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Federal Aviation Administration
Washington, D.C.

Master Minimum Equipment List (MMEL)

Revision: 22
Date: 08/12/2013

BAE SYSTEMS (Operations) Limited-146 **BAe 146/Avro 146-RJ**

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FEDERAL AVIATION ADMINISTRATION
 MASTER MINIMUM EQUIPMENT LIST

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BAe 146/Avro 146-RJ

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Highlights of Change

EFFECTIVE ABOVE DATE, the BAe 146/Avro 146-RJ Master Minimum Equipment List has been revised. Please replace affected pages with Revision 22 for a complete up-to-date MMEL.

ATA 21 Air Conditioning

- Item 20-4: Added (O) procedure designator.
- Item 21-1: New item per BAE Systems.
- Item 30-2: Corrected typos.
- Item 31-1: New item per ST02281LA.
- Item 50-2: Modified item and added NOTE per BAE Systems.
- Item 50-3: Added "****" designator and NOTE per BAE Systems.

ATA 22 Auto Flight

- Item 10-9: Corrected typo.
- Item 20-1: Corrected typo

ATA 23 Communications

- Item 10-1: Revised item to incorporate provisions of FAA Policy Letter PL-106, Revision 4.
- Item 10-2: Revised sub-item title and changed reference to 14 CFR.
- Item 10-3: Reformatted item per PL-31, Revision 3.
- Item 10-5: New item per ST02281LA.
- Item 30-1: Revised item to incorporate provisions of FAA Policy Letter PL-9, Revision 11.
- Item 40-3: Corrected typo.

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Item 70-1: Revised item to incorporate provisions of FAA Policy Letter PL-29, Revision 5.

Item 71-1: Revised item to incorporate provisions of FAA Policy Letter PL-58, Revision 4.

Item 71-2: Revised item to incorporate provisions of FAA Policy Letter PL-58, Revision 4.

ATA 24 Electrical Power

Item 10-2: Changed Repair Interval to B per BAE Systems.

Item 20-2: Changed Repair Interval to B per BAE Systems.

Item 20-3: Changed Repair Interval to B per BAE Systems.

Item 20-5: Changed Repair Interval to B per BAE Systems.

Item 30-3: Changed Repair Interval to B per BAE Systems.

Item 30-4: Changed Repair Interval to B per BAE Systems.

Item 30-5: Deleted item per BAE Systems.

Item 30-6: Deleted item per BAE Systems.

ATA 25 Equipment and Furnishings

Item 00-1: Revised item to incorporate provisions of FAA Policy Letter PL-125, Revision 1.

Item 10-2: Changed Repair Interval to B per BAE Systems.

Item 10-5: Added QC freighter applicability.

Item 20-1: Revised item to incorporate provisions of FAA Policy Letter PL-125, Revision 1.

Item 20-2: Revised item to incorporate provisions of FAA Policy Letter PL-79, Revision 8.

Item 20-3: Revised item to incorporate provisions of FAA Policy Letter PL-56, Revision 5.

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- Item 30-1: Revised item to incorporate provisions of FAA Policy Letter PL-96, Revision 2.
- Item 50-4: Revised item to incorporate provisions of FAA Policy Letter PL-100, Revision 2.
- Item 51-1: New item per ST02281LA.
- Item 60-1: Revised item to incorporate provisions of FAA Policy Letters PL-47, Revision 2, and PL-125, Revision 1.
- Item 60-3: Revised item per AD 74-08-09 R3.
- Item 60-4: Revised item to incorporate provisions of FAA Policy Letter PL-73, Revision 5.
- Item 70-1: Revised item title and Note.
- Item 70-2: Revised item to incorporate provisions of FAA Policy Letter PL-104, Revision 6.
- Item 80-1: Revised item to incorporate provisions of FAA Policy Letter PL-122, Revision 1.

ATA 26 Fire Protection

- Item 10-7: Revised item to incorporate provisions of FAA Policy Letter PL-24, Revision 4.
- Item 20-5: Revised item to incorporate provisions of FAA Policy Letter PL-24, Revision 4.

ATA 27 Flight Controls

- Item 30-4: Changed Repair Interval to B on 2nd proviso per BAE Systems.
- Item 30-6: Changed Repair Interval to B on several proviso sets per BAE Systems.
- Item 60-2: Changed Number Installed per BAE Systems.

ATA 28 Fuel

- Item 40-3: Changed proviso per BAE Systems.
- Item 40-4: Deleted proviso set per BAE Systems.
- Item 40-6: Added proviso per BAE Systems.

Item 40-10: Corrected typo.

ATA 29 Hydraulic Power

Item 20-3: Changed Repair Interval to B per BAE Systems.

Item 30-5: Deleted item per BAE Systems.

ATA 30 Ice and Rain Protection

Item 20-1: Changed Repair Intervals to A, 15 hours, per BAE Systems.

Item 30-4: Deleted item per BAE Systems.

Item 40-1: Corrected typo.

ATA 31 Indicating/Recording Systems

Item 20-2: New item per ST02281LA.

Item 30-1: Revised item to incorporate provisions of FAA Policy Letter PL-87, Revision 10.

Item 70-1: New item per ST02281LA.

ATA 33 Lights

Item 10-1: Revised item to incorporate provisions of FAA Policy Letter PL-77, Revision 4.

Item 20-2: Revised item to incorporate provisions of FAA Policy Letters PL-123, Revision 1.

Item 40-2: Changed Repair Interval to B on first proviso per BAE Systems.

Item 40-4: Revised item to incorporate provisions of FAA Policy Letter PL-72, Revision 4.

Item 50-1: Revised item to incorporate provisions of FAA Policy Letter PL-125, Revision 1.

Item 50-2: Revised item to incorporate provisions of FAA Policy Letter PL-125, Revision 1.

ATA 34 Navigation

Item 10-5: Revised item to incorporate provisions of FAA Policy Letter PL-39, Revision 5.

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Item 21-1: Changed multiple Repair Intervals to B per BAE Systems.

Item 65-5: Revised item to incorporate provisions of FAA Policy Letter PL-105, Revision 1.

ATA 35 Oxygen

Item 10-4: Revised item to incorporate provisions of FAA Policy Letter PL-43, Revision 2.

ATA 38 Waste/Water

Item 30-1: Revised item to incorporate provisions of FAA Policy Letter PL-83, Revision 7.

ATA 52 Doors

Item 52-2: Revised item to incorporate provisions of FAA Policy Letters PL-112, Revision 2.

Item 52-3: Revised item to incorporate provisions of FAA Policy Letters PL-112, Revision 2.

Item 52-4: New item that incorporates provisions of FAA Policy Letter PL-112, Revision 2.

ATA 56 Windows

Item 10-1: Deleted item per FAA Policy Letter PL-124, Revision 0.

ATA 71 Powerplant

Item 70-1: Changed Repair Interval to A, 15 hours, per BAE Systems.

ATA 73 Engine Fuel & Control

Item 30-1: Changed Number Required for Dispatch per BAE Systems.

ATA 76 Engine Controls

Item 10-2: Changed Repair Intervals to B per BAE Systems.

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Definitions

For the Master Minimum Equipment List, Definitions addendum, refer to the current FAA MMEL Policy Letter PL-25, *Policy Concerning MMEL Definitions*, as found on the Flight Standards Information Management System (FSIMS) website.

[FSIMS - Publications - MMEL Policy Letters](#)

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Preamble

For the Master Minimum Equipment List, Preamble addendum as used for operations under 14 CFR Parts 121, 125, 129, and 135, refer to the current FAA Policy Letter PL-34, *MMEL and MEL Preamble*, as found on the Flight Standards Information Management System (FSIMS) website.

[FSIMS - Publications - MMEL Policy Letters](#)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-01

ITEM

Pack Flow Control and Isolation Valves

1) Pre Mod HCM00117A
(146 Only)

a) Pack 2 Isolation Valve - OPEN

B

1

0

(O) Pack 2 isolation valve may be inoperative open provided:

a) Engine Air for the associated engine(s) are selected to OFF,

b) APU air is selected to OFF,

c) TAIL ANTI-ICE is selected OFF,

d) Aircraft is not operated in known or forecast icing conditions,

e) Ram air ventilation system is installed and operates normally,

f) Flight Deck temperature while on the ground is acceptable to the flight crew, and

g) Aircraft is operated in accordance with the electrical cooling limitations for ground operation in high ambient temperatures.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-1

ITEM

Pack Flow Control and Isolation Valves
(Cont'd)

1) Pre Mod HCM00117A
(146 Only)

b) Pack 2 Isolation Valve - CLOSED

B

1

0

(M)(O) Pack 2 isolation valve may be inoperative closed provided:
a) Ram air ventilation system is installed and operates normally,
b) Flight deck temperature while on the ground is acceptable to flight crew, and
c) Aircraft is operated in accordance with the electrical cooling limitations for ground operation in high ambient temperatures.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-1

ITEM

Pack Flow Control and Isolation Valves
(Cont'd)

2) Post Mod HCM00117A

a) Pack 1 or Pack 2 Isolation Valve - OPEN

B

2

1

(O) One isolation valve may be inoperative OPEN provided:

- a) Engine Air for the associated engine(s) are selected to OFF,
- b) APU air is selected OFF,
- c) TAIL ANTI-ICE is selected OFF,
- d) Aircraft is not operated in known or forecast icing conditions,
- e) Ram air ventilation system is installed and operates normally,
- f) Flight deck temperature while on the ground is acceptable to flight crew,
- g) Aircraft is operated in accordance with the electrical cooling limitations for ground operation in high ambient temperatures, and
- h) RJ Only: During descent ensure that the aircraft is operated in accordance with appropriate AFM/FCOM Abnormal Procedures.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

10-1

Pack Flow Control and Isolation Valves
(Cont'd)

2) Post Mod HCM00117A

b) Pack 1 or Pack 2 Isolation Valve -
CLOSED

B

2

1

(M)(O) One isolation valve may be inoperative CLOSED provided:
a) Ram air ventilation system is installed and operates normally,
b) Flight deck temperature while on the ground is acceptable to flight crew,
c) Aircraft is operated in accordance with the electrical cooling limitations for ground operation in high ambient temperatures, and
d) RJ Only: If during descent, the airframe anti-ice is not selected ON, ensure that the aircraft is operated in accordance with appropriate AFM/FCOM Abnormal Procedures.

3) Pre and Post Mod HCM00117A

a) Pack 1 and Pack 2 Isolation Valves -
CLOSED

B

2

0

(M)(O) May be inoperative closed provided aircraft is operated in an approved unpressurized configuration.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM					
20-1	Cabin Fan	C	1	0	
20-2	Flight Deck Fan	C	1	0	
20-3 ***	Avionics Cooling Fans (Dual Fan Installation With Mod. HCM40272A, or HCM40272B, or HCM40272C, or HCM40272D)	C	2	1	(M) One may be inoperative provided: a) Cooling switch is selected to the operative fan, and b) Circuit breaker for the failed fan is pulled and collared.
20-4	AVIONICS FAN OFF Annunciator	C	1	0	(M)(O) May be inoperative provided avionics cooling fan is verified to be operating normally before further flight and once each flight day.
21-1 ***	Passenger Individual Air System	D	1	0	

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

30-1

Automatic Cabin Pressure Control System

1) Analogue System
(Pre Mod HCM50259A)

C 1 0

(O) May be inoperative provided:
a) Manual pressure control system operates normally and is used, and
b) Both discharge valve position indicators operate normally.

2) Digital System (Post Mod HCM50259A)

a) Channels

C 2 1

(O) One channel may be inoperative.

b) ADC Input

C 2 1

ADC 1 or ADC input to the Auto-pressurization system may be inoperative.

NOTE: ADC 1 or ADC 2 signal failure will be accompanied by overhead panel controller indication ADC 1 or ADC 2 respectively and MWS white "PRESS" indication.

3) Analogue or Digital System(Pre and Post Mod HCM50259A)

C 1 0

(O) May be inoperative provided flight is conducted in an unpressurized configuration.

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21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

30-2

Pressurization Indications

1) Cabin Altitude Indication (Analogue System Pre Mod HCM50259A)

C

1

0

May be inoperative provided an alternative means of determining cabin altitude is available.

C

1

0

(O) May be inoperative provided aircraft is operated in an unpressurized configuration.

2) Cabin Altitude Indication (Digital System Post Mod HCM50259A)

C

2

1

May be inoperative provided alternate display is operative. (Controller Panel/Quad Instrument)

C

2

0

(O) May be inoperative provided alternative means of determining cabin altitude is available.

C

2

0

(O) May be inoperative provided aircraft is operated in an unpressurized configuration.

3) Cabin Differential Indicator (Analogue System Pre Mod HCM50259A)

C

1

0

(O) May be inoperative provided an alternative means of determining cabin altitude is available.

C

1

0

(O) May be inoperative provided aircraft is operated in an unpressurized configuration.

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21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

30-2

- Pressurization Indications
(Cont'd)
- 4) Cabin Differential Indicator (Digital System Post Mod HCM50259A)
 - 5) Cabin Rate of Climb Indicator (Analogue System Pre Mod HCM50259A)
 - 6) Cabin Rate of Climb Indicator (Digital System Post Mod HCM50259A)

C	2	1
C	2	0
C	2	0
C	1	0
C	1	0
C	2	1
C	2	0
C	2	0

May be inoperative provided alternate display is operative.
(Controller Panel/Quad Instrument)

(O) May be inoperative provided an alternative means of determining cabin altitude is available.

(O) May be inoperative provided aircraft is operated in an unpressurized configuration.

(O) May be inoperative provided automatic pressure control operates Climb Indicator normally on both discharge valves.

(O) May be inoperative provided aircraft is operated in an unpressurized configuration.

May be inoperative provide alternate display is operative.
(Controller Panel/Quad Instrument)

(O) May be inoperative provided automatic pressure control operates normally on both outflow valves.

(O) May be inoperative provided aircraft is operated in an unpressurized configuration.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
30-2	Pressurization Indications (Cont'd)				
	7) Landing Attitude Indicator (Digital System Post Mod HCM50259A)	C	2	1	May be inoperative provided alternate display is operative. (Controller Panel/Quad Instrument)
		C	2	0	(O) May be inoperative provided: a) Destination and alternate airfields are at or below 9000 feet pressure altitude, and b) Manual mode is used to achieve zero cabin differential prior to landing.
		C	2	0	(O) May be inoperative provided aircraft is operated in an unpressurized configuration.
30-3	Cabin Differential Pressure Gauge				Deleted in Revision 14 a, replaced by ATA 21-30-2.
30-4	Cabin Rate of Climb Indicator				Deleted in Revision 14 a, replaced by ATA 21-30-2.
30-5	Discharge Valves (Analogue Pressurization System Only, Pre Mod HCM50259A)	C	2	1	(M) (O) One may be inoperative in the normal control mode provided: a) Safety functions of each valve are verified to operate normally once each flight day, and b) Operating discharge valve position indicator operates normally.
30-6	Discharge Valve Position Indicators	C	2	0	(M) May be inoperative provided automatic cabin pressure control system operates normally.

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21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM					
30-7	Outflow Valve Open/Closed Indicators	C	2	0	May be inoperative provided automatic cabin pressure control system operates normally.
30-8	Cabin HI ALT Warning System	C	1	0	(M)(O) May be inoperative provided flight altitude is limited to 10,000 feet MSL or below.
		C	1	0	(M)(O) May be inoperative provided flight is conducted in an unpressurized configuration.
31-1	Window Mounted Negative Pressure Relief Valve (STC02281LA)	C	4	3	(M) One may be inoperative provided the flapper valve is secured in the closed position.
50-1	Air Conditioning Packs				
	1) Pre Mod HCM00117A (146 Only)				
	a) Pack 2 HCM00117A	B	1	0	(O) Pack No. 2 may be inoperative provided: a) Ram air ventilation system is installed and operates normally, b) Flight deck temperature while on the ground is acceptable to flight crew, and c) Aircraft is operated in accordance with the electrical cooling limitations for ground operation in high ambient temperatures.

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21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

50-1

ITEM

Air Conditioning Packs
(Cont'd)

2) Post Mod HCM00117A

B

2

1

(O) One may be inoperative provided:
 a) Ram air ventilation system is installed and operates normally,
 b) Flight deck temperature while on the ground is acceptable to flight crew,
 c) Aircraft is operated in accordance with the electrical cooling limitations for ground operation in high ambient temperatures, and
 d) RJ Only: If during descent, the airframe anti-ice is not selected ON, ensure that the aircraft is operated in accordance with the appropriate AFM/FCOM Abnormal procedures.

3) Pre and Post Mod HCM00117A

a) Pack 1 or Pack 2 Inoperative

B

2

0

(O) May be inoperative provided operations are conducted in an unpressurized configuration.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

21 AIR CONDITIONING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

50-2	Cabin Air Mode Selector Valve	C	1	0	May be inoperative provided the valve is in the fresh air mode. NOTE: Engine bleed air must not be used for cabin air conditioning during takeoff and landing.
50-3 ***	Recirculation Isolation Valve	C	1	0	(O) May be inoperative closed provided both air conditioning packs are operated in the FRESH air mode. NOTE: Engine bleed air must not be used for cabin air conditioning during takeoff and landing.
50-4	Ram Air Ventilation Valve	C	1	0	May be inoperative provided both air conditioning packs operate normally.
50-5	Flight Deck Conditioning Boost Valve System	C	1	0	
60-1	Cabin Temperature Indicator	C	1	0	
60-2	Cabin Duct Temperature Gauge	C	1	0	May be inoperative provided automatic cabin temperature control system operates normally.
60-3	Flight Deck Duct Temperature Indicator	C	1	0	May be inoperative provided automatic flight deck temperature control operates normally.
60-4	Cabin Temperature Control System				
	1) Manual Mode	C	1	0	May be inoperative provided automatic mode operates normally.
	2) Automatic Mode	C	1	0	May be inoperative provided manual mode operates normally.

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1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
60-5	Cabin Temperature Control Valve	C	1	0	(M) May be inoperative provided: a) Valve is secured in intermediate position, and b) Flight deck temperature control system operates normally.
60-6	Flight Deck Temperature Control System				
	1) Manual Mode	C	1	0	May be inoperative provided automatic mode operates normally.
	2) Automatic Mode	C	1	0	May be inoperative provided manual mode operates normally.
60-7 ***	Animal Bay Environmental Control System (Bay Heater, Fan, Inlet/Outlet Valves and Smoke Detector)				Deleted Revision 15. Moved to MMEL Item 25-50-2.
70-1 ***	Cabin Air Filtration System (Mod HCM01316A or B)				
	1) Air Filtration Element	D	2	0	(M) May be inoperative provided both the cabin and flight deck filter elements are removed.

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22 AUTO FLIGHT

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-1

ITEM

Autopilot System(s)

1) 146 Only

B

1

0

(O) May be inoperative provided:

- a) Autopilot master switch is selected OFF,
- b) Approach minimums do not require its use,
- c) Pull and Collar circuit breaker F8 "ELEV TRIM MOTOR" if BAe SB 22-32 has not been complied with, and
- d) Manual pitch trim is verified to operate normally.

2) RJ Only
(Single FGC)

B

1

0

(O) May be inoperative provided:

- a) MCP disengage switch is selected OFF, and
- b) Approach minimums do not require its use.

