MARITIME HELICOPTERS

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BELL 412 SERIES

MINIMUM EQUIPMENT LIST

Revision 5
01/30/21

LOG OF REVISIONS

REV.NO.	DATE	PAGE NUMBERS	INITIALS
Original	12/01/2015	All Pages Original Issue	SDS
1	8/01/2017	1-4, 10 thru 34-3, 45-1 thru 79-1	SDS
2	6/01/2018	24-1	SDS
3	9/15/2019	1, 2, 4, 52-1	SDS
4	5/15/2020	1, 2, 4, 10,18-1	SDS
5	01/30/2021	1-4, 12	SDS

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Developed from FAA MMEL 212, 412, 412CF, 412EP Rev. 9 05/08/2017

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DEFINITIONS

1. System Definitions.

2. Not Required

3. ATA System Page. The ATA system page is divided into four (4) columns and contains: item and repair category; number installed; number required for dispatch; and remarks or exceptions. Standard ATA categories are used. Items are numbered sequentially.

   A. Item. This column depicts the equipment, system, component, or function listed in the “Item” column.

   B. Repair Category. See definition #24.

   C. Number Installed. This column depicts the number (quantity) of instrument and equipment items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MEL. Should the number be a variable (e.g., fleet configuration differences, cockpit lighting items, cabin lighting items, cargo restraint components) a number is not required and the “-” symbol is used.

   D. Number Required for Dispatch. This column depicts the minimum number (quantity) of instrument and equipment items required for operation provided the conditions specified in the “Remarks or Exceptions” column are met. Where the MEL shows a variable number required for dispatch, the MEL must reflect the actual number required for dispatch or an alternate means of configuration control approved by the Administrator.

   E. Remarks or Exceptions. This column may include a statement(s) either prohibiting or permitting operation with a specific number of instrument and equipment items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.

   F. Provisos. Provisos are indicated by a number or a lower case letter in “Remarks or Exceptions”. Provisos are conditions or limitations that must be complied with for operation with the listed instrument or equipment item inoperative.

   G. Notes. Notes provide additional information for crewmember or maintenance consideration. Notes are used to identify applicable material, which is intended to assist with compliance, but do not relieve the aircraft operator of the responsibility for compliance with all applicable requirements. Additional notes may be amended, deleted, or added to the MEL by the aircraft operator, as appropriate. Notes are not a part of the provisos.

   H. Vertical Bar (change bar). A vertical bar indicates a change, addition, or deletion in the adjacent text for the current revision of that page only. All change bars applicable to the previous revision of the MEL are removed prior to the release of the next revision.

4. Rotorcraft Flight Manual (RFM). The FAA-approved RFM is the document approved by the responsible FAA Aircraft Certification Office (ACO) during type certification. The approved flight manual for the specific aircraft is listed on the applicable Type Certificate Data Sheet (TCDS). The approved flight manual is the source document for operational limitations and performance parameters for an aircraft. The term “approved flight manual” can apply to either an AFM or an RFM. The FAA requires an approved flight manual for aircraft type certification.

5. Not Used.

6. Code of Federal Regulations (CFR) and Federal Aviation Regulations (FAR). CFR, the current term, and FAR both refer to the applicable portions of the Federal Aviation Act and Code of Federal Regulations.

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

8. Continuing Authorization – Single Extension. An aircraft operator who has the authorization to use an FAA approved MEL may also have the authority to use a continuing authorization to approve a single (one-time) extension to the repair interval for category B or C items in accordance with Operations Specification D095. Continuing Authorization – Single Extension is not authorized for repair category A and D items.

9. Dash (-). Indicates a variable number (quantity) of the instrument and equipment items may be installed or required for dispatch. This is common when a fleet MEL is used since aircraft of the same make and model may have differing numbers of specific instrument and/or equipment items installed.

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

11. Deactivated and/or Secured. When the MEL refers to an instrument and/or equipment item as deactivated and/or secured, the specified component must be put into an acceptable condition for safe flight. An acceptable method of deactivating and/or securing will be established by the aircraft operator.

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

13. Not required.

14. Excess Items. Excess items are those instrument and equipment items that have been installed that are redundant to the requirements of the 14 CFR.

15. Flight Day. A flight-day is a 24-hour period (from midnight to midnight) either universal coordinated time (UTC) or local time, as established by Maritime Helicopters, during which at least one flight is initiated for the affected aircraft.

16. Not required.

17. Icing Conditions. An atmospheric environment that may cause ice to form on the aircraft (structural) or in the engine(s) (induction).

18. Inoperative. A system and/or component malfunction to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within its approved operating limit(s) and/or tolerance(s).

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

20. Is Not Used. The phrase “Is Not Used” in the provisos, remarks or exceptions for an MEL instrument or equipment item may specify that another item in the MEL “is not used”. In such cases, crewmembers must not activate, actuate, or otherwise utilize that item under normal operations. It is not necessary for aircraft operators to accomplish the (M) procedure(s) associated with the item. However, (O) operational requirements must be complied with, and an additional placard must be affixed, to the extent practical, adjacent to the control or indicator for the item that is not used. This informs crewmembers that an instrument or equipment item is not to be used under normal operations.

21. Nonessential Equipment and Furnishings (NEF). NEFs are those items installed on the aircraft as part of the original type certification (TC), STC, engineering order, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that, if inoperative, damaged, or missing, have no effect on the aircraft's ability to be operated safely under all operational conditions. NEF items are not instrument and equipment items already identified in the MEL or CDL of the applicable aircraft. They do not include instrument and equipment items that are functionally required to meet the certification rule or for compliance with any operational rule.

22. Operative. An operative system and/or component will accomplish its intended purpose and is consistently functioning normally within its design operating limit(s) and tolerance(s). When an MEL item specifies that an item of equipment must be operative, it does not mean that it's operational status must be verified; it's to be considered operative unless reported or known to be malfunctioning. When an MEL item specifies that an item of equipment must be verified operative, it means that it must be checked and confirmed operative at the interval(s) specified for that MMEL item. When an MEL item specifies that an item of equipment must be verified but no interval is specified, verification is required only at the time of deferral.

