GUIDANCE FOR CREATION OF OPERATIONS MANUAL (OM)

APPROVED EDITION

Document information

BHDCA BOSNIA AND HERZEGOVINA DIRECTORATE OF CIVIL AVIATION	OPERATION of AIRCRAFT	**OPS.01.07.00**
	GUIDANCE FOR CREATION OF OPERATIONS MANUAL (OM)	Edition: **1.0** Date: **11.06.2012** Ref. number: **1-5-02-3-683-1/12**

Document amendment records						
Approved edition:		1.0				
Consultancy period:	start	13.02.2012.				
	finish	17.05.2012.				
Reviewed by:	Assistant dir.gen.-QAD					
	Date	11.06.2012.				
Approved by:	Director General					
	Date	11.06.2012.				

Revision No.	Amendment description

No.	Distribution list
1.	FSSD
2.	Aircraft Operations Section
3.	Airworthiness Section
4.	QAD

Contents

Introduction

This guidance material is to help the aircraft operators in the creation of their Operations manual. It explains and details what can be the acceptable content of each of the chapters required by the Subpart P of OPS 1.

Operations manual is one of the main means used by an aircraft operator to assure safe operation. It is, therefore, main element for the issuance of AOC. Information contained in operations manual is extensive, diverse and in constant evolution. With the introduction of Operations manual an operator confirms commitment that the Operations manual is compliant with relevant regulations and its AOC and on the other side that it contains operational guidance that is to be followed by concerned personnel.

While the entire responsibility for the creation of Operations manual rests with the operator, BHDCA has the power, within limits of its authority, to require the modification of Operations manual parts pertinent to the safety of operation.

The BHDCA role in the Operations manual acceptance process is not to perform extensive, in detail, examination of the Operations manual content. The acceptance of the Operations manual does not present the warranty to the operator that the manual does not contain any non conformity to the regulations. Operators are the only ones responsible for the Operations manual conformity with the regulations.

An operator has to be aware that the operations manual acceptance, based on non exhaustive examination conducted by the authority personnel, did not enable the BHDCA to detect non conformities that can have an influence on the safety of operation. After the operations manual acceptance, while performing its safety oversight duties of a particular operator's activity, BHDCA may be put in a position to verify the content of operations manual. During such an inspection non conformities may be discovered which may lead the BHDCA to require the operations manual modifications.

Purpose

The purpose of this Guidance is to give the basic guidelines for operational control for air carriers

Scope

This Guidance shall apply all employees in the Section of Aircraft Operations.

Reference

Appendix 1 to OPS 1.1045

Definitions and Abbreviations

AOC	*Air Operation Certificate*
APU	*Auxiliary power unit*
ATC	*Air Traffic Control*
AWO	*All Weather Operations*
BHDCA	*Bosnia and Herzegovina Directorate of Civil Aviation*
CDL	*Configuration Deviation List*
CMDR	*Commander*
DG	*Dangerous Goods*
EASA	*European Aviation Safety Agency*
ETA	*Estimated Time of Arrival*
ETD	*Estimated Time of Departure*
ETOPS	*Extended range operation twin engined aeroplanes*
FSSD	*Flight Safety and Security Department*
FSTD	*Flight Synthetic Training Device*
FTL	*Flight Time Limitation*
IATA	*International Air Transport Association*
ICAO	*International Civil Aviation Organisation*
LVO	*Low Visibility operations*
M&B	*Mass and Balance*
MEL	*Minimum Equipment Liist*
NOTAM	*Notices To Airmen*
OFP	*Operational Flight Plan*
OM	*Operations Manual*
PIC	*Pilot in Command*
QAD	*Quality Assurance Department -*
RVSM	*Reduced Vertical Separation Minima*
SMS	*Safety Management System*

1 GUIDANCE MATERIAL PRESENTATION

For each operations manual chapter, this guidance material indicates:

a) Regulation reference;
b) Topics from Appendix 1 to OPS 1.1045 relevant to the chapter content;
c) Detailed content of the chapter if applicable;
d) Approvals and acceptances to which a particular chapter may refer.

This guidance material refers to the most common approvals/acceptances in its respective paragraphs. This guidance does not refer to all approvals/acceptances required by OPS. For the complete list of approvals/acceptances required by OPS, please refer to Appendix 1 and 2 of this guidance material. These appendices are created in the form of checklists so they can be used as a cross reference check method for the inclusion of approvals/acceptances in your OM.

Approvals and acceptances appear in small, bold font and we distinguish basic operational and specific (0.6).

1.1 Operations Manual Structure

Detailed operations manual structure must be accepted before the commencement of operation. This acceptance shall be delivered if the operations manual structure is compliant to the one prescribed in IEM OPS 1.1045 (c) and if each chapter is defined.

1.2 Analisys of Operations Manual and its Amendments

The operators are required to be, at the same time, selective and exhaustive. Introduction of too many information like omission of the data essential to the operation may influence the safe operation.

The objective of an operations manual is not to copy all OPS (1 or 3) or other texts requirements, but rather to define how will an operator respond to these requirements and to gather all instructions and procedures used by employees for the execution of their tasks pertinent to the safe operation.

An operator must ensure the adequacy of its operations manual to its operation and aircraft characteristics. The acceptance of operations manual does not present the warranty of its adequacy. If, during examination, BHDCA detects a major non conformity between operations manual and proposed operation, that non conformity will present an obstacle to the acceptance delivery.

All amendments to operations manual must be delivered to BHDCA 60 days before the effective date and to all operational personnel before the effective date as required by OPS 1.1040(g). If an amendment refers to an approval, an operator must obtain this approval before the amendment effective date as required by OPS 1.1040(i). When sending an operations manual amendment it is the responsibility of the operator to indicate to the BHDCA the parts which refer to an approval/acceptance. If an amendment does not contain any approval nor acceptance, BHDCA will examine the structure of the amendment and, if compliant, will accept it by sending the Administrative Resolution on the Operations Manual revision acceptance.

The entire responsibility for the content of OM and its amendments rests with the operator. If, however, during the examination a BHDCA inspector identifies the non conformity, the operator will be required to modify the amendment accordingly. When immediate amendments or revisions are required in the interest of safety, they may be published and applied immediately, provided that any approval required has been applied for.

1.3 Treatment of Chapters Subject to Approvals and Acceptances

Among approvals and acceptances required by OPS 1, we can distinguish:

a) Basic approvals/acceptances: these are approvals/acceptances required for all operators;
b) Operational approvals/acceptances: these approvals/acceptances are linked to a particular type of operation mentioned in Operations Specification associated to AOC;
c) Specific approvals/acceptances: these approvals/acceptances are linked to a specific procedure:
   - While the regulations envisage the possibility to differ from a general rule (e.g. 1.130(3) Conditions under which the Aeroplane Flight Manual carriage may be omitted);
   - While the conditions of operation are particular and require specific approval or acceptance by BHDCA (e.g.1.450(f)(2) LVTO training when FSTD is not available).

Basic approvals/acceptances are delivered by BHDCA before the AOC issuance. All operational and specific approvals/acceptances must be formally applied for by an operator providing all elements necessary for the processing of such applications. Application for acceptance of operations manual or submission of its amendments shall not be considered as an application for operational or specific approval. However, if the BHDCA detects, during the examination of operations manual, that an approval/acceptance is practiced by the operator without application, the BHDCA will contact the operator and order the operator to take necessary measures (suspension of the operation, apply for the approval/acceptance, review the system of the operations manual amendments process…).

