

**CIVIL AVIATION AUTHORITY, PAKISTAN**

**Air Navigation Order**  
**No. : 91.0007**  
**Date : Dec., 2006**  
**Issue : Three**

**Master Minimum Equipment List, Minimum Equipment List,  
Configuration Deviation Lists and Dispatch Deviation Procedures Guide**

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## CIVIL AVIATION AUTHORITY, PAKISTAN

**Air Navigation Order**  
**No. : 91.0007**  
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### **Master Minimum Equipment List, Minimum Equipment List, Configuration Deviation Lists and Dispatch Deviation Procedures Guide**

#### **1. Authority**

- 1.1 This Air Navigation Order (ANO) is issued by the Director General of the Civil Aviation Authority (CAA) under Rule 31 in pursuance of the powers vested under Rule 4, Civil Aviation Rules (CARs) 1994.
- 1.2 Rule 31 of CARs 94 states that a regular public transport aircraft, or charter aircraft registered in Pakistan shall not fly unless all the items of equipment; which are included in the minimum equipment list in the approved Flight Manual, or other certification document for the aircraft, as being required to be serviceable for the particular operation, are serviceable. No amendment shall be made to a minimum equipment list; except with the approval of the Director-General.

#### **2. Applicability**

- 2.1 This ANO applies to all operations of RPT/Charter, General Aviation, Flying Schools, Aerial Works, and to all civil aircraft registered and/or leased in Pakistan.

#### **3. Scope**

- 3.1 This ANO provides regulatory requirements and guidelines for provision of:
  - a) Master Minimum Equipment List (MMEL) from the State of design/ manufacturer and/or State of Registry established for the aircraft type by the organization responsible for the type design in conjunction with the State of Design;
  - b) Minimum Equipment List (MEL), based on the Master Minimum Equipment List, from the operator; and
  - c) CDL / DDPG from the manufacturer
- 3.2 It also covers CAA's obligation of Approving and authorising the use of Minimum Equipment Lists (MELs) under the terms of this ANO.

#### **4. Operator's & PIC Responsibility**

- 4.1 Operators shall establish for each aircraft, an MEL approved by the CAA that will be based upon the relevant Master Minimum Equipment List (MMEL) (if one exists) accepted by the CAA.
- 4.2 Operators shall not operate an aircraft other than in accordance with the MEL unless permitted by the CAA. Any such permission or approval will in no circumstances permit operations outside the constraints of the MMEL.
- 4.3 Except as provided in this ANO, no person shall take off an aircraft, with inoperative instruments or equipment installed unless the conditions contained in MEL are complied with.
- 4.4 Approved MEL /Amendments thereof shall be disseminated to all concerned maintenance/ operations personnel and a copy shall be placed in each aircraft (type) library.

## 5. Terminology

Terms and acronyms used in this ANO have the following meaning:

- a) "As required by operating requirements" - The listed item of equipment is subject to certain provisions (restrictive or permissive) expressed in the applicable operational requirements.
- b) "Approved by CAA" - means approved by any one of the Authorities (State of Registry or the State of operator, in accordance with procedures agreed by those Authorities.
- c) "Aircraft Flight Manual" (AFM) - The AFM is developed by the manufacturer and approved by the regulatory body of the country where the aircraft was manufactured. The AFM is the source document for operational limitations and performance parameters for an aircraft.
- d) "Aircraft Maintenance Manual" (AMM) - The AMM is the source document for aircraft maintenance procedures.
- e) "Calendar Day" - A 24 hour period from midnight to midnight based on either UTC or local time, as selected by the operator.
- f) "Commencement of flight" - The point when an aircraft begins to move under its own power for the purpose of preparing for take off.
- g) "Configuration Deviation List" (CDL) - Aircraft certified under the provisions of the Civil Aviation Organisation of an ICAO contracting state, and intended to be used in commercial air transportation service, are approved for operations with missing secondary airframe and engine parts. The source documents for such operations is the CDL.
- h) "Despatch Deviation Procedures Guide"(DDPG) – This document issued by the manufacturer is generally combined with CDL and provides amplification of O&M procedures.
- i) "Day of Discovery" - The day of discovery is the calendar day an equipment malfunction was recorded in the aircraft maintenance log or record. This day is excluded from the calendar days or flight days specified in the MMEL for the repair of an inoperative item of equipment.
- j) "Dispatch" - Dispatch for the purpose of the MEL/MMEL refers to the moment the aircraft 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 aircraft flight manual, if necessary. After takeoff commences, no MEL action is required, until the completion of the next landing.
- k) "Ferry Flight" - A positioning flight, except that such flight is flown only to return the aircraft to a place where it can be repaired.
- l) "If installed" - The listed item of equipment is either optional or is not required to be installed on all aircraft covered by the MMEL.
- m) "Inoperative" - means in relation to an item, function, component or system, that the item, function, component or system malfunctions to the extent that it does not accomplish its intended purpose or is not consistently functioning within its design operating limits or tolerances. Some systems have been designed to be fault tolerant and are monitored by digital computers, which transmit fault messages to a centralised computer for the purpose of maintenance. The presence of this category of message does not mean that the system is inoperative.
- n) "MEL" - An abbreviation for Minimum Equipment List. It is derived from the MMEL and is applicable to an individual operator.

