



CIVIL AVIATION AUTHORITY
OF THE CAYMAN ISLANDS

**MINIMUM EQUIPMENT LIST
POLICY and PROCEDURES MANUAL**

Revision 3
31 August 2015

**THIS PAGE INTENTIONALLY
LEFT BLANK**

FOREWORD

This Manual has been prepared in accordance with the Air Navigation (Overseas Territories) Order 2013 ('the Order') as amended for the use and guidance of the CAACI and Industry personnel and contains all the relevant information with respect to the origin, philosophy and development of the Master Minimum Equipment List (MMEL), Minimum Equipment List (MEL) and the CAACI approval process of a MEL.

The CAACI Operations and Airworthiness Inspectors are expected to use good judgement in matters where specific guidance has not been given and be aware of the need for revision to the present information as new requirements evolve.

Permission is granted by the CAACI to copy this Manual as required. While use of this material has been authorized, the CAACI shall not be responsible for the manner in which the information is presented, nor for any interpretations thereof. Print versions of this Manual may or may not be updated to include amendments made to original content. For up-to-date information, contact the CAACI Office.

Approved by:

Mr. P. H. Richard Smith
Director General
Civil Aviation Authority of the Cayman Islands

Table of Contents

Preface

| | |
|--|------|
| Foreword | 2 |
| Table of Contents | 3 |
| Record of Revisions | 4 |
| Acronyms..... | 5-6 |
| Definitions | 7-11 |
| List of Effective Pages..... | 12 |
| Revision Changes..... | 13 |
| Contact Details regarding MEL Approvals..... | 13 |

A Table of Contents for each chapter is contained at the start of the chapter.

| | |
|--|-----------|
| Chapter 1 Introduction | 14 |
| Chapter 2 Master Minimum Equipment List | 18 |
| Chapter 3 MEL Policy and Procedures..... | 28 |

Appendices

| | |
|--|-------|
| A - MEL Item Repair Interval Extension Request..... | 49 |
| B - MMEL (Example) | 50 |
| C - MEL Preamble (Example) | 51-52 |
| D – MEL Application (Example) | 53 |
| E - MEL Approval (Example) | 54-55 |
| F - CAACI Approved MEL (Example) | 56-57 |
| G - (Not Used)..... | 58-60 |
| H - CAACI MEL Approval Flow Chart..... | 61-62 |
| I - Operator MEL Development Flow Chart | 63-64 |
| J - COM - MEL Defect Deferral Procedures..... | 65-67 |
| K - Initial and Recurrent MEL Training Syllabus (Example)..... | 68 |
| L - ATA 100 Aircraft System Specifications | 70 |

RECORD OF REVISIONS

| Revision # | Effective Date | Date Entered | Entered By |
|------------|----------------|--------------|------------|
| Original | 29 May 2009 | 29 May 2009 | CAACI |
| 1 | 08 June 2011 | 08 Jun 2011 | CAACI |
| 2 | 03 Jan 2013 | 03 Jan 2013 | CAACI |
| 3 | 31 Aug 2015 | 31 Aug 2015 | CAACI |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| 21 | | | |

CAACI MEL P & P MANUAL - REVISION STATUS
A "vertical bar" (change bar) in the margin means there is 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.

Revision 3 is a complete re-write of the manual, therefore no change bars were inserted.

ACRONYMS

| | |
|----------------|---|
| AD | Airworthiness Directive |
| AFM | Aircraft Flight Manual |
| AME | Aircraft Maintenance Engineer |
| AMO | Approved Maintenance Organization |
| AN(OT)O | Air Navigation (Overseas Territories) Order (and when used in this Manual, is meant to include the appropriate Schedules and OTARs) |
| AOC | Air Operator Certificate |
| AOM | Aircraft Operating Manual |
| AWI | Airworthiness Inspector |
| AWM | Airworthiness Manual |
| CAACI | Civil Aviation Authority of the Cayman Islands |
| CDL | Configuration Deviation List |
| COM | Company Operations Manual |
| DASR | Director of Air Safety Regulation |
| DDG | Dispatch Deviation Guide |
| DDPG | Dispatch Deviation Procedures Guide |
| ETOPS | Extended Range Twin Operations |
| FAM | Flight Attendant Manual |
| FARs | Federal Aviation Regulations |
| FOI | Flight Operations Inspector |
| IFR | Instrument Flight Rules |
| IMC | Instrument Meteorological Conditions |

| | |
|--------------------|--|
| MCM | Maintenance Control Manual |
| MEL | Minimum Equipment List |
| MMEL | Master Minimum Equipment List |
| OTACs | Overseas Territories Aviation Circulars |
| OTARs | Overseas Territories Aviation Requirements |
| PIC | Pilot In Command |
| STC | Supplemental Type Certificate |
| VFR | Visual Flight Rules |
| VMC | Visual Meteorological Conditions |
| VP-C Online | <p>The CAACI electronic document management system used to manage aircraft registry applications, certificates and authorizations electronically. The system allows CAACI clients to apply for the various approvals that are required for both initial aircraft registration and for continuing airworthiness including the renewal of documents. It is designed to streamline processes within the CAACI and allow more efficient service provisioning to clients.</p> <p>Authorized users will be able to utilize online smart forms for submission of applications including electronic submission of all supporting documentation required by the specific application. The custom designed, intuitive user screens will also provide clients online access to their certificates at their convenience. All documentation is transmitted using SSL encryption, and stored securely in the Cayman Islands.</p> <p>http://www.vp-online.com</p> <p>Use this system to submitting your MEL application.</p> |

DEFINITIONS

Systems Definitions: Systems numbers are based on the Air Transport Association (ATA) Specification Number 100 (Appendix L) and items are numbered sequentially.

1. **"Item"** (Column 1) means the equipment, system, component, or function listed in the "Item" column.
2. **"Number Installed"** (Column 2) means 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: The "****" 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. The "****" symbol may be considered equivalent to the term "if installed".*

3. **"Number required for dispatch"** (Column 3) means 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 CAACI.

4. **"Remarks" or "Exceptions"** (Column 4) means a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.
5. **"Approved"** means approved by the Governor or his delegate.
6. **"Configuration Deviation List"** means a document developed by the aircraft manufacturer and approved by the Authority of the country of manufacture of the aircraft that covers minor items on the aircraft that may be missing or damaged, such as small access panels. This list may be adopted without change by the aircraft operator.
7. **"Supplemental Type Certificate" (STC)** means a Type Certificate issued to cover modifications and equipment added to an aircraft after its initial certification. This would be anything that is used during flight, interacts with the aircraft's controls or systems, or affects the performance, aerodynamics or handling of the aircraft.

8. **"Director General"** means the Director General of the Civil Aviation Authority of the Cayman Islands.
9. **"Administrative Control Item"** means an item listed in the MEL by the operator for tracking and informational purposes. It may be added to an operator's MEL provided no relief is granted, or provided conditions and limitations are contained in an approved document such as the Structural Repair Manual. If relief other than that granted by an approved document is sought for an administrative control item, a request must be submitted to the CAACI. If the request results in review and approval, the item becomes an MEL item rather than an administrative control item.
10. **"Airplane/Rotorcraft Flight Manual"** (AFM/RFM) means the document required for Type Certification and Approval by the CAACI. The approved AFM/RFM for the specific aircraft is listed on the applicable Type Certification Data Sheet.
11. **"Alphabetical symbol"** in Column 4 means a proviso (condition or limitation) that must be complied with for operation with the listed item inoperative.
12. **"As Required by Regulation"**, AS required by DAR, and other similar statements mean that the listed item is subject to certain provisions (restrictive or permissive) expressed in such regulations as *the AN(OT)O and OTARs, Federal Aviation Regulations* or the *Airworthiness Manual* etc Unless the MMEL provides otherwise, the items specified by these requirements must be operative.
13. **"Deleted"** in the remarks column after a sequence item means that the item was previously listed but is now required to be operative if installed in the aircraft.
14. **"Deactivated and Secured"** means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of deactivating and securing will be established by the operator for inclusion in the MEL.
15. **"Day of discovery"** means the calendar day that an equipment/instrument malfunction was discovered. This day is excluded from the calendar days or flight days specified in the MMEL for the repair of an inoperative item of equipment, and is applicable to all MMEL items in categories A,B,C, and D.
16. **"Engine Indicating Crew Alerting System (EICAS), Electronic Centralized Aircraft Monitoring System (ECAM) or similar systems"** that provide electronic messages means a system capable of providing different priority levels of systems information messages (eg: Warning, Caution, Advisory, Status and Maintenance). An airplane discrepancy message may or may not affect its dispatch. Refer to the specific MMEL for the aircraft type.
17. **"Excess Items"** means those items installed that are excess to the requirements.

18. **"ETOPS"** means extended range two engine operations of an aeroplane which has a type design approval for ER operations and complies with the provisions of ETOPS Regulations.
19. **"Federal Aviation Regulations (FARs)"** means the applicable portions of the Federal Aviation Act and Federal Aviation Regulations.
20. **"Flight Day"** means a 24 hour period (e.g. 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.
21. **"He/Him/His/etc."** means both male and female for the purposes of this manual.
22. **"Icing Conditions"** means an atmospheric environment that may cause ice to form on the aircraft or in the engine(s).
23. **"Inoperative"** means a system and/or components 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).
24. **"Inoperative components of an inoperative system"** means inoperative items which are components of a system which is inoperative. They 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).
25. **"Instrument flight rules"** means the Instrument Flight Rules specified in the Rules of the Air found in Appendix D of OTAR Part 91, being rules governing the conduct of flight under instrument meteorological conditions.
26. **"(M)"** symbol means there is 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 must be accomplished by maintenance personnel (see "(M#)" below). 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.
27. **"(M#)"** symbol means there is a requirement for maintenance personnel to accomplish a "(M)" procedure.

28. **“Maintenance Instruction”** means there are maintenance instructions that must be accomplished prior to operation with the listed item inoperative, as per "(M)" procedure above.
29. **"Notes"** (Column 4) means 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.
30. **"(O)"** symbol means there is 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 a crew member; 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. Recording of the completion of required specific operations procedures will be accomplished by adding an appropriate statement to the "Instructions for Journey Log Book Use" found in the Operator's Journey Log Book to cover those items requiring Operations Procedures.

*Note: The “(M)” and “(O)” symbols **are required** in the operator's MEL unless otherwise authorized by the CAACI.*

31. **“Operating Instruction”** means there are operating instructions that must be accomplished prior to operation with the listed item inoperative, as per "(O)" procedure above.
32. **"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.
33. **"Visual Flight Rules"** (VFR) means Rules as defined in the AN (OT) O, Rules of the Air (Appendix D of OTAR Part 91). This precludes a pilot from filing an Instrument Flight Rules (IFR) flight plan.
34. **"Placarding"** means that 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.

35. "_" symbol in Column 2 and/or Column 3 means there is 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 alternate means of configuration control approved by the CAACI.

36. **"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.
37. **"Visual flight rules"** means the Visual Flight Rules prescribed by OTAR Part 91.
38. **"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.
39. A **"vertical bar"** (change bar) in the margin means there is 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.

