

GUERNSEY ADVISORY CIRCULAR (GACs)



GAC OPS-9

**Minimum
Equipment List**

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First Issue

August 2018

Guernsey Advisory Circulars (GACs) 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 Guernsey Aircraft Register.

They are not in themselves law or a regulation but may amplify provisions of the laws and regulations, including the Guernsey Aviation requirements, or provide practical guidance. Since GAC's are non-binding, regulated persons may choose alternative means to comply with the guidance. In this case, however, they lose the presumption of compliance provided by the circular and need to demonstrate to the Office of the Director Civil Aviation (ODCA) that they do comply with the law.

The definitive version of GACs is on the States of Guernsey website <http://www.cidca.aero/guernsey-aviation-requirementsgov.gg/> which should be viewed to establish the latest issue.

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 Guernsey Aircraft Registry, which operates as '2-REG'. For further information consult <http://www.2-reg.com> or send a message to info@2-reg.com.

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1 - Purpose

The purpose of this Guernsey Advisory Circular (GAC) 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 GAC relates to:

1. GAR 91/121/125/135.615
2. ICAO Air operator certification and surveillance handbook
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 (Bailiwick of Guernsey) Law, 2012 (Law). In case of conflict between this guidance document and the Law, 2012, the latter shall prevail.

3 - Definitions

Definitions, in the context of this GAC shall have the meanings listed in GAR 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.

GAR 121/125/135.615 require that an operator subject to GAR 121, GAR 125 or GAR 135 establishes, for each aircraft, a minimum equipment list and submits that to the Director of Civil Aviation (DCA) for approval. GAR 91.615 offers other operators to establish a minimum equipment list and have it approved by the DCA. The DCA has delegated to 2-REG the processing of an application for a MEL, or any change thereto. Within 2-REG, 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 (GAR 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 GUERNSEY

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: Director of Civil Aviation		

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

GAR 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. GAR 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;
- GAR 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 layout of the MEL is normally based on that of the relevant MMEL. However, deviations may be applied for fleet commonality reasons.

The format of the MEL can either be paper or electronic. In either case, document control principles must be applied.

5.2.5 Prepare MEL contents

5.2.5.1 Mandatory elements

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 GAR 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 or 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 GAR 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 GAR 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: i) ELT;

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

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

j) (O) and (M) procedures

- 1)“O” procedures are specific operations procedures that must be accomplished in planning for and/or operating with the listed item inoperative. Normally, these procedures are accomplished by the flight crew. However, other personnel, such as flight dispatchers, 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. Appropriate procedures are required to be published as a part of the operator’s operations manual or MEL. The (O) procedures do not form part of the MEL approval, but must be furnished as part of the approval application.
- 2)“M” procedures are specific maintenance procedures that 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 authorised to perform certain functions. In the case that an operator allows “M” procedures to be accomplished by flight crew, the operator must establish criteria for determining which types of equipment may qualify and must include additional instructions in the flight crew MEL training programme. Maintenance personnel must accomplish procedures requiring specialised knowledge or skill, or requiring the use of tools or test equipment. 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 maintenance control manual or MEL. The (M) procedures do not form part of the MEL approval, but must be furnished as part of the approval application.
- 3)Operators should include “O” and “M” procedures within the MEL document. If the “O” and “M” procedures are not contained within the MEL, the MEL must include a reference to the location of the “O” and “M” procedures. The practice of integrally referring to type certificate holder’s source documents such as the DDG, DDPG or MPM for “O” and “M” procedures is not acceptable, as these documents typically contain MMEL text which will deviate from the operator’s approved MEL text and thereby may cause confusion.

5.2.5.2 Optional elements

The following elements are optional in an MEL:

- Administrative control items;
- Non-essential Equipment and Furnishings (NEF) procedures.

Administrative control item means an item listed by the operator in the MEL for tracking and informational purposes. It may be added to an operator's MEL, provided no relief is granted or provided conditions and limitations are contained in an approved document (such as structural repair manual or airworthiness directive). An example of items that could be considered administrative control items is an EICAS cross reference list. No item may be included as an administrative control item if it is included elsewhere in the MEL.