- o) "MMEL" - An abbreviation for Master Minimum Equipment List. It is a list of equipment that the regulatory body has determined may be inoperative under certain operational conditions and still provide an acceptable level of safety. The MMEL contains the conditions, limitations and procedures required for operating the aircraft with these items inoperative. The MMEL is used as a starting point in the development and review of an individual operator Minimum Equipment List.
- p) "MMEL Supplement" - A list associated with MMELs for aircraft for which application for first type certification is made to CAA. The list identifies any differences from the initial countries approved MMEL. The source MMEL and the Supplement constitute the CAA approved MMEL.
- q) "Passenger Convenience Items" - The passengers' convenience items, as contained in the operators approved MEL, are those related to passengers convenience, comfort, or entertainment, such as, but not limited to, galley equipment, audio/video equipment, in-flight phones, ashtrays, stereo equipment, and overhead reading lamps.
- r) "Positioning Flight" - It is defined for the purpose of this ANO as flights carrying neither passengers nor freight for revenue consideration, operated purely to position aircraft for further revenue service;
- s) "Repair Interval" - Operators shall make repairs within the time period specified by the MEL. Although the MEL might permit multiple days of operation with certain inoperative equipment, operators must repair the affected item as soon as possible.
- t) "Rectification Interval Extension"(RIE)- The maximum time an aircraft may be operated between the deferral of an inoperative item and its repair;
- u) "Type Certificate". A Type Certificate, Supplemental Type Certificate, or equivalent, issued by CAA

## **6. Master Minimum Equipment List (MMEL)**

### **6.1 General Requirement**

- a) The MMEL is a master list (including a preamble) appropriate to an aircraft type which determines those instruments, items of equipment or functions that, while maintaining the level of safety intended in the applicable Regulation, may temporarily be inoperative either due to the inherent redundancy of the design, and/or due to specified operational and maintenance procedures, conditions and limitations, and in accordance with the applicable procedures for Continued Airworthiness.
- b) The MMEL is applicable to an aircraft type but does not take into account the operating circumstances of individual operators of that type; therefore, it cannot in-itself be regarded as providing operational permission. In order to establish whether or not it is acceptable to dispatch with particular equipment unserviceable, it will be necessary for each operator to prepare and seek CAA approval of MEL.
- c) An MMEL is not an exhaustive list of all equipment items required by law to be carried. An operator may include in a Minimum Equipment List (MEL) any additional items that are required to be carried where such entries clarify legal requirements (e.g. an operator may choose to include an item concerning torches for Regular Public Transport operations simply to establish the minimum numbers required for a particular type of aircraft).The MMEL will deal with items of equipment which may safely be permitted to be unserviceable under certain conditions. Those items, which are essential for safety under all conditions, will not necessarily be included.
- d) Where an approved MMEL has not been produced for a particular aircraft type, there may be an equivalent document acceptable to the CAA. The MMEL may be a standalone document or it may be an MMEL Supplement to be used in conjunction with a specific MMEL. In the absence of an approved MMEL (or equivalent document), the Minimum Equipment List (MEL) may only include un-serviceabilities as expressly permitted by the ANO or by special limitations and procedures in Flight Manual or by agreement with the CAA.

