



Workshop on Specific Approvals organized by ICAO WACAF

MMEL/MEL Module: 3bis. Focus on MEL approval

Presentation by Airbus

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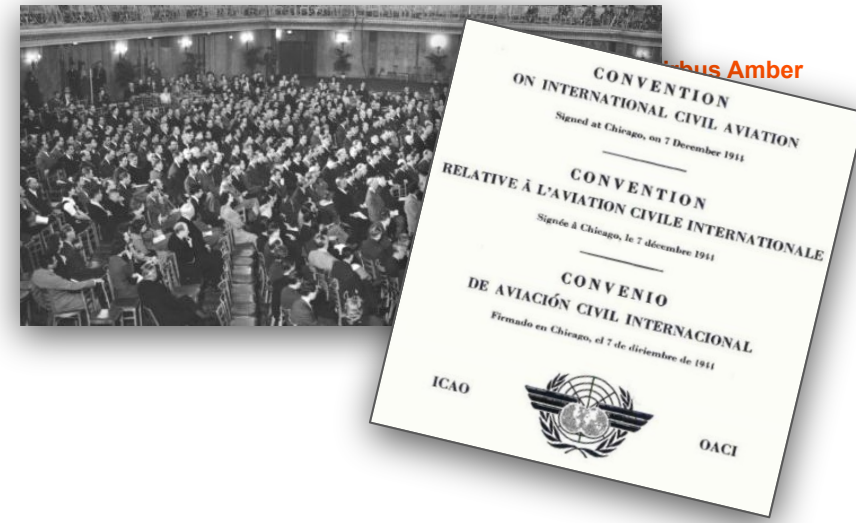
Dakar, Senegal, 30 June-05 July 2025



AIRBUS
EC_NotTechnical

MEL Regulations

ICAO - Chicago Convention

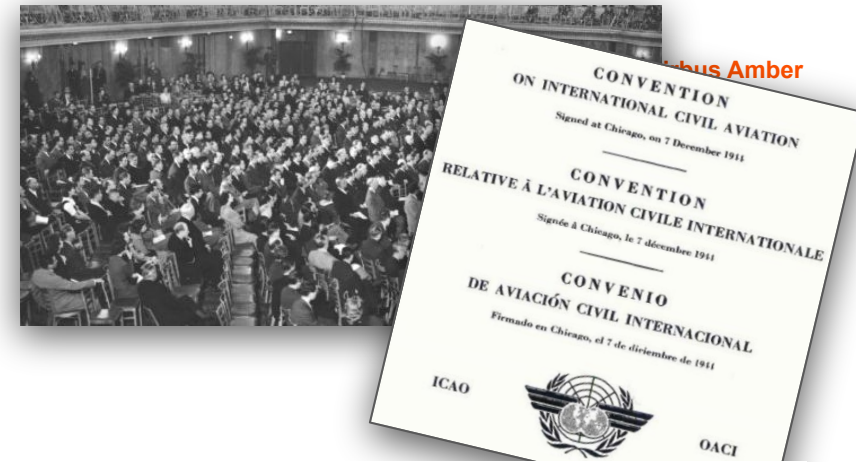


The Chicago Convention includes 96 articles that lays the foundation for a set of Standards And Recommended Practices (SARPs) via Annexes that regulate international air transportation.

Annex 6 “Operation of Aircraft” Part 1 – International Commercial Air transport Aeroplanes provides the definition of the MMEL and MEL.

MEL Regulations

ICAO - Chicago Convention



Master minimum equipment list (MMEL). A list established for a particular aircraft type by the organization responsible for the type design with the approval of the State of Design containing items, one or more of which is permitted to be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations or procedures.

Minimum equipment list (MEL). A list which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the MMEL established for the aircraft type.