3) RJ Only
(Dual FGC)

C

2

1

(O) One may be inoperative provided:

- a) Alternate FGC is selected and is verified to operate normally, and
- b) Autopilot Master Switch for failed autopilot remains OFF.

B

2

0

(O) May be inoperative provided:

- a) MCP disengage switch remains OFF, and
- b) Approach minimums do not require their use.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

22 AUTO FLIGHT

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
10-2	Control Wheel Autopilot Disconnect Switches	C	2	1	(O) One may be inoperative provided: a) Autopilot is not used below 1500 feet AGL, and b) Approach minimums do not require the use of the autopilot.
		B	2	0	(M)(O) May be inoperative provided autopilot is not used.
10-3	Autopilot Disconnect Annunciator Lights				
	1) 146 (Non EFIS)	C	2	1	(O) One may be inoperative provided: a) Aural warning operates normally, and b) Alternate CAT 2 procedures are established and used.
		C	2	0	(M)(O) May be inoperative provided: a) Autopilot is not used, b) AP SERVO AMP circuit breaker is pulled and collared, and c) Approach minimums do not require use of autopilot.
	2) 146 (EFIS and RJ)	C	2	0	(O) May be inoperative provided: a) Aural warning operates normally, and b) Alternate procedures are established and used.
10-5	FLARE Annunciators (Green)/(RJ Only)	C	2	0	(O) May be inoperative OFF provided: a) Approach minimums do not require their use, and b) Alternate procedures are established and used.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

22 AUTO FLIGHT

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

10-6	AUTOLAND FAIL Annunciators (Red)/(RJ Only)	C	2	1	(O) One may be inoperative OFF provided alternate procedures are established and used.
		C	2	0	(O) May be inoperative OFF provided approach minimums do not require their use.
10-7	AUTOLAND Annunciators (Green)/(RJ Only)	C	2	0	(O) May be inoperative OFF provided: a) Approach minimums do not require their use, and b) Alternate procedures are established and used.
10-8	NO AUTOLAND Annunciators (Amber)/(RJ Only)	C	2	0	(O) May be inoperative OFF provided: a) Approach minimums do not require their use, and b) Alternate procedures are established and used.
10-9	CAT 2 Annunciators (Green)	C	2	1	(O) One may be inoperative OFF provided alternate procedures are established and used.
		C	2	0	(O) May be inoperative OFF provided approach minimums do not require their use.
10-10	CAT 3 Annunciators (Green)/(RJ Only)	C	2	0	(O) May be inoperative OFF provided: a) Approach minimums do not require their use, and b) Alternate procedures are established and used.
10-11	NO CAT 3 LAND Annunciator (White)/(RJ Only)	C	1	0	May be inoperative OFF.

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2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

15-1

CAT II Approach Monitoring System (146 Only)

C

1

0

(M)(O) May be inoperative provided:
a) Autopilot pitch rate monitor operates normally, and
b) Approach minimums do not require its use.

NOTE: Autopilot will not engage if pitch rate monitor is inoperative.

20-1

Yaw Damper(s)

1) 146 Only

C

1

0

(O) May be inoperative provided:
a) Yaw damper master switches remain OFF, and
b) AFM/FCOM limitations are observed.

2) RJ Only
(Single FGC)

C

1

0

(O) May be inoperative provided:
a) Yaw damper master switches remain OFF, and
b) AFM/FCOM limitations are observed.

3) RJ Only
(Dual FGC)

C

2

1

(O) One may be inoperative provided:
a) Associated yaw damper master switch remains OFF, and
b) YD amber annunciator on flight annunciator panel is verified OFF.

C

2

0

(O) May be inoperative provided:
a) Both yaw damper master switches remain OFF, and
b) AFM/FCOM limitations are observed.

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22 AUTO FLIGHT

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
20-2	Yaw Damper Disengage Annunciator Lights	C	2	1	
		C	2	0	May be inoperative for an inoperative yaw damper.
20-3	Aileron 'AIL-' Out-of- Trim Annunciators (Amber) (146 Only)	C	2	1	
		C	2	0	(O) May be inoperative provided autopilot is not used.
20-4	Elevator 'EL TRIM' Annunciators (Amber)				
	1) 146 Only	C	2	1	
		C	2	0	(O) May be inoperative provided autopilot is not used.
	2) RJ Only	C	2	0	(O) May be inoperative OFF provided the electric pitch trim system is confirmed operational.
20-5	YD 1 or YD 2 Annunciators (White)/(RJ Only)	C	-	0	May be inoperative provided YD amber annunciator is verified to operate normally.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-1

ITEM

High Frequency (HF) Communications System

D

-

-

Any in excess of those required by 14 CFR may be inoperative. |

C

-

1

(O) May be inoperative while conducting operations that require two LRCS provided:

- a) SATCOM Voice or Data Link operates normally,
- b) Alternate procedures are established and used,
- c) SATCOM coverage is available over the intended route of flight, and
- d) If SATCOM Voice is to be used over the intended route of flight, SATCOM Voice short codes (INMARSAT) or direct dial commercial numbers (IRIDIUM) must be available. If not available, prior coordination with the appropriate ATS (FIR) facility is required.

NOTE: SATCOM Voice is to be used only as a backup to normal HF communications. |

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-2

ITEM

Communications Systems (VHF and UHF)

D

-

-

Any in excess of those required by 14 CFR may be inoperative provided it is not powered by the Emergency AC Bus, Emergency DC Bus, Battery Bus, Battery Direct Bus, or the DC Transfer Bus and not required for emergency procedures.

1) VHF Communication Control Panels

a) Frequency Transfer Light

C

-

0

b) Frequency Transfer Switch

C

-

0

c) Frequency Selector Knob

C

-

2

d) Frequency Indication

C

-

2

NOTE: For 146, VHF 1 must be operative. For RJ, VHF 1 must be operative from the left hand Radio Management Panel (RMP).

10-3

Radio Management Panel (RJ Only)

1) Radio Select Buttons

C

-

-

May be inoperative on a single RMP provided:
a) The minimum number of radios required by FAR can be selected on the affected RMP,
b) VHF 1 can be selected on the left hand RMP, and
c) Operative RMP has all radio select buttons operative.

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
10-4	VHF COMM A or COMM B Selection (146 Only) 1) Frequency Selection 2) Transfer Function	C	2	1	COMM A or COMM B frequency selection may be inoperative on either (not both) P1 (VHF 1) or P2 (VHF 2) side provided required VHF frequencies can be selected on both control units.
10-5 ***	Frequency Modulation (FM) Radio (ST02281LA)	D	-	-	May be inoperative provided procedures do not require its use.
20-1 ***	Selective Call System (SELCAL) 1) Channels	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.
		C	-	0	(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
20-2 ***	ACARS System	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
***	1) Printer	D	1	0	May be inoperative provided procedures do not require its use.
20-3 ***	Emergency Locator Transmitter (ELT)				
***	1) Survival Type ELTs	D	-	-	Any in excess of those required by FAR may be inoperative or missing.
***	2) Fixed ELTs	A	-	0	(M) May be inoperative provided: a) System is deactivated, and b) Repairs are made within 90 days.
		A	-	0	May be missing provided repairs are made within 90 days.
		D	-	-	(M) Any in excess of those required by FAR may be inoperative provided system is deactivated.
		D	-	-	Any in excess of those required by FAR may be missing.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

30-1

ITEM

Passenger Address System (PA)

1) 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 (audio and visual) operates normally.

NOTE: Any station function(s) that operate normally may be used.

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 operate normally may be used.

a) Lavatory Speakers

C

-

0

(O) May be inoperative provided alternate procedures are established and used.

(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
30-1	Passenger Address System (PA) (Cont'd)				
***	2) Cargo Configuration (Courier/Supernumerary Address System)	C	1	0	(O) May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used.
	a) Lavatory Speakers	D	1	0	May be inoperative provided procedures do not require its use.
		C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
30-2	Cabin Chimes				Incorporated into Item 23-40-4 in Revision 19.
30-3 ***	Pre-recorded Passenger Announcement System	D	1	0	(O) May be inoperative provided alternate procedures are established and used.
30-4	Flight Deck Speakers	C	2	0	(M)(O) May be inoperative provided: a) Procedures do not require their use, b) Required headsets are installed and operate normally, and c) Central Audio Unit is verified to operate normally.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

40-1

ITEM

Crewmember Interphone System(s)

1) Passenger Configuration

a) Flight Deck to Cabin, Cabin to Flight Deck Functions

C

2

1

B

-

-

(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.

(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

40-1

ITEM

Crewmember Interphone System(s)
(Cont'd)

1) Passenger Configuration
(Cont'd)

b) Cabin to Cabin Function

B

2

0

(O) May be inoperative provided alternate communications procedures between the affected flight attendant stations are established and used.

NOTE: Any station function(s) that operate normally may be used.

B

-

-

(O) May be inoperative provided:

- a) Cabin to cabin interphone functions operate normally on at least fifty percent of the cabin handsets, and
- b) Alternate communications procedures between the affected flight attendants stations are established and used.

NOTE: Any station function(s) that operate normally may be used.

(Continued)

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

40-1

ITEM

Crewmember Interphone System(s)
(Cont'd)

1) Passenger Configuration
(Cont'd)

c) Flight Deck to Ground Function

i) Airplanes Operating Under Part 121

C

1

0

(O) Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided:

- a) Alternate procedures are established and used, and
- b) Nose gear/forward fuselage service interphone jack operates normally.

C

1

0

(O) Service interphone flight deck to ground/ground to flight deck function may be inoperative provided:

- a) Alternate procedures are established and used, and
- b) Nose gear/forward fuselage flight interphone jack operates normally.

B

-

0

(O) May be inoperative provided alternate procedures are established and used.

ii) All Other Aircraft/Operations

C

-

0

(O) May be inoperative provided alternate procedures are established and used.

D

-

0

May be inoperative provided procedures do not require its use.

(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

40-1

ITEM
Crewmember Interphone System(s)
(Cont'd)

2) Cargo Configuration

a) Flight Deck to Cabin, Cabin to Flight
Deck Functions

b) Cabin to Cabin Function

c) Flight Deck to Ground Function (Cont'd)

i) Airplanes Operating Under Part 121

C	1	0
D	1	0
D	1	0
C	1	0

(O) May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used.

May be inoperative provided procedures do not require its use.

(O) Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided:
a) Alternate procedures are established and used, and
b) Nose gear/forward fuselage service interphone jack operates normally.

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
40-1	Crewmember Interphone System(s) (Cont'd)				
***	2) Cargo Configuration (Cont'd)				
	c) Flight Deck to Ground Function (Cont'd)				
	i) Airplanes Operating Under Part 121 (Cont'd)	C	1	0	(O) Service interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear/forward fuselage flight interphone jack operates normally.
		B	-	0	(O) May be inoperative provided alternate procedures are established and used.
	ii) All Other Operations	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
		D	-	0	May be inoperative provided procedures do not require its use.
40-2	Flight Deck Interphone System				
	1) Channels (A & B)	C	2	1	One channel (A or B) may be inoperative on one audio selector panel.

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

40-3

ITEM

Handset Systems

1) Passenger Configuration

a) Flight Deck

C - 0

(O) May be inoperative provided:
a) Flight Deck to cabin communication operates normally, and
b) Alternate procedures are established and used.

D - 0

May be inoperative provided procedures do not require its use.

b) Cabin

B - -

(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 an inoperative flight attendant seat shall not be counted to satisfy the fifty percent requirement.

NOTE 2: Any handset(s) function(s) that operate normally may be used.

(Continued)

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23 COMMUNICATIONS

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2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				REMARKS OR EXCEPTIONS
40-3	Handset Systems (Cont'd)				
***	2) Cargo Configuration				
	a) Flight Deck	C	-	0	May be inoperative provided flight deck to courier/supernumerary communication operates normally.
		D	-	0	May be inoperative provided procedures do not require its use.
	b) Courier/Supernumerary	D	-	1	
		D	-	0	May be inoperative provided courier/supernumerary compartment remains unoccupied.
40-4	Alerting System (Audio/Visual)				
	1) Passenger Configuration				
	a) Flight Deck Call Visual Alerting System	B	1	0	May be inoperative provided the flight deck audio alerting system operates normally.
					NOTE: The flight deck audio alerting must always be operative.
					(Continued)

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

40-4

ITEM

Alerting System (Audio/Visual)
(Cont'd)

1) Passenger Configuration
(Cont'd)

b) Flight Attendant Visual Alerting System

B

1

0

(O) May be inoperative provided:

- a) PA system operates normally,
- b) If affected visual alerting system is used for lavatory smoke detector alerting, an alternate lavatory smoke detector alert (audio or visual) is installed and operates normally, and
- c) Alternate procedures for contacting flight attendants are established and used.

NOTE 1: Passenger to Attendant Call is considered Non-Essential Equipment and Furnishing (NEF).

NOTE 2: Any visual alerting system function(S) that operates normally may be used.

(Continued)

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

40-4

ITEM

Alerting System (Audio/Visual)
(Cont'd)

1) Passenger Configuration
(Cont'd)

c) Flight Attendant Audio Alerting System

B

-

0

(O) May be inoperative provided:

- a) PA system operates normally,
- b) If affected visual alerting system is used for lavatory smoke detector alerting, an alternate lavatory smoke detector alert (audio or visual) is installed and operates normally, and
- c) Alternate procedures for contacting flight attendants are established and used.

NOTE 1: Passenger to Attendant Call System is considered Non-Essential Equipment and Furnishing (NEF).

NOTE 2: Any visual alerting system function(S) that operates normally may be used.

(Continued)

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

40-4

ITEM
Alerting System (Audio/Visual) (Cont'd)
*** 2) Cargo Configuration
a) Flight Deck Call Visual Alerting System
b) Courier/ Supernumerary Visual Alerting System

B	1	0
D	1	0
B	1	0
D	1	0

May be inoperative provided the flight deck audio alerting system operates normally.

May be inoperative provided courier/supernumerary compartment remains unoccupied.

(O) May be inoperative provided:
 a) Courier/supernumerary address system operates normally, and
 b) Alternate procedures are established and used.

May be inoperative provided courier/supernumerary compartment remains unoccupied.

NOTE: Any visual alerting system function(S) that operates normally may be used.

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

40-4	Alerting System (Audio/Visual) (Cont'd)				
***	2) Cargo Configuration (Cont'd)				
	c) Courier/ Supernumerary Audio Alerting System	B	1	0	(O) May be inoperative provided: a) Courier/supernumerary address system operates normally, and b) Alternate procedures are established and used.
		D	-	0	May be inoperative provided courier/supernumerary compartment remains unoccupied. NOTE: Any visual alerting system function(S) that operates normally may be used.
40-5	Ground Crew Call Horn	C	1	0	(O) May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
50-1	Audio Selector Panels INT-R/T Switch				
	1) Captain's or First Officer's	C	2	1	(O) One may be inoperative OFF or in the INT position provided the associated control column INT-R/T switch operates normally.

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
50-2	Control Column INT-R/T Switch	A	2	1	(O) One may be inoperative OFF or in the INT position provided: a) Associated Audio Selector Panel INT/RT switch is verified to operate normally, and b) Repairs are made within three flight days.
70-1	Cockpit Voice Recorder (CVR) System				
	1) With Flight Data Recorder Installed	A	1	0	(O) May be inoperative provided: a) Flight Data Recorder (FDR) operates normally, and b) Repairs are made within three flight days.
***	a) Independent Power Source	C	1	0	
	2) Without Flight Data Recorder Installed	A	1	0	May be inoperative provided repairs are made within three flight days.
***	a) Independent Power Source	C	1	0	
	3) Operators Other Than a Holder of An Air Carrier or Commercial Operator Certificate	A	1	0	May be inoperative provided repairs are made in accordance with applicable CFRs.
***	a) Independent Power Source	C	1	0	

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23 COMMUNICATIONS

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ITEM

4. REMARKS OR EXCEPTIONS

71-1

Flight Deck Headsets Earphones/Headphones and Boom Microphones

1) Operators without Air Carrier or Commercial Certificate

D

-

-

Any in excess of those required by 14 CFR may be inoperative.

2) Headset Boom Microphones

D

-

-

Any in excess of those required by 14 CFR may be inoperative.

a) Operators with Air Carrier or Commercial Certificate

A

-

0

May be inoperative provided:

- a) Associated hand microphone is installed and operates normally, and
- b) Repairs are made within three flight days.

b) Operators without Air Carrier or Commercial Certificate

A

-

0

May be inoperative provided:

- a) Associated hand microphone is installed and operates normally, and
- b) Repairs are made in accordance with applicable CFRs.

3) Headset Earphones/Headphones

C

-

1

May be inoperative provided associated flight deck speaker operates normally.

a) Operators with Air Carrier or Commercial Certificate

D

-

-

Any in excess of those required by 14 CFR may be inoperative.

4) Active Noise Canceling/Reduction Function

D

-

0

May be inoperative provided normal audio function of headset is operative.

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23 COMMUNICATIONS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
71-2	Flight Deck Hand Microphones	C	-	0	May be inoperative provided associated boom microphone operates normally.
		D	-	0	Any in excess of those required by 14 CFR may be inoperative.
71-3	High Frequency (HF) Communication System				Deleted, Rev. 21. (Moved to item 23-10-1.)
71-4	AirWorks Flight Deck Door Surveillance System (CDSS) (STC ST10343LA-T)				Deleted, Rev. 21. (Moved to item 25-80-1.)

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24 ELECTRICAL POWER

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-1

ITEM

Engine Driven Generator (EDG) Systems

B

2

1

(M)(O) One may be inoperative with respective GEN 1 or GEN 4 control switch in the OFF/RESET position provided:

- a) An approved procedure is used once each flight day to verify if it is necessary to remove and blank the generator for continued MEL operations,
- b) APU generator operates normally and is used to supply busses of the inoperative channel throughout the flight,
- c) The Left Hand Common Feed Valve is selected to open,
- d) Operating generator's GEN OFF LINE annunciators operate normally,
- e) For aircraft not fitted with a GALLEY SHED switch(overhead ELECTRIC panel), pull and collar the galley circuit breakers (if installed) on the overhead panel prior to departure,
- f) No. 1 TRU operates normally, and
- g) Aircraft is operated in accordance with AFM/FCOM procedures/limitations for in-flight use of the APU.

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM

10-2

APU Generator

B

1

0

(M)(O) May be inoperative provided:
 a) Both engine driven generators operate normally, and
 b) Acceptable status of APU generator is confirmed if APU air supply is required only.

C

1

0

(O) May be inoperative provided APU is not used.

10-3

APU Generator Control Unit

C

1

0

(M)(O) May be inoperative provided:
 a) Associated APU GEN control switch is set to the OFF/RESET position, and
 b) Both engine driven generators operate normally.

20-1

Standby Hydraulic Generator

B

1

0

(M)(O) May be inoperative provided:
 a) Both engine driven generators operate normally,
 b) APU is operated throughout the flight,
 c) APU generator operates normally and is selected ON,
 d) The Left Hand Common Feed Valve is selected to open,
 e) For aircraft not fitted with a GALLEY SHED switch(overhead ELECTRIC panel), pull and collar the galley circuit breakers (if installed) on the overhead panel prior to departure,
 f) No. 1 TRU and one other TRU operate normally,
 g) Standby generator is selected OFF, and
 h) Aircraft is operated in accordance with AFM/FCOM limitations for in-flight use of APU.

