



JERSEY ADVISORY CIRCULAR (JAC)

Minimum Equipment List (MEL)

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First Issue

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Jersey Advisory Circulars (JACs) are issued to provide advice, guidance and information on standards, practices and procedures necessary to facilitate the application and processing of applications for services related to the Jersey Aircraft Register.

They are not in themselves law or a regulation but may amplify provisions of the laws and regulations, including the Jersey Aviation Requirements, or provide practical guidance.

The definitive version of JACs is on the States of Jersey website:

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Enquiries regarding the content of this publication should be addressed to the Director of Civil Aviation, Guernsey Airport, Airport Terminal Building, La Villiaze, Forest, Guernsey, GY8 ODS.

Processing of applications will be done by the Jersey Aircraft Registry. For further information consult <http://www.jar.je> or send a message to info@jar.je.

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1. Purpose

The purpose of this Jersey Advisory Circular (JAC) is to present to applicants guidance for compiling a Minimum Equipment List (MEL) and obtaining an MEL approval.

2. Related laws, regulations and requirements

This JAC relates to:

1. JARQ 91/121/125/135.615
2. Not Used
3. ICAO Annex 6, Part I - Attachment E
4. ICAO Annex 6, Part II – Attachment 3.B
5. ICAO Annex 6, Part III – Attachment D.

No rights can be derived from this document. For exact details please refer to The Air Navigation (Jersey) Law, 2014 (Law). In case of conflict between this guidance document and the Law, 2014, the latter shall prevail.

3. Definitions

Definitions, in the context of this JAC shall have the meanings listed in JARQ Part 1 (Definitions, Abbreviations and Units of Measurement).

4. The concept of an MEL

4.1 Purpose of MEL

The basic purpose of an MEL 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.

Through the use of appropriate conditions or limitations, the MEL provides relief to allow the continued operation of an aircraft with specific systems and items of equipment inoperative under certain circumstances. This process is possible because of the installation of additional and redundant instruments, equipment and/or systems in aircraft which thus provide an acceptable level of safety.

Without an approved MEL, inoperative equipment would ground the aircraft until repair or replacement of the non-functioning system or equipment.

JARQ 121/125/135.615 require that an operator subject to JARQ 121, JARQ 125 or JARQ 135 establishes, for each aircraft, a minimum equipment list and submits that to the Director of Civil Aviation (DCA) for approval. JARQ 91.615 offers other operators to establish a minimum equipment list and have it approved by the DCA. The DCA has delegated to Jersey Aircraft Registry the processing of an application for a MEL, or any change thereto. Within Jersey Aircraft Registry, a Flight Operations Inspector (FOI) is allocated to a specific applicant.

Each MEL:

- is specific to an operator;
- is for a specific make and model of aircraft;
- is for a specific configuration;
- must take into account the service bulletins implemented and the equipment installed.

A MEL may cover multiple aircraft of the same type.

The operator's MEL may be more restrictive than the MMEL, but under no circumstances may the operator's MEL be less restrictive. If items listed on the MMEL are not listed on the MEL there is no relief.

The MEL may not conflict with other approved documents such as the approved flight manual limitations and airworthiness directives.

4.2 Categories of items

There are five categories of items that may be contained in the operator's MEL:

- (a) **MMEL items.** The MEL will list all of the items appearing in the relevant MMELs for which the

operator seeks relief and that are appropriate for the aircraft configuration and its operation;

- (b) **operationally required items.** In addition to the items as per a) above, the MEL will list the items that are required by operational regulations (JARQ 91/121/125/135 Subpart F) for which the operator seeks relief and that are appropriate for the aircraft configuration and operation;
- (c) **passenger convenience items.** Passenger convenience items, as contained in the operator's MEL, are those related to passenger convenience, comfort or entertainment such as, but not limited to, galley equipment, in-flight entertainment equipment and overhead reading lamps. It is incumbent on the operator to develop procedures to ensure that those inoperative passenger convenience items are not used. Passenger convenience items do not have fixed repair intervals;
- (d) **administrative control items.** An operator may use a MEL as a comprehensive document to control items for administrative purposes. In such cases, the operator's MEL may include items not listed in the MMEL. However, relief may not be granted for these items unless conditions and limitations are contained in approved documents other than the MMEL. An example of items considered to be administrative control items would be cockpit procedure cards or an EICAS message cross reference list;
- (e) **CDL items.** An operator may choose to integrate CDL items in the MEL, rather than as a stand-alone document.