LIST OF EFFECTIVE PAGES

| PAGE TITLE | PAGE NO. | DATE | PAGE TITLE | PAGE NO. | DATE |
|-------------------------|-----------------|-------------|-------------------|-----------------|-------------|
| Cover Page | | 31 Aug 2015 | Chapter 3 | 37 | 31 Aug 2015 |
| Blank Page | 1 | 31 Aug 2015 | “ | 38 | 31 Aug 2015 |
| Foreword | 2 | 31 Aug 2015 | “ | 39 | 31 Aug 2015 |
| Table of Contents | 3 | 31 Aug 2015 | “ | 40 | 31 Aug 2015 |
| Record of Revisions | 4 | 31 Aug 2015 | “ | 41 | 31 Aug 2015 |
| Acronyms | 5 | 31 Aug 2015 | “ | 42 | 31 Aug 2015 |
| “ | 6 | 31 Aug 2015 | “ | 43 | 31 Aug 2015 |
| Definitions | 7 | 31 Aug 2015 | “ | 44 | 31 Aug 2015 |
| “ | 8 | 31 Aug 2015 | “ | 45 | 31 Aug 2015 |
| “ | 9 | 31 Aug 2015 | “ | 46 | 31 Aug 2015 |
| “ | 10 | 31 Aug 2015 | Blank Page | 47 | 31 Aug 2015 |
| “ | 11 | 31 Aug 2015 | Appendices TOC | 48 | 31 Aug 2015 |
| List of Effective Pages | 12 | 31 Aug 2015 | Appendix A | 49 | 31 Aug 2015 |
| Revision Changes | 13 | 31 Aug 2015 | Appendix B | 50 | 31 Aug 2015 |
| Blank Page | 14 | 31 Aug 2015 | Appendix C | 51 | 31 Aug 2015 |
| Chapter 1 TOC | 15 | 31 Aug 2015 | “ | 52 | 31 Aug 2015 |
| Chapter 1 | 16 | 31 Aug 2015 | Appendix D | 53 | 31 Aug 2015 |
| “ | 17 | 31 Aug 2015 | Appendix E | 54 | 31 Aug 2015 |
| Blank Page | 18 | 31 Aug 2015 | “ | 55 | 31 Aug 2015 |
| Chapter 2 TOC | 19 | 31 Aug 2015 | Appendix F | 56 | 31 Aug 2015 |
| Chapter 2 | 20 | 31 Aug 2015 | “ | 57 | 31 Aug 2015 |
| “ | 21 | 31 Aug 2015 | Appendix G | 58 | 31 Aug 2015 |
| “ | 22 | 31 Aug 2015 | “ | 59 | 31 Aug 2015 |
| “ | 23 | 31 Aug 2015 | “ | 60 | 31 Aug 2015 |
| “ | 24 | 31 Aug 2015 | Appendix H | 61 | 31 Aug 2015 |
| “ | 25 | 31 Aug 2015 | “ | 62 | 31 Aug 2015 |
| “ | 26 | 31 Aug 2015 | Appendix I | 63 | 31 Aug 2015 |
| “ | 27 | 31 Aug 2015 | “ | 64 | 31 Aug 2015 |
| Blank Page | 28 | 31 Aug 2015 | Appendix J | 65 | 31 Aug 2015 |
| Chapter 3 TOC | 29 | 31 Aug 2015 | “ | 66 | 31 Aug 2015 |
| Chapter 3 TOC | 30 | 31 Aug 2015 | “ | 67 | 31 Aug 2015 |
| Chapter 3 | 31 | 31 Aug 2015 | Appendix K | 68 | 31 Aug 2015 |
| “ | 32 | 31 Aug 2015 | “ | 69 | 31 Aug 2015 |
| “ | 33 | 31 Aug 2015 | Appendix L | 70 | 31 Aug 2015 |
| “ | 34 | 31 Aug 2015 | Blank Page | 71 | 31 Aug 2015 |
| “ | 35 | 31 Aug 2015 | | | |
| “ | 36 | 31 Aug 2015 | | | |

CHAPTER 1**INTRODUCTION**

Chapter 1 Table of Contents

| | | |
|-----|--|----|
| 1.1 | The Master Minimum Equipment List (MMEL) | 15 |
| 1.2 | Dispatch with Inoperative Equipment | 15 |
| 1.3 | Legal Basis | 15 |
| 1.4 | Installed Equipment | 15 |
| 1.5 | Equipment Included in the MMEL | 16 |

1.1 The Master Minimum Equipment List (MMEL)

- 1.1.1 A MMEL is an approved document created specifically to regulate the dispatch of an aircraft type with inoperative equipment. It establishes the aircraft equipment allowed to be inoperative under certain conditions for a specific type of aircraft while still providing an acceptable level of safety.
- 1.1.2 The MMEL contains the conditions, limitations and procedures required for operating the aircraft with these items inoperative. It forms the basis for development and review of an individual operator's MEL.
- 1.1.3 The tailored MEL shall be produced by the operator based on the MMEL approved by the State which issued the Type Certificate used to obtain the CAACI C of A.

1.2 Dispatch with Inoperative Equipment

- 1.2.1 The MEL is an alleviating document. Its purpose is not, however, to encourage the operation of aircraft with inoperative equipment. It is never desirable that aircraft be dispatched with inoperative equipment and such operations are permitted only as a result of careful analysis of each item to ensure that the required level of safety is maintained. A fundamental consideration in permitting the dispatch of aircraft with inoperative equipment is that the continued operation of an aircraft in this condition should be minimized. The limitations governing repair intervals are discussed later in this document.

1.3 Legal Basis

- 1.3.1 The AN (OT) O Article 37 provides that the operation of an aircraft with equipment and/or instruments inoperative may be conducted through the use of a MEL. The OTARs states in part *"the operator shall, where a master minimum equipment list (MMEL) exists for the aircraft: establish, for each aircraft, a minimum equipment list (MEL) approved by the Governor. This shall be based upon, but no less restrictive than, the relevant master minimum equipment list (MMEL); and ..."* (see 121. / 135. / 125.615 for more details)
- 1.3.2 A MEL shall not be approved unless it complies with the minimum standards set out in that MMEL.

1.4 Installed Equipment

- 1.4.1 Most large transport aircraft are designed and certified with a significant amount of redundancy in their systems, such that the minimum standards of airworthiness are satisfied by a substantial margin.

1.4.2 Many of these aircraft also have installed instruments and equipment that are not required for safe operation under all operating conditions, e.g., instrument lighting in day VMC. Other equipment, such as entertainment systems or galley equipment may be installed for passenger convenience.

1.5 Equipment Included in the MMEL

1.5.1 The MMEL lists those items of equipment - including optional equipment - which may be inoperative for the dispatch of a flight, e.g. entertainment items which, when inoperative, do not affect airworthiness.

1.5.2 It is important to note that any item related to the airworthiness of the aircraft, and not included in the MMEL, must be operative prior to flight. Items required by the AN(OT)O (and which are not listed in the MMEL,) are required to be operative for dispatch.

Note 1: *MMELs may use “dashes” (---) to indicate variable quantities that may be found on an aircraft. An Operator’s MEL must define these quantities with few exceptions, ie: window shades or seats.*

Note 2: *MMELs may use terminology such as “if installed”. An Operator’s MEL may not. The configuration of the aircraft must be defined.*

**THIS PAGE INTENTIONALLY
LEFT BLANK**

Chapter 2 Table of Contents

| | | |
|-------|--|----|
| 2.1 | Acceptance Authority | 19 |
| 2.2 | M MEL Philosophy | 19 |
| 2.2.1 | Level of Safety | 19 |
| 2.2.2 | Maintaining the Level of Safety | 19 |
| 2.2.3 | Example of Justification of a M MEL Item | 20 |
| 2.2.4 | Methods of Justification of M MEL Items | 21 |
| 2.2.5 | Optional Equipment | 21 |
| 2.2.6 | Redundant Items | 21 |
| 2.2.7 | Quantitative Safety Analysis | 21 |
| 2.2.8 | Qualitative Safety Analysis | 22 |
| 2.3 | Development of a M MEL | 22 |
| 2.3.1 | M MEL Source | 22 |
| 2.3.2 | M MEL Justification | 23 |
| 2.4 | Source M MEL Policy | 23 |
| 2.5 | Third Country M MELs | 23 |
| 2.6 | Temporary or Interim M MEL Revisions | 23 |
| 2.7 | M MEL Format | 23 |
| 2.8 | M MEL Page Format | 24 |
| 2.9 | M MEL Operating and Maintenance Procedures | 24 |
| 2.10 | M MEL Prohibited Items | 24 |
| 2.11 | M MEL Repair Interval Categories | 25 |

CHAPTER 2 MASTER MINIMUM EQUIPMENT LIST

2.1 Acceptance Authority

The DASR has the responsibility for the overall acceptance of MMELs for aircraft registered in the Cayman Islands. The source MMEL shall be the MMEL that has been approved by the Authority issuing the TCDS used to obtain the CAACI C of A for the aircraft, unless otherwise approved by the DASR. The CAACI do not produce any MMEL's for use on CAACI registered aircraft. Normally, only EASA, FAA and Transport Canada MMEL's will be accepted for the production of an operators MEL.

This chapter provides an insight into the criteria that govern the determination of an acceptable MMEL item and the methods of justification to be used in the development of a MMEL. The guidance need to develop an MEL acceptable to the CAACI is contained in Chapter 3 and the Appendices section of this manual.

2.2 MMEL Philosophy

2.2.1 Level of Safety

- a) The MMEL identifies the equipment which may be inoperative while maintaining the level of safety of the aircraft type dictated by the minimum standards specified for the design and operation of that aircraft type by the country of manufacture. It should be noted that although the airworthiness standards require that aircraft be designed with certain systems and components, the MMEL will permit the operation of that aircraft for short periods with such items of equipment inoperative, if the required level of safety can be maintained.
- b) To establish the equipment for any given operating condition, the Authority must consider various factors relating to safe operation when such equipment is inoperative. These include the consequences of further failures to the aircraft and its occupants, change in crew workload and/or degradation in crew efficiency and degradation in crew capability to cope with adverse environmental conditions.

2.2.2 Maintaining the Level of Safety

- a) The Authority will base its decision, as to whether a particular proposal for a MMEL is to be approved, on the criterion that the level of safety required by the standards specified for the design and operation of the aircraft type can be maintained. This finding will be based on the substantiated ability to maintain the required level of safety with an item of equipment inoperative.
- b) This substantiation will be achieved by one or more of the following means:
 - i) the adjustment of operating limitations;

- ii) the transfer of the function to an operating component;
- iii) a reference to other instruments or components performing the required function or providing the required information;
- iv) a change in operating procedures; and/or
- v) a change in maintenance procedures.

2.2.3 Example of Justification of a MMEL Item

- a) To illustrate this, consider a MMEL proposal requesting that an aircraft be permitted to dispatch with the differential pressure indicator on the cockpit pressurization control panel inoperative.
- b) The standards specified for the design and operation of the aircraft type requires that pressurized cabins must have instruments at the pilot or flight engineer station to show the pressure differential between the cabin air pressure and atmospheric pressure.
- c) In order to meet the criteria, the MMEL proposal would have to stipulate that the following conditions be met:
 - i) the cabin altimeter must be operative; and
 - ii) a chart showing the relationship between the aircraft and cabin altitude for the normal operating pressure differential (e.g. 8 PSI) must be available to the crew in flight.
- d) Consequently, the flight crew, with reference to the aircraft's altimeter, the cabin altimeter and the specified chart, would be able to determine that the appropriate cabin pressure differential was being maintained during flight.
- e) Providing that dispatching with the cabin pressure differential indicator inoperative did not seriously impact crew workload and/or efficiency and was acceptable in terms of further failures, this MMEL item would be acceptable.
- f) This acceptability is based on the evaluation of the foregoing factors showing that the level of safety dictated by the minimum standards specified for the design and operation of the aircraft type would be maintained.
- g) The continued reliability of an aircraft system and the probability of total system failure, following the dispatch of an aircraft with inoperative equipment, must be considered for some MMEL items.

2.2.4 Methods of Justification of MMEL Items

The assessment of an acceptable level of safety for a MMEL item often involves more than one of the following methods of justification:

- a) the equipment may be considered optional;
- b) the equipment may be considered redundant;
- c) a quantitative safety analysis; and/or
- d) a qualitative analysis.

2.2.5 Optional Equipment

When aircraft are approved with optional equipment on board which is over and above the required equipment, there is no necessity for such equipment to be operative if it is in excess of that required for safe operations for a particular flight condition or route of flight. Inclusion in the MMEL can be accepted on this basis.

2.2.6 Redundant Items

- a) If the purpose or function of the considered component/system can be carried out by some other items of equipment, then it may be accepted on a redundancy basis with the provision that the alternative equipment can be confirmed to be operative.
- b) Redundancy cannot be claimed as justification for inclusion of an item if the two (or more) sources of the function or information are required by the aircraft Type Certification basis. In this case, another means of justification such as the safety analysis method must be used.

2.2.7 Quantitative Safety Analysis

- a) The increasing dependency of modern aircraft on the safe operation of their complex systems has resulted in the development of structured techniques to achieve the necessary level of safety. This level of safety is based upon the principle that the hazard resulting from an event should be inversely proportional to the probability of its occurrence. Compliance is usually demonstrated by conducting a system safety assessment.
- b) The safety assessment establishes the major hazardous or catastrophic situations or failure conditions which the system is capable of producing and the allowable probability of occurrence. For those systems whose failure is critical, i.e., results in hazardous or catastrophic situations, a numerical

probability analysis is usually required to demonstrate compliance with the allowable probability of occurrence. For non-critical components/systems, the safety assessment may be greatly simplified. The risk of any specific failure condition is a function of failure rate, the number of such systems and the time of exposure to risk.