23. Placarding. Each inoperative instrument or equipment item must be placarded to inform and remind the crewmembers and maintenance personnel of the item condition. To the extent practical, placards should be located adjacent to the control or indicator for the item affected; however, unless otherwise specified (i.e. AFM), placard wording and location will be determined by the aircraft operator.

24. Repair Category. All users of an MEL approved under parts 91K, 121, 125, 129, 135, and 142 must effect repairs of inoperative instrument and equipment items, deferred in accordance with the MEL, at or prior to the repair times established by the following letter designators. Part 91 MEL users (D095/D195 LOAs) are not required to comply with the repair categories, but will comply with any provisos defining a repair interval (flights, flight legs, cycles, hours, etc):

    A. Repair Category A. This category item must be repaired within the time interval specified in the "Remarks or Exceptions" column of the aircraft operator's approved MEL. For time intervals specified in "calendar days" or "flight days", the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (i.e., flights, flight legs, cycles, hors, etc.), repair tracking begins at the point when the malfunction is deferred in accordance with the operator's approved MEL.

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

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

    D. Repair Category D. This category item must be repaired within 120 consecutive calendar-days (2880 hours) excluding the day the malfunction was recorded in the aircraft maintenance record/logbook.

25. Takeoff. Takeoff is the act of beginning a flight in which an aircraft is accelerated from a state of rest to that of flight. For the purposes of MEL relief, this translates to the point at which the pilot physically begins to apply power to initiate the takeoff from the runway or takeoff surface.

26. Not Used.

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

28. Visual Flight Rules (VFR). VFR is as defined in 14 CFR Part 91. This precludes a pilot from filing an Instrument Flight Rules (IFR) flight plan.

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

30. (M). This symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally, these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment, should be accomplished by maintenance personnel. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the aircraft operator. Appropriate procedures are required to be produced as part of the aircraft operator's manual or MEL.

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

32. Electronic Fault Alerting System. New generation aircraft display system fault indications to the flight crew by use of computerized display systems. Aircraft manufacturers incorporate individual design philosophies when determining the data that is represented. The following are customized definitions (specific to each manufacturer) to help determine the level of messages affecting the aircraft's dispatch status.

A. NO CUSTOMIZED DEFINITIONS OF FAULT ALERTING ARE APPLICABLE TO THE BELL MODEL 412 SERIES AIRCRAFT.

PREAMBLE
(Effective 6/14/89)

The following is applicable for authorized certificate holders operating under Title 14 Code of Federal Regulations (14 CFR) Parts 121, 125, 129, 135: 14 CFR require that all equipment installed on an aircraft in compliance with the Airworthiness Standards and the Operating Rules must be operative. However, the Rules also permit the publication of a Minimum Equipment List (MEL) where compliance with certain equipment requirements is not necessary in the interests of safety under all operating conditions. Experience has shown that with the various levels of redundancy designed into aircraft, operation of every system or installed component may not be necessary when the remaining operative equipment can provide an acceptable level of safety.

A Master Minimum Equipment List (MMEL) is developed by the FAA, with participation by the aviation industry, to improve aircraft utilization and thereby provide more convenient and economic air transportation for the public. The FAA approved MMEL includes those items of equipment related to airworthiness and operating regulations and other items of equipment which the Administrator finds may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations; it does not contain obviously required items such as wings, flaps, and rudders. The MMEL is the basis for development of individual operator MELs which take into consideration the operator's particular aircraft equipment configuration and operational conditions. Operator MELs, for administrative control, may include items not contained in the MMEL; however, relief for administrative control items must be approved by the Administrator. An operator's MEL may differ in format from the MMEL, but cannot be less restrictive than the MMEL. The individual operator's MEL, when approved and authorized, permits operation of the aircraft with inoperative equipment. Equipment not required by the operation being conducted and equipment in excess of 14 CFR requirements are included in the MEL with appropriate conditions and limitations. The MEL must not deviate from the Aircraft Flight Manual Limitations, Emergency Procedures or with Airworthiness Directives. It is important to remember that all equipment related to the airworthiness and the operating regulations of the aircraft not listed on the MMEL must be operative.

Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures and other restrictions as necessary are specified in the MEL to ensure that an acceptable level of safety is maintained.

The MEL is intended to permit operation with inoperative items of equipment for a period of time until repairs can be accomplished. It is important that repairs be accomplished at the earliest opportunity. In order to maintain an acceptable level of safety and reliability the MMEL establishes limitations on the duration of and conditions for operation with inoperative equipment.

The MEL provides for release of the aircraft for flight with inoperative equipment. When an item of equipment is discovered to be inoperative, it is reported by making an entry in the Aircraft Maintenance Record/Logbook as prescribed by 14 CFR. The item is then either repaired or may be deferred per the MEL or other approved means acceptable to the Administrator prior to further operation. MEL conditions and limitations, do not relieve the operator from determining that the aircraft is in condition for safe operation with items of equipment inoperative. When these requirements are met, an Airworthiness Release, Aircraft Maintenance Record/Logbook entry, or other approved documentation is issued as prescribed by 14 CFR. Such documentation is required prior to operation with any item of equipment inoperative.

Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. When operating with multiple inoperative items, the interrelationships between those items and the effect on aircraft operation and crew workload will be considered. Operators are to establish a controlled and sound repair program including the parts, personnel, facilities,
procedures and schedules to ensure timely repair.

WHEN USING THE MEL, COMPLIANCE WITH THE STATED INTENT OF THE PREAMBLE, DEFINITIONS, AND THE CONDITIONS AND LIMITATIONS SPECIFIED IN THE MEL IS REQUIRED.

MEL PROCEDURES

General

MEL procedures are to be followed by the Maritime Helicopters flight and maintenance personnel in the use of this Minimum Equipment List (MEL). This document must be reviewed and approved by the FAA FSDO.

It is the pilot in command's responsibility to become thoroughly familiar with Maritime Helicopters policies and procedures concerning the use of MEL's. All items related to the airworthiness of the aircraft not included in the MEL are required to be fully and properly operative.

