD changing from white to amber and [balance] appears, flashing on ED. 2. If TANK 1 QTY or TANK 2 QTY is inoperative, the [BALANCE] advisory is also inoperative. 9. Remove AC and DC electrical power from aircraft.		
40-1	Height Measuring Unit (Magnetic Dipsticks)	C	2	0	(O) May be inoperative provided the fuel quantity is determined by other approved means.	Fuel quantity is determined with the cockpit fuel quantity indicator on the Engine Display (ED).		Placard inoperative Height Measuring Unit (HMU) in the flight compartment and on External Refuel/Defuel Panel.
40-2	Fuel TANK degrees C Temperatures Indication (on ESID)	C	1	0	May be inoperative provided: a) Aircraft is flown at an OAT that is 4 degrees C above the freezing point of the fuel (Jet A = -40 C, Jet A-1 = -47 C, Jet B = -51 C, JP4 = -60 C) being used, and b) JP-5 fuel is not used. **Flight Crew Deferral Permitted**			Placard inoperative Fuel Tank Temperature Indication in the flight compartment.

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28	**FUEL**							
40-3	FUELING ON Caution Light	C	1	0	(O) May be inoperative provided prior to each flight: a) The REFUEL/OFF/DEFUEL switch is confirmed OFF, and b) The Refuel/Defuel access panel is verified closed. **Flight Crew Deferral Permitted**		Following each refueling, ensure that the REFUEL/OFF/DEFUEL switch on the external refuel panel is selected OFF and panel is confirmed closed.	Inoperative FUELING ON caution light must be placarded in the flight compartment.
40-4	TANK 1 AUX PUMP and TANK 2 AUX PUMP Advisory Lights	C	2	1	(O) May be inoperative provided: a) The associated ENG FUEL PRESS caution light and Aux Fuel Pump are verified operative, b) Both Flight Compartment FUEL QTY Indications are verified operative, and c) Operations are conducted in compliance with AFM Supplement 95, "OPERATION WITH AN INOPERATIVE AUX PUMP ADVISORY LIGHT". **Flight Crew Deferral Permitted**		Operations are conducted in compliance with Abnormal and Emergency Manual "OPERATION WITH AN INOPERATIVE TANK AUX PUMP ADVISORY LIGHT".	Inoperative AUX PUMP advisory light must be placarded in the flight compartment.

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28	**FUEL**							
40-5	#1 TANK FUEL LOW and # 2 TANK FUEL LOW Caution Lights	C	2	1	(O) May be inoperative provided: a) The associated Flight Compartment FUEL QTY Indication is verified operative and is periodically monitored during flight, and b) The associated engine FF (Fuel Flow) Indication is verified operative. **Flight Crew Deferral Permitted**		1. Apply DC electrical power to the aircraft buses. 2. Ensure that fuel quantity is displayed on both master FUEL QTY indicators on the Engine Display and the Multi-Function Display (ESID) in the Flight Compartment. 3. Check that the FF indications on the Engine Display in the flight compartment indicate 0 PPH. 4. Start both engines and run at ground idle. Check that the Fuel Flow Indicators on the Engine Display in the flight compartment indicate positive flow. 5. Shut down both engines. 6. Remove electrical power from the aircraft buses.	Inoperative TANK FUEL LOW caution light must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
28	**FUEL**							
40-6	Refuel/Defuel/ Transfer VALVE (OPEN/CLOSED) Advisory Lights	C	2	1	(M) May be inoperative provided the Fuel Transfer system and Flight Compartment FUEL QTY Indications are verified operative. **Flight Crew Deferral Permitted.**	1. Apply DC and AC electrical power to the aircraft buses. 2. Ensure that fuel quantity is displayed on both master FUEL QTY indicators on the ESID Fuel Page and the Engine Display in the flight compartment. 3. At the FUEL CONTROL panel, select TRANSFER switch to TANK 1 position and observe that the TANK 2 AUX PUMP advisory light is illuminated and that fuel begins to transfer from tank 2 to tank 1 as indicated on the ESID fuel quantity indicators on the Engine Display in the flight compartment. 4. Select TRANSFER switch to TANK 2 position and observe that the TANK 1 AUX PUMP advisory light is illuminated and that fuel begins to transfer from tank 1 to tank 2 as indicated on the ESID fuel quantity indicators on the Engine Display in the flight compartment. 5. Return the TRANSFER switch to the center position. 6. Remove electrical power from the aircraft buses.		Inoperative VALVE OPEN/CLOSED advisory light must be placarded in the flight compartment.

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28	**FUEL**							
40-7	External Refuel/Defuel Panel FUEL QTY Indicators	C	2	0	(M) May be inoperative provided the fuel quantity is determined by other approved means prior to each flight. **Flight Crew Deferral Permitted.**	1. Apply DC electrical power to the aircraft buses. 2. Prior to refueling procedure, position the aircraft on a reasonably level/flat area on the airfield. 3. Following each refueling, determine the fuel quantity using Flight Compartment Indicators or the magnetic dipsticks (refer to Ramp Servicing Manual). 4. Remove electrical power from the aircraft buses. OR 1. Top off the fuel tanks		Inoperative external refuel/defuel panel fuel quantity indicator(s) must be placarded in the flight compartment and on the right nacelle.
40-8	REFUEL SHUTOFF TANK 1 and REFUEL SHUTOFF TANK 2 Advisory Lights	C	2	0	(M) May be inoperative provided the Flight Compartment FUEL QTY Indications are verified operative. **Flight Crew Deferral Permitted.**	1. Apply DC electrical power to the aircraft buses. 2. Ensure that fuel quantity is displayed on both master FUEL QTY indicators on the Engine Display and the Multi-Function Display in the flight compartment. 3. Ensure that the fuel quantity is also displayed on both external Refuel/Defuel Panel FUEL QTY indicators.		Inoperative REFUEL SHUTOFF advisory lights must be placarded in the flight compartment.

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28	**FUEL**							
40-9	APU FUEL VALVE Advisory Light							
	1) (OPEN)	C	1	0	(M) May be inoperative provided: a) The OPEN light is extinguished, and a) The CLOSED light is illuminated when the APU is selected OFF. **Flight Crew Deferral Permitted.**	1. Apply DC electrical power to the aircraft buses. 2. Ensure that the OPEN light on the overhead Fire Control Panel is extinguished. 3. Ensure that the CLOSED light on the overhead Fire Control Panel is illuminated when the APU is selected OFF.		Inoperative APU FUEL OPEN advisory light must be placarded in the flight compartment.
	2) (CLOSED)	D	1	0	(M) May be inoperative provided: b) APU is not operated, and c) The APU fuel shut off valve is verified closed. **Flight Crew Deferral Permitted.**	1. Apply DC power to aircraft buses. 2. Pull and collar circuit breaker "APU FUEL VALVE" on Left Essential 28VDC Circuit Breaker Panel. 3. Attempt to start APU. If APU fails to start, then the APU fuel shutoff valve is verified closed. **NOTE:** The APU may spin up momentarily until residual fuel in the manifold is consumed, then shut down. Also, the APU FADEC may log a fault for the uncommanded shutdown/ unsuccessful start.		Inoperative APU FUEL CLOSED advisory light must be placarded in the flight compartment.

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28	**FUEL**							
40-10	Flight Compartment Fuel QTY Indications (on ESID)	C	2	1	(M) May be inoperative provided: a) Fuel quantity and balance is verified by an acceptable means after each refueling, and b) Fuel Flow Indications are operative, are periodically monitored during flight, and fuel consumption is recorded.	1. Level the aircraft prior to refueling by placing the aircraft on a reasonably flat/level area on the ramp. **NOTE:** The aircraft is considered level when the slip/skid indicator (inclinometer) is in the center location on the Pilot and Co-pilot's PFDs. 2. Following each refueling, verify fuel quantity using HMU dipsticks. 3. Apply electrical power to aircraft DC bus system and verify operation of the fuel flow indications by verifying a valid fuel flow display on the engine display. (i.e., An actual number will be displayed rather than dashes. The dashes would indicate a failed fuel flow indication.) OR	Flight Crewmembers will be required to monitor and track fuel consumption for the inoperative gauge throughout the flight.	Placard inoperative FUEL QTY indicator in the flight compartment.
					Flight Crew Deferral Permitted.	1. Level the aircraft prior to refueling by placing the aircraft on a reasonably flat/level area on the ramp.	Flight Crewmembers will be required to monitor and track fuel consumption for the inoperative gauge throughout the flight.	

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28 **Cont'd…** 40-10	**FUEL** Flight Compartment Fuel QTY Indications (on ESID) **Continued…**					**Continued…** **NOTE:** The aircraft is considered level when the slip/skid indicator (inclinometer) is in the center location on the Pilot and Co-pilot's PFDs. 2. Following each refueling, verify fuel quantity using the Refuel/Defuel Panel FUEL QTY Indicators. 3. Apply electrical power to aircraft DC bus system and verify operation of the fuel flow indications by verifying a valid fuel flow display on the engine display. (i.e. An actual number will be displayed rather than dashes. The dashes would indicate a failed fuel flow indication.)		
40-11	Fuel Inlet Temperature Indications (on Engine Display)	A	2	1	(O) May be inoperative for one flight provided: a) Fuel Tank Temperature Indication (on MFD Fuel page) is operative. b) TANK AUX PUMP Advisory Lights are operative, and c) Flight Compartment Fuel QTY Indications (on ESID) are operative. **Flight Crew Deferral Permitted**		1) Select the Fuel page on the MFD and verify that the fuel temperatures are correctly displayed. 2) Complete lamps test to verify TANK AUX PUMP Advisory Lights are operative. 3) Verify Fuel QTY indications on ESID are correctly displayed.	Placard inoperative Fuel Inlet Temperature Indications in the flight compartment.

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29	**HYDRAULIC POWER**							
10-1	Parking/Emergency Brake Accumulator Hand Pump	C	1	0	May be inoperative provided accumulator pressure is verified adequate prior to engine start. **Flight Crew Deferral Permitted**			Placard the inoperative parking/emergency brake accumulator hand pump in the flight compartment.
30-1	HYD PRESS 1 and HYD PRESS 2 Indications	C	2	1	(M) May be inoperative provided: a) The associated ENG HYD PUMP Caution Light is verified operative, and b) The associated HYD QTY Indication is verified operative.	1. Apply DC electrical power to the aircraft buses. 2. Check hydraulic fluid quantity at HYD QTY gauge on MFD and compare with fluid quantity at associated remote hydraulic quantity indicator located in the respective engine nacelle, below hydraulic system reservoir. Ensure that hydraulic fluid level is adequate. 3. Start the engine associated with the inoperative indicator and run to Ground Idle. Check that ENG HYD PUMP caution light goes out. 4. Shut down associated engine. 5. Remove electrical power from the aircraft buses.		Placard inoperative HYD PRESS 1 or 2 gauge in the flight compartment.
30-2	HYD PRESS STBY Indication	C	1	0	(O) May be inoperative provided: a) Normal operation of the Standby Hydraulic Pump is verified before each flight, and b) HYD PRESS 1 and HYD PRESS 2 Indications are verified operative. **Flight Crew Deferral Permitted**		1. Apply AC and DC power to aircraft electrical buses. **NOTE**: If buses are to be powered from an engine, only start engine 2. 2. Select the STBY HYD PRESS switch. 3. Check that the HYD PRESS 1 gauge on the MFD reads approximately 2800 to 3100 psi. 4. Remove power from AC and DC buses.	Placard inoperative HYD PRESS STBY gauge in the flight compartment.

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29	**HYDRAULIC POWER**							
30-3	System #1 and #2 Nacelle Reservoir Quantity Indicators	C	2	0	(O) May be inoperative provided: a) HYD QTY 1 and HYD QTY 2 Indications are verified operative, and b) ENG HYD PUMP Caution Lights are verified operative. **Flight Crew Deferral Permitted**		1. Apply DC electrical power to the aircraft buses. 2. With associated Engine shut down, move associated condition lever to START & FEATHER. 3. Ensure associated ENG HYD PUMP caution light remains illuminated. 4. Check associated HYD QTY indicator for proper fluid level. 5. Remove electrical power from the aircraft buses.	Placard inoperative Nacelle Hydraulic Quantity Indicator(s) in the flight compartment.
30-4	#1 STBY HYD PUMP HOT Caution Light				DELETED in Q400 MEL Rev. 9			
30-5	HYD QTY 3 Indication	C	1	0	(M) May be inoperative provided: a) The System #3 Aft Fuselage Hydraulic Quantity Indicator is verified operative, and b) Adequate fluid quantity is verified before each flight.	Check hydraulic fluid quantity at associated remote hydraulic quantity indicator located in aft fuselage equipment bay below hydraulic system 3 reservoir. Ensure that hydraulic fluid level is adequate. Correct hydraulic fluid quantity level is identified by QUANTITY vs. FLUID TEMP graph located adjacent to remote quantity indicator.		Placard inoperative HYD QTY 3 indicator in the flight compartment.
30-6	System #3 Aft Fuselage Hydraulic Quantity Indicator	C	1	0	May be inoperative provided HYD QTY 3 Indications is operative.			Placard inoperative aft fuselage hydraulic quantity indicator in the flight compartment.

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29	**HYDRAULIC POWER**							
30-7	HYD PRESS 3 Indication	C	1	0	(M) May be inoperative provided: a) The #3 HYD PUMP Caution Light is verified operative, and b) The HYD QTY 3 Indication is verified operative.	1. Apply AC and DC power to aircraft electrical buses. 2. Check hydraulic fluid quantity at HYD QTY 3 gauge on MFD and compare with fluid quantity at associated remote hydraulic quantity indicator located in the aft fuselage equipment bay, below hydraulic system reservoir. Ensure that hydraulic fluid level is adequate. Correct hydraulic fluid quantity level is identified by QUANTITY vs. FLUID TEMP graph located adjacent to remote quantity indicator. 3. With neither engine running, access the aft fuselage equipment bay through access panel 311AB, and depress the manual relief button on the system 3 isolation valve to depressurize the sys 3 accumulator. 4. Ensure that the #3 HYD PUMP caution light is illuminated. 5. Press the HYD #3 ISOL VLV button to open the system 3 isolation valve.		Placard inoperative HYD PRESS 3 indication in the flight compartment.
Cont'd…						**Continued…**		

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29	**HYDRAULIC POWER**							
30-7	HYD PRESS 3 Indication **Continued…**					6. Ensure that the #3 HYD PUMP caution light is extinguished (the DC motor pump will start when the valve is selected open). 7. Select the Standby Hydraulic Pump (SPU) and PTU to ON. 8. Ensure that the ELEVATOR PRESS caution light is illuminated. 9. Select the Standby Hydraulic Pump (SPU) and PTU to NORM. 10. Ensure that the ELEVATOR PRESS caution light is extinguished. 11. Press the HYD #3 ISOL VLV button to close the system 3 isolation valve.		

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29	**HYDRAULIC POWER**							
30-8 -	PTU CNTRL ON Advisory Light	C	1	0	(O) May be inoperative provided: a) The HYD PRESS 2 indication is verified operative, b) The #2 ENG HYD PUMP caution light is verified operative, and c) The hydraulic Power Transfer Unit is verified operative prior to each flight. **Flight Crew Deferral Permitted**		1. Apply DC power to aircraft electrical buses. 2. Ensure that HYD PRESS 2 indicator indicates 0 psi and the #2 ENG HYD PUMP caution light is illuminated. 3. Start engine #2 and run at Idle. Check that HYD PRESS 2 indicator indicates 2900 to 3100 psi and the #2 ENG HYD PUMP caution light goes out. 4. Shut down engine #2. 5. Start engine #1 and run to idle, OR Apply 400 Hz 115V AC electrical power to aircraft using a ground power unit. Set the STBY HYD PRESS push button switch to ON, which is located on the HYDRAULIC CONTROL Panel and observe that switch-light illuminates green. **(See Caution…)** **CAUTION**: MONITOR #1 STBY HYD PUMP HOT CAUTION LIGHT. IF IT ILLUMINATES, TURN THE SPU OFF. 6. Ensure that HYD PRESS 2 indicator indicates 0 psi. 7. Select the PTU CNTRL switch to ON. 8. Check that HYD PRESS 2 indicator indicates 2800 to 3000 psi. 9. Select the PTU CNTRL switch to NORM. 10. Shut down engine #1 or disconnect the ground power unit.	Inoperative PTU CNTRL ON advisory light must be placarded in the flight compartment.

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29	**HYDRAULIC POWER**							
30-9	#1 ENG HYD PUMP and #2 ENG HYD PUMP Caution Lights	C	2	1	(M) (O) May be inoperative provided: a) The associated Flight Compartment HYD PRESS Indication is verified operative, b) The associated ISOLATION VALVE is verified operative, and c) The associated hydraulic pressure is periodically monitored.	1. Apply DC electrical power to aircraft electrical buses. 2. Prior to starting engines, check that the associated HYD PRESS 1 or 2 gauge on the MFD reads 0 psi. 3. Check that associated "HYD ISO VLV" caution light is illuminated. 4. Start the associated engine. 5. Check that the associated HYD PRESS 1 or 2 gauges on the MFD reads 2900 to 3100 psi. 6. Check that associated "HYD ISO VLV" caution light is extinguished. 7. Shut down engine(s). 8. Remove electrical power from aircraft electrical buses.	Flight Crew to monitor hydraulic pressure	Placard inoperative ENG HYD PUMP caution light in the flight compartment.
30-10 **Cont'd…**	HYD QTY 1 and HYD QTY 2 Indications	C	2	1	(M) May be inoperative provided: a) The quantity is verified adequate prior to each flight, b) The associated ENG HYD PUMP Caution Light and HYD PRESS Indication are verified operative, c) The associated HYD ISO VLV Caution Light is verified operative, and d) The associated Nacelle Hydraulic Quantity Indicator is verified operative.	1. Apply AC and DC power to aircraft electrical buses. 2. Ensure that the associated HYD ISO VLV caution light is illuminated. 3. Access the associated main landing gear wheel well by fully opening the LANDING GEAR ALTERNATE RELEASE door and pulling fully the MAIN L/G RELEASE handle in the flight compartment. **Continued…**		Placard inoperative hydraulic quantity indicator in the flight compartment.