- c) When items of equipment from systems performing critical functions, are included in the MMEL, account shall be taken of their inoperability in the safety assessment. The additional risk resulting from occasional flights with such equipment inoperative should be established and should be compatible with the allowable probability of occurrence established during the certification process.
- d) If the item cannot be justified by the previous means or criteria, then a safety analysis must be carried out involving a quantitative analysis of the likely risk of the worst effects that can result from additional failures, events and/or environmental conditions occurring during a flight with the particular inoperative item in question. It must be shown that, bearing in mind the reduced exposure time when operating under a MMEL, the probability of a particular hazard has not been increased beyond the levels dictated by the minimum standards specified for the design and operation of the aircraft type.

2.2.8 Qualitative Safety Analysis

- a) If an item is to be acceptable for inclusion in a MMEL, a qualitative analysis must be used to consider the impact that the proposed inoperative item has on all other aspects of the aircraft's operation.
- b) The qualitative analysis must consider the impact on crew workload, the impact of multiple MMEL items, and the complexity of maintenance and/or operational procedures. It may reflect experience with previous MMEL approvals.

Note: A previous MMEL approval of the same item on another aircraft type does not in itself imply that the required level of safety has been met. Factors to be considered are similarity of system operation and similarity of the aircraft operational role.

2.3 Development of a MMEL

Aircraft manufacturers must produce a MMEL if they wish their aircraft to be operated with specified equipment inoperative. Where possible, the approval process for such a MMEL will take place concurrently with the Type Certification process, but the development of an approved MMEL is not a condition of aircraft Type Certification.

2.3.1 MMEL Source

The development and approval of a MMEL is heavily dependent on the aircraft manufacturer as the primary source of information on any new aircraft and its systems. An Authority will not normally undertake either the origination or production of MMELs. The drafting of a MMEL is the manufacturer's responsibility.

2.3.2 MMEL Justification

The MMEL must be supported by appropriate engineering justification and special procedures where applicable. The engineering justification may include a quantitative and/or qualitative safety analysis, a rationale showing system redundancy, AFM limitations or any other technical justification supporting the prescribed level of safety.

2.4 Source MMEL Policy

The CAACI normally will accept MMELs approved by the Authority of the country of manufacture, as published (see 2.1). Operators are to incorporate source MMEL amendments/revisions as soon as they are available. The CAACI is to be informed immediately of the amendment. The amendment/revision to an operator's MEL is to be submitted to the CAACI for approval prior to usage. (see 3.9 for more details)

2.5 Third Country MMELs

The CAACI will not normally accept a MMEL produced by a third country (an example would be a U.S. MMEL for a European aircraft). However, exceptions may be made, particularly for older aircraft, if no other source is available. Such MMELs should be submitted through and be supported by the aircraft manufacturer with appropriate engineering justification.

2.6 Temporary or Interim MMEL Revisions

Manufacturers may issue temporary or interim revisions to their MMELs which may not be incorporated into the permanent revision for some time. Temporary or interim MMEL revisions may be incorporated into an operator's MEL, upon receipt and after necessary approval from the CAACI. (see 3.9 for CAACI approval details)

2.7 MMEL Format

- a) Each MMEL should contain a cover/approval page, a Record of Revisions, a Reason for Changes page, a List of Effective Pages, a Table of Contents, an explanation of the symbols used in the MMEL and a definition of any terms having special meaning in the context of the MMEL. Each item of equipment listed in the MMEL shall be described and identified in accordance with the Air Transport Association (ATA) specification 100 code System (See Appendix L).

The number of each item of equipment installed and the number required to be operative for dispatch shall be stated in the appropriate columns.

- b) Any conditions associated with inoperative equipment that is required to maintain a level of safety, shall be included in the "Remarks or Exceptions" column.
- c) When practicable, the switch, lever, gauge or indicator of a particular item of equipment, should be identified. Source MMELs may indicate a requirement to placard inoperative equipment by use of an asterisk (*) in Column 4 to inform crew members of its condition.
- d) For operator MELs, a definition shall be added, which shall state that each inoperative item must be placarded to inform and remind the crewmembers and maintenance personnel of the equipment condition.

2.8 MMEL Page Format

- a) MMELs will be published in the "Four Column Format" where Columns 1 to 4 will contain respectively the name of the item and category, number installed, number required for dispatch and remarks or exceptions.
- b) An example of the page format is provided in Appendix B. Other formats may be accepted for MMELs provided they are clear and unambiguous. Each MMEL/MEL will be preceded by an acceptable Preamble. An example of a Preamble is given in Appendix C.

2.9 MMEL Operating and Maintenance Procedures

- a) Any inoperative item of equipment in the MMEL which would require an operational or maintenance procedure to ensure the required level of safety shall be so identified by an appropriate symbol in the "Remarks or Exceptions" column of the MMEL. This will normally be (O) for an operational procedure and (M) for a maintenance procedure. (OM) means both operational and maintenance procedures are required.
- b) Details of such procedures must be made available for review during the MMEL acceptance process as they form part of the justification supporting inclusion of an item in the MMEL. Where applicable, the limitations, procedures and remarks for individual MMEL items should cover at least day, night, VMC, IMC, ETOPS, LVO, RNP, RVSM, icing, rain, and Category II/III.

2.10 MMEL Prohibited Items

- a) The MMEL shall not include any item of equipment which, if inoperative, is likely to significantly affect the take-off, landing or climb performance of the

aircraft or associated landing speeds presented in the approved AFM unless the AFM specifies the effect and the MMEL draws attention to this fact.

- b) No item shall be included in the MMEL which conflicts with the limitations or invalidates the emergency procedures of the AFM or of an AD unless the AFM or directive provide otherwise.
- c) The MMEL shall not include any part or structural component of the aircraft which is the subject of the CDL.

2.11 MMEL Repair Interval Categories

- a) The maximum time an aircraft may be operated between the discovery of an inoperative item and its repair will be specified in the MMEL. Passenger convenience items such as reading lights may have no specified repair interval (no category).
- b) The category of all other inoperative items will be determined according to the time intervals specified in the following Categories:
 - i) **Category A.** Items in this category shall be repaired within the time interval specified in the "Remarks or Exceptions" column of the operator's approved MEL. Whenever the proviso, in the "Remarks or Exceptions" column of the MMEL states cycles or flight time, the time interval begins with the next flight. Whenever the time interval is listed as flight days, the time interval begins on the flight day following the day of discovery. Some MMELs for aircraft that are equipped with FADEC engines have relief that is subject to time limited dispatch expressed as a specific number of engine hours, and will start in accordance with the times established by the engine manufacturer or as indicated in the Remarks column of the MMEL. Time limited relief cannot be extended.
 - ii) **Category B.** Items in this category shall be repaired within 3 consecutive calendar days excluding the day of discovery.
 - iii) **Category C.** Items in this category shall be repaired within 10 consecutive calendar days, excluding the day of discovery.
 - iv) **Category D.** Items in this category shall be repaired within 120 consecutive calendar days, excluding the day of discovery. To be considered for placement in Category D, the item must be of an optional nature, or excess equipment which an operator may, at his discretion, deactivate, remove from or install on an aircraft. To be approved for Category D, the item must meet the following criteria:
 - 1) the absence of the item must not affect crew workload;

- 2) the pilots must not rely on the function of that item on a routine or continuous basis; and,
- 3) the pilots' training and subsequent habit patterns and procedures must not rely on the use of that item.

Category Format

The category of each item in the MMEL is to be inserted in column 1 adjacent to column 2.

**THIS PAGE INTENTIONALLY
LEFT BLANK**

Chapter 3 Table of Contents

| | | |
|--------|--|----|
| 3.1 | MEL Purpose | 30 |
| 3.2 | MEL Definition | 30 |
| 3.2.1 | Equipment Required by Operating Regulation | 30 |
| 3.3 | MEL Intent | 30 |
| 3.4 | MEL Limitation | 31 |
| 3.5 | Audit of an Operator's MEL | 31 |
| 3.6 | Applicability | 31 |
| 3.6.1 | Legal Basis | 31 |
| 3.7 | CAACI MEL Administrative Procedures | 31 |
| 3.7.1 | Approval Authority | 31 |
| 3.7.2 | MMEL Status | 31 |
| 3.7.3 | MMEL Acquisition | 31 |
| 3.7.4 | Operator MEL Development | 32 |
| 3.8 | MEL Application Process | 32 |
| 3.8.1 | OTAR Part 121 and 135 Operators | 32 |
| 3.8.2 | OTAR Part 125 Operators | 33 |
| 3.9 | MEL Approval Process | 33 |
| 3.9.1 | Flight Operations and Airworthiness | 33 |
| 3.9.2 | DASR Approval | 33 |
| 3.9.3 | Initial MEL Approval Time | 33 |
| 3.9.4 | Interim Approvals to use MMEL | 33 |
| 3.9.5 | MEL Distribution | 33 |
| 3.9.6 | MEL Updates | 34 |
| 3.9.7 | MEL Revisions | 34 |
| 3.9.8 | MEL Categorization | 35 |
| 3.10 | Conformity to the MMEL | 35 |
| 3.10.1 | Modification of MMELs | 35 |
| 3.10.2 | MEL Content | 35 |
| 3.10.3 | Administrative Control Items | 35 |
| 3.10.4 | Passenger Convenience Items | 36 |
| 3.10.5 | MEL Audits | 36 |
| 3.11 | MEL Development Procedures | 36 |
| 3.11.1 | MEL Basic Format | 36 |
| 3.11.2 | MEL Page Format | 36 |
| 3.11.3 | List of Effective Pages (LEP) | 37 |
| 3.11.4 | Table of Contents | 37 |
| 3.11.5 | MEL Preamble | 37 |

| | | |
|--------|---|----|
| 3.11.6 | Notes and Definitions | 38 |
| 3.11.7 | Operating and Maintenance Procedures | 38 |
| 3.11.8 | Approval of Operating and Maintenance Procedures | 39 |
| 3.11.9 | COM Procedures | 39 |
| 3.12 | MEL Repair Interval Categories | 39 |
| 3.13 | MEL Item Repair Interval Extension | 40 |
| 3.13.2 | Approval | 40 |
| 3.13.3 | Program Procedures - Maintenance Control Manual (MCM) | 40 |
| 3.13.4 | AWI/FOI Communications | 41 |
| 3.13.5 | Extension Denial | 41 |
| 3.14 | Deferral of Items | 42 |
| 3.14.2 | Review of Deferred Items | 42 |
| 3.15 | Placarding | 42 |
| 3.15.1 | Placarding and Placard Control | 43 |
| 3.15.1 | Procedures | 43 |
| 3.15.2 | Placard Criteria | 43 |
| 3.15.3 | Multiple Placards | 43 |
| 3.15.4 | Temporary Placards | 43 |
| 3.16 | Dispatch | 43 |
| 3.16.1 | Operational and Maintenance Items | 44 |
| 3.16.1 | Elementary Work | 44 |
| 3.17 | MEL Training | 45 |
| 3.17.1 | Training Program — Ground Personnel | 45 |
| 3.17.1 | Training Program — Crew Members | 45 |
| 3.17.1 | Training Program — Recurrent | 45 |
| 3.18 | MELs for Leased Aircraft | 45 |
| 3.8.1 | MELs for Leased Foreign Registered Aircraft | 45 |
| 3.8.2 | MELs for Foreign Leased Cayman Registered Aircraft | 46 |
| 3.19 | CAACI MEL Administrative Procedures | 46 |
| 3.19.1 | MEL Review | 46 |
| 3.19.2 | MEL Priority | 46 |
| 3.19.3 | Application Approval Status | 46 |

CHAPTER 3 MEL POLICY AND PROCEDURES

3.1 MEL Purpose

The MEL is an approved joint operations and maintenance document prepared for or by an operator to:

- a) identify the minimum equipment and conditions for an aircraft to maintain the Certificate of Airworthiness in force and to meet the operating rules for the type of operation;
- b) define operational procedures necessary to maintain the required level of safety and to deal with inoperative equipment; and
- c) define maintenance procedures necessary to maintain the required level of safety and procedures necessary to secure any inoperative equipment.