4.3 Repair category (rectification intervals)

Four repair categories, which may also be referred to as rectification intervals, are discerned, as follows:

- A: items in this category must be repaired within the time interval specified in the 'Remarks and exceptions' column. The time interval of A items may be expressed in flight days, calendar days or otherwise, e.g 'until next heavy maintenance'. A flight day is a day on which a flight takes place and excludes calendar days on which no flight takes place. Calendar days are counted consecutively.
- B: items in this category must be repaired within 3 consecutive calendar days excluding the day of discovery.
- C: items in this category must be repaired within 10 consecutive calendar days excluding the day of discovery.
- D: items in this category must be repaired within 120 consecutive calendar days excluding the day of discovery. D items are always optional and may actually be removed / de-installed by the operator.

4.4 Rectification interval extensions

The DCA may authorise an experienced operator of a MEL to use a documented continuing authorisation process to approve extensions to the maximum repair interval for category “B”, “C” and “D” items, provided:

- (a) the extension time period is not greater than the normal rectification interval for that category;
- (b) the DCA is notified within 24 hours of the operator’s exercise of its extension authority.

The operator will not be authorised to extend the maximum repair time for category “A” items, as specified in the approved MEL. Misuse of the continuing authorisation process may result in the DCA removing the operator’s authority to use an MEL.

4.5 Sample MEL approval document template

Below is a sample template for the MEL approval document. Each MEL approval document will contain all fields as shown, except that the line for any MMEL supplement will be omitted when not applicable.

BAILIWICK OF JERSEY
Director of Civil Aviation

Minimum Equipment List approval			
			Approval no.: [#]
Operator: [name]	AOC approval no: 2-REG.AOC.*	Aircraft type: [aircraft type]	TAC no: [#]
Registration(s): 2-****			
MEL identification: [...]	MEL revision no: *	Date: dd month yyyy	
MMEL jurisdiction: EASA/FAA/TCCA/ANAC	MMEL revision no: *	Date: dd month yyyy	
STC MMEL jurisdiction: [...]	STC no: [#]	MMEL Supplement revision: *	Date: dd month yyyy
It is hereby certified that the Minimum Equipment List as identified above has been approved in accordance with Guernsey Aviation Requirements 121.615.			
Remarks/Exceptions: Nil			
Date of issue: dd month yyyy		Signature: <div style="text-align: right;">Director of Civil Aviation</div>	

D OPS MEL

This certificate shall be carried on board the aircraft

5. Acceptable Means of Compliance

5.1 Introduction

These Acceptable Means of Compliance address the following activities related to an MEL, as follows:

- Creating an MEL;
- Maintaining an MEL;
- Establishing procedures for MEL use;
- MEL training;
- Approval application of an MEL.

5.2 Creating an MEL

5.2.1 Introduction

This section outlines the steps for creating an MEL, as follows:

- determine relevant Type Certification basis;
- determine source documents;
- establish MEL layout and form;
- prepare MEL contents;
- check against aircraft configuration.

5.2.2 Determine relevant Type Certification basis

JARQ 91/121/125/135.615 require that the MEL is based on the relevant MMEL. Relevant, in this respect, means the jurisdiction upon which the Type Acceptance Certificate is based, ref. JARQ 21.25(a). This is either the FAA, EASA, Transport Canada or ANAC Brazil, as identified on the Certificate of Airworthiness.