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29	**HYDRAULIC POWER**							
30-10 **Cont'd…**	HYD QTY 1 and HYD QTY 2 Indications **Continued…**					4. Ensure that hydraulic power is not applied, and pull and collar the LDG GEAR WOW2 & CONT circuit breakers on the Left Main 28 VDC bus and the Left Essential 28 VDC bus. 5. Ensure the area near the wheel well doors is clear, and install the main landing gear ground locking pin in the stabilizer brace and the main landing gear wheel well door ground locking pin in the aft door mechanism. 6. Ensure that hydraulic fluid level is adequate at the associated remote hydraulic quantity indicator, located in the respective engine nacelle below the hydraulic system reservoir. (Correct hydraulic fluid quantity level is identified by QUANTITY vs. FLUID TEMP graph located adjacent to the remote quantity indicator). **Continued…**		

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29	**HYDRAULIC POWER**							
30-10	HYD QTY 1 and HYD QTY 2 Indications **Continued…**					7. Start engine associated with inoperative indicator and run to ground idle. Check for the following: a) Associated HYD ISO VLV caution light goes out. b) Associated ENG HYD PUMP caution light goes out at 2400 psi. c) Associated HYD PRESS gauge on MFD reads approximately 3000 psi. 8. Shut down associated engine. 9. Remove collars and reset LDG GEAR WOW2 & CONT circuit breakers on Left Main 28 VDC bus and Left Essential 28 VDC bus.		
30-11 **Cont'd…**	#1 HYD FLUID HOT #2 HYD FLUID HOT Caution Lights	A	2	1	(M)(O) One may be inoperative provided: a) The associated HYD PRESS Indication is verified operative and is periodically monitored during flight, b) Adequate steps are taken each flight day to ensure that an overheat condition has not occurred, and c) The associated HYD QTY Indications is verified operative, and d) Repairs are made within two flight days.	1. Access the associated main landing gear wheel well by fully opening the LANDING GEAR ALTERNATE RELEASE door and pulling fully the MAIN L/G RELEASE handle in the flight compartment. **Continued…**	1. Confirm that prior to starting engines, the associated HYD PRESS 1 or 2 gauge on the ESID reads 0 psi, and after starting, the associated HYD PRESS reads 2900 to 3100 psi. 2. During flight, periodically monitor the affected HYD PRESS gauge to ensure pressure indication does not exceed 3100 psi	Placard inoperative HYD FLUID HOT caution light in the flight compartment.

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29	**HYDRAULIC POWER**							
30-11 **Cont'd…**	#1 HYD FLUID HOT #2 HYD FLUID HOT Caution Lights **Continued…**					2. Ensure that hydraulic power is not applied, and pull and collar the LDG GEAR WOW2 & CONT circuit breakers on the Left Main 28 VDC bus and the Left Essential 28 VDC bus. 3. Ensure the area near the wheel well doors is clear, and install the main landing gear ground locking pin in the stabilizer brace and the main landing gear wheel well door ground locking pin in the aft door mechanism. 4. 15 minutes following engine shutdown, wipe clean the hydraulic tubes connections for the components listed below, in the associated main landing gear wheel well: a) Pressure relief valve and return manifold. b) Case drain tube and return manifold. 5. Wait a further 20 minutes and inspect the same hydraulics connections for signs of leaks. **Continued…**		

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29	**HYDRAULIC POWER**							
30-11	#1 HYD FLUID HOT #2 HYD FLUID HOT Caution Lights **Continued…**					6. Inspect the hydraulic reservoir overflow ecology bottle in the associated main landing gear wheel well for a significant increase in the amount of fluid from the previous day. 7. Take a small sample of fluid from the reservoir and check the appearance of the fluid for evidence of overheating. (Refer to Dash 8 Series 400 Aircraft Maintenance Manual, Chapter 29.) 8. With no evidence of fluid overheat (leakage, discoloration, ecology bottle contents, etc.), make appropriate entry in the aircraft flight log. 9. With fluid leakage or discoloration present, change hydraulic fluid and carry out HYDRAULIC POWER INSPECTION/TEST including corrective action, in accordance with AMM, Chapter 29. 10. Remove collars and reset LDG GEAR WOW2 & CONT circuit breakers on the Left Main 28 VDC bus and the Left Essential 28 VDC bus.		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
29	**HYDRAULIC POWER**							
30-12	HYD #3 ISOL VLV OPEN Advisory Light	C	1	0	(O) May be inoperative provided; a) The HYD PRESS 3 indication is operative, and b) The ELEVATOR PRESS caution light is operative. **Flight Crew Deferral Permitted**		1. Start engines 1 and 2, or engine 1 and PTU, or engine 2 and SPU. 2. Ensure that the HYD PRESS 1 and 2 indicators indicate 2900 to 3100 psi. 3. Select the HYD #3 ISOL VLV switch to OPEN. 4. Ensure that the HYD PRESS 3 indicator indicates 2400 to 3100 psi and that the ELEVATOR PRESS caution light is illuminated. 5. Select the HYD #3 ISOL VLV switch to NORM. 6. Shut down hydraulics and engine(s).	Inoperative HYD #3 ISOL VLV OPEN advisory light must be placarded in the flight compartment.

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30	**ICE AND RAIN PROTECTION**							
10-1	TAIL De-Ice Boots Advisory Lights	C	4	0	May be inoperative provided the flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual , and/or any time airplane ice accretion known or is predicted to occur. **Flight Crew Deferral Permitted**			Placard inoperative Tail Deicer Boots Advisory Lights on the ICE PROTECTION Panel in the flight compartment.
10-2	DEICE PRESS Caution Light **NOTE:** If "DEICE PRESSURE" Caution Light illuminates in flight, rotate the BOOT AIR switch to ISO position. Check for pressure in No. 1 and No. 2 system via DEICE PRESS dual indicators, and check deice boot advisory lights on the Ice Protection Panel. An appropriate entry should be made in the aircraft flight log regarding verification of the Deice Boot Advisory Lights and the DEICE PRESS indicators operative. **Cont'd…**	C	1	0	May be inoperative provided the flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Place a placard on the Caution Panel near the DE-ICE PRESS caution light.

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30	**ICE AND RAIN PROTECTION**							
10-2	DEICE PRESS Caution Light **Continued…**							
		C	1	0	(M) May be inoperative provided; a) All De-Ice Boot Advisory Lights are verified operative, and b) The DEICE PRESS Indicators are verified operative. **Flight Crew Deferral Permitted.**	1. Ensure all aircraft electrical buses are powered. 2. Start #1 engine and run at ground idle. 3. On the ICE PROTECTION panel, set AIRFRAME MODE SELECT rotary switch to FAST position and verify that the Deicer boot advisory lights operate normally at the appropriate boot inflation/deflation sequence: Wing advisory lights illuminate and go out sequentially in pairs, commencing with outboard pair and ending with inboard pair, followed by inboard TAIL then outboard TAIL. **NOTE**: The sequence of the WING 3rd and 4th advisory lights on the left side is reversed. 4. Select the BOOT AIR switch to ISO and observe that the DEICE PRESS Indicator reads 15-18 psi on the active side and zero on the other side. 5. Select the BOOT AIR switch to NORM and observe whether the DEICE PRESS Indicator gauge reads 15-18 psi on both sides. 6. Shut down #1 engine.		Place a placard on the Caution Panel near the DE-ICE PRESS caution light.

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30	**ICE AND RAIN PROTECTION**							
10-3	DEICE PRESS Indicators	C	2	0	May be inoperative provided the flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Place a "Pressure Indicator Inoperative" placard near the faulty de-ice pressure indicator.
		C	2	0	(M) May be inoperative provided: a) All De-Ice Boot Advisory Lights are verified operative, and b) The DEICE PRESS Caution Light is verified operative. **Flight Crew Deferral Permitted.**	1. Ensure all aircraft electrical buses are powered. 2. Start #1 engine and run at ground idle. 3. On the ICE PROTECTION panel, set AIRFRAME MODE SELECT rotary switch to FAST position and verify that the De-Icer boot advisory lights operate normally at the appropriate boot inflation/deflation sequence: Wing advisory lights illuminate and go out sequentially in pairs, commencing with outboard pair and ending with inboard pair, followed by inboard TAIL then outboard TAIL. **Continued…**		Place a "Pressure Indicator Inoperative" placard near the faulty de-ice pressure indicator.
Cont'd…								

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30 10-3	**ICE AND RAIN PROTECTION** DEICE PRESS Indicators **Continued…**					**NOTE**: The sequence of the WING 3rd and 4th advisory lights on the left side is reversed. 4. Select the BOOT AIR switch to ISO and observe that the DEICE PRESS caution light illuminates. 5. Select the BOOT AIR switch to NORM and observe whether the DEICE PRESS caution light extinguishes. 6. Shut down #1 engine.		
10-4 **Cont'd…**	Low Pressure Warning Switches (LPWS)	C	2	1	(M) May be inoperative provided: a) DEICE PRESS Caution Light is verified operative, b) DEICE PRESS Indicator is verified operative, c) All De-ice Advisory Lights are verified operative, and d) Faulty LPWS is disconnected.	1. Access the Centralized Diagnostic System (if operational) for the IRPS and confirm/rectify any listed PRESENT FAULTS. 2. Start #2 engine and run at ground idle. 3. Confirm #2 de-ice system pressure indication on the dual DE-ICE pressure gauge is 18 +1.5/−1 psi. 4. On the ICE PROTECTION panel, set AIRFRAME AUTO rotary selector to FAST position and verify that the De-Icer boot advisory lights operate normally at the appropriate boot inflation/deflation sequence.		Inoperative Low Pressure Warning Switch(es) must be placarded in the flight compartment.

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30	**ICE AND RAIN PROTECTION**							
10-4 **Cont'd…**	Low Pressure Warning Switches (LPWS) **Continued…**					**Continued…** 5. Set the AIRFRAME AUTO selector to OFF position. 6. Shut down engine. 7. Gain access to left Low Pressure Warning Switch, via panel 261CT, on top of the fuselage, immediately adjacent the left inboard leading edge boot. 8. Locate electrical plug 3000-P22 and disconnect from pressure switch. 9. Re-start engine #2 and run at ground idle. 10. Select the BOOTAIR switch to ISO and confirm single side pressure indication for the system on the dual DEICE pressure gauge is normal (18 +1.5/−1 psi) and observe whether the DEICE PRESS caution light extinguishes. 11. If Caution light extinguishes, tape and stow 3000-P22 at left Low Pressure Warning Switch, then repeat steps (9) and (10). If Caution light does not extinguish, proceed to next step. 12. Shutdown #2 engine and re-connect 3000-P22. Close access panel.		

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30	**ICE AND RAIN PROTECTION**							
10-4	Low Pressure Warning Switches (LPWS) **Continued…**					**Continued…** 13. Gain access to right Low Pressure Warning Switch, via panel 261LT, on top of the fuselage, immediately adjacent the right inboard leading edge boot. 14. Locate electrical plug 3000-P23 and disconnect from pressure switch. 15. Start engine #1 and run at ground idle. 16. Repeat step (10). 17. If Caution light extinguishes, tape and stow 3000-P23 at right Low Pressure Warning Switch. 18. Select the BOOT AIR switch to NORM. 19. Shutdown #1 engine and close access panel.		
		C	2	0	May be inoperative provided flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Inoperative Low Pressure Warning Switch(es) must be placarded in the flight compartment.

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30	**ICE AND RAIN PROTECTION**							
10-5	WING De-Ice Boots Advisory Lights	C	8	2	(O) May be inoperative provided: a) The left wing root deicer boot advisory light and right wing root deicer boot advisory light are verified operative, b) The associated boot operation is visually monitored when in use, and c) The appropriate wing inspection light(s) operate normally for night operation. **Flight Crew Deferral Permitted**		1. Select the AIRFRAME MODE SELECT switch to "FAST". 2. Visually confirm the two wing root deicer boot advisory lights are illuminated in 60 sec. 3. Select the AIRFRAME MODE SELECT switch to "OFF".	Placard inoperative Wing De-Ice Boots Advisory Lights on the ICE PROTECTION control panel in the flight compartment.

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30	**ICE AND RAIN PROTECTION**							
10-6	Timer Monitor Unit (TMU, Timer Function)	C	1	0	(M) May be inoperative provided: a) Flight is not conducted in known or forecast icing conditions, b) PITOT HEAT 1, PITOT HEAT 2 and PITOT HEAT STBY are verified operative, c) L AOA VANE HEAT and R AOA VANE HEAT are verified operative, and d) ENGINE INTAKE HEATER 1 and 2 are verified operative. **NOTE**: AUTO mode of De-icer boots cycle will be inoperative. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	1. Start and run both engines at idle. 2. Ensure that both AC Generators are selected on. 3. At the ICE PROTECTION panel, select both ENGINE INTAKE bypass door switches and observe that the switch-lights' advisory light indications change from CLOSED to OPN and HTR. **NOTE**: The engine intake adaptor heaters and resultant HTR indications are switched by the thermostat on the skin panel, beneath the cockpit floor. If outside air temperatures are above 7 degrees C (45 degrees F), as indicated on the Engine Display SAT indication, spray the skin at the location of the thermostat with Freezemist to lower the temperature and observe the HTR advisory lights illumination. 4. De-select the ENGINE INTAKE bypass door switches and observe the switch-light advisory lights return to the CLOSED indications. 5. Shut down engines.		Inoperative airframe de-ice Timer Monitor Unit Timing Function must be placarded in the flight compartment.

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30	**ICE AND RAIN PROTECTION**							
10-7	Airframe De-Icing System	C	1	0	May be inoperative provided the flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Placard inoperative Airframe De-Icing System on the ICE PROTECTION control panel.

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30	**ICE AND RAIN PROTECTION**							
20-1	Engine Intake Bypass Door OPN and CLOSED Advisory Lights	C	2	0	(M) May be inoperative provided: a) Bypass Door operation is verified prior to each flight, and b) The related engine intake heater indicator is verified operative.	**Verifying Intake Bypass Door and Heater Indicator Prior to Each Flight** 1. Start associated engine(s) and run to Ground Idle. 2. Ensure all aircraft buses are powered. 3. Observe ESID Electrical Page and monitor LOAD on the AC GEN(s). 4. Check OAT (outside air temperature) or SAT (static air temperature) as shown on the Engine Display. **NOTE:** If temperature is above +7°C (+45 °F), spray aircraft skin at dual thermostat location (lower belly, approx. X=-53 inches, inboard of access panel, 6 inches left of C/L) using Freeze Mist cooling spray or apply ice. **CAUTION:** When visually checking bypass door position with engines running, care must be taken to ensure personnel safety. **Continued…**		Inoperative Engine Intake Bypass Door indicator(s) must be placarded in the flight compartment.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
30	**ICE AND RAIN PROTECTION**							
20-1 **Cont'd…**	Engine Intake Bypass Door OPN and CLOSED Advisory Lights **Continued…**					5. Press associated ENGINE INTAKE OPN / HTR switch on ICE PROTECTION panel and check that: a) affected Engine Intake Bypass Door is open (visual) at respective engine, b) associated ENGINE INTAKE HTR light on ICE PROTECTION panel illuminates, and c) LOAD reading of the associated AC GEN B phase increases. 6. Press associated ENGINE INTAKE CLOSED switch and check that: a) affected Engine Intake Bypass Door is closed (visual), b) associated ENGINE INTAKE HTR light extinguishes, and c) LOAD reading on the associated AC GEN electrical display decreases. 7. Shutdown engine(s). 8. Remove aircraft electrical power applied in Step 2. **Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
30	**ICE AND RAIN PROTECTION**							
20-1	Engine Intake Bypass Door OPN and CLOSED Advisory Lights **Continued…**	C	2	1	(M) (O) One may be inoperative provided: a) Associated Bypass Door remains closed, b) Remaining Bypass Door is operative, and c) Flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	**Verifying Intake Bypass Door and Heater Indicator Once** 1. Start associated engine(s) and run to Ground Idle. 2. Ensure all aircraft buses are powered. 3. Observe ESID Electrical Page and monitor LOAD on the AC GEN(s). 4. Check OAT (outside air temperature) or SAT (static air temperature) as shown on the Engine Display. **NOTE:** If temperature is above +7 °C (+45 °F), spray aircraft skin at dual thermostat location (lower belly, approx. X=-53 inches, inboard of access panel, 6 inches left of C/L) using Freeze Mist cooling spray or apply ice. **CAUTION:** When visually checking bypass door position with engines running, care must be taken to ensure personnel safety. **Continued…**	Flight planning to ensure flight is not operated in known or forecast icing conditions.	Inoperative Engine Intake Bypass Door indicator(s) must be placarded in the flight compartment.
Cont'd…								

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30	**ICE AND RAIN PROTECTION**							
20-1	Engine Intake Bypass Door OPN and CLOSED Advisory Lights **Continued…**					5. Press associated ENGINE INTAKE OPN / HTR switch on ICE PROTECTION panel and check that: a) affected Engine Intake Bypass Door is open (visual) at respective engine, b) associated ENGINE INTAKE HTR light on ICE PROTECTION panel illuminates, and c) LOAD reading of the associated AC GEN B phase increases. 6. Press associated ENGINE INTAKE CLOSED switch and check that: a) affected Engine Intake Bypass Door is closed (visual), b) associated ENGINE INTAKE HTR light extinguishes, and c) LOAD reading on the associated AC GEN electrical display decreases. 7. Shutdown engine(s). 8. Remove aircraft electrical power applied in Step 2.		