If the MEL remarks require a maintenance procedure, that procedure must be accomplished and recorded in accordance with CFR Sections 43.9, 91.405 and 135.411 prior to flight. Maritime Helicopters will ensure that all discrepancies are recorded in the aircraft log book.

When inoperative items are noted, the pilot or maintenance personnel will record it in accordance with CFR Section 43.9 and enter it in the **DISCREPANCY** column of the aircraft log book. If the inoperative item is allowed by the MEL, it will be deferred by an entry in the **CORRECTIVE ACTION** column of the aircraft log book, with the MEL Code and a statement acknowledging MEL approval to include applicable remarks;

DISCREPANCY	ATA/MEL	CORRECTIVE ACTION
1) Landing light inop (Name, Cert #)	3340-05	1) Landing light MEL'd I/A/W MHI Bell 412 MEL, aircraft
		restricted to day operations only. Discrepancy transcribed
		to the MEL Discrepancy and Deferral Report.
		(Date, Acft TT, Name, Cert#)

Discrepancies are then transcribed to the MEL Discrepancy and Deferral Report, located on the back side of the front page of the aircraft log book. They must be corrected no later than the period specified by the letters (A, B, C, D). As soon as practical after discovering the failure, Maritime Helicopters shall make arrangements at the home base or at a suitably equipped repair facility to accommodate the repairs within the limitations if the aircraft is to be kept in service.

When the discrepancy is corrected, the person performing the maintenance will record/transcribe the initial entry from the MEL Discrepancy and Deferral Report back into the aircraft's current log book page as a **DISCREPANCY.** Then under the **CORRECTIVE ACTION,** enter *how* is was rectified such as repaired, replaced, etc. The correction entry will also be recorded on the MEL Discrepancy and Deferral Report to include date, time and aircraft log page number, thus closing out the MEL item. If there are any open MEL discrepancies when changing log books, they must be carried forward

NOTE: Any item which is inoperative, but required by special flight conditions, must be repaired before operating in those conditions.

If any item failure occurs after engine start, but prior to take-off the pilot shall review the MEL procedure to determine if the item can be MEL'd and if not shall contact maintenance to have the item repaired.

The aircraft log book and MEL Discrepancy and Deferral Report must be on board the aircraft during flight operations so the pilot in command will be aware of any inoperative instruments or equipment. It is incumbent on the PIC to review the MEL Discrepancy and Deferral Report before accepting an aircraft for flight, ensuring the aircraft does not depart with expires deferrals. Maritime aircraft are not authorized to depart with any expired deferrals.

The operator or PIC shall ensure that the proper aircraft log book entries are made by maintenance personnel when appropriate such as **(M)** procedures. The PIC or Maintenance personnel shall ensure the proper placards are affixed per the MEL as applicable.

The Pilot-in-Command (PIC) shall make the final decision to defer based on:

a. This minimum equipment list.
b. All applicable Federal Aviation Regulations.
c. All applicable Airworthiness Directives.
d. Good judgment.
e. Input from maintenance personnel, when applicable.

Placards

The PIC or maintenance personnel shall affix the required placard. Remove a red sticker from the envelope inside the aircraft log CAN and attach to or near the affected control of the inoperative item. Date the sticker with the current day's date and MEL Item # and System number.

Duties and Responsibilities

- The pilot or mechanic is responsible for the discovery and initiation of all MEL requests and notification to either the Fairbanks Maintenance Lead or the Chief Inspector.
- The Chief Inspector will be responsible for of all MEL items, status of parts and repair processes.
- The Director of Maintenance shall retain overall responsibility for MEL management. Additionally, the DOM shall be responsible for any changes required for this manual and shall work with the local FSDO for approval.

Method of Tracking

MEL discrepancies shall be tracked by the Chief Inspector for all company aircraft. This will include number of items per aircraft, reason for any delays, length of delay and an estimated date item will be repaired.

For all aircraft that report to the Fairbanks, MEL items and a Plan for Repair will be discussed with the Fairbanks Maintenance Lead. For aircraft that report to the Homer Base, the Chief Inspector shall be notified of MEL items and a Plan for Repair discussed.

NOTE: It is the responsibility of the Fairbanks Maintenance Lead to keep the Chief Inspector informed of MEL status on FAI assigned aircraft via daily status report, phone or email for the Chief Inspector to track.

Plan for Repair

MEL deferrals that cannot be corrected by simple part(s) replacement, a Plan for Repair shall be discussed with either the Fairbanks Maintenance Manager or Chief Inspector who will then assist in making arrangements for specialized tooling and/or facilities to correct the discrepancy.

Unavailability of Parts

If parts are not on hand, they must be ordered with the quickest possible shipping method that will have the part arrive and be able to installed prior to the end of the allowed deferral timeframe. If a vendor indicates there will be any delay in filling an order, an expected delivery date shall be requested, tracked and noted in the Plan for Repair.

Procedure for Controlling Extensions

In some situations, MEL items may not be rectified prior to the allotted Category time, due to possible parts delays, specialized tooling or access to suitable repair facilities. In these instances, a MEL extension request shall be sent to the Flight Standards District Office Certificated Team responsible for Maritime Helicopters. Included in the request shall be the reason for the delay and a revised Plan of Action to correct the discrepancy.

Extension requests shall be submitted PRIOR to the MEL expiration and in the form of an email. A reply with FAA approval must be received before deferrals may be extended. Approvals shall be recorded and tracked along with the MEL Plan of Repair.

Manual Revision and Control

The Director of Maintenance is responsible for the content of this manual and any revisions. This manual requires FAA approval prior to release. Revisions to this manual must be routed MHI internal and FAA acceptance prior to distribution. This manual cannot be published or distributed to end users prior to formal submission to and approval by the FAA indicated by signature(s) on the Control Page(s).

Changes made to this manual will be indicated throughout by change bars. A vertical bar (change bar) in the right margin indicates a change, addition, or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next revision of that page. The effected paged will also be annotated by updating the revision level and date in the top right-hand corner. The Control Page(s) and Log of Revisions will also be updated as required.