When sending an operations manual amendment it is the responsibility of the operator to indicate to the BHDCA the parts which refer to an approval/acceptance.

All approvals/acceptances may be granted before the reception of respective operations manual amendment. In that case, information contained in the operations manual amendment which refer to the approvals/acceptances granted must be coherent with the conditions which lead to their delivery. The approval/acceptance granted in such a way shall not be practiced before the effective date of the respective operations manual amendment.

Parts of the operations manual which refer to an approval/acceptance shall be examined with priority if the approval/acceptance is granted or if so demanded by the operator.

1.4 Operations Manual Language

Unless otherwise approved by the BHDCA, or prescribed by national law, an operator must prepare the Operations Manual in the English language. In addition, an operator may translate and use that manual, or parts thereof, into another language (OPS1.1040(c).

The consideration must be taken that:

a) An operator must ensure that all crew members can communicate in a common language.
b) An operator must ensure that all operations personnel are able to understand the language in which those parts of the

Operations Manual which pertain to their duties and responsibilities are written OPS 1.025.

2 OM PRODUCTION INSTRUCTION - GENERAL/BASIC

2.1 Administration and Controle of Operations Manual

2.1.1 Introduction (OPS 1.200, OPS 1.1040, OPS 1.1045 and OPS 1.020)

a) A statement that the manual complies with all applicable regulations and with the terms and conditions of the applicable Air Operator Certificate.

b) A statement that the manual contains operational instructions that are to be complied with by the relevant personnel.

c) A list and brief description of the various parts, their contents, applicability and use.

d) Explanations and definitions of terms and words needed for the use of the manual.

Declarations must cover points a) and b).

In the case when modifications take place, points c) and d) must be amended.

Basic approvals/acceptances:

- **OPS 1.1045(c): Structure of operations manual.**

Specific approvals/acceptances:

- **1.175(c)(1): An applicant for an AOC must not hold an AOC issued by another Authority unless specifically approved by the Authorities concerned.**

2.1.2 System of Amendment and Revision (OPS 1.1040 (g, h, i and j))

a) Details of the person(s) responsible for the issuance and insertion of amendments and revisions.
b) A record of amendments and revisions with insertion dates and effective dates.
c) A statement that handwritten amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety.
d) A description of the system for the annotation of pages and their effective dates.
e) A list of effective pages.
f) Annotation of changes (on text pages and, as far as practicable, on charts and diagrams).
g) Temporary revisions.
h) A description of the distribution system for the manuals, amendments and revisions.

(b, c, d, e, f, g, h) are required for the first operations manual distribution.

Operations manual form must be compatible with document handling requirements.

Amendments must provide the indications of changes and modifications made in comparison with previous version.

For the point h), if there are separate manuals (safety, security, quality…) an operator must assure that concerned personnel have all information pertinent to their duties available.

2.2 Organisation and Responsibilities

2.2.1 Organisational Structure (OPS 1.175(g, h, i), OPS 1.175(Appendix 2), OPS 1.035)

A description of the organisational structure including the general company organigram and operations department organigram. The organigram must depict the relationship between the Operations Department and the other Departments of the company. In particular, the subordination and reporting lines of all Divisions, Departments, etc., which pertains to the safety of flight operations, must be shown.

Organigrams have to be presented and coherent with information from other relevant documentation. They have to show a complete company structure as well as responsible persons required by OPS regulations:

- Accountable manager
- Quality manager
- Flight operations post holder
- Ground operations post holder
- Crew training post holder
- Maintenance post holder

Functional links between different operational bases and stations must appear. This chapter must not contain other information except organigrams.

Basic approvals/acceptances:

- OPS 1.175(h) Accountable manager

2.2.2 Nominated Postholders (OPS 1.175, OPS 1.895(b))

The name of each nominated post holder responsible for flight operations, the maintenance system, crew training and ground operations, as prescribed in OPS 1.175(i). A description of their function and responsibilities must be included.

Functions and responsibilities of each post holder must be individually defined.

Basic approvals/acceptances:

- **OPS 1.175(i): Post holders:**
  - **Flight operations**
  - **Ground operations**
  - **Crew training**
  - **Maintenance**

Specific approvals/acceptances:

- **OPS 1.175 (Appendix 2 to OPS 1.175(a)): Technical qualification level and experience gained to be nominated as post holder**
- **OPS 1.175 (Appendix 2 to OPS 1.175(b)(3)): A person nominated as a post holder by the holder of an AOC must not be nominated as a post holder by the holder of any other AOC, unless acceptable to the Authorities concerned.**
- **OPS 1.175 (j): A person may hold more than one of the nominated posts if acceptable to the Authority but, for operators who employ 21 or more full time staff, a minimum of two persons are required to cover the four areas of responsibility.**

2.2.3 Responsibilities and Duties of Operations Management Personnel (OPS 1.175 (Appendix 2)

A description of the duties, responsibilities and authority of operations management personnel pertaining to the safety of flight operations and the compliance with the applicable regulations.

An operator must prescribe the task description, responsibilities and authority of post holders in charge for:

- Accident prevention and flight safety program;
- Flight crew employment;
- Cabin crew employment;
- Ground staff employment.

2.2.4 Authority, Duties and Responsibilities of the Commander (OPS 1.003, OPS 1.085, OPS 1.090)

A statement defining the authority, duties and responsibilities of the commander.

It is required that the description of the authority, duties and responsibilities of the commander:

- Distinguish different flight phases: pre, during and after the flight;
- Depict the control and instruction functions (line flying adaptation, line flying reconnaissance and line flying control)
- Define the role of the commander in the field of security (reference possible to elements present in OM Part A.10.1).

2.2.5 Duties and Responsibilities of Crew Members Other than the Commander

This description refers to all other categories of crew members during all phases of flight operation.

2.3 Operational Control and Supervision

2.3.1 Supervision of the Operation by the Operator (OPS 1.175(g) and Appendix 2 to OPS 1.175)

A description of the system for supervision of the operation by the operator (see OPS 1.175(g)). This must show how the safety of flight operations and the qualifications of personnel are supervised. In particular, the procedures related to the following items must be described:

Licence and qualification validity;
Competence of operations personnel; and
Control, analysis and storage of records, flight documents, additional information and data.

Understanding of this notion is recognized to be essential to ensure the commencement of the operation.

Consequently, the definition of the supervision notion has to be present and address at least following points:

Supervision of planning function

- After the employment, continuously, situation of each flight crew member (license validity, qualification validity, medical certificate validity, periodical training and checking, competences required for precision approaches, routes and aerodromes, general and recent experience, flight duty and rest time requirements);
- How is the periodical training and checking planning and realization assured without delay;
- How the operator assures that a crew member is not released on flight with expired license or qualification, expired medical certificate or without current periodical training and checking passed;

- How the operator assures that the flight duty and rest periods are respected in crew rostering and how is the appropriate flight crew pairing assured (operation from both pilot seats, inexperienced pilot);
- How the operator assures that the competences of crew members and aircraft equipment is appropriate to the requirements of the area of operations, routes, aerodromes and the type of operation.
- How the operator assures that the ground staff competences are adequate.
- How the operator assures that the routes and aerodromes to be used are adequate and that the flight crew has appropriate documentation, in particular the documentation pertinent to the flight.