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30	**ICE AND RAIN PROTECTION**							
20-2	ENGINE INTAKE HTR Advisory Lights	A	2	0	(M) May be inoperative provided: a) Heaters are verified operative before each departure into known or forecast icing conditions, and b) Repairs are made within three flight days. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.	1. Check that the associated heater(s) is/are operative: a) Visually check that associated engine intake bypass door is closed on the affected engine(s). b) Start associated engine(s) and run to Ground Idle. c) Ensure all aircraft buses are powered. d) Monitor the associated AC generator LOAD on ESID-Electrical Page. e) Check that SAT (Static Air Temperature) is below a nominal 15°C (59°F). **NOTE:** If the SAT is above a nominal 15°C (59°F), spray aircraft skin at the thermostat location (below flight compartment, left hand side) using Freeze Mist cooling spray, or apply ice.		Inoperative Engine Intake Heater Advisory Light must be placarded on the ICE PROTECTION Control Panel.
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
30	**ICE AND RAIN PROTECTION**							
20-2	ENGINE INTAKE HTR Advisory Lights **Continued…**					f) Press associated ENGINE INTAKE BYPASS door OPN/HTR switchlight and check that: i) associated OPN switchlight illuminates and CLOSED light is off. ii) LOAD reading of the associated AC generator increases on MFD#2. g) Press associated ENGINE INTAKE BYPASS door OPN/HTR switchlight and check that: i) associated CLOSED switchlight illuminates and OPN light is off. ii) LOAD reading of the associated AC generator decreases. h) Repeat steps (e) through (g) is required for opposite engine. i) Shut down engine(s). 2. If the previous condition is not achieved, check that both ENG ADPT HEAT caution lights operate normally.		
Cont'd…						**Continued…**		

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30	**ICE AND RAIN PROTECTION**							
20-2	ENGINE INTAKE HTR Advisory Lights **Continued…**	C	2	1	(M) One may be inoperative provided: a) The associated heater is verified operative prior to dispatch, and b) Both ENG ADPT HEAT Caution Lights are operative.	1. Check that the associated heater(s) is/are operative: a) Visually check that associated engine intake bypass door is closed on the affected engine(s). b) Start associated engine(s) and run to Ground Idle. c) Ensure all aircraft buses are powered. d) Monitor the associated AC generator LOAD on ESID-Electrical Page. e) Check that SAT (Static Air Temperature) is below a nominal 15°C (59°F). **NOTE:** If the SAT is above a nominal 15°C (59°F), spray aircraft skin at the thermostat location (below flight compartment, left hand side) using Freeze Mist cooling spray, or apply ice. f) Press associated ENGINE INTAKE BYPASS door OPN/HTR switchlight and check that: i) associated OPN switchlight illuminates and CLOSED light is off. ii) LOAD reading of the associated AC generator increases on MFD#2. **Continued…**		Inoperative Engine Intake Heater Advisory Light must be placarded on the ICE PROTECTION Control Panel.
Cont'd…								

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30	**ICE AND RAIN PROTECTION**							
20-2	ENGINE INTAKE HTR Advisory Lights **Continued…**					g) Press associated ENGINE INTAKE BYPASS door OPN/HTR switchlight and check that: i) associated CLOSED switchlight illuminates and OPN light is off. ii) LOAD reading of the associated AC generator decreases. h) Repeat steps (e) through (g) is required for opposite engine. i) Shut down engine(s). 2. If the previous condition is not achieved, check that both ENG ADPT HEAT caution lights operate normally.		
		C	2	1	One may be inoperative provided flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Inoperative Engine Intake Heater Advisory Light must be placarded on the ICE PROTECTION Control Panel.

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30	**ICE AND RAIN PROTECTION**							
20-3	ENG ADPT HEAT 1 ENG ADPT HEAT 2 Caution Lights	B	2	1	(M) One may be inoperative provided: a) The associated heater is verified operative prior to dispatch, and b) Both ENGINE INTAKE HTR advisory lights are operative and are periodically monitored.	1. Check that the associated heater is operational: a) Visually check that associated engine intake bypass door is closed on the affected engine. b) Start associated engine and run to Ground Idle. c) Ensure all aircraft buses are powered. d) Monitor the associated AC generator LOAD on ESID Electrical Page. e) Check that SAT (Static aircraft temperature) is below 7 °C (45 °F). **NOTE**: If the SAT is above 7°C, spray aircraft skin at the thermostat location (below Flight Compartment, left hand side) using Freeze Mist cooling spray, or apply ice. f) Press associated ENGINE INTAKE switch on ICE PROTECTION panel and check that: i) associated OPN light illuminates and CLOSED light is off. ii) LOAD reading of the associated AC generator increases. **Continued…**		Inoperative ENGINE ADPT HEAT 1 and 2 Caution Lights must be placarded on the ICE PROTECTION Panel.
Cont'd…								

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30	**ICE AND RAIN PROTECTION**							
20-3	ENG ADPT HEAT 1 ENG ADPT HEAT 2 Caution Lights **Continued…**					g) Press associated ENGINE INTAKE BYPASS door OPN/HTR switchlight and check that: i) associated CLOSED switchlight on ENGINE INTAKE BYPASS door illuminates and OPN light is off. ii) LOAD reading of the associated AC generator decreases on MFD #2. h) Shut down engine(s).		
20-4	Engine Intake Adapter Heater Assemblies	C	2	1	One may be inoperative provided the flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Inoperative Engine Intake Adapter Heater is placarded in the flight compartment.

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30	**ICE AND RAIN PROTECTION**							
30-1	Pitot/Static Heaters	B	3	2	May be inoperative for DAY VMC provided: a) There is no visible moisture, and b) The flight is not conducted into known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Placard inoperative PITOT/STATIC PORTS switch on the ICE PROTECTION panel.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
30	**ICE AND RAIN PROTECTION**							
30-2	PITOT HEAT 1, PITOT HEAT 2 and PITOT HEAT STBY Caution Lights	B	3	0	(M) May be inoperative provided: a) The flight is not conducted into know or forecast icing conditions, and b) All other elements of the pitot heat systems are verified operative prior to each flight. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted.**	**System 1 and 2 Pitot Probes** 1. Ensure AC External Power is supplied to the aircraft and all AC and DC buses are powered. 2. Select PITOT/STATIC PORTS #1 and #2 heat on the ICE PROTECTION panel for a period of five to seven seconds, then switch off. **WARNING: Do Not Touch, surface may be very hot.** 3. Physically confirm that both probes have warmed to temperatures above ambient. **Standby Pitot Probe** 1. Select BATTERY MASTER to on, or ensure AC or DC External Power is supplied to the aircraft. 2. Select STBY PITOT/STATIC PORTS heat on the ICE PROTECTION panel for a period of five to seven seconds, then switch off. **WARNING: SURFACE MAY BE HOT TO TOUCH.** 3. Physically confirm that probe has warmed to temperature above ambient.		Inoperative PITOT HEAT Caution Light(s) in the flight compartment.

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30	**ICE AND RAIN PROTECTION**							
40-1	Windshield Wipers	C	2	0	May be inoperative provided the flight is not conducted in precipitation within five nautical miles of the airport of take-off or intended landing. **Flight Crew Deferral Permitted**			Inoperative windshield wiper(s) must be placarded in the flight compartment.
40-2	Windshield Heaters	C	3	1	(O) One front and/or Pilot's side window system may be inoperative provided the airplane is not operated in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**		1. Avoid icing conditions. If unexpected icing is encountered, exit as soon as practicable. 2. Periodically monitor engine display SAT Indication for temperatures above +5 °C.	Inoperative WINDSHIELD/Heaters must be placarded on the ICE PROTECTION Panel.
		C	3	0	(O) May be inoperative provided: a) The airplane is not operated in known or forecast icing conditions, and b) OAT along the route flown is +5 degrees C (41 degrees F) or higher. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.		1. Avoid icing conditions. If unexpected icing is encountered, exit as soon as practicable. 2. Periodically monitor engine display SAT Indication for temperatures above +5 °C.	Inoperative WINDSHIELD/Heaters must be placarded on the ICE PROTECTION Panel.

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30	**ICE AND RAIN PROTECTION**							
60-1	Propeller De-icing System	C	1	0	May be inoperative provided flight is not conducted in known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Inoperative propeller de-icing system must be placarded in the flight compartment.
60-2	PROPS Heat Advisory Lights	B	2	0	(O) May be inoperative provided: a) AC LOAD indication is operating and periodically monitored, and b) The PROP DEICE caution light is operative. **Flight Crew Deferral Permitted**		AC load indication is periodically monitored.	Inoperative Propeller Heat Advisory light(s) must be placarded in the flight compartment.
		C	2	0	May be inoperative provided airplane is not operated in known or forecast icing conditions. **Flight Crew Deferral Permitted** **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted		AC load indication is periodically monitored.	Inoperative Propeller Heat Advisory light(s) must be placarded in the flight compartment.

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30	**ICE AND RAIN PROTECTION**							
80-1	Ice Detector Spigot Illumination Lights	C	2	0	May be inoperative for day operations. **Flight Crew Deferral Permitted**			Inoperative Ice Detector Light(s) must be placarded in the flight compartment.
80-2	Ice Detector Probes (Electronic)	C	2	1	(O) With both probes installed on the aircraft, one may be inoperative. **Flight Crew Deferral Permitted**		The Crew will ensure that one probe is operative.	Placard any unserviceable ICE DETECTOR PROBE(S) in the flight compartment.
		B	2	0	(O) Both may be inoperative provided: a) Windshield wipers are stored in the normal horizontal position, and b) Both Ice Detector Spigot illumination lights are confirmed operative prior to night operations. c) Flight will be conducted in accordance with AFM Supplement 98 "OPERATION WITH BOTH ICE DETECTOR PROBES (ELECTRONIC) INOPERATIVE (ICE DETECT FAIL CAUTION LIGHT ILLUMINATED)" procedures. d) The flight is not conducted at night into known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.		The Crew will ensure: 1) Windshield wipers are parked in the horizontal position when not in use. 2) Both Ice Detector Spigot Lights are operative for night operations. 3) The flight is conducted in accordance with Abnormal and Emergency Manual "OPERATION WITH BOTH ICE DETECTOR PROBES (ELECTRONIC) INOPERATIVE (ICE DETECT FAIL CAUTION LIGHT ILLUMINATED)" procedures. 4) The flight is not conducted at night into known or forecast icing conditions. 5) Boots must be ON when operating in flight when icing conditions exist.	Placard any unserviceable ICE DETECTOR PROBE(S) in the flight compartment.

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30	ICE AND RAIN PROTECTION							

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31	**INDICATING / RECORDING SYSTEMS**							
20-1	Clocks							
	1) Pilot Clock	A	1	0	(O) May be inoperative provided Co-pilot's clock is operational and repairs are made within three flight days. **Flight Crew Deferral Permitted**		Flight Crew will utilize the FMS clock for time as necessary.	Placard inoperative Clock on the glareshield.
	2) Co-pilot Clock	C	1	0	(O) May be inoperative provided Pilot's clock is operational. **Flight Crew Deferral Permitted**		Flight Crew will utilize the FMS clock for time as necessary.	Placard inoperative Clock on the glareshield.

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31	**INDICATING / RECORDING SYSTEMS**							
30-1	Flight Data Recorder (FDR) System	A	1	0	May be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, b) Airplane is not dispatched from a designed airport as listed in the operator's MEL unless: 1. The FDR failure occurs after pushback but prior to takeoff, or 2. The FDR repairs was attempted but was not successful. c) In those cases where repairs is attempted but not successful, the aircraft may be dispatched on a flight or series of flight until next designated airport where repair must be accomplished prior to dispatch, and d) Repairs are made within 3 flight days. Designated Airport: ALB **Flight Crew Deferral Permitted**	**NOTE**: 1. For a FDR to be deferred an attempt to repair the system must be made and confirmed by the Maintenance Control Duty Manager. 2. A description of the attempted repair must be listed in the aircraft paperwork, a listing of the suspected faulty parts required to correct the item must be included in paperwork and in the computer database. 3. The FDR can then be deferred for a maximum of 3 flight days. 4. The aircraft may fly to and from one of the designated airports until all of the required parts become available. 5. The Maintenance Control Duty Manager will coordinate with MX and dispatch to ensure that the aircraft does not depart a listed airport if all the parts are available.		Placard inoperative Flight Data Recorder in the flight compartment.
Cont'd…	1) DFDR Recording Parameters required by FAR	A	88	85	Up to three (3) recording parameters may be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, and b) Repairs are made within twenty calendar days. **Flight Crew Deferral Permitted**			Placard inoperative Flight Data Recorder in the flight compartment.

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31	**INDICATING / RECORDING SYSTEMS**							

Required Parameters

Time or Relative Times Counts	Pressure Altitude	Indicated Airspeed or Calibrated Airspeed	Heading (Primary Flight Crew Reference)	Normal Acceleration (Vertical)	Pitch Attitude	Roll Attitude
Manual Radio Transmitter Keying or CVR/DFDR Synchronization Reference	Thrust/Power on each engine primary Flight Crew reference	Autopilot Engagement	Longitudinal Acceleration	Pitch Control Position	Lateral Control Position	Yaw Control Position
Pitch Control Surfaces Position	Lateral Control Surface Position	Yaw Control Surface Position	Lateral Acceleration	Pitch Tim Surface Position	Trailing Edge Flap or Cockpit Control Selection	Ground Spoiler Position or Brake Selection
Outside Air Temperature or Total Air Temperature	Autopilot/Autothrottle/AFCS Mode and Engagement Status	Radio Altitude	Localizer Deviation MLS Azimuth, or GPS Latitude Deviation	Glideslope Deviation, MLS Elevation, or GPS Vertical Deviation	Marker Beacon Passage	Master Warning
Air/Ground Sensor (Primary Airplane System Reference Nose or Main Gear)	Angle of Attack	Hydraulic Pressure Low, Each System	Groundspeed	GPWS (Ground Proximity Warning System)	Landing Gear Position or Landing Gear Cockpit Control Selection	Drift Angle
Wind Speed and Direction	Latitude and Longitude	Stick Shaker and Pusher Activation	Windshear Detection	Throttle/Power Lever Position	Additional Engine Parameters	Traffic Alert and Collision Avoidance System (TCAS)

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31	**INDICATING / RECORDING SYSTEMS**							

Required Parameters (Continued)

DME 1 and 2 Distance	Nav 1 and 2 Selected Frequency	Selected Barometric Setting	Selected Altitude	Selected Speed	Selected Mach	Selected Vertical Speed
Selected Heading	Selected Flight Path	Selected Decision Height	EFIS Display Format	Multi-function/Engine Alert Display Format	Thrust Command	Thrust Target
Fuel Quantity in CG Trim Tank	Primary Navigation System Reference	Ice Detection	Engine Warning Each Engine Vibration	Engine Warning Each Engine Over Temp	Engine Warning Each Engine Oil Pressure Low	Engine Warning Each Engine Over Speed
Yaw Trim Surface Position	Roll Trim Surface Position	Brake Pressure Left and Right	Brake Pedal application Left and Right	Yaw or Sideslip Angle	Engine Bleed Valve Position	De-icing or Anti-icing System Selection
Computed Center of Gravity	AC Electrical Bus Status	DC Electrical Bus Status	APU Bleed Valve Position	Hydraulic Pressure Each System	Loss of Cabin Pressure	Computer Failure (Critical Flight and Engine Control Systems)
Heads-up Display	Para-visual display	Cockpit trim Control Input Position – Pitch	Cockpit trim Control Input Position – Roll	Cockpit trim Control Input Position – Yaw	Trailing Edge Flap and Cockpit Flap Control Position	Ground Spoiler Position
All Cockpit Flight Control Input Forces (Control Wheel, Control Column, Rudder Pedal)	Yaw Damper Status	Yaw Damper Command	Standby Rudder Valve Status			

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31	**INDICATING / RECORDING SYSTEMS**							
30-1	Flight Data Recorder (FDR) System **Continued…** 2) DFDR Recording Parameters not required by FAR	A	-	0	May be inoperative provided repairs are made prior to the completion of the next heavy maintenance visit. **Flight Crew Deferral Permitted**			Placard inoperative Flight Data Recorder in the flight compartment.
30-2	Extended Quick Access Recorder	D	1	0	(M) May be inoperative provided the Recorder is deactivated.	1. Pull and clip the EQAR circuit breaker located on the avionics circuit breaker panel.		Placard the Extended Access Recorder "EQAR INOP".

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
31	**INDICATING / RECORDING SYSTEMS**							
60-1	ESID Control Panel							
	1) System Page Push Button Switches	C	4	0	(O) The ELEC SYS, ENG SYS, FUEL SYS, and DOORS SYS Switches may be inoperative provided the ALL Switch is operative. **Flight Crew Deferral Permitted**		Sequence through all ESID Systems Synoptic pages as required by proviso and confirm relevant page is available.	Inoperative Electronic Systems Integrated Display (ESID) Control Panel must be placarded in the flight compartment.
	2) ALL Switch	C	1	0	(O) The ALL Switch may be inoperative provided the ELEC SYS, FUEL SYS, ENG SYS, and DOOR SYS Switches are operative. **Flight Crew Deferral Permitted**		Sequence through all ESID Systems Synoptic pages as required by proviso and confirm relevant page is available.	Inoperative Electronic Systems Integrated Display (ESID) Control Panel must be placarded in the flight compartment.
	3) Engine Display Dimming Function	C	1	0	Dimming may be inoperative provided the display intensity is adequate. **Flight Crew Deferral Permitted**			Inoperative Electronic Systems Integrated Display (ESID) Control Panel must be placarded in the flight compartment.
60-2	MFD and PFD Engine Display Messages							
	1) PFD 1 / 2 LINK FAIL Engine Display message	C	2	1	Either 1 or 2 LINK FAIL message may be displayed. **Flight Crew Deferral Permitted**			Make appropriate entry in the aircraft flight log.
	2) MFD 1 / 2 LINK FAIL Engine Display Message	C	2	1	Either 1 or 2 LINK FAIL message may be displayed. **Flight Crew Deferral Permitted**			Make appropriate entry in the aircraft flight log.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
31	**INDICATING / RECORDING SYSTEMS**							
60-3	Electronic Flight Instrument System Control Panels	B	2	1	(O) One panel may be inoperative provided: a) The Pilot flying panel is fully operative, and b) Affected side must meet navigational requirements for route being flown. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited.	Inoperative Electronic Flight Instrument Systems (EFIS) Control Panel must be placarded in the flight compartment.
	1) Bright/Dim Controls	C	3	0	Dimming may be inoperative provided the display intensity is adequate. **Flight Crew Deferral Permitted**			Inoperative Electronic Flight Instrument Systems (EFIS) Control Panel must be placarded in the flight compartment.
60-4	FADEC 1/ DU or FADEC 2/ DU Engine Display Message	A	2	1	Message may be annunciated for three flight days. **Flight Crew Deferral Permitted**			FADEC DU Engine Display Message must be placarded in the flight compartment.

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31	INDICATING / RECORDING SYSTEMS							

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32	**LANDING GEAR**							
20-1	NOSE GEAR LOCK Advisory Light (if installed)	C	1	0	(O) May be inoperative provided Nose Gear Lock is verified disengaged prior to each departure.		Verify that the nose ground lock door is flush with the fuselage skin prior to each departure.	Inoperative Nose Gear Lock Advisory Light must be placarded in the flight compartment.
30-1	Landing Gear Retraction System	A	1	0	(M) (O) Landing gear retraction system may be inoperative for one flight provided operations are conducted in compliance with AFM Supplement 94 "OPERATION WITH LANDING GEAR EXTENDED".	Inspect landing gear in accordance with AMM and FIM Task 32-31-01-810-804 prior to dispatch.	1. The Captain will brief the passengers that the gear will remain down.. 2. Operations are conducted in compliance with Abnormal Manual "OPERATION WITH LANDING GEAR EXTENDED".	Placard the gear retraction system inoperative at the time Landing Gear Control Panel.