## **6.2 MMEL Approval - Pakistan Manufactured and Certificated Aircraft**

- a) Although production of an MMEL is not one of the conditions for Type Certification or for the issue of a Certificate of Airworthiness (C of A) it is strongly recommended that, for new aircraft types, the MMEL is prepared during the certification process and is completed before entry into service. It may not be possible for the CAA to approve an MEL in order to allow operation with items unserviceable unless an MMEL exists.
- b) The manufacturer shall produce an initial draft of the proposed MMEL. This draft will then be reviewed by the CAA, involving consultation with the specialist departments within the CAA.
- c) After the manufacturer has made the required changes, final draft of MMEL shall be submitted to the CAA for approval. The CAA approved MMEL will be published and distributed to customers by the manufacturer.
- d) Proposals to amend the MMEL may be initiated by the CAA, the manufacturer or by operator(s). Proposals from an operator should be channeled, in the first instance, through the manufacturer. If the manufacturer supports the change, a formal proposal should be made by the manufacturer to the CAA. Amendment proposals initiated by manufacturers or operators must be accompanied by a technical justification, which should include any changes to the associated operational and/or maintenance procedures.
- e) Applicants for approval of modifications to aircraft shall, at the time of application, consider the effects of the proposed modification upon the information and instructions contained in the MMEL for the type, and shall inform the CAA of any revisions likely to be required as a consequence of the incorporation of the modification.
- f) The manufacturer will be consulted and informed before an amendment is approved. Where the CAA considers it necessary, the consultation process may be extended to other interested parties.

## **6.3 MMEL Approval - Pakistan Manufactured Aircraft**

- a) CAA shall only approve the MMEL and all changes when it is satisfied that compliance has been shown with the applicable requirements of this ANO.
- b) Where a change to the Type Certificate has an effect upon the MMEL, the Type Certificate holder shall apply for approval of the necessary change(s) to the MMEL, which shall require an Approval of CAA.
- c) CAA may prefer to use an FAA or JAA MMEL even if they are not the country of manufacture, if it is deemed to be more appropriate.
- d) In exceptional cases where no suitable MMEL exists an operator may, with the approval of the CAA, use an FAA or JAA MMEL even if they are not the country of manufacture or use an MEL. Any such approval would depend upon the operator providing the appropriate technical or operational justification for the proposed alleviations.

## **6.4 MMEL Acceptance - Foreign Manufactured / Certificated Aircraft**

- a) It is issued by the manufacturer and approved by the Aviation Authority of the State of manufacture/design. Where such an MMEL already exists, it shall be accepted by CAA.
- b) Applicants for approval of modifications to aircraft shall, at the time when application is made, consider the effects of the proposed modification upon the information and instructions contained in the MMEL for the type, and shall inform the CAA of any revisions likely to be required as a consequence of the incorporation of the modification.

## **7. Minimum Equipment List (MEL)**

### **7.1 General Requirements:**

#### **7.1.1 The Minimum Equipment List (MEL) is:**

- a) A list that provides for the operation of aircraft, under specified conditions, with particular instruments, items of equipment or functions inoperative at the commencement of flight. This list, approved by CAA, is necessary for each aircraft, based on the master minimum equipment list established for the aircraft type by the organization responsible for the type design in conjunction with the State of Manufacturer/Design;
- b) Prepared by the Operators to allow the operation of an aircraft with certain systems or equipment inoperative provided an acceptable level of safety is maintained;
- c) Intended to permit operations 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.
- d) Not intended to provide for operation of the aircraft for an indefinite period with inoperative systems or equipment. The basic purpose of the minimum equipment list is to permit the safe operation of an aircraft with inoperative systems or equipment within the framework of a controlled and sound programme of repairs and parts replacement;
- e) To maintain the required level of safety and reliability the MEL establishes limitations on the duration of and conditions for operations with inoperative equipment.
- f) Required to clearly indicate those systems and items of equipment that may be inoperative for certain flight conditions with the intent that no flight can be conducted with inoperative systems and equipment other than those specified;
- g) Based upon, but no less restrictive than the relevant approved MMEL (if this exists).

#### **7.1.2 Format of MEL**

- a) The MEL shall be provided with a relevant Preamble, Definitions and, if appropriate, Clarifying Notes which shall adequately reflect the scope, extent and purpose of the List.
- b) A five-column format for the technical pages of all MEL is preferred. These columns from 1 to 5 shall contain respectively the system & sequence number, category, number installed, number required for dispatch and remarks or exceptions;
- c) The MEL shall be written in English and/or a language acceptable to CAA.
- d) The MEL shall cover the kinds of operation for which the aircraft type is certificated;
- e) All items related to the airworthiness of the aircraft and not included in the list are automatically required to be operative.
- f) Non-safety related items such as galley equipment, passenger convenience items, need not be listed. Operators shall establish an effective decision making process for failures that are not listed to determine if they are related to airworthiness and required for safe operation.
- g) The MEL may contain additional advisory material or modified operational and maintenance procedures.