As far as the post flight supervision is concerned, this chapter must indicate:

- How the operator assures that the reports and post flight documentation is complete (OPS 1.135) and that it is used in compliance with operations manual specifications (OPS 1.1055 and OPS 1.1060);
- How the operator assures the quality and the retention periods of the documentation (OPS 1.155, Appendix 1 to OPS1.1065);
- How the operator assures that the incident reports which have an influence on the flight safety are reported to the BHDCA in due time (OPS 1.420).

These dispositions, naturally, have to be developed in regard of the operator's size and the nature of operation.

Specific approvals/acceptances:

- **OPS 1.1055(b): An operator may be permitted not to keep an aeroplane journey log, or parts thereof, by the Authority if the relevant information is available in other documentation.**

2.3.2 System of Promulgation of Additional Operational Instructions and Information

A description of any system for promulgating information which may be of an operational nature but is supplementary to that in the Operations Manual. The applicability of this information and the responsibilities for its promulgation must be included.

This chapter must define, as required by OPS 1.020, all communication means used by the operator, other than manual, for the distribution to its employees, particularly to the flight crew members of instructions or information about new operational specifications, originating from new regulation requirements, recommendations or operational instructions published by the BHDCA, constructor's Ops Service Bulletins and Alert Ops Service Bulletins, operator's corrective measures originating from e.g. accident prevention and flight safety program or quality inspections.

It has to define the means of urgent matters distribution.

2.3.3 Accident Prevention and Flight Safety Programme (OPS 1.037, OPS 1.420)

A description of the main aspects of the flight safety programme.

Accident prevention and flight safety programme must be well defined in this chapter. Certain aspects of the program will not be put in place at the commencement of the operation, so it is acceptable that these are not completely defined.

An operator shall establish and maintain an accident prevention and flight safety programme, which may be integrated with the quality system, including:

1) programmes to achieve and maintain risk awareness by all persons involved in operations; and
2) an occurrence reporting scheme to enable the collation and assessment of relevant

incident and accident reports in order to identify adverse trends or to address deficiencies in the interests of flight safety. The scheme shall protect the identity of the reporter and include the possibility that reports may be submitted anonymously; and

3) evaluation of relevant information relating to accidents and incidents and the promulgation of related information, but not the attribution of blame; and
4) a flight data monitoring programme for those aeroplanes in excess of 27 000 kg MCTOM. Flight data monitoring (FDM) is the pro-active use of digital flight data from routine operations to improve aviation safety. The flight data monitoring programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data; and
5) the appointment of a person accountable for managing the programme.

Proposals for corrective action resulting from the accident prevention and flight safety programme shall be the responsibility of the person accountable for managing the programme.

The effectiveness of changes resulting from proposals for corrective action identified by the accident and flight safety programme shall be monitored by the quality manager.

2.3.4 Operational Control (OPS 1.195 and associated ACJ)

A description of the procedures and responsibilities necessary to exercise operational control with respect to flight safety.

ACJ OPS 1.195 defines operational control as: *"Operational control means the exercise by the operator, in the interest of safety,of responsibility for the initiation, continuation, termination or diversion of a flight. This does not imply a requirement for licensed flight dispatchers or a full flight watch system"*

This chapter presents the functioning of the service which assures permanent operational flight following and in particular, means, information and procedures used, as well as the responsibilities of the service.

Operational control concerns the real time management of flight irregularities (delays, cancellations, rerouting,…) which lead to urgent replaning of operation:

- Of the aircraft for which the operator must verify the adequacy of the equipment and routes to be flown;
- Of the crews for which the operator must verify the competences, qualifications and pairing requirements, flight duty and rest time limitations…

These verification procedures must be well defined and relevant.

In small operators, operational control may be assured by one competent person or even commander.

Basic approvals/acceptances:

- **OPS 1.195: Operational control method**

2.3.5 Powers of the Authority (OPS 1.145, OPS 1.150, OPS 1.160)

A description of the powers of the BHDCA and guidance to staff on how to facilitate inspections by BHDCA personnel.

It is recommended to remind in this chapter the powers of the authority to control in flight (OPS 1.145) and on ground (OPS 1.150), as well as the obligation to keep and to provide Flight Data Recorders to the BHDCA and the conditions under which the recording may be used (OPS 1.160). It is also necessary to inform employees of the means to facilitate BHDCA inspections.

2.4 Quality System (OPS 1.035, OPS 1.175 (Appendix 2), AMC OPS 1.035, IEM OPS 1.035, OPS 1.920)

A description of the quality system adopted including at least:

a) Quality policy;
b) A description of the organisation of the quality system; and
c) Allocation of duties and responsibilities.

An operator must define in a separate quality document or in this chapter of operations manual the means by which following requirements are taken into consideration in its company:

1) Quality policy and quality objective;
2) Quality system organization description with particular:
   - Tasks and responsibilities of the accountable manager, quality manager(s) and quality contractors;
   - Management evaluation and system of information promulgation to the accountable manager;
   - Document reference (document structure, internal and external document handling, the list of reference documents).
3) Audit program, auditors;
4) Quality training.

Basic approvals/acceptances:

- **OPS 1.035(c): Quality system – Quality manager**

2.5 Crew Composition (OPS 1.003, OPS 1.040, OPS 1.085, OPS 1.090, OPS 1.940, OPS 1.965, OPS 1.968, OPS 1.970, OPS 1.975)

An explanation of the method for determining crew compositions taking account of the following:

(a) The type of aeroplane being used;
(b) The area and type of operation being undertaken;
(c) The phase of the flight;
(d) The minimum crew requirement and flight duty period planned;
(e) Experience (total and on type), recency and qualification of the crew members;
(f) The designation of the commander and, if necessitated by the duration of the flight, the procedures for the relief of the commander or other members of the flight crew (See Appendix 1 to OPS 1.940); and
(g) The designation of the senior cabin crew member and, if necessitated by the duration of the flight, the procedures for the relief of the senior cabin crew member and any other member of the cabin crew.

The status of any person who may be listed as crew member is defined in this section.

This section should contain the description of the procedure or method for the crew composition planning.

Consequently, this procedure or method clearly defines the responsibilities of each crew member in order to verify the crew adequacy for the intended operation in regard to points (a. to g.) required by regulations as follows:

a) Minimum flight and cabin crew number per aircraft type, a reference to OM Part B might be acceptable: Respect the requirements:
   - Aeroplane flight manual
   - OPS 1.940
   - Appendix 2 to OPS 1.940 for single pilot flights.

b) Area and type of operation, crew composition must take into account following characteristics:
   - ETOPS, LVO, RVSM, transoceanic, aerodrome and route competence OPS 1.975. (in this chapter an operator must specify the method which assures that the crew received the training appropriate for the intended operation)
   - Line flying under supervision (route and aerodrome), familiarization line flying and line check. It is acceptable that the flight crew composition description for these three types of flight is defined in OM Part A.5.1. In that case it is recommended to refer to proper chapter of OM Part A.

c) Precise what are the positions (right, left, relief…) and the status of each crew member during each flight phase including types of operations depicted in b).Precise reference to OM Part A.1.4 and OM Part A.1.5. or to the general flight operations procedures in OM Part A.8.3 is acceptable if these are correctly developed in these chapters.

d) Define the procedure which assures that the crew is augmented if necessary. The responsibilities are clearly defined for each crew member in that procedure (planning phase and during the flight). Reference to OM Part A.2. is acceptable.

e) Define the inexperienced flight crew member in compliance with OPS 1.940 (a)(4) and the method of crew pairing.

f) Crew composition in case of crew member replacement (Appendix 1 to OPS 1.940).