5.2.3 Determine source documents

The primary source documents for the MEL are as follows:

- the relevant MMEL;
- the MMEL associated with an STC as embodied on the aircraft. This particularly applies in the case of major interior modifications, such as VIP interiors, passenger-to-freighter conversions;
- JARQ 91/121/125/135 Subpart F for operationally required equipment.

Secondary source documents for the MEL may be:

- the list of modifications embodied on the particular aircraft;
- the Aeroplane Flight Manual or equivalent;
- CS-MMEL Book 2, issued by EASA;
- MMEL policy letters, issued by FAA.

5.2.4 Establish layout and format

The following must be contained in each MEL:

- (a) **Cover page.** The MEL cover page contains the operator's name and the make and model of the aircraft to which the MEL applies. It also contains the title of the MEL, which will be referenced in the MEL approval document;
- (b) **Table of contents.** The table of contents contains a list of all of the sections in the MEL by title and the corresponding page identification (usually a page number);
- (c) **Control page.** The control page is used as a method for keeping track of the status of the MEL and includes a record of the revision status or the date of each page of the operator's MEL. The control page is also referred to as the "List of Effective Pages". At a minimum, the control page must contain the following:
 - 1) the operator's name;
 - 2) a listing of all of the pages in the MEL (including the date of each page and its page number or revision number);
 - 3) optional contents. The operator may include additional information on the control page to provide flexibility and additional approval functions;
- (d) **MMEL revision details.** The MEL must contain the MMEL revision number on which it is based;
- (e) **List of aircraft.** If the MEL applies to multiple aircraft, it must contain a list of applicable aircraft and the method of identification (either by registration mark, serial number or fleet number);
- (f) **Preamble.** The standard MMEL preamble section must be reproduced in each MEL without modification other than that references to MMEL must be replaced by reference to MEL as applicable to the MEL scope and extent;
- (g) **Definitions.** The standard MMEL definitions section must be reproduced in each MEL. However, care must be taken to convert definitions for MEL applicability, as appropriate. Examples are the following definitions:
 - 1) Calendar day, flight day – typically, MMEL definitions for calendar day and flight day have the following text: 'a 24-hour period (from midnight to midnight) either universal coordinated time (UTC) or local time, as established by the aircraft operator...'. It is for the operator to make a selection between either UTC or local time, to document the

selection result in the MEL and, if time zone has been selected, to document which time zone;

- 2) ER – ER stands for Extended Range Operations and is typically used for Extended Diversion Time Operations (EDTO). Care must be taken not to confuse ‘extended range operations’ with ‘extended overwater operations’;
- (h) **Symbols used.** The symbols used section must explain the symbols used in the MEL. Care must be taken not to reproduce symbols that only apply to the MMEL. A typical example is the symbol used in an MMEL for ‘if installed’, which is “***” (three asterisks);
- (i) **System pages.** These pages contain a list of individual items of equipment in the aircraft together with provisions for the operation of the aircraft when the items are inoperative. Operators must use the standard ATA numbering system, similar to the manner used in the MMEL, for numbering individual pages in this section. The operator must ensure that the MEL is at least as restrictive as the MMEL and that operator’s procedures are adequate and appropriate.

The following elements are included in the system pages:

- 1) **System, equipment or instrument.** Each system, item of equipment or instrument that is installed on the aircraft and that is contained in the MMEL for which the operator seeks relief and that is appropriate for its operation must be listed within the associated ATA system. The operator must use the same item title as in the MMEL, except in the following cases:
 - i. when the MMEL uses a generic term to address equipment that serves a similar function when various operators use different names for that equipment; or
 - ii. when the MMEL lists functions rather than individual pieces of equipment within that category such as “navigation equipment” or “communications equipment”. In such cases, the MEL must contain a list of the individual equipment items or systems within that category that are actually installed on the aircraft such as “VHF communications transceivers”. When items of this type consist of several components of a system, the item may be listed as a complete system such as “VOR navigation system”, consisting of a VOR navigation receiver and its associated indicator.