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ITEM

4. REMARKS OR EXCEPTIONS

20-2	AC Voltmeter	B	1	0	(O) May be inoperative provided electrical fault warning and AC ammeters operate normally.
20-3	AC Frequency Meter	B	1	0	(O) May be inoperative provided electrical fault warnings and AC ammeters operate normally.
20-4	AC Rotary Selector Switch	C	1	0	(O) May be inoperative provided electrical fault warnings operate normally.
20-5 ***	AC Ammeters (GEN 1, GEN 4, APU GEN)	B	3	0	(O) May be inoperative provided electrical fault warning and AC volt and frequency meters operate normally.
20-6	GEN OFF LINE Warning Lights				
	1) ENGINE	B	2	1	(O) One may be inoperative provided associated voltage, current and frequency are checked before each departure.
		B	2	0	May be inoperative for an inoperative generator.
	2) APU	C	1	0	May be inoperative unless APU generator is required for dispatch.
20-9	APU GEN FAULT Warning (Pre Mod HCM35016A - Garrett APU Only) (146 Only)	C	1	0	May be inoperative provided APU is not used.
20-10	APU DRIVE FAIL Warning (Post Mod HCM35016A - Garrett APU Only)	C	1	0	May be inoperative provided APU is not used.

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24 ELECTRICAL POWER

1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
30-1	Transformer Rectifier Units (TRU)				
***	1) Three TRU Configuration (146 Only)				
	a) TRU No.1	B	1	0	(M)(O) TRU No. 1 may be inoperative provided both engine driven generators operate normally.
	b) TRU No.2 or No.3	D	2	1	(M) TRU No. 2 or TRU No. 3 may be inoperative.
	c) TRU's No.1, No.2, and No.3	B	3	1	(M)(O) Any two may be inoperative provided: a) DC ground power is used for starting engines. b) Standby hydraulic generator operates normally, and c) If No. 1 TRU is inoperative, both engine driven generators operate normally.
***	2) Two TRU Configuration	B	2	1	(M)(O) One may be inoperative provided: a) DC ground power is used for starting engines, b) Standby hydraulic generator operates normally, and c) If No. 1 TRU is inoperative both engine driven generators operate normally.
30-2	No.2 Battery	D	1	0	(M)(O) May be inoperative provided: a) Number 1 battery operates normally, and b) Alternate procedures are established and used.
***	(Post Modification HCM 46132A)				

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-3	DC Ammeters (TRU)	B	-	0	(O) May be inoperative provided: a) Electric fault warning operates normally before flight, and b) Battery ammeter operates normally.
30-4	DC Rotary Selector Switch 1) Switch Positions	B	7	1	One or more switch positions may be inoperative provided the BATT 1 position operates normally.
30-5	BATT #2 Warnings				Deleted, Revision 22.
30-6	BATT HIGH TEMP Warning System(s)				Deleted, Revision 22.
40-1	AC External Power System	C	1	0	
40-2	DC External Power System	C	1	0	
41-1	Galley Load Shedding System	C	1	0	

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

00-1	Cabin Emergency Flashlight Holder/ Flashlights	C	-	-	May be inoperative or missing provided the crew member assigned to the affected position has a normally operating flashlight readily available.
		C	-	0	(O) May be missing or inoperative provided: a) No passengers are carried, b) A maximum of 19 persons as authorized by 14 CFR for non-passenger-carrying operations are carried, and c) Alternate procedures are established and used.
00-2	Emergency Locator Transmitter				Deleted, Rev. 21 (Moved to Item 23-20-3).
00-3	First Aid Kits				Deleted Revision 18, incorporated into Item 25-60-4.
10-1	Crewmember Shoulder Harness (Flight Deck)				Deleted, REV. 12. Incorporated into item 25-20-3.
10-2	Pilot(s) Seat Adjustment System	B	2	0	(M) May be inoperative provided seat(s) is locked in a position that permits normal pilot visibility and full flight control movement.
10-3	Sun Visors	C	2	0	May be inoperative provided: a) No visual restrictions to the flight crew, b) Acceptable to the flight crew, and c) Affected sun visor is removed or stowed.
10-4	Eye Locator	C	1	0	(O) May be inoperative provided alternate procedures are established and used to ensure optimum seat position.

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1. REPAIR INTERVAL

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ITEM

4. REMARKS OR EXCEPTIONS

10-5

Loadmaster Seat
(QT and QC in Freighter Configuration)

C

-

0

May be inoperative provided suitable alternate seating is available.

C

-

0

May be inoperative provided operations are not predicated on its use.

10-6

Shoulder Harness Release Mechanism

B

2

0

May be inoperative provided:
a) The combined release function for the shoulder harness, lap straps and crotch strap operate normally,
b) The shoulder harness inertial reel, go-forward and lock functions operate normally, and
c) The occupant can perform the required crew duties with the harness assembly fastened.

20-1

Flight Attendant Seat Assembly
(Single or Dual Position)

C

-

0

(O) May be missing or inoperative provided:
a) No passengers are carried,
b) A maximum of 19 persons as authorized by 14 CFR for non-passenger-carrying operations are carried, and
c) Alternate procedures are established and used.

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM

Flight Attendant Seat Assembly
(Single or Dual Position)
(Cont'd)

1) Required Flight Attendant Seats

B

-

-

(M)(O) One seat position or assembly (dual position) may be inoperative provided:

- a) Affected seat position or seat assembly is not occupied,
- b) Flight Attendant(s) displaced by inoperative seat(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 USE ONLY".

(Continued)

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-1

ITEM

Flight Attendant Seat Assembly (Single or Dual Position)
(Cont'd)

- 1) Required Flight Attendant Seats
(Cont'd)

NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative.

NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative.

NOTE 3: Individual operators, when operating with inoperative seats, will consider the locations and combinations of seats to ensure that the proximity to exits and distribution of requirements of the applicable FAR are met.

NOTE 4: If one side of a dual seat assembly is inoperative and a flight attendant is displaced to the adjacent seat, the adjacent seat must operate normally.

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-1

ITEM

Flight Attendant Seat Assembly (Single or Dual Position)
(Cont'd)

2) Excess Flight Attendant Seats

C

-

-

(M) May be inoperative provided:
a) Affected seat position or seat assembly is not occupied,
and
b) Folding type seat stows automatically or is secured in the retracted position.

NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative.

NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative.

3) All Cargo Configuration

D

-

-

May be inoperative provided affected seat or seat assembly is not occupied.

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-2

ITEM

Passenger Seat(s)

D

-

-

May be inoperative provided:
 a) Seat does not block an Emergency Exit,
 b) Seat does not restrict any passenger from access to the main aircraft aisle, and
 c) The affected seat(s) are blocked and placarded "DO NOT OCCUPY".

NOTE 1: A seat with an inoperative seat belt is considered inoperative.

NOTE 2: Inoperative seats do not affect the required number of Flight Attendants.

NOTE 3: Affected seat(s) may include the seat(s) behind and/or adjacent outboard seats.

1) Recline Mechanism

D

-

-

(M) May be inoperative and seat occupied provided seat back is secured in the full upright position.

D

-

-

May be inoperative and seat occupied provided seat back is immovable in full upright position.

(Continued)

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1. REPAIR INTERVAL

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ITEM

4. REMARKS OR EXCEPTIONS

20-2

Passenger Seats
(Cont'd)

2) Underseat Baggage Restraining Bars

C

-

-

(O) May be inoperative provided:

- a) Baggage is not stowed under seat with inoperative restraining bar,
- b) Associated seat is placarded "DO NOT STOW BAGGAGE UNDER THIS SEAT", and
- c) Procedures are established to alert Cabin Crew of inoperative restraining bar.

3) Armrest

a) Armrest with Recline Mechanism

D

-

-

(M) May be inoperative or missing and seat occupied provided:

- a) Armrest does not block an Emergency Exit,
- b) Armrest does not restrict any passenger from access to the main aircraft aisle, and
- c) If armrest is missing, seat is secured in the full upright position.

b) Armrest without Recline Mechanism

D

-

-

May be inoperative or missing and seat occupied provided:

- a) Armrest does not block an Emergency Exit, and
- b) Armrest does not restrict any passenger from access to the main aircraft aisle.

(Continued)

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-2

ITEM

Passenger Seats
(Cont'd)

4) Seat Belt Air Bag Restraint Systems

a) Seat Belt Air Bags Required by 14 CFR

D

-

-

May be inoperative provided affected seat is blocked and placarded "DO NOT OCCUPY".

b) Seat Belt Air Bags Not Required by 14 CFR

D

-

-

May be inoperative or disconnected provided seat belt operates normally.

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4. REMARKS OR EXCEPTIONS

ITEM

20-3

Observer Seat(s)

- 1) Primary Observer Seat (Including Associated Equipment)

A

-

-

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.

A

-

-

May be inoperative provided:

- a) Required minimum safety equipment (Safety Belt, and oxygen) is available,
- b) Seat is acceptable to the FAA inspector for performance of official duties, and
- c) Repairs are made within two flight days.

NOTE 1: These provisos are intended to provide for occupancy of the above seats by an FAA inspector when the minimum safety equipment (oxygen and safety belt) is functional and the inspector determines the conditions to be acceptable.

NOTE 2: The pilot-in-command will determine if the minimum safety equipment is functional for other persons authorized to occupy any observer seat(s).

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4. REMARKS OR EXCEPTIONS

	ITEM				
20-3	Observer Seat(s) (Cont'd) 2) Observer Seat Not Required by 14 CFR (Including Associated Equipment)	D	-	0	NOTE: The pilot-in-command will determine if the minimum safety equipment is functional for other persons authorized to occupy any observer seat(s).
20-4	Underseat Baggage Restraining Bars	C	-	-	Deleted, REV. 15. Incorporated into item 25.20-2.
30-1	Galley/Cabin Waste Receptacles Access Doors/Covers	C	-	-	(M)(O) May be inoperative provided: a) The container is empty and the access is secured to prevent waste introduction into the compartment, and b) Procedures are established to ensure that sufficient galley/cabin waste receptacles are available to accommodate all waste that may be generated on a flight.
30-2	Galley Container Latches	D	-	-	Galley container latches may be inoperative provided the affected container is removed from the aircraft. (M) Latches on fixed containers may be inoperative provided: a) Affected container is empty and is not used, and b) The container door is secured shut and placarded 'INOPERATIVE-DO NOT USE'.

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4. REMARKS OR EXCEPTIONS

	ITEM				
50-1	Pallet Loading/ Locking System (QT Aircraft Only)	C	1	-	(M)(O) Individual pallet positions may be inoperative provided: a) Damage tolerance levels imposed by ANCRA CMM (reference PN80500-13) are not exceeded, b) Associated pallet positions are clearly placarded indicating their reduced operational capability, c) Weight and balance limitations are observed, and d) Associated limitations imposed by DDG/ANCRA CMM are observed.
50-2 ***	Animal Bay 1) Animal Bay Compartment a) Lights b) Door Panel, Latch, Hinge, Seal, Microswitch c) Door Lock d) Door Hold Open Device	D D D D	1 1 1 -	0 0 0 -	May be inoperative provided: a) Bay is not used for the carriage of live animals(baggage may be carried), and b) ANIMAL BAY HEAT switch/ annunciator is selected OFF. May be inoperative provided the door is closed. (Continued)

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4. REMARKS OR EXCEPTIONS

50-2

ITEM

Animal Bay
(Cont'd)

1) Animal Bay Compartment
(Cont'd)

e) Animal Bay Panels Class D Cargo
Compartment (Without Cargo Bay
Smoke Detection and Suppression)

i) Any Combination of: Top Panel,
Sidewall Panel, Aft Bulkhead Panel,
Floor Panels (Including Steps)

ii) Forward Panel/ Door

D

-

-

May be damaged holed provided:

- a) Forward animal bay panel/ door is undamaged and the door is secured shut,
- b) Bay is not used for the carriage of live animals or baggage, and
- c) Animal Bay Heat switch/ annunciator is selected OFF.

D

1

-

May be damaged holed provided:

- a) Bay is not used for the carriage of live animals(baggage may be carried), and
- b) Animal Bay Heat switch/ annunciator is selected OFF.

(Continued)

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25 EQUIPMENT/FURNISHINGS

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4. REMARKS OR EXCEPTIONS

50-2

ITEM

Animal Bay
(Cont'd)

1) Animal Bay Compartment
(Cont'd)

e) Animal Bay Panels Class D Cargo
Compartment (Without Cargo Bay
Smoke Detection and Suppression)
(Cont'd)

iii) Floor Panels (Including Steps) AND
Forward Panel/ Door

D

-

-

(M) May be damaged holed provided:

a) Bay is not used for the carriage of live animals or
baggage,

b) Animal Bay Heat switch/ annunciator is selected OFF, and

c) Cargo bay lining is inspected and any damage repaired.

iv) Any Panel

D

-

-

May be dented provided structural integrity is not affected.

NOTE: The animal bay may still be used for the carriage of
animals or baggage if the main cargo bay is holed and/ or
dented provided the animal bay door is secured shut and
no baggage is carried in the main cargo bay.

(Continued)

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ITEM

4. REMARKS OR EXCEPTIONS

50-2

Animal Bay
(Cont'd)

1) Animal Bay Compartment
(Cont'd)

f) Animal Bay Panels Class C Cargo
Compartment (With Cargo Bay Smoke
Detection and Suppression

i) Floor Panels (Including Steps) and/or
Forward Panel/Door

D

-

-

(M) May be damaged holed provided:
a) Bay is not used for the carriage of live animals,
b) Animal Bay Heat switch/ annunciator is selected OFF,
and
c) Cargo bay lining is inspect- ed and any damage repaired.

NOTE: Baggage may be carried if the floor panels (Including
steps) are not damaged.

ii) Any Panel

D

-

-

May be dented provided structural integrity is not affected.

2) Animal Bay Environmental Control System:
Bay Heater, Fan, Inlet/Outlet Valves (and
Smoke Detector on Aircraft Fitted with an
Unconditioned Class D Cargo Compartment)

D

1

0

(M)(O) May be inoperative provided:
a) Inlet and outlet valves are verified closed,
b) Associated circuit breakers are pulled and collared, and
c) Animal Bay Heat switch/ annunciator is selected OFF.

NOTE: Animals cannot be carried in associated cargo
compartment (baggage may be carried).

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4. REMARKS OR EXCEPTIONS

ITEM

50-3

Forward and Aft Compartment Door, Guard Assemblies

1) Door Guard

D

2

0

(M)(O) May be damaged provided:
a) Affected door guard is removed, and
b) Cargo bay next to the inner face of the cargo compartment door is not used.

D

2

0

(M)(O) May be damaged provided:
a) Affected door guard is removed, and
b) A cargo door protection net is installed to protect the door when closed.

2) Door Guard Shoot Bolts

D

4

0

(M) May be inoperative provided an appropriate device is used to hold the door in the open position.

50-4

Cargo Restraint Systems

A

-

-

(M) May be inoperative or missing provided:
a) Acceptable cargo loading limits from an approved source, i.e., an Approved Cargo Loading Manual, Cargo Handling Manual or Weight and Balance Document are observed, and
b) Repairs are made prior to the completion of the next heavy maintenance visit.

C

-

-

May be inoperative or missing provided cargo compartment remains empty.

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

51-1

ITEM

3000 Gallon Fluid Dispersal System
(ST02281LA)

1) Dump Valves

C

4

3

(M)(O) May be inoperative provided:
a) Valve is deactivated in the closed position,
b) Cockpit Control Panel is placarded to include indication of which valve is inoperative, and
c) Remaining valves are verified to operate normally prior to each flight.

2) Leak Detectors

D

5

0

May be inoperative provided retardant tank remains empty.

a) Zone 1

C

2

1

May be inoperative provided other leak detector in Zone 1 is verified to operate normally.

b) Zone 3

C

2

1

(M) May be inoperative provided other leak detector in Zone 3 is verified to operate normally.

3) Tank Fill Panel Digital Gauge

C

1

0

(O) May be inoperative provided:
a) The tank volume indicator on the cockpit control panel operates normally,
b) Alternate procedures are established and used.

(Continued)

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25 EQUIPMENT/FURNISHINGS

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
51-1 ***	3000 Gallon Fluid Dispersal System (ST02281LA) (Cont'd)				
	4) Overfill Protection System	C	1	0	(M)(O) May be inoperative provided: a) The tank volume indicator on the cockpit control panel operates normally, b) The tank fill panel gauge operates normally, and c) Alternate procedures for filling the tank are established and used.
	5) Yoke Mounted Drop Switches	C	2	0	(M)(O) May be inoperative provided the drop button on the cockpit control panel operates normally.
60-1	Megaphones	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing provided: a) Inoperative megaphone is removed from the passenger cabin, b) Associated placard is removed or obscured, and c) Required distribution is maintained.
		C	-	0	(O) May be missing or inoperative provided: a) No passengers are carried, b) A maximum of 19 persons as authorized by 14 CFR for non-passenger-carrying operations are carried, and c) Alternate procedures are established and used.
	1) Cargo Operations	D	-	0	

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

60-2

"FASTEN SEAT BELT WHILE SEATED" Sign or Placard

C

-

-

One or more signs or placards may be illegible or missing provided a legible sign or placard is readable from each occupied passenger seat.

NOTE: This relief is applicable to the fixed placards. For inoperative lights see MMEL Item 33-20-2.

60-3

Exterior Lavatory Door Ashtrays

1) More Than One Lavatory Door Installed

A

-

-

Fifty percent may be inoperative or missing provided:
a) Repairs are made to fifty percent of those inoperative or missing within 3 calendar days, and
b) Repairs are made to the remaining inoperative or missing ashtrays within 10 calendar days.

2) One Lavatory Door Installed

A

1

0

May be inoperative or missing for 10 calendar days.

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

60-4

Emergency Medical Equipment

1) First Aid Kit (FAK) and/or Associated Equipment

A

-

-

(O) If more than one is required by FAR, only one of the required first aid kits may be incomplete, missing or inoperative provided:
a) FAK is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and
b) Repairs or replacements are made within 1 flight.

D

-

-

Any in excess of those required by FAR may be incomplete, missing, or inoperative.

2) Emergency Medical Kit (EMK) and/or Associated Equipment

A

-

0

(O) May be incomplete, missing or inoperative provided:
a) EMK is resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit, and
b) Repairs or replacements are made within 1 flight.

D

-

-

Any in excess of those required by FAR may be incomplete, missing, or inoperative.

3) Automatic External Defibrillator (AED) and/or Associated Equipment

A

-

0

(O) May be incomplete, missing or inoperative provided:
a) AED is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and
b) Repairs or replacements are made within 1 flight.

D

-

-

Any in excess of those required by FAR may be incomplete, missing, or inoperative.

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

60-5

ITEM

Flotation Devices (Life Jackets and Life Rafts)

D

-

-

(M) Any in excess of the minimum required may be missing or inoperative provided:
 a) Inoperative equipment is placarded inoperative, removed from installed location and placed out of sight so it cannot be mistaken for a functional unit,
 b) Hazardous material (e.g. inflation devices) should be dealt with in accordance with airline approved procedures, and
 c) Required distribution of serviceable equipment is maintained.