### **7.2 Contents of MEL (Covered in Appendix-A)**

### **7.3 MEL Approval/Permission**

CAA will approve an MEL and all changes when it is satisfied that it is in agreement with the applicable MMEL and compliance has been shown with the applicable requirements of this ANO. MEL Approval/Acceptance/Permission process is provided in Appendix C and application for this purpose is given in Appendix-B.

### **7.3.1 Aircraft operated under an Air Operator's Certificate (AOC).**

- a) Operators are required to apply when submitting an initial MEL, or an amendment to the MEL, to FSD CAA. This application shall be submitted, together with the MEL, and/or the amendment. The inclusion of references to source material and justification for MEL items will facilitate the efficient processing of draft MEL documents or amendments.
- b) CAA review shall be allowed a period of 30 days for initial MEL approval and 15 days for an amendment review. When the CAA is satisfied that the MEL or the amendment to the MEL is acceptable, the CAA will accord an approval and return it to the operator for their records and compliance. At this point the MEL may be published and disseminated. The approved MEL will form part of the Operations Manual.
- c) Special Permissions shall be given by FSD,CAA on MEL on case to case basis (refer to Appendix E).

**7.3.2 Aircraft not operated under an AOC.** Private Operators, who wish to use MELs in accordance with this ANO, must obtain a written Permission from the CAA. Applications should be made to FSD,CAA, which will manage the process in accordance with the approval procedure given above.

### **7.4 Amendments to the MEL (Time Scales)**

- a) It remains the responsibility of an operator to provide the timely revision related to the modification and/or supplement and till such time that it is approved by CAA, the modification/retrofit shall be considered as “No Go” both by the Operator and the CAA.
- b) When an MMEL approved by the CAA of state of design first becomes available, operators of the particular aircraft type concerned will be allowed 60 days from the date of publication of the MMEL to prepare their MELs.
- c) When the MMEL is amended so as to become more restrictive, or when the CAA requires immediate amendment of the MEL, operators will be allowed 15 days from the date of notification to amend their MEL.
- d) In all other cases, when an MMEL revision is issued, operators will be allowed 30 days from the date of notification to amend their MEL. Reduced time scales for implementation of safety related revisions might be required.
- e) Amendment of the MEL shall be approved by CAA, provided the proposed change is no less restrictive than the MMEL. Processing time taken by CAA shall be 15 days.

### **7.5 Non-Standard Operations**

7.5.1 When aircraft are (not very often) flown for purposes other than those associated with their most common use. Such non-standard uses of aircraft may well allow less stringent minimum equipment requirements. Examples of non-standard use may be:

- a) Demonstration Flights;
- b) Test Flights - after maintenance;
- c) Training Flights;
- d) Positioning;
- e) Ferry Flights

7.5.2 Minimum equipment requirements may only be reduced with prior approval of CAA and an operator would have to provide evidence that such flights change the category of use of aircraft in accordance with this ANO.

7.5.3 Any reference to a reduction in minimum equipment requirements in an MEL must be clearly labeled as such, together with the type of non-standard flight applicable.

**Note:** Such non-standard flights may only be undertaken if the aircraft's Flight Manual contains the appropriate procedures and are approved by the CAA. Refer to Appendix-E for application Form.

## **7.6 Operations Outside the Scope of the MEL**

The CAA may exempt an operator from compliance with the appropriate MEL on an individual case-by-case basis, provided such exemption complies with applicable limitations in the MMEL. (Refer to Appendix-E for exemption application)

## **8. Operations with Wet leased Aircraft**

- 8.1 The requirements of MEL are equally applicable to all aircraft wet leased from other States;
- 8.2 A Minimum Equipment List (MEL) for each aircraft approved by the State of the Registry is a regulatory requirement. Approved MEL of wet leased aircraft must be submitted to CAA in the induction process as laid down in ANO 91-0016;
- 8.3 In case deviations from the requirements of States in the certification of aircraft are not permitted; the aircraft shall not be flown unless all systems and equipment were operable.

## **9. Configuration Deviation Lists (CDL)/ Despatch Deviation Procedures Guide**

Configuration Deviation Lists (CDL) or their equivalent, are not a part of the MMEL/MEL. CDL/DDPG provide amplified actions on O&M procedures. Both are generally combined and are issued by the manufacturer. CDL/DDPG identify any external components of an aircraft type, which may be missing for dispatch and any associated information on performance corrections for such cases (e.g. missing landing gear doors, flap actuator fairings, etc.). The CDL/DDPG may be published as part of the CAA approved Flight Manual.