The Director of Maintenance shall submit the proposed revision in electronic PDF format to the Federal Aviation Administration (FAA) for review and approval. Should a proposed revision be found unacceptable by the FAA, the Director of Maintenance will immediately withdraw the proposed revision and decide whether to further revise and resubmit to the FAA

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS

18. HELICOPTER VIBRATION						
1820-01	Vibration Monitor (BHVM) Kit and Altair Engine Trend Monitor System (412, 412EP) (N330MH)	**C**	**1**	**0**	May be inoperative	

JASC CODE & ITEM NO.	COMPONENT DESCRIPTION	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS	
21. AIR CONDITIONING						
2121-01	Pilots Vent Blower	**C** **C**	**1** **0**	**0** **0**	May be inoperative provided Heated Windshield is installed and operative. **(Not Installed on Maritime aircraft)**	
2121-02	Co-Pilot Vent Blower	**C** **C**	**1** **0**	**0** **0**	May be inoperative provided Heated Windshield (Item 3040-02) is installed and operative, OR **(Not Installed on Maritime aircraft)**	
2121-03	Instrument Fans *412EP (EPI Configuration) The term 412EP (EPI Configuration) is for 412EP SN 37002 thru 37999 or STC SR09600RC incorporated.	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2121-04	Instrument Fans (412EP with EFIS Kit 412-705-009)	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2121-05	Display Unit (DU) Fans *412EP (EPI Configuration)	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2121-06	Avionics Fan *412EP (EPI Configuration)	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2121-07	AHRS Fan (Compartment Fan) *412EP	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2140-01	Bleed Air Heater	**C**	**1**	**0**	May be inoperative above +5°C (41°F), outside air temperature provided Pilot's Cockpit Vent Blower is operative.	
2150-01	Bleed Air Cooling System **(212)**	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2150-02	Freon Cooling System	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**	

JASC CODE & ITEM NO.	COMPONENT DESCRIPTION	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS
22. AUTO FLIGHT					
2200-01 (PL-101)	Transport Category Aircraft with Only One Autopilot Installed	**B**	**1**	**0**	May be inoperative where operations do not require its use.
	Transport Category Aircraft with Two or More Autopilots Installed	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**
2210-01	Automatic Flight Control System (AFCS)	**C**	**1**	**0**	May be inoperative for VFR provided RFM limitations are complied with.
2210-02	4-Axis Collective/Yaw Trim **(412 EP)**	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**

JASC CODE & ITEM NO.	COMPONENT DESCRIPTION	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS	
23. COMMUNICATIONS						
2300-01	Communications Systems (FM)	**D**	**1**	**0**	May be inoperative, damaged or missing. **NOTE:** Turn off affected radio and place MEL sticker on unit.	
2310-01 (PL-106)	High Frequency (HF) Communications Systems	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2311-01 (PL-95)	Communications Systems (UHF)	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2312-01 (PL-95)	Communications Systems (VHF)	**D**	**2**	**1**	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**	**0**	**(Not Installed on Maritime aircraft)**	
	b) Frequency Transfer Switch	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
	c) Frequency Selector Knob	**C**	**2**	**1**		
	d) Frequency Indication	**C**	**2**	**1**		
2340-01	Crew Inter Communication System (ICS) without "**EMERG COM**" function	**B**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2340-02	Crew Inter Communication System (ICS) with "**EMERG COM**" function	**B**	**2**	**1**	Co-Pilots station ICS may be inoperative for single pilot VFR & IFR operations.	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS
23. COMMUNICATIONS					
2340-03 (PL-09)	Passenger Announcement (PA) Cabin Public Address System				
1)	Passenger Configuration (Including Pre-recorded Passenger Announcement System)	**B**	**0**	**0**	**(Not Installed on Maritime aircraft)**
2)	Cargo Configuration	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**
2340-04	External Loud Speaker	**D**	**1**	**0**	May be inoperative provided deactivated/secured
2370-01 (PL-29)	Cockpit Voice Recorder (CVR) With Flight Data Recorder (FDR) installed	**A**	**0**	**0**	**(Not Installed on Maritime aircraft)**
	Independent Power Source	**C**	**0**	**0**	
	Cockpit Voice Recorder (CVR) (Aircraft Without Flight Data Recorder installed	**A**	**1**	**0**	May be inoperative provided repairs are made within three flight days.
	Independent Power Source	**C**	**0**	**0**	**(Not Installed on Maritime aircraft)**
	Cockpit Voice Recorder (CVR) (For an operator other than a Holder of an Air Carrier or Commercial Operator Certificate)	**A**	**0**	**0**	**N/A**
	Independent Power Source	**C**	**0**	**0**	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS

24. ELECTRICAL POWER						
2422-01	Inverter 212 (30504 thru 30553)	**B**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
	212 (30554 thru 31311, and 35001 thru 35108)	**B**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
	(**412, 412CF, 412EP**)	**B**	**2**	**1**	One may be inoperative for VFR other than Night, provided both Starter/Generators are operative.	
2435-01	Starter/Generator	**B**	**2**	**1**	The Generator function of one Starter/Generator, may be inoperative for VFR other than Night, provided: **a)** All Inverters are operative, and **b)** Starter/Generator check for security of mounting and burned or arced connections in the area. **(M)** A maintenance technician will ensure no evidence of damage, electrical short, or hazards exist, and ensure starter mode is operational by temporarily activating starter button.	

