



U.S. Department of Transportation
Federal Aviation Administration
Washington, DC

Master Minimum Equipment List (MMEL)

Revision: Original
Date: 03/26/2019

Billings Flying Service, Inc. (BFS) **CH-47D** **(R0011DE)**

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LOG OF REVISIONS

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U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION	MASTER MINIMUM EQUIPMENT LIST
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AIRCRAFT: BFS CH-47D	HIGHLIGHTS OF CHANGE

This Master Minimum Equipment List (MMEL) has been reformatted in compliance with the Federal Aviation Administration, Joint Aircraft System/Component (JASC) Code Table, and Definitions are available for download or viewing at:

(<http://av-info.faa.gov/sdrx/references.aspx>).

This replaces the former Airline Transport Association (ATA) coding used in previous documents. JASC Coding is a four-digit number format, and as the title suggests, it contains a System Code and a Component Code. The first two digits are the System Code, which is similar to ATA Coding for their first two numbers. The last two digits in the JASC Code are the Component Code, which defines the specific component. The item number is a sequential number given for additional Components with the same JASC Code.

For Example: JASC Code 2410, where Code 24 represents the “Electrical Power” system, and Component Code 10 represents the “Alternator-Generator Drive” system.

The following are the Highlights of Changes for **Revision Original**. It is the result of a public Flight Operations Evaluation Board (FOEB) meeting held on 08/17/2018.

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DEFINITIONS AND PREAMBLE

Definitions

Refer to the current FAA MMEL Policy Letter 25, MMEL and MEL Definitions, found on the FAA Flight Standards Information Management System (FSIMS) website.

Preamble

For operations under 14 CFR parts 91 subpart K (part 91K), 121, 125, 125 LODA, 129, and 135, refer to the current FAA MMEL Policy Letter PL-34, MMEL and MEL Preamble. For operations under 14 CFR part 91, refer to current FAA MMEL Policy Letter PL-36, 14 CFR Part 91 MEL Approval and Preamble. Both Policy Letters are found on the FAA Flight Standards Information Management System (FSIMS) website.

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GUIDELINES FOR (M) AND (O) PROCEDURES

The FOEB has identified a need for certain procedures to provide an adequate level of safety while providing relief for some items. These procedures must be established by the operator and may be based on the aircraft manufacturer's recommended procedures, Supplemental Type Certificate (STC) modifier's recommended procedures, or equivalent operator procedures. When recommended procedures are published, the operator should comply with these procedures. If recommended procedures are not published, the following guidelines delineate the aspects to be considered by the operator in the development of required procedures:

SEQUENCE NO.	PROCEDURE
1800-01 Multi-Sensor Processor Unit (MSPU)	(M) Procedure for maintenance to ensure the MSPU Circuit Breaker on the #1 PDP is deactivated and secured.
2100-01 Blower (Fresh Air)	(O) Procedure for crew to ensure Cockpit ventilation is available.
2140-01 Heater	(M) Procedure for maintenance to ensure Cockpit Ventilation is available, the Blower (Fresh Air) is not required for flight, and the Cabin Heater is deactivated and secured by pulling the Cabin Heater Circuit Breaker.
2310-01 High Frequency (HF) Communication System	(O) Procedure for crew to ensure that, while conducting operations that require two LRCS provided, aircraft SATVOICE system operates normally, SATVOICE services are available as an LRCS over the intended route of flight, the ICAO Flight Plan is updated (as required) to notify ATC of the communications equipment status of the aircraft, and Alternate procedures are established.
2400-01 Transformer Rectifiers (XFMR RECT)	(O) Procedure for crew to ensure flight is conducted at 6,000 feet Pressure Altitude (PA) or below. (M) Procedure for maintenance to ensure the respective XFMR RECT 115V AC CB is deactivated, both Transformer Rectifiers Fail Lights must be operational, and repair is made at the earliest opportunity.
2500-01 Nonessential Equipment and Furnishings (NEF Items)	(M) Procedure for maintenance to ensure NEF procedures are outlined. (O) Procedures, if required, must be available to the flightcrew and included in the operator's appropriate document.