## **10. Cancellation**

Issue-3 of Air Navigation Order No. 91.0007 cancels Issue-Two of the same ANO, CAA Form 480 and any other regulatory material issued on MEL/MMEL.

Date: December 2006

**(FAROOQ RAHMATULLAH)**  
Director General,  
Civil Aviation Authority

**Contents Of Minimum Equipment List**  
**(Aircraft Type)**

The MEL contains only those items required by Operating Regulations or those items of airworthiness significance which may be inoperative prior to dispatch, provided that appropriate and limitations procedures are observed. Equipment obviously basic to aircraft airworthiness such as wings, rudders, flaps, engines, landing gear, etc. are not listed and must be operative for all flights. It is important to note that: All Items which are related to the airworthiness of the aircraft and not included on the list are automatically required to be operative.

**1. Contents of MEL**

**1.1 Format of MEL**

- a) The MEL shall contain a relevant Preamble, Definitions and, if appropriate, clarifying Notes which shall adequately reflect the scope, extent and purpose of the List. It shall also contain rectification interval(s) in line with the definitions in this ANO. The MEL shall indicate the revision status of the MMEL, upon which it is based.

**1.2 Revision Status**

- a) The revision page must provide with revision number, effective date and highlights of all the amendments pertaining to any addition or deletion along with page number and item number;
- b) Each page must have revision number and effective date.
- c) Any change/addition/deletion shall be highlighted on the applicable page with a vertical line in right hand side margin.

**1.3 Preamble:** The purpose of MEL preamble is to provide the:

- a) Basis on which the MEL has been prepared
- b) Considerations to type of aircraft, equipment, configuration, operational conditions, routes and requirements set by the CAA
- c) Compliance statement not to deviate from CAA requirements
- d) Purpose of the MEL
- e) Safety Obligations of Pilot-in command
- f) Applicability of MEL
- g) Approval/Permission by the CAA
- h) Criteria for Dispatch
- i) Maintenance Action
- j) Multiple Unserviceabilities
- k) Rectification Intervals
- l) Centralized Message Systems (If Applicable)
- m) Special Procedures for Operation Outside the Scope of the MEL, Approval and Conditions

**1.4 Definitions**

The abbreviations and terminology used for various meanings within the text of MEL shall be defined in the opening pages so as to facilitate the reader with ready guidance.

**1.5 Clarifying Notes**

Required clarification must also be provided wherever it is required.

## **1.6 Operational and Maintenance (O&M) Procedures**

- a) The MEL shall include O&M procedures or symbols to indicate them. O&M procedures in the MMEL may be referred to for this purpose.;
- b) The MEL shall be appropriately amended as and when applicable operational or maintenance procedures are revised;
- c) Operational procedures shall be accomplished in planning for and/or operating with the listed item inoperative. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorised to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator;
- d) Maintenance procedures shall be accomplished prior to operating 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. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator;
- e) Systems or equipment accepted as inoperative for a flight shall be placarded where appropriate and all such items shall be recorded in the aircraft technical log to inform the flight crew and maintenance personnel of the inoperative system or equipment;
- f) Appropriate operational and maintenance procedures are required to be published as a part of the operator's manual(s) or MEL. Operator's manuals may include the Operations Manual, the Maintenance Manual or other documents acceptable to the CAA.

## **1.7. Maintenance Action**

- a) Every effort shall be made by Maintenance to correct all technical defects as early as practicable and that the aircraft be released from a maintenance station in fully operational condition. The Pilot-in-command must be informed by Maintenance as soon as practicable, should it be impossible to rectify the inoperative item prior to departure.
- b) Whenever an aircraft is released by Maintenance for dispatch with items inoperative, the following is required:-The technical log book aboard the aircraft must contain a detailed description of the inoperative items(s), special advice to the flight crew, if necessary, and information about corrective action taken.
- c) When they are accessible to the crew in flight, the control(s), and/or indicator(s) related to inoperative unit(s) or component(s) must be clearly placarded.
- d) If inadvertent operation could produce a hazard such equipment must be rendered inoperative (physically) as given in the appropriate Maintenance Procedures.

