

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, D.C.

REVISION: ORIGINAL
DATE: 04/29/2009

M A S T E R M I N I M U M E Q U I P M E N T L I S T

AGUSTA

A-109S

/S/

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Revision:Original

Date: 04/29/2009

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Log of Revisions

Rev. No.	Date	Page Numbers	Initial
Original	04/29/2009		

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Control Page

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MASTER MINIMUM EQUIPMENT LIST

Revision:Original

Date: 04/29/2009

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Highlights of Change

EFFECTIVE ABOVE DATE, the Augusta A109S Original Master Minimum Equipment List has been published.

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Definitions

1. System Definitions.

System numbers are based on the Air Transport Association (ATA) Specification Number 100 and items are numbered sequentially.

- a. "Item" (Column 1) means the equipment, system, component, or function listed in the "Item" column. Repair interval categories (A, B, C, and D) are listed on right side of column 1. Repair intervals are described in definition 22.
- b. "Number Installed" (Column 2) is the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MMEL. Should the number be a variable (e.g., passenger cabin items) a number is not required.
- c. "Number Required for Dispatch" (Column 3) is the minimum number (quantity) of items required for operation provided the conditions specified in Column 4 are met.

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

- d. "Remarks or Exceptions" (Column 4) in this column includes a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.
- e. A vertical bar (change bar) in the margin indicates a change, addition or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next revision of that page.

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

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

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

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

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5. "-" symbol in Column 2 and/or Column 3 indicates a variable number (quantity) of the item installed.
6. "Deleted" in the remarks column after a sequence item indicates that the item was previously listed but is now required to be operative if installed in the aircraft.
7. As used in MMELs, "ER" refers to Extended Operations (ETOPS) of an airplane with operational approval to conduct ETOPS in accordance with the applicable regulations.
8. "Federal Aviation Regulations" (FAR) means the applicable portions of the Federal Aviation Act and Federal Aviation Regulations.
9. "Flight Day" means a 24 hour period (from midnight to midnight) either Universal Coordinated Time (UCT) or local time, as established by the operator, during which at least one flight is initiated for the affected aircraft.
10. "Icing Conditions" means an atmospheric environment that may cause ice to form on the aircraft (structural) or in the engine(s) (induction).
11. Alphabetical symbol in Column 4 indicates a proviso (condition or limitation) that must be complied with for operation with the listed item inoperative.
12. "Inoperative" means a system and/or component 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) or tolerance(s).
13. "Notes:" in Column 4 provides additional information for crewmember or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the provisos.
14. Inoperative components of an inoperative system: Inoperative items which are components of a system which is inoperative are usually considered components directly associated with and having no other function than to support that system. (Warning/caution systems associated with the inoperative system must be operative unless relief is specifically authorized per the MMEL).
15. "(M)" symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's manual or MEL.

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

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

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

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

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

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

21. "Passenger Convenience Items" means those items related to passenger convenience, comfort or entertainment such as, but not limited to, galley equipment, movie equipment, ash trays, stereo equipment, overhead reading lamps, etc.

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

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

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

Category C. Items in this category shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10

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a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.

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

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

23. Electronic fault alerting system - General

New generation aircraft display system fault indications to the flight crew by use of computerized display systems. Each aircraft manufacturer has incorporated individual design philosophies in determining the data that would be represented.

The following are customized definitions (specific to each manufacturer) to help determine the level of messages affecting the aircraft's dispatch status. When preparing the MEL document, operators are to select the proper Definition No. 23 for their aircraft, if appropriate.

a. BOEING (747-400, 757, 767, 777, 787)

Boeing airplanes equipped with Engine Indicating and Crew Alerting Systems (EICAS), provide different priority levels of system messages (WARNING, CAUTION, ADVISORY, STATUS and MAINTENANCE). Any messages that affects airplane dispatch status will be displayed at a STATUS message level or higher. The absence of an EICAS STATUS or higher level (WARNING, CAUTION, ADVISORY) indicates that the system/component is operating within its approved operating limits or tolerances.