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32	**LANDING GEAR**							
40-1	Parking Brake Pressure Indications							
	1) HYD PRESS PK BRK Indication	C	1	0	(M) May be inoperative provided: a) The Aft Wing Root Fairing Indicator is verified operative, and b) Brake pressure is confirmed adequate prior to engine start. **Flight Crew Deferral Permitted.**	1. Cycle the Park Brake Lever 8 to 10 times to deplete pressure. 2. Ensure that the ACCUMULATOR GAS CHARGE gauge located in the right wing root fairing indicates at least 500 psi.		Inoperative HYD PRESS PK BRK in the flight compartment or ACCUMULATOR GAS CHARGE gauge in the right aft wing root fairing must be placarded.
	2) Aft Wing Root Fairing Indicator	C	1	0	(M) May be inoperative provided: a) The HYD PRESS PK BRAKE Indication is verified operative, and c) Brake pressure is confirmed adequate prior to engine start. **Flight Crew Deferral Permitted.**	1. Ensure that the HYD PRESS PK BRK indicator on the MFD in the flight compartment indicates at least 1500 psi. **NOTE:** If aircraft has been sitting for quite some time, the pressure may be depleted. In this case, use the hand pump in right wheel well and pump up the system.		Inoperative HYD PRESS PK BRK in the flight compartment or ACCUMULATOR GAS CHARGE gauge in the right aft wing root fairing must be placarded.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
32	**LANDING GEAR**							
40-2	Anti Skid System	C	1	0	(O) May be inoperative provided operations are conducted in compliance with AFM Supplement 7 "OPERATION WITH INOPERATIVE ANTI-SKID BRAKE CONTROL SYSTEM". **Flight Crew Deferral Permitted**		Operations are conducted in accordance with Abnormal Manual "OPERATION WITH INOPERATIVE ANTI-SKID BRAKE CONTROL SYSTEM".	Inoperative Anti-Skid system must be placarded in the flight compartment.
40-3	Fill Valve Gauge (CR411000001)				Not installed on MJC8-Q400 aircraft			
50-1	Nosewheel Steering	A	1	0	(M)(O) May be inoperative provided: a) NOSE STEERING caution light is extinguished when the Nosewheel STEERING switch is in the OFF position, b) The Nosewheel STEERING switch remains OFF, c) Nosewheel Steering is deactivated, d) Operations are conducted in accordance with AFM Supplement 8 "OPERATION WITH INOPERATIVE NOSEWHEEL STEERING SYSTEM". and e) Repairs are made within two flights. **Flight Crew Deferral Permitted**	1. Pull and collar circuit breakers NLG STEER CONT on the L MAIN and the R MAIN circuit breaker panels.	Operations are conducted in accordance with Abnormal Manual "OPERATION WITH INOPERATIVE NOSEWHEEL STEERING SYSTEM". **NOTE:** Nosewheel will caster. Take-off or landing in crosswinds exceeding 25 knots is not permitted.	Inoperative Nosewheel Steering system must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
32	**LANDING GEAR**							
60-1	Touched Runway Indicating System	C	1	0	(M) (O) May be inoperative provided, prior to each flight, it is confirmed that the frangible switch has not been contacted.	If the TOUCHED RUNWAY Warning light has failed in the illuminated condition, at the Caution and Warning Panel, remove the front lens module containing the TOUCHED RUNWAY Warning legend, then remove the respective 4 LEDs. Re-install the lens module.	Prior to flight, inspect the underside of rear fuselage in the vicinity of frangible switch and ensure that: a) there is no evidence that the frangible switch shroud (and switch) has been scraped or broken, and b) there is no visible sign of scrape damage to fuselage.	Inoperative Touched Runway Indication System must be placarded in the flight compartment.

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33	**LIGHTS**							
10-1	Cockpit and Instrument Panel Lighting System	C	1	1	Individual lights may be inoperative for night flight provided the remaining lights are: a) Sufficient to clearly illuminate all instruments, controls, and other devices for which it is provided, b) Positioned so that direct rays are shielded from Flight Crewmember's eyes, and c) Lighting configuration and intensity is acceptable to the Flight Crew. **Flight Crew Deferral Permitted**			Placard inoperative Cockpit and Instrument Panel Lighting System in the flight compartment.
		D	1	0	May be inoperative for daylight operations. **Flight Crew Deferral Permitted**			Placard inoperative Cockpit and Instrument Panel Lighting System in the flight compartment.
10-2	Caution/Warning/ Advisory Lights System Dimming Function	C	1	0	(M) May be inoperative for day operations. **Flight Crew Deferral Permitted.**	1. Perform caution/warning and advisory lights test using "TEST CAUT/ADVISORY" switch on the overhead console. 2. Confirm illumination of all caution warning and advisory lights, including flashing master caution and warning indicators.		Inoperative Caution / Warning / Advisory Lights System Dimming Function must be placarded in the flight compartment

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33	**LIGHTS**							
10-3	Caution/Warning/Advisory Lights System							
	1) Caution/Warning Panel LEDS	C	-	0	May be inoperative provided one half of each light is operative. **Flight Crew Deferral Permitted**			Placard inoperative advisory lights in the flight compartment.
	2) Advisory Lights	C	-	-	(O) Individual bulb(s) LED(s) may be inoperative for advisory lights with multiple light elements provided:: a) Advisory lights are tested before each flight, and b) Luminescence and legibility of affected advisory light(s) is acceptable to the Flight Crew. **Flight Crew Deferral Permitted**		Prior to flight, perform Advisory light test using the TEST CAUT/ADVISORY switch on the overhead console. Confirm illumination of all advisory lights.	Placard inoperative advisory lights in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
33	**LIGHTS**							
20-1	Passenger Information Signs "No Smoking/Fasten Seat Belt"	C	-	0	(M) Passenger Seats, Flight Attendant Seats, or Lavatory from which a sign is not readily legible shall not be occupied and must be blocked and placarded "DO NOT OCCUPY". **Flight Crew Deferral Permitted**	Block each seat in the passenger compartment from which an operative "No Smoking/Fasten Seat Belt" sign is not readily legible and placard affected seat(s) "DO NOT OCCUPY".		Inoperative Passenger Information Signs "No Smoking / Fasten Seat Belt" must be placarded in the flight and passenger compartments.
		C	-	0	(O) The affected Seats or Lavatory may be occupied provided: c) The Crew Cabin Interphone System, Cabin Chimes System, and Passenger Address System are verified operative, and d) Procedures are established and used to alert Flight Attendants and notify passengers when seat belts should be fastened and smoking prohibited. **Flight Crew Deferral Permitted**		(Seat Occupied) 1. Verify that the passenger address system operates normally at the location of the inoperative sign as follows: a) Ensure aircraft DC bus system is powered. b) Ensure PA AMP Circuit Breaker (B8) on L ESSENTIAL Bus is closed. c) PUSH release lever and remove attendant handset from cradle assembly. Select PA system switchlight at attendant control unit (ACU), press PUSH-TO-TALK switch on the handset and make announcement over the Passenger Address (PA) system. d) Deselect or terminate PA mode by pressing the PA switch at the control unit and replace handset to cradle assembly. e) From the cockpit, initiate an attendant call and verify cabin chime sound and normal voice communication is present.	Inoperative Passenger Information Signs "No Smoking / Fasten Seat Belt" must be placarded in the flight and passenger compartments.
Cont'd…							**Continued…**	

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33	**LIGHTS**							
20-1	Passenger Information Signs "No Smoking/Fasten Seat Belt" **Continued…**						The Flight Crew will notify passengers and Flight Attendant(s) through PA when seat belts should be fastened and smoking is prohibited.	
	1) Automatic Function	C	-	0	(O) May be inoperative provided: a) Manual control function is operative, and b) Alternate procedures are established and used. **Flight Crew Deferral Permitted**		1. Select the NO SMOKING / FASTEN BELTS switch on the cockpit overhead console and observe that the passenger "No Smoking / Fasten Seat Belt" signs illuminate. 2. Captain will call the Flight Attendants on the PA after switching ON or switching OFF the FASTEN BELTS or NO SMOKING switches. Flight Attendant "A" or "B" will make an announcement as applicable to Captain's instruction.	Inoperative Passenger Information Signs "No Smoking / Fasten Seat Belt" must be placarded in the flight and passenger compartments.
	2) Aural Tone	C	1	0	(O) May be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		Captain will call the Flight Attendants on the PA after switching ON or switching OFF the FASTEN BELTS or NO SMOKING switches. Flight Attendant "A" or "B" will make an announcement as applicable to Captain's instruction.	Inoperative Passenger Information Signs "No Smoking / Fasten Seat Belt" must be placarded in the flight and passenger compartments.

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33	**LIGHTS**							
20-2	Cabin Lighting System							
	1) Ceiling Lights – Classic	C	-	-	Individual lighting sources may be inoperative provided: a) No three adjacent or two opposite lamp tubes are inoperative, and b) Cabin lighting is sufficient for Flight Attendants to perform required duties. **Flight Crew Deferral Permitted**			Inoperative Cabin Lights must be placarded in the passenger compartment.
	2) Ceiling Lights – NG (CR825CH02598)	C	-	-	(O) Up to 25% of total length of ceiling upwash lights may be inoperative provided: a) No two adjacent or opposite LED strips are inoperative. b) Cabin lighting is sufficient for Flight Attendants to perform required duties. **Flight Crew Deferral Permitted**		Ceiling upwash lights are the LED strips mounted above the overhead bins that emit light onto the ceiling. To determine the definition of 25% of total length of lights, 19 rows multiplied by 0.25=4 (separate or consecutive) that may have LED upwash lights inoperative above them.	Inoperative Cabin Lights must be placarded in the passenger compartment.
	3) Sidewall Lighting – Classic	C	-	-	May be inoperative provided cabin lighting is sufficient for Flight Attendants to perform required duties. **Flight Crew Deferral Permitted**			Inoperative Cabin Lights must be placarded in the passenger compartment.
	4) Sidewall Lighting – NG (CR825CH02598)	C	-	-	(O) Up to 25% of total length of ceiling downwash lights may be inoperative provided: a) No two adjacent or opposite LED strips are inoperative. b) Cabin lighting is sufficient for Flight Attendants to perform required duties. **Flight Crew Deferral Permitted**		Sidewall downwash lights are the LED strips mounted above the window seats that emit light down onto the sidewalls of the aircraft. To determine the definition of 25% of total length of lights, 19 rows multiplied by 0.25=4 rows (separate or consecutive) that may have LED downwash lights inoperative above them.	Inoperative Cabin Lights must be placarded in the passenger compartment.

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33	**LIGHTS**							
20-3	Lavatory Compartment (RETURN TO SEAT and Lavatory OCCUPIED Light)							
	1) RETURN TO SEAT Light	C	1	0	(O) The lavatory may be occupied provided: a) Passenger Address System is operating normally and can be clearly heard in the lavatory compartment during flight, and b) Alternate procedures are established and used to notify passengers when return to seat is required. **Flight Crew Deferral Permitted**		a) Crew will verify the operation of the cabin PA in the lavatory. b) Cabin Crew to ensure lavatory is not occupied when return to cabin is required.	Placard on Flight Attendant light control panel
	2) Lavatory OCCUPIED Light	C	1	0	May be inoperative. **Flight Crew Deferral Permitted**			Placard on Flight Attendant light control panel "Lavatory Occupied Light INOP".
20-4	Accent Lights (Spotlights) -NG (CR825CH02598)	D	30	0	May be inoperative. This relief is not intended for Emergency Flood Lights within the Accent Assemblies. **Flight Crew Deferral Permitted**			Placard Flight Attendant panel.

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33	**LIGHTS**							
25-1	Lavatory Light							
	1) LED System – NG	C	1	0	Full Illumination mode may be inoperative provided the dimmed mode is functional at all times. **Flight Crew Deferral Permitted**			Placard on Lavatory Door "INOPERATIVE – DO NOT ENTER."
	2) Fluorescent – Classic	C	1	0	(M) May be inoperative provided lavatory door is locked closed and placarded, INOPERATIVE – DO NOT ENTER. **Flight Crew Deferral Permitted**	Lock the lavatory door by placing a pin or other similar object in the hole in the latch and sliding it to the locked position.		Placard on Lavatory Door "INOPERATIVE – DO NOT ENTER."
30-1	Aft Baggage Compartment Ceiling Lights	C	2	0	May be inoperative provided alternate lighting is available. **Flight Crew Deferral Permitted**			Inoperative Baggage Compartment Lights must be placarded in the flight compartment and aft baggage compartment door.
		D	2	0	May be inoperative for day operations. **Flight Crew Deferral Permitted**			Inoperative Baggage Compartment Lights must be placarded in the flight compartment and aft baggage compartment door.

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33	**LIGHTS**							
30-2	Forward Baggage Compartment Ceiling Light	C	1	0	May be inoperative provided alternate lighting is available. **Flight Crew Deferral Permitted**			Inoperative Baggage Compartment Lights must be placarded in the passenger compartment.
		D	1	0	May be inoperative for day operations. **Flight Crew Deferral Permitted**			Inoperative Baggage Compartment Lights must be placarded in the passenger compartment.
30-3	Aft Ground Service Light				Not installed on MJC8-Q400 aircraft.			
40-1	Position Lights	C	6	3	For night operations, all except the following minimum may be inoperative: a) One stationary red wing tip light. b) One stationary green wing tip light. c) One stationary white light on top of vertical stabilizer. **Flight Crew Deferral Permitted**			Placard inoperative Position Lights in the flight compartment.
		C	6	0	May be inoperative for daylight operations. **Flight Crew Deferral Permitted**			Placard inoperative Position Lights in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
33	**LIGHTS**							
40-2	Anti-Collision Lights (White)	C	2	1	Individual bulbs may be inoperative provided a Light is operative at each position. **NOTE**: The A/COL switch must be operated as if the lights were operating normally. **Flight Crew Deferral Permitted**			Placard inoperative Anti-Collision Lights in the flight compartment.
40-3	Logo Lights (if installed)	D	2	0	**Flight Crew Deferral Permitted**			Placard inoperative Logo Lights in the flight compartment.
40-4	Anti-Collision Light (Red)	C	1	0	(O) May be inoperative provided adequate precautions are taken to clear the area prior to engine start and while engines are running. **NOTE**: The A/COL Light switch must be operated as if the light was operative. **Flight Crew Deferral Permitted**		1. Ensure the area around the aircraft is clear of personnel prior to engine start and during ground engine running. 2. Operate the Anti-Collision Lights switch as if the light was operating normally.	Inoperative Anti-Collision Light (Red) must be placarded in the flight compartment.

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33	**LIGHTS**							
40-5	Boarding Lights							
	1) Passenger Configuration	C	2	0	May be inoperative provided Cabin Overhead Lighting or alternate means is used. **Flight Crew Deferral Permitted**			Inoperative Boarding Lights must be placarded in the passenger compartment.
		C	2	0	May be inoperative for day operations. **Flight Crew Deferral Permitted**			Inoperative Boarding Lights must be placarded in the PAX compartment.
	2) Cargo Only Operations				Not applicable to MJC8-Q400 Aircraft.			
40-6	Passenger Airstair Door Lights							
	1) Passenger Configuration	C	4	2	Two may be inoperative provided they are not adjacent. **Flight Crew Deferral Permitted**			Inoperative Passenger Airstair Door Lights must be placarded in the passenger compartment.
		C	4	0	May be inoperative provided acceptable alternate lighting is used. **Flight Crew Deferral Permitted**			Inoperative Passenger Airstair Door Lights must be placarded in the passenger compartment.
	2) All Cargo Operations				Not applicable to MJC8-Q400 Aircraft.			

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33	**LIGHTS**							
40-7	Landing Lights	C	4	2	One inboard and/or one outboard light may be inoperative for night operations provided steep approach landings are not conducted. **Flight Crew Deferral Permitted**			Inoperative Landing Lights must be placarded in the flight compartment.
		C	4	0	May be inoperative for day operations. **Flight Crew Deferral Permitted**			Inoperative Landing Lights must be placarded in the flight compartment.
40-8	Taxi Light	C	1	0	May be inoperative provided Landing Lights are operative. **Flight Crew Deferral Permitted**			Inoperative Taxi Light must be placarded in the flight compartment.
		D	1	0	May be inoperative for day operations. **Flight Crew Deferral Permitted**			Inoperative Taxi Light must be placarded in the flight compartment.
40-9	WING INSP Lights	C	4	0	One or more may be inoperative provided the flight is not conducted in known or forecast icing conditions at night. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur.			Inoperative WING INSP Lights must be placarded in the flight compartment.

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33	**LIGHTS**							
					Flight Crew Deferral Permitted			
50-1	Exterior Emergency Lighting System	C	1	0	May be inoperative for day operations. **Flight Crew Deferral Permitted**			Inoperative Exterior Emergency Lighting System must be placarded in the flight compartment.
50-2-1	Interior Electrical Emergency Lighting System Applicable to Bombardier AEROC 84.6.E.1 Sect. 5							
	1) Ceiling Lights, Emergency Markers, Emergency Locators	C	-	-	Individual light bulbs, etc. may be inoperative provided no two adjacent overhead emergency lights are inoperative. **Flight Crew Deferral Permitted**			Inoperative Interior Electrical Emergency Lighting System must be placarded in the flight compartment.
	2) EXIT Identifiers Light Bulbs	C	5	3	Two bulbs from five may be inoperative on each identifier.			Inoperative Interior Electrical Emergency Lighting System must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
33	**LIGHTS**							
50-2-2	NextGen Interior (CR825CH02598) (Applicable to Bombardier AEROC 84.6.E.1, Sect. 15 Only)							Inoperative Cabin Lights must be placarded in the passenger compartment.
	1) Ceiling Emergency Flood Lights	C	7	-	Individual light units may be inoperative provided: a) No two adjacent ceiling emergency flood lights are inoperative, and b) Floodlight at the aircraft fuselage station X-335.31 is operative.			Inoperative Interior Electrical Emergency Lighting System must be placarded in the flight compartment.
	2) EXIT Identifiers	C	4	4	Each exit identifier may have 40% of its internal lights inoperative.			Inoperative Interior Electrical Emergency Lighting System must be placarded in the flight compartment.

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33	**LIGHTS**							
50-3	Photoluminescent Floor Proximity Emergency Escape Path Lighting	C	1	1	Sections may be unserviceable provided FAA approved minimum acceptable lighting levels specified in one of the following documents are complied with: b) FAA approved report of the Type Design holder, (ref. Bombardier AEROC 84.8.AC.10, Sect. 11), 1) 13 feet of lighting strip may be unserviceable provided: a. any unserviceable section does not exceed 8 inches of continuous length, and b. the distance between two adjacent unserviceable sections must not be less than 60 inches on the same strip.			Placard in the flight compartment that the photoluminescent floor proximity emergency escape path lighting strip is unserviceable.