Extract Annex 6 part 1 from the ICAO Convention

MEL Regulations

Airbus Amber

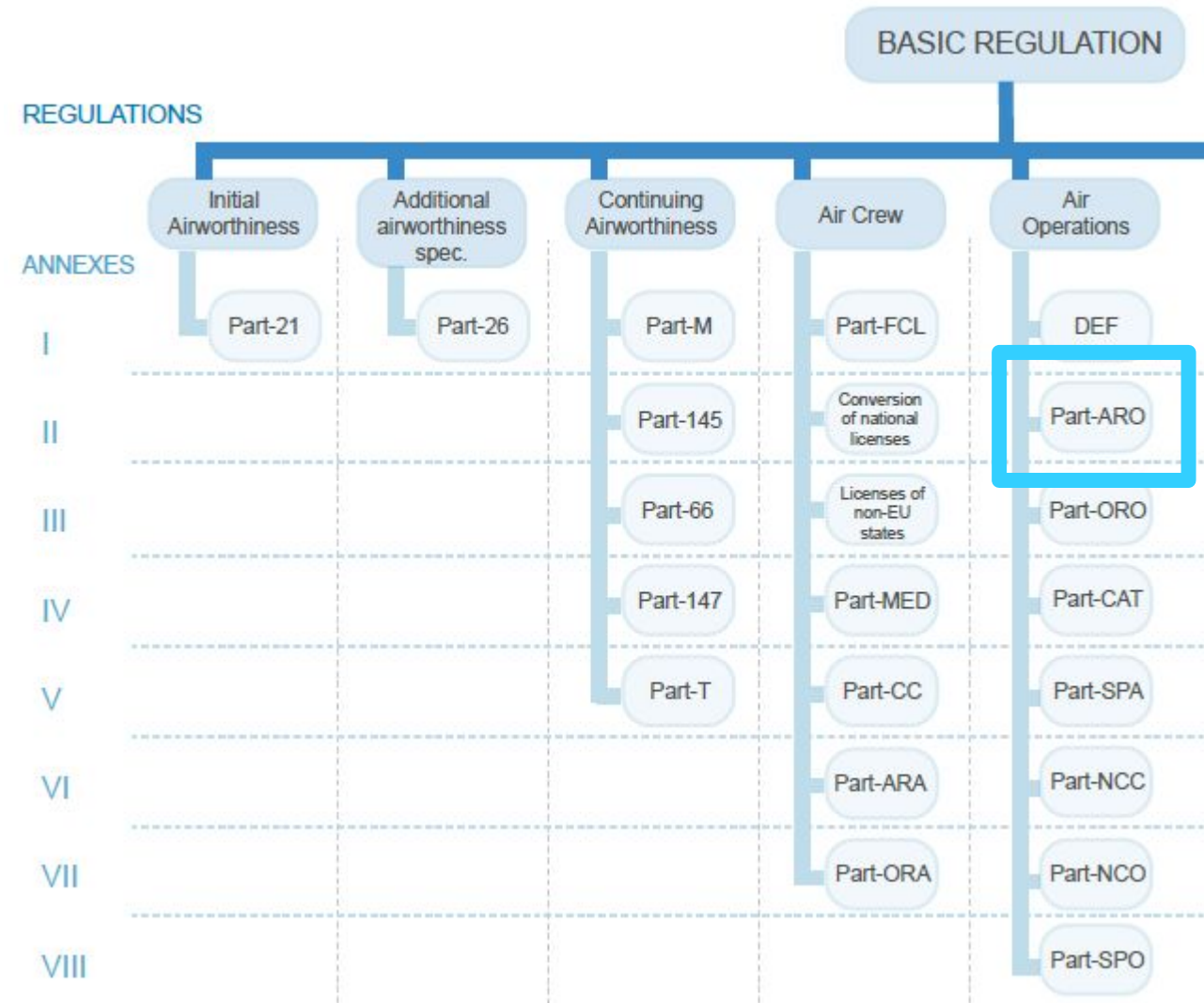
MEL Regulations



Part-ARO

Authority Requirement for Air Operations

Part ARO.OPS.205 MEL approval



MEL Assessment

MEL Initial

Authority approves the complete MEL manual

MEL Update

- Authority approves the change of the MEL, or
- **Authority approves the process of the MEL update**

Workload optimization

Airlines / Authority Trust

MEL Format

Format of the MEL data to be approved

- OLB ?
- PDF ?
- None ? (when MEL update process is set-up)

MMEL Update

Access to the Airbus MMEL

From MMEL to MEL – Customization

The MMEL is the basis for the operator's Minimum Equipment List (MEL), which also takes into account:

- Local regulations
- The specific policy of the operator
- The cabin layout (e.g. lavatories).