FAA MMELs prescribe the Non-essential Equipment and Furnishing (NEF) concept. This concept need not be adopted by Guernsey operators. However, when adopted, the operator must ensure that the NEF procedures are described in the appropriate manuals and included in training.

5.2.6 Aircraft configuration

The MEL must reflect the actual configuration, SB and AD status of the aircraft. Items listed on the MMEL but not installed on the operator's aircraft must either:

- 1) be omitted from the MEL altogether, renumbering individual items within an ATA category as necessary to provide proper continuity; or
- 2) included but with the word 'reserved' added so as to adhere to the numbering as employed in the MMEL.

Conversely, items not mentioned in the MMEL but installed, may, but not must, be included in the MEL. All items that are installed in the aircraft but not listed in the MEL, other than passenger convenience items, must be operative for each flight. Passenger convenience items relate to the convenience, comfort and entertainment of passengers and do not affect the airworthiness or safe operation of the aircraft. These items need not carry a specific repair category. However, the operator must make repairs to convenience items within a reasonable time frame. Normally, the operator lists these items individually in ATA Chapter 25. Passenger convenience items may be included elsewhere in the MEL if clearly identified as passenger convenience items.

5.3 Maintaining an MEL

5.3.1 Introduction

The MEL is a document that is subject to amendments. Typical reasons for amending an MEL include:

- a) MMEL revisions;
- b) operator initiated revisions;
- c) authority initiated revisions.

It is not necessary for an operator to submit an entire MEL when requesting the approval of a revision. The minimum submission would consist of only the affected pages and a revised control page(s).

5.3.2 MMEL revisions

When the State of Design/Type Certification revises a MMEL, operators receive notification and must determine whether the revision affects the operator's MEL.

- a) Non-mandatory revision. Some MMEL revisions only provide additional relief that are less restrictive than the operator's MEL. These revisions may be ignored by the operator. An example of a non-mandatory revision is when the MMEL has been revised to provide for equipment not installed on all aircraft of a particular type, such as logo lights. Operators that operate aircraft with logo lights may choose to revise the MELs, while operators operating without logo lights would not. Another example is when a new variant is added to the MMEL but the operator does not operate that variant.
- b) Mandatory revisions. Mandatory changes, which are more restrictive and may remove relief from the current MMEL, are reflected by the next successive change to the basic MMEL revision number itself. Any MMEL changes that are more restrictive than the operator's MEL must be implemented by the operator. In some cases when relief is removed from the MMEL, there will be a specific date for compliance or guidance for an acceptable date to be negotiated between the FOI and the operator. Mandatory MMEL revisions must be processed by the operator within 90 days from the publication of the MMEL revision, except for those changes which are vital to safety, which must be processed as early as practicable.

5.3.3 MEL revision initiated by an operator

The operator may initiate revisions to an MEL. Reasons will include:

- a) Modification of aircraft;
- b) Changes in area of operation;

- c) Additional specific approvals, e.g. for EDTO;
- d) An Airworthiness Directive with MEL implications.

5.3.4 Authority-initiated revision

An authority-initiated revision may be required upon discovery that the basis for approval of the MEL is no longer valid. This may result from an inspection identifying that actual conditions differ from those present or presented at the time of issue. In such a case, 2-REG, who represents the DCA, will work closely with the operator and make every effort to resolve the matter in a mutually agreeable manner. The operator will be given a reasonable time period to make the required changes depending on whether safety of flight is affected.

5.4 Establish procedures for MEL use in service

5.4.1 Policy: rectify before deferral

Upon discovery of a defect that affects the airworthiness of the aircraft or an item that is required by operational regulation, the operator must consider repair as the first step. Only for reasons of operational regularity and efficiency may the MEL be applied and the defect deferred. The operator should treat the MEL repair interval as a maximum only and endeavor to repair at the earliest opportunity rather than towards the end of the respective repair interval.