## **1.8 Rectification Interval Categories**

1.8.1 The maximum time an aircraft may be operated between the deferral of an inoperative item and its repair will be specified in the MEL. Since the MEL is a dispatch document, the repair interval may expire in flight. It is therefore an essential requirement that inoperative items or components, deferred in accordance with the MEL, must be rectified at or prior to the established rectification intervals and if during a planned flight RI is anticipated to expire, the flight may not be dispatched.

Passenger convenience items must include a category. Most of these items will be a "D" category provided any (M) procedures (in the case of electrically supplied items) is applied.

1.8.2 Following letter designators shall be used in the "Cat" column of the MEL.

### **a) Category A**

No standard interval is specified, however, items in this category shall be rectified in accordance with the conditions stated in the Remarks column (5) of the MMEL.

Whenever the provision 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.

Time Limited Dispatch - Some MEL's have relief that is subject to time limited dispatch expressed as a specific number of engine hours or cycles, and will start in accordance with the times established by the engine manufacturer or as indicated in the remarks column of the MEL. Time limited relief cannot be extended.

- b) Category B  
Items in this category shall be rectified within 3 consecutive calendar days, excluding the day of discovery.
- c) Category C  
Items in this category shall be rectified within 10 consecutive calendar days, excluding the day of discovery.
- d) Category D  
Items in this category shall be rectified within 120 consecutive calendar days, excluding the day of discovery

**Notes:**

- 1) The MMEL/MEL is intended to permit operations with inoperative items of equipment for that period of time necessary to organise rectification(s).
- 2) The MMEL/MEL is not intended as a tool for prolonged or permanent operation of aircraft in a configuration deviating from their certification status. It is important therefore that rectifications be accomplished at the earliest opportunity in order that the affected aircraft can be returned to its certification status. In order to maintain this level, the MMEL establishes limitations on the duration of operation with inoperative equipment. These are called Rectification Intervals and are designated A, B, C or D.
- 3) The Rectification Interval Category for each item in the MMEL is stated in column 2 of MEL.
- 4) Additional failures during continued operation with inoperative systems or equipment must also be considered in determining that an acceptable level of safety is being maintained. The minimum equipment list may not deviate from requirements of the Flight Manual limitations section, emergency procedures or other airworthiness requirements of the State of Registry/Design or of CAA unless the appropriate Authority or the Flight Manual provides otherwise.

- 1.8.3 Operation of the aircraft is not allowed after expiry of the Rectification Interval specified in the MEL, unless:
  - a) The defect has been rectified; or
  - b) The Rectification Interval is extended in accordance with RIEs in this ANO.

**1.9 Operations with Multiple Unserviceabilities**

- 1.9.1 The MEL cannot include all combinations of unserviceabilities. Therefore it has to be accepted that because of the variety of multiple unserviceabilities, which could arise, it is likely that many will not be covered in the MMEL/MEL
- 1.9.2 The MEL shall provide guidance on the effects of multiple unserviceabilities which may have a significant effect upon safety. MEL Preambles should make it clear that not all unserviceabilities are considered
- 1.9.3 Operators are to ensure that no flight is commenced with multiple minimum equipment list items inoperative without determining that any interrelationship between inoperative systems or components will not result in an unacceptable degradation in the level of safety and/or undue increase in the flight crew workload.
- 1.9.4 The decision as to whether or not to dispatch with multiple unserviceabilities, which individually would be allowed by the MEL, will ultimately rest with the pilot-in-command, taking into consideration both, the advice from the operator's specialists where available and the constraints of above paragraph. The responsibilities of the pilot-in-command in accepting an aircraft for operation with deficiencies in accordance with a minimum

equipment list are specified in Rule 219 of CARs 94. Refer to Appendix-F “Pilot Decision Sequence when operating with an MEL” in this regard.

- 1.9.5 If a failure occurs during the taxi phase before the start of the take-off roll, any decision to continue the flight shall be subject to pilot judgment and good airmanship. The pilot-in-command may refer to the MEL before any decision to continue the flight is taken.

### **1.10 Criteria For Dispatch**

- 1.10.1 The decision of the Pilot-in-command of the flight to have allowable inoperative items corrected prior to flight will take precedence over the provisions contained in the MEL. The Pilot-in-command may request requirements above the minimum listed, whenever in his judgment such added equipment is essential to the safety of a particular flight under the special conditions prevailing at the time.
- 1.10.2 The MEL cannot take into account all multiple un-serviceabilities. Therefore, before dispatching an aircraft with multiple MEL items inoperative, it must be assured that any interface or inter-relationship between inoperative items will not result in a degradation in the level of safety and/or an undue increase in crew workload. It is particularly in this area of multiple discrepancies and especially discrepancies in related systems that good judgment, based on the circumstances of the case including climatic and en-route conditions must be used.