The MEL cannot be less restrictive than the MMEL

MEL Approval Process

MEL Requirements ?

ARO.OPS.205 Minimum equipment list approval

- (a) When receiving an application for initial approval of a minimum equipment list (MEL) or an amendment thereof from an operator, the competent authority shall assess each item affected, to verify compliance with the applicable requirements, before issuing the approval.
- (b) The competent authority shall approve the operator's procedure for the extension of the applicable rectification intervals B, C and D, if the conditions specified in ORO.MLR.105(f) are demonstrated by the operator and verified by the competent authority.
- (c) The competent authority shall approve, on a case-by-case basis, the operation of an aircraft outside the constraints of the MEL but within the constraints of the master minimum equipment list (MMEL), if the conditions specified in ORO.MLR.105 are demonstrated by the operator and verified by the competent authority.

- Each MEL item to be assessed by Authorities for Initial MEL approval
- Subsequent MEL item amendment may be assessed by Operators as per a sound process agreed with Authorities

MEL Approval Process

GM3 ORO.GEN.130(b) Changes

CHANGES REQUIRING PRIOR APPROVAL

For commercial operations, the following GM is a non-exhaustive checklist, in alphabetical order, of items that require prior approval from the competent authority as specified in the applicable Implementing Rules:

- (I) minimum equipment list (MEL):
 - (1) MEL;
 - (2) operating other than in accordance with the MEL, but within the constraints of the master minimum equipment list (MMEL);
 - (3) rectification interval extension (RIE) procedures;

EU AMC & GM to Part-ORO extract

- May be assessed by Operators as per sound process agreed with Authorities

MEL Approval Process

GM2 ORO.GEN.200(a)(6) Management system

COMPLEX OPERATORS - COMPLIANCE MONITORING PROGRAMME

(b) Operators should monitor compliance with the operational procedures they have designed to ensure safe operations, airworthy aircraft and the serviceability of both operational and safety equipment. In doing so, they should, where appropriate, additionally monitor the following:

(9) ground operations;

(10) flight and duty time limitations, rest requirements, and scheduling;

(11) aircraft maintenance/operations interface;

(12) use of the MEL;

EU AMC & GM to Part-ORO extract

Examples of MEL compliance monitoring:

- Amount of MEL items deferred per A/C per flight
- Elapsed time to fix MEL items
- Amount of Repair Interval Extension

MEL Approval Process

GM1 ORO.MLR.105(a) Minimum equipment list

GENERAL

NON-SAFETY RELATED EQUIPMENT

- (d) If the operator chooses to list non-safety related equipment in the MEL, not listed in the MMEL, they should include a rectification interval category. These items may be given a 'D' category rectification interval provided any applicable (M) procedure (in the case of electrically supplied items) is applied.

EU AMC & GM to Part-ORO extract

- Single MEL item related to all non-safety items may be listed in the MEL
- List of non-safety items to be agreed with Authorities

MEL Approval Process

AMC1 ORO.MLR.105(d)(3) Minimum equipment list

EXTENT OF THE MEL

The operator should include guidance in the MEL on how to deal with any failures that occur between the commencement of the flight and the start of the take-off. If a failure occurs between the commencement of the flight and the start of the take-off, any decision to continue the flight should be subject to pilot judgement and good airmanship. The pilot-in-command/commander may refer to the MEL before any decision to continue the flight is taken.

EU AMC & GM to Part-ORO extract

- « Commencement of the flight » is when the aircraft starts to move under its own power for the purpose of takeoff (i.e. the taxi phase).

MEL Approval Process

AMC1 ORO.MLR.105(f) Minimum equipment list

RECTIFICATION INTERVAL EXTENSION (RIE) - OPERATOR PROCEDURES FOR THE APPROVAL BY THE COMPETENT AUTHORITY AND NOTIFICATION TO THE COMPETENT AUTHORITY

- (a) The operator's procedures to address the extension of rectification intervals and ongoing surveillance to ensure compliance should provide the competent authority with details of the name and position of the nominated personnel responsible for the control of the operator's rectification interval extension (RIE) procedures and details of the specific duties and responsibilities established to control the use of RIEs.
- (b) Personnel authorising RIEs should be adequately trained in technical and/or operational disciplines to accomplish their duties. They should have necessary operational knowledge in terms of operational use of the MEL as alleviating documents by flight crew and maintenance personnel and engineering competence. The authorising personnel should be listed by appointment and name.
- (c) The operator should notify the competent authority within 1 month of the extension of the applicable rectification interval or within the appropriated timescales specified by the approved procedure for the RIE.

