

TRANSPORT CANADA MMEL
REVISION 01
TO
DHC-4 AND -4A
MASTER MINIMUM EQUIPMENT LIST

ORIGINAL SIGNED BY:

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AIRCRAFT CERTIFICATION
FOR MINISTER OF TRANSPORT

DEC. 12, 1997

REVISION: 01

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Log of Revisions

When revisions are received and inserted, record the relevant information in the columns below.

Revision No.	Date	Page Number	Initials
Original	Oct. 06, 1992	I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, 21-1, 23-1, 25-1, 25-2, 26-1, 28-1, 29-1, 30-1, 31-1, 33-1, 33-2, 33-3, 34-1, 35-1, 61-1, 73-1, 79-1	
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Reasons for Changes

- | | |
|---------|---|
| General | Preamble and Notes and Definitions, including repair interval category definitions revised to reflect TP 9155 at Rev. 3, Oct 97.
Deleted Log of Temporary Revisions and Table of Contents as they were considered redundant. |
| 23-1 | Communications Systems (VHF, HF, UHF). Addressed systems which might be required to complete an emergency procedure in accordance with the TC MMEL Guidance Book (GB). |
| 25-7 | "Fasten Seat Belt While Seated" Signs or Placards. Changed Note to actual relief in accordance with Notes and Definitions No. 11. |
| 26-2 | Fire Extinguisher Systems. Editorial, renumbered. |
| 33-4 | Wing Illumination Lights. Reworded for clarity and in accordance with Notes and Definitions No. 11. |
| 33-5 | Passenger Notice System "No Smoking/Fasten Seat Belt" Lights. Reworded for applicability to the DHC 4 and in accordance with Notes and Definitions No. 11. |
| 33-6 | Cockpit and Instrument Panel Lighting System. Cat C and D assigned and reworded to reflect TC MMEL Guidance Book (GB). |
| 34-1 | Rate of Climb Indicators. Reworded to reflect the CARs. |
| 34-2 | Gyroscopic Rate of Turn/Skid Indicators. Changed title for clarity and revised to reflect the CARs. |
| 34-3 | Weather Radar. Revised to reflect that the CARs address the requirement. |
| 34-4 | VHF Navigation System (VOR/ILS). Addressed systems which might be required to complete an emergency procedure in accordance with the TC MMEL Guidance Book (GB). Expanded cat D relief. |
| 34-9 | GPS. Added in accordance with the GB. |
| 35-1 | Passenger Oxygen system. Deleted detailed requirements, the CARs will provide that information. |

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Preamble

All equipment installed on an aircraft in compliance with the Airworthiness Standards and the Operating Rules must be operative. However, CAR 605.07 permits 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 the required level of safety.

A Master Minimum Equipment List (MMEL) is developed by Transport Canada, with participation by the aviation industry, to improve aircraft utilization and thereby provide more convenient and economic air transportation for the public. The approved MMEL includes those items of equipment related to airworthiness and operating regulations and other items of equipment Transport Canada finds may be inoperative and yet maintain the required level of safety by applying 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. 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, permits operation of the aircraft with inoperative equipment.

Equipment not required by the operation being conducted and equipment in excess of the 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 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 the required level of safety is maintained.

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Preamble

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 the required level of safety and reliability the MMEL establishes limitations on the duration of and conditions for operation 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/Journey Logbook. The item is then either repaired or deferred as per the MEL. Alternatively, the aircraft must be in compliance with CAR sections 605.08 (2) or 605.09 (2) which specify the requirements for operating an aircraft subject to the conditions of a flight permit and the subordinate position of a MEL with regard to an Airworthiness Directive (AD) for the same item. MEL conditions and limitations, do not relieve the operator from determining that the aircraft is in a safe condition for operation with items of equipment inoperative [see CAR 605.08 (1)].

Operators are responsible for exercising the necessary operational control to ensure that the required 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 must 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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Notes and 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.

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.

NOTE: Where the MMEL shows a variable number installed, the MEL must reflect the actual number installed or an alternate means of configuration control must be approved.

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 approved means of configuration control.

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 approval and the approved AFM/RFM for the specific aircraft is listed on the applicable Type Approval Data Sheet.

3. "As required by regulations", means that the listed item is subject to certain provisions (restrictive or permissive) as expressed in the appropriate Regulations. The items specified by these requirements must be operative. When the listed item is not required by the regulations it may be inoperative for the time specified by the repair category.

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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Notes and Definitions

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

NOTE: Where the MMEL shows a variable number installed, the MEL must reflect the actual number installed or an approved alternate means of configuration control.

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. "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.

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

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

10. "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).

11. "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 does not relieve the operator of the responsibility for compliance with all applicable requirements. NOTES are not a part of the provisos.

12. 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).

13. "(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.