### **1.11 Ferry Flights**

Ferry flights may be dispatched with less than the equipment specified in this MEL provided all the equipment expected to be utilised in flight is operable and any relevant Sections of the Flight Manual are applied. Permission for such a flight, however, must be requested from CAA or be granted by some other agreed procedure.

**Appendix "B"**  
**ANO No. 91- 0007**

DOC. No.	: CAA-624-046
REV. No.	: 0
DATED	: 10.11.2005

**Minimum Equipment List (MEL) Compliance Document**

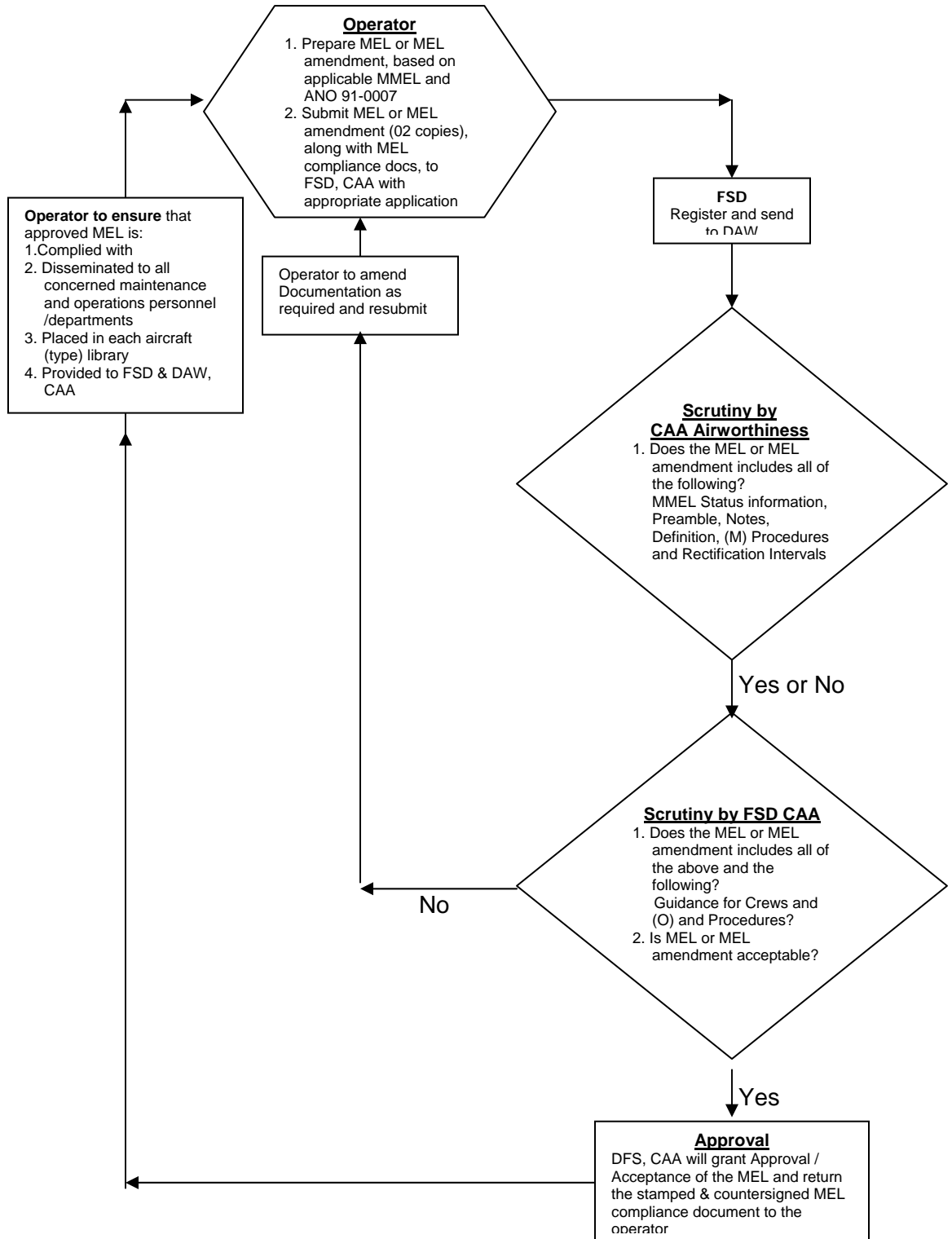
**MEL / MEL Amendment Approval Application Form**