System conditions that result only in a maintenance level message, i.e. no correlation with a higher level EICAS message, do not affect dispatch and do not require action other than as addressed within an operator's standard maintenance program.

b. BOEING (B-717, MD-10, MD-11)

These aircraft are equipped with an alerting function which is a subsystem within the Electronic Instrument System (EIS). The alerting function provides various levels of system condition alerts (WARNING, CAUTION, ADVISORY, MAINTENANCE and STATUS). Alerts that affect aircraft dispatch will include WARNING, CAUTION, STATUS or MAINTENANCE level. MAINTENANCE alerts are displayed on the status page of the EIS display panel under the maintenance heading. A MAINTENANCE alert on the EIS indicates the presence of a system fault which can be identified by the Central Fault Display System (CFDS) interrogation. The systems are designed to be fault tolerant, however, for any MAINTENANCE alert, the MEL must be verified for dispatch purposes.

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c. AIRBUS (A-300-600, A-310, A-318/319/320/321, A-330, A-340)

Airbus aircraft equipped with Electronic Centralized Aircraft Monitoring (ECAM) provide different levels of system condition messages (WARNING, CAUTION, STATUS, and ADVISORY). A-318/319/320/321, A-330, and A-340 also provide MAINTENANCE status messages. Any message that affects airplane dispatchability will normally be at the WARNING, CAUTION or STATUS level. MAINTENANCE messages (A-318/319/320/321, A-330, and A-340 only) are also indicated on ECAM Status Page below the white Maintenance label. A MAINTENANCE status (Class II) message on ECAM indicates the presence of a system fault which can be identified by CFDS (A-318/319/320/321) or CMS (A-330/A-340) interrogation. The systems are designed to be fault tolerant. For A-18/319/320/321, MAINTENENACE status (Class II) do not affect dispatch but are listed in the MMEL. Dispatch is allowed without specific conditions except for:

- BLUE RSVR MAINTENANCE status: If applicable, and
- AIR BLEED MAINTENANCE status: As applicable.

For the A-330 and A-340, MAINTENANCE status messages do not affect dispatch.

d. FOKKER (FK-100)

Fokker aircraft are equipped with Multi Function Display System (MFDS) which provides electronic message referring to the different priority levels of system information (WARNING (red), CAUTION (amber), AWARENESS (cyan) AND STATUS (white). Any messages that affect aircraft dispatch will be at the WARNING, CAUTION or AWARENESS level. In these cases the MEL must be verified for dispatch capability and maintenance may be required. System conditions that only require maintenance are not presented on the flight deck. These maintenance indications/messages may be presented on the Maintenance & Test Panel (MAP) or the Centralized Fault Display Unit (CFDU) and by dedicated Built In Test Evaluation (BITE) of systems.

e. CANADAIR (CL-65, CL-604)

Canadair aircraft equipped with Engine Indication and Crew Alerting Systems (EICAS) provide four classes of messages (WARNING, CAUTION, ADVISORY, and STATUS). Any message that affects aircraft dispatch will be at the WARNING, CAUTION, or STATUS level. System conditions that only require maintenance are not visible to the flight crew. These maintenance indications/messages are only activated by maintenance personnel using the Maintenance Diagnostics Computer.

f. EMBRAER (EMB-135/145, ERJ-170/190 Series)

The EMB-135/145 and ERJ-170/190 are equipped with an Engine Indicating and Crew Alerting System (EICAS) that provides three different message levels: WARNING,

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CAUTION, and ADVISORY. The ERJ-170/190 Series add STATUS messages. Failures that effect dispatchability are presented to the flight crew at one of these levels. Other failures may be presented only to the maintenance personnel on the Multi Function Display (MFD) maintenance pages or through the download of the Central Maintenance Computer (CMC). System conditions that result only in a maintenance level message, i.e. no correlation with a higher level EICAS message, do not affect dispatch and do not require action other than as addressed within an operator's standard maintenance program.

g. GULFSTREAM (G-IV, G-V, GV-SP, and GIV-X, G-150 and G-200)