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GUIDELINES FOR (M) AND (O) PROCEDURES

SEQUENCE NO.	PROCEDURE
2520-01 Passenger Seats Par 1) Passenger Seats (Includes all Configurations and Locations)	(M) Procedure for maintenance to ensure the Seat does not restrict access to any emergency exit, egress route, or main aisle, and the affected seat(s) is blocked and placarded "DO NOT OCCUPY".
2520-01 Passenger Seats Par 2) Seat Belt Not Required by 14 CFR	(M) Procedure for maintenance to ensure inoperative or disconnected seat belt operates normally.
2550-01 Winch/Rescue Hoist System	(M) Procedure for maintenance to ensure the system is placarded "INOPERATIVE" and the Circuit Breaker is deactivated and secured.
2550-02 Load Cell Indicator	(O) Procedure for crew to ensure RFM limitations are not exceeded.
2562-01 (PL-120) Emergency Locator Transmitter (ELT) Fixed ELTs	(M) Procedure for maintenance to ensure System is deactivated, repairs are made within 90 consecutive calendar-days, and the placard stating "ELT not installed" is placed in view of the pilot. (M) Procedure for maintenance to ensure that any in excess of those required by 14 CFR are deactivated and the placard stating "ELT not installed" is placed in view of the pilot.
2700-03 Thrust Brake (Collective)	(M) Procedure for maintenance to ensure the thrust brake circuit breaker on #1 Power Distribution Panel is deactivated and secured and the thrust lever is placarded "THRUST BRAKE INOPERATIVE."
2700-04 Longitudinal Cyclic Trim System (LCT) Par 1) Auto Trim	(O) Procedure for crew to ensure speed is reduced per RFM limitations. (M) Procedure for maintenance to ensure Manual mode is operative, LCT indicator lights are operative, and repair is made at the earliest opportunity.
2700-04 Longitudinal Cyclic Trim System (LCT) Par 2) Manual Trim	(O) Procedure for crew to ensure speed is reduced per RFM limitations. (M) Procedure for maintenance to ensure the LCT indicator lights are operative, Auto mode is operative, and repair is made at the earliest opportunity.

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GUIDELINES FOR (M) AND (O) PROCEDURES

SEQUENCE NO.	PROCEDURE
2810-01 Single Point Pressure Refueling System	(M) Procedure for maintenance to ensure the #1 and #2 main tank primary or secondary shutoff floats are operable.
2822-01 Fuel Boost Pump (Main Tanks)	(O) Procedure for crew to ensure flight is operated at 6,000 feet Pressure Altitude (PA) or below.
2822-02 Aux Fuel Boost Pump (FWD/AFT)	(O) Procedure for crew to ensure the aircraft operated at 6,000 feet Pressure Altitude (PA) or below.
2824-01 Crossfeed Switch	(O) Procedure for crew to ensure the Crossfeed Valve can be operated manually, and Fuel Low Warning Lights must be operative.
2841-02 Pressure Refueling Station Fuel Quantity Indicating System (Main Tank)	(M) Procedure for maintenance to ensure the Cockpit Fuel Indicator is operative, and the Main tank switch must be placarded and disabled.
2900-02 Electrical Pump for Utility System Hydraulic Accumulator (EPUSHA)	(M) Procedure for maintenance to ensure the Two-Stage Hand Pump is operative and the Circuit Breaker is deactivated and secured.
3030-01 Pitot Heater System	(O) Procedure for crew to ensure the RFM procedures are followed, OAT is greater than +5 °C (41 °F), and there is no visible moisture.
3040-01 Windshield Wiper System	(O) Procedure for crew to ensure takeoff and landing operations are not conducted in precipitation. (O) Procedure for crew to ensure the Windshield Heater on the Pilot Flying (PF) side is operative.
3040-02 Windshield Heated Panels	(O) Procedure for crew to ensure the Windshield Heat and Wiper on the Pilot Flying (PF) side is operative.