70-1

Non-Essential Equipment & Furnishings (NEF)

-

0

May be inoperative, damaged or missing provided that the item(s) is deferred in accordance with the 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 NEF items.

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

70-2

ITEM

Storage Bins/Cabin, Galley, and Lavatory
Storage Compartments/Closet

C

-

-

- (M) May be inoperative provided:
- a) Procedures are established to secure the affected bin, compartment, or closet in the closed position,
 - b) Affected bin, compartment, or closet is prominently placarded DO NOT USE,
 - c) Any emergency equipment located in affected compartment is considered inoperative, and
 - d) Affected bin, compartment, or closet is not used for storage of any items except for those permanently affixed.

NOTE: For overhead bins, if no partitions are installed, the entire overhead bin is considered inoperative.

(Continued)

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

70-2

ITEM

Storage Bins/Cabin, Galley, and Lavatory Storage Compartments/Closet (Cont'd)

C

-

-

(M)(O) May be inoperative provided:
 a) For non-retractable doors, affected doors is removed,
 b) For retractable doors, affected door is removed or secured in the retracted (fully open) position,
 c) Affected bin, compartment, or closet is not used for storage of any items, except those permanently affixed,
 d) Affected bin, compartment, or closet is prominently placarded DO NOT USE,
 e) Procedures are established and used to alert crew members and passengers of inoperative bins, and
 f) Passengers are briefed that associated bin, compartment, or closet is not used.

NOTE 1: For overhead bins, if no partitions are installed, the entire overhead bin is considered inoperative.

NOTE 2: Any emergency equipment located in the bin, compartment, or closet (permanently affixed) is available for use.

1) Storage Compartment Key Locks

D

-

0

(M) May be inoperative in the unlocked position provided doors can be secured by other means.

70-3

Crew Storage Compartment Restraint Net

D

1

0

(O) May be damaged or missing provided the compartment is not used.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS
25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
80-1	Flight Deck Door Visual Surveillance Systems				
***	1) Electronic System	A	1	0	(O) May be inoperative provided:
					a) Alternate procedures are established and used, and b) Repairs are made within three flight days.
		C	1	0	(O) May be inoperative provided:
					a) A flight deck door viewing port is installed and operates normally, and b) Alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	a) Cargo Configuration	C	1	0	May be inoperative provided the aircraft aft of the flight deck door
					is occupied only by those personnel authorized by 14 CFR.
		D	1	0	May be inoperative provided procedures do not require its use.
					(Continued)

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25 EQUIPMENT/FURNISHINGS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
80-1	Flight Deck Door Visual Surveillance Systems (Cont'd)				
***	2) Viewing Ports	A	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within three flight days.
		C	1	0	(O) May be inoperative provided: a) An electronic flight deck door visual surveillance system is installed and operates normally, and b) Alternate procedures are established and used.
	a) Cargo Configuration	C	1	0	May be inoperative provided the aircraft aft of the flight deck door is occupied only by those personnel authorized by 14 CFR.
		D	1	0	May be inoperative provided procedures do not require its use.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
00-1	Lower Cargo Compartment Smoke Detection Systems	-	-	-	Item 00-1 moved to New Item 20-8.
10-1	Engine Fire/Overheat Detection Systems	C	-	4	One loop per engine may be inoperative provided alternative loop is selected and verified to operate normally before each departure.
10-2	Engine Fire Detection Test Function				DELETED REV. 10.
10-3	APU Fire Detection System	C	1	0	(M)(O) May be inoperative provided: a) APU is used only for ground operation and is continuously monitored, b) APU external control system operates normally, and c) APU must be shut down before taxi.
		C	1	0	May be inoperative provided APU is not used.
10-4	APU FIRE Detection Test Function	C	1	0	(M)(O) May be inoperative provided: a) APU is used only for ground operation and is continuously monitored, b) APU external control system operates normally, and c) APU must be shut down before taxi.
		C	1	0	May be inoperative provided APU is not used.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
10-5	Thrust Lever Lights	C	4	0	May be inoperative provided MWS warning and associated fire handle light operate normally.
10-6	Wing Trailing Edge Overheat Loop Systems	C	4	2	(O) One loop on each wing may be inoperative.
10-7	Lavatory Smoke Detection System				
	1) Passenger Configuration	C	-	-	(M)(O) For each lavatory, the lavatory smoke detection system may be inoperative provided: a) Lavatory waste receptacle is empty, b) Associated lavatory door is locked closed and placarded, "INOPERATIVE - DO NOT ENTER", and c) Lavatory is used only by crewmembers.
	2) Cargo Configuration	D	-	0	NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.

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26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
20-1	<p>APU Fire Extinguisher System</p> <p>1) Pacific- Scientific Type Pressure Relief Indicator</p> <p>2) Kidde-Graviner Type Pressure Relief Indicator</p>	C	1	0	<p>(O) May be inoperative provided:</p> <ul style="list-style-type: none"> a) Fire detection system operates normally, b) APU is used for starting one engine only, c) A fire guard is stationed on the ground adjacent to APU at all times while it is operating, and d) APU is started just before engine start, and shut down after engine start. <p>(M)(O) GREEN DISC may be missing provided it can be confirmed once each flight day, that the Fire Extinguisher Bottle has not thermally relieved, or has been electrically discharged.</p> <p>May be inoperative provided the APU Fire Extinguisher is considered to be inoperative.</p> <p>(M)(O) GREEN DISC may be missing provided it can be confirmed once each flight day, that the Fire Extinguisher Bottle has not thermally relieved or has been electrically discharged.</p> <p>May be inoperative provided the APU Fire Extinguisher is considered to be inoperative.</p> <p>(Continued)</p>

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-1

ITEM

APU Fire Extinguisher System
(Cont'd)

3) APU EXT USED Annunciator

C

1

0

(M)(O) May be inoperative provided it can be confirmed that the Fire Extinguisher Bottle has not discharged.

C

1

0

May be inoperative provided the APU Fire Extinguisher is considered to be inoperative.

C

1

0

May be inoperative provided APU is not used.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
20-2	Engine Fire Extinguishing System				
	1) Pacific Scientific Type Pressure Relief (GREEN Disc) Indicator	A	8	4	(M) One GREEN DISC may be missing on each engine provided: a) It can be confirmed that the remaining Fire Extinguisher Bottle(s) on the associated Engine(s) have not been thermally relieved, b) Affected Fire Extinguisher Bottle(s) have not been electrically discharged, and c) Rectification or replacement action is carried out within 1 flight day.
	2) Kidde-Graviner Type Pressure Relief (GREEN DISC) Indicator	C	8	0	(M) GREEN DISC may be missing provided: a) It can be confirmed that the Fire Extinguisher Bottle(s) on the associated Engine(s) have not thermally relieved, and b) Affected Fire Extinguisher Bottle(s) have not been electrically discharged.
	3) ENG EXT USED Annunciators	C	8	0	(M) May be inoperative provided it can be confirmed that the affected Fire Extinguisher Bottle(s) on the associated Engine(s) have not discharged.
20-3	EXT USED Lights				Deleted revision 18, relief incorporated into items 26-20-1 and 26-20-2.
20-4	Firehandle Lights	C	4	0	May be inoperative provided MWS warning and associated thrust lever light operate normally.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
20-5	Lavatory Fire Extinguisher Systems 1) Passenger Configuration	C	-	-	(M)(O) For each lavatory, the lavatory fire extinguisher system may be inoperative provided: a) Associated lavatory smoke detector system operates normally, b) Lavatory waste receptacle is empty, c) Associated lavatory door is locked closed and placarded, "INOPERATIVE - DO NOT ENTER", and d) Lavatory is used only by crewmembers. NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.
20-6	2) Cargo Configuration Portable Fire Extinguishers	D	-	0	Any in excess of those required by FAR may be inoperative or missing provided: a) Inoperative fire extinguisher is tagged inoperative, removed from installed location, and placed out of sight so it cannot be mistaken for a functional unit, and b) Required distribution is maintained.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-7

ITEM

Lower Cargo Compartment Smoke Detection and Suppression Systems (Mod HCM30480A or HCM50309)

- 1) Cargo Compartment Smoke Detection Systems

C

2

0

NOTE: Class E cargo compartments require the Installation of smoke or fire detection systems only (not suppression).

(M)(O) May be inoperative provided:

- a) Affected compartment(s) Cargo Electronics Unit (CEU) circuit breakers are pulled and collared,
- b) If the animal bay is installed in the associated compartment the inoperative animal bay ECS procedures must be observed, and
- c) Procedures are established and used to ensure the associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in UDLs), and/or Fly Away Kits.

NOTE: Operator MELs must define which items are approved for inclusion in the Fly Away Kits, and which materials can be used as ballast.

(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-7

ITEM

Lower Cargo Compartment Smoke Detection and Suppression Systems (Mod HCM30480A or HCM50309)
(Cont'd)

2) Cargo Compartment Smoke Detection Loops

C

4

0

(M)(O) Loops A and B may be inoperative in one or both compartments provided:
 a) Affected compartments Cargo Electronics Unit (CEU) circuit breakers are pulled and collared,
 b) If the animal bay is installed in the associated compartment the inoperative animal bay ECS procedures must be observed, and
 c) Procedures are established and used to ensure the associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in UDLs), and/or Fly Away Kits.

NOTE: Operator MELs must define which items are approved for inclusion in the Fly Away Kits, and which materials can be used as ballast.

C

2

0

(O) Loop A may be inoperative in one or both compartments provided Loop B operates normally and is selected.

C

2

0

(O) Loop B may be inoperative in one or both compartments provided Loop Loop A operates normally and is selected.

(Continued)

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26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-7

ITEM

Lower Cargo Compartment Smoke Detection and Suppression Systems (Mod HCM30480A or HCM50309)
(Cont'd)

3) Cargo Compartment Fire Extinguisher Bottles

C

2

0

(M)(O) May be inoperative provided:

- a) If animal bay is installed the inoperative animal bay ECS procedures must be observed, and
- b) Procedures are established and used to ensure the associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in UDLs), and/or Fly Away Kits.

NOTE: Operator MELs must define which items are approved for inclusion in the Fly Away Kits, and which materials can be used as ballast.

(Continued)

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26 FIRE PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-7

ITEM

Lower Cargo Compartment Smoke Detection and Suppression Systems (Mod HCM30480A or HCM50309)
(Cont'd)

4) Fire Extinguisher Squibs

C

4

0

(M)(O) May be inoperative provided:

- a) If the animal bay is installed in the associated compartment the inoperative animal bay ECS procedure must be observed, and
- b) Procedures are established and used to ensure the associated compartment remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in UDLs), and/or Fly Away Kits.

NOTE 1: Operator MELs must define which items are approved for inclusion in the Fly Away Kits, and which materials can be used as ballast.

NOTE 2: A compartment fire suppression system is considered inoperative if either its High Rate Discharge extinguisher squib or Low Rate Discharge extinguisher squib are inoperative.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

27 FLIGHT CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

10-1	Aileron Trim Position Indicator	C	1	0	(O) May be inoperative provided aileron trim tabs are centered before each departure.
10-2	Aileron Trim System	C	1	0	(O) May be inoperative provided aileron trim is neutral. NOTE: Autopilot may be used provided there is no indication of aileron out of trim.
10-3	Roll Spoiler Position Indication System	C	1	0	(O) May be inoperative provided spoiler operation is verified visually before each departure.
20-1	Rudder Stuck Valve Warning System				Deleted, Revision 15.
20-2	Rudder Trim Position Indicator	C	1	0	(O) May be inoperative provided rudder trim is checked for full and free movement and verified neutral before each departure.
20-3	Rudder Pedal Adjustments	C	2	0	May be inoperative provided rudder pedals can be adjusted to suit individual pilot's requirements.

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27 FLIGHT CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

30-1

ITEM

Electric Pitch Trim

1) 146 Only

B

1

0

(M)(O) May be inoperative provided:

- a) Manual trim is verified to operate normally over full range of travel,
- b) ELEV TRIM MOTOR circuit breaker is pulled and collared,
- c) Autopilot master switch is selected OFF, and
- d) Approach minimums do not require use of autopilot.

2) RJ-70/RJ-85 Only (Single FGC)
(Pre Switching Mods HCM01515 and HCM01516)

B

1

0

(O) May be inoperative provided:

- a) Manual trim is verified to operate normally over full range of travel,
- b) Autopilot master switch is selected OFF,
- c) Alternate procedures for dispatch with inoperative flap trim compensation are established and used, and
- d) Approach minimums do not require use of autopilot.

(Continued)

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27 FLIGHT CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

30-1

ITEM

Electric Pitch Trim
(Cont'd)

3) RJ-70 and RJ-85 Only (Single FGC)
(Post Switching Mods HCM01515 or
HCM01516)

B

1

0

(M)(O) May be inoperative provided:

- a) Manual trim is verified to operate normally over full range of travel,
- b) MCP Disengage switch is selected OFF,
- c) Electric Pitch Trim circuit breaker is pulled and collared,
- d) Alternate procedures for dispatch with inoperative flap trim compensation are established and used, and
- e) Approach minimums do not required use of autopilot.

4) RJ
(All Series)
(Dual FGC)

C

2

1

(O) One may be inoperative provided:

- a) Alternate FGC is selected and verified to operate normally, and
- b) Autopilot Master Switch is selected OFF for the inoperative system.

(Continued)

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27 FLIGHT CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
30-1	Electric Pitch Trim (Cont'd) 5) RJ-70 and RJ-85 Only (Dual FGC) (Pre Switching Mods HCM01515 and HCM01516, HCM40394 and HCM40395) 6) RJ-70 and RJ-85 Only (Dual FGC) (Post Switching Mods HCM01515 or HCM01516, HCM40394 or HCM40395)	B	2	0	(O) May be inoperative provided: a) Manual trim is verified to operate normally over full range of travel, b) Autopilot Master switches are selected OFF, c) Alternate procedures for dispatch with inoperative flap trim compensation are established and used, and d) Approach minimums do not require use of autopilot. (O) One may be inoperative provided: a) Manual Trim is verified to operate normally over full range of travel, b) MCP Disengage switch is selected OFF, c) Electric Pitch Trim circuit breakers are pulled and collared, d) Alternate procedures for dispatch with inoperative flap trim compensation are established and used, and e) Approach minimums do not require use of autopilot.
30-2	Control Column Constraint	C	1	0	(O) May be inoperative provided alternate procedures are established and used. NOTE: Use caution in high wind condition.
30-3	Stall Warning Control Channels	B	2	1	(O) One may be inoperative provided stall identification channels operate normally.

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27 FLIGHT CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM

30-4

Stick Shaker Motors

1) 146 Only

C

2

1

(O) The right stick shaker motor may be inoperative.

B

2

1

(O) The left stick shaker motor may be inoperative provided:
 a) The left stick shaker motor circuit breaker is not tripped,
 and
 b) The stall warning autopilot disconnect function is verified
 to operate normally before each flight.

2) RJ Only

C

2

1

(O) One stick shaker motor may be inoperative.

30-5

Stall Identification Channels

B

2

1

(M)(O) One may be inoperative in the open circuit state provided:
 a) Inoperative channel is inhibited, and
 b) Remaining stall identification channel and stall warning
 system operate normally.

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27 FLIGHT CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

30-6

ITEM

Flap Trim Compensation System

1) 300 Series Only

B 1 0

(M)(O) May be inoperative provided:
a) FTC CTRL and FTC monitor circuit breakers are pulled and collared,
b) Electric pitch trim operates normally, and
c) Alternate procedures are established and used.

2) RJ-70/RJ-85
(Single FGC)

C 1 0

(O) May be inoperative provided alternate procedures are established and used.

3) RJ-70/RJ-85
(Dual FGC)

C 2 0

(O) May be inoperative provided alternate procedures are established and used.

4) RJ-100/RJ-115
(Single FGC)

B 1 0

(O) May be inoperative provided:
a) Electric pitch trim operates normally, and
b) Alternate procedures are established and used.

5) RJ-100/RJ-115
(Dual FGC)

C 2 1

(O) One may be inoperative from one FGC provided:
a) Alternate FGC is selected and verified to operate normally, and
b) Autopilot Master Switch is selected OFF for the failed system.

B 2 0

(O) May be inoperative from both FGC's provided:
a) Electric pitch trim operates normally, and
b) Alternate procedures are established and used.

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
30-7	EL TRIM Annunciators (Amber)				Deleted, Rev. 21. (Moved to item 22-20-4.)
30-8 ***	Elevator Surface Damper Units (Post Mod HCM1692A)	C	2	1	<p>(M)(O) One may be inoperative provided:</p> <ul style="list-style-type: none"> a) Satisfactory attachment of the Damper Unit is verified if it is to remain installed, b) A seized Damper Unit is removed, and c) If pitch oscillation conditions are encountered, ensure procedures are carried out in accordance with the AFM/FCOM with respect to Pitch Oscillation. <p>NOTE: Damping is still partially effective with only one serviceable Damper.</p>
		B	2	0	<p>(M)(O) May be inoperative provided:</p> <ul style="list-style-type: none"> a) Satisfactory attachment of the Damper Units is verified if they are to remain installed, b) Seized Damper units are removed, c) Maximum operating speed(VMO) limitations are observed, and d) If pitch oscillation conditions are encountered, ensure procedures are carried out in accordance with the AFM/FCOM with respect to Pitch Oscillation.

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1. REPAIR INTERVAL

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ITEM

4. REMARKS OR EXCEPTIONS

50-1	Flap Position Indicator	C	1	0	(O) May be inoperative provided: a) There is no indication of "FLAP FAULT" on MWS, b) FLAP SAFETY PRESS TO TEST operates normally, and c) FLAP FAULT warning is verified to operate normally before each departure.
50-2	Flap System				Deleted Revision 16.
50-3	Flap Speed Baulk				
	1) Baulked Position	C	1	0	(M)(O) May be inoperative baulked provided: a) Override system operates normally, and b) The Flap Lever Speed Baulk circuit breaker is pulled and collared.
	2) Un-Baulked Position	C	1	0	(O) May be inoperative in the unbaulked position provided the AFM/FCOM flap airspeed limitations are not exceeded when flap selections are made.
50-4 ***	Landing Flap 24/33 Degree Selector System				
	1) Twenty-Four (24) Degree Annunciator	C	1	0	(O) May be inoperative during push-to-test provided: a) Landing flap datum switch remains at 33 degrees, and b) Landing is planned and executed using 33 degrees of flap only.

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27 FLIGHT CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
50-5	Flap Trim Compensation Amber Annunciators (RJ Only)	C	2	1	One may be inoperative OFF.
50-6 ***	Flap Track Shutter	C	2	0	(M) May be inoperative in the compressed position or removed.
60-1	Air Brake	C	1	0	(M)(O) May be inoperative provided: a) Cat III operations are not carried out. b) Airbrake is secured in the retracted position by pulling the AIR BRAKE CTRL circuit breaker on the overhead panel, c) Aircraft is not operated on contaminated runways, d) AIR BRK annunciators operate normally, e) (For 146 Only), with any ALF502R engine at Pre-Modification HCM30473A standard, are limited to a maximum operating altitude of 26,000 feet, f) Ensure Lift Spoilers operate normally, and g) Operations are conducted in accordance with performance requirements for an inoperative Airbrake.
60-2	AIR BRK OUT Annunciator	C	2	0	(O) May be inoperative provided airbrake extended function of CONFIG warning system operates normally before each departure.
60-3	Air Brake Auto-Retract System	C	1	0	(O) May be inoperative provided AIR BRK OUT indication operates normally.
60-5	Lift Spoiler SPLR UNLOCKED Indicator System	C	1	0	(M) May be inoperative provided lift spoilers are verified locked down before each departure.