Aircraft type	MEL Ref	Issue No	Date
Source MMEL/Supp	Amendment No	Version No	Date
<b>MEL/Item</b>	<b>Action to be taken</b>	<b>Justification</b>	
<p><b>Compliance Statement:</b> This MEL complies with ANO 91-0007 and is no less restrictive than the applicable approved/acceptable MMEL/Supplement (delete as appropriate)</p> <p>Signed: ..... Name: .....</p> <p>Appointment/Position: ..... Date: ..... Operator: .....</p>			
<b>For CAA use only</b>			
<p><b>1. Airworthiness Surveyor</b>                      Editorial and Technical review completed in accordance with ANO 91-0007. Technically acceptable/Not acceptable.                      Remarks (if any):</p> <p style="text-align: right;">Name ..... Signed ..... Date .....</p>			
<p><b>2. Flight Operations Inspector</b>                      Flight Operations review completed. Operationally and technically acceptable/not acceptable.                      Remarks (if any):</p> <p style="text-align: right;">Name ..... Signed ..... Date .....</p>			
<p><b>3. Director Flight Standards</b>                      Final review completed.                      Remarks (if any):</p> <p><b>Approved / Not Approved</b> and Compliance statement returned to operator.</p> <p style="text-align: right;">Name ..... Signed ..... Date .....</p>			
<b>For Operator use only</b>			
<p>1. Approved MEL/MEL amendment received &amp; incorporated in Operations Manual (<b>should be incorporated within 07 working days from the date of receipt</b>)</p> <p>2. Not Approved MEL/MEL amendment received &amp; process for correction initiated.</p> <p>Name: ..... Appointment/Position: .....</p> <p>Signed: .....Date: ..... Operator: .....</p>			

.....▶ Cross inapplicable item(s)

**Appendix "C"**  
**ANO No. 91- 0007**

**MEL Approval - Process Flow Chart**



**Appendix "D"**  
**ANO No. 91- 0007**

DOC. No. : CAA-624-047
REV. No. : 0
DATED : 10.11.2005

**Rectification Interval Extension Application Form**

**Part 1 - MEL Defect**

Operator	Date of Defect	Aircraft Registration	Aircraft Type	RIE Number
Detail of Defect		Reason for not rectifying		
Rectification Interval Category	Expiry date of Rectification Interval		MEL Reference Number	

**Part 2 - RIE Request**

Name of Applicant	Position/Appointment
Why this RIE is Required?	
List of attached documented evidence pertaining to non-availability of parts/components including tracking records, correspondence with/from manufacturer, vender and or repair station:	

**Part 3 - Scrutiny**

Comments by Airworthiness:
Recommendation of DAW/SAS:

**Part 4 – Approval by DFS**

Comments by DFS/POI (To include history of previous RIE use for this item where appropriate):		
Duration of RIE (if Approved):	Latest date that defect is due for rectification:	
Name of Approving Authority	Position	Date

➔ Cross inapplicable item(s)

**Appendix "E"**  
**ANO No. 91- 0007**

DOC. No. : CAA-624-048
REV. No. : 0
DATED : 10.11.2005

**MEL Exemption/Waiver Form**

**Part 1 - Exemption/Waiver Details**

Operator	Date of expected flight	Aircraft Registration	Aircraft Type	Exemption/Waiver No.
Detail of Exemption/Waiver requested		Type of non-standard operation		
		a) Demonstration Flights; b) Test Flights - after maintenance; c) Training Flights; d) Positioning; e) Ferry Flights f ) Any other reason		
Documentary evidence for changing the category for use of aircraft to <u>non-standard operation</u> for the requested flight:				
Does AFM contain appropriate procedures for the requested <u>non-standard operation</u> ?				
Expiry date of Rectification Interval (if any)				MEL Reference Number

**Part 2 – Exemption/Waiver Application**

Name of Applicant	Position/Appointment	Signed
Why an Exemption/Waiver is Required?		
Any documented evidence of the above statement?		

**Part 3 - Scrutiny**

Comments by Flight Inspector/POI:
Recommendations by DAW/SAS:

**Part 4 – Approval by DFS/POI**

Comments by DFS/POI:		
Approved / Not approved	Signed	
Name of Approving Authority	Position	Date

➔ Cross inapplicable item(s)

**Appendix "F"**  
**ANO No. 91- 0007**

**Pilot Decision Sequence when Operating With an MEL**