Basic approvals/acceptances:

- **OPS 1.940(a)(4) procedures are established, acceptable to the Authority, to prevent the crewing together of inexperienced flight crew members**

2.5.1 Designation of the Commander (OPS 1.955 and associated Appendix, OPS 1.960)

The rules applicable to the designation of the commander.

An operator must describe the method of commander designation for all flight types (normal operation, instruction, training…).

2.5.2 Flight Crew Incapacitation

Instructions on the succession of command in the event of flight crew incapacitation.

In case of incapacitation of the commander, the description of the attribution of the commander's functions must be given (generally the commander's function is given to the first officer).

2.5.3 Operation of More than One Type

A statement indicating which aeroplanes are considered as one type for the purpose of:

(a) Flight crew scheduling; and
(b) Cabin crew scheduling.

An operator must correctly describe its practice on operation on more than one type or variant for flight and cabin crew.

Specific approvals/acceptances:

- **OPS 1.980 c) : An operator shall ensure that a flight crew member operating more than one type or variant complies with all of the requirements prescribed in Subpart N for each type or variant unless the Authority has approved the use of credit(s) related to the training, checking and recent experience requirements.**
- **OPS 1.980 d) : An operator shall specify appropriate procedures and/or operational restrictions, approved by the Authority, in the Operations Manual, for any operation on more than one type or variant.**

2.6 Qualification Requirements (OPS 1.020, OPS 1.025, OPS 1.040, Subpart N)

2.6.1 A description of the required licence, rating(s), qualification/competency (e.g. for routes and aerodromes), experience, training, checking and recency for operations personnel to conduct their duties

A description of the required licence, rating(s), qualification/competency (e.g. for routes and aerodromes), experience, training, checking and recency for operations personnel to conduct their duties. Consideration must be given to the aeroplane type, kind of operation and composition of the crew.

An operator must describe procedure established to assure that its operational personnel comply with following requirements (if such procedure is not described in OM Part A.2.1 nor in OM Part A.4.1):

- Possession of licenses, qualifications, certificates and attestations required;
- Competence and experience necessary for execution of their duties;
- Maintenance of competency by appropriate training;
- Conduct of required periodic checks;
- Comply with recent experience requirements.

This procedure must clearly define that operational personnel must not exercise his/her functions except if he/she is in the possession of valid licenses, qualifications, experience, competences and other required criteria.

An operator's criteria for the designation of flight crew members which assures each function must be described. Experience required by the operator (total and on type) must be adequate to the intended operation. As far as qualification and recent experience requirements are concerned, a reference to sections OM Part A 5.2 and OM Part A 5.5 is considered acceptable. It is recommended that only supplementary information to these sections is described in section OM Part A 5.1.

2.6.2 Flight Crew (OPS 1.020, OPS 1.025, OPS 1.040, Subpart N, FCL 1)

(a) Commander.
(b) Pilot relieving the commander.
(c) Co-pilot.
(d) Pilot under supervision.
(e) System panel operator.
(f) Operation on more than one type or variant.

This part shall contain the list of training and experience requirements and other criteria for each function (commander, first officer, instructor…) on each aircraft type and for each type of operation. Each training module is described in OM Part D. It is recommended to state:

- Minimum experience level to be nominated as commander (distinguishing, if applicable, single pilot certified aircraft from the others). This information may be indicated in OM Part A 4.1 or OM Part A 4.2.
- The need to conduct a command course.

The titles, trainings and other criteria need to be correctly described. It may be, in particular:

- License PPL, ATPL, CPL…
- Rules of the air certificate
- Transoceanic and polar certificate for long range operations
- English language proficiency
- Type qualification
- Instrument rating
- CRM

- LVO qualification, ETOPS qualification
- Attestation of training in OPS 1.020(a)(2)
- Command course certificate.

If an operator contracts flight crew members on a part time basis the procedure which assures the compliance with OPS1.940(a)(7) must be defined.

Specific approvals/acceptances:

- **Appendix 1 to OPS 1.940(f): A system panel operator may be relieved in flight by a crew member who holds a flight engineer's licence or by a flight crew member with a qualification acceptable to the Authority.**

2.6.3 Cabin Crew (OPS 1.025, OPS 1.040, FCL 1)

(a) Senior cabin crew member.
(b) Cabin crew member.
(i) Required cabin crew number.
(ii) Additional cabin crew member and cabin crew member during familiarisation flights.
(c) Operation on more than one type or variant.

Like for the flight crew members, trainings, titles and attestations required for cabin crew members must be correctly described. For cabin crew members these are in particular the use of emergency and safety equipment certificate and a company cabin crew attestation.

2.6.4 Training, Checking and Supervision Personnel (AMC OPS 1.945, OPS 1.965(a)(4), OPS 1.968)

(a) For flight crew.
(b) For cabin crew.

Before conducting training, checking, etc. an operator must define requirements and qualification (education, experience, licence, training) for conducting training and checking and who is qualified to conduct a training, checking, line checking, LVO check, the use of emergency and safety equipment check

Basic approvals/acceptances:

- **AMC OPS 1.945 5.1: Following completion of aeroplane/STD training and checking as part of the operator's conversion course, each flight crew member should operate a minimum number of sectors and/or flying hours under the supervision of a flight crew member nominated by the operator and acceptable to the Authority.**
- **OPS 1.965(a)(4)(ii): An operator shall ensure that recurrent checking is conducted by the following personnel: line checks — by suitably qualified commanders nominated by the operator and acceptable to the Authority**

2.6.5 Other Operations Personnel (OPS 1.205)

It is recommended that an operator defines in this chapter minimum qualifications for other operational personnel. The training for other operational personnel might be described in OM Part D.

2.7 Crew Health Precautions (OPS 1.085(d), Appendix 1 to OPS 1.1045)

The relevant regulations and guidance to crew members concerning health including:

(a) Alcohol and other intoxicating liquor;
(b) Narcotics;
(c) Drugs;
(d) Sleeping tablets;

(e) Pharmaceutical preparations;
(f) Immunization;
(g) Deep diving;
(h) Blood donation;
(i) Meal precautions prior to and during flight;
(j) Sleep and rest; and
(k) Surgical operations.

This part may contain a warning indicating that each of the items for (a) to (k) recalled in Appendix 1 to OPS 1.1045 may have an influence to the medical fitness of a crew member and these subjects may be detailed.