For operationally required equipment that does not appear in the MMEL for which the operator seeks relief, the name as appearing in the Operations Manual must be used.

The operator may be more restrictive than permitted by the MMEL or the JARQ by:

- not listing certain equipment or instruments in its MEL;
- adding operational restrictions;
- using a more restrictive repair category; or
- increasing the number required for dispatch.

In all such cases, the more restrictive relief will be binding on the

operator's operations as that is the relief that has been approved.

- 2) **Repair category.** Each item of equipment or instrument listed in the operator's MEL, except for administrative control items and passenger convenience items, must include a repair category designator. These designators, categorized as "A", "B", "C" or "D" indicate the maximum time that an item may remain inoperative before repair is made. The actual repair categories corresponding to these letters must be provided in the "definitions" section of the MEL. The operator may choose to adopt a more restrictive repair category than the one shown on the MMEL, but may not relax the requirement. Components or subsystems of items categorised in the MMEL, such as items of communications or navigation equipment that are not listed individually in the MMEL, must retain the repair category shown on the MMEL when listed as separate items on the MEL.
- 3) **Number of items installed.** Whereas the MMEL shows the number of items installed as the number of those items normally installed on a particular aircraft type, the MEL will normally contain the actual number of items of particular equipment installed on the operator's aircraft. If the operator has an MEL for a single aircraft or identical aircraft, the actual number of these items on the particular aircraft must be listed in the MEL. If the operator has an MEL for multiple aircraft, and the equipment is not installed on all aircraft or there is a variable quantity between aircraft, the operator's MEL must reference specific aircraft identifications (by registration marks, serial number or fleet number) and the number of installed items for the aircraft in the remarks and exceptions section. The "number installed" column may then contain a dash. Also, for items for which the number installed is not safety relevant, a dash may be used.
- 4) **Number of items required for dispatch.** In the majority of cases, the number of items required for dispatch is determined by the State of Design/Type Certification as mentioned in the MMEL. Where the MMEL does not give a number, this may be because:
 - i) it is variable because of variations between aircraft of the same type (e.g. the number of passenger seats). In this case, the MEL must list the actual number. If there are differences between aircraft in the same fleet, the numbers installed must be given per aircraft serial number of registration mark;
 - ii) it is variable because it depends on the number of persons on board (such as is the case for life vests), which may vary per flight. In this case, the MEL may use a dash;
 - iii) it is an item required by operational regulations. In this case, the number required is the minimum quantity of these items that must be installed for operations under JARQ 91/121/125/135 Subpart F.
 - iv) it is an item required by airspace requirements. In this case, a dash may be used as the number may vary from airspace to airspace.
- 5) **Remarks and exceptions.** The operator must add, as appropriate, in the remarks and exceptions section the provisions for the operation of the aircraft when the item is inoperative. These provisions must be the same as in the MMEL, where available, except for the items given in 6) below. Where not available in the MMEL, such as may be the case with operationally required equipment, the provisions must reflect the JARQ Subpart F requirements, except where the operator seeks relief in which case provisions may be proposed similar to what EASA allows (ref. CS-MMEL Book 2), or the FAA allows in MMEL

Policy Letters, except for the items listed in 6) below. The remarks and exceptions column may contain provisions of an operational or maintenance nature. These are either included in this column or referenced, in which case the symbol (O) or (M) is used, referring to specific operations or maintenance procedures respectively.

- 6) **Items for which FAA is not followed.** For the following items, the provisions of the FAA MMEL, or the appropriate FAA MMEL policy letter, do not apply, irrespective of the aircraft type certification basis:

- ii) ELT;
- iii) FDR;
- iv) CVR;
- v) Door/slide relief.

For these items, the relief guidance in the EASA MMEL or in CS-MMEL book 2 may be followed.