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GUIDELINES FOR (M) AND (O) PROCEDURES

SEQUENCE NO.	PROCEDURE
3120-03 Hour Meter	(O) Procedure for crew to ensure flight time is tracked by alternate means.
3150-01 Heater Overheat Warning Light	(M) Procedure for maintenance to ensure Cockpit ventilation is available, the Blower is not necessary for flight, and the Cabin Heater is deactivated and secured by pulling the Cabin Heater Circuit Breaker.
3200-01 Power Steering System	(O) Procedure for crew to ensure flight is not predicated on ground taxi and OEI vertical landing is capable. (M) Procedure for maintenance to ensure Swivel locks are operative and gear is in lock position.
3200-02 Swivel Locks	(O) Procedure for crew to ensure power steering is operative and flight is not predicated on ground taxi.
6240-02 Cruise Guide Indicator	(O) Procedure for crew to ensure the RFM Abnormal operation procedures are followed for the Longitudinal Cyclic Trim System (LCT) inoperative.
7710-01 Torque Indicating System	(O) Procedure for crew to ensure the N ₁ and Power Turbine Inlet Temperature (PTIT) Indicating System are operative and that they refer to the RFM Digital Electronic Control Units (DECU/ECU) fault code list to determine aircraft dispatch, operations, and recording requirements.
7714-01 N ₁ Indicating System	(O) Procedure for crew to ensure the respective Torque and PTIT Indicating System are operative and that they refer to the RFM DECU/ECU fault code list to determine aircraft dispatch, operations, and recording requirements.
7714-02 Power Turbine Inlet Temperature (PTIT) Indicating System	(O) Procedure for crew to ensure that the Engine Monitoring System and N ₁ Indicating System are operative and that they refer to the RFM DECU/ECU fault code list to determine aircraft dispatch, operations, and recording requirements.

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18. Helicopter Vibration

Sequence No.	Item	1	2	3	4	Change Bar
1800-01 ***	Multi-Sensor Processor Unit (MSPU)	C	-	0	(M) May be inoperative provided the MSPU is deactivated and secured.	

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21. Air Conditioning

Sequence No.	Item	1	2	3	4	Change Bar
2100-01	Blower (Fresh Air)	C	1	0	May be inoperative provided the Cockpit ventilation is available.	
2140-01	Heater	C	1	0	(M) May be inoperative provided: a) Cockpit ventilation is available, b) Blower (Fresh Air) is not required for flight, and c) Cabin Heater is deactivated and secured.	

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22. Autoflight

Sequence No.	Item	1	2	3	4	Change Bar
2200-01 (PL-101)	Non-transport Category Aircraft Autopilot	C	-	0	May be inoperative provided operations do not require its use.	
2200-02	Automatic Flight Control System (AFCS)					
1)	Heading Hold	C	1	0	May be inoperative.	
2)	Altitude Hold	C	1	0	May be inoperative.	

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23. Communications

Sequence No.	Item	1	2	3	4	Change Bar
2310-01 (PL-106)	High Frequency (HF) Communication System	D	-	-	Any in excess to those required by 14 CFR may be inoperative.	
		C	-	1	(O) May be inoperative while conducting operations that require two LRCS provided: a) Aircraft SATVOICE system operates normally, b) SATVOICE services are available as an LRCS over the intended route of flight, c) The ICAO Flight Plan is updated (as required) to notify ATC of the communications equipment status of the aircraft, and d) Alternate procedures are established and used.	
2311-01 *** (PL-95)	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 Transfers Light	C	-	0		
	b) Frequency Transfer Switch	C	-	0		
	c) Frequency Selector Knob	C	-	0		
	d) Frequency Indication	C	-	0		

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23. Communications

Sequence No.	Item	1	2	3	4	Change Bar
2312-01	Communications Systems (FM)	D	-	0	May be inoperative.	
2340-01	Third Flightcrew Intercommunication System (STC #SR00819DE)	D	-	0	Audio panel for third crewmember may be inoperative provided aircraft is operated in accordance with RFM supplement.	

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24. Electrical Power

Sequence No.	Item	1	2	3	4	Change Bar
2400-01	Transformer Rectifiers (XFMR RECT)	A	2	1	(M)(O) One may be inoperative provided: <ul style="list-style-type: none"> a) Flight is conducted at 6,000 feet Pressure Altitude (PA) or below, b) Respective XFMR RECT 115V AC CB is deactivated, c) Both Transformer Rectifiers Fail Lights must be operational, and d) Repairs are made within 15 days. 	