The provisions of OPS 1.085 concerning alcoholic beverages and narcotics must be correctly reflected in the operator's OM. Following elements may be reflected:

- Alcohol: no alcohol shall be consumed less than eight hours prior to the specified reporting time for flight duty or the commencement of standby
- Narcotics: medical disability to accomplish crew member's assigned duties, recovered ability following this event (without anticipated medical examination), OPS 1.085(d)
- Drugs: certain drugs may have a negative influence on alertness. It may be useful if an operator gives following advice to its crew members:
  a) In case of drug prescription: an operator must require from its crew members to precise his/her professional activity to the doctor and to ask for the compatibility of the prescribed drug and the crew member activity
  b) In case of self-medication an operator must require from its crew members to read the notice carefully and to make sure that the drug does not produce any side effects that may endanger the safety of flight.
- Sleeping tablets: it may be useful to explain the general mean of use of sleeping drugs. An operator may tolerate the use of sleeping drugs under following conditions:
  a) Medical check to assure the use of minimal effective dose of the drug, rapid elimination and absence of addiction
  b) Drug tolerance test when not on duty.
- Pharmaceutical preparations: same as for drugs.
- Immunization: it is recommended to remind crew members to avoid the immunization on the day of flight duty. E.g. in case of yellow fever, negative effects appear 4 to 7 days after the immunization.
- Deep diving: it might be useful to remind that this activity carries risks which have to be considered if a flight duty is envisaged. Except in case of shallow diving, this sport activity is not recommended within 24 hours before the flight duty (OPS 1.085(d)).
- Blood donation: it might be useful to limit the donation to 500 ml and to disadvise the donation within 48 hours before the flight duty.
- Meal precautions prior to and during flight: meal differentiation in the period of 12 hours before flight duty and during flight duty.
- Sleep and rest: general remarks to crew members in regard to the respect of rest needs.
- Surgical operations: general remarks to crew members in order to make them aware of the need to take care of their medical fitness.

Additional glasses shall be carried in addition to the mean of visual correction used for each flight crew member.

2.8 Flight Time Limitations

2.8.1 Flight and Duty Time Limitations and Rest Requirements (OPS 1 subpart Q)

An operator must define flight and duty time limitations and rest requirements scheme in accordance with OPS 1 Subpart Q

An operator must assure that the crew members who work for other operators are responsible for the compliance with flight and duty time limitations and rest requirements.

2.9 Operating Procedures

2.9.1 Flight Preparation Instructions

As applicable to the operation.

An operator must indicate that all new line operation is preceded with particular technical analysis.

2.9.1.1 Minimum flight altitudes (OPS .240(a)(2), OPS 1.250, Subpart F, G, H, I)

A description of the method of determination and application of minimum altitudes including:

(a) A procedure to establish the minimum altitudes/flight levels for VFR flights; and
(b) A procedure to establish the minimum altitudes/flight levels for IFR flights

This chapter must describe the basic principles of the operator's minimum altitude determination procedure. A reference to one of the three methods described in IEM OPS 1.250 is acceptable.

An operator must correctly define:

- Abbreviations used for limits and minimum altitudes (MORA, grid MORA, MEA…)
- The method used to determine minimum en route altitudes taking into account engine failure for multi engine aircraft.

Basic approvals/acceptances:

- **OPS 1.250: Every method for establishing minimum flight altitudes must be approved by the Authority.**

2.9.1.2 Criteria and responsibilities for the authorisation of the use of aerodromes taking into account the applicable requirements of subparts D, E, F, G, H, I and J

This chapter must correctly define the notion of the use of aerodrome. To achieve that, this chapter must correctly define:

- The notion of adequate aerodrome (opening hours, fire fighting category, navigational and visual equipment, ATC services, runway dimensions and characteristics in regard to the aircraft performance, aircraft and passenger handling facilities…) in case of ETOPS, if applicable (reference may be made to OM Part A 8.5)
- Meteorological conditions to be taken into account.

An operator must in particular define ATC services deemed necessary for the type of operations.

2.9.1.3 Methods for establishing of aerodrome operating minima (OPS 1.240(a)(1), Subpart E, All weather operations)

The method for establishing aerodrome operating minima for IFR flights in accordance with OPS 1 Subpart E. Reference must be made to procedures for the determination of the

visibility and/or runway visual range and for the applicability of the actual visibility observed by the pilots, the reported visibility and the reported runway visual range.

In this chapter an operator must describe general principles of his method for establishing of aerodrome minima.

Reference to Jeppesen, ATLAS, Lido… is acceptable under condition to identify the cases where these publications would not permit to respect Appendix 1 to OPS 1.430 (this verification is in particular necessary for Jeppesen charts which do contain “JAR OPS” indication.

If an operator decides to develop his own documentation, a detailed method for establishing of aerodrome operating minima may be described in a separate document other than operations manual.

In any case, a procedure must be in place to ensure that the RVR used by the flight crew is the most limiting one from Appendix 1 to OPS 1.430 or the minima published by the state. If a Jeppesen chart does not contain “JAR OPS” indication, it is acceptable for the procedure to indicate that it is the commander’s responsibility to do the verification of the minima which will be used. In this case the tables contained in Appendix 1 to OPS 1.430(a) must be reproduced in the operations manual.

The description of general principles must contain at least:

- Aircraft classification per category (Appendix 2 to OPS 1.430). This classification must be permanent and independent of the conditions of air operations.
- The description of different types of approach and take-off procedures conducted by the operator: Non precision approach (direct and indirect), precision approach CATI, CATII, CATIII, normal take-off and LVTO, visual approaches. For single pilot operations, an RVR of less than 800 m is not permitted except when using a suitable autopilot coupled to an ILS or MLS, in which case normal minima apply. The Decision Height applied must not be less than 1,25 x the minimum autopilot use height.
- An indication, should the case arise, of the use of specific operational minima connected to an aircraft class or an aerodrome operations. In particular, the operators of multi engine performance class B aircraft are reminded that the operational take-off minima must be defined according to take-off performance (Table 2 of Appendix 1 to OPS 1.430)
- The documents in which operational personnel may find aerodrome operating minima
- The way in which an information of the visibility (RVR or meteorological) must be used. It is recommended to remind that the meteorological visibility to RVR conversion tables may be used in flight (on the basis of meteorological reports), but never for the flight preparation.

Basic approvals/acceptances:

- **OPS 1.430(a): An operator shall establish, for each aerodrome planned to be used, aerodrome operating minima that are not lower than the values given in Appendix 1 (New) as applicable. The method of determination of such minima must be acceptable to the Authority.**

Specific approvals/acceptances:

- **OPS 1.440(a)(3), OPS 1.440(b), Appendix 1 to OPS 1.430(a)(4): CATII/III operations, LVTO operations**

2.9.1.4 En-route operating minima for VFR flights or VFR portions of a flight and, where single engined aeroplanes are used, instructions for route selection with respect to the availability of surfaces which permit a safe forced landing (OPS 1.465, OPS 1.542, Appendix 1 to OPS 1.465)

If an operator wishes to conduct VFR operations it is necessary to remind to VFR operational minima (flight visibility and distance from clouds) in its operations manual.

Specific approvals/acceptances:

- **OPS 1.542(a): An operator shall ensure that the aeroplane, in the meteorological conditions expected for the flight, and in the event of engine failure, is capable of reaching a place at which a safe forced landing can be made. For landplanes, a place on land is required, unless otherwise approved by the Authority.**

2.9.1.5 Presentation and application of aerodrome and en-route operating minima

An operator must describe his methods of operating minima application specifying the roles and responsibilities of commander and copilot. Reference to Jeppesen, ATLAS, Lido… is acceptable under condition that the need for the verification that applied minima are higher than the ones defined in OPS is specified. If Jeppesen, ATLAS, Lido… is used it is recommended that the chart format is explained and that the examples are provided.