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27 FLIGHT CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
60-6	Lift Spoiler "SPLR G" and "SPLR Y" Indications	B	4	0	(O) May be inoperative provided: a) Correct lift spoiler deployment is verified before each departure, b) Lift spoilers are manually selected after touchdown, and c) Lift spoilers Not Deployed Warning System operates normally (if installed).
60-7 ***	"Lift Spoilers Not Deployed" Warning System	B	1	0	(O) May be inoperative provided: a) Correct lift spoiler deployment is verified before each departure, b) Lift spoilers are manually selected after touchdown, and c) All lift spoiler "SPLR G" and "SPLR Y" indications operate normally.
60-8 ***	Auto Spoiler System	C	1	0	(M)(O) May be inoperative provided: a) Manual deployment of lift spoilers is verified to operate normally, b) Autospoiler control circuit breaker is pulled and collared, and c) Autospoiler ARM switch is selected OFF.

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28 FUEL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

00-1	Pressure Refuel Coupling Cap	A	1	0	(M) May be missing provided: a) Refuel valves are verified closed, b) No leakage from the refuel coupling is evident, and c) Repairs are made within two flight days.
20-1	Electric Fuel Pumps	B	4	2	(M)(O) Outer fuel pump in each wing may be inoperative provided: a) Inoperative Electric Fuel Pump is switched OFF and remains off for the flight, b) Associated common feed valve is selected OPEN before dispatch, c) Both Standby Pumps are selected ON before take-off and landing, switched to OFF in the after takeoff checks, d) Fuel planning ensures more than 2000 lbs (910 kgs) in each wing for landing, and e) A water drain test must be performed before initial dispatch and once each day thereafter.
20-2	Common Feed Valves	C	2	0	(O) May be inoperative closed provided all electric and hydraulic fuel pumps operate normally.
20-3	Pressure Refueling System	C	1	0	(M) May be inoperative provided alternate procedures are established and used.
20-4	Refuel Panel Load Preselector	C	1	0	(M) May be inoperative provided manual refuel procedure is used.
40-1	Feed Tank Fuel Gauges	C	4	2	(O) One for each wing may be inoperative provided associated low level warning lights and main fuel gauges operate normally.

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28 FUEL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

40-2

Center Tank Fuel Gauge

C

1

0

(O) May be inoperative provided:
a) Both main tank gauges operate normally, and
b) FUEL TRANSFER annunciator and both CTR TANK TRANSFER annunciators operate normally.

C

1

0

May be inoperative provided center tank is empty.

40-3

Flight Deck Main Tank Quantity Gauge

C

2

1

(M)(O) One may be inoperative provided:
a) All fuel flow/fuel used gauges operate normally,
b) Associated feed tank gauges operate normally,
c) Center tank gauge operates normally if center tank is to be used,
d) Associated feed tank low level warning light operates normally,
e) Fuel quantity in associated tank is verified by measuring stick or by other means after each refueling, and
f) All boost pumps in associated tanks operate normally.

NOTE: An inoperative gauge may give no indication, or a reading that is inconsistent with known contents.

40-4

Electric Fuel Pump "LO PRESS" Lights (Overhead Panel)

C

4

2

(O) May be inoperative provided:
a) MWS "Fuel LO PRESS" lights operate normally, and
b) Hydraulic standby pump low pressure lights operate normally.

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28 FUEL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

40-5	Feed "LO LEVEL" Lights	C	2	1	(O) One may be inoperative provided associated feed tank gauges operate normally.
40-6	Magnetic Level Indicators	C	4	0	May be inoperative provided associated fuel quantity gauge operates normally.
40-7	Refueling Panel Quantity Gauges	C	3	0	(M) May be inoperative provided alternate procedures are established and used.
40-8	"REFUEL SELECTED" Warning Light	C	1	0	(M) May be inoperative provided: a) Refueling door is verified closed before each departure, and b) Master Switch is verified OFF after each pressure refueling and remains OFF for flight.
40-9	Fuel Temperature Gauge	C	1	0	(O) May be inoperative provided outside air temperature (OAT) is substituted as indication of fuel temperature.
40-10	Fuel Used Gauges				Deleted Rev. 14. Relief moved to 73-30-4.
40-11	Refuel Valve Position Indicators	C	3	0	(M) May be inoperative provided associated refuel valves are verified closed after each pressure refueling.

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28 FUEL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
40-12	Center Fuel Tank Transfer System 1) Transfer System	C	1	0	(M)(O) May be inoperative provided: a) Both transfer valves are confirmed to be in the closed position, b) CTR TANK TRANSFER switch is selected to SHUT and remains SHUT throughout the flight, c) Center tank fuel is considered unusable, d) Maximum zero fuel weight is reduced by the amount of fuel contained in the center tank, and e) Appropriate C.G. limitations are observed.
		C	1	0	May be inoperative provided: a) Center tank is empty, and b) CTR TANK TRANSFER switch is selected to SHUT and remains SHUT throughout the flight. (Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

28 FUEL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

40-12

Center Fuel Tank Transfer System
(Cont'd)

2) Automatic Fuel Transfer System

C

1

0

(O) May be inoperative provided:
 a) The manual (SHUT/OPEN) selections operate normally,
 b) The OPEN selection is not selected while the aircraft is on the ground, and
 c) The OPEN selection is not made until the contents of each wing tank fall below 6000 lbs. (2700 kg.)

C

1

0

May be inoperative provided:
 a) Center tank is empty, and
 b) CTR TANK TRANSFER switch is selected to SHUT and remains SHUT throughout the flight.

3) Center Tank Transfer Valves

C

2

1

(M)(O) One may be inoperative closed provided:
 a) Inoperative valve is confirmed to be in the closed position,
 b) Fuel system balancing is carried out, and
 c) Maximum zero fuel weight is reduced by the amount of residual fuel (180kg/390lbs) contained in the center tank.

(Continued)

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28 FUEL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
40-12	Center Fuel Tank Transfer System (Cont'd)				
	3) Center Tank Transfer Valves	C	2	0	(M)(O) May be inoperative closed provided: a) Both transfer valves are confirmed to be in the closed position, b) CTR TANK TRANSFER switch is selected to SHUT and remains SHUT throughout the flight, c) Center tank fuel is considered unusable, d) Maximum zero fuel weight is reduced by the amount of fuel contained in the center tank, and e) Appropriate CG limitations are observed.
		C	2	1	(M)(O) One may be inoperative open provided: a) Inoperative valve is confirmed to be in the open position, b) Fuel system balancing is carried out, and c) Operational requirements do not require maintaining fuel in the center fuel tank.
		C	2	0	(M)(O) May be inoperative open provided: a) Transfer Valves are confirmed to be in the open position, and b) Operational requirements do not require maintaining fuel in the center tank.
					(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

1. REPAIR INTERVAL

28 FUEL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

40-12

Center Fuel Tank Transfer System
(Cont'd)

3) Center Tank Transfer Valves
(Cont'd)

C

2

0

May be inoperative in any position provided:
a) Center tank is empty, and
b) CTR TANK TRANSFER switch is selected to SHUT and remains SHUT throughout the flight.

NOTE: Partially open inoperative valve(s) may still be functional to transfer fuel provided the center tank fuel transfer checks are successfully carried out in accordance with AMM 28-13-00.

40-13

Fueling Attitude Indicator
(Bubble)

C

1

0

May be inoperative provided magnetic level indicator (MLI) method of refueling is not required.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

29 HYDRAULIC POWER

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
10-1	Green Hydraulic System Isolation Valve (Standby Generator System)	B	1	0	(M)(O) May be inoperative open provided: a) Both main AC power generating systems are verified to operate normally, b) APU is running throughout the flight, c) APU generator operates normally and remains ON, d) Standby generator is switched OFF, e) For 146 Aircraft not fitted with a GALLEY SHED switch (overhead ELECTRIC panel) or if Galley Load Shed System is inoperative, pull and collar galley circuit breakers on the overhead panel prior to dispatch, f) No. 1 TRU and one other TRU operates normally, and g) Airplane is operated in accordance with AFM/FCOM APU limitations.
20-1	AC Pump System				
	1) AC Pump	B	1	0	(M)(O) May be inoperative provided both engine driven pumps and the DC pump operate normally.
	2) AC Pump Heat Exchanger Fan	B	1	0	(M)(O) May be inoperative provided: a) AC Pump Heat Exchanger Fan is isolated, b) AC Pump switch is selected OFF, and c) Both engine driven pumps and the DC pump operate normally.
***	3) AC Pump Auto Function	C	1	0	(O) May be inoperative provided alternate procedures are established and used.

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29 HYDRAULIC POWER

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
20-2	Standby Hydraulic Generator Selector Valve	B	1	0	(M)(O) May be inoperative closed provided: a) Both main AC power generating systems operate normally, b) Standby generator control switch remains OFF, c) APU is running throughout the flight, d) APU generator operates normally and remains ON, e) For 146 Aircraft not fitted with a GALLEY SHED switch (overhead ELECTRIC panel) or if Galley Load Shed System is inoperative, pull and collar the galley circuit breakers on the overhead panel prior to dispatch, f) No. 1 TRU and one other TRU operate normally, and g) Airplane is operated in accordance with AFM/FCOM APU limitations.
20-3	Standby Generator Heat Exchanger Control Actuator	B	1	0	(M)(O) May be inoperative closed provided the standby generator is not used and conditions for an inoperative standby generator are observed.
20-4	AC Pump Auto Function				Moved to 29-20-1, as Subitem 3), Revision 16.
30-1	AC PUMP FAIL Annunciator	C	1	0	(O) May be inoperative provided AC pump delivery pressure is verified before each departure.
30-2	Hydraulic Pressure Indication Systems	C	2	1	(M)(O) One may be inoperative provided "LO PRESS" warning light operates normally.

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29 HYDRAULIC POWER

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
30-3	LO QTY Warnings Lights	C	2	0	(M)(O) May be inoperative provided: a) Reservoir contents are verified before flight, and b) LO PRESS warning must operate normally.
30-4	Hydraulic Quantity Gauges	C	2	0	(M)(O) May be inoperative provided: a) Both hydraulic contents gauges operate normally, and b) LO PRESS warning must operate normally.
30-4	Hydraulic Quantity Gauges	C	2	0	(M)(O) May be inoperative provided: a) Reservoir contents are check before flight, and b) LO PRESS warning must operate normally.
30-5	Hydraulic LO PRESS Annunciators	C	2	0	(M)(O) May be inoperative provided: a) Reservoir contents are checked before flight, and b) LO QTY warning lights operate normally.
					Deleted item, Revision 22.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

30 ICE AND RAIN PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
10-1	Wing and Tail De-ice/Anti-ice Isolation Valves	C	6	0	(O) May be inoperative closed provided airplane is not operated in known or forecast icing conditions.
10-2	Wing and Tail De-ice/Anti-ice Valve Lights	C	6	0	(O) May be inoperative provided airplane is not operated in known or forecast icing conditions.
20-1	Engine Intake ANTI-ICE System - Valves 1) Engine Anti-ice Valves 2) Engine Intake Anti-ice Valves	A	4	0	(O) May be inoperative provided: a) The inoperative engine anti-ice valve(s) is verified to have failed in the open position, b) Engine anti-ice switch for associated engine(s) must be ON for flight, c) Ambient temperature is less than ISA + 23 degrees C, and d) AFM/FCOM performance penalties are applied. e) Repairs are made within 15 flight hours.

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30 ICE AND RAIN PROTECTION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
20-2	Engine Intake ANTI-ICE System - Indication				
	1) ENG VLV NOT SHUT Lights	C	4	0	(M)(O) May be inoperative provided associated valve(s) is verified to operate normally before each departure.
	2) Engine Intake LO PRESS Lights	C	4	0	(M)(O) May be inoperative OFF provided associated valve(s) is verified to operate normally before each departure.
	3) ENG A-ICE ON Light (MWS - CWP/CSP)	C	1	0	
20-3	Engine Anti-ice Valves				Included in Item 30-20-1, Rev. 18.
20-4	Engine Valve NOT SHUT Lights				Included in Item 30-20-2, Rev. 18.
20-5	ENG A-ICE ON Light (MWS)				Included in Item 30-20-2, Rev. 18.
30-1	L Pitot, R Pitot, AUX PITOT AND Q-FEEL Heat Fail Lights	B	4	0	May be inoperative for day VMC only.
		B	4	3	(M) One may be inoperative provided required heater function is verified before each departure.
30-2	Pitot Heaters	B	3	2	(O) One may be inoperative for day VMC flight provided airplane is not operated in visible moisture or known or forecast icing conditions.

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30 ICE AND RAIN PROTECTION

1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
30-3	Q-Pot Heater	B	1	0	(M)(O) May be inoperative provided: a) P3 heater system operates normally, and b) Airplane is not operated in visible moisture or known or forecast icing conditions.
30-4	Vane Heater Systems				Deleted item, Revision 22.
30-5	Static Port Heaters	B	2	1	(M)(O) One may be inoperative provided: a) Remaining port heater operates normally, and b) Airplane is not operated in known or forecast icing conditions.

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30 ICE AND RAIN PROTECTION

1. REPAIR INTERVAL

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4. REMARKS OR EXCEPTIONS

ITEM

40-1

Windscreen Heating Systems

1) A Screens

C

2

1

(M)(O) One may be inoperative provided:
 a) Airplane is not operated into known or forecast icing conditions,
 b) Heating to both B screens operates normally,
 c) Appropriate windshield circuit breaker(s) is pulled and collared, and
 d) Approach minimums do not require its use.

2) B Screens

C

2

1

(M)(O) One may be inoperative provided appropriate windshield circuit breaker is pulled and collared.

C

2

0

(M)(O) May be inoperative provided:
 a) Airplane is not operated in known or forecast icing conditions, and
 b) Appropriate windshield circuit breaker(s) is pulled and collared.

40-2

SCREEN HEAT SEL OFF Light

C

1

0

(O) May be inoperative provided associated screen heater system operates normally before each departure.

C

1

0

May be inoperative for an inoperative windscreen heater system.

40-3

SCREEN HI TEMP Lights

C

2

1

(O) One may be inoperative provided it is associated with an inoperative windscreen heater system.

40-4

Windscreen Wash System

C

1

0

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30 ICE AND RAIN PROTECTION

1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

40-5	Windscreen Wipers	C	2	0	May be inoperative provided airplane is not operated in precipitation within 5 nautical miles of airport of takeoff or intended landing.
	1) Slow Functions	C	2	0	May be inoperative.
40-6 ***	Rain Repellent Systems	C	-	-	
70-1	Drain Mast Heaters	C	2	0	(M) May be inoperative provided associated hand basin is deactivated.
71-2	Water Pipe Heater System				
	1) Elements	C	-	0	(M) May be inoperative provided associated circuit breaker(s) on front attendant's panel is pulled and collared.
80-1	Ice Detector	C	1	0	(M)(O) May be inoperative provided alternate procedures are established and used.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

31 INDICATING/RECORDING SYSTEMS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

SEQUENCE NUMBER	ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
20-1	Clocks	C	2	1	One may be inoperative at either pilot or co-pilot station.
20-2 ***	Accelerometer (ST02281LA)	D	1	0	May be inoperative provided procedures do not require its use.
30-1	Flight Data Recorder (FDR) System				
	1) Operators with An Air Carrier or Commercial Operator Certificate	C	-	-	Any in excess of those required by 14 CFR may be inoperative.
	a) Includes FDR Function of Combined Voice and Flight Data Recorder (CVFDR)	A	-	0	May be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, b) Airplane is not dispatched from a designated airport as listed in the operator's MEL unless: 1) The FDR failure occurs after pushback but prior to takeoff, or 2) The FDR repair was attempted but not successful, c) In those cases where repair is attempted but not successful, the aircraft may be dispatched on a flight or series of flights until the next designated airport where repair must be accomplished prior to dispatch, and d) Repairs are made within three flight days.
	b) FDR Recording Parameters Required by 14 CFR	A	-	-	Up to three recording parameters may be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, and b) Repairs are made within twenty calendar days.
					(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

31 INDICATING/RECORDING SYSTEMS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

30-1

Flight Data Recorder (FDR) System
(Cont'd)

1) Operators with An Air Carrier or Commercial
Operator Certificate
(Cont'd)

c) FDR Recording Parameters not required
by 14 CFR

2) Operators without An Air Carrier or
Commercial Operator Certificate

A

-

-

May be inoperative provided repairs are made prior to the
completion of the next heavy maintenance visit.

C

-

1

Any in excess of those required by 14 CFR may be inoperative.

A

-

0

May be inoperative provided repairs are made in accordance with
applicable 14 CFRs.

30-2

Flight Data Recorder Test Switch

C

1

0

(O) May be inoperative in the open circuit state (FDR ground
inhibit override does not function) provided alternative means are
used to verify FDR operates normally.

30-3

Quick Access Recorder (QAR)

D

1

0

NOTE: The white QAR FAIL and QAR DISC LOW/TAPE LOW
annunciators may be illuminated.

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31 INDICATING/RECORDING SYSTEMS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
30-4 ***	Diagnostic Maintenance Fault Annunciator Panels Panel 132-10-00 (146 & RJ) and Panel 132-10-01	C	-	-	Individual annunciators may be inoperative in either the latched or unlatched position provided procedures do not require their use.
	1) Test Function	C	1	0	
40-1 ***	Engine Life Computer	D	1	0	(M) May be inoperative provided alternate procedures are established and used.
50-1	Master Warning Indication Systems				
	1) "MWS Fault"	B	1	0	(O) MWS FAULT warning on Central Warning Panel may be illuminated provided red/amber flashers and audio chimes test is satisfactory.
	2) Red ALERT Flashers	B	2	1	(O) One may be inoperative provided: a) All other MWS functions operate normally, b) At least one Amber CAUTION Flasher operates normally, and c) All Audio Tones and Chimes operate normally.
	3) Amber CAUTION Flashers	B	2	1	(O) One may be inoperative provided: a) All other MWS functions operate normally, b) At least one Red Alert flasher operates normally, and c) All Audio Tones and Chimes operate normally.

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31 INDICATING/RECORDING SYSTEMS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

70-1

ITEM

Automated Flight Following (AFF) Satellite Tracker (ST02281LA)

D

1

0

May be inoperative provided procedures do not require its use.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

32 LANDING GEAR

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

40-1 ***	Wheel Brake Temperature Indicating System	C	1	0	(O) May be inoperative provided procedures for tire and brake cooling periods and winter operations (if applicable) are established and used.
40-2	Brake Pressure Indication System	C	2	0	(M)(O) May be inoperative provided normal brake operation is confirmed on both brake systems.
40-3	Brake Accumulator Low Pressure Warning	C	1	0	(O) May be inoperative provided brake accumulator pressure is normal before each departure.
40-4	Brake Cooling Fan System				
	1) All Brake Fans	C	4	0	(O) May be inoperative provided procedures for brake cooling fans inoperative are established and used.
	2) Any Brake Fans	C	4	-	(M)(O) May be inoperative provided procedures for brake cooling fans inoperative are established and used.
40-5	Anti-Skid Valves	C	8	7	(M)(O) One may be inoperative provided: a) Brake operation on the affected wheel is verified before each departure, and b) Brake selector is set to the system (Yellow or Green) on which all anti-skid valves are functioning.