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34	**NAVIGATION**							
10-1	Altitude Alerting System	A	1	0	(O) May be inoperative provided enroute operations, i.e., RVSM, do not require it is use. **Flight Crew Deferral Permitted**		1) With power supplied to both Left and Right Main Feeder busses, select ALT mode on the FGCP. Ensure ALT is displayed on the FMA area of both PFDs. Increased awareness of aircraft altitude must be exercised. 2) Autopilot with altitude hold, and altitude capture operates normally.	Placard the Flight Guidance control panel with ALTITUDE PRE-SELECT INOP.
10-2	PFD ALTIMETER UNITS (CR839CH00016 Secondary Display of Altimeter Units in Metric)				Not installed on MJC8-Q400 aircraft.			
20-1	Standby Magnetic Compass	B	1	0	May be inoperative provided any combination of three gyro (or INS (IRU)) stabilized compass systems are operative. **Flight Crew Deferral Permitted**			Placard inoperative Standby Magnetic Compass in the flight compartment.
		B	1	0	May be inoperative provided: a) Any combination of two gyro (or INS (IRU)) stabilized compass system are operative, and b) Aircraft is operated with dual independent navigation capability and under positive radar control by ATC during the enroute flight phase. **Flight Crew Deferral Permitted**			Placard inoperative Standby Magnetic Compass in the flight compartment.
Cont'd…					**Continued…**			

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
34	**NAVIGATION**							
20-1	Standby Magnetic Compass **Continued…**	B	1	0	(O) May be inoperative for flights that are entirely within areas of magnetic unreliability provided at least two stabilized directional gyro systems are installed, operative and used in conjunction with approved free gyro navigation techniques. **Flight Crew Deferral Permitted**		Operations in areas of magnetic unreliability require that at least two stabilized directional gyro systems operate normally and are used in accordance with approved free-gyro navigation techniques.	Placard inoperative Standby Magnetic Compass in the flight compartment.
20-2	Standby Attitude Indicator	B	1	0	May be inoperative provided: a) Operations are conducted in day VMC only, b) Non-stabilized magnetic compass is operative, c) Standby airspeed indicator or standby airspeed indication is operative, d) Standby altimeter or standby altitude indication is operative, and e) Operations are not conducted into known or forecast VFR-On-Top conditions. f) **Flight Crew Deferral Permitted**			Placard inoperative Standby Attitude Indicator in the flight compartment.
20-3	IVSI Indications (on PFDs)	B	2	1	May be inoperative for day VMC flight only. **Flight Crew Deferral Permitted**			Placard inoperative Vertical Speed Indication (VSI) in the flight compartment.

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34	**NAVIGATION**							
20-4	AHRS Control Panel Indicators							
	1) DG Indicators	C	2	1	May be inoperative provided switching function is operative for each Indicator. **Flight Crew Deferral Permitted**			Inoperative Attitude Heading Reference System Control Panel (AHRSCP) indicators must be placarded in the flight compartment.
	2) ALIGN Indicators	C	2	1	May be inoperative provided switching function is operative for each Indicator. **Flight Crew Deferral Permitted**			Inoperative Attitude Heading Reference System Control Panel (AHRSCP) indicators must be placarded in the flight compartment.
	3) SLAVE Indicators	C	2	1	May be inoperative provided switching function is operative for each Indicator. **Flight Crew Deferral Permitted**			Inoperative Attitude Heading Reference System Control Panel (AHRSCP) indicators must be placarded in the flight compartment.
	4) BASIC Indicators	C	2	1	May be inoperative provided switching function is operative for each Indicator. **Flight Crew Deferral Permitted**			Inoperative Attitude Heading Reference System Control Panel (AHRSCP) indicators must be placarded in the flight compartment.

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34	**NAVIGATION**							
20-5	Flux Valves	B	2	1	May be inoperative provided: a) The opposite Attitude Heading Reference Unit is operative, b) The Standby Magnetic Compass is operative, c) The AHRS on the affected side is operated in DG mode, d) Flight is restricted to DAY VMC, and e) DG Slew Mode is confirmed operative. **Flight Crew Deferral Permitted**			Inoperative Flux Valve must be placarded in the flight compartment.
20-6	Inertial Reference System (INS/IRU)				Not installed on MJC8-Q400 aircraft.			
30-1	Microwave Landing System (MLS)				Not installed on MJC8-Q400 aircraft.			
30-2	Head-Up Display System (HUD)				Not installed on MJC8-Q400 aircraft.			
40-1	Weather Radar System	C	1	0	May be inoperative provided that a flight may not be dispatched under IFR or night VFR conditions when current weather reports indicate that thunderstorms, or other potentially hazardous weather conditions that can be detected with airborne weather radar, may reasonably be expected along the route to be flown. **Flight Crew Deferral Permitted**			Placard inoperative Weather Radar System (WX RDR) in the flight compartment.

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34	**NAVIGATION**							
40-2	Traffic Alert and Collision Avoidance System (TCAS II)	B	1	0	(M) May be inoperative provided: a) System is deactivated and secured, and b) Enroute or approach procedures do not require its use. **Flight Crew Deferral Permitted**	1. Pull and collar the TCAS circuit breaker on Avionics Panel.		Placard inoperative Traffic Collision Avoidance System in the flight compartment.
	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: a) TA and RA visual display is operative on the flying Pilot side, and b) TA and RA audio function is operative on the flying Pilot side. **Flight Crew Deferral Permitted**			Placard inoperative Traffic Collision Avoidance System in the flight compartment.
	2) Resolution Advisory (RA) PL-32 Display System(s)	C	2	1	(O) May be inoperative on the non-flying Pilot side. **Flight Crew Deferral Permitted**		Ensure PF has operative RA alerts.	Placard inoperative Traffic Collision Avoidance System in the flight compartment.
		C	2	0	(O) May be inoperative provided: a) Traffic Alert (TA) visual display and audio functions are operative, b) TA ONLY mode is selected by Crew, and c) Enroute or approach procedures do not require its use. **Flight Crew Deferral Permitted**		Use TCAS Mode Selection Page 1 of 1 on the ARCDU to select TA ONLY operation. Verify "TA ONLY" is annunciated on MFDs.	Placard inoperative Traffic Collision Avoidance System in the flight compartment.

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34	**NAVIGATION**							
40-2	Traffic Alert and Collision Avoidance System (TCAS II) **Continued…**							
	3)Traffic Alert Display System(s)	C	2	0	May be inoperative provided: a) RA visual display and audio functions are operative, and b) Enroute or approach procedures do not require its use. **Flight Crew Deferral Permitted**			Placard inoperative Traffic Collision Avoidance System in the flight compartment.
40-3	RA Height Indications (PFD)	B	2	1	(O) May be inoperative provided: a) No RAD ALT FAIL advisories are displayed on the ED, and b) Approach minimums and operating procedures are not dependant on its use. **Flight Crew Deferral Permitted**		Verify RAD ALT FAIL advisory is not illuminated on ED.	Placard the affected PFD stating RAD ALT DISPLAY INOP.

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34	**NAVIGATION**							
40-4	GPWS/EGPWS Ground Proximity Warning System /Enhanced Ground Proximity Warning System	A	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within two flight days. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited. The Flight Crew will accomplish the following for each flight (IMC or VMC): 1. Maintain increased awareness of flight path and proximity to terrain. 2. Call .SINK RATE when negative climb occurs after takeoff and before reaching 1,500′ AGL. 3. Call SINK RATE when the rate of descent exceeds 1,000 fpm below 1,000′ AGL.	Placard the Pilot's and Co-pilot's glareshield GPWS button.
	1) Modes 1 to 4	A	4	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within two flight days. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited. The Flight Crew will accomplish the following for each flight (IMC or VMC): 1. Maintain increased awareness of flight path and proximity to terrain. 2. Call SINK RATE when negative climb occurs after takeoff and before reaching 1,500′ AGL. 3. Call SINK RATE when the rate of descent exceeds 1,000 fpm below 1,000′ AGL.	Placard the Pilot's and Co-pilot's glareshield GPWS button.
	2) Test Mode	A	1	0	(O) May be inoperative provided: a) GPWS/EGPWS is considered inoperative, and b) Repairs are made within two flight days. **Flight Crew Deferral Permitted**		Operations over Mountainous are prohibited.	Placard the Pilot's and Co-pilot's glareshield GPWS button.

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34	**NAVIGATION**							
40-4	GPWS/EGPWS Ground Proximity Warning System /Enhanced Ground Proximity Warning System **Continued…**							
	3) Glideslope Deviation(s) (Mode 5)	C	2	1	May be inoperative. **Flight Crew Deferral Permitted**			Placard associated glideslope deviation light(s).
		B	2	0	May be inoperative. **Flight Crew Deferral Permitted**			Placard associated glideslope deviation light(s).
	4) Advisory Callouts (Mode 6)	B	1	0	(O) May be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		Flight Crew should maintain increased awareness of flight path and proximity to terrain.	Placard the Pilot's and Co-pilot's glareshield GPWS button.
	5) 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. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited. The Flight Crew will accomplish the following for each flight (IMC or VMC): 1. Maintain increased awareness of the flight path and proximity to terrain. 2. Brief on any know high terrain enroute, on arrival or departure course.	Placard the Pilot's and Co-pilot's glareshield GPWS button.
Cont'd…								

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34	**NAVIGATION**							
40-4	GPWS/EGPWS Ground Proximity Warning System /Enhanced Ground Proximity Warning System **Continued…**							
	6) Terrain Display Functions	C	2	1	(O) May be inoperative. **Flight Crew Deferral Permitted**		One unit may be inoperative provided the Pilot with the serviceable unit will be Pilot Flying (PF) during Operations over Mountainous Terrain	Placard the Pilot's and Co-pilot's glareshield GPWS button.
		B	2	0	(O) May be inoperative. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited.	Placard the Pilot's and Co-pilot's glareshield GPWS button.
40-5	GPWS I/F FAIL Engine Display Message	A	1	0	(M) (O) Message may be displayed provided: a) GPWS is considered inoperative, and b) Repairs are made within two flight days.	At the Avionics circuit breaker panel, pull and collar breaker GPWS (A1)	Operations over Mountainous Terrain are prohibited.	Inoperative GPWS must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
34	**NAVIGATION**							
40-6	Radio Altimeter	A	2	0	(M) (O) May be inoperative provided: a) GPWS/EGPWS is considered inoperative, b) TCAS is considered inoperative, c) Approach minimums or operating procedures are not dependent on its use, d) Operations are conducted in compliance with AFM Supplement 11 OPERATIONS WITH ONE INOPERATIVE STALL WARNING AND/OR STICK PUSHER SYSTEM and AFM Supplement 39 NOICE ABATEMENT PROCEDURES AND PERFORMANCE (LANDING WITH 850 PROPELLER RPM). e) Repairs are made within two days. **NOTE**: In the absence of both Radio Altimeters use Barometric Altimeters for all height indications.	1. Pull and collar the respective RAD ALT #1 and #2 circuit breaker(s), located on the avionics circuit breaker panel. 2. Pull and collar the STICK PUSHER circuit breakers, located on the avionics circuit breaker panel. 3. Placard the glareshield with "RAD ALT #1 and RAD ALT #2 INOP" and "STICK PUSHER INOP". 4. Where applicable, pull and collar the circuit breakers for GPWS/EGPWS, located on the avionics circuit breaker panel and placard the glareshield with "GPWS INOP". 5. Where applicable, pull and collar the circuit breakers for TCAS located on the avionics circuit breaker panel and placard the glareshield with "TCAS INOP".	Operations are conducted in compliance with Abnormal and Emergency Manual OPERATIONS WITH ONE INOPERATIVE STALL WARNING AND/OR STICK PUSHER SYSTEM Operations over Mountainous Terrain are prohibited. **NOTE**: GPWS/EGPWS and TCAS will be inoperative.	Inoperative Radio Altimeter(s) must be placarded in the flight compartment. (Note: See (M) Procedure for additional placarding requirements)
		C	2	1	(M) One may be inoperative. **Flight Crew Deferral Permitted**	1. Pull and collar the respective RAD ALT #1 and #2 circuit breaker(s), located on the avionics circuit breaker panel.		Inoperative Radio Altimeter(s) must be placarded in the flight compartment. (Note: See (M) Procedure for additional placarding requirements.)

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34	**NAVIGATION**							
50-1	ATC Transponder/Altitude Reporting System (incl. ATC Transponder Mode `S' Address Plug)	C	2	0	(O) May be inoperative provided: a) Enroute operations do not require its use, and b) Prior to flight, approval is obtained from ATC facilities having jurisdiction over the planned route of flight. **Flight Crew Deferral Permitted**		At the ARCDU, switch to the operating transponder and ensure TCAS remains operative.	Placard inoperative ATC Transponder/Altitude Reporting System in the flight compartment.
50-2	VHF Navigation System	C	2	1	(O) Any in excess of those required by regulations and not powered by an essential electrical bus may be inoperative provided alternate procedures are established and used. **Flight Crew Deferral Permitted**		May be inoperative provided: a) #1 VHF navigation system must be operational. b) One FMS system must be operational. c) CAT II approaches prohibited	Place placard stating DME INOP near affected ARCDU.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
34	**NAVIGATION**							
50-3	Distance Measuring Equipment (DME)	D	2	1	One DME system may be inoperative provided instrument approaches are not predicated on its use.. **Flight Crew Deferral Permitted**			Place placard near affected ARCDU stating DME INOP.
	1) DME HOLD Function	A	2	0	(O) May be inoperative provided: a) Associated DME if required by FAR 121.349 is operative, b) Alternate means are established and used to provide position and distance, and c) Repairs are made within three flight days. **Flight Crew Deferral Permitted**		Operating procedures using an additional navigation aid such as NDB, VOR, etc., should be established and used.	Inoperative DME HOLD key must be placarded.
		C	2	1	May be inoperative if required by FAR 121.349 provided associated DME is operative. **Flight Crew Deferral Permitted**			Inoperative Distance Measuring Equipment (DME) must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
34	**NAVIGATION**							
50-4	Automatic Direction Finding (ADF) Systems	D	2	1	(O) One ADF system may be inoperative. **Flight Crew Deferral Permitted**		Use operative ADF for navigation.	At the time of deferral, placard ADF as INOP on affected ARCDU.
		C	2	0	(O) Both ADF systems may be inoperative provided procedures do not require its use. **Flight Crew Deferral Permitted**		Verify Engine Out Departure Track (Turn Procedure), Departure Procedure (DP), Arrival Procedure (STAR), and Instrument Approach (including Missed Approach) of the proposed flight do not require the use of the ADF. Refer to the current navaid substitution policy to decide if it applies to the proposed operation.	Placard each ARCDU near associated ADF input.
50-5	Marker Beacon Systems	D	2	0	May be inoperative provided approach procedures do not require its use. **Flight Crew Deferral Permitted**			Inoperative Marker Beacon System(s) must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
34	**NAVIGATION**							
50-6	Global Positioning System (GPS)	C	-	0	(O) May be inoperative provided alternate procedures are established and used. **NOTE:** Cannot use with 34-50-2 VHF Navigation System. **Flight Crew Deferral Permitted**		1. If one is inoperative, no further operational procedures necessary unless only one is installed. If only one installed and is inoperative, refer to #2 if both are inoperative. 2. If both are inoperative: a. Use VHF Navigation System, and b. Operations over Mountainous Terrain are prohibited. c) VHF Navigation System must be operative. **Note**: GPS 1(2) may be identified by a message "GNSS 1(2) FAIL" on the FMS displays.	Inoperative Global Position System (GPS) must be placarded in the flight compartment.
		D	-	0	(O) May be inoperative provided procedures do not require its use. **NOTE:** Cannot use with 34-50-2 VHF Navigation System. **Flight Crew Deferral Permitted**		1. If one is inoperative, no further operational procedures necessary unless only one is installed. If only one installed and is inoperative, refer to #2 if both are inoperative. 2. If both are inoperative: a. Use VHF Navigation System. b. Operations over Mountainous Terrain are prohibited.	Inoperative Global Position System (GPS) must be placarded in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
34	**NAVIGATION**							
50-7	ATC Identifier Switch (On Hand-Wheels)	C	2	1	(M) May be inoperative. **Flight Crew Deferral Permitted**	Label the relevant ATC Identifier Switch(es) as "INOP" on the related Audio and Radio Control display unit.		Placard in flight compartment.
		C	2	0	(M) May be inoperative provided one ATC ID button (on ARCDU1 or ARCDU2) is operative. **Flight Crew Deferral Permitted**	Label the relevant ATC Identifier Switch(es) as "INOP" on the related Audio and Radio Control display unit.		Placard in flight compartment.
50-8	ATC ID Buttons (On ARCDU1 or ARCDU2)	C	2	1	(M) May be inoperative. **Flight Crew Deferral Permitted**	Label the relevant ATC ID button(s) as "INOP" on the ARCDU.		Inoperative ATC button must be placarded in the flight compartment.
		C	2	0	(M) May be inoperative provided one ATC Identifier Switch (on hand-wheels) is operative.	Label the relevant ATC ID button(s) as "INOP" on the ARCDU.		Inoperative ATC button must be placarded in the flight compartment.
60-1	Flight Directors	C	2	0	(O) May be inoperative provided: a) Approach minimums are not dependent on their use, and b) Command bars remain out of view. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited.	Inoperative Flight Director(s) must be placarded on the flight guidance control panel.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
34	**NAVIGATION**							
60-2	Flight Management System (FMS)	C	-	0	(O) May be inoperative provided procedures do not require its use. **Flight Crew Deferral Permitted**		1) If one is inoperative, use NAV Source selector on FGCP to select operating FMS. 2) If both are inoperative or only one installed and inoperative: a) Use VHF Navigation System, and b) Operations over Mountainous Terrain are prohibited. c) VHF Navigation System must be operative.	Inoperative ATC button must be placarded in the flight compartment.
	1) Navigation Databases	C	-	0	(O) May be out of currency provided: a) Current aeronautical charts are used to verify navigation fixes prior to dispatch. b) Verify status and suitability of navigation facilities used to define routes of flights, and c) Approach navigation radios are manually tuned and identified. **Flight Crew Deferral Permitted**		1) Current aeronautical charts are used to verify navigation fixes prior to dispatch. 2) Review applicable NOT AMS to check for navigation facility outages used to define the route of flight. 3) Approach navigation radios are manually tuned and identified.	Inoperative Flight Director(s) must be placarded on the flight guidance control panel.
	2) Company Route Database (CO DATA)	C	-	0	(O) May be missing/unusable provided flight over Mountainous Terrain is prohibited. **Flight Crew Deferral Permitted**		Operations over Mountainous Terrain are prohibited.	Inoperative Flight Director(s) must be placarded on the flight guidance control panel.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
35	**OXYGEN**							
10-1	Crew Fixed Oxygen System OXYGEN Pressure Gauges	C	2	1	(M) May be inoperative provided an alternate procedure is used to verify that oxygen supply is above minimum requirements for dispatch. **Flight Crew Deferral Permitted.**	1. Prior to each flight, check the pressure in the Crew Fixed Oxygen System bottle by whichever pressure gauge is operative. 2. The minimum dispatch pressure in the 3 Crewmember configuration is 1450 psig at 70 °F. Refer to Figure 35-21 on the next page for pressure variations with change in ambient temperature.	If flight compartment oxygen pressure gauge is inoperative, Flight Crew must verify oxygen is at or above the minimum required for Dispatch by checking cylinder mounted pressure gauge located in the right lower nose compartment prior to each flight.	Placard inoperative Crew Fixed Oxygen System Pressure Gauges on the Co-pilot's side console.
10-2	Crew Fixed Oxygen System Overboard Discharge Indicator	C	1	0	(M) May be missing provided an approved procedure is used to ensure that the oxygen supply is at or above minimum requirements for the flight. **Flight Crew Deferral Permitted.**	1. Prior to each flight, check the pressure in the Crew Fixed Oxygen System bottle by whichever gauge is operative. 2. Verify pressure in oxygen cylinder meets minimum dispatch pressure. Refer to Figure 35-1 on the next page for pressure variations with change in ambient temperature.	The Flight Crew, prior to each flight, will check that the Crew fixed oxygen system pressure is at or above minimum required for dispatch.	A placard will be placed by the Crew fixed oxygen system pressure gauge on the Co-pilot's side console which states DISCHARGE INDICATOR MISSING.