For the flight preparation, an operator must describe operational minima to be taken into consideration for the flight preparation for the departure aerodrome, departure, destination and en route alternate and destination aerodrome (OPS 1.297), specifying in which cases (OPS 1.295):

- It is necessary to define a departure alternate
- It is necessary to define two destination alternates
- If applicable, it is not necessary to define a destination alternate.

For the before take-off use, an operator must describe the rules which permits the take-off based upon the last forecasted meteorological conditions at the destination and/or alternate aerodrome(s) (OPS 1.340(a)).

Specific approvals/acceptances:

- **Appendix 1 to OPS 1.515(a): The Authority may approve the application of steep approach procedures using glide slope angles of 4,5° or more and with screen heights of less than 50 ft but not less than 35 ft,**

2.9.1.6 Interpretation of meteorological information (OPS 1.290, AMC OPS 1.297)

Explanatory material on the decoding of MET forecasts and MET reports relevant to the area of operations, including the interpretation of conditional expressions.

The operations manual must provide sufficient explanation of the usual codes, and the codes used less frequently as well or indicate where such explanation may be found. It is also recommended that this part contains the information on the automatic meteorological assistance services.

The definition of the composition of a meteorological briefing must be described in this part. This definition presents:

- A set of required information if this information is available. For each type of operation a “normal” meteorological briefing should contain surface and altitude meteorological data of the known weather at the moment of the flight preparation as well as the forecasts pertinent to the flight operation.
- The instructions provided to the commanders in order not to commence a flight if all the necessary information (OPS 1.290) is not present concerning the type of operation and the operator’s experience.

2.9.1.7 Determination of the quantities of fuel, oil and water methanol carried (OPS 1.255, AMC OPS 1.255, OPS 1.505, OPS 1.375)

The methods by which the quantities of fuel, oil and water methanol to be carried are determined and monitored in flight. This section must also include instructions on the measurement and distribution of the fluid carried on board. Such instructions must take account of all circumstances likely to be encountered on the flight, including the possibility of in-flight re-planning and of failure of one or more of the aeroplane's power plants. The system for maintaining fuel and oil records must also be described.

This chapter must contain:

- A company description of: choice of route reserve, alternate fuel calculation, the description of the use of special procedures (in flight reclearence…)
- If the aircraft type or the routes to be operated justify (e.g. ETOPS), additional fuel reserve calculation in case of one engine failure, pressurization failure and two engines failure for three and four engine aircraft while the route extends more than 90 minutes, of flight at a long range cruise speed, all engines operating in the standard temperature in still air, from an aerodrome suitable for landing (Performance Class A aircraft).

It is recommended to specify the different fuel quantity calculation for the flight preparation phase and for the in flight fuel management.

2.9.1.8 Mass and centre of gravity (Subpart J)

The general principles of mass and centre of gravity including:

a) Definitions;
b) Methods, procedures and responsibilities for preparation and acceptance of mass and centre of gravity calculations;
c) The policy for using either standard and/or actual masses;
d) The method for determining the applicable passenger, baggage and cargo mass;
e) The applicable passenger and baggage masses for various types of operations and aeroplane type;
f) General instruction and information necessary for verification of the various types of mass and balance documentation in use;
g) Last minute changes procedures;
h) Specific gravity of fuel, oil and water methanol; and
i) Seating policy/procedures.

Following points must be clearly defined:

- Definitions
- The method of passenger mass determination (standard, verbal declaration…), baggage mass (weighing, standard) dependent on the aircraft type and the type of operation and the method for the freight mass determination. If standard values are used it must be verified that they are compliant to OPS 1.620.
- General principles of the center of gravity margins, taken into consideration for the operational center of gravity envelope calculation (see IEM to Appendix 1 to OPS 1.605(d)).
- The method of seat assignment, if applicable
- Mass and balance documentation content (see Appendix 1 to OPS 1.625)
- The procedure for the preparation and acceptance of mass and balance documentation: initial document editing, loading instruction, final document, acceptance by commander, last minutes change.

An operator must describe the procedure to ensure that the loading of the aircraft, both cargo holds and cabin, is executed as per loading instruction. These instructions may figure under OM Part A 8.2.2(k).

In case that an operator uses electronically produced mass and balance documentation he must describe the procedures by which it is assured that any modification in mass and center of gravity are taken into account.

Certain points from above may be described in OM Part B 6.

Specific approvals/acceptances:

- **Appendix 1 to OPS 1.605(d)(1): The CG margins and associated operational procedures, including assumptions with regard to passenger seating, must be acceptable to the Authority.**
- **Appendix 1 to OPS 1.605(b): In addition to standard masses for passengers and checked baggage, an operator can submit for approval to the Authority standard masses for other load items.**
- **OPS 1.615(a)(3): Mass values for crew. Other standard masses must be acceptable to the Authority**
- **OPS 1.620(g): If an operator wishes to use standard mass values other than those contained in Tables 1 to 3 above, he must advise the Authority of his reasons and gain its approval in advance.**
- **Appendix 1 to OPS 1.625(a)(1)(ii): Subject to the approval of the Authority, an operator may omit some of the data from the mass and balance documentation.**
- **Appendix 1 to OPS 1.625(c): An operator must obtain the approval of the Authority if he wishes to use an onboard mass and balance computer system as a primary source for despatch.**
- **OPS 1.625(c): Subject to the approval of the Authority, an operator may use an alternative to the procedures required by paragraphs OPS 1.625 (a) and (b).**

2.9.1.9 ATS flight plan (OPS 1.300)

Procedures and responsibilities for the preparation and submission of the air traffic services flight plan. Factors to be considered include the means of submission for both individual and repetitive flight plans.

An operator must clearly describe:

- His policy on ATS flight plan filing (RPL/FPL) specifying for which flights an ATS flight plan filing is required
- The content of his ATS flight plan filing or modification specifying the responsibilities of all personnel involved
- How and who issues the document and how it is used.

The presentation of a company ATS flight plan is recommended.

2.9.1.10 Operational flight plan (OPS 1.290, OPS 1.300, OPS 1.1060)

Procedures and responsibilities for the preparation and acceptance of the operational flight plan (OFP). The use of the operational flight plan must be described including samples of the operational flight plan formats in use.

This chapter must contain:

- The description of the operational flight plan production procedure and if necessary, the description of flight planning system used for the operational flight plan preparation and the codes used
- A detailed description of an operational flight plan content, which has to be compliant with OPS 1.1060(a)

An example of operational flight plan use (filing before and during a flight).

2.9.1.11 Operator's aeroplane technical log (OPS 1.1071, M.A.306)

The responsibilities and the use of the operator's aeroplane technical log (ATL) must be described, including samples of the format used.

An operator describes here the ATL document and its content, illustrating it with a filled example. This chapter also describes the procedure of ATL production and use by different users:

- Before flight: release to service, acceptances or non-acceptances of malfunctions….
- After flight: entries to carry over, addition of ATL remarks.