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32 LANDING GEAR

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

40-6	"BRK Fans SEL ON" Light (MWS)	C	1	0	(O) May be inoperative provided fans are verified to operate normally before each departure.
		C	1	0	(O) May be inoperative provided: a) Fans are considered inoperative, and b) AFM/FCOM restrictions for brake cooling fans inoperative are applied.
40-7 ***	Tire Pressure Gauges	D	6	0	(M) May be inoperative provided associated tire pressure is verified to be within limits.
40-8	Brake Selector Switch "YEL/GRN" Annunciator Lights (Mod HCM00967)	C	2	0	(O) Both may be inoperative provided normal switch selection of both systems is verified before each departure.
50-1	Pilot's Tiller Steering				
	1) Dual Installations	C	2	1	(M)(O) First Officer's tiller may be inoperative provided no other system is affected.
60-1	Gear Selector Handle Warning Light	B	1	0	(O) May be inoperative provided HORN test button is used to verify normal operation of aural gear warning system before each departure.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

33 LIGHTS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

10-1

Cockpit/Flight Deck and Instrument Panel Lighting System

C

1

-

Individual lights may be inoperative provided remaining lighting system lights are:
 a) Remaining lighting system lights are sufficient to clearly illuminate all required instruments, controls, and other devices for which they are provided,
 b) Remaining lighting system lights are positioned so that direct rays are shielded from flight crewmember's eyes, and
 c) Lighting configuration and intensity is acceptable to the flight crew.

NOTE 1: Individual button/switch lights and/or annunciators/indications are excluded from this relief.

NOTE 2: Unaided operation (without NVGs) may be permitted with inoperative NVG supplemental lights; cracked or missing.

10-2

WS Annunciator Panel Dimming

B

1

0

(O) May be inoperative provided:
 a) All Central Warning Panel annunciators are serviceable and acceptable to the crew on preflight tests, and
 b) O/RIDE is selected for flight.

10-3

Overhead Annunciator Panel Dimming

B

1

0

(O) May be inoperative provided:
 a) All Overhead Panel annunciators are serviceable and acceptable to the crew on preflight tests, and
 b) O/RIDE is selected for flight.

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33 LIGHTS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
20-1	Cabin Interior Illumination System	C	1	-	Lighting must be sufficient for cabin attendants to perform their assigned duties.
20-2	Passenger Lighted Information Sign	C	-	-	(M) May be inoperative provided: <ul style="list-style-type: none"> a) Associated passenger seat or lavatory is not occupied from which a passenger lighted information sign is not readily legible, and b) Associated seat or lavatory is blocked and placarded - "DO NOT OCCUPY". NOTE: These conditions are not intended to prohibit lavatory use or inspections by crewmembers.
		C	-	-	(O) May be inoperative and associated passenger seat or lavatory may be occupied provided: <ul style="list-style-type: none"> a) PA system operates normally, and b) PA system is used to notify passengers and cabin crew when associated sign(s) are placed on or off.
					(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

1. REPAIR INTERVAL

33 LIGHTS

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

20-2

Passenger Lighted Information Sign
(Cont'd)

1) Flight Deck Automatic Function

C

-

-

(M)(O) May be inoperative provided:
a) Manual control function operates normally, and
b) Procedures for its use are established and used.

2) Aural Tone Feature

C

1

0

3) All-Cargo Supernumerary/Courier Area
Lighted Information Sign

C

-

-

(O) May be inoperative provided alternate procedures are
established and used to notify couriers/supernumeraries when
associated sign(s) are placed on or off.

30-1

Electrical Equipment Bay Lights

C

-

0

30-2

Landing Gear Bay Lights

C

3

0

30-3

Hydraulic Equipment Bay Lights

C

2

0

30-4

Air Conditioning Bay Lights

C

2

0

30-5

Cargo Compartment Lights

C

-

0

30-6

Latch/Lock Inspection Lights
(QT Aircraft Only)

C

8

0

May be inoperative provided an alternate means of illumination is
used.

30-7

Refuel Panel Flood Light System

C

1

0

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33 LIGHTS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM
40-1 Runway Turnoff Lights
40-2 Landing Lights
*** 1) Pulse Lights System
40-3 Taxi Lights
40-4 Wing Illumination Lights
40-5 Anti-Collision Lights
1) Red Fuselage Beacons
2) White Strobes

C	2	0
B	2	1
C	2	0
D	1	0
C	2	0
C	2	0
C	2	0
C	2	0
C	2	0
C	3	0
C	3	0

One may be inoperative for night operations provided adjacent taxi light operates normally.
May be inoperative for day operations.
May be inoperative for day operations.
May be inoperative for night operations provided adjacent landing light operates normally.
May be inoperative provided ground deicing procedures do not require their use..
May be inoperative for day operations.
May be inoperative for night operations provided white wing tip and tail strobe lights operate normally.
May be inoperative for day operations.
May be inoperative for night operations provided both red fuselage beacons operate normally.

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33 LIGHTS

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2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
40-6	Navigation Lights 1) Filament Lights Pre Mod. HCM02566A 2) LED Lights Post Mod. HCM02566A	C	6	0	May be inoperative for day operations.
		C	6	3	One high intensity lamp on each wing tip and one high intensity lamp on the tail must operate normally for night operations.
		C	4	0	May be inoperative for day operations.
		C	4	3	The navigation (position) light on each wing tip and one on the tail must operate normally for night operations.
40-7 ***	Logo Lights	D	2	0	

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33 LIGHTS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

50-1

ITEM

Floor Proximity Emergency Escape Path Marking System

C

1

-

Individual lights may be inoperative provided FAA approved minimum acceptable lighting levels specified in one of the following documents are complied with:
 a) FAA engineering approval letter, or
 b) FAA approved report of the Type Design holder, or
 c) Limitations and Conditions section of applicable Supplementary Type Certificate (STC), or
 d) An FAA approved report incorporated in Master Drawing List for applicable STC.

C

-

0

(O) May be missing or inoperative provided:
 a) No passengers are carried,
 b) A maximum of 19 persons as authorized by 14 CFR for non-passenger-carrying operations are carried, and
 c) Alternate procedures are established and used.

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33 LIGHTS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

50-2

ITEM

Wall Mounted Emergency Lights

C

-

0

(O) May be missing or inoperative provided:
a) No passengers are carried,
b) A maximum of 19 persons as authorized by 14 CFR for non-passenger-carrying operations are carried, and
c) Alternate procedures are established and used.

1) QT Aircraft
(Without Horseboxes Installed)

C

-

0

May be inoperative provided:
a) No personnel occupy cargo area during flight, and
b) Door exit lights operate normally.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

34 NAVIGATION

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2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM					
00-1	Decision Height Selector	C	2	0	(O) May be inoperative provided procedures are not dependent on their use.
10-3	Altimeter Vibrators (146 Only)	C	-	0	(O) May be inoperative provided VMC exists at departure and arrival airports.
10-4	Outside Air Temperature (OAT) Gauge	C	1	0	(O) May be inoperative provided air temperature indication (SAT/TAT) is available.

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34 NAVIGATION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-5

ITEM

Altitude Alerting Systems

A

-

0

(O) May be inoperative provided:
 a) Autopilot with altitude hold and altitude capture operates normally,
 b) Enroute operations, e.g. RVSM, do not require its use,
 c) Airplane does not depart from a designated airport (as listed in the operator's MEL) where repair or replacement can be made, and
 d) Repairs are made within three flight days.

C

-

1

1) Aural Alert

C

-

0

May be inoperative provided:
 a) Visual alert operates normally, and
 b) Auto-pilot with altitude hold and altitude capture operates normally.

2) Visual Alert

C

-

0

May be inoperative provided:
 a) Aural alert operates normally, and
 b) Auto-pilot with altitude hold and altitude capture operates normally.

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34 NAVIGATION

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3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-6

ITEM

Radio Altimeter Transmitter/Receiver

1) 146 Only Single System Fit
(pre Mod HCM50005 E,F,G,H,J, or K)
AND
Dual System Fit
(Post Mod HCM50005 E,F,G,H,J, or K. Both
Systems)

A

-

0

(M)(O) May be inoperative provided:
a) Alternative procedures for dispatch with GPWS
inoperative are established and used,
b) Alternative procedures for dispatch with windshear system
inoperative are established and used,
c) TCAS system is deactivated and secured,
d) Approach minimums do not require their use, and
e) Repairs are made within two flight days.

2) 146 Only Dual System Fit
(Post Mod HCM50005 E,F,G, H,J, or K)

A

2

1

(M)(O) System 1 may be inoperative provided:
a) Alternative procedures for dispatch with GPWS
inoperative are established and used,
b) Alternative procedures for dispatch with windshear
system inoperative are established and used,
c) Approach minimums do not require their use, and
d) Repairs are made within two flight days.

3) 146 Only Dual System Fit
(Post Mod HCM50005 E, F, G, H, J, or K)

C

2

1

(M)(O) System 2 may be inoperative provided approach
minimums do not require its use.

4) RJ Only (LH Side)

A

1

0

(M)(O) System 1 may be inoperative provided:
a) Alternate procedures for dispatch with GPWS inoperative
are established and used,
b) Approach minimums do not require its use, and
c) Repairs are made within two flight days.

(Continued)

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34 NAVIGATION

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2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-6

ITEM

Radio Altimeter Transmitter/Receiver
(Cont'd)

5) RJ Only
(RH Side)

C

1

0

(M)(O) System 2 may be inoperative provided approach minimums do not require its use.

6) RJ Only

A

2

0

(M)(O) System 1 & 2 may be inoperative provided:
 a) Alternate procedures for dispatch with GPWS inoperative are established and used,
 b) Alternate procedures for dispatch with windshear system inoperative are established and used,
 c) TCAS system is deactivated and secured,
 d) Autothrottle system is disconnected before landing,
 e) Flight directors, autopilot and autothrottles are not engaged before flaps are at zero degrees,

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34 NAVIGATION

1. REPAIR INTERVAL

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3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

10-7

Radio Altitude Indicators
(Pre EFIS 146 Only)

1) Single Rad Alt System Configuration

C

-

1

(O) May be inoperative provided:
a) No Cat II approaches shall be made,
b) Weather minima or operating procedures are not predicated on its use, and
c) Rad Alt is verified to operate normally.

2) Dual Rad Alt System Configuration (Pre EGPWS) No 1 Rad Alt Indicator

C

1

0

(O) May be inoperative provided:
a) No Cat II approaches shall be made,
b) Weather minima or operating procedures are not predicated on its use,
c) No. 2 Rad Alt System is verified to operate normally, and
d) No. 1 Rad Alt System is verified to operate normally.

3) Dual Rad Alt System Configuration (Pre EGPWS) No. 2 Rad Alt Indicator

C

1

0

(M) May be inoperative provided:
a) No Cat II approaches shall be made,
b) Weather minima or operating procedures are not predicated on its use,
c) No. 1 Rad Alt operates normally, and
d) No. 1 Rad Alt System is verified to operate normally.

4) Dual Rad Alt System Configuration
(Post EGPWS)

C

2

1

(M) May be inoperative provided:
a) No Cat II approaches shall be made, and
b) Weather minima or operating procedures are not predicated on their use.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

34 NAVIGATION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

10-8	Altimeter Position Error (P.E.) Correction	C	-	1	(O) May be inoperative provided: a) P.E. correction to one servo altimeter operates normally, b) On aircraft with two servo altimeters, the altimeter with operating P.E. correction must be selected on ATC transponder control unit, and c) P.E. correction charts are available on the flight deck.
10-9	Fast-Slow Airspeed Indicator System	C	2	0	May be inoperative provided procedures are not dependent upon their use.
10-10	Standby Altimeter and/or Airspeed Indicators	B	-	0	May be inoperative for day VMC flight only.
10-11	Vertical Speed Indicators (VSI) (146 Only)	C	2	1	One may be inoperative for day VMC flight only.
10-12	Metric Altimeter	D	1	0	(O) May be inoperative provided alternate procedures are established and used.
***		D	1	0	(O) May be inoperative provided operations do not require its use.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

34 NAVIGATION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-1

ITEM

Bearing/Magnetic Indicators

1) RMI
(146 Pre EFIS)

C

2

1

The left hand compass card and associated pointers may be inoperative provided both HSIs are operational and confirmed to be independent with the COMP changeover switch in the 'NORM' position.

2) DBI
(146 Pre EFIS)

C

2

1

The left hand compass card and associated pointers may be inoperative provided both HSIs are operational and confirmed to be independent with the COMP changeover switch in the 'NORM' position.

NOTE: If DME indication is inoperative refer to MMEL Item 34-50-3.

3) DBI
(146 EFIS)

C

2

1

The left hand compass card and associated pointers may be inoperative provided both EFIS ND displays are operational and confirmed to be independent with the HDG changeover switch in the 'NORM' position and EFIS changeover switch in the 'NORM' position.

NOTE: If DME indication is inoperative refer to MMEL Item 34-50-3.

(Continued)

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34 NAVIGATION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				REMARKS OR EXCEPTIONS
20-1	Bearing/Magnetic Indicators (Cont'd) 4) DBI (RJ EFIS)	C	2	1	The right hand compass card and associated pointers may be inoperative provided both EFIS ND displays are operational and confirmed to be independent with the ATT/HDG changeover switch in the 'NORM' position and EFIS changeover switch in the 'NORM' position. NOTE: If DME indication is inoperative refer to MMEL Item 34-50-3. Moved to Item 20-1 and revised, REVISION 15.
20-2	DBI Heading Indicators (EFIS System)				DELETED REV. 9
20-3	Stabilized Heading Indication Systems				

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34 NAVIGATION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-4

ITEM

Standby Attitude Indicator

1) Analog Instrument Systems

C - 0

May be inoperative provided not required by FAR.

B - 0

May be inoperative provided:
 a) Operations are conducted in day VMC only, and
 b) Operations are not conducted into known or forecast VFR-on-Top conditions.

2) EFIS Instrument Systems

C - 0

May be inoperative provided not required by FAR.

B - 0

May be inoperative provided:
 a) Operations are conducted in day VMC only,
 b) Operations are not conducted into known or forecast VFR-on-Top conditions, and
 c) Both PFD displays are verified to be independent with the ATT (ATT/HDG for RJ aircraft) transfer switch in the "NORM" position.

3) ILS Indications (EFIS Only)

C 1 0

May be inoperative provided primary ILS systems are verified to operate normally.

C 1 0

May be inoperative provided EFIS alternate switching or 2nd course facility are verified to operate normally.

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34 NAVIGATION

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4. REMARKS OR EXCEPTIONS

ITEM

20-5	Flight Director Displays	C	2	0	May be inoperative provided approach minimums do not require their use.
20-6	Compass/Attitude Source Changeover Switches (Analog System)	C	2	0	(O) May be inoperative provided compass/attitude system(s) operate(s) normally.
20-7	Compass Transfer System (146 EFIS & RJ)	C	1	0	May be inoperative provided: a) Both pilots DBIs operate normally, and b) Both ND's and DBIs are verified to be independent with HDG (ATT/HDG for RJ) changeover switch in the 'NORM' position.
20-8	Attitude Transfer System (146 EFIS & RJ)	C	1	0	May be inoperative provided: a) Both pilots PFD displays are verified to be independent with the ATT (ATT/HDG for RJ) changeover switch in the 'NORM' position, and b) Standby Attitude Indicator operates normally.

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34 NAVIGATION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-9

ITEM

Non-Stabilized Magnetic Compass
(Standby)

1) Analog Instrument Systems

B

1

0

(O) May be inoperative provided any combination of three gyro or INS (IRU) stabilized compass systems are operative.

B

1

0

(O) May be inoperative provided:
a) Any combination of two gyro or INS stabilized compass systems are operative, and
b) Airplane is operated with dual independent navigation capability and under positive radar control by ATC during enroute portion of the flight.

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, operate normally, and used in conjunction with approved Free Gyro Navigation Techniques.

(Continued)

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4. REMARKS OR EXCEPTIONS

	ITEM				
20-9	Non-Stabilized Magnetic Compass (Standby) (Cont'd) 2) EFIS Systems	B	1	0	(O) May be inoperative provided: a) Any combination of two gyro or INS stabilized compass systems are operative, b) Airplane is operated with dual independent navigation capability and under positive radar control by ATC during enroute portion of flight, c) Both DBIs operate normally and are verified to be independent with heading changeover switch in "NORM" position, and d) Both NDs are verified to be independent with the EFIS changeover switch in the "NORM" position.
20-10	Flight Guidance Computers (RJ Only) (All Series With Dual FGC)	C	2	1	(O) One may be inoperative provided: a) Alternate FGC is selected and used, and b) Yaw Damper and Autopilot Master switches for failed system remain OFF.

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4. REMARKS OR EXCEPTIONS

	ITEM				
20-11	FGC Annunciators (White Maintenance Advisory Annunciators/ DFGS Advisory Panel) (RJ Only)	C	-	0	(O) May be inoperative OFF provided the Altitude Alert system is verified to operate normally before each departure.
		C	-	-	(M)(O) May be illuminated with other associated FGC failure indications on the flight deck provided the appropriate (if any) MMEL dispatch conditions are observed.
		C	-	-	(O) May be illuminated with no other associated FGC failure indications provided an FGC white advisory annunciator operational check is carried out prior to flight.

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4. REMARKS OR EXCEPTIONS

21-1

ITEM

EFIS Display System

1) EFIS Display Units

A

4

3

(M)(O) Lower unit may be inoperative provided:
 a) Standby attitude/ILS and standby compass instruments are verified to operate normally,
 b) "COMPACT" mode is available and selected on the remaining display on the failed side, and the serviceable display unit on the failed side is located in the upper (PFD) position,
 c) Both flight directors are verified to operate normally,
 d) Takeoff and landing minimums are restricted to 200 feet & one half mile visibility,
 e) Captain makes all takeoffs, approaches & landings,
 f) Operations are carried out in accordance with AFM/FCOM procedures with respect to autoflight limitations and inoperative EFIS displays, and
 g) Repairs are made within three flight days.

2) L FAN/R FAN Annunciators (146 Only)

B

2

0

(M) May be inoperative OFF provided:
 a) EFIS fans are verified to operate normally, and
 b) EFIS FAN OFF annunciator operates normally.