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25. Equipment/Furnishings

Sequence No.	Item	1	2	3	4	Change Bar
2500-01 ***	Nonessential Equipment and Furnishings (NEF Items)	D	-	0	May be inoperative, damaged, or missing provided that the item(s) is deferred in accordance with the NEF deferral program. NEF program, procedures, and processes are outlined in the operator's manual. (M)(O) Procedures, if required, must be available to the flightcrew and included in the operator's appropriate document.	
2520-01 *** (PL-79)	Passenger Seats					
1)	Passenger Seats (Includes all Configurations and Locations)	D	-	-	(M) May be inoperative provided: a) Seat does not restrict access to any emergency exit, egress route, or main aisle, and b) The affected seat(s) is blocked and placarded "DO NOT OCCUPY". NOTE 1: A seat with an inoperative seat belt or shoulder harness is considered inoperative. NOTE 2: Affected seat(s) may include the seat(s) behind and/or adjacent outboard seats.	
2)	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	-	-	(M) May be inoperative or disconnected provided seat belt operates normally.	

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25. Equipment/Furnishings

Sequence No.	Item	1	2	3	4	Change Bar
2510-01	Crewmember Shoulder Harness	B	-	0	As required by 14 CFR.	
2550-01 ***	Winch/Rescue Hoist System	C	-	0	(M) May be inoperative provided system is placarded "INOPERATIVE" and the Circuit Breaker is deactivated and secured.	
2550-02 ***	Load Cell Indicator	C	-	0	(O) May be inoperative provided RFM limitations are not exceeded.	
2560-01 *** (PL-47)	Megaphones	D	-	-	Any in excess to those required by 14 CFR may be inoperative or missing provided: <ol style="list-style-type: none"> a) Inoperative megaphone is removed from the passenger cabin, b) Associated placard is removed or obscured, and c) Required distribution is maintained. 	
2560-03 ***	Survival Equipment	D	-	0	May be inoperative or missing.	
2560-04 ***	First Aid Kit and/or Associated Equipment	D	-	0	May be inoperative or missing.	
2561-01 ***	Emergency Flotation Equipment	C	-	0	As required by 14 CFR.	

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- 5. REPAIR CATEGORY
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25. Equipment/Furnishings

Sequence No.	Item	1	2	3	4	Change Bar
2562-01 *** (PL-120)	Emergency Locator Transmitter (ELT)					
***	Survival Type ELTs	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing.	
***	Fixed ELTs	A	-	0	(M) May be inoperative provided: a) System is deactivated, b) Repairs are made within 90 consecutive calendar-days, and c) Placard stating "ELT not installed" is placed in view of the pilot.	
		A	-	0	May be missing provided: a) Repairs are made within 90 consecutive calendar-days, and b) Placard stating "ELT not installed" is placed in view of the pilot.	
		D	-	-	(M) May be inoperative provided: a) Any in excess of those required by 14 CFR may be inoperative provided system is deactivated, and b) Placard stating "ELT not installed" is placed in view of the pilot.	
***	Remote ELT Switch	D	-	0	May be inoperative provided: a) Remote ELT Switch is deactivated, and b) ELT Switch is placed in ARMED mode.	
***	ELT Indicator Light	D	-	0		
***	ELT Aural Alarm	D	-	0		

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26. Fire Protection

Sequence No.	Item	1	2	3	4	Change Bar
2622-01 (PL-75)	Portable Fire Extinguisher	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing provided: a) Inoperative fire extinguisher is tagged inoperative, removed from 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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27. Flight Controls

Sequence No.	Item	1	2	3	4	Change Bar
2700-01	Cyclic Force Trim	C	1	0	May be inoperative.	
2700-02	Directional Pedal Force Trim	C	1	0	May be inoperative.	
2700-03	Thrust Brake (Collective)	C	1	0	(M) May be inoperative provided: a) Deactivate and secure circuit breaker on #1 Power Distribution Panel, and b) Placard "THRUST BRAKE INOPERATIVE" on Thrust Lever.	
2700-04	Longitudinal Cyclic Trim System (LCT)					
1)	Auto Trim	B	1	0	(M)(O) May be inoperative provided: a) LCT indicator lights are operative, b) Speed is reduced per RFM limitations, c) Manual mode is operative, and d) Repair shall be made at earliest opportunity.	
2)	Manual Trim	B	1	0	(M)(O) May be inoperative provided: a) LCT indicator lights are operative, b) Speed is reduced per RFM limitations, c) Auto mode is operative, and d) Repair shall be made at earliest opportunity.	