5.4.2 Repair management programme

An operator must develop an MEL repair management programme as a comprehensive means of controlling the repair of items listed in the MEL. Operators must include a description of the programme in their Operations Manual, Maintenance Control Manual or other document. The MEL repair management plan must include the following:

- a. the specific duties and responsibilities of the managers of the MEL management programme, listed by job title;
- b. a method for tracking the date and time of deferral and repair;
- c. a plan for co-ordinating parts, maintenance, personnel and aircraft at a specific time and place for repair;
- d. review of items deferred due to unavailability of parts;
- e. in case the operator holds an approval for repair interval extensions, procedures for controlling the extensions and notifying the FOI.

5.4.3 Availability of MEL for flight crew members

Flight crew members must have direct access to the MEL at all times prior to flight, including the 'O' and 'M' procedures. Direct access must not be construed to mean access through telephone or radio conversations with maintenance or other personnel. If the operator chooses to provide the flight crew with access

to the MEL by other than printed means, the method must be approved in the operator's MEL programme.

5.4.4 Recording and clearing discrepancies

When an item of equipment becomes inoperative, the operator must report it by making an entry in the aircraft technical log. As a minimum, the following must be recorded:

1. an identification of the item of equipment involved;
2. a description of the nature of the malfunction;
3. an identification of the person making the entry; and
4. the MEL item number for the equipment involved;
5. the repair interval category;
6. the last date of repair.

Upon repair, an entry to that effect must be recorded in the aircraft technical log.

5.4.5 Flight crew notification

The operator must establish procedures for advising the pilot-in-command (PIC) of inoperative items and required procedures such as affixing placards, alternate operating procedures and operating limitations. The PIC and the operator are both responsible for ensuring that flights are not dispatched or released until all of the requirements of the "O" and "M" procedures have been met.

5.4.6 Discrepancies discovered during flight

Use of the MEL is not applicable to discrepancies or malfunctions that occur or are discovered during flight. Once a flight has commenced, the flight crew should handle any discrepancy in accordance with the Operations Manual. A flight is considered to have commenced when the aircraft moves under its own power for the purpose of flight. If the Operations Manual contains procedures for handling that discrepancy, and if the pilot-in-command deems that the discrepancy does not affect the safety of flight, the flight may continue. The discrepancy must be addressed prior to the next departure.

5.4.7 Conflict with airworthiness directives (ADs)

Occasionally an AD may apply to an item of equipment that may be authorised to be inoperative under the MEL. The item may not simply be deferred under the MEL in order to avoid or delay compliance with the AD or a DCA approved alternate means of compliance with the AD. In all cases, when an AD has been issued, the operator must comply fully with the terms of the AD or a DCA

approved alternate means of compliance with the AD. In other cases, the provisions of an AD may allow operation of the aircraft on the condition that certain items of installed equipment be used or be operable. In those cases, the affected items must be operable even though the MEL may provide for deferral of repair.

5.4.8 Interrelationships of inoperative components

When the MEL authorises a component of a system to be inoperative, only that component may be affected. When a system is authorised to be inoperative, individual components of that system may also be inoperative. Any warning or caution systems associated with that system must be operative unless specific relief is authorised in the MEL. The operator must consider the interrelationship of inoperative components. This consideration must include the following:

- 1) the interrelationship of one piece of equipment on another;
- 2) the crew workload;
- 3) the operation of the aircraft; and
- 4) the flight restrictions.

5.4.9 Multiple items that are inoperative

Individual MEL requirements are designed to provide coverage for single failures en-route. When operating with multiple inoperative items, the operator must consider the interrelationships between those items and the resulting impact on safety, and the effect on aircraft operation and crew workload, including consideration of a single additional failure occurring en-route. If acceptable, the aircraft can be dispatched under the MEL with those inoperative systems.