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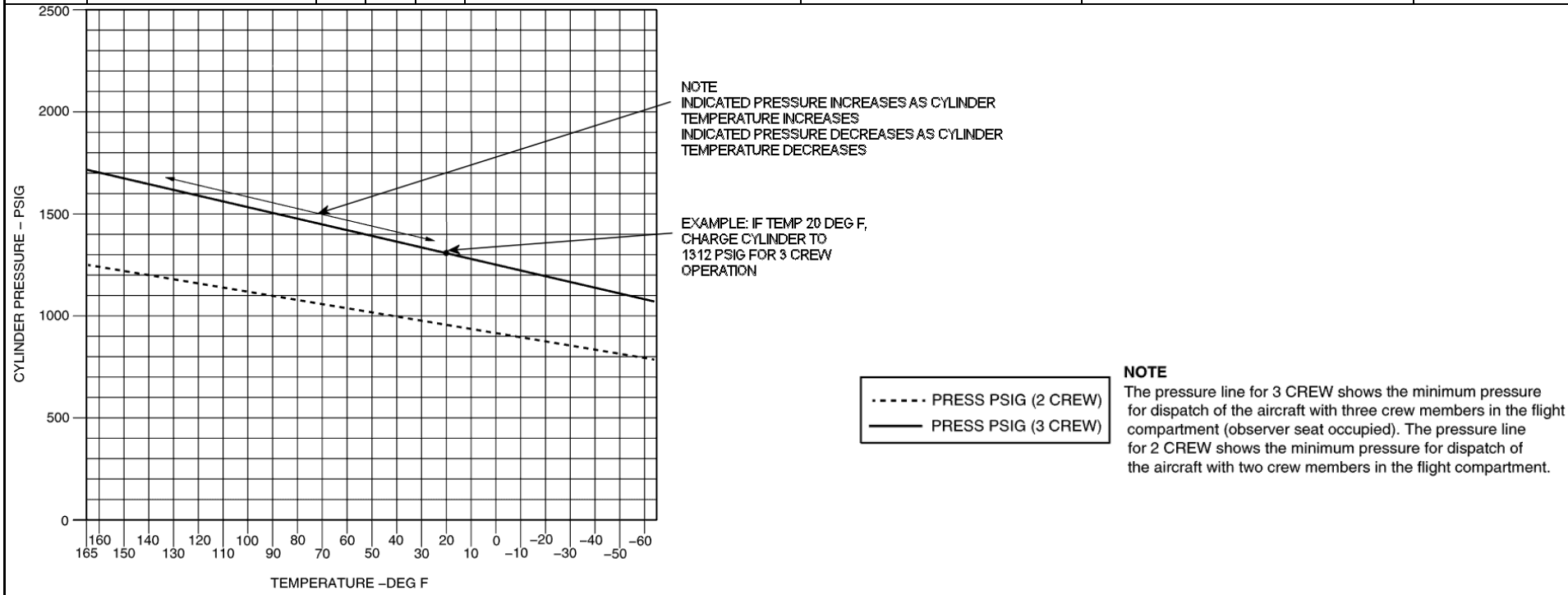
SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
35	OXYGEN							



NOTE

The pressure line for 3 CREW shows the minimum pressure for dispatch of the aircraft with three crew members in the flight compartment (observer seat occupied). The pressure line for 2 CREW shows the minimum pressure for dispatch of the aircraft with two crew members in the flight compartment.

Figure 35-1 CREW OXYGEN MINIMUM DISPATCH PRESSURE WITH TEMPERATURE CORRECTION (50 CU FT CYLINDER)
(Chart extracted from Ramp Servicing Manual, Chapter 5, pg 85 - Rev 3 Dated Jan 30/2004)

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
35	**OXYGEN**							
30-1	Protective Breathing Equipment (PBE)		4	4	Four PBEs required for dispatch.			
30-2	First Aid Oxygen System **System Includes:** -1 Flight Attendant Portable Oxygen Bottle located in last overhead bin, aircraft left. -1 Portable First Aid Oxygen Bottle located in last overhead bin, aircraft right.	C	2	1	(M) (O) One may be unserviceable or missing provided: a) Required distribution of operative units is maintained throughout the aircraft, and b) Bottles not properly serviced are replaced, serviced, or removed at the next available maintenance facility.	1. Inoperative bottle must be removed from the aircraft or stowed in a location where it will not be mistaken for an operative bottle. 2. Placard the oxygen bottle "INOPERATIVE - DO NOT USE". Placard the removed/missing bottle at the storage location.	1. Limited to 60 passengers or flight must be operated at or below 10,000 ft. 2. The Captain will notify the Station Agent of the passenger limits and is responsible for ensuring that the limits are adhered to. 3. The Captain will notify the Flight Attendants of the inoperative Oxygen Bottle.	Placard Portable First Aid Oxygen System in the passenger compartment.
		C	2	0	(M) (O) One may be unserviceable or missing provided: a) Required distribution of operative units is maintained throughout the aircraft, and b) Bottles not properly serviced are replaced, serviced, or removed at the next available maintenance facility.	1. Inoperative bottle must be removed from the aircraft or stowed in a location where it will not be mistaken for an operative bottle. 2. Placard the oxygen bottle "INOPERATIVE – DO NOT USE". 3. Placard the removed/missing bottle at the storage location.	1. Cannot use with MEL 35-30-3. 2. The Captain will brief the Flight Attendants that they will both use a Supplemental Bottle in the event of a decompression. 3. Limited to 30 passengers or flight must be operated at or below 10,000 ft. 4. The Captain will notify the Station Agent of the passenger limits and is responsible for ensuring that the limits are adhered to.	Placard Portable First Aid Oxygen System in the passenger compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
35	**OXYGEN**							
30-3	Portable Oxygen Dispensing Units **System Includes**: -1 Supplemental Oxygen Bottle located in the FWD Emergency Equipment compartment (FWD Bulkhead Emergency Compartment 2 on Serial Numbers 4033 and 4034). -2 Supplemental Oxygen Bottles located in the AFT Doghouse, aircraft right.							
Cont'd…	1) One Supplemental Oxygen Bottle Unserviceable or Missing	C	3	2	(M) (O) One may be unserviceable or missing provided: a) Required distribution of operative units is maintained throughout the aircraft, and b) Bottles not properly serviced are replaced, serviced, or removed at the next available maintenance facility.	1. Check minimum dispatch pressure of remaining supplemental Oxygen Dispensing Units. Figure 35-3 on the following page is included which gives minimum dispatch pressure variation with ambient temperature. 2. Secure inoperative supplemental Oxygen Dispensing Units, or remove from aircraft.	1. Limited to 60 passengers or flight must be operated at or below 10,000 ft. -OR- If using with MEL 35-30-2, 1 FA Portable Oxygen Bottle / Portable First Aid Oxygen Bottle is unserviceable or missing, limited to 30 passengers or flight must be operated at or below 10,000 ft. -OR- If using the MEL 35-20-2, 2 FA Portable Oxygen Bottle / Portable First Aid Oxygen Bottle are unserviceable or missing, limited to 0 passengers or flight must be operated at or below 10,000 ft. **Cont'd**	Placard inoperative Passenger Portable Oxygen Dispensing Units INOPERATIVE, DO NOT USE.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
35	**OXYGEN**							
							2. The Captain will notify the Station Agent of the Passenger limits and is responsible for ensuring that the limits are adhered to. 3. A serviceable Supplemental Oxygen Bottle must always be located in the FWD Emergency Equipment Compartment (FWD Bulkhead Emergency Equipment Compartment 2 on Serial Numbers 4033 and 4034).	
30-3	Portable Oxygen Dispensing Units **Continued…** 2) Two Supplemental Oxygen Bottles Unserviceable or Missing	C	3	1	(M) (O) Two may be unserviceable or missing provided: a) Required distribution of operative units is maintained throughout the aircraft, and b) Bottles not properly serviced are replaced, serviced, or removed at the next available maintenance facility.	1. Check minimum dispatch pressure of remaining Passenger Portable Oxygen Dispensing Units. Figure 35-3 on the following page is included which gives minimum dispatch pressure variation with ambient temperature. 2. Secure inoperative supplemental Oxygen Dispensing Units, or remove from aircraft.	1. Limited to 30 passengers or flight must be operated at or below 10,000 ft. 2. The Captain will notify the Station Agent of the passenger limits and is responsible for ensuring that the limits are adhered to. 3. If using with MEL 35-30-2, 1 or 2 FA Portable Oxygen Bottle / Portable First Aid Oxygen Bottle are unserviceable or missing, flight must be operated at or below 10,000 ft. 4. The serviceable Supplemental Oxygen Bottle must always be located in the FWD Emergency Equipment Compartment (FWD Bulkhead Emergency Equipment Compartment 2 on Serial Numbers 4033 and 4034).	Placard inoperative Passenger Portable Oxygen Dispensing Units INOPERATIVE, DO NOT USE.

SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
35	**OXYGEN**							
	3) Three Supplemental Oxygen Bottles Unserviceable or Missing	A	3	0	(M) (O) Three may be unserviceable or missing provided: a) Required distribution of operative units is maintained throughout the aircraft, and b) Bottles not properly serviced are replaced, serviced, or removed at the next available maintenance facility. c) Limited to 2 flight cycles.	Secure inoperative Passenger Supplemental Oxygen Dispensing Units, or remove from aircraft.	1. Limited to 0 passengers or flight must be operated at or below 10,000 ft.	Placard inoperative Passenger Portable Oxygen Dispensing Units INOPERATIVE, DO NOT USE.
30-4	Dual Purpose Oxygen System Units				Not installed on MJC8-Q400 aircraft.			

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35	OXYGEN							

TEMP (°F)	MINIMUM DISPATCH PRESSURE (PSIG)	MAXIMUM CHARGE PRESSURE (PSIG)
-65	1189	1375
-60	1204	1393
-60	1204	1393
-55	1219	1410
-50	1234	1428
-45	1250	1445
-40	1265	1463
-35	1280	1481
-30	1295	1498
-25	1311	1516
-20	1326	1533
-15	1341	1551
-10	1356	1569
-5	1372	1586
0	1387	1604
5	1402	1621
10	1417	1639
15	1432	1656
20	1448	1674
25	1463	1692
30	1478	1709
35	1493	1727
40	1509	1744
45	1524	1762
50	1539	1780
55	1554	1797
60	1570	1815
65	1585	1832
70	1600	1850
75	1615	1868
80	1630	1885
85	1646	1930
90	1661	1920
95	1676	1938
100	1691	1956
105	1707	1973
110	1722	1991
115	1737	2008
120	1752	2026
125	1768	2044
130	1783	2061
135	1798	2079
140	1813	2096
145	1828	2114
150	1844	2131
155	1859	2149
160	1874	2167
165	1889	2184

Figure 35-3

NOTE: Chart extracted from Bombardier Q400 Minimum Equipment List Procedures Manual (Rev 2 Mar 21/2006) – Pgs 35-8 and 35-9

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
36	**PNEUMATICS**							
10-1	Bleed Systems	B	2	1	(O) One may be inoperative provided: a) Associated BLEED Switch is selected OFF. b) Flight is not conducted in known or forecast icing condition. c) Flight is conducted at or below 10,000 feet. d) Flights are conducted in accordance with AFM Supplement 100 "OPERATION WITH ONE BLEED SYSTEM INOPERATIVE". **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**		1) On the AIR CONDITIONING Panel select the inoperative bleed source BLEED Switch to OFF. 2) Carry out the flight in accordance with Abnormal and Emergency Manual, WITH ONE BLEED SYSTEM INOPERATIVE.	Placard inoperative Bleed system in the Flight Compartment.
Cont'd…								

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
36	**PNEUMATICS**							
10-1	Bleed Systems **Continued…**	B	2	1	(O) One may be inoperative provided: a) Associated BLEED Switch is selected OFF. b) Associated Nacelle Shut-Off Valve (NSOV) operates normally. c) LP/HP Switching through relay logic, and AIRFRAM MODE SELECT deice rotary switch operates normally. d) Flights are conducted at or below 10,000 feet. e) Flights are conducted in accordance with AFM Supplement 100, "OPERATION WITH ONE BLEED SYSTEM INOPERATIVE". **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**		1) On the AIR CONDITIONING Panel select the inoperative bleed source BLEED Switch to OFF. 2) Start and run the associated engine. 3) At the AIR CONDITIONING panel select the RECIRC FAN switch to OFF. 4.) Flights are conducted in accordance with Abnormal and Emergency Manual, OPERATION WITH ONE BLEED SYSTEM INOPERATIVE.	Placard inoperative Bleed system in the Flight Compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
38	**WATER/WASTE**							
38-00-1 (A, B, C, D)	Potable Water Systems/Warm Water Wash System							
	A. E. Coli Positive	A	-	0	(M) (O) System may be contaminated provided: a) Contamination must be corrected within 30 days b) Each new Crew is briefed daily c) The exterior service door and faucet are placarded d) The system is deactivated	1) Drain potable water system IAW AMM 12-10-38-610-801. 2) Pull and collar CB D3 (LAV SYSTEM) on the R essential circuit breaker panel. 3) Placard the lavatory hand washing sink with PN (400-38-11-01A) directly under the mirror next to the faucet. 4) Placard the outside of the lavatory servicing door directly FWD of the door latch with placard PN (400-38-11-01).	**Ensure antiseptic hand gel wipes are present in the lavatory. Read the statement below to the entire Crew** E. Coli bacteria were found in the water supply on (MEL date) E. Coli bacteria presence indicates that the water may be contaminated with human or animal wastes. The aircraft water system has been deactivated. The water is non-potable. Do not use it for drinking, food or beverage preparation, hand washing, teeth brushing, or any other consumptive use. The public health effects of drinking water contaminated with Total Coliform and/or with E. Coli Bacteria can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. These may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. People at increased risk should be particularly careful to avoid this water. The water system will be disinfected, flushed, and follow up sampled as required to ensure the water meets EPA and FDA water standards for humconsumption. Once resolved, usually within 30 days, the water system will be reactivated and the MEL cleared.	1) Placard the lavatory hand washing sink with PN (400-38-11-01A) directly under the mirror next to the faucet. 2) Placard the outside of the lavatory servicing door directly FWD of the door latch with placard PN (400-38-11-01).

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
38	**WATER/WASTE**							
	B. Total Coliform Positive	A	-	0	(M) (O) System may be contaminated provided: a) Contamination must be corrected within 30 days b) Each new Crew is briefed daily c) The exterior service door and faucet are placarded d) The system is deactivated	1) Drain potable water system IAW AMM12-10-38-610-801. 2) Pull and collar CB D3 (LAV SYSTEM) on the R essential circuit breaker panel. 3) Placard the lavatory hand washing sink with PN (400-38-11-01A) directly under the mirror next to the faucet. 4) Placard the outside of the lavatory servicing door directly FWD of the door latch with placard PN (400-38-11-01).	**Ensure antiseptic hand gel wipes are present in the lavatory. Read the statement below to the entire Crew** Coliform bacteria was found in water on (MEL Date). What this means: This is not an emergency. Total Coliform bacteria themseves are generally not harmful. Coliform are bacteria that are naturally present in the envionment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in samples collected and this is a warning of potential problems. The aircraft water system has been deactivated. The water is non-potable. Do not use it for drinking, food or beverage preparation, hand washing, teeth brushing, or any other consumptive use. The public health effects of drinking water contaminated with Total Coliform and/or with E. Coli Bacteria can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. These may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. People at increased risk should be particularly careful to avoid this water. The water system will be disinfected, flushed, and follow up sampled as required to ensure the water meets EPA and FDA water standards for humconsumption. Once resolved, usually within 30 days, the water system will be reactivated and the MEL cleared.	1) Placard the lavatory hand washing sink with PN (400-38-11-01A) directly under the mirror next to the faucet. 2) Placard the outside of the lavatory servicing door directly FWD of the door latch with placard PN (400-38-11-01).