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JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
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					4. REMARKS & EXCEPTIONS

25. EQUIPMENT/FURNISHINGS						
2500-01 (PL-116)	Non-essential Equipment and Furnishings (NEF) Items	**-**	**-**	**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 Maritime Helicopters NEF manual. **(M)(O)** Procedures, if required, must be available to the flight crew and included in the operator's appropriate document.	
2500-02	Glaresheild	**D**	**1**	**0**	May be inoperative provided operations do not require its use.	
2500-03	GPS Receiver Gimbal Mount (Garmin GPSMAP 296/396/496)	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2500-04	Cable Cutters Kit	**D**	**1**	**0**		
2500-05	Forward Looking Infra-Red (FLIR) System	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2500-06	Sonic Underwater Locator Beacon (ULB)	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2500-07 (PL-125)	Printed Supplemental Safety Information	**C**	**-**	**0**	May be missing or inoperative, provided; **a)** No passengers are carried. and **b)** Alternate procedures are established and used. **(O)** Pilot shall brief the passenger(s) regarding alternate normal and emergency procedures to be used. The Pilot briefing must include any appropriate operating restrictions.	
2510-01	Crew member Shoulder Harness (Cockpit)	**B**	**2**	**1**	Must be operative if seat is occupied.	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS
25. EQUIPMENT/FURNISHINGS					
2520-01 (PL-79)	Passenger seats	**D**	**-**	**0**	One or more may be inoperative provided; each occupied seat. **a)** Seat(s) does not block an Emergency Exits, **b)** Seat does not restrict any passenger from access to the main aircraft isle, and. **c)** The affected seat(s) are blocked with tape and placarded “DO NOT OCCUPY” **NOTE:** Left seat (Co-Pilots seat) is considered a passenger seat for single pilot operations **NOTE 1:** A seat with an inoperative seat belt is considered inoperative. **NOTE 2:** A seat with an inoperative or missing occupant restraint system (seat belt, shoulder harness, etc.), is considered inoperative. **NOTE 3:** Affected seats may include the seat(s) behind and/or adjacent outboard seats.
	1) Recline Mechanism	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**
	2) Armrest	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**
2520-02	Passenger Seat Belts and/or Shoulder Harnesses	**D**	**-**	**0**	May be inoperative provided; **(O)** The seat is blocked with tape and placarded “DO NOT OCCUPY”
2520-03	Helicopter Air Ambulance (HAA) Equipment	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**
2550-01	Cargo Suspension System	**D**	**1**	**0**	May be inoperable, damaged, or missing provided system is deactivated and secured. **(M)** Ensure system is deactivated and secured by pulling and collaring the suspension system circuit breaker. No Class B loads allowed

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
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25. EQUIPMENT/FURNISHINGS					
2550-02	Hoist System	**D**	**1**	**0**	May be inoperable, damaged, or missing provided system is deactivated and secured. **(M)** Ensure system is deactivated and secured by pulling and collaring the suspension system circuit breaker.
2550-03 (PL-100)	Cargo Restraint System	**C**	**1**	**0**	May be inoperable, damaged, or missing provided cargo compartment remains empty.
2560-01	Personal Flotation/Survival Equipment	**D**	**-**	**0**	Except for takeoff and landing, no overwater operations allowed beyond autorotational distance of land. NOTE: See 3212-01 for aircraft equipment
2560-02	First Aid Kit (FAK) and/or Associated Equipment	**D**	**-**	**0**	
2562-01 (PL-120)	Emergency Locator Transmitter (ELT)				
	Survival Type ELT	**D**	**-**	**0**	**(Not Installed on Maritime aircraft)**
	Fixed ELT	**A**	**1**	**0**	May be inoperative provided; **a)** System is deactivated, and **b)** Repairs are made within 90 days. **(M)** Remove ELT and placard “ELT not installed” in plain view of flight crew.
		A	**1**	**0**	May be missing provided repairs are made within 90 days.
		D	**0**	**0**	**(Not Installed on Maritime aircraft)**
		D	**0**	**0**	**(Not Installed on Maritime aircraft)**

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
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25. EQUIPMENT/FURNISHINGS						
2562-02 ***	Automatically Deployable Emergency Locator Transmitter	**D**	**0**	**0**	**(Not Installed on Maritime aircraft)**	
2562-03	ELT Remote Switch	**D**	**-**	**0**	May be inoperative ELT transmitter must be armed and functional. **(M)** Unplug remote switch from ELT, stow and secure	
2570-01	Heli-Preheat System	**C**	**1**	**0**	May be inoperative provided system is deactivated/secured.	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS
26. FIRE PROTECTION					
2611-01	Cargo/Baggage Smoke Detector System	**C**	**1**	**0**	May be inoperative if compartment is empty
2622-01 (PL-75)	Portable fire extinguisher	**D**	**-**	**1**	Any in excess of one (1) 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. **b)** Required weight & balance is maintained.

JASC SYSTEM & TITLE		1. REPAIR CATEGORY				
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED			
				3. NUMBER REQUIRED FOR DISPATCH		
					4. REMARKS & EXCEPTIONS	
28. FUEL						
2800-01	External Auxiliary Fuel System	**C**	0	**0**	**(Not Installed on Maritime Aircraft)**	I
2841-01	Fuel Quantity Indicator(s)	**B**	**1**	**0**	May be inoperative provided: **a)** Approved alternate preflight gauging method is used to determine total fuel quantity, and **b)** Fuel flow indicating system is operative or flight manual charts are used. **(O)** Pilot shall verify the fuel quantity is full during every refueling and aircraft shall not be operated in excess of two flight hours without topping off.	
2842-01	Fuel Quantity Sensor(s)	**B**	**2**	**1**	May be inoperative provided: **a)** Approved alternate preflight gauging method is used to determine total fuel quantity, and **b)** Fuel flow indicating system is operative or flight manual charts are used. **(O)** Pilot shall verify the fuel quantity is full during every refueling and aircraft shall not be operated in excess of two flight hours without topping off.	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS

29. HYDRAULIC POWER						
2930-01	Hydraulic System Caution Lights	**B**	**2**	**1**	One may be inoperative provided: **a)** Both hydraulic temperature indicators are operative, and **b)** Both hydraulic pressure indicators are operative	
2930-02	Hydraulic Pressure Indicator	**B**	**2**	**1**	One may be inoperative provided: **a)** Both hydraulic system caution lights are operative, and **b)** Hydraulic pressure is evident by control feel and function.	
2930-03	Hydraulic Temperature Indicator	**B**	**2**	**1**	One may be inoperative provided: **a)** Both hydraulic system caution lights are operative, and **b)** Both hydraulic pressure indicators are operative	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
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				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS

30. ICE AND RAIN PROTECTION						
3030-01	Heated Pitot Tube	**B**	**2**	**1**	May be inoperative provided outside air temperature is above 10°C.	
		C	**-**	**0**	May be inoperative for VFR other than Night, provided there is no visible moisture and flight is not conducted in known or forecasted icing conditions.	
		D	**-**	**0**	May be inoperative for VFR other than Night, provided the outside air temperature is above 5°C.	
3030-02	Static Port Heater	**C**	**4**	**3**	One heater may be inoperative provided outside air temperature is above 10°C.	
		C	**4**	**0**	All heaters may be inoperative for VFR other than Night, provided there is no visible moisture and flight is not conducted in known or forecast icing conditions.	
		C	**4**	**0**	May be inoperative for VFR other than Night, provided the outside air temperature is above 5°C.	
3040-01	Windshield Wipers	**D**	**2**	**0**	May be inoperative for VFR provided operations are not conducted in precipitation.	
		C	**2**	**1**	May be inoperative for two pilot operations.	
	1) Low Speed Mode	**C**	**2**	**0**	May be inoperative provided high speed mode is operative.	
	2) High Speed Mode	**C**	**2**	**0**	May be inoperative provided low speed mode is operative.	
3040-02	Heated Windshield	**C**	**2**	**0**	May be inoperative provided: **a)** Blower Fan is operative, and **b)** Defogging vents are not obstructed.	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
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					4. REMARKS & EXCEPTIONS

31. INSTRUMENTS						
3110-01 (PL-121)	Electronic Flight Bag Systems (EFBs)					
	Class C EFB's	**C**	**0**	**0**	Not installed	
	Data Connectivity (Class 2)	**C**	**0**	**0**	Not installed	
	Power Connection (Class 1 and 2)	**C**	**-**	**0**	May be inoperative provided alternate procedures are established and used. **(O)** All company iPads will be fully charged before the first flight of the day. When the iPad charge drops below 50% the aircraft must be landed with 3 hours and the iPad must be recharged	
		D	**-**	**0**	May be inoperative provided procedures do not require its use.	
	Mounting Device (Class 2)	**C**	**0**	**0**	Not installed	
3120-01	Clock	**C**	**2**	**1**	Operative clock must be located on the instrument panel in a position that makes it plainly visible to and usable by any pilot at the pilot's station.	
3120-02	Elapsed Timer	**C**	**1**	**0**	May be inoperative.	
3120-03	Hour meter	**C**	**1**	**0**	May be inoperative provided: **(O)** An alternate means is utilized for recording time in service, and **(O)** All flight time with hour meter inoperative will be recorded and entered in the aircraft logbook, and **(M)** Adjustments to maintenance time will be recorded in the logbook when the hour meter is repaired.	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY				
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED			
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					4. REMARKS & EXCEPTIONS	
31. INSTRUMENTS						
3130-01 (PL-87)	Flight Data Recorder (FDR) Installed for a Holder of an Air Carrier or Commercial Operator Certificate	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3160-01	Display Units (DU) **412EP** (EPI Configuration)	**A**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3160-02	Aircraft Data Interface Unit (ADIU) Channel **412EP** (EPI Configuration)	**A**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS
32. LANDING GEAR					
3211-01	Snow Skis	**D**	**-**	**0**	May be inoperative provided equipment is secured or both snow skis removed, and landings on soft surface (i.e., mud or snow) are not conducted.
3211-02	Bear Paws	**D**	**2**	**0**	May be inoperative provided equipment is secured or both bear paws removed, and landings on soft surface (i.e., mud or snow) are not conducted.
3212-01	Emergency Flotation System **(212, 412, 412EP)**	**C**	**1**	**0**	Unless necessary for take-off or landing, for overwater flight, **a)** Unless necessary for take-off or landing, for overwater flight, aircraft must remain within power-off gliding distance to a suitable forced landing area, OR **b)** For multi-engine operations, aircraft must be operated at a weight, that if the critical engine fails, that will allow it to climb at least 50 feet a minute to an altitude of 1,000 above the surface. **(M)** Install orange dot on float arming switch

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
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33. LIGHTS						
3300-01 (PL-127)	NVG Compatible Lighting System	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3310-01 (PL-77)	Cockpit/Flight Deck/Flight Compartment and Instrument Lighting System	**C**	**1**	**0**	Individual lights may be inoperative provided: **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 annunciations/indications are excluded from this relief. **Note 2**: Unaided operation (without NVGs) may be permitted with inoperative NVG supplemental lights; cracked or missing filters.	
3320-01	Cabin Lighting System	**C** **D**	**-** **-**	**0** **-**	May be inoperative provided inoperative lights do not exceed fifty (50) percent of total installed, for other than night. May be inoperative for VFR, other than night operations.	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY				
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED			
				3. NUMBER REQUIRED FOR DISPATCH		
					4. REMARKS & EXCEPTIONS	
33. LIGHTS						
3320-02 (PL-123)	Passenger Notice System "Fasten Seatbelt/No Smoking"	**C**	**1**	**0**	May be inoperative provided alternate procedures are established and used to notify cabin occupants: **(O)** During the passenger safety briefing the passengers will be briefed that the seatbelts will be on for the duration of the flight and the PIC will let them know when they may remove the seatbelts after landing. Smoking is prohibited at all times.	
3320-03 (PL-125)	Equipment Relief without Passengers	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3330-01	Baggage Compartment Lights	**D**	**1**	**0**	May be inoperative.	
3340-01	Position Light System	**C**	**1**	**0**	May be inoperative for day VFR/IFR operations.	
3340-02	Anti-collision light System	**C**	**1**	**0**	May be inoperative for day VFR operations.	
3340-03	Strobe Light System	**D**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3340-04	Pulse Lights	**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
3340-05	Landing Light System	**C**	**1**	**0**	May be inoperative for day VFR/IFR operations.	
3340-06	Search Light	**D**	**1**	**0**	May be inoperative provided procedures do not require its use.	
3340-07	External Utility (STEP) Lights	**D**	**2**	**0**	May be inoperative for day or alternate lighting (flashlight) is available for night operations.	