5.4.10 Flight restrictions

The operator must establish procedures to ensure that dispatch or other operational control personnel, as well as the flight crew, are notified of any flight restrictions required when operating with an item of equipment that is inoperative. These restrictions may involve maximum altitudes, limitations for the use of ground facilities, weight limitations or a number of other factors.

5.4.11 Multiple aircraft of same type

An operator who has a single MEL for multiple aircraft of the same type may reflect equipment in its MEL that is not installed on all aircraft in its fleet. In this case, the item's title in the operator's MEL need not reference any specific aircraft identification unless the operator determines that there is a need to do so. The installed number of items must be identified for each airframe by either registration mark, serial number or fleet number. The remarks and exceptions

column of the MEL may be used for that. The list of aircraft for which the MEL is applicable must be part of the MEL content.

5.5 MEL training

The operator must ensure that the training programmes of flight crew, maintenance personnel and relevant other operational staff contain adequate instructions for MEL use.

The training must include:

- a) background and purpose of the MEL;
- b) relationship with the MMEL;
- c) structure of the MEL;
- d) contents of the MEL;
- e) use of the MEL;
- f) responsibility of the pilot-in-command;
- g) the MEL repair management programme;
- h) instruction on company MEL procedures;
- i) where applicable, instruction on the following concepts:
 - 1) Repair Interval Extension;
 - 2) Non-essential Equipment and Furnishing.

The training must be conducted annually to refresh procedural knowledge and ensure personnel are aware of any changes in MEL procedures.

5.6 Approval applications

5.6.1 Initial

As part of the initial application for an AOC or POC, or a variation thereto, the operator must submit:

- a) the relevant MMEL(s) if not readily available on-line;
- b) the proposed MEL;
- c) necessary “O” and “M” procedures, which may be based on the aircraft manufacturer’s recommended procedures, supplemental type certificate holder’s procedures, or equivalent operator procedures;
- d) a description of the MEL management programme and its procedures as required by the operations manual; and
- e) other instructions and procedures developed by the operator;
- f) training material and guidance for both maintenance and operations personnel.

The operator may submit MEL draft documents to the FOI either on hard copy (printed on paper) or by electronic means, as mutually agreed upon between the operator and the FOI. The operator must discuss with the FOI the techniques that will be used for revising and editing the proposed document. When the

process is complete, the final proposed MEL must have a unique identification which is different from previous iterations, as it will be that document that will be referred to on the MEL approval document.

5.6.2 Changes

Each amendment of an MEL must be submitted for approval, together with:

- a) Reason for change(s);
- b) Brief explanation of the changes.

As discussed in section 5.3, typical reasons for amending an MEL include:

- c) MMEL revisions;
- d) operator initiated revisions;
- e) authority initiated revisions.

MEL amendment proposals must be submitted as soon as practicable. If the reason is a MMEL revision, it must be submitted within 90 days of issue of the that revision. 2-REG will endeavor to review a MEL amendment within 5 working days.

The amendment proposal may be limited to those sections that will be amended.

5.7 Configuration Deviation List (CDL)

5.7.1 General

Transport aircraft may be approved for operations with missing secondary airframe and engine parts. Approval for operating with these parts missing would be authorised by the State of Design. The CDL, once approved, is typically incorporated into the limitations section of the aeroplane flight manual (AFM) as an appendix. For some type certificate holders, the CDL may be a stand-alone document and part of the structural repair manual or another type certificate holder's document.

5.7.2 CDL document

Operators may choose to attach a copy of the CDL to their MEL for easy and ready reference by flight crews or, indeed, integrate it into their MEL.

5.7.3 Use of a CDL

Operators must follow the CDL limitations when operating with a configuration deviation. Operators are required to observe the following:

- 1) the limitations in the CDL when operating with certain equipment missing;
- 2) the flight operations, restrictions or limitations that are associated with each missing airframe and engine part;
- 3) any placard(s) required by the CDL describing associated limitations, which must be affixed in the cockpit in clear view of the pilot-in-command (PIC) and other appropriate crew members;
- 4) recording procedures similar as for MEL items.

END