Gulfstream airplanes equipped with EICAS provide different priority levels of system messages: WARNING (red), CAUTION (amber), ADVISORY, STATUS and MAINTENANCE (cyan or blue). Any WARNING or CAUTION message affects airplane dispatch status and requires that the Airplane Flight Manual or the MEL be used to determine dispatch capability. STATUS messages which indicate a system failure (e.g., FMS 1 fail) require that the Airplane Flight Manual or the MEL be used to determine dispatch capability. MAINTENANCE messages do not affect airplane dispatch status. They indicate the presence of a system fault which can be identified by Maintenance Data Acquisition Unit (MDAU on the G-V) interrogation, Central Maintenance Computer (CMC on the GV-SP/GIV-X) interrogation or by reference to the Airplane Flight Manual.

Gulfstream mid-cabin airplanes (G-150, G-200) equipped with EICAS provide different priority levels of system messages: WARNING (red), CAUTION (amber), ADVISORY (green), and STATUS (white). The Airplane Flight Manual prohibits take off with any WARNING message displayed. CAUTION, ADVISORY and STATUS messages may affect airplane dispatch status and requires the Airplane Flight Manual or the MEL be used to determine dispatch capability. The airplane may dispatch with CAUTION, ADVISORY and STATUS messages that indicate proper system operation and are not illuminated due to a system failure (i.e. FUEL STBY PUMP ON when the pump is selected ON, GND A/B OUT with LAND selected on the ground, or APU GEN OFF with the switch OFF). MAINTENANCE and MAINTENANCE DATA STATUS messages do not affect airplane dispatch status. They indicate the presence of a system fault which can be retrieved from the Maintenance Diagnostics Computer. In all cases, the Airplane Flight Manual must be referenced and procedures compiled with for the displayed message prior to applying MEL dispatch relief.

h. De-HAVILLAND (DASH 8 SERIES 400)

Series 400 aircraft are equipped with a Caution/Warning Panel that annunciates all cautions and warnings. Advisory messages are displayed by the Electronic Indication System (EIS) or individual advisory lights supplied in the cockpit. "Class 1 failures" are failures that prevent continued operation of a specific Line Replacement Unit or channel and are annunciates via advisory messages: caution, warning or advisory lights in the flight compartment. Dispatch with such posted failures are to be in accordance with the MMEL. "Class 2 failures" are failures which do not prevent continued system function. These faults will not be annunciates to the flight crew and the absence of the higher level alert (warning, caution, advisory) indicates that the system/component is operating within its approved operating limits or tolerances. Such faults would be evident during maintenance interrogation performed during maintenance activities. Class 2 faults do not affect dispatch

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and will be listed in the Fault Isolation Manual (FIM). Class 2 faults will be left to the discretion of the operators when these faults are to be rectified.

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

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

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

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

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

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

30. Nonessential equipment and furnishings (NEF) are those items installed on the aircraft as part of the original type certification, supplemental type certificate, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that if inoperative, damaged or missing have no effect on the airplane's ability to be operated safely under all operational conditions. These nonessential items may be installed in areas including, but not limited to, the passenger compartment, flight

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deck area, service areas, cargo areas, crew rest areas, lavatories, and galley areas. NEF items are not items already identified in the MEL or CDL of the applicable airplane. They do not include items that are functionally required to meet the certification rule or for compliance with any operational rule. Operator's NEF process shall not provide for deferral of items within serviceable limits identified in the manufacture's maintenance manual or operator's approved maintenance program such as wear limits, fuel/hydraulic leak rates, oil consumption, etc. Cosmetic items that are fully serviceable but worn or soiled may be deferred under an operator's NEF process.

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Preamble

The following is applicable for authorized certificate holders operating under Federal Aviation Regulations (FAR) Parts 121, 125, 129, 135: The FAR 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 FAR 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 FAR. 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.

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When these requirements are met, an Airworthiness Release, Aircraft Maintenance Record/Logbook entry, or other approved documentation is issued as prescribed by FAR. 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.