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28. Fuel

Sequence No.	Item	1	2	3	4	Change Bar
2810-01 ***	Single Point Pressure Refueling System	C	1	0	(M) May be inoperative provided the #1 and #2 main tank primary or secondary shutoff floats are operable.	
2822-01	Fuel Boost Pump (Main Tanks)	C	4	0	(O) May be inoperative if aircraft operated 6,000 feet Pressure Altitude (PA) or below.	
2822-02	Aux Fuel Boost Pump (FWD/AFT)	C	4	0	(O) May be inoperative if aircraft operated 6,000 feet Pressure Altitude (PA) or below. NOTE: Fuel cannot be transferred from tank with boost pump inoperative.	
2824-01	Crossfeed Switch	C	1	0	(O) May be inoperative provided: a) Crossfeed Valve can be operated manually, and b) Fuel Low Warning Lights must be operative.	
2841-01	Fuel Low Warning Lights	C	2	1	May be inoperative provided: a) Crossfeed Switch is operative, and b) Fuel Quantity Indicating System is operative.	
2841-02	Pressure Refueling Station Fuel Quantity Indicating System (Main Tank)	C	1	0	(M) May be inoperative provided: a) Cockpit Fuel Indicator is operative, and b) Main tank switch must be placarded and disabled.	

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29. Hydraulic Power

Sequence No.	Item	1	2	3	4	Change Bar
2900-01	Utility Hydraulic System Two-Stage Hand Pump	C	1	0	May be inoperative provided Electrical Pump for Utility System Hydraulic Accumulator (EPUSHA) is operative. NOTE: To ensure battery power is available to start APU, the number of EPUSHA operations should not exceed five. The actual number of operations will depend on battery condition, temperature, and pump condition.	
2900-02	Electrical Pump for Utility System Hydraulic Accumulator (EPUSHA)	C	1	0	(M) May be inoperative provided: <ol style="list-style-type: none"> a) Two-Stage Hand Pump is operative, and b) Circuit breaker is deactivated and secured. 	

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30. Ice and Rain Protection

Sequence No.	Item	1	2	3	4	Change Bar
3030-01	Pitot Heater System	B	2	1	(O) One May be inoperative provided: a) RFM procedures are followed, b) OAT is greater than +5 °C (41 °F), and c) There is no visible moisture.	
3030-02	AFCS Yaw Ports Heater System	C	2	1	One may be inoperative provided: a) OAT is greater than +5 °C (41 °F), and b) There is no visible moisture.	
3040-01	Windshield Wiper System	C	2	0	(O) Both may be inoperative provided takeoff and landing operations are not conducted in precipitation.	
		C	2	1	(O) One may be inoperative provided the Windshied Heater on the Pilot Flying (PF) side is operative.	
3040-02	Windshield Heated Panels	C	3	1	(O) Two may be inoperative provided the Windshield Heat and Wiper on the Pilot Flying (PF) side is operative.	

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31. Instruments

Sequence No.	Item	1	2	3	4	Change Bar
3120-01	Clock	D	-	0	May be inoperative.	
3120-02	Elapsed Timer	C	-	0	May be inoperative provided Clock is operative.	
3120-03	Hour Meter	C	-	0	(O) May be inoperative provided flight time is tracked by alternate means.	
3150-01	Heater Overheat Warning Light	C	1	0	(M) May be inoperative provided: <ol style="list-style-type: none"> a) Cockpit ventilation is available, b) Blower is not necessary for flight, and c) Cabin Heater is deactivated and secured. 	