EU AMC & GM to Part-ORO extract

- RIE may be assessed by Operators as per a sound process agreed with Authorities.

MEL Approval Process

GM1 ORO.MLR.105(g) Minimum equipment list**OPERATIONAL AND MAINTENANCE PROCEDURES**

- (a) Operational and maintenance procedures are an integral part of the compensating conditions needed to maintain an acceptable level of safety, enabling the competent authority to approve the MEL. The competent authority may request presentation of fully developed (O) and/or (M) procedures in the course of the MEL approval process.
- (b) Normally, operational procedures are accomplished by the flight crew; however, other personnel may be qualified and authorised to perform certain functions.
- (c) Normally, maintenance procedures are accomplished by the maintenance personnel; however, other personnel may be qualified and authorised to perform certain functions.
- (d) Operator's manuals may include the OM, the continued airworthiness management organisation manual or other documents.
- (e) Unless specifically permitted by a maintenance procedure, an inoperative item may not be removed from the aircraft.

EU AMC & GM to Part-ORO extract

- Some maintenance tasks may be performed by flight crew as agreed with Authorities

MMEL to MEL: New MMEL Revision

Airbus Amber

The screenshot shows the Airbus MMEL software interface. At the top, there's a 'New Criteria' dropdown and a filter status 'No filtering' for 'A318/A319/A320/A321'. Below this are navigation buttons: 'Undo', 'Back', 'Forward', 'Print', 'Wide Screen', 'Day mode', and 'Close'. A secondary row of buttons includes 'QUICK ACCESS', 'MANUALS', 'BOOKMARKS', and 'SEARCH'. On the left, an 'INFO' dropdown is followed by tabs '1', '2', '3', and 'NOTE'. The main content area is titled 'Path : ALL MANUALS' and contains a table with two columns: 'ALL MANUALS' and 'Issue Date'. The table lists three manuals: 'Master Minimum Equipment List', 'Flight Crew Operating Manual', and 'Quick Reference Handbook', all with an issue date of '15-Jan-2018'. A blue box highlights the '15-Jan-2018' date for the 'Quick Reference Handbook'.

ALL MANUALS	Issue Date
Master Minimum Equipment List	15-Jan-2018
Flight Crew Operating Manual	15-Jan-2018
Quick Reference Handbook	15-Jan-2018

Issue date

Applicability date = Issue date + 30 days

MMEL to MEL: Timeline for new MEL Revision

Applicability date = Issue date + 30 days

The applicability date of this MMEL starts at the issue date + 30 calendar days.

Note: The issue date is different from the EASA approval date. The issue date corresponds to the date of initiation of the publication of the Operator's MMEL by Airbus. The issue date may vary from Operator to Operator. The issue date appears in the Transmittal Letter (for the PDF format) and in the LIBRARY panel of the OPS LIBRARY Browser (for the electronic consultation).

The EASA approval date appears in the MMEL Approval Reference of the MMEL Preamble.

The 90 days limit as referred to in PART ORO.MLR.105(c) is recommended to start from the applicability date.

As per Par ORO.MLR.105(c):

- Normal Revision: **Applicability date + 90 days**
- Major Event Revision: **Without delay. Shorter timing imposed by AD**

Wrap-up

MMEL is the baseline to create the **MEL**:

→ **MEL cannot be less restrictive than MMEL.**

MMEL to be customized into **MEL**:

- To reflect **local regulations**

- To reflect **Airline Policies** and **Network constraints**

- To reflect **cabin layout**/Airline custo (**STC**)

An **efficient MEL**:

- Closely reflects the **aircraft configuration**

- Is **readily available** and **understood** by all MEL users

- Is managed by **people involved in its use** i.e. Operations or Maintenance (depending on airline policy)

Thank you

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