(Continued)

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ITEM

4. REMARKS OR EXCEPTIONS

21-1	EFIS Display System (Cont'd)					
	3) EFIS FAN OFF Annunciators (146 Only)	B	1	0	(M) May be inoperative OFF provided: a) EFIS fans are verified to operate normally, and b) L FAN & R FAN FAIL annunciators operate normally.	
	4) L EFIS/R EFIS Fan Annunciator (RJ Only)	B	2	0	(M) May be inoperative OFF provided: a) EFIS fans are verified to operate normally, and b) EFIS/IRS FAN FAIL annunciators operate normally.	
	5) EFIS/IRS FAN FAIL Annunciator (RJ Only)	B	1	0	(M) May be inoperative OFF provided: a) EFIS fans are verified to operate normally, b) L EFIS & R EFIS annunciators operate normally, and c) IRS 1 and IRS 2 annunciators operate normally.	
21-2	L FAN/R FAN Indications (EFIS)				Included in Item 34-21-1, Rev. 18.	
21-3	EFIS FAN OFF Indication				Included in Item 34-21-1, Rev. 18.	
21-4	L EFIS/R EFIS FAN Indications				Included in Item 34-21-1, Rev. 18.	
21-5	EFIS/IRS Indication				Included in Item 34-21-1, Rev. 18.	
21-6	EFIS Display Units				Included in Item 34-21-1, Rev. 18.	

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ITEM

4. REMARKS OR EXCEPTIONS

21-7

IRS System

- 1) Fan Annunciators IRS 1 & IRS 2 (RJ Only)

B

2

0

(M)(O) May be inoperative extinguished provided:
 a) IRS fans operate normally, and
 b) EFIS/IRS FAN FAIL annunciator operates normally.

30-1

CAT II Approach Monitoring System

Moved to ATA 22-15-1 Revision 12.

40-1

Weather Radar

- 1) Weather Radar System

C

1

0

As required by FAR.

- 2) Weather Radar CDU Display (146 EFIS and RJ Only)

C

1

0

May be inoperative provided:
 a) Control on weather radar operates normally, and
 b) Weather radar information is available on at least one EFIS ND screen.

- 3) Weather Radar Display on EFIS ND Screens (146 EFIS and RJ Only)

C

2

0

May be inoperative provided the main weather radar screen operates normally.

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ITEM

4. REMARKS OR EXCEPTIONS

40-2

Ground Proximity Warning System (GPWS)

A

-

0

(M)(O) May be inoperative provided:
 a) Alternate procedures are established and used, and
 b) Repairs are made within two flight days.

C

-

0

(M)(O) May be inoperative provided:
 a) It is not required by FAR, and
 b) Alternate procedures are established and used.

1) Modes 1 Thru 4

A

-

0

(O) May be inoperative provided:
 a) Alternate procedures are established and used, and
 b) Repairs are made within two flight days.

C

-

0

(O) May be inoperative provided:
 a) It is not required by FAR, and
 b) Alternate procedures are established and used.

2) Test Mode

A

1

0

(O) May be inoperative provided:
 a) GPWS is considered inoperative, and
 b) Repairs are made within two flight days.

C

-

0

(O) May be inoperative provided:
 a) It is not required by FAR, and
 b) GPWS is considered inoperative.

3) Glideslope Deviation (Mode 5)

B

2

0

(Continued)

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4. REMARKS OR EXCEPTIONS

	ITEM				
40-2	Ground Proximity Warning System (GPWS) (Cont'd)				
***	4) Advisory Callouts	C	-	0	(O) May be inoperative provided alternate procedures are established and used.
	5) Windshear Mode	C	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Windshear Detection and Avoidance System operates normally.
		C	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Takeoff and landings are not conducted in known or forecast windshear conditions.
***	6) TAWS	C	-	0	

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ITEM

4. REMARKS OR EXCEPTIONS

40-3	Weather Radar System Indicator Screen (EFIS Aircraft Only)				Moved to Item 40-1 and revised, REVISION 15.
40-4 ***	GPS Sensor	C	-	0	(O) May be inoperative provided: a) System is de-selected, and b) Alternate procedures are established and used.
		C	-	0	May be inoperative provided: a) System is de-selected, and b) Procedures do not require its use.
40-5	Traffic and Terrain Collision Avoidance System (T2CAS) (ST01560LA)	A	1	0	(M)(O) May be inoperative provided: a) System is deactivated and secured, b) Enroute and approach procedures do not require the use of TCAS, c) Alternate procedures are established and used for inoperative GPWS, and d) Repairs are made within two flight days. NOTE: TCAS, GPWS and TAWS will be inoperative.
	1) Ground Proximity Warning System (GPWS Function)	A	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within two flight days. (Continued)

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ITEM

4. REMARKS OR EXCEPTIONS

40-5

Traffic and Terrain Collision Avoidance System (T2CAS) (ST01560LA) (Cont'd)

1) Ground Proximity Warning System (GPWS) Function (Cont'd)

2) Ground Proximity Warning System (GPWS) Modes 1-4

A 1 0

3) Ground Proximity Warning System (GPWS) Glide Slope Deviation

B 2 0

4) Ground Proximity Warning System (GPWS) Glareshield Annunciator/GP Inhibit Switch

B 2 1

NOTE: A GPWS INOP annunciator (AVRO-146RJ) or GPWS FAULT lamp (BAe-146) indicates a failure of GPWS alert functions Modes 1-5. If nuisance audio alerts are generated, refer to 34-40-5.

(O) May be inoperative provided:
a) Alternate procedures are established and used, and
b) Repairs are made within two flight days.

(O) One may be inoperative provided audio functions are operative.

NOTE: The audio associated with the system test verifies audio functions are operative.

(Continued)

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4. REMARKS OR EXCEPTIONS

40-5

Traffic and Terrain Collision Avoidance System (T2CAS) (ST01560LA) (Cont'd)

5) TAWS- Predictive Function

C

1

0

(O) May be inoperative.

NOTE: An INOP on the TAWS controller (AVRO-146RJ) or TERR INOP on the instrument panel (BAe-146) indicates a failure of the predictive functions of the system.

6) TAWS- Display Function

C

1

0

(O) May be inoperative.

7) TCAS- Resolution Advisory (RA) Function

C

2

1

(O) One may be inoperative on the non-flying pilot's side.

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 the crew, and
- c) Enroute or approach procedures do not require its use.

8) TCAS- Traffic Alert (TA) Display Function

C

2

0

(O) May be inoperative provided:

- a) RA visual display and audio functions are operative, and
- b) Enroute or approach procedures do not require its use.

(Continued)

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4. REMARKS OR EXCEPTIONS

40-5

Traffic and Terrain Collision Avoidance System (T2CAS) (ST01560LA) (Cont'd)

9) Combined TA/RA Dual Display System(s)

C

2

1

(O) May be inoperative on the non-flying pilot's side provided:
 a) TA and RA visual display is operative on the flying pilot's side, and
 b) TA and RA audio function is operative on the flying pilot's side.

50-0

TACAN Systems

C

-

-

As required by FAR.

50-1

VHF Navigation Systems

1) VHF Navigation Systems (VOR/ILS) (146 Only)

C

-

1

As required by FAR.

NOTE: VHF NAV 1 must be operative.

2) VHF Navigation Frequency PRE-Select and Transfer Function (146 Only)

C

2

0

(O) May be inoperative provided tuning function operates normally when ACT/PRE Switch selected to ACT.

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ITEM

4. REMARKS OR EXCEPTIONS

50-2

Course Selector Readout

1) Navigation Selector Panel
(146 Analogue Instrument System Only)

A

2

0

May be inoperative provided:
a) Course selector knobs are verified to operate normally by control of appropriate course pointer on the HSI,
b) Navigation procedures do not require their use, and
c) Repairs are made within three flight days.

2) Navigation Selector Panel
(146 EFIS Only)

A

2

0

May be inoperative provided:
a) Course selector knobs are verified to operate normally by control of appropriate course pointer on the ND display,
b) Navigation procedures do not require their use, and
c) Repairs are made within three flight days.

3) MCP
(RJ Only)

A

2

0

(O) May be inoperative provided:
a) Course Selector knobs are verified to operate normally by control of appropriate course pointer on the ND display,
b) Navigation procedures do not require their use, and
c) Autoland is not used,
d) Approach minimums do not require their use, and
e) Repairs are made within three flight days.

50-3

Distance Measuring Equipment (DME) Systems

D

-

-

Any in excess of those required by FAR may be inoperative.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

34 NAVIGATION

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ITEM

4. REMARKS OR EXCEPTIONS

50-4

ATC Transponders and Automatic Altitude Reporting Systems

B

-

0

May be inoperative provided:
 a) 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.

1) Elementary and Enhanced Downlink Aircraft Reportable Parameters not Required by FAR

D

-

1

Any in excess of those required by FAR may be inoperative.

A

-

0

May be inoperative provided:
 a) Operations do not require its use, and
 b) Repairs are made prior to completion of the next heavy maintenance visit.

2) ADS-B Squitter Transmissions

A

-

0

May be inoperative provided:
 a) Operations do not require its use, and
 b) Repairs are made prior to completion of the next heavy maintenance visit.

50-5

Radio Compass(ADF) Systems

D

-

-

Any in excess of those required by FAR may be inoperative.

50-6

ILS Systems

C

-

-

As required by FAR.

Note: One ILS system is required for Category II operations, and both for Category III.

50-7

Marker Beacon Systems

C

-

0

May be inoperative provided approach minimums do not require its use.

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ITEM

4. REMARKS OR EXCEPTIONS

50-8

Source Select Switches (Analogue Instrument System)

1) HSI NAV/RNAV or NAV/TACAN/FMS (RNAV)

C

2

1

(O) First Officer's may be inoperative provided:
a) Both HSIs operate from an independent NAV (VOR or ILS) source with inoperative switch in the NAV position, and
b) Inoperative switch is not moved in flight.

C

2

0

(O) May be inoperative provided:
a) Both HSIs operate from an independent NAV (VOR or ILS) source with inoperative switches in the NAV position,
b) Navigation procedures do not require the use of RNAV, and
c) Inoperative switches are not moved in flight.

2) HSI NAV/RNAV or NAV/TACAN/FMS (RNAV)

C

2

0

(O) May be inoperative provided:
a) Both HSIs operate from an independent NAV (VOR or ILS) source with inoperative switches in the NAV position,
b) Navigation procedures do not require the use of TACAN, and
c) Inoperative switches are not moved in flight.

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4. REMARKS OR EXCEPTIONS

	ITEM				
50-9	Mach/Airspeed Indicators (146 Only)				
***	1) Mach Indicator Functions 2) Command Speed Pointers 3) Externally Mounted Reference Bugs	C C A C	2 2 2 -	1 0 1 0	(O) One may be inoperative. (O) May be inoperative provided: a) Airplane altitude is limited to FL 230 or below, and b) A placard setting forth this limitation is affixed to instrument panel. (O) One may be inoperative provided: a) Externally mounted reference bugs operate normally, b) Alternate procedures are established and used, and c) Repairs are made within three flight days. NOTE: On Aircraft fitted with MOD HCM35031E, failure of the command speed pointer will render the fast/slow indicator on both ADIs inoperative. (O) May be inoperative or missing provided: a) Command Speed Pointers operate normally, and b) Alternate procedures are established and used.

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ITEM

4. REMARKS OR EXCEPTIONS

50-10

Mach/Airspeed Overspeed Warnings

B

2

1

B

2

0

(O) May be inoperative provided airplane is not operated at a speed greater than 15 knots below Vmo.

B

2

0

(O) May be inoperative provided airplane is not operated at a mach number greater than .03 less than Mmo.

50-12

Navigation Management Systems

1) GNS-500A and VLF/OMEGA
(Analog 146 Only)

C

-

0

May be inoperative provided navigation procedures do not require their use.

2) GNS-X and VLF/OMEGA receiver
(146 EFIS Aircraft Only)

C

-

0

May be inoperative provided navigation procedures do not require their use.

3) GNS-X
(RJ Only)

C

2

1

(O) One may be inoperative provided navigation procedures do not require its use.

4) GNS-XLS
(RJ Only)
(Mod HCM56132)

C

2

1

(O) One may be inoperative provided navigation procedures do not require its use.

5) GNS-XL(s)

C

2

0

(O) May be inoperative provided navigation procedures do not require their use.

(Continued)

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ITEM

4. REMARKS OR EXCEPTIONS

50-12

Navigation Management Systems
(Cont'd)

6) GNS-XLS
(Analogue 146 Only)
(Mod HCM50261)

C

-

1

May be inoperative provided navigation procedures do not require its use.

C

-

0

(O) May be inoperative provided navigation procedures do not require their use.

7) GNS-XLS DME 3
(Analogue 146 Only)
(Mod HCM50261)

C

1

0

May be inoperative provided navigation procedures do not require its use.

8) TAS Computer
(Analog 146 Only)
(Mod HCM50261)

C

-

0

May be inoperative provided GNS-XLS navigation procedures are not dependent on Wind Speed and Direction information.

9) CDU-XLS
(EFIS146 Only)
(Mod HCM50265)

C

-

1

(O) One may be inoperative provided remaining system operates normally.

C

-

0

(O) May be inoperative provide navigational procedures do not require its use.

(Continued)

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4. REMARKS OR EXCEPTIONS

	ITEM				4. REMARKS OR EXCEPTIONS
50-12	Navigation Management Systems (Cont'd)				
***	10) TAS Computer (EFIS 146 Only) (Mod HCM50265)	C	-	0	May be inoperative provided GNS-XLS navigation procedures are not dependent on Wind Speed and Direction information.
***	11) Navigation Databases	C	-	-	(O) May be out of currency provided: a) Current Aeronautical Charts are used to verify navigation fixes before dispatch, b) Procedures are established and used to verify status and suitability of navigation facilities used to define route of flight, and c) Approach Navigation Radios are manually tuned and identified.
	12) HSI Miles/Distance and Ground Speed Displays (Analog NAV Display 146 Only)	C	4	0	May be inoperative provided: a) FMS CDU miles/distance and groundspeed displays operate normally, and b) Approach minimums do not require their use.

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4. REMARKS OR EXCEPTIONS

	ITEM				
50-13	IRS Fan Annunciators (RJ Only)	C	2	0	(M)(O) May be inoperative provided IRS fan(s) is verified to operate normally.
50-14	VOR/Marker (RJ Only)	C	2	-	As required by FAR.
50-15	Flight Director Pitch Synchronization Switches	C	2	0	

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4. REMARKS OR EXCEPTIONS

60-1

ITEM

Traffic Alert and Collision Avoidance System (TCAS)

TCAS I

B

-

0

(M) May be inoperative provided:
 a) System is deactivated and secured, and
 b) Enroute or approach procedures do not require its use.

C

-

0

(M) May be inoperative provided:
 a) Not required by FAR,
 b) System is deactivated and secured, and
 c) Enroute or approach procedures do not require its use.

TCAS II

B

-

0

(M) May be inoperative provided:
 c) System is deactivated and secured, and
 d) Enroute or approach procedures do not require its use.

C

-

0

(M) May be inoperative provided:
 d) Not required by FAR,
 e) System is deactivated and secured, and
 f) Enroute or approach procedures do not require its use.

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.

(Continued)

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4. REMARKS OR EXCEPTIONS

	ITEM				
60-1	Traffic Alert and Collision Avoidance System (TCAS) (Cont'd)				
	2) Resolution Advisory (RA) Display System(s)	C	2	1	(O) One may be inoperative on the non-flying pilot's side.
		C	-	0	(O) May be inoperative provided: a) Traffic Alert (TA) visual display and audio functions are operative, b) TA only mode is selected by the crew, and c) Enroute or approach procedures do not require its use.
	3) Traffic Alert (TA) Display System(s)	C	-	-	(O) May be inoperative provided: a) RA visual display and audio functions are operative, and b) Enroute or approach procedures do not require its use.
	4) Audio Functions	B	1	0	May be inoperative provided enroute or approach procedures do not require use of TCAS.
***	5) Airspace Selection Function	C	-	0	

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34 NAVIGATION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

60-2

Windshear Warning and Flight Guidance System
(Reactive)

B

-

0

(O) May be inoperative provided alternate procedures are established and used.

NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.

C

-

0

(O) May be inoperative provided:
a) Alternate procedures are established and used, and
b) Windshear Detection and Avoidance System (Predictive) operates normally.

1) Installations Not Required By FAR

C

-

0

(O) May be inoperative provided alternate procedures are established and used.

60-3

Windshear Detection and Avoidance System
(Predictive)

B

-

0

(O) May be inoperative provided alternate procedures are established and used.

NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.

C

-

0

(O) May be inoperative provided:
a) Alternate procedures are established and used, and
b) Windshear Warning and Guidance System (Reactive) operates normally.

1) Installations Not Required By FAR

C

-

0

(O) May be inoperative provided alternate procedures are established and used.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

34 NAVIGATION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

60-4

Predictive Windshear System

D

-

0

Deleted, Rev. 21. (Moved to Item 34-60-3)

60-5

Automatic Dependent Surveillance-Broadcast (ADS-B) System

1) Cockpit Display and Traffic Information (CDTI)

D

-

0

May be inoperative provided it is not required by 14 CFR.

NOTE: If ADS-B is installed in lieu of or as a replacement for 14 CFR required equipment, the repair category in the operator's MEL will be the same as that of the 14 CFR required equipment.

2) CDTI Control Panel

D

-

0

NOTE: Cockpit Display Traffic Information (CDTI) display of data from other aircraft systems may be used.

May be inoperative provided:

- a) Flight ID can be set, and
- b) Screen display is acceptable to the flight crew.

3) Data Link Transmitter(s)

D

-

0

NOTE: In some aircraft the Data Link Transmission is an integral part of the transponder and relief is provided in that section.

4) Data Link Receivers

D

-

0

5) ADS-B Applications

D

-

0

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35 OXYGEN

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
10-1	Oxygen Overboard Vent Discharge Disc	C	1	0	(M)(O) May be inoperative provided oxygen quantity is verified before each departure.
10-3	Crew Oxygen Pressure Gauge	B	1	0	(M)(O) May be inoperative provided an alternate procedure is used to ensure that oxygen supply is above minimum required for the flight.
10-4	Protective Breathing Equipment (PBE)	D	-	-	Any in excess of those required by 14 CFR may be inoperative or removed provided location placarding is removed or obscured.

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35 OXYGEN

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
20-1	Passenger Oxygen System				
	1) Passenger System	B	1	0	(M)(O) May be inoperative provided: <ul style="list-style-type: none"> a) Flight is not conducted where the minimum enroute altitude is above 14,000 feet Mean Sea Level (MSL), b) Both air conditioning packs operate normally, c) All components of the pressurization system operate normally, d) Maximum flight altitude does not exceed FL 250, e) Portable oxygen containing sufficient oxygen for 30 minutes endurance are provided for 10% of the passengers, and f) Passenger are appropriately briefed.
	2) Automatic Presentation (Drop Out)	B	1	0	(O) May be inoperative provided: <ul style="list-style-type: none"> a) Manual deployment system operates normally, and b) Flight is operated at or below FL 300. (Continued)

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35 OXYGEN

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

20-1

Passenger Oxygen System
(Cont'd)

3) PSUs - Oxygen Masks or Stowage
Assemblies

C

-

-

(M)(O) Passenger service units(PSUs) may be inoperative without flight altitude restriction provided:
a) Affected seats are blocked and placarded to prevent occupancy, and
b) Units operate normally for all usable passenger seats, toilet compartments and flight attendant locations.

4) Cargo Configuration

C

1

0

30-1

Portable Oxygen Dispensing Unit
(Bottle and Mask - Therapeutic)

D

-

-

(M) Any in excess of those required by FAR may be unserviceable or missing provided:
a) Required distribution of serviceable bottles is maintained throughout the aircraft,
b) Bottles not properly serviced are replaced, serviced, or removed at next available maintenance facility, and
c) Location placarding for the associated inoperative bottle is removed or obscured.