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32. Landing Gear

Sequence No.	Item	1	2	3	4	Change Bar
3200-01	Power Steering System	C	1	0	(M)(O) May be inoperative provided: a) Swivel locks are operative and gear is in lock position, b) Flight is not predicated on ground taxi, and c) OEI vertical landing is capable. NOTE: Cycling the heater blower may disable the power steering control.	
3200-02	Swivel Locks	C	2	0	(O) May be inoperative provided: a) Power steering is operative, and b) Flight is not predicated on ground taxi.	

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33. Lights

Sequence No.	Item	1	2	3	4	Change Bar
3300-01 *** (PL-127)	NVG Compatible Lighting System	C	-	-	Unaided operation (without NVGs) may be permitted with inoperative NVG supplemental lights; cracked or missing filters; provided the remaining lights are: <ul style="list-style-type: none"> a) Sufficient to clearly illuminate all required instruments, controls, and other devices for which they are provided, b) Positioned so that direct rays are shielded from flightcrew members' eyes, and c) Lighting configuration and intensity is acceptable to the flightcrew. 	
3310-01 (PL-77)	Cockpit/Flight Deck/ Flight Compartment and Instrument Lighting System(s)	C	-	-	Individual lights may be inoperative provided: <ul style="list-style-type: none"> a) Remaining Lighting Systems are sufficient to clearly illuminate all required instruments, controls, and other devices for which they are provided, b) Remaining Lighting Systems are positioned so that direct rays are shielded from flightcrew members' eyes, and c) Lighting configuration and intensity is acceptable to the flightcrew. 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 filters.	

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TABLE KEY

- 5. REPAIR CATEGORY
- 6. NO. INSTALLED
- 7. NO. REQUIRED FOR DISPATCH
- 8. REMARKS OR EXCEPTIONS

33. Lights

Sequence No.	Item	1	2	3	4	Change Bar
3320-01	Cabin Lighting Systems	D	1	0	May be inoperative provided: a) Inoperative lights do not exceed 50% of the total installed for night operations, and b) May be inoperative for other than night operations.	
3340-01	Search Light	D	2	0	May be inoperative provided operations do not require it use.	
3340-02	Landing Light	C	2	1	Any in excess of those required by 14 CFR may be inoperative.	
3340-03	Position lights	C	1	0	As required by 14 CFR.	
3340-04	Anticollision Light System	C	-	1	As required by 14 CFR.	
3340-05 ***	Strobe Light System	D	-	-	May be inoperative provided operations do not require its use.	
3340-06 ***	Pulse Lighting System	D	2	0	May be inoperative provided operations do not required its use.	

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4. REMARKS OR EXCEPTIONS

34. Navigation

Sequence No.	Item	1	2	3	4	Change Bar
3412-01	Free Air Temperature (FAT) Indicator	D	1	0	May be inoperative if the Electronic Control Units (ECU) are installed.	
3413-01	Vertical Speed Indicator	C	2	0	May be inoperative.	
3414-01	Airspeed Indicator	B	2	1	One may be inoperative provided operative airspeed indicator is on the Pilot Flying (PF) side.	
3416-01	Altimeter (Sensitive)	B	2	1	One may be inoperative provided operative altimeter is on the Pilot Flying (PF) side.	
3416-02	Altitude Encoding System	C	1	0	As required by 14 CFR.	
3421-01	Gyroscopic Attitude Indicating System	D	2	0	May be inoperative.	
3422-01	Gyroscopic Direction Indicating System	D	2	0	May be inoperative.	
3424-01	Rate-of-Turn Indicating System	D	2	0	May be inoperative.	
3434-01	Marker Beacon	D	-	0	May be inoperative.	
3444-01 ***	Radio Altimeter	D	-	0	May be inoperative provided: <ol style="list-style-type: none"> a) Pilot is aware of potential degraded AP performance on ILS GS or LPV vertical, b) Night operation is not performed with NVGs, and c) Operating requirements do not require its use. 	