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Guidelines for (O) & (M) Procedures

The FOEB has identified a need for certain procedures to provide an adequate level of safety while providing relief for some items. Those procedures must be established by the operator. The following guidelines specify the objectives of the required procedures:

- 21-2 (M) Procedure for deactivating and securing system.
- 23-3 (O) Limitations and alternate procedures to communicate with passengers.
- 24-1 (M) Procedure to deactivate and secure generator.
- 32-1 (M) Procedure to secure landing gear down.
- 32-2 (M) Procedure to secure landing gear down.
- 32-3 (M) Procedure to secure landing gear down.
- 33-6 (O) Alternate procedure for passenger notification.
- 65-1 (M) Procedure to inspect, deactivate, and secure system.

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SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING						
1. ***	Environmental Control System	C	-	0		(M) May be inoperative, provided heater air is not required for defrosting/defogging, and the system is deactivated and secured.
2. ***	Heater System	C	-	0		(M) May be inoperative, provided heater air is not required for defrosting/defogging, and the system is deactivated and secured.

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SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
22 AUTO FLIGHT						
1.	Stability Augmentation System (SAS)	C	2	0		May be inoperative for VFR, provided RFM limitations are complied with.
2. ***	Attitude Hold	C	-	0		May be inoperative for VFR.

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SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2. NUMBER INSTALLED		4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS			3. NUMBER REQUIRED FOR DISPATCH		
1.	Communications Systems (FM, HF, UHF, VHF, etc.)	D	-	0	Any in excess of those required, may be inoperative provided it is not powered by an Emergency bus or equivalent and not required for Emergency Procedures.
2.	Crew Intercommunication System (ICS)	B	2	1	Co-pilot may be inoperative for VFR, and single pilot operations.
		B	2	1	Pilot's may be inoperative for VFR, single pilot operations provided EMER/NORMAL switch is set to EMER.
3. ***	Cabin Speaker / Passenger Interphone System	A	-	0	(O) May be inoperative provided: a) Alternate normal and emergency Procedures and/or operating restrictions are established and utilized, b) Appropriate oral briefing is given to passenger's, and c) Aircraft may continue flight or a series of flights for a Maximum of 15 hours.
		C	-	0	d) For non passenger carrying Operations
4 ***	Cockpit Voice Recorder (combined CVR/FDR) If installed	A	-	0	May be inoperative provided: a) Flight Data Recorder (FDR) operates normally, and b) Repairs are made within three flight days.
5 ***	Hoist Operator ICS	C	-	0	May be inoperative provided hoist Operator is not required.

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SYSTEM & SEQUENCE NUMBERS	1. ITEM	1.	2. NUMBER INSTALLED		3. NUMBER REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS
24 ELECTRICAL						
1.	Starter/Generator	B	2	1		(M)One generator may be inoperative for day VFR provided the inoperative generator is deactivated.
2.	Inverters	B	2	1		One may be inoperative for VFR provided RFM limitations are are complied with.
3.	DC External Power	B	1	0		

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25 EQUIPMENT / FURNISHINGS						
1.		Passenger Seat Belts and Shoulder Harness	C	-	0	One for each occupied seat. If belt and/or shoulder harness is inoperative or missing, seat must be blocked and placarded.
2.		Co-Pilot/Crewmember Shoulder Harness	B	2	1	If harness becomes inoperative and is required by FARs, seat must be blocked and placarded.
3.	***	First Aid Kit	D	-	-	Any in excess of those required by FAR may be incomplete or missing provided required distribution is maintained.
4.	***	Emergency Flotation System	C	-	0	As required by FAR
5.	***	Cargo Suspension System	C	-	0	
6.	***	Hoist	C	-	0	
7.	***	Emergency Locator Transmitter (ELT)	C	-	0	
8.	***	EMS Equipment	C	-	0	May be inoperative provided system is deactivated and secured. (M) and/or (o) procedures may be required and included in the air carrier's appropriate document.