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
38	**WATER/WASTE**							
	C. Boarder water from a suspect water source	A	-	0	(M) (O) System may be contaminated provided: a) Contamination must be corrected within 30 days b) Each new Crew is briefed daily c) The exterior service door and faucet are placarded d) The system is deactivated	1) Drain potable water system IAW AMM 12-10-38-610-801. 2) Pull and collar CB D3 (LAV SYSTEM) on the R essential circuit breaker panel. 3) Placard the lavatory hand washing sink with PN (400-38-11-01A) directly under the mirror next to the faucet. 4) Placard the outside of the lavatory servicing door directly FWD of the door latch with placard PN (400-38-11-01).	**WARNING:** Suspected contaminate on (MEL Date), due to the following: • Boarded water from a non-approved source. • E Coli bacteria were found in the water. • Public notification is deemed necessary by the carrier Water was boarded from a source that is not approved for consumption was not in accordance with FDA regulations, did not meet EPA standards for transient con-community water systems, or was otherwise determined to be unsafe due to non-compliance with the procedure for boarding water under the EPA Aircraft Drinking Water Regulations. The aircraft water system has been deactivated. The water is non-potable. Do not use it for drinking, food or beverage preparation, hand washing, teeth brushing, or any other consumptive use. The public health effects of drinking water contaminated with Total Coliform and/or with E. Coli Bacteria can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. These may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. People at increased risk should be particularly careful to avoid this water. The water system will be disinfected, flushed, and follow up sampled as required to ensure the water meets EPA and FDA water standards for humconsumption. Once resolved, usually within 30 days, the water system will be reactivated and the MEL cleared.	1) Placard the lavatory hand washing sink with PN (400-38-11-01A) directly under the mirror next to the faucet. 2) Placard the outside of the lavatory servicing door directly FWD of the door latch with placard PN (400-38-11-01).

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
38	**WATER/WASTE**							
	D. Failure to perform routine system maintenance	A	-	0	(M) (O) System may be contaminated provided: a) Contamination must be corrected within 30 days b) Each new Crew is briefed daily c) The exterior service door and faucet are placarded d) The system is deactivated	1) Drain potable water system IAW AMM 12-10-38-610-801. 2) Pull and collar CB D3 (LAV SYSTEM) on the R essential circuit breaker panel. 3) Placard the lavatory hand washing sink with PN (400-38-11-01A) directly under the mirror next to the faucet. 4) Placard the outside of the lavatory servicing door directly FWD of the door latch with placard PN (400-38-11-01).	Suspected contamination, due to one of the following: • Failure to perform required and flushing or sampling. • Failure to perform follow up sampling after Total Coliform and/or E. Coli bacteria was found in the water supply. We were required to collect follow up samples after being notified that our water tested positive for E. Coli or Total Coliform. We failed to perform the required monitoring. The aircraft water system has been deactivated. The water is non-potable. Do not use it for drinking, food or beverage preparation, hand washing, teeth brushing, or any other consumptive use. The public health effects of drinking water contaminated with Total Coliform and/or with E. Coli Bacteria can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. These may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. People at increased risk should be particularly careful to avoid this water. The water system will be disinfected, flushed, and follow up sampled as required to ensure the water meets EPA and FDA water standards for humconsumption. Once resolved, usually within 30 days, the water system will be reactivated and the MEL cleared.	1) Placard the lavatory hand washing sink with PN (400-38-11-01A) directly under the mirror next to the faucet. 2) Placard the outside of the lavatory servicing door directly FWD of the door latch with placard PN (400-38-11-01).

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
38	**WATER/WASTE**							
10-1	Potable Water Systems/Warm Water Wash System	C	-	0	(M) Individual components may be inoperative provided: a) Associated components are deactivated or isolated, and b) Associated system components are verified not to have leaks. **NOTE**: Any portion of the system which operates normally may be used.	1. Ensure associated components are deactivated or isolated. 2. Ensure associated system components are verified not to have leaks. 3. Placard Potable Water Systems/Warm Water Wash Systems in the flight compartment. 4. Make appropriate entry in the aircraft journey log.		Potable Water Systems/Warm Water Wash System must be placarded in the flight compartment and in accordance with Environmental Protection Agency (EPA) regulation 40 CFR Part 141, National Primary Drinking Water Regulations for Aircraft Public Water Systems; Final rule.
		C	-	0	(M) May be inoperative provided: a) System is drained, and b) Procedures are established to ensure that system is not serviced.	1. Ensure associated components are deactivated or isolated. 2. Ensure associated system components are verified not to have leaks. 3. Placard Potable Water Systems/Warm Water Wash Systems in the flight compartment. 4. Make appropriate entry in the aircraft journey log.		Potable Water Systems/Warm Water Wash System must be placarded in the flight compartment and in accordance with Environmental Protection Agency (EPA) regulation 40 CFR Part 141, National Primary Drinking Water Regulations for Aircraft Public Water Systems; Final rule.

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SYS/SEQ NUMBERS	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
38	**WATER/WASTE**							
30-1	Lavatory Waste Systems	C	1	0	(M) (O) Individual components may be inoperative provided: a) Waste is drained and system is inspected for leakage, b) Procedures are established to deactivate system components, c) Pilot In Command will determine if flight duration is acceptable with a forward lavatory unusable, and d) Lavatory door is locked closed and placarded "INOPERATIVE- DO NOT ENTER." **NOTE**: These provisos are not intended to prohibit inspections by Crewmembers.	1. Drain Lavatory waste tank. 2. Check that there is no evidence of the blue water (toilet water) leak around the water drain holes in the vicinity of the toilet, at the bottom of the fuselage. 3. Place placard in flight compartment indicating that lavatory is inoperative. 4. Open and collar LAVATORY FLUSH circuit breaker on L SECONDARY bus. 5. Lock the lavatory door by placing a pen or other similar object in the hole in the latch and sliding it to the locked position.	Flights with block time scheduled over 2 hours or when it is reasonable to assume for weather or ATC that the flight will block over 2 hours, operation is prohibited. Cabin Crew to announce that the Lavatory is inoperative before push back. With the Lavatory inoperative the Cabin Crew should contact the Flight Crew in case of passenger distress.	1. Placard lavatory Door "INOPERATIVE - DO NOT ENTER". 2. Placard the flight compartment that the lavatory is inoperative.
30-2	Potable Water System moved to 38-10-1 in QMEL Rev. 9.							

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45	**CENTRAL MAINTENANCE COMPUTER**							
45-1	Centralized Diagnostic System (CDS) (Including Maintenance Interlock Switch in Wardrobe)	C	1	0	May be inoperative. **Flight Crew Deferral Permitted**			Inoperative Centralized Diagnostic System must be placarded at the wardrobe compartment.

SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
45	CENTRAL MAINTENANCE COMPUTER							

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
49	**AUXILIARY POWER UNIT**							
00-1	Auxiliary Power Unit (APU)	D	1	0	(M) May be inoperative provided APU Airframe Fuel Shutoff Valve is verified closed. **Flight Crew Deferral Permitted.**	1. Apply DC power to aircraft buses. 2. Ensure APU Fuel Shut-Off Valve is closed as indicated by the white advisory light "APU FUEL VALVE CLOSED" on the fire protection panel and that the green advisory "APU FUEL VALVE OPEN" light is extinguished. 3. Pull and collar the circuit breaker "APU FUEL SOV/IND" on the Left Essential 28 VDC Circuit Breaker Panel. 4. Attempt to start APU. If APU fails to start, then the APU fuel shut-off valve is verified closed. **NOTE**: The APU may spin up momentarily, until residual fuel in the manifold is consumed, then shut down. Also, the APU FADEC may log a fault for the uncommanded shutdown/unsuccessful start.		Inoperative APU Bleed Air System must be placarded on the APU Control Panel near the APU BL AIR button in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
49	**AUXILIARY POWER UNIT**							
50-1	APU Bleed Air System	D	1	0	(M) May be inoperative provided APU Bleed Valve is verified closed.	1. At the APU compartment, open the clamshell access doors. 2. On the bottom of the APU bleed valve (RHS on bleed duct), note the position of the valves as indicated by pointer. Confirm the valve is closed. 3. Visually confirm integrity of APU connections. 4. Close the APU access doors.		Inoperative APU Bleed Air System must be placarded on the APU Control Panel near the APU BL AIR button in the flight compartment.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
10-1	Door Seal System Charging Valve	C	1	0	(M) May be inoperative provided the Valve is secured in the closed position.	1. Remove the inner liner of the wardrobe. 2. Install a steel cap on the inoperative charging valve. 3. Install the inner liner. 4. Placard the inoperative charging valve in the wardrobe. 5. Make appropriate entry in the aircraft flight log.		Placard the inoperative charging valve in the wardrobe.
10-2	Door Seal Drain Valve	C	1	0	May be failed in closed position. **Flight Crew Deferral Permitted**			Placard in the flight compartment that the door seal drain valve is inoperative.
		C	1	0	May be failed in the open position provided flight is conducted in an unpressurized configuration, at or below 10,000 feet MSL. **Flight Crew Deferral Permitted**			Placard in the flight compartment that the door seal drain valve is inoperative.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
10-3	INTERNAL BAG DOOR							
	1) Caution Light	C	1	0	(M) May be inoperative provided: a) Door is verified closed and locked, and b) Door is placarded "ACCESS DOOR LOCKED-DO NOT OPEN".	1. Close and lock the cabin access door to the forward baggage compartment. 2. Placard the cabin access door and the external access door to the forward baggage compartment with "ACCESS DOOR LOCKED - DO NOT OPEN". 3. If the INTERNAL BAGG DOOR has failed in the illuminated condition, at the Caution and Warning Panel, remove the front lens module containing the INTERNAL BAGG DOOR legend, then remove the respective 4 LEDs. Re-install the lens module.		Placard inoperative INTERNAL BAGG DOOR caution light in the flight compartment. (See (M) Procedure for additional placarding requirements)
	2) Door Handle	C	1	0	(M) May be inoperative provided: a) Door Latch System is verified closed and locked by an acceptable procedure, and b) Door is placarded "ACCESS DOOR LOCKED-DO NOT OPEN".	1. Close and lock the cabin access door to the forward baggage compartment. 2. Placard the cabin access door and the external access door to the forward baggage compartment with "ACCESS DOOR LOCKED - DO NOT OPEN". 3. Placard the glareshield with "INTERNAL BAGG DOOR Caution Light INOP". 4. If the INTERNAL BAGG DOOR has failed in the illuminated condition, at the Caution and Warning Panel, remove the front lens module containing the INTERNAL BAGG DOOR legend, then remove the respective 4 LEDs. Reinstall the lens module.		Placard inoperative INTERNAL BAGG DOOR caution light in the flight compartment. (See (M) Procedure for additional placarding requirements)

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52	**DOORS**							
10-5	FUSELAGE DOORS Warning Light System							
	1)Forward Baggage Door, Rear Service Door, and Aft Passenger Door Proximity Switch Systems	A	6	5	(M)(O) One Proximity Sensor, or its associated wiring, in one door may be inoperative provided: a) The fault is verified to be a proximity sensor by an acceptable procedures, b) Warning Light is verified to re-trigger flashing mode by an acceptable procedure, c) Affected door is verified closed and locked by a Crewmember using an acceptable procedure before each departure, and d) Repairs are made within one flight day. **NOTE**: Inoperative proximity sensor will render AUTO Mode of the AUTO/MAN/DUMP Switch inoperative.	1. On the ESID control panel, set MFD1 or MFD2 to SYS and select the DOORS page. Determine which proximity sensor or associated wiring is causing the FUSELAGE DOORS warning. 2. Verify that the affected door is actually in the closed and locked condition: a) For Airstair Door, check that the internal handle is fully down or that the external handle is fully up, b) For Aft Entry Door, Aft Service Door or Forward Baggage Door, check that the external handles are flush. Push the vent panel inward and check that it does not open. 3. With FUSELAGE DOORS warning light steadily illuminated (by pushing the Master WARNING switchlight if necessary), unlock or open a door not already unlocked or open, and observe that the FUSELAGE DOORS warning light re-triggers flashing.	1. Physically confirm that the affected door is closed and locked prior to each flight: a) For Airstair Door, check that the internal handle is fully down or that the external handle is fully up, b) For Aft Entry Door, Aft Service Door or Forward Baggage Door, check that the external handles are flush. Push the vent panel inward and check that it does not open. 2. Prior to engine start on the ground, close all doors and press the Master WARNING switchlight. Check that the FUSELAGE DOORS warning light stops flashing and remains steadily illuminated. 3. On the ESID control panel, set MFD1 or MFD2 to SYS and select the DOORS page. Check that the five doors not checked in Step 1 are indicating closed and locked. 4. If the FUSELAGE DOORS warning light still flashes on the ground, repair inoperative door proximity sensor systems.	Placard inoperative Door Proximity Sensor in the flight compartment.
Cont'd…							**Continued…**	

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
10-5	FUSELAGE DOORS Warning Light System **Continued…** 1)Forward Baggage Door, Rear Service Door, and Aft Passenger Door Proximity Switch Systems **Continued…**						5. If the FUSELAGE DOORS warning light flashes in flight, flight must be conducted in accordance with the Abnormal and Emergency Manual.	
30-1	Aft Baggage Door Counter Balance System	C	2	0	(M) May be inoperative provided: a) Baggage door is verified closed, latched and not used, and b) Baggage door is placarded "BAGGAGE DOOR INOPERATIVE-TO NOT OPEN". **Flight Crew Deferral Permitted.**	Verify the baggage door is closed and locked and ensure the external handle is seated flush with the door.		Inoperative Baggage Door Counter Balance Cable Assemblies must be placarded in the flight compartment and at baggage door threshold.

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SYS/SEQ NUMBERS	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
30-2	Aft Baggage Door Telescopic Strut	C	1	0	(M) May be inoperative provided: a) Baggage door is verified closed, latched, and not used, and b) Baggage door is placarded "BAGGAGE DOOR INOPERATIVE-DO NOT OPEN". **Flight Crew Deferral Permitted.**	Verify the baggage door is closed and locked and ensure the external handle is seated flush with the door.		Inoperative Baggage Door Telescopic Strut must be placarded in the Flight Compartment and at baggage door threshold.
		C	1	0	(M)(O) May be inoperative or missing provided alternate approved means are established and used. **Flight Crew Deferral Permitted.**	If inoperative telescopic rod can be stowed, stow it. If telescopic rod is broken off door, store it in the wardrobe unit in the cabin.	Contact Ramp personnel and inform them that one person will be required to hold door.	Placard cockpit and outside of baggage door "Aft Baggage door rod inoperative. One person required to hold door".

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
50-1	Fortified Flight Deck Door							
	1) Automatic Locking System Primary System (If Installed)	A	1	0	(M)(O) May be inoperative for a maximum of two (2) flight days provided: a) Automatic locking, (remote access), system is de-activated, b) Secondary locking system, mechanical deadbolt, is verified operative and used to lock the door, and c) Alternate procedures are established and used for using the mechanical system and access to the flight deck. **Flight Crew Deferral Permitted.**	1. Pull and collar circuit breaker CKPT DOOR on the R ESS CB Panel. 2. Ensure the mechanical deadbolt is operative and can be used to lock and unlock the door from inside the cockpit. **NOTE**: When Remote Access System (RAS) circuit breaker at location E10 is pulled open, and the DIM/BRT switch on the Advisory/Caution Lights Panel is set to DIM, the Internal Doors Caution light on the Caution Warning Panel (CWP) illuminates continuously.	A third Crewmember must be brought into the flight compartment prior to a Pilot leaving in order to protect access to the flight deck in the event of incapacitation of the remaining Pilot.	Placard in the flight compartment that the Automatic Locking and Remote Access System is inoperative.
	2) Flight Deck Emergency Access Function (If Installed)	A	1	0	(M)(O) May be inoperative for a maximum of two (2) flight days provided: a) Automatic locking, (remote access), system is de-activated, b) Secondary locking system, mechanical deadbolt, is verified operative and used to lock the door, and c) Alternate procedures are established and used for using the mechanical system and access to the flight deck. **Flight Crew Deferral Permitted.**	1. Pull and collar circuit breaker CKPT DOOR on the R ESS CB Panel. 2. Ensure the mechanical deadbolt is operative and can be used to lock and unlock the door from inside the cockpit. **NOTE**: When Remote Access System (RAS) circuit breaker at location E10 is pulled open, and the DIM/BRT switch on the Advisory/Caution Lights Panel is set to DIM, the Internal Doors Caution light on the Caution Warning Panel (CWP) illuminates continuously.	A third Crewmember must be brought into the flight compartment prior to a Pilot leaving in order to protect access to the flight deck in the event of incapacitation of the remaining Pilot.	Placard in the flight compartment that the Automatic Locking and Remote Access System is inoperative.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
50-1	Fortified Flight Deck Door **Continued…** 3) DENY Function (If Installed) **Cont'd…**	A	1	0	(M)(O) May be inoperative for a maximum of two (2) flight days provided: a) Automatic locking, (remote access), system is de-activated, b) Secondary locking system, mechanical deadbolt, is verified operative and used to lock the door, and c) Alternate procedures are established and used for using the mechanical system and access to the flight deck. **Flight Crew Deferral Permitted.**	1. Pull and collar circuit breaker CKPT DOOR on the R ESS CB Panel. 2. Ensure the mechanical deadbolt is operative and can be used to lock and unlock the door from inside the cockpit. **NOTE**: When Remote Access System (RAS) circuit breaker at location E10 is pulled open, and the DIM/BRT switch on the Advisory/Caution Lights Panel is set to DIM, the Internal Doors Caution light on the Caution Warning Panel (CWP) illuminates continuously.	1.) A third Crewmember must be brought into the flight compartment prior to a Pilot leaving in order to protect access to the flight deck in the event of incapacitation of the remaining Pilot. 2.) The Deadbolt will be used to lock the Flight Deck Door to prevent breach of the cockpit.	Placard in the flight compartment that the Automatic Locking and Remote Access System is inoperative.

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SYS/SEQ NUMBERS	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
50-1	Fortified Flight Deck Door **Continued…** 4) UNLK Function (If Installed)	C	1	0	(O) May be inoperative provided: a) Automatic locking system is verified operative, b) Emergency Access Function is verified operative, and c) Alternate procedures are established and used for using the mechanical system and access to the flight deck. **Flight Crew Deferral Permitted**		1. On the INTERNAL DOORS Pilot Control Panel located on the overhead console inside the flight compartment, set the UNLK/AUTO/DENY Rotary switch to default AUTO position and verify that the door is locked. 2. With the door in auto locked position, push the switch/indicator button located on the Maintenance panel above the wardrobe and observe the following: a) Illumination of a white light indication on the FA indicator/switch. b) Illumination of the AUTO UNLK indication on the cockpit panel. c) Master Caution tone sounds, Master Caution indicator flashes, INTERNAL DOORS caution light illuminates. d) After 40 seconds the cockpit door unlocks, an amber light indication on the FA push button switch illuminates.	Placard in the flight compartment that the automatic UNLK function is inoperative.