JASC CODE & ITEM NO.	COMPONENT DESCRIPTION	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS
33. LIGHTS					
3340-08	Supplemental Lighting System	**D**	**0**	**0**	**(Not Installed on Maritime Aircraft)**
3350-01	Helicopter Emergency Egress Lighting System (HEELS)	**D**	**0**	**0**	**(Not Installed on Maritime Aircraft)**

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS

34. NAVIGATION						
3412-01	OAT/Free Air Temperature Indicator	**C**	**1**	**0**	One may be inoperative provided approved alternate onboard OAT source is installed and operative.	
3412-02	OAT Display System **412EP** (EPI Configuration)	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3413-01	Vertical Speed Indicator	**C**	**2**	**1**	Copilots may be inoperative for single pilot (SP) VFR, provided two pilots are not required by 14 CFR.	
3414-01	Airspeed Indicator	**C**	**2**	**1**	Copilots may be inoperative for single pilot (SP) VFR, provided two pilots are not required by 14 CFR.	
3414-02	Standby Airspeed Indicator	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3416-01	Altimeter	**C**	**2**	**1**	One may be inoperative for VFR.	
3416-02	Standby Altimeter	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**.	
3417-01	Air Data Computer (ADC) *412EP (EPI Configuration	**B**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3421-01	Alternate Static Pressure System	**C**	**-**	**0**	May be inoperative for VFR provided static port heater on the pilot flying side (PF) is operative.	
3421-02	Attitude Heading Reference System (AHRS) *412EP **(EPI Config)**	**B**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3421-03	Standby Attitude Indicator	**C**	**1**	**0**	May be inoperative for VFR.	
3422-01	Gyroscopic Direction Indicator (DG)	**C**	**2**	**1**	One may be inoperative on the pilot not flying side (PNF) for VFR (other than Night), provided a second in command is not required.	
3423-02	Magnetic Heading Indicator ***412EP** **(EPI Config)**	**C**	**2**	**1**	Any in excess of one may be inoperative for VFR, provided the direction indicator is operative on the pilot flying side (PF).	
3423-03	Standby Compass	**C**	**2**	**0**	May be inoperative for VFR provided direction indication is displayed for each pilot, and magnetic slaving is operational (flux valve).	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS

34. NAVIGATION (Cont'd)						
3424-01	Slip-Skid Indicator	**C**	**2**	**1**	One may be inoperative on the pilot not flying side (PNF) for VFR, provided a second in command is not required.	
3424-02	Pitch and Bank Indicator	**C**	**2**	**1**	One may be inoperative on the pilot not flying side (PNF) for VFR, provided a second in command is not required.	
3424-03	Rate-of-Turn Indicator **(212, 412, 412CF, 412EP)**	**C**	**2**	**1**	Aircraft is restricted to Day VFR flight only.	
3431-01	Navigation System (ILS)	**C**	**2**	**0**	May be inoperative provided navigation is not predicated on its use.	
3434-01	Marker Beacon	**C**	**1**	**0**	May be inoperative provided approach is not predicated on its use.	
3442-01	Weather Radar System	**D**	**1**	**0**	IFR operations may only be conducted within the State of Alaska.	
3444-01	Radar Altimeter	**D**	**1**	**0**	One or more may be inoperative provided: **a)** Pilot is aware of potential degraded AP performance on ILS GS or LPV vertical, **b)** Category A operation is not performed, **c)** VFR Night operation is not performed with NVG, and **d)** Operating requirements do not require its use.	
3444-02 (PL-54)	Class A TAWS Equipment	**A**	**0**	**0**	(Not Installed on Maritime Aircraft)	
3445-01 (PL-32)	Traffic Alert and Collision Avoidance System (TCAS I)	**B**	**0**	**0**		
3446-01	Thunderstorm Detection System	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3451-01	Distance Measuring Equipment (DME) Systems	**D**	**1**	**0**	May be inoperative provided approach is not predicated on its use.	

34. NAVIGATION (Cont'd)						
3452-01 (PL-76)	ATC Transponders & Automatic Reporting Systems	**B**	**1**	**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.	
		D	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
	1) Elementary and Enhanced Downlink Aircraft Reportable Parameters not required by 14 CFR.	**A**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
		C	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
	2) ADS-B Squitter Transmission	**D**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	
3452-02	Automatic Dependent Surveillance Broadcast (ADS-B) System	**D**	**1**	**0**	May be inoperative. NOTE: Maritime Helicopters ADS-B out only	
3454-01	Navigation Systems (VOR)	**C**	**2**	**0**	May be inoperative provided approach is not predicated on its use.	
3455-01	Navigations Systems (ADF)	**C**	**1**	**0**	May be inoperative provided approach is not predicated on its use. Class II navigation not authorized.	
3457-01	Navigations Systems (Long Range)				**DELETED**	
3460-01	Flight Director (412)	**C**	**1**	**0**	VFR no restrictions. IFR aircraft must be flown by two pilots.	
3461-01 (PL-98)	Flight Management System (FMS)	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**.	

JASC CODE & ITEM NO.	COMPONENT DESCRIPTION	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS
JASC SYSTEM & TITLE					
35. OXYGEN					
3510-01	Oxygen System and Masks (Crew and Passengers)	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**.

JASC CODE & ITEM NO.	COMPONENT DESCRIPTION	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS
45. CENTRAL MAINTENANCE SYSTEM					
4500-01	Health and Usage Monitoring System (HUMS)	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**.
4500-02	Aircraft/Engine Monitoring System	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**.

JASC SYSTEM & TITLE		1. REPAIR CATEGORY				
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED			
				3. NUMBER REQUIRED FOR DISPATCH		
					4. REMARKS & EXCEPTIONS	
52. DOORS						
5210-01	Pneumatic Door Opening System **(212, 412)**	**D**	**1**	**0**	May be inoperative or missing provided the door retention strap is installed**.**	
5210-02 (PL-69)	External Door Indicating System	**C**	**1**	**0**	May be inoperative provided pressure is applied against the inward opening access doors to verify that the doors are closed and locked	
5260-01	Retractable Passenger Steps (Powered) **(412, 412EP)**	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**.	