3.2 MEL Definition

While the MMEL is for an aircraft type, the MEL is tailored to the operator's specific aircraft and operating environment and may be dependent upon the route structure, geographic location, and number of airports where spares and maintenance capability are available etc. The MMEL cannot address either these individual variables, or standard terms such as "as required by Regulation". **It is for these reasons that a MMEL cannot be approved for use as a MEL.** It falls on the operator to develop Operations (O) and Maintenance (M) procedures, or to use a DDPG or DDG, where these documents are available.

***Note:** Operators currently using an approved company MEL or who are in the process of amending or developing a new MEL must ensure that all regulatory references are in accordance with the AN (OT) O and OTARs.*

3.2.1 Equipment Required by Operating Regulation

When an item of equipment is required to be installed and operative under particular circumstances by the AN (OT) O, such equipment may be defined in the remarks column of the MEL by a synopsis of the Regulation.

3.3 MEL Intent

Except as authorized by the Governor under the AN(OT)O, operation of an aircraft with aircraft equipment inoperative or removed is prohibited unless an operator does so in compliance with an approved MEL.

3.4 MEL Limitation

The content of an operator's approved MEL cannot be less restrictive than the content of the source MMEL for that aircraft type.

3.5 Audit of an Operator's MEL

The CAACI will audit the operator's conformance to MEL requirements on an ongoing basis as part of any company audit and during the annual C of A survey. Significant non-conformances may result in the MEL approval being withdrawn.

3.6 Applicability

3.6.1 Legal Basis

AN (OT) O Article 37 states in part that *“an aircraft registered in the Territory must not commence a flight if any of the equipment (including radio apparatus) required by or under this Order to be carried in the circumstances of the intended flight is not carried or is not in a fit condition for use unless the aircraft does so under the terms of an approval granted under paragraph (1) to the operator and in accordance with a Minimum Equipment List approved by the Governor, and in the case of an aircraft to which articles 96 or 134 apply, the applicable operations manual contains the particulars of that approval.* The term “MEL” is defined in OTAR Part 1 and OTAR Parts 121.610-615, 125.610-615 and 135.610-615. Each describes how the MEL is used by an operator or holder of an AOC.

3.7 CAACI MEL Administrative Procedures

3.7.1 Approval Authority

In accordance with the Delegation of Authority, the authority and responsibility for MEL approval rests with the DASR.

3.7.2 MMEL Status

The operator must ensure that they use the latest version of the source MMEL to develop their MEL. The CAACI reserves the right to add an overriding limitation.

3.7.3 MMEL Acquisition

Approved MMELs may be acquired from the foreign Civil Aviation Authority. Alternatively, operators may obtain MMELs directly from the manufacturer, who normally provides MMELs along with a revision service. It is the responsibility of the operator to provide a complete set of source MMEL documents to the CAACI when requested by the CAACI.

3.7.4 Operator MEL Development

- a) The operator will develop his MEL and all subsequent amendments, as a joint operations and maintenance document, based on the current MMEL revision. The operator's MEL shall be approved by at least one senior company official from each respective department (Operations and Maintenance) prior to the MEL application being submitted to the CAACI.
- b) Any additional MEL items which do not appear in the MMEL will require substantiation for consideration, and must be accompanied by a description of the appropriate (O) or (M) procedures when submitted to the CAACI for review and approval. The operator may also be asked to provide adequate substantiating documents to support their MEL submissions to the CAACI. These documents will provide additional information relating to the operator's MEL program.
- c) The operator must submit one copy of the MEL and any other relevant documents to the CAACI. The DASR will assign an AWI and a FOI to review the MEL.

3.8 MEL Application Process

All initial MEL applications must be submitted through [VP-C Online](#). It will be necessary for operators to produce, or contract another organization to produce, a MEL from the MMEL.

The operator must consult the following documents to ensure their MEL is compliant:

- a) the current requirements of the AN(OT)O;
- b) the current version of [OTARs](#) Part 125, 135 or 121 as applicable); and
- c) the CAACI MEL Policy and Procedures Manual.

Contact the DASR if you require assistance obtaining these documents.

3.8.1 OTAR Part 121 and 135 Operators

All AOC holders are required to submit their MEL along with the completed MEL Application for review and approval prior to the start of actual flight operations. The MEL must be an electronic copy, preferably PDF format. The MEL shall show the operator name, aircraft make and model, registration(s), the MMEL revision number and date used to produce the MEL. It must also contain a statement that indicates the MEL is in compliant with OTAR Part 121 or 135, as applicable. It is recommended that the MEL be given a "Title" (such as "XYZ Air B737 MEL") as this will be used to identify the MEL on the CAACI Approval Certificate.

3.8.2 OTAR Part 125 Operators

The completed MEL Application must be submitted along with an electronic copy of the MEL. The MEL shall show the operator name, aircraft make and model, registration(s), the MMEL revision number and date used to produce the MEL. It must also contain a statement that indicates the MEL is in compliance with OTAR Part 125. The requirements of OTAR Part 125 are very different from FAA Part 91 and operators must pay particular attention to ensure the OTAR requirements are complied with when using a FAA MMEL as the basis for their MEL.

It is recommended that the MEL be given a "Title" (such as "XYZ Air B737 MEL") as this will be used to identify the MEL on the CAACI Approval Certificate.

3.9 MEL Approval Process

3.9.1 Flight Operations and Airworthiness

The assigned FOI will be responsible for vetting the operator's MEL with respect to the operations functions and procedures and the assigned AWI will be responsible for vetting the operator's MEL with respect to the maintenance functions and procedures, and ensuring that all of the maintenance procedures produced and published by the operator, are relevant to the required task.

3.9.2 DASR Approval

Both the FOI and the AWI must be in agreement as to the quality of the MEL prior to recommending it to the DASR for review and approval.

3.9.3 Initial MEL Approval Time

Provided that the operator submits an initial MEL that complies with the MMEL and the CAACI MEL Policy and Procedures Manual, the CAACI will endeavour to approve the document within 10 working days.

3.9.4 Interim Approvals to use MMEL

The CAACI will not grant an operator interim approval while the MEL is undergoing the review process, nor will the CAACI grant approval to use a MMEL as a MEL. (refer back to Section 3.2)

3.9.5 MEL Distribution

An approved new MEL or an approved revision to an existing MEL is deemed to be in force upon receipt from the CAACI. (see 3.9.7) However, the operator may have 10 calendar days or as specified in the operator's approved system, (if necessary) to

distribute and implement the new document. In all cases, a copy of the MEL is required for:

- a) each aircraft;
- b) the Senior Company Official - Maintenance;
- c) the Senior Company Official -Operations;
- d) Dispatch (if applicable);
- e) the Maintenance Coordinator (if applicable);
- f) any other Company personnel as required; and
- g) the CAACI. (PDF recommended)

NOTE: Distribution may be in electronic format or standard hard copy, in accordance with the operators approved procedures.

3.9.6 MEL Updates

It is the operator's responsibility to ensure that the MEL is reviewed and updated as required. The MEL should be reviewed by the operator at least annually to ensure that it incorporates any changes to the operation, aircraft or to the AN (OT) O. A revision to the MMEL will require that the operator review and amend the MEL, as necessary. The MEL development, processing and approval procedures should be reviewed as part of the operator's quality assurance program.

3.9.7 MEL Revisions

- a) **AOC holders:** Revisions to MELs must be submitted along with the applicable sections of MMEL, affected List of Effective Pages and a list that details the changes to the MEL. The submission of the effected MEL pages should be in that format that will be inserted into the MEL. Approval is required for all revisions.
- b) **OTAR Part 125 Operators:** the CAACI must be notified when revisions have been made and a copy of the revision sent to the CAACI. No further approval is required.
- c) Where a source MMEL revision is more restrictive, the operator must submit an appropriate amendment to the MEL for approval immediately on receipt of the MMEL revision. Priority is to be accorded when dealing with such revisions.
- d) Where a DDPG or equivalent document is available; or where a MMEL revision does not affect a procedure, the time for MEL amendment remains at 90 days. Where a DDPG or

equivalent document is not available, or where the MMEL revision affects a procedure, the MEL amendment time is 120 days.

3.9.8 MEL Categorization

When a source MMEL is initially categorized, the MEL shall be amended to conform to the MMEL as per Section 2.11. The category of each item in the MEL shall be inserted in Column 1 adjacent to Column 2. An operator must submit the proposed MEL amendment for categorization within 120 days of the categorized MMEL approval date.

3.10 Conformity to the MMEL

3.10.1 Modification of MMELs

Operators may disagree with the content of the MMEL and request changes to their MEL. These suggestions for changes, accompanied by appropriate substantiation, should be forwarded by the operator to the foreign CAA (approving Authority of the source MMEL) or the manufacturer who is responsible for securing any such changes.

3.10.2 MEL Content

- a) The operator's MEL must reflect the current source MMEL limitations unless otherwise authorized. When a revision is issued to a MMEL, the operator's MEL need not be revised if the change is less restrictive than what is contained in the existing MEL.
- b) Except as noted above, all items installed in an operator's aircraft which are addressed in the most recent accepted version of the source MMEL shall be included in the MEL. At the same time, an operator or pilot retains the option to refuse any alleviation, and may choose not to dispatch with any particular MEL item inoperative.

3.10.3 Administrative Control Items

Some operators use their MEL as a comprehensive document to control items for tracking and informational purposes. In such cases, operators' MELs may include items not contained in the MMEL; however, no relief may be granted for these administrative control items unless conditions and limitations are contained in an approved document other than the MMEL (e.g., aircraft flight manual). Administrative control items and passenger convenience items may not include items or subsystems of items which are addressed in the MMEL. Operators seeking to add administrative control items to their MEL must submit their request to the CAACI with appropriate substantiation. (See Definitions)

3.10.4 Passenger Convenience Items

Passenger convenience items are those items related to the convenience, comfort, or entertainment of an operator's passengers. They may include items such as galley, movie, or stereo equipment or overhead reading lamps. Passenger convenience items do not carry a specific repair interval, and need not be listed in an operator's MEL, if they are not addressed in the MMEL. The exceptions to this rule are:

- a) where passenger convenience items serve a second function, such as movie equipment being used for cabin safety briefings, operators must develop and include operational contingency procedures in case of an equipment malfunction; and
- b) where passenger convenience items are part of another aircraft system, for example- the electrical system, procedures must be developed and included in the MEL for deactivating and securing in case of malfunction.

3.10.5 MEL Audits

- a) Whenever an audit or survey is conducted on the aircraft or operator, the operator's MEL shall be reviewed. The review shall ensure that the MEL conforms to the AN (OT) O, OTARs and current policies and procedures.
- b) Special attention should be given to operating rules that may have been amended since the MEL was last approved. It shall be confirmed that the latest revisions to the MMEL, if more restrictive, have been incorporated into the MEL.

3.11 MEL Development Procedures

3.11.1 MEL Basic Format

The MEL must include the following: a List of Effective Pages, a Table of Contents, the MEL Preamble, Notes and Definitions, a section for each aircraft system addressed, the MEL Approval and amendment record page. Operators must specify the MMEL revisions and any other documents such as a DDPG, which were used in the development of their MEL.

3.11.2 MEL Page Format

- a) The MEL format is at the discretion of the operator, provided that it is clear and unambiguous. However, it is recommended that the MEL page format follow the MMEL page format of four columns (See Appendix B). The page numbering and individual MEL items however, must be in accordance with the ATA 100 code system. (See Appendix L)

- b) The MEL may incorporate only one item per page or as considered appropriate by the operator when operations and/or maintenance procedures are required. If no procedures are required or the required action is simple, multiple items may appear on a single page.

3.11.3 List of Effective Pages (LEP)

- a) A LEP will be used to ensure that each MEL is up-to-date. It must list the date of the last amendment for each page of the MEL. For AOC Holders only, the CAACI will stamp the LEP to indicate the approval status of the contents of the MEL. The date and revision status of each page of the MEL must correspond to that shown on the LEP.
- b) Only those pages of the LEP that list the date and revision status of each MEL page need to be stamped.
- c) The CAACI stamped LEP must be retained with the original approved MEL. Copies of the company MELs must be issued with copies of the stamped LEPs. The copies must detail the location within the company where the original approved MEL is retained.

NOTE: items 3.11.3 b) and c) apply only to OTAR Part 121 and 135 operators.

NOTE: the MEL Approval Certificate (or a copy) must remain on the aircraft with the MEL.