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SYS/SEQ NUMBERS	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
50-1	Fortified Flight Deck Door **Continued…**							
	5) Emergency Access Push Button Switch-White/Amber Indication Lights (If Installed)	C	4	0	(O) May be inoperative provided Emergency Access Function is verified operative. **Flight Crew Deferral Permitted**		1. With the door in auto locked position, push the switch/indicator button located on the Maintenance panel above the wardrobe and observe the following: a) Illumination of the AUTO UNLK indication on the cockpit panel, Master Caution tone sounds, Master Caution indicator flashes, INTERNAL DOORS caution light illuminates, and b) After 40 seconds the cockpit door unlocks.	Placard on the Maintenance panel above the wardrobe that white/amber lights are inoperative.
	6) COCKPIT DOOR-FAIL Advisory Light (If Installed)	C	1	0	(M)(O) May be inoperative provided: a) Door Auto Lock and Unlock functions are verified operative, and b) INTERNAL DOORS Caution Light, BAGG DOOR, CKPT DOOR, and AUTO UNLK Advisory Lights are verified operative.	1. With the door in auto locked position, push the switch/indicator button located on the Maintenance panel above the wardrobe and observe the following: a) Illumination of the AUTO UNLK indication on the cockpit panel. b) Master Caution tone sounds, Master Caution indicator flashes, INTERNAL DOORS caution light illuminates. c) After 40 seconds the cockpit door unlocks, and with the door open observe that CKPT DOOR OPEN advisory light illuminates.	1. On the INTERNAL DOORS Pilot Control Panel located on the overhead console inside the flight compartment, set the UNLK/AUTO DENY Rotary switch to default AUTO position and verify that the door is locked. 2. On the INTERNAL DOORS Pilot Control Panel located on the overhead console inside the flight compartment, set the UNLK/AUTO DENY Rotary switch to UNLK position and verify that the door is unlocked.	Placard in the flight compartment that the COCKPIT DOOR "FAIL" Advisory Light is inoperative.
Cont'd…								

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SYS/SEQ NUMBERS	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
50-1	Fortified Flight Deck Door **Continued…**							
	7) CKPT DOOR Open Advisory Light (If Installed)	C	1	0	(M)(O) May be inoperative provided: a) Automatic door lock function is verified operative, and b) INTERNAL DOORS Caution Light is verified operative in the event door left open more than three (3) minutes, BAGG DOOR, FAIL, and AUTO UNLK Advisory Lights are verified operative.	1. Open the cockpit door, observe that the CKPT DOOR advisory light is OFF. Keep the door open for at least three (3) minutes, and check that the Master Caution tone sounds, Master Caution indicator flashes, and the INTERNAL DOORS caution light on the Caution and Warning Panel illuminates. 2. Open the forward baggage door and observe that "BAGG DOOR" advisory light illuminates. 3. With the door in auto locked position push switch/indicator button located on the Maintenance panel above the wardrobe and observe that the AUTO UNLK indication on the cockpit panel illuminates. 4. With the cockpit door open, push down and rotate the INTERNAL DOORS Control Panel UNLK/AUTO/DENY Rotary switch to UNLK position and hold. The solenoid will pull in to the disengaged (unlocked) position.	On the INTERNAL DOORS Pilot Control Panel located on the overhead console inside the flight compartment, set the UNLK/AUTO/DENY Rotary switch to default AUTO position and verify that the door is locked.	Placard in the flight compartment that the CKPT DOOR Open Advisory light is inoperative.
Cont'd…						**Continued…**		

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
50-1 **Cont'd…**	Fortified Flight Deck Door CKPT DOOR Open Advisory Light **Continued…** 7) CKPT DOOR Open Advisory Light **Continued…**					a) Use a screwdriver or other solid tool (ensuring not to damage the solenoid or door), to prevent the solenoid from moving to the engaged (locked) position. (This can be done even without using tools, by manually pushing down and hold). b) Release the rotary switch to AUTO position. c) Verify the Master Caution tone sounds, Master Caution indicator flashes, INTERNAL DOORS caution light illuminates, and the FAIL advisory light on the INTERNAL DOORS Control Panel illuminates. d) Press the LOCK ISOLATE switch on the INTERNAL DOORS Control Panel by lifting the switch guard first. Door lock solenoid is disengaged (unlocked). **Continued…**		

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SYS/SEQ NUMBERS	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
50-1	Fortified Flight Deck Door CKPT DOOR Open Advisory Light **Continued…** 7) CKPT DOOR Open Advisory Light **Continued…**					e) Release solenoid striker. Close door. f) Restore system to normal operation by pressing the LOCK ISOLATE switch. g) Observe the FAIL advisory light and INTERNAL DOORS caution light extinguish.		
	8) CKPT DOOR AUTO UNLK Advisory Light (If installed)	C	1	0	(M)(O) May be inoperative provided: a) Emergency Access Function is verified operative, and b) INTERNAL DOORS Caution Light, BAGG DOOR, CKPT DOOR, and FAIL Advisory Lights are verified operative.	1. Open the forward baggage door and observe that "BAGG DOOR" advisory light illuminates. 2. With the cockpit door in the open position, observe that CKPT DOOR Open advisory light illuminates. 3. With the cockpit door open, push down and rotate the INTERNAL DOORS Control Panel UNLK/AUTO/DENY Rotary switch to the UNLK position and hold. The solenoid will pull in to the disengaged (unlocked) position.	With the door in auto locked position, push switch/indicator button located on the Maintenance panel above the wardrobe and observe the following: 1. Illumination of a white light indication on the FA indicator/switch. 2. Master Caution tone sounds, Master Caution indicator flashes, INTERNAL DOORS caution light illuminates. 3. After 40 seconds the cockpit door unlocks, an amber light indication on the FA push button switch illuminates.	Placard in the flight compartment that the AUTO UNLK Advisory light is inoperative.

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
52	**DOORS**							
Cont'd… 50-1	Fortified Flight Deck Door CKPT DOOR Open Advisory Light **Continued…** 8) CKPT DOOR AUTO UNLK Advisory Light **Continued…**					**Continued…** a) Use a screwdriver or other solid tool (ensuring not to damage the solenoid or door), to prevent the solenoid from moving to the engaged (locked) position. (This can be done even without using tools, by manually pushing down and hold). b) Release the rotary switch to AUTO position. c) Verify the Master Caution tone sounds, Master Caution indicator flashes, INTERNAL DOORS caution light illuminates, and the FAIL advisory light on the INTERNAL DOORS Control Panel illuminates. d) Press LOCK ISOLATE switch on the INTERNAL DOORS Control Panel by lifting switch guard first. Door lock solenoid is disengaged (unlocked). e) Release solenoid striker. Close door. f) Restore system to normal operation by pressing the LOCK ISOLATE switch. g) Observe the FAIL advisory light and INTERNAL DOORS caution light extinguish.		

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52	**DOORS**							
Cont'd…								
50-1	Fortified Flight Deck Door CKPT DOOR Open Advisory Light **Continued…**							
	9) BAGG DOOR Advisory Light (If Installed) **Continued…**	C	1	0	(M)(O) May be inoperative provided: a) Forward baggage door lock is operative, and b) INTERNAL DOORS Caution Light, CKPT DOOR, FAIL, and AUTO UNLK Advisory Lights are verified operative.	1. With the door in auto locked position, push switch/indicator button located on the Maintenance panel above the wardrobe and observe the following: a) Illumination of a white light indication on the FA indicator/switch. b) Master Caution tone sounds, Master Caution indicator flashes, INTENAL DOORS caution light and AUTO UNLK advisory lights illuminate. 2. Open the cockpit door and verify that CKPT DOOR Open advisory light illuminates. 3. With the cockpit door open, push down and rotate the INTERNAL DOORS Control Panel UNLK/AUTO/DENY Rotary switch to UNLK position and hold. The solenoid will pull in to the disengaged (unlocked) position.	Check the forward baggage door lock is working.	Placard in the flight compartment that the BAGG DOOR Advisory light is inoperative.
Cont'd…						**Continued…**		

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52	**DOORS**							
50-1	Fortified Flight Deck Door BAGG DOOR Advisory Light **Continued…** 9) BAGG DOOR Advisory Light **Continued…**					a) Use a screwdriver or other solid tool (ensuring not to damage the solenoid or door), to prevent the solenoid from moving to the engaged (locked) position. (This can be done even without using tools, by manually pushing down and hold). b) Release the rotary switch to AUTO position. c) Verify the Master Caution tone sounds, Master Caution indicator flashes, INTERNAL DOORS caution light illuminates, and the FAIL advisory light on the INTERNAL DOORS Control Panel illuminates. d) Press LOCK ISOLATE switch on the INTERNAL DOORS Control Panel by lifting switch guard first. Door lock solenoid is disengaged (unlocked). e) Release solenoid striker. Close door. f) Restore system to normal operation by pressing the LOCK ISOLATE switch. g) Observe the FAIL advisory light and INTERNAL DOORS caution light extinguish.		
Cont'd…								

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52	**DOORS**							
50-1	Fortified Flight Deck Door BAGG DOOR Advisory Light **Continued…**							
	10) Deadbolt	C	1	0	(O) May be inoperative provided primary auto locking system is operative. **Flight Crew Deferral Permitted**		1. On the INTERNAL DOORS Pilot Control Panel located on the overhead console inside the flight compartment, set the UNLK/AUTO/DENY Rotary switch to default AUTO position and verify that the door is locked. 2. On the INTERNAL DOORS Pilot Control Panel located on the overhead console inside the flight compartment, set the UNLK/AUTO/DENY Rotary switch to UNLK position and verify that the door is unlocked.	Placard in the flight compartment that the Deadbolt is inoperative.
	11) INTERNAL DOORS Caution Light	A	1	0	(M)(O) May be inoperative for a maximum of two (2) flight days provided: a) Automatic locking, (remote access), system is de-activated, b) Secondary locking system deadbolt operates normally and used to lock the door, c) Alternate procedures are established and used for locking and unlocking the door using deadbolt, d) Cabin access door to the forward baggage compartment is verified closed and locked, and e) Door is placarded "ACCESS DOOR LOCKED – DO NOT OPEN".	1. Pull and collar circuit breaker CKPT DOOR on the R ESS CB Panel. 2. Ensure the mechanical deadbolt is operative and can be used to lock and unlock the door from inside the cockpit. 3. Before each dispatch, close and lock the cabin access door to the forward baggage compartment (internal baggage door). 4. Placard the glareshield with "INTERNAL DOORS caution light INOP".	A third Crewmember must be brought into the flight compartment prior to a Pilot leaving in order to protect access to the flight deck in the event of incapacitation of the remaining Pilot.	Placard in the flight compartment that the INTERNAL DOORS caution light is inoperative.

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52	**DOORS**							
50-2	Fortified Flight Deck Door Without Remote Access System (If Installed)							
	1) Deadbolt	C	1	0	(O) May be inoperative provided primary locking mechanism, slide latch, is operative. **Flight Crew Deferral Permitted.**		Prior to push back on taxi, the Flight Crew will ensure the primary locking mechanism, slide latch, functions normally.	Placard Deadbolt lock on both the flight and passenger compartment sides of the door.
50-3	Lavatory Door Lock	C	1	0	(M) May be inoperative provided: a) Lavatory door is locked closed and placarded "INOPERATIVE – DO NOT ENTER" b) Duration of flight must be acceptable to the Pilot in Command (PIC), and c) Crewmembers are allowed to use the lavatory. **Flight Crew Deferral Permitted.**	Lock the lavatory door by placing a pen or other similar object in the hole in the latch and sliding it to the locked position.		Placard exterior of door.

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52	DOORS							

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61	**PROPELLERS**							
20-1	Propeller Maintenance Unfeather Function	D	2	0	(M) May be inoperative provided alternate feather check is performed.	1. With the engine stationary, ensure the propeller is in the unfeather state, using blade bats if necessary. 2. For the associated engine, set the Condition Lever to FUEL OFF and PLA to DISC. 3. On the Propeller Control Panel, select ALT FEATHER for the associated propeller. **NOTE**: If at any time during this procedure propeller stops moving when the Aux. Pump is running, a dry motoring cycle must be repeated to replenish the Aux. tank. 4. Visually determine that the propeller blades move to the feather position.		Inoperative Propeller Maintenance Unfeather Function must be placarded on the Central Maintenance Panel in the wardrobe.
20-2	RDC NP Switch				Moved to 76-10-1 ENGINE CONTROL Panel Switches			

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61	PROPELLERS							

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SYS/SEQ NUMBER	ITEM	CAT.	INS.	REQ.	REMARKS OR EXCEPTIONS	MAINTENANCE PROCEDURES	OPERATIONS PROCEDURES	PLACARDING
71	**POWERPLANT**							
60-1	Engine Intake Bypass Doors	C	2	1	One may be inoperative in closed position provided the flight is not conducted in known or forecast icing condition. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur. **Flight Crew Deferral Permitted**			Inoperative Engine Intake Bypass Door(s) must be placarded in the flight compartment.
		C	2	0	(M)(O) May be inoperative in the open position provided: a) The OAT along the route flown is less than ISA +25 degrees C., b) The related engine oil temperature indicator operates normally and is monitored, and c) The associated intake heater(s) is confirmed operative prior to each flight into known or forecast icing conditions. **NOTE**: Icing conditions exist any time weather conditions meet visibility and temperature Limits specified in the Performance Manual, and/or any time airplane ice accretion is known or is predicted to occur	1. Start and run the associated engine(s) at ground idle. 2. Ensure that both AC Generators are selected on. 3. At the ICE PROTECTION panel, select the associated ENGINE INTAKE bypass door switch(es) to OPN/HTR. Observe that the HTR light(s) illuminate(s).	Flight planning to ensure OAT enroute does not exceed ISA +25°C and the affected engine oil temperature indication is periodically monitored.	Inoperative Engine Intake Bypass Door(s) must be placarded in the flight compartment.
Cont'd…						**Continued…**		

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71	**POWERPLANT**							
60-1	Engine Intake Bypass Doors **Continued…**					**NOTE**: The engine intake adaptor heaters and resultant HTR indications are switched by the thermostat on the skin panel, beneath the cockpit floor. If outside air temperatures are above a nominal 15°C (59°F), as indicated on the Engine Display SAT indication, spray the skin at the location of the thermostat with Freeze Mist to lower the temperature, and observe the HTR advisory lights illumination. 4. Select the associated ENGINE INTAKE bypass door switch(es) to CLOSED. Observe that the HTR light(s) extinguish(es). 5. Shut down engines(s).		

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73	**EMGINE FUEL & CONTROL**							
20-1	FADEC Faults	A	-	-	May be dispatched with FADEC faults provided repairs are made in accordance with times established in the Time Limited Dispatch section of Pratt & Whitney Canada Airworthiness Limitations Manual Part No. 3043520. **NOTE 1**: MEL extensions are not permitted. **NOTE 2**: Time Limited Dispatch reporting system is maintained as per Pratt & Whitney Canada Airworthiness Limitations Manual Part No. 3043520.			Inoperative engine FADEC System must be placarded in the flight compartment.
20-2	MTOP Switch				Moved to 76-10-1 ENGINE CONTROL Panel Switches			
30-1	FF (Fuel Flow) Indications	B	2	1	May be inoperative provided: a) All other associated engine indications are operative, and b) Fuel QTY indications are operative.			Inoperative Fuel Flow Indication(s) must be placarded on Engine Display in the flight compartment.

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73	EMGINE FUEL & CONTROL							

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76	**ENGINE CONTROLS**							
10-1	ENGINE CONTROL Panel Switches							
	1) RDC NP LDG Switch	C	1	0	May be inoperative provided RDC Np is not used. **Flight Crew Deferral Permitted**		Flight Crewmember shall obtain normal NP performance number in ACARS/TLR.	Inoperative switch must be placarded on the Engine Control Panel.
	2) MTOP	C	1	0	(O) May be inoperative in the ON position provided: a) #1 and #2 ENG FADEC caution lights are extinguished, b) MTOP is annunciated on ED when condition levers are at MAX/1020, and c) Flight is conducted in accordance with the AFM Supplement 46 TAKEOFF WITH MAXIMUM TAKEOFF POWER AND UPTRIM DISABLED. **Flight Crew Deferral Permitted** **NOTE:** Do not select or deselect MTOP switch during Pre-Takeoff Checks or In-flight Procedures-After Takeoff. NTOP will not appear on ED.		Crew shall verify #1 and #2 ENG FADEC caution lights are extinguished and MTOP is annunciated on the ED when condition levers are at MAX/1020. Flight will be conducted in accordance with Abnormal and Emergency Manual 46 "TAKEOFF WITH MAXIMUM TAKEOFF POWER AND UPTRIM DISABLE".	Inoperative switch must be placarded on the Engine Control Panel.
		C	1	0	(O) May be failed in the OFF position provided: a) #1 and #2 ENG FADEC caution lights are extinguished,		Crew shall verify #1 and #2 ENG FADEC caution lights are extinguished and NTOP is annunciated on the ED when condition levers are at MAX/1020.	Inoperative switch must be placarded on the Engine Control Panel.
Cont'd…					**Continued….**			

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76	**ENGINE CONTROLS**							
10-1	ENGINE CONTROL Panel Switches **Continued…**							
	2) MTOP **Continued…**				b) NTOP is annunciated on ED when condition levers are at MAX/1020, and c) MTOP is not used. d) **Flight Crew Deferral Permitted**			
	3) MCR Switch	D	1	0	May be inoperative provided condition levers are used to set power rating. **Flight Crew Deferral Permitted**			Inoperative switch must be placarded on the Engine Control Panel.
	4) MCL Switch	D	1	0	May be inoperative provided condition levers are used to set power rating. **Flight Crew Deferral Permitted**			Inoperative switch must be placarded on the Engine Control Panel.
	5) RDC TOP TRQDEC Switch	D	1	0	May be inoperative provided RDC TOP TRQ DEC is not used. **Flight Crew Deferral Permitted**			Inoperative switch must be placarded on the Engine Control Panel.
	6) RDC TOP TRQ RESET Switch	D	1	0	May be inoperative provided RDC TOP TRQ DEC is not used. **Flight Crew Deferral Permitted**			Inoperative switch must be placarded on the Engine Control Panel.

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77	**ENGINE INDICATING**							
30-1	Engine Monitoring Unit (EMU)	D	1	0	(O) May be inoperative provided alternate procedures are established and used to record engine data. **Flight Crew Deferral Permitted**		Document engine trend data in the flight log. Refer to FOM Chapter 7, Maintenance Procedures, Aircraft Flight Log, for further information.	Inoperative Engine Monitoring Unit (EMU) must be placarded in the flight compartment.

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77	ENGINE INDICATING							

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79	**ENGINE OIL**							
30-1	OIL LEVEL Indication in Cockpit (If Installed)	D	-	0	May be inoperative.			Placard the OIL LEVEL INDICATION in the flight compartment.

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