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36 PNEUMATIC

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM	C	4	3	
10-2	Engine Bleed Air Systems	C	4	3	(O) One may be inoperative provided: a) Associated isolation valve is closed, b) Three remaining systems operate normally, c) (146 Only) Engine and intake anti-ice systems on the associated engine operates normally, and d) Airplane is not operated in known or forecast icing conditions.
20-1	ENG AIR FAULT Lights	C	4	3	(O) One may be inoperative provided: a) Associated isolation valve is closed, b) Three remaining systems operate normally, and c) Airplane is not operated in known or forecast icing conditions.
20-2	ENG AIR VALVE Lights	C	4	3	(O) One may be inoperative provided: a) Associated isolation valve is closed, b) Three remaining systems operate normally, and c) Airplane is not operated in known or forecast icing conditions.

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38 WATER/WASTE

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
10-1	Potable Water System	C	-	-	(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 system which operates normally may be used.
		C	-	-	(M) May be inoperative provided: a) System is drained, and b) Procedures are established to ensure that system is not serviced.

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38 WATER/WASTE

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

30-1

ITEM

Lavatory Waste Systems
(Including Wheelchair Accessible Lavatories)

C

-

-

(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.

C

-

-

(M) Associated lavatory system may be inoperative provided:
 a) Associated components are deactivated or isolated to prevent leaks, and
 b) Associated lavatory door is secured closed and placarded "INOPERATIVE - DO NOT ENTER".

NOTE: These provisions are not intended to prohibit inspections by crewmembers.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

46 INFORMATION SYSTEMS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

11-1

Electronic Flight Bag Systems (EFBs)

1) Class 3 EFBs

C

-

-

(O) May be inoperative provided alternate procedures are established and used.

NOTE: Any function, program or document which operates normally may be used.

D

-

0

May be inoperative provided procedures do not require its use.

2) Data Connectivity (Class 2)

C

-

-

(O) May be inoperative provided alternate procedures are established and used.

D

-

0

May be inoperative provided procedures do not require its use.

3) Power Connectivity (Class 1 & 2)

C

-

-

(O) May be inoperative provided alternate procedures are established and used.

D

-

0

May be inoperative provided procedures do not require its use.

(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

46 INFORMATION SYSTEMS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM

11-1

Electronic Flight Bag Systems
(EFBs)
(Cont'd)

4) Mounting Device
(Class 2)

C

-

0

(M)(O) May be inoperative provided:
a) Associated EFB and hardware is secured by an alternate means or removed from the aircraft, and
b) Alternate procedures are established and used.

D

-

0

(M)(O) May be inoperative provided:
a) Associated EFB and hardware is secured by an alternate means or removed from the aircraft, and
b) Procedures do not require its use.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

49 AIRBORNE AUXILIARY POWER

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

00-1

Auxiliary Power Unit

C

1

0

(M)(O) May be inoperative provided:
 a) Procedures do not require its use,
 b) If required, alternate operational procedures are developed for selection of engine air, and
 c) Validation of Generator Bus Fault Relays is carried out once each flight day.

30-1

APU Remote/External Shutdown System

C

1

0

(O) May be inoperative and APU used provided a qualified operator remains in vicinity of flight deck APU control panel.

C

1

0

May be inoperative provided APU is not used.

50-1

APU Air Valve System

1) APU Load Control Valve
(Garrett APU)

C

1

0

(O) May be inoperative provided:
 a) Valve is closed,
 b) APU AIR switch remains off, and
 c) If required, alternate operational procedures are developed for selection of engine air.

2) APU Bleed Valve
(Sundstrand APU)

C

1

0

(O) May be inoperative provided:
 a) Valve is closed,
 b) APU AIR switch remains off, and
 c) If required, alternate operational procedures are developed for selection of engine air.

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49 AIRBORNE AUXILIARY POWER

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

70-1

ITEM

APU Indication System (Sundstrand or Garrett)

1) APU RPM Indication System

C - 0

(M) May be inoperative provided APU automatic shutdown system operates normally.

C - 0

May be inoperative provided APU is not used.

2) APU EGT/TGT Indication System

C 1 0

(M) May be inoperative provided APU automatic shutdown system operates normally.

C 1 0

May be inoperative provided APU is not used.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

52 DOORS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-2

ITEM

Door Gust Dampers

B

4

0

(M)(O) May be inoperative provided:
 a) Operation of the door is not affected by the inoperative Gust Damper,
 b) Door hold open latch is operative,
 c) Procedure is established so the door can be opened and closed safely in gusty conditions, and
 d) Communications are established between the flight crew and ground personnel to caution them that the Door Gust Damper is inoperative.

30-1

Freight Door Vent Door
(QT/QC Aircraft Only)

C

1

0

(M)(O) May be inoperative provided:
 a) Freight door is verified closed, latched and locked,
 b) Freight door warning and indicating system operates normally, and
 c) Flight is conducted in an unpressurized configuration.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

52 DOORS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

30-2

Freight Door Latch/Lock Inspection Windows
(QT/QC Aircraft Only)

C

8

0

(O) May be cracked or missing provided flight is conducted in an unpressurized configuration.

C

8

7

(M)(O) All may be cracked and/or one may be missing provided:
 a) Aircraft remains at or below 16,000 feet,
 b) Cabin altitude is maintained at 8,000 feet,
 c) Both air conditioning packs are verified to operate normally and selected to FRESH, and
 d) FREIGHT DOOR indication system is verified to operate normally.

A

-

-

(M)(O) All may be cracked provided:
 a) Maximum cabin differential pressure does not exceed 5.0 psi,
 b) FREIGHT DOOR indication system is verified to operate normally,
 c) Only required flightcrew members are carried,
 d) Live animals are not carried,
 e) Dispatch configuration is acceptable to flightcrew, and
 f) Repairs are made within one flight day.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

52 DOORS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM

30-3

Cargo Doors Tensator Springs

C

4

0

(O) May be inoperative provided:
 a) Affected cargo door(s) remains closed and is not used for any purpose, and
 b) Affected cargo door(s) is placarded "WARNING: DOOR TENSATOR SPRINGS INOPERATIVE - DO NOT OPEN".

B

4

0

(M)(O) May be inoperative provided:
 a) An appropriate device is used to hold the door(s) in the open position in addition to the existing door latch, and
 b) Affected cargo door(s) is placarded "WARNING: DOOR TENSATOR SPRINGS INOPERATIVE - DO NOT OPERATE UNLESS A SAFETY HOLD OPEN DEVICE IS USED".

40-1

Water Service Door Indication System

C

1

0

(O) May be inoperative provided Water Service Door is checked secured closed before each flight.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

52 DOORS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

51-1

Flight Deck Door Lock Systems

1) Pre-Modification HCM50303, C & E

a) Door Lock

A 1 0

(M)(O) May be inoperative provided:
a) Flight deck door shootbolt is operational and checked for engagement before each departure,
b) Cabin to flight deck interphone system and crew call system operates normally, and
c) Operations are limited to not more than three flight days before repair is made.

D 1 0

May be inoperative provided all-cargo operations are being conducted.

b) Shoot Bolt

C 1 0

May be inoperative provided the Flight Deck Door can be closed and the Door Lock operates normally.

c) Supplementary Lock/Restraining Bar

A 1 0

(M)(O) May be inoperative provided:
a) Door Lock or Shoot Bolt is verified to operate normally before each departure,
b) Lock/Restraining bar is removed or stowed, and
c) Repairs are made within two flight days.

(Continued)

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

52 DOORS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

51-1

ITEM

Flight Deck Door Lock Systems
(Cont'd)

2) Post Modification HCM50303, C & E

a) Electronic Lock System

A 1 0

(M)(O) May be inoperative provided:
a) Door electronic lock system id deactivated,
b) Alternate procedures for locking/unlocking door are established and used,
c) Door manual unlock and locking is verified to operate normally,
d) Cabin to Flight Deck Interphone and Crew Call System operates normally, and
e) Repairs are made within two flight days.

b) Flight Deck NOT LOCKED Annunciator System

B 1 0

(O) May be inoperative provided alternate procedures are established and used.

c) Flight Deck Door LED Light Sensing System

C 1 0

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52 DOORS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM

52-2

Enhanced Flight Deck Security Door Primary Locking System
(FAR 25.795 Compliant)
(Passenger and Combi Aircraft ONLY)

1) Decompression Function Dependant of Primary Door Locking System

A

1

0

(M)(O) May be inoperative provided:
a) Primary locking system is deactivated,
b) Secondary locking system operates normally and is used to lock the door,
c) Alternate procedures are established and used for locking and unlocking the door using the secondary locking system, and
d) Repairs are made within two flight days.

2) Decompression Function Independent of Primary Door Locking System

C

1

0

(M)(O) May be inoperative provided:
a) Primary locking system is deactivated,
b) Secondary locking system operates normally and is used to lock the door, and
c) Alternate procedures are established and used for locking and unlocking the door using the secondary locking system.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

52 DOORS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
52-3 ***	Enhanced Flight Deck Security Door Secondary Locking System (FAR 25.795 Compliant) (Passenger and Combi Aircraft ONLY)	C	1	0	May be inoperative provided primary locking system operates normally.
52-4 ***	Flight Deck Door Decompression Panel Decompression Function (FAR 25.795 Compliant) (Passenger and Combi Aircraft ONLY) 1) Decompression Function Independent of Primary Door Locking System	A	-	0	May be inoperative provided: a) Panels are in the latched position, and b) Repairs are made within two flight days.
60-1 ***	Airstairs	D	-	0	

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

52 DOORS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

70-1

Door Indication System

1) Cabin Door
(RJ-All Aircraft) and (146-Pre Mod HCM
50248T and HCM 61072B Only)

A

1

0

(M)(O) May be inoperative provided:
a) Door is verified closed and locked before each departure,
b) Alternate procedures are established and used, and
c) Operations are limited to not more than three flight days
before repairs are made.

2) Lower Doors
(RJ-All Aircraft) and (146-Pre Mod HCM
50248T and HCM 61072B Only)

A

1

0

(M)(O) May be inoperative provided:
a) All doors and hatches are verified closed and locked
before each departure,
b) Alternate procedures are established and used, and
c) Operations are limited to not more than three flight days
before repairs are made.

3) Door Not Shut
(146-Pre Mod HCM 50248T and HCM
61072B Only)

A

1

0

(M)(O) May be inoperative provided:
a) All cabin and lower doors are verified closed and locked
before each departure,
b) Alternate procedures are established and used, and
c) Operations are limited to not more than three flight days
before repairs are made.

70-3

Freight Door Indication System
(QT Aircraft Only)

B

1

0

(M)(O) May be inoperative provided:
a) Freight door is verified closed, latched and locked, and
b) Freight door warning circuit breaker is pulled and collared.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

56 WINDOWS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-1

ITEM

Flight Deck A, B, or C Windscreens

-

-

-

Deleted, Revision 22.

NOTE: Refer to Aircraft Maintenance Manual (AMM), Structural Repair Manual (SRM), or other approved documentation.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

71 POWERPLANT

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

70-1

ITEM

Ecology Fuel Ejector Pumps

A

4

0

May be inoperative provided repairs are made within 15 flight hours.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

73 ENGINE FUEL & CONTROL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

ITEM

30-1

Fuel Flow Indications System

1) Analog Instrument System Only
(146 Only)

B

4

2

(O) May be inoperative provided:
a) Associated N1, N2, and TGT indications operate normally, and
b) All main quantity indicating systems operate normally.

2) Electronic Primary Engine Display
(146 EFIS And RJ Only)

B

4

2

(O) Digital counter(s) and/or pointer(s) may be inoperative provided:
a) Associated N1, N2 and TGT/EGT indications operate normally, and
b) All main quantity indicating systems operate normally.

30-2

FUEL LO PRESS Lights (MWS)

C

4

3

(O) One may be inoperative provided the associated boost pump LO PRESS annunciator light operates normally.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

73 ENGINE FUEL & CONTROL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

30-3

Fuel FILTER CLOGGED Indication System

- 1) Amber or White Indication Systems - Fails To Illuminate (Pre & Post Mod HCM00916A)
- 2) White Indication Systems - Fails To Extinguish (Post Mod HCM00916A)

B

4

3

(M) One single indicator may fail to associated in-line fuel filter is verified to operate normally before further flight and once each flight day.

B

4

3

(M) One single indicator may be illuminated provided:
a) Associated main fuel filter is serviced, and
b) Associated in-line fuel filter is verified to operate normally before further flight and once each flight day.

30-4

Fuel Used Indication System

C

4

0

(O) May be inoperative provided:
a) Associated flight deck wing tank quantity system operates normally, and
b) Alternate procedures are established and used.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

74 IGNITION

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

20-1

ITEM

Engine Igniter Systems

C

8

7

One igniter system on one engine may be inoperative.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

75 BLEED AIR

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-1

ITEM

Engine Anti- Ice Valves

MOVED TO 30-20-3

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

76 ENGINE CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
10-1	Thrust Management System (146 Only)	C	1	0	(M)(O) May be inoperative provided: a) All four actuators are centered, b) System is depowered by pulling and collaring the primary circuit breakers, and c) Actuator centering circuit breaker must NOT be pulled.
10-2	Flight Idle C Baulk Actuator (146 Only)	B	1	0	(M)(O) May be inoperative at 67% provided: a) Landing distance is predicated on 67% N2, and b) Thrust Management System is manually disconnected at 200 feet AGL.
		B	1	0	(M)(O) May be inoperative above 60% but below 67% provided: a) 67% N2 or greater is maintained in icing conditions, b) Thrust Management System is manually disconnected at 200 feet AGL, and c) Landing distance is predicated on 67% flight idle.
		B	1	0	(M)(O) May be inoperative at 60% provided: a) 67% N2 or greater is maintained in icing conditions, and b) Thrust Management System is manually disconnected at 200 feet AGL.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

76 ENGINE CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
10-3	FADEC System (RJ Only) 1) FADEC (RJ Only) 2) Soft Fault (Annunciators located on Engines) (RJ Only)	B	4	0	(O) One may be inoperative provided: a) Associated FADEC is selected OFF, b) Autothrottle ARM switch is selected OFF, c) Engine anti-ice on associated engine operates normally and is selected ON through out the flight, d) Alternate procedures for control of affected engine are established and used, and e) TRP operates normally.
10-4	Autothrottle System (RJ Only)	C	1	0	(O) May be inoperative provided: a) Autothrottle ARM switch remains OFF, b) Procedures for engine handling with autothrottle OFF are established and used, and c) Approach minimums do not require autothrottle use.
10-5	Thrust Rating Panel (TRP) (RJ Only)	A	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within three flight days.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

76 ENGINE CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

10-6	FADEC Soft Fault Annunciators (RJ Only)				Moved into item 76-10-3, Rev. 18.
10-7	TOGA Switches (RJ Only)	C	2	1	(O) One may be inoperative provided remaining switch operates normally.
		C	2	0	(O) May be inoperative provided: a) Thrust rating panel operates normally, b) Alternate procedures are established and used, and c) Approach minimums do not require their use.
10-8	Autothrottle Disengage Switches (RJ Only)	C	2	1	(O) One may be inoperative provided remaining switch is verified to operate normally.
		C	2	0	(O) May be inoperative provided: a) Autothrottles are not used, b) Autothrottle ARM switch remains OFF, c) Procedures for engine handling with autothrottle OFF are established and used, and d) Approach minimums do not require the use of autothrottles.
10-9	Autothrottle Annunciators (Amber) (RJ Only)	C	2	0	May be inoperative provided: a) Associated PFD annunciation operates normally, and b) Approach minimums do not require their use.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

76 ENGINE CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM	C	2	0	
10-10	Engine Anti-Surge and Altitude Switches (146 Only)	C	2	0	(O) May be inoperative provided: a) Engine anti-ice and intake anti-ice valves associated with the failed switch(es) operate normally, and b) Engine anti-ice and intake anti-ice valves associated with the failed switch(es) are selected ON and remain ON at, and above FL210.
		C	2	0	(O) May be inoperative provided aircraft is not operated above FL210.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

76 ENGINE CONTROLS

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

ITEM

4. REMARKS OR EXCEPTIONS

20-1

Engine Overspeed Control System

- 1) Main Overspeed Trip System Magnetic Speed Sensors (146 Only)
- 2) Additional Overspeed Protection System (146 Only)
- 3) Overspeed Trip System Primary Magnetic Speed Sensors (RJ Only)
- 4) Overspeed Trip System Secondary Magnetic Speed Sensors (RJ Only)

C

8

4

(O) One per engine may be inoperative provided the affected engine(s) is shut down using the overspeed test procedure once each flight day.

C

4

0

(M)(O) May be inoperative provided main overspeed system operates normally and the affected engine(s) is shut down using the engine overspeed test procedures once each flight day.

C

8

4

(O) One per engine may be inoperative provided the affected engine(s) is shut down using the overspeed test procedure once each flight day.

C

4

0

(M)(O) May be inoperative provided primary overspeed system operates normally and the affected engine(s) is shut down using the engine overspeed test procedures once each flight day.

20-2

Additional Overspeed Protection Systems

Deleted, Revision 15. Moved to Item 20-1.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

77 ENGINE INDICATING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

	ITEM				
10-1	N2 Indicators (LED Instrument System Only) 1) Digital Counters	B	4	0	NOTE: An indicator with an operating pointer is considered to operate normally.
10-2	N1 Indicators (LED Instrument System Only) 1) Digital Counters and/or Target Counters	B	4	0	NOTE: An indicator with an operating pointer is considered to operate normally.
30-1	Vibration Indicating Systems	B	4	3	(O) One may be inoperative unless required by an approved maintenance procedure.
30-2 ***	Engine Life Computer				Deleted Revision 15. Moved to ATA 31.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

79 ENGINE OIL

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

30-3

ITEM

Oil Quantity Gauges

B

4

3

(M)(O) One may be inoperative provided:
 a) Oil tank is filled to recommended capacity once each flight day,
 b) There is no evidence of above normal oil consumption or leakage,
 c) Low oil pressure warning, oil pressure and temperature gauges operate normally, and
 d) Oil consumption rates are monitored through an acceptable program.

30-4

OIL LO PRESS MWS Warning

B

4

3

(M) One may be inoperative provided associated TEMP, QTY, and PRESS indications operate normally and are monitored.

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SEQUENCE NUMBERS, SYSTEM, & SUB-SYSTEMS

80 STARTING

1. REPAIR INTERVAL

2. NUMBER INSTALLED

3. NUMBER REQUIRED FOR DISPATCH

4. REMARKS OR EXCEPTIONS

10-1

ITEM

Starter Operating Light Circuits
(Not Applicable to Aircraft Which Have Soft Start Mod. Installed, i.e. HCM00810A, HCM60031A or HCM60033L)

B

4

3

(M)(O) One may be inoperative on one engine such that STARTER OPERATING light remains on after start provided:
 a) Light remains on after engine shutdown following discovery of fault,
 b) Associated engine does not rotate when START MASTER switch is selected ON,
 c) Associated engine is last to be started and START MASTER switch is selected OFF immediately after start,
 d) APU is selected OFF and APU CTRL circuit breaker is pulled before taxi, and
 e) APU CTRL circuit breaker remains tripped until engines have been shut down.