JASC CODE & ITEM NO.	COMPONENT DESCRIPTION	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS	
63. MAIN ROTOR DRIVE						
6320-01	Transmission Oil Temperature Indicating System	**B**	**1**	**0**	May be inoperative provided: **a)** Transmission Oil Temperature Warning Light System is operative, **b)** Transmission Oil Pressure Indicating System is operative, and **c)** Aircraft shall not depart airport where repairs or replacements can be made.	
6320-02	Transmission Oil Pressure Indicating System	**B**	**1**	**0**	May be inoperative provided: **a)** Transmission Oil Pressure Warning Light System is operative. **b)** Transmission Oil Temperature Indicating System is operative, and **c)** Aircraft shall not depart airport where repairs or replacements can be made.	
6320-03	Transmission Oil Temperature Warning Indicator	**B**	**1**	**0**	May be inoperative provided: **a)** Transmission Oil Temperature Indicating System is operative, **b)** Transmission Oil Pressure Warning Light System is operative, and **c)** Aircraft shall not depart airport where repairs or replacements can be made.	
6320-04	Transmission Oil Temperature Warning System				**DELETED**	
6320-05	Transmission Oil Pressure Warning Indicator	**B**	**1**	**0**	May be inoperative provided: **a)** Transmission Oil Pressure Indicating System is operative, **b)** Transmission Oil Temperature Warning Light System is operative, and **c)** Aircraft shall not depart airport where repairs or replacements can be made.	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS
63 MAIN ROTOR DRIVE (Cont'd)					
6320-06	Transmission Oil Pressure Warning System				**DELETED**
6321-01	Rotor Brake System	**C**	**1**	**0**	May be inoperative provided an inspection is performed to determine the main rotor is free to rotate. **(O)** Before each flight**,** the PIC will conduct a visual inspection to determine the rotor brake pads are not contacting the rotor disk brake and that the main rotor rotates freely by hand. **(M)** Maintenance shall; **a)** Safety the handle in the off position to prevent inadvertent use of the rotor brake, and **b)** Ensure the brake pads are not contacting the rotor brake disk, and **c)** Perform a visual inspection to ensure that no hydraulic leaks exist, and **d)** Ensure that the main rotor rotates freely by hand.
6321-02	Rotor Brake Warning Lights				**DELETED**

JASC SYSTEM & TITLE		1. REPAIR CATEGORY				
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED			
				3. NUMBER REQUIRED FOR DISPATCH		
					4. REMARKS & EXCEPTIONS	
63. MAIN ROTOR DRIVE (Cont'd)						
6321-03	Rotor Brake Warnings	**C**	**2**	**0**	May be inoperative if Rotor Brake system is deactivated & secured. **(O)** Before each flight**,** the PIC will conduct a visual inspection to determine the rotor brake pads are not contacting the rotor disk brake and that the main rotor rotates freely by hand. **(M)** Maintenance shall; **a)** Safety the handle in the off position to prevent inadvertent use of the rotor brake, and **b)** Ensure the brake pads are not contacting the rotor brake disk, and **c)** Perform a visual inspection to ensure that no hydraulic leaks exist, and **d)** Ensure that the main rotor rotates freely by hand.	
6340-01	Mast Torque System	**C**	**1**	**0**	May be inoperative if RFM limitations are observed.	

JASC CODE & ITEM NO.	COMPONENT DESCRIPTION	1. REPAIR CATEGORY	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS & EXCEPTIONS
67. ROTORS FLIGHT CONTROL					
6700-01	Force Trim System	**C**	**1**	**0**	May be inoperative for VFR.
6710-01	Cyclic Stick Centering Indicator **(412, 412CF, 412EP)**	**B**	**2**	**0**	Refer to RFM for limitations

JASC SYSTEM & TITLE		1. REPAIR CATEGORY				
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED			
				3. NUMBER REQUIRED FOR DISPATCH		
					4. REMARKS & EXCEPTIONS	
73. ENGINE FUEL AND CONTROL						
7321-01	Engine Fuel Control (Automatic Mode)	**B**	**2**	**1**	One may be inoperative provided: **a)** For non-passenger carrying operations, and **b)** Aircraft shall not depart airport where repairs or replacements can be made. **(O)** Match engine torque within 4% by manual control of affected engine's throttle.	
7331-01	Fuel Flow Indicator System	**D**	**0**	**0**	**(Not Installed on Maritime Aircraft)**	

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS
77. ENGINE INDICATING					
7700-01	Engine Out Warning System	**B**	**2**	**1**	One may be inoperative provided: **a)** Alternate procedures are established and utilized for engine failure identification, and **b)** Aircraft shall not depart airport where repairs or replacements can be made. **(O)** Crewmember will identify failed engine by reference to N1, N2, ITT and torque. Crew member will monitor affected engine N1 and N2 RPM indicators.
7712-1	Dual Torque Pressure Indicator **(212, 412)**	**C**	**2**	1	One may be inoperative provided the operative indicator is at the station of the pilot manipulating the flight controls. **(O)** For single pilot operations, the Torque pressure indicator must be operational on the right side of the aircraft.
7712-02	Triple Torque Indicator **(412EP)**	**C**	**0**	**0**	**(Not Installed on Maritime Aircraft)**.
7714-01	Tachometer, Triple Indicating	**C**	**2**	**1**	On may be inoperative provided the operative indicator is on the pilot flying (PF) side. **(O)** For single pilot operations, the Triple Tach must be operational on the right side of the aircraft.

JASC SYSTEM & TITLE		1. REPAIR CATEGORY			
JASC CODE & ITEM NO.	COMPONENT DESCRIPTION		2. NUMBER INSTALLED		
				3. NUMBER REQUIRED FOR DISPATCH	
					4. REMARKS & EXCEPTIONS
79. ENGINE OIL					
7931-01 (PL-13)	Engine Oil Pressure Indication				**DELETED**