Basic approvals/acceptances:

- **M.A.306(b): The aircraft technical log system and any subsequent amendment shall be approved by the competent authority.**

2.9.1.12 List of documents, forms and additional information to be carried (OPS 1.125, OPS 1.130, OPS 1.135, OPS 1.140, OPS 1.240(a)(4))

This list must contain aeronautical information (charts, NOTAMs, additional information…) and flight documents. It is recommended that this part describes the documents that have to be retained on ground during a flight.

Specific approvals/acceptances:

- **OPS 1.130(3): An operator shall ensure that the current Aeroplane Flight Manual is carried in the aeroplane unless the Authority has accepted that the Operations Manual prescribed in OPS 1.1045, Appendix 1, Part B contains relevant information for that aeroplane.**
- **OPS 1.135(b): The Authority may permit the information detailed in subparagraph (a) above, or parts thereof, to be presented in a form other than on printed paper. An acceptable standard of accessibility, usability and reliability must be assured.**

2.9.2 Ground Handling Instructions

2.9.2.1 Fuelling procedures (OPS 1.305, Appendix 1 to OPS 1.305)

A description of fuelling procedures, including:

(a) safety precautions during refuelling and defuelling including when an APU is in operation or when a turbine engine is running and the prop-brakes are on;
(b) refuelling and defuelling when passengers are embarking, on board or disembarking; and
(c) precautions to be taken to avoid mixing fuels

Among other, following points must be treated in this chapter:

a) safety precautions during refuelling and defuelling
   - Fuelling supervision by an appropriately trained person (fueling sequence, fuel distribution, fuel quantity…)
   - Measures taken for the defueling operations.

b) refuelling and defuelling when passengers are embarking, on board or disembarking
   - Forbidden in case of the use of volatile fuel (Avgas, petrol or Jet B or equivalent) without full fire fighting service assistance (define minimum fire extinguishing means required for the operation to be possible)
   - In other cases, it is possible under conditions specified in Appendix 1 to OPS 1.305. If an operator allows refueling with passengers on board he must give:
     - The description of preventive measures (fire extinguishing means during the refueling, ground areas to be cleared for the deployment of slides and emergency evacuation)
     - Instructions for the cabin surveillance: PA announcement: release the safety belts, no smoking and do not use the objects which may produce a spark

- Instructions on the cabin preparation for the safe and rapid emergency evacuation, maintain the aircraft doors open, curtains folded and secured, isles and exits non obstructed
- Measures to be taken in case of fire alert or fuel leak.

c) Fuel to be used
   - Reference to OM Part B 1. Limitations may be accepted to assure the use of appropriate fuel authorized for the aircraft type
   - When a jet fuel/volatile fuel mix is possible (aircraft manufacturer documentation) additional precaution measures put in place and verify the compliance of conditions under OPS 1.307 and associated IEM.

2.9.2.2 Aeroplane, passengers and cargo handling procedures related to safety (OPS 1.260, OPS 1.165, OPS 1.280)

A description of the handling procedures to be used when allocating seats and embarking and disembarking passengers and when loading and unloading the aeroplane. Further procedures, aimed at achieving safety whilst the aeroplane is on the ramp, must also be given. Handling procedures must include:

(a) children/infants, sick passengers and persons with reduced mobility;
(b) transportation of inadmissible passengers, deportees or persons in custody;
(c) permissible size and weight of hand baggage;
(d) loading and securing of items in the aeroplane;
(e) special loads and classification of load compartments; (f) positioning of ground equipment;
(g) operation of aeroplane doors;
(h) safety on the ramp, including fire prevention, blast and suction areas;
(i) start-up, ramp departure and arrival procedures including push-back and towing operations;
(j) servicing of aeroplanes;
(k) documents and forms for aeroplane handling; and
(l) multiple occupancy of aeroplane seats

General rules on the maximum passenger numbers and the number of cabin crew members required by OPS must be given.

a) Instructions defining the conditions of acceptance of certain sick passengers, pregnant women, passengers needing the oxygen, epileptic passengers, handicapped passengers, indicating the means put in place and treatments assured by the operator:
   1) Instructions on embarkation and disembarkation of passengers
   2) Security instructions
   3) The role of station personnel (transmission of information to the transit and destination stations about the assistance needed) determining the seat attribution:
      - Seats for conditional use (exit seats)
      - Seats for the reduced mobility passengers
      - Seats allowed for infants depending on the oxygen masks
      OPS 1.770

b) Instructions defining maximum number of inadmissible passengers, deportees or persons in custody, control and treatment of these passengers (pre-embarkation, post-embarkation, cabin accommodation, station handling)

c) Existence of the procedure for the verification of authorized dimensions and mass of hand baggage in the embarkation instructions for passengers. If voluminous items are accepted in the cabin or in the cargo hold, the procedure for the allocation and secure must be described.

d) Existence of general loading instructions of cargo in regard to cargo hold characteristics (ventilation, heating, volume, weight limits…) door dimensions defining the allowable mass and dimensions of cargo items. Precautions taken to avoid injuries and aircraft damage (floor protection, door frame protection). Loading order.
e) Transport conditions of special cargo identified by their IATA codes, limitation specific to each aircraft type the operator operates.
f) Rules for the movements in the "anti-collision" area (parallel to the aircraft, except for the vehicles aimed for frontal approach guided reverse movement, etc.), rules for the placement of the vehicles in that area.
g) Presence of instructions
   - For the opening from inside and outside of any of the aircraft doors, cargo holds and service doors
   - For the opening from inside and outside of emergency exits and crew emergency trapdoor
   - For the opening and closure of cargo holds doors

   This may be also present in the OM Part B for each aircraft type.
h) Fire security diameter definition, engine/APU safe area indicating the dimensions of the exhaust area behind the engines and APU and suction area in front the engines in idle and beginning of the aircraft movement.
i) Presence of a procedure providing security instructions during the commencement of the movement from and arrival to a parking position:
   - For the staff (anti-collision lights, start-up, exhaust and suction areas clear and wait for the engines shut down upon arrival)
   - For the passengers (no movements in the vicinity of an aircraft position when engines are running)
   - For the equipment (no equipment present in the exhaust/suction area of an engine/APU)
   - For the aircraft (door closed during engines running).
j) Intentionally left blank
k) Documents, comprising of at least loading instruction, mass and balance documentation, fuelling order, notification of the DG transport (NOTOC).
l) Double seat occupation is possible by an adult and an infant only.

2.9.2.3 Procedures for the refusal of embarkation (OPS 1.090, OPS 1.265)

Procedures to ensure that persons who appear to be intoxicated or who demonstrate by manner or physical indications that they are under the influence of drugs, except medical patients under proper care, are refused embarkation. This does not apply to medical patients under proper care.

2.9.2.4 De-icing and anti-icing on the ground (ICAO Doc 9640, OPS 1.345)

A description of the de-icing and anti-icing policy and procedures for aeroplanes on the ground. These shall include descriptions of the types and effects of icing and other contaminants on aeroplanes whilst stationary, during ground movements and during take-off. In addition, a description of the fluid types used must be given including:

(a) proprietary or commercial names;
(b) characteristics;
(c) effects on aeroplane performance;
(d) hold-over times; and
(e) precautions during usage.