3.11.4 Table of Contents

The Table of Contents page shall list the section for each aircraft system utilizing the ATA 100 listing as found in the MMEL. Pages will be numbered with the ATA system number followed by the item number for that system (e.g., the page following 27-2-1 would be 27-2-2).

3.11.5 MEL Preamble

The purpose of the MEL Preamble is to provide direction to company personnel on the philosophy and use of the MEL. The CAACI publishes a MEL Preamble which is acceptable for use by an operator (See Appendix C). An operator may choose to develop their own Preamble but it must contain at least the information contained in the CAACI version.

3.11.6 Notes and Definitions

Notes and Definitions are required to allow the user to interpret the MEL properly. As a minimum, the notes and definitions contained in the Preface will be used in the MEL. Additions and deletions to the notes and definitions may be applied to the operator's MEL as required.

3.11.7 Operating and Maintenance Procedures

- a) Dispatch with inoperative items is often acceptable only with the creation of special operating or maintenance procedures.
- b) Where the MMEL indicates that this is the case, the operator must establish, obtain approval for and publish appropriate procedures. Procedures recommended by the aircraft manufacturer in most cases can be adopted for this purpose, but the ultimate responsibility for providing acceptable procedures to be approved in the MEL rests with the operator. These procedures will ensure that a satisfactory level of safety will be maintained (See Section 3.15.1).
- c) The operator, when comparing the MEL against the MMEL must ensure that where the (O) or (M) symbols appear, an operating or maintenance procedure has been developed that provides clear direction to the crew members and maintenance personnel of the action to be taken. This procedure must be included in the MEL.
- d) The only exception is when the procedure is contained in another document that is available:
 - i) to the flight crew on the flight deck, such as an AFM, AOM, or the COM;
 - ii) to the flight attendants, such as a COM or FAM; or
 - iii) to the maintenance crew, such as an AFM (e.g. - the Airbus Aircraft Deactivation Procedures Manual), MCM, etc.

In these cases, the MEL may refer to a section of the appropriate document.

- e) It is not acceptable to reference the AN(OT)O or similar documents, as these are not carried on board the aircraft and could be subject to misinterpretation. The objective is to provide personnel with clear, concise direction on how they are to proceed. Where the MMEL column 4 states "as required by Regulation", this wording shall not appear in the MEL; rather, a synopsis of the Regulation shall appear.

3.11.8 Approval of Operating and Maintenance Procedures

Manufacturers may choose to produce operating and maintenance procedures such as DDPGs, for use by operators. These procedures may be inserted into the appropriate MEL pages, and submitted by the operator, to form part of the MEL. DDPGs, CDLs, and other similar documents cannot be approved by the CAACI, nor can they replace the MEL. If the aircraft manufacturer has not published (O) or (M) procedures, the operator must develop appropriate procedures and submit them to the CAACI for approval.

3.11.9 COM Procedures

The operator must establish procedures in the COM for the use and guidance of crew members when using the MEL. The procedures must agree with those in the MCM. The operator may choose to include all procedures/instructions in the MEL itself; in which case the COM will only be required to reference this document.

3.12 MEL Repair Interval Categories

The maximum time an aircraft may be operated between the deferral of an inoperative item and its repair will be specified in the MEL and where the MMEL has been categorized. Passenger convenience items such as reading lights and entertainment units must include a category. Most of these items will be a “D” category provided any (M) procedure (in the case of electrically supplied items) is applied.

- a) **Category A.** Items in this category shall be repaired within the time interval specified in the “Remarks and Exceptions” column of the operator's approved MEL. Whenever the proviso in the “Remarks” or “Exceptions” column of the MMEL states “cycles” or “flight time”, the time interval begins with the next flight. Whenever the time interval is listed as flight days, the time interval begins on the flight day following the day of discovery.
- b) **Category B.** Items in this category shall be repaired within 3 consecutive calendar days, excluding the day of discovery.
- c) **Category C.** Items in this category shall be repaired within 10 consecutive calendar days, excluding the day of discovery
- d) **Category D.** Items in this category shall be repaired within 120 consecutive calendar days, excluding the day of discovery.

3.13 MEL Item Repair Interval Extension

3.13.1 Purpose

Under certain conditions, such as a shortage of parts from manufacturers, or other unforeseen, situations, air operators may be unable to comply with specified repair intervals which would result in the grounding of aircraft. To preclude that from happening, a MEL Item Repair Interval Extension can be requested that will allow operators, under controlled conditions, to obtain extensions to MEL repair interval categories. The following approval process must be followed by an operator when requesting an MEL Item Repair Interval Extension. The number of times this privilege is given is expected to be low.

3.13.2 Approval

- a) The MEL item repair interval period can only be extended beyond the expiry date with the approval of the CAACI.
- b) For all extensions, the operator shall complete and submit the MEL Item Repair Interval Extension Request form (See Appendix A), or provide the same information to the CAACI in an equivalent and acceptable format. A copy of the applicable MEL page referencing the MEL item must accompany the Extension Request along with any other supporting documentation, where applicable.
- c) When a Extension Request is granted, the Approval must accompany the journey log and an entry made as follows:
 - i) “This aircraft is operating on a MEL item repair interval extension as specified in the attached Approval”;
 - ii) A copy of the approved Extension Request (or the equivalent document) shall be retained on file by the operator for a period of thirty-six months, for auditing purposes.
- d) The extension of Category A items shall be authorized on a case by case basis by the assigned AWI and FOI in consultation with the DASR.

Note: *Certain items qualify for time-limited dispatch as specified in the Type Certificate Data Sheets. The notation “And no extensions are authorized” will appear in the MEL for such items.*

3.13.3 Program Procedures - Maintenance Control Manual (MCM)

To ensure that operators obtain extensions on MEL repair intervals only when necessary, the following elements must be adequately addressed in the MCM. Some of the elements listed below are already required as part of an operator's maintenance

program. They are restated here to emphasize their importance with respect to the MEL Item Repair Interval Extension Program. This list is not all inclusive and AWIs should take any other appropriate factors into account as necessary:

- a) **Authority.** The operator must assign authority for seeking approval of item repair interval extensions to the appropriate level of the maintenance department. Procedures must be established and implemented to ensure that extensions are not sought without approval from the assigned operations and maintenance management level. The operator's authorized operations and maintenance personnel will indicate his approval in writing for seeking the extension.
- b) **Communications.** Operator's maintenance and operations divisions must establish clear lines of communication to show that a MEL item repair extension will not be sought unless both parties agree that the extension is clearly warranted.
- c) **Parts/Equipment Control.** The operator must establish and implement procedures that will ensure where parts and/or equipment are needed to rectify a MEL defect, that these established procedures are acted upon as soon as possible.
- d) **Maintenance Control.** The operator must establish and implement procedures to ensure that all maintenance actions required to rectify a defect are initiated as soon as possible.

3.13.4 AWI/FOI Communications

CAACI Airworthiness and Operations Inspectors assigned to each operator requesting this extension must establish clear lines of communication throughout the approval process and during the time an extension is valid. The operator has a requirement to request the MEL Item Repair Interval Extension to the CAACI at least one day in advance. It is the responsibility of the CAACI Inspector who receives notification from an operator to ensure that his counterpart and the DASR are made fully aware of the request as soon as possible.

3.13.5 Extension Denial

It is recognized that while MEL item repair interval categories have been established, it may not be possible in every case to repair the aircraft in the time allotted for each MEL item.

Emphases will be placed on ensuring that operators do not substitute MEL item repair interval extensions as a means to reduce or eliminate the need to repair MEL defects in accordance with the established category limit. Operators are not to request an extension as a normal means of conducting MEL item repairs. Extensions will only be considered valid and justifiable when events beyond the operator's control have precluded rectification. Unwillingness on the part of the operator to obtain parts or equipment to rectify the defect in a most timely manner possible will be grounds for denial of an extension.

3.14 Deferral of Items

3.14.1 Procedures for the Deferral of MEL items

These procedures will be included as part of the operator's MCM. The operator must ensure that the COM and the MEL reference the aforementioned procedures in the MCM, or duplicates the same (See Appendix J for sample procedures). These procedures comprise a method for:

- a) deferral and/or rectification of inoperative equipment;
- b) placarding requirements as per the MEL;
- c) dispatching of aircraft with deferred MEL item(s);
- d) controlling categorized times;
- e) training of company personnel who are responsible for MEL compliance procedures; and
- f) a remote deferral system (if applicable to the operator).

3.14.2 Review of Deferred Items

The operator must establish procedures whereby the Maintenance and Operations Departments periodically review the deferred items, in order to ensure that any accumulation of deferred items neither conflict with each other nor present an unacceptable increase in flight or cabin crew workload. Notwithstanding the categorization of item repair intervals, it should be the aim of each MEL document holder to ensure that inoperative items are repaired as quickly as possible. It is CAACI policy that optional inoperative equipment should be repaired or removed from an aircraft. AWIs and FOIs are expected to encourage this practice with the operators.

3.15 Placarding

All inoperative items must be placarded to inform crew members of equipment condition.

While the MEL for some items may require specific wording, the majority of items leave the placard wording and location to be determined by the operator. The operator shall provide the capability and instructions to the flight crew to ensure that the placard is in place prior to the aircraft being dispatched.

Note: *The exclusion of an asterisk in a MMEL does not preclude the requirement for placarding.*

3.15.1 Placarding and Placard Control

Placarding will be carried out in accordance with the placarding procedures established and set out in the operator's approved MCM. The method of placarding control must ensure that all inoperative items are placarded and placards are removed and accounted for when the defect is cleared.

3.15.1 Procedures

The equipment/system shall be placarded so as to inform the crew members of the inoperative condition(s) of the item. To the extent practicable, placards must be located as indicated in the MEL, or adjacent to the control or indicator affected. When not practical, the placard may be placed in a centralized location on the flight deck. This location shall be in plain sight of the flight crew. In all cases, the MEL placarding instructions shall indicate where the placard is to be placed.

3.15.2 Placard Criteria

Placards should be self-adhesive. The placard may be in two parts. Part One should list a description of the defect and the defect control number and should be attached to the log book for crew reference. Part Two should list the system affected and the defect control number and be fixed in the appropriate location. A MEL control sheet attached to the log book could serve the same purpose as Part One above.

3.15.3 Multiple Placards

If more than one placard is required for a MEL item, provision must be made to ensure that all placards are removed when the defect is cleared.

3.15.4 Temporary Placards

If a defect occurs at a base where maintenance personnel are not available, the flight or cabin crew may install a temporary placard as required by the MEL. The aircraft may continue on a planned itinerary to a base where maintenance will rectify or re-defer in accordance with the approved deferral system.

3.16 Dispatch

"Dispatch" for the purpose of the MEL/MMEL refers to the moment the airplane starts its takeoff roll. In the case of a helicopter, it refers to the moment the helicopter commences air or ground taxi. The MEL is approved on the basis that equipment will be operative for takeoff unless the appropriate MEL procedures have been carried out. The operator's MEL shall include procedures to deal with any failures which occur between the start of taxi or push back and takeoff brake release. Any failure which occurs after takeoff commences shall be dealt with as an in-flight failure, by reference to the

appropriate section of the AFM, if necessary. After takeoff commences, no MEL action is required, until the completion of the next landing.

3.16.1 Operational and Maintenance Items

Any item of equipment in the MEL, which when inoperative would require an operating or maintenance procedure to ensure the required level of safety, shall be so identified in the "remarks" or "exceptions" column of the MEL. Normally "(O)" means an operating procedure, "(M)" means a maintenance procedure and "(O)(M)" means that both operating and maintenance procedures are required.

a) (O) Items

- i) Aircraft with inoperative equipment requiring an operating procedure may be returned to service following completion of the required MEL procedure for deferral.
- ii) Operating procedures are normally carried out by qualified flight or cabin crew, but may be accomplished by other qualified, approved personnel.

b) (M) Items

- i) Aircraft with inoperative equipment requiring a maintenance procedure may be returned to service following completion of the required MEL procedure for deferral.
- ii) Maintenance procedures are normally accomplished by maintenance personnel, but some elementary maintenance tasks may be carried out by crew members or other qualified, approved personnel (See Section 3.15.2).
- iii) Air crew may not perform maintenance procedures if the defect involves an item designated in the MEL with a "(M#) - Maintenance Personnel Required." In this circumstance, the aircraft may not proceed until authorized maintenance personnel carry out the specified procedure **(Not all MMELs use the annotation M#)**.