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4. REMARKS OR EXCEPTIONS

34. Navigation

Sequence No.	Item	1	2	3	4	Change Bar
3452-01 (PL-76)	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 14 CFR	D	-	1	Any in excess of those required by 14 CFR 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 next scheduled maintenance visit.	
3452-02 (PL-105) ***	Automatic Dependent Surveillance-Broadcast (ADS-B) System	C	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) It is not required by 14 CFR. NOTE: If ADS-B function that operates normally may be used.	
		D	-	0	May be inoperative provided: a) Enroute operations do not require its use, and b) It is not required by 14 CFR. NOTE: If ADS-B function that operates normally may be used.	
		C	-	1	One may be inoperative as required by 14 CFR. NOTE: If ADS-B function that operates normally may be used.	
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34. Navigation

Sequence No.	Item	1	2	3	4	Change Bar
3452-02 (PL-105)	Automatic Dependent Surveillance-Broadcast (ADS-B) System (Cont'd)					
***	ADS-B OUT Extended Squitter Transmissions	C	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, b) Authorization is obtained from ATC facilities having jurisdiction over planned route of flight, and c) It is not required by 14 CFR. NOTE: If ADS-B function that operates normally may be used.	
		C	-	1	One may be inoperative as required by 14 CFR. NOTE: If ADS-B function that operates normally may be used.	
***	ADS-B OUT UAT Transmissions	C	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, b) Authorization is obtained from ATC facilities having jurisdiction over planned route of flight, and c) It is not required by 14 CFR. NOTE: If ADS-B function that operates normally may be used.	
		C	-	1	One may be inoperative as required by 14 CFR. NOTE: If ADS-B function that operates normally may be used.	

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34. Navigation

Sequence No.	Item	1	2	3	4	Change Bar
3452-02 (PL-105)	Automatic Dependent Surveillance-Broadcast (ADS-B) System (Cont'd)					
***	ADS-B In Transmissions	C	-	0	(O) May be inoperative provided alternate procedures are established and used. NOTE: If ADS-B function that operates normally may be used.	
		D	-	0	May be inoperative provided operations do not require its use. NOTE: If ADS-B function that operates normally may be used.	
3454-01 ***	VOR System	D	-	0	May be inoperative provided operations do not require its use.	
3457-01	GPS System	D	-	0	May be inoperative provided operations do not require its use.	
3457-02 ***	Automatic Flight Following System	D	-	0	May be inoperative.	

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34. Navigation

Sequence No.	Item	1	2	3	4	Change Bar
3461-01 (PL-98)	Navigation Database	A	-	0	May be inoperative provided: <ul style="list-style-type: none"> a) Operations do not require its use, b) It is not used in a primary navigation system required by 14 CFR, c) Alternate procedures are developed and used, d) The ICAO Flight Plan is updated (as required) to notify ATC of the navigation equipment status of the aircraft, and e) Is repaired within ten (10) flight-days. NOTE: An out-of-currency or out-of-date navigation database is not authorized MMEL relief per 14 CFR.	

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62. Main Rotor

Sequence No.	Item	1	2	3	4	Change Bar
6240-01	Rotor RPM (RRPM) Indicator	C	2	1	One may be inoperative provided operative RRPM is on the Pilot Flying (PF) side.	
6240-02	Cruise Guide Indicator	C	1	0	(O) May be inoperative provided Longitudinal Cyclic Trim System (LCT) inoperative procedures are followed in Abnormal operations per RFM.	

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77. Engine Indicating

Sequence No.	Item	1	2	3	4	Change Bar
7700-01	Engine Fuel Flow Indicator	B	-	0	May be inoperative provided respective Fuel Quantity Indicator is operative.	
7710-01	Torque Indicating System	B	2	1	(O) One may be inoperative provided: a) N ₁ and Power Turbine Inlet Temperature (PTIT) Indicating System are operative, and b) Refer to RFM Digital Electronic Control Units (DECU/ECU) fault code list to determine aircraft dispatch, operations, and recording requirements.	
7714-01	N ₁ Indicating System	B	2	1	(O) One may be inoperative provided: a) Respective Torque and PTIT Indicating System are operative, and b) Refer to RFM DECU/ECU fault code list to determine aircraft dispatch, operations, and recording requirements.	
7714-02	Power Turbine Inlet Temperature (PTIT) Indicating System	B	2	1	(O) One may be inoperative provided: a) Engine Monitoring System and N ₁ Indicating System are operative, and b) Refer to RFM DECU/ECU fault code list to determine aircraft dispatch, operations, and recording requirements.	