When an operator may be exposed to the icing conditions, this chapter must contain:

a) A reminder to the contaminants influence on the aircraft surfaces
b) A reminder to the favorable icing conditions

c) Anti-icing/deicing procedures description covering all points under ACJ OPS 1.345 (1)(b) put in place and in which condition these procedures are applied
d) Hold-over times table, taking into account the fluid type used, applied method, liquid thinning, meteorological conditions. The table must specify that the contained values are for guidance purposes only
e) Anti-icing/deicing operational procedures (taking into account APU configuration, engines status, running or shut down, OAT and freezing point temperature of protection fluid difference)
f) Take-off limitation caused by these operations (mass limitations) and maneuvering procedures (stick effort, climb rate) given by the aircraft manufacturer. Reference to the training program and OM Part D is possible
g) In case where anti-icing/deicing services are provided by a contracted organization, the information which must be provided by the flight crew to the service provider or where such information may be found
h) Should the case arise a reference to specific instruction connected to the aircraft type described in OM Part B.

2.9.3 Flight Procedures

2.9.3.1 VFR/IFR policy

A description of the policy for allowing flights to be made under VFR, or of requiring flights to be made under IFR, or of changing from one to the other.

This chapter should clearly indicate does an operator allow VFR operations and clearly present his VFR/IFR policy.

If an operator authorizes the change of flight rules, justified by operational reasons, list all the precautions to be taken during the transition phase (rules of the air, frequencies to contact…).

In particular, IFR flight cancellations or mixed flight plans IFR/VFR should stay exception.

2.9.3.2 Navigation procedures (OPS 1.241, OPS 1.243, OPS 365, OPS 1.370)

A description of all navigation procedures relevant to the type(s) and area(s) of operation. Consideration must be given to:

(a) standard navigational procedures including policy for carrying out independent cross-checks of keyboard entries where these affect the flight path to be followed by the aeroplane;
(b) MNPS and POLAR navigation and navigation in other designated areas;
(c) RNAV;
(d) in-flight re-planning;
(e) procedures in the event of system degradation; and
(f) RVSM.

Each navigation procedure used by an operator must be correctly described (Standard, MNPS, Polar, RNAV/RNP, RVSM). An operator must describe in flight re-planning procedure and the procedure in case of flight systems degradation taking into account the airspace type in which a flight is operated (reference to OM Part B and OM Part C is possible).

Operational approvals/acceptances:

(l) OPS 1.243: MNPS, RNAV/RNP An operator shall ensure that an aeroplane operated in areas, or through portions of airspace, or on routes where navigation performance requirements have been specified, is certified according to these requirements, and, if required, that the Authority has granted the relevant operational approval

(m) OPS 1.241: RVSM An operator shall not operate an aeroplane in defined portions of airspace where, based on regional air navigation agreement, a vertical

separation minimum of 300 m (1 000 ft) applies unless approved to do so by the Authority (RVSM Approval)

2.9.3.3 Altimeter setting procedures

Altimeter setting procedures including use, where appropriate, of — metric altimetry and conversion tables,

And — QFE operating procedures. An operator must describe the altimeter setting for each flight phase. The procedure must include the specific airspace requirements (RVSM).

2.9.3.4 Altitude alerting system procedures (OPS 1.660)

Describe the use of the system.

2.9.3.5 Ground proximity warning system/terrain avoidance warning system(OPS 1.395)

Procedures and instructions required for the avoidance of controlled flight into terrain, including limitations on high rate of descent near the surface (the related training requirements are covered in OM Part D.2.1).

A pilot's response to different alert types (E)GPWS must be clearly described.

This description must be exhaustive and quote each message in different (E)GPWS (maximum 7 modes) installed on the operator's aircraft. These information may figure in OM Part B.

An operator must define instructions to the flight crews in case of MSAW (actions and phraseology).

2.9.3.6 Policy and procedures for the use of TCAS/ACAS (OPS 1.398, ACJ OPS 1.398, OPS 1.668)

A pilot's response to TCAS advisories and alarms (TA/TR) must be correctly described. This information may figure in OM Part B. Pertinent information published in TGL 11 on the training programs on the use of ACASII must be taken into account by an operator.

2.9.3.7 Policy and procedures for in-flight fuel management (OPS 1.375)

The operator must correctly define:

a) When the comparison between planned and actual fuel burn must be carried out by the commander
b) In which conditions an en-route diversion must be anticipated by the commander
c) In which situation a commander must declare a fuel emergency.

2.9.3.8 Adverse and potentially hazardous atmospheric conditions (OPS 1.670)

Procedures for operating in, and/or avoiding adverse and potentially hazardous atmospheric conditions including:

(a) thunderstorms;
(b) icing conditions;
(c) turbulence;
(d) wind shear;
(e) jet stream;
(f) volcanic ash clouds;
(g) heavy precipitation;
(h) sand storms;
(i) mountain waves; and
(j) significant temperature inversions.

2.9.3.9 Wake turbulence

Wake turbulence separation criteria, taking into account aeroplane types, wind conditions and runway location.

2.9.3.10 Crew members at their stations (OPS 1.310)

The requirements for crew members to occupy their assigned stations or seats during the different phases of flight or whenever deemed necessary in the interest of safety and also include procedures for controlled rest on the flight deck.

2.9.3.11 Use of safety belts for crew and passengers (OPS 1.320)

The requirements for crew members and passengers to use safety belts and/or harnesses during the different phases of flight or whenever deemed necessary in the interest of safety.

2.9.3.12 Admission to flight deck (OPS 1.100)

The conditions for the admission to the flight deck of persons other than the flight crew. The policy regarding the admission of inspectors from the Authority must also be included.

The conditions for the admission to the flight deck must strictly adhere to OPS 1.100. It is convenient to remind that the commander must make sure that:

(a) In the interest of safety, the admission to the flight deck does not cause the distraction and does not influence the operation of the flight
(b) All persons transported on the flight deck are familiar with applicable security procedures.

The policy for the admission to the flight deck may be described in OM Part A 10.

2.9.3.13 Use of vacant crew seats

The conditions and procedures for the use of vacant crew seats.

2.9.3.14 Incapacitation of crew members

Procedures to be followed in the event of incapacitation of crew members in flight. Examples of the types of incapacitation and the means for recognizing them must be included.

2.9.3.15 Cabin safety requirements (OPS 1.325, OPS 1.330)

Procedures covering:

(a) cabin preparation for flight, in-flight requirements and preparation for landing including procedures for securing cabin and galleys;
(b) procedures to ensure that passengers are seated where, in the event that an emergency evacuation is required, they may best assist and not hinder evacuation from the aeroplane;
procedures to be followed during passenger embarkation and disembarkation;
(d) procedures when refuelling/defuelling with passengers embarking, on board or disembarking; and
(e) smoking on board.

It is necessary that a pre-flight cabin preparation checklist exists and a procedure must provide to the commander an information that the checklist has been carried out (reference to OM Part B is possible).

An operator must define appropriate post embarkation verification procedures to assure the proper seating of specific categories passengers (handicapped, infants, non admissible…) and to assure that the baggage is properly stowed in order to clear the isles and exits as well as the toilettes verification.

Particularities of the aircraft operated without cabin crew members must be taken into account.

2.9.3.16 Passenger briefing procedures (OPS 1.285)

The contents, means and timing of passenger briefing in accordance with OPS 1.285.

2.9.3.17 Procedures for aeroplanes operated whenever required cosmic or solar radiation detection equipment is carried (OPS1.390)

Procedures