3.16.1 Elementary Work

Some elementary work called for in the MEL may be accomplished by crew members, or others, who have been trained and approved to do so according to the Regulations and Standards in the Maintenance Standards. The MEL must clearly state where this applies.

3.17 MEL Training

3.17.1 Training Program — Ground Personnel

Operators shall develop a MEL training program for ground personnel, to be included in the MCM and COM, as appropriate, which must be approved prior to an operator receiving approval to operate with a MEL. The training should include those sections of the MCM / COM procedures dealing with the use of the MEL, placarding of inoperative equipment, deferral procedures, dispatching, and any other MEL related procedures (See Appendix K). Ground personnel include dispatchers and maintenance engineers. All required personnel shall receive MEL training prior to their use of the MEL.

3.17.1 Training Program — Crew Members

Operators shall provide crew members who are expected to use the MEL, with MEL training and shall detail such training in their COM. The training will include the purpose and use of a MEL, instruction on company MEL procedures, elementary maintenance procedures, and PIC responsibility (See Appendix K). Crew members include pilots, flight engineers, and flight attendants.

3.17.1 Training Program — Recurrent

Annual Recurrent training shall be conducted to refresh procedural knowledge and ensure company personnel are aware of any changes in MEL procedures. This training can be incorporated and recorded as part of ground or simulator training.

3.18 MELs for Leased Aircraft

3.8.1 MELs for Leased Foreign Registered Aircraft

- a) The Cayman Islands require that leased aircraft must be a type certificated for registration in the Cayman Islands. A leased aircraft must have an approved MMEL accepted by the CAACI in accordance with the criteria set out in Chapter 2 of this document.
- b) The MEL for a particular leased foreign registered aircraft must not be less restrictive than the CAACI approved MEL for the same type of aircraft operated by a Cayman operator and must be accepted by the CAACI in accordance with the criteria set out in Chapter 2 of this document. The MEL must be available in English, appropriate to the personnel using the MEL.
- c) The foreign country of registration of the leased aircraft may require that their aircraft be operated in accordance with their approved MEL, in which case any less restrictive changes to this MEL must be approved by the foreign Authority. The

CAACI may require more restrictive changes to the MEL because of the AN(OT)O and operating conditions. It is the responsibility of the Cayman lessee to determine the requirements of the foreign Authority and the CAACI for the use of a MEL on the leased aircraft.

3.8.2 MELs for Foreign Leased Cayman Registered Aircraft

- a) The CAACI reviews each lease and approves or accepts the use of a MEL on such aircraft based on whether a bilateral airworthiness agreement or a technical arrangement exists between the CAACI and the foreign Authority and it has been determined that the MMEL/MEL procedures are acceptable.
- b) If there is no agreement between the CAACI and the foreign Authority a review of the foreign operator's MEL is conducted to determine that it is consistent with the source MMEL.

3.19 CAACI MEL Administrative Procedures

3.19.1 MEL Review

Each MEL will normally be reviewed by at least one AWI and one FOI who will ensure all of the requirements for approval have been met. Any discrepancies will be brought to the attention of the operator for correction. This may be in the form of an email from the AWI or FOI, or the application being 'rejected' through VP-C Online. In either case, suggested changes will be provided. Both Maintenance and Operations concurrence is required prior to the MEL being recommended to the DASR for review and approval.

3.19.2 MEL Priority

MEL approvals and amendments are to be considered a top priority for CAACI personnel charged with their review. CAACI personnel will attempt to minimize approval/turnaround times for MEL submissions, depending on existing tasking and availability.

3.19.3 Application Approval Status

If all requirements have been met following the MEL review process, the MEL Application will be recommended for approval. The status of the MEL approval can be tracked online within *VP-C Online* for the particular aircraft.

If changes to the MEL are required before approval, the operator will be notified by email and by stating the required changes in the "Comments" section of the application. Major changes may require the application to be "Rejected" and a new application and MEL re-submitted by the operator.

**THIS PAGE INTENTIONALLY
LEFT BLANK**

Table of Contents

| | |
|---|-------|
| A - MEL Item Repair Interval Extension Request | 49 |
| B - MMEL (Example) | 50 |
| C - MEL Preamble (Example) | 51-52 |
| D - MEL Application (Example) | 53 |
| E - MEL Approval (Example) | 54-55 |
| F - CAACI Approved MEL (Example) | 56-57 |
| G - MEL Quick Reference Compliance Checklist | 58-60 |
| H - CAACI MEL Approval Flow Chart | 61-62 |
| I - Operator MEL Development Flow Chart | 63-64 |
| J - COM - MEL Defect Deferral Procedures | 65-67 |
| K - Initial and Recurrent MEL Training Syllabus (Example) | 68-69 |
| L - ATA 100 Aircraft System Specifications | 70 |

Appendix B**MMEL (Example Only)**

| | | |
|---|------------------------------|-------------|
| Aircraft - | Revision No. - 5 | Page |
| Canadair CL600 \ 601 \ 601-3A \ 601-3R \ 604 | Date: January 06 / 97 | 29-1 |

| System and Sequence No. Item. | 1. | 2. Number installed | | 3. Number required for dispatch | 4. Remarks or Exceptions |
|---|-----------|----------------------------|---|--|---------------------------------|
| 29 – HYDRAULICS | | | | | |
| 11-1 Electric Motor Driven Hydraulic Pumps (System 1 and 2) | C | 2 | 1 | (M) One may be inoperative provided: a) Affected pump is selected off and is deactivated, and b) Both Engine Driven Hydraulic Pumps are Operative. | |
| 11-2 Hydraulic Accumulator Pressure Gauges Systems 1, 2, and 3) | C | 3 | 0 | (M) All may be inoperative provided accumulator pre-charge is checked using a suitable gauge before the first flight of the day. | |
| 11-3 Hydraulic Accumulators (Systems 1,2, and 3) | B | 3 | 1 | System 1 and /or System 2 accumulator(s) may be inoperative. | |
| 11-4 Engine Driven Hydraulic Pumps | C | 2 | 1 | (M) One may be inoperative provided all other hydraulic pumps are operative. | |
| 11-5 Hydraulic Heat Exchanger Cooling Fan (600 \ 601 \ 601-3A \ 601-3R) | C | 1 | 0 | May be inoperative provided ground operation of hydraulic systems 1 and 2 is limited to 30 minutes when OAT is above 45 degrees C. | |

Appendix C

MEL (Aircraft Type) Preamble (Example Only)

All equipment installed on an aircraft in compliance with the Airworthiness Standards and the Operating Rules must be operative. However, the AN (OT) O permits the publication of a MEL where compliance with certain equipment requirements is not necessary 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 MEL is developed by the operator to improve aircraft utilization and thereby provide more convenient and economic air transportation for the public. The approved MEL includes those items of equipment related to airworthiness and operating regulations and other items of equipment the CAACI 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 MEL. 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 AFM Limitations, Emergency Procedures or ADs. It is important to remember that all equipment related to the airworthiness and operating regulations of the aircraft not listed on the MEL 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.

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 MEL 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 (Tech) Logbook. The item is then either repaired or deferred as per the MEL. Alternatively, the aircraft must be in compliance with the AN(OT)O which specifies 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 AD for the same item.

Appendix C (Continued)

MEL conditions and limitations do not relieve the operator from the responsibility to determine that the aircraft is in a safe condition for operation with items of equipment inoperative.

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 reliable repair program including the parts, personnel, facilities, procedures, and schedules to ensure timely repair of inoperative items.

NOTE: *When using the MEL, compliance with the stated intent of the preamble, definitions, and the conditions and limitations specified in the MEL is required.*

Appendix D

MEL APPLICATION (From VP-C Online)

 **MEL Application Form (Version 1)**
Web form for submitting a MEL application
** Mandatory Field*

VP-CAA(REGISTERED)
Boeing 747-400
83422
01 Dec 2011

Name of Aircraft Operator: *

Operator's MEL Reference Number: *

Reference Number of MMEL from which the MEL was produced: *

The MEL has been produced in accordance with Article 17 of the AN(OT)O, the CAACI Policy and Procedures Manual: * Yes No [Click here to read our Manual](#)

Attach the electronic copy of MEL: *

Additional Documents: *OPTIONAL*

OPTIONAL

OPTIONAL

I confirm that the above is true in every respect.

Name: * Position: *

Company: * Telephone: *

Fax: *OPTIONAL* Email: *

Date: *

▼ For CAACI Use Only

Valid from: *OPTIONAL* Valid to: *OPTIONAL*

Certificate Remarks: *OPTIONAL*

Comments:

Applies to multiple aircraft (You will be able to choose applicable aircraft after you click the submit button)

Appendix E

MEL Approval Page 1 (Example Only)

| | | |
|--------------|----------|---|
| Reg No. : 08 | Cert No. | 1 |
|--------------|----------|---|



**CIVIL AVIATION AUTHORITY
OF THE CAYMAN ISLANDS**

MINIMUM EQUIPMENT LIST APPROVAL

| Registration Mark | Aircraft Type | Aircraft Serial Number |
|-------------------|-----------------|------------------------|
| VP-CA | Boeing B777-200 | 075 |

Approval

1. The Civil Aviation Authority, pursuant to Article 17 and Schedule 4 and Schedule 5 of the Air Navigation (Overseas Territories) Order, as amended (the Order), hereby approves, subject to the conditions hereinafter contained, any aircraft registered in the Cayman Islands or operated under the control of a holder of a Cayman Islands certificate or license of a type specified in the First Schedule hereto on a flight on which the operator is as specified in the Second Schedule hereto, to commence a flight notwithstanding that any item of equipment (including radio apparatus) required by or under the Order to be carried in the circumstances of the intended flight (the required equipment) is not carried or is not in a fit condition for use.
2. On any flight pursuant to this approval:
 - i. the only items of required equipment which are not carried or are not in a fit condition for use are contained in the Minimum Equipment List specified in the Third Schedule hereto (the said MEL) and it is provided in the said MEL that such items need not be carried or be in a fit condition for use on a flight in the circumstances of the intended flight, and
 - ii. any condition contained in the said MEL relating to the non-carriage or unfitness for use of any such required equipment in the circumstances of intended flight shall be complied with.
3. This approval shall have effect from the date hereof and shall remain valid providing subsequent revision(s) of the appropriate approved MMEL is complied with and the Authority is immediately informed of the revision.
4. The MEL is intended to permit operations with inoperative items of equipment for the minimum period of time necessary until repairs can be accomplished. It is important that repairs be accomplished at the earliest opportunity to return the aircraft to its design level of safety and reliability.
5. At the time of Certificate of Airworthiness survey and re-issue, the CAACI surveyor will review the contents of the MEL as part of the documentation review.
6. The MEL for aircraft that hold operational approvals, such as RVSM, MNPS, All Weather Ops (Cat II or Cat III) or ETOPS, must include references to these systems and the related equipment.
7. A copy of the MEL (The Third Schedule hereto) must be carried on the aircraft.
8. Copies of this document must be placed in the said MEL.

Civil Aviation Authority of the Cayman Islands; www.caacayman.com; civilaviation@caacayman.com
Ph:345-949-7811; Fax:345-949-0761; Unit 2, Cayman Grand Harbour, P.O. Box 10277, Grand Cayman KY1-1003 CAYMAN ISLANDS

Appendix E (Continued)**MEL Approval Page 1 (Example Only)**

| | |
|------------|-------------|
| Reg No. 08 | Cert No. 21 |
|------------|-------------|


CIVIL AVIATION AUTHORITY
OF THE CAYMAN ISLANDS

MINIMUM EQUIPMENT LIST APPROVAL

| | |
|---------------------|--|
| The First Schedule | VP-CA |
| The Second Schedule | Aviation |
| The Third Schedule | Aviation Link B777 MEL, published in accordance with the provisions of the Approved MMEL and all subsequent revisions. |


P.H. Richard Smith
Director-General of Civil Aviation

Date of Issue: 04 Sep 2012

Civil Aviation Authority of the Cayman Islands; www.caacayman.com; civil.aviation@caacayman.com
Ph:345-949-7811; Fax:345-949-0761; Unit 2, Cayman Grand Harbour, P.O. Box 10277, Grand Cayman KY1-1003 CAYMAN ISLANDS

Appendix F

CAACI - Approved MEL Page (Example Only)

| <u>(Company's Name)</u> | MINIMUM EQUIPMENT LIST | | PAGE |
|--|---------------------------------|---------------------|--|
| De HAVILLAND DHC-8 Series 100/300 | Amendment: 4 DATE: 01 Apr 95 | | 24-38-1 |
| ATA System and Sequence Number | 1. | 2. NUMBER INSTALLED | |
| ITEM | | 3. NUMBER REQUIRED | |
| 24. ELECTRICAL POWER | | | 4. REMARKS OR EXCEPTIONS |
| 24-38 BAT HOT Caution or Warning Lights | C | 2 | 0 (O) May be inoperative provided the associated Battery Temperature Indicator operates normally. |

PLACARDING

Placard appropriate BAT HOT caution/warning light(s) at annunciator panel in the cockpit.