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25 EQUIPMENT / FURNISHINGS				
10. ***	Non-Essential Equipment & Furnishings (NEF)	-	0	<p>May be inoperative, damaged, or missing provided that the item(s) is deferred in accordance with the operator's NEF deferral program. The NEF program, procedures, and process are outlined in the operator's Manual. (M) and (O) procedures, if required, must be available to flight crew and included in the operator's appropriate document.</p> <p>NOTE: EXTERIOR LAVATORY DOOR ASH TRAYS ARE NOT CONSIDERED NEF ITEMS.</p>

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26 FIRE PROTECTION						
1. ***	Portable Fire Extinguisher	D	-	1		Any in excess of those required by FAR may be inoperative or missing provided: <ul style="list-style-type: none"> a) The inoperative fire extinguisher is tagged inoperative, removed from the installed location, and placed out of sight so it cannot be mistaken for a functional unit, and b) Required distribution is maintained.
2. ***	Engine Fire Extinguisher System (For Non-Category "A" Operations)	B	-	0		(M) may be inoperative, provided the inoperative system is deactivated and secured.

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27 FLIGHT CONTROLS					
1.	Force Trim System	C	1	0	May be inoperative for VFR. NOTE: With copilot's cyclic removed, jumper is required for force trim operation on pilots cyclic.

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28 FUEL						
1.	Airframe Fuel Boost Pump:	B	2	1		
2.	Fuel Pressure Indicator	B	2	0		May be inoperative provided Fuel Boost Pump Caution System (Item 28-3) is operative.
3.	Fuel Boost Pump Caution System	B	2	0		May be inoperative provided Fuel Pressure Indicating System (Item 28-2) is operative.

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3. NUMBER REQUIRED FOR DISPATCH					
4. REMARKS OR EXCEPTIONS					
30 ICE AND RAIN PROTECTION					
1.	Pitot Tube Heat	C	-	0	May be inoperative provided: a) Flight is in VFR conditions. b) Ambient temperatures are above +4 degrees C (39 degrees F) and c) operations are not conducted in visible moisture.
2. ***	Windshield Wiper System	C	-	0	

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31 INDICATING AND RECORDING SYSTEMS			3. NUMBER REQUIRED FOR DISPATCH		
1.	Clock Displaying Hours, Minutes, and Seconds with Sweep-Second Pointer or Digital Presentation.	C	-	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 his station.
		C	-	0	May be inoperative for VFR provided Elapsed Timer is installed and operative.
2. ***	Elapsed Timer	C	-	0	May be inoperative provided Clock is operative.
3. ***	Hour Meter	C	-	0	
4. ***	Flight Data Recorder (FDR) (Combined CVR/FDR Unit) If installed.	A	1	0	May be inoperative provided: (a) Cockpit Voice Recorder (CVR) Operates normally, (b) Aircraft is not dispatched from a designated airport where repairs or replacement parts can be made, and (c) repairs are made within three flight days.

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32 LANDING GEAR						
1.	Landing Gear Extension/Retraction System	C	1	0		(M) May be inoperative provided: (a) Landing gear handle is (b) RFM airspeed limitations for gear down operations are complied with.
2.	Landing Gear Position Indicating System	B	1	0		(M) May be inoperative provided: (a) Landing gear handle is secured in the down position. (b) RFM airspeed limitations for gear down operations are complied with.
3.	Landing Gear Up Caution System (with radio altimeter) (Audio/Voice, Visual)	C	1	0		(M)May be inoperative provided: a)Landing gear handle is secured In the down position, And, b)RFM airspeed limitations for Gear down are complied with.
4.	Landing Gear Emergency Extension System	C	1	0		(M) May be inoperative provided: a)Landing gear handle is secured In the down position, And, b)RFM airspeed limitations for Gear down are complied with.