OPERATING PROCEDURES:

1. Apply DC power to aircraft DC electrical system.
2. At BATTERY TEMPERATURE monitor panel, check that the associated battery temperature indication(s) (Main and/or Aux) reads approximately ambient (OAT) temperature.

NOTE: If aircraft has been recently operated and/or sitting in the hot sun, the indicated temperature may be higher. If the outside air temperature (OAT) is below 15 degrees C, only the first green segment on indicator will be illuminated.

(Some text deleted from example for brevity)

MAINTENANCE PROCEDURES:

None required.

MAINTENANCE INSTRUCTIONS:

NOTE: Do not open BATT TEMP CAUT LTS 28 VDC R Ess Bus Circuit Breaker at Right DC Circuit Breaker Panel.

Appendix F (Continued)

| <u>(Company's Name)</u> | MINIMUM EQUIPMENT LIST | | | PAGE |
|--|---|--------------------------|---|---|
| De HAVILLAND DHC-8 Series 100/300 | Amendment: 4 DATE: 01 Apr 95 | | | 21-3-1 |
| ATA System and Sequence Number | 1. | 2. NUMBER INSTALLED | | |
| | | 3. NUMBER REQUIRED | | |
| 21. Air Conditioning | | 4. REMARKS OR EXCEPTIONS | | |
| 21-3 Equipment Cooling Fan (wardrobe) | D | 1 | 0 | (M) May be inoperative provided the equipment cooling fan is deactivated. |

PLACARDING:

Placard Equipment Cooling Fan on avionics bay door above wardrobe.

OPERATING INSTRUCTIONS:

Conditioned air must be provided within 30 minutes for OAT above 30 degrees C, aircraft on ground and power on.

MAINTENANCE PROCEDURES:

1. Open and clip the associated FAN circuit breaker at right 115 VAC BUS on avionics circuit breaker panel.
2. Conditioned air is made available within 30 minutes for OAT above 30 degrees C, aircraft on ground and power on.

Appendix G

| MEL Quick Reference Compliance Checklist | | | |
|---|--|---|---|
| | Check | Standard | Notes for compliance |
| 1 | A MMEL is not a MEL. | A MMEL cannot be approved for use as a MEL. (The MEL must reflect, and should state, that it is compliant with the OTARs for the applicable type of operation to be undertaking – such as OTAR Part 125 or OTAR Part 121) | A MMEL will address multiple types, e.g., 737, -100, -200, -300, -400, -500, -600, -700, -800, -900 are all in one MMEL. The MEL is to be tailored to the operators' specific aircraft and operating environment. All options would be included with tailoring to the specific aircraft. The MEL shall not contain wording as follows: "As required by regulations." or "May be inoperative provided alternate procedures are established and used" – the alternate procedure must be stated in the MEL |
| 2 | Insure MMELs or supplements from incorrect Authorities are not used in the construction of the MEL. | Cayman operators will frame their MELs based on the MMELs duly approved by the Authority of the country issuing the TCDS. | MMEL must be from the State which issued the TCDS as found on CAACI C of A Certificate. |
| 3 | The MEL is up to date based on the latest revision of the MMEL and any Temporary Revisions | The operator must ensure that they use the latest version of the source MMEL to develop their MEL. Revision to the MMEL will require that the operator review and amend the MEL | The Document should state the latest MMEL status it has been reviewed/ revised to. This is normally found in the beginning pages of the MEL. If a revision of the MMEL did not affect their MEL this should be stated. NOTE: The revision status of any MMEL or DPG Temporary Revisions must be accounted for in the MEL. Operators must specify the MMEL revisions and any other documents such as a DDPG, which were used in the development of their MEL. |
| 4 | All items that are installed and are in the MMEL are to be incorporated into the MEL. Items that are not installed should not be included. | All items installed in an operator's aircraft which are addressed in the most recent accepted version of the source MMEL shall be included in the MEL. The MMEL may list options with the wording, "If Installed" Wording such as "as required by FAR...." must be replaced with the requirements of the OTARs as applicable to the type of operations. | Options are to be included and tailored to the operator's aircraft. Equipment that is not installed should not be included. The exception is if the operator has more than one aircraft with different options. If the option is visible to flight crew, e.g. Auto Pilot, then the wording "If Installed" would be seen in column 1, under the item. Otherwise, for the specific aircraft, if the options is installed it must be stated. Look carefully for options in ATA 34 Navigation and ATA 25 Equipment Furnishings. Also ensure compliance with OTAR 125.325 & .670, and OTAR 125.775 |
| 5 | Basic requirements are met. | MEL Basic Format The MEL must include the following: 1 - A List of Effective Pages, 2 - A Table of Contents, 3 - MEL Preamble, 4 - Notes and Definitions, 5 - MEL Approval and Amendment Record page. | Ensure that each of these requirements is met. These are minimum requirement and must be part of the MEL. (See expanded requirements below) To review the LEP, select a few pages at random and check the accuracy. If the pages listed match the actual pages in the MEL, then it is good. (The MEL should be given a "Title" such as "XYZ Air B737 MEL" as this will be referenced on the approval document.) |

Appendix G

| MEL Quick Reference Compliance Checklist | | | |
|---|---|--|---|
| | Check | Standard | Notes for compliance |
| 6 | Proper categorization. The categories must match the categories found in the MMEL, unless prior authorization has been obtained from the CAACI. | <p>MEL Repair Interval Categories</p> <p>The maximum time an aircraft may be operated between the deferral of an inoperative item and its repair will be specified in the MEL,</p> <ol style="list-style-type: none"> 1 - Category A. 2 - Category B 3 - Category C 4 - Category D | <p>These item categories are obtained from the MMEL and cannot deviate from that standard without prior CCAA approval.</p> <p>NOTE: MEL Item Repair Interval Extension can only be approved by submitting a request to the CAACI. See 3.13 of the CAACI MEL P & P Manual.</p> |
| 7 | It is important that people using the MEL have instructions on how to use this document. Specific instructions must be given. | <p>Procedures for the Deferral of MEL items</p> <p>These procedures will be included as part of the operator's MCM. <u>The operator must ensure that the COM and the MEL reference the aforementioned procedures in the MCM, or duplicates the same.</u> These procedures comprise a method for:</p> <ol style="list-style-type: none"> 1 - deferral and/or rectification of inoperative equipment; 2 - placarding requirements as per the MEL; 3 - dispatching of aircraft with deferred MEL item(s); 4 - a remote deferral system; (optional) 5 - controlling categorized times; and 6 - Training of company personnel who are responsible for MEL compliance procedures. 7 - Procedures in compliance with Appendix J of the CAACI MEL P&P Manual | <p>These procedures can be in the MEL or in the COM, but must be contained in the MCM. The reason they must be in the MCM is that this is the only place that Airworthiness approves these procedures. Flight operations approve the MEL and the COM. For an example of what these procedures should contain, look at Appendix J of CAACI MEL P&P Manual.</p> <p>The procedures must match those in the MCM.</p> <p>COM Procedures</p> <p>The operator must establish procedures in the COM for the use and guidance of crew members when using the MEL. The procedures must agree with those in the MCM. The operator may choose to include all procedures/instructions in the MEL itself; in which case the COM will only be required to reference this document.</p> <p>Note: Training is normally contained in the Operations Manual</p> |
| 8 | Each item must include placarding instructions. | <p>Placarding</p> <ol style="list-style-type: none"> 1- All inoperative items must be placarded to inform crew members of equipment condition. 2 -While the MEL for some items may require specific wording, the majority of items leave the placard wording and location to be determined by the operator. The operator shall provide the capability and instructions to the flight crew to ensure that the placard is in place prior to the aircraft being dispatched. | <p>These instructions are normally found above the O and M in the Procedures section of the MEL</p> <p>They are not part of the top part of the MEL (Provisos, the MMEL section of the MEL).</p> <p>The placarding instruction should indicate where the placard is to be placed and what if any wording should be included on it.</p> <p>E.G.,</p> <p><u>PLACARDING INSTRUCTION:</u> Placard next to the APU start switch, "APU NOT TO BE USED IN FLIGHT."</p> |

Appendix G

| MEL Quick Reference Compliance Checklist | | | |
|---|---|--|--|
| | Check | Standard | Notes for compliance |
| 9 | The MMEL lists items that have (O) or (M), or (O)(M) procedures in column 4. Where the MMEL indicates a procedure is required, the operator must provide a procedure. | 3.15.1 Operational and Maintenance Items a) Any item of equipment in the MEL, which when inoperative would require an operating or maintenance procedure to ensure the required level of safety, shall be so identified in the "remarks" or "exceptions" column of the MEL. Normally "(O)" means an operating procedure, "(M)" means a maintenance procedure and "(O)(M)" means that both operating and maintenance procedures are required. | Approval of Operating and Maintenance Procedures Manufacturers may choose to produce operating and maintenance procedures such as DDPGs, for use by operators. These procedures may be inserted into the appropriate MEL pages, and submitted by the operator, to form part of the MEL. DDPGs, CDLs, and other similar documents cannot be approved by the CICAA, nor can they replace the MEL. If the aircraft manufacturer has not published (O) or (M) procedures, the operator must develop appropriate procedures and submit them to the CICAA for approval. [The CDL may be part of the MEL as an appendix]. |
| 10 | ECAS (Electronic Crew Alerting System) | The manufacture provides the rules and lists for these messages. (DPG) | It is very important that these directions and wording in these lists is very accurate. In some cases, ECAS is also used as an alternate method of dispatching the aircraft, (not just a list to reference the MEL item), and as such <u>does not</u> use the "MEL", in the usual manner. The pilot would only look at this list, determine the proper action, then go. The use of these lists must be appropriately trained; otherwise the potential for confusion is great. Normally these lists and rules for use are found at the front of the MEL. |

NOTE: This checklist is only intended to highlight areas where common errors often occur when producing an operators MEL. Other requirements to be aware of are:

OTAR 125.670 – use of a boom mic;

OTAR 125.755 – FDR;

OTAR 125.775 – WX Radar.

Operators must ensure that all OTAR requirements are accounted for to avoid delays with the approval process.

Appendix H**CAACI - MEL Approval - Flow Chart**

- | | | |
|--|------------|--|
| 1. Is there an approved MMEL for this aircraft? (foreign MMEL) | --- No --- | Discontinue, advise operator. |
| Yes | | |
| 2. Acquire a current copy of MMEL if applicable. | | Acquire from Manufacturer and/or Foreign Aviation Authority. |
| 3. Do I have a current AFM? | --- No --- | Acquire Manual. |
| Yes | | |
| 4. Do I have a copy of the CAACI MMEL/MEL Policy and Procedures Manual | --- No --- | Acquire Manual. |
| Yes | | |
| 5. Does the MEL contain a list of effective pages | --- No --- | Must include a list of effective pages. |
| Yes | | |
| 6. Does the MEL contain a table of contents? | --- No --- | Must include table of contents. |
| Yes | | |
| 7. Does the MEL include the preamble or program rules? | --- No --- | Must include preamble or program rules. |
| Yes | | |
| 8. Does the MEL contain a section for the notes and/or definitions? | --- No --- | Must include notes and/or definitions. |
| Yes | | |

Appendix H (Continued)

- | | | |
|---|------------|---|
| 9. Does the MEL format follow an acceptable format? | --- No --- | Suggest acceptable format. |
| Yes | | |
| 10. Check each item against MMEL. | | |
| 11. Are the operator's (O) procedures clear and understandable? | --- No --- | Must rewrite - procedures must be clear. |
| Yes | | |
| 12. Are operator's (M) and (M#) procedures clear and understandable? | --- No --- | Must rewrite - procedures must be clear. |
| Yes | | |
| 13. Are all items at least as restrictive as the MMEL? | --- No --- | Items cannot be less restrictive |
| Yes | | |
| 14. Does the operator 's Operations Manual and MCM include instructions for the use of the MEL? | --- No --- | Must establish and publish procedures in the Ops. Manual and MCM. |
| Yes | | |
| 15. Does the operator have a MEL training program? | --- No --- | Operator to establish MEL training program. |

STOP - If any answer to questions 5 to 9 or 11 to 15 is no, return MEL to operator for corrective action.