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			3.	NUMBER REQUIRED FOR DISPATCH	
33 LIGHTS					
1.	Position Light System	C	1	0	May be inoperative for day operations.
2.	Anti-Collision Light System	B	1	0	May be inoperative for day operations.
3.	Landing Lights	C	-	0	May be inoperative for day operations.
4.	Cockpit Instrument Lighting System	C	-	-	Individual lights may be inoperative provided remaining lights are: a) Sufficient to clearly illuminate all required instruments, controls and other devices for which it is provided, and b) Positioned so that direct rays are shielded from flight crewmembers eyes, and, c) Lighting configuration and intensity is acceptable to the flight crew.
5.	Overhead Map Lights	C	2	1	
		C	2	0	May be inoperative for day operations.

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33 LIGHTS						
6.	Passenger Notice System (Fasten Seat Belt-No Smoking)	B	-	0		May be inoperative provided: a) Passengers are not carried.
			-	0	(O)(b) Alternate procedures are used for passenger notification.	c) Public address system is installed and operative.
7. ***	Strobe Light System	C	-	0		May be inoperative provided: a) For day operations.
8. ***	Cabin Lighting System	C	-	0		b) Inoperative lights do not exceed fifty (50) percent of the total installed
9. ***	External Utility Light(s)	C	-	0		
10. ***	Supplemental Lighting System	C	-	0		
11. ***	Helicopter Emergency Egress Lighting System (HEEL)	C	-	0		

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			3.	NUMBER REQUIRED FOR DISPATCH	
34 NAVIGATION					
1.	Airspeed Indicator	B	2	1	Copilot's may be inoperative for single pilot VFR.
2.	Sensitive Altimeter Adjustable for Barometric Pressure	B	2	1	Copilot's may be inoperative for single pilot VFR.
3.	Electronic Attitude Direction Indicator (EADI)	B	2	1	Copilot's may be inoperative for single pilot VFR.
		B	2	1	Copilot's may be inoperative for IFR provided Standby Attitude, Bank and Pitch Indicator (ITEM 34-13) is installed and operative.
4.	Electronic Horizontal Situation Indicator (EHSI)	B	2	1	Copilot's may be inoperative for single pilot operations.
5.	Slip-Skid Indicator	B	-	1	Copilot's may be inoperative.
6.	Vertical Velocity Indicator	B	2	1	Copilots\'s may be inoperative for single pilot operations. Pilot's must be operative for category "A" operations and for IFR.
7.	OAT/Free Air Temperature	C	1	0	
8.	Navigation Systems (VOR, ILS,ADF, Long Range, etc.)	C	-	0	As required by FAR.
9.	Transponder	C	1	0	As required by FAR.
10.	Radio Altimeter System	C	1	0	
11.	Standby Attitude Indicator	B	1	0	As required by FAR

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34 NAVIGATION						
12.	DME	C	1	-	-	May be inoperative provided navigation is predicated on it's use.
13. ***	Thunderstorm Detection System	C	-	0	-	As required by FAR.
14. ***	Weather Radar System	C	-	0	-	As required by FAR.
15.	Altitude Encoding System	C	-	0	-	As required by FAR.
16.	Marker Beacon	C	-	0	-	May be inoperative provided navigation is not predicated on it's use.
17. ***	Flight Director	C	-	0	-	
18. ***	Moving Map Display	C	-	0	-	
19. ***	Traffic Alert/Advisory System	C	-	0	-	

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35 OXYGEN						
1. Oxygen System and Masks ***		C	-	0		As required by FAR

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			3. NUMBER REQUIRED FOR DISPATCH		
52 DOORS					
1.	External Power Door Caution Light	C	1	0	May be inoperative provided a visual check verifies that the door is closed and latched prior to flight.
2.	Door Caution Light System	C	-	0	May be inoperative provided a visual check verifies that the door is closed and latched prior to flight.
3.	Baggage Door Caution Light System	C	-	0	May be inoperative provided a visual check verifies that the door is closed and latched prior to flight.

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65 ROTORS					
1. ***	Rotor Brake System	C	-	0	(M)May be inoperative provided: a)Maintenance inspection determines Rotor Disc is free and, b)System is deactivated and secured

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77 ENGINE INDICATING					
1.	Tachometer Indication (N2, NR on IDS)	B	1	0	One or both N2's may be inoperative provided respective engine torque is operative. The NR must be operative.