Appendix I**Operator MEL Development - Flow Chart**

- | | | | |
|----|---|------------|------------------------------------|
| 1. | Is there a MMEL for this aircraft type? | --- No--- | Discontinue. |
| | ---Yes--- | | |
| 2. | Acquire a current copy from foreign CAA or manufacturer. | | |
| 3. | Do I have a current copy of the AFM? | --- No--- | Acquire AFM. |
| | ---Yes--- | | |
| 4. | Do I have a current copy of the AN(OT)O? | ---No--- | Acquire AN(OT)O. |
| | ---Yes--- | | |
| 5. | Do I have a current copy of the CAACI MEL Policy and Procedures Manual? | ---No--- | Acquire Manual. |
| | ---Yes--- | | |
| 6. | Have I included the MEL preamble and/or program instructions? | ---No--- | Include Instructions. |
| | ---Yes--- | | |
| 7. | Do I have a list of effective pages? | ---No--- | Establish list of effective pages. |
| | ---Yes--- | | |
| 8. | Is there a table of contents included in my MEL? | --- No --- | Include table of contents. |
| | ---Yes--- | | |

Appendix I (Continued)

- | | | | |
|-----|--|------------|---|
| 9. | Does my MEL include all notes and definitions for the use of the MEL? | --- No --- | Include notes and definitions. |
| | ---Yes--- | | |
| 10. | Do I have a MEL format based on the CAACI MMEL/MEL Policy and Procedures Manual? | --- No --- | Establish format as suggested in Manual. |
| | ---Yes--- | | |
| 11. | Develop MEL. | | |
| 12. | Are my (O) procedures clearly written? | --- No --- | Rewrite to ensure procedures are included and clearly understandable. |
| | ---Yes--- | | |
| 13. | Are my (M) procedures clearly written? | --- No --- | Rewrite to ensure procedures are included and clearly understandable. |
| | ---Yes--- | | |
| 14. | Are all items at least as restrictive as the MMEL? | --- No --- | All items must be at least as restrictive. |
| | ---Yes--- | | |

STOP - Go back and re-check last 3 items to ensure they are complete

- | | | | |
|-----|--|------------|--|
| 15. | Have I established procedures for the use of my MEL in my Ops. Manual and MCM? | --- No --- | Establish procedures for both Manuals. |
| | ---Yes--- | | |
| 16. | Have I established a training program for use of this MEL? | --- No --- | Establish training program. |
| | ---Yes--- | | |
| 17. | Submit MEL to CAACI for approval. | | |

Appendix J

COM - MEL Defect Deferral Procedures (Example Only)

Disclaimer

This example is provided to operators as a means of defect control.

It is not intended to be used as a guide or checklist for those operators who have existing procedures that currently meet the intent of regulatory requirements.

The procedures developed below are specifically for a COM. These procedures should be identical to those found in the MCM and may also be copied into the MEL.

MEL DEFECT DEFERRAL PROCEDURES

NOTE: Use of this MEL may not guarantee compliance with Regulations outside of the Cayman Islands nor other procedures such as; Company Operation Specifications, ETOPs, RVSM, LVOPS, RNP, CAT II/III, etc.

1.1 Defects and Their Control - General

- a) All defects will be entered in the aircraft Tech Log. (If applicable, interior cosmetic defects may be entered in a Cabin Defect Log)
- b) Prior to flight, all defects shall be actioned and certified or deferred in accordance with the procedures set forth in the COM, MCM and MEL.
- c) For each aircraft, a defect will have a unique number assigned to it for tracking purposes.

1.2 Deferred Defect Restrictions

- a) Any defect may be deferred provided it is included in the approved MEL and the aircraft is operated in accordance with any conditions or limitations specified therein.
- b) Where the conditions or limitations specified in a MEL are in conflict with the requirements of an AD, the AD prevails.
- c) If any doubt exists as to the deferral of an item, consultation between operations and maintenance is required.
- d) Once a defect has been established as being deferrable by the restrictions set forth in Section 1.2 above, the following procedures will be used.

Appendix J (Continued)

1.3 Deferring Procedures and Control - Maintenance

If a defect has been deferred by the flight crew (Section 1.4) re-defer in accordance with the following.

- a) The defect will be entered in the Tech Log as "*deferred in accordance with MEL ATA #...*" and signed by a qualified AME.
- b) A placard will be placed in the aircraft as described by the MEL.
- c) The Tech Log must be checked to ensure that when operating with multiple inoperative items, the interrelationship between those items and the effect on aircraft operation and crew workload will be considered.
- d) The deferral will be tracked by Quality Assurance to ensure a timely rectification with regard to the categorization.
- e) After defect rectification, remove the placard from the aircraft and:
 - i. follow the procedures in the MCM for placarding control;
 - OR**
 - ii. if using a multiple copy Tech Log, affix the placard to the maintenance copy of the defect rectification;
 - OR**
 - iii. if using a single copy bound type Tech Log, affix the placard adjacent to the maintenance rectification.
- f) It is mandatory that all defects not cleared when the Tech Log expires, be transferred to the new Tech Log along with all of the details pertaining to those defects.

1.4 Use of MEL - Flight Crew

Once a defect has been established as being deferrable by the restrictions set forth in Section 1.2, the PIC may defer the defect in accordance with the MEL providing the following procedures are adhered to:

- a) The PIC will enter the defect in the Tech Log.
- b) The PIC will advise the Maintenance department as soon as practicable.

Appendix J (Continued)

- c) Where required the flight crew will adhere to all column 4 restrictions and perform "(O)" procedures as applicable.
- d) "(M)" Procedures may be actioned and deferred by Flight Crews who have been trained to do so under the authority of "Elementary Work".
- e) Flight Crews may not perform "(M)" procedures if the defect involves an item designated in the MEL as "(M)#" - which denotes **MAINTENANCE PERSONNEL REQUIRED**. The aircraft may not proceed until maintenance carries out the procedures found in Section 1.3.
- f) The Tech Log must be checked by the PIC for multiple inoperative items. The interrelationship between those items and the resultant effect on aircraft operation and crew workload will be considered by the PIC before making a go/no-go decision.
- g) Appropriate placard(s) will be installed by the flight crew in accordance with the instructions in the MEL.
- h) The PIC will enter in the Tech Log , adjacent to the defect, under what authority the defect has been deferred ie: "*deferred in accordance with MEL ATA #...*", the time of day, his signature and pilot's licence number.
- i) If any doubt exists, this does not preclude the pilot from consulting maintenance to confirm that the ATA item and procedure has been deferred correctly prior to subsequent dispatch.
- j) The aircraft may proceed on a planned itinerary to a base where maintenance will rectify or re-defer the defect in accordance with the procedures in the MCM.

1.5 Tech Log Procedures**"(O)" and "(M)" Procedures****PRIOR TO EACH DEPARTURE:**

Where an "(O)" and/or "(M)" Procedure is required, PRIOR TO EACH DEPARTURE, the PIC will ensure all required actions are completed in accordance with the MEL.

PRIOR TO EACH FLIGHT DAY:

Where an "(O)" and/or "(M)" Procedure is required, PRIOR TO EACH FLIGHT DAY, the PIC will ensure all required actions are completed in accordance with the MEL.

Appendix K

Initial and Recurrent MEL Training Syllabus (Example Only)

Note: If elementary work is to be carried out by crew members, this practice needs to be addressed in the MEL training syllabus in the COM and the MCM, including the particular items approved.

1.1 MEL Origin and Philosophy

- a) MMEL background and development.
- b) MEL background and development.

1.2 General MEL Content

- a) Copy of MEL Approval.
- b) List of effective pages.
- c) Table of contents.
- d) Preamble.
- e) Definitions.
- f) ATA chapters, page format, page numbering, system and item titles, categorization, columns, remarks and exceptions, placarding, “O” and “M” procedures.

1.3 Specific Use of the MEL

- a) A review of items from a variety of systems, including those with no procedures, “(O)”, “(M)”, “(M#)”, and “(O)(M)”, as applicable.
- b) Practical demonstration of MEL use versus hypothetical situations at and away from a maintenance base.
- c) Supervised “hands on” use of a MEL, until familiar with the location, contents and procedures, including those at or away from a maintenance base.

1.4 Examination

- a) A written or practical test to ensure that the training has been adequate.

Appendix K (Continued)**1.5 Company Forms**

Adequate company records must be developed to document MEL training (initial and recurrent) to be added to the employee's training records. If the aircrew are to exercise elementary maintenance privileges, training forms must include an area describing what is being certified, and a place for sign off by an AME.

Appendix L

Air Transport Association (ATA) 100 Aircraft System Specifications

Note: This list is not comprehensive and does not include subsystems. It is intended only to give a general overview of the ATA 100 groupings.

| Group : Airframe | | | | Group : Power Plant | | Group : Structure | | | |
|------------------|-------------------------------------|-----|------------------------------|---------------------|---------------------------------|-------------------|---------------------------|-----|-------------------------------|
| 1. | General | 23V | Digital Voice | 34C | TCAS | 70 | Standard Practices Engine | 16 | Sound |
| 2 | Power Off | 24 | Electrics | 34D | Doppler, TANS | 71 | Powerplant | 45 | Active Schematics |
| 3 | Minimum Equipment Requirement | 25 | Equipment & Furnishings | 34E | EFIS, EIS Ctrl/Sel, IDS | 72T | Engine Turbine | 51 | Structures |
| 4 | Flight | 26 | Fire | 34F | FMC, PMS | 72R | Engine Reciprocating | 52 | Doors |
| 5 | Operational Spec./ Time | 27 | Flight Controls | 34G | Ground Proximity Warning System | 73 | Engine Fuel & Control | 53 | Motion Hardware |
| 6 | Dimensions | 27E | EFCS (Fly by Wire) | 34H | Windshear | 74 | Engine Ignition | 53A | Motion Performance |
| 7 | Lifting and Shoring | 27F | Flaps/Slats | 34I | IRS, INS, AHRS | 75 | Engine Bleed Air | 54 | Nacelles/Pylons |
| 8 | Levelling and Shoring | 28 | Fuel | 34N | GPS, Long Range Nav Systems | 76 | Engine Controls | 55 | Stabilizers |
| 9 | Towing and taxiing | 29 | Hydraulics | 34T | TMS | 77 | Engine Indicating | 56 | Windows |
| 10 | Parking and Mooring | 30 | Ice and Rain | 34W | Weather Radar | 78 | Engine Exhaust | 57 | Wings |
| 11 | Placards | 31 | EIS Warning, ECAM, EICAS | 35 | Oxygen | 79 | Engine Oil | 60 | Standard Practices Propellers |
| 12 | Servicing | 31A | DEFDAU (MD90) ADAS (MD11) | 36 | Pneumatics | 80 | Engine Starting | 62 | Rotors |
| 16 | Sound | 31R | AIDS | 37 | Oxygen | 81 | Turbines | 63 | Rotor drive |
| 20 | Standard Practices Airframe | 31W | CAWS, MAWEA, WES | 38 | Warter / Waste | 82 | Engine Water Injection | 64 | Tail Rotor |
| 21 | Air Conditioning and Pressurization | 32 | Landing Gear & Brakes | 39 | Electrical Panels & Parts | 83 | Accessory Gearboxes | 65 | Tail Rotor Drive |
| 22 | Autoflight | 33 | Lighting | 45 | BITE, CMC | 85 | Visual | 66 | Folding Blades/ Pylons |
| 23 | Communications | 34 | Navigation | 49 | APU | 91 | Charts | 67 | Rotors, Flight Drive |
| 33A | ACARS | 34A | Flight Instruments | | | 97 | Facilities | 85 | Visual |
| | | | | | | 99 | IOS | 97 | Hardware |
| | | | | | | | | 99 | Instructor Facilities |

**THIS PAGE INTENTIONALLY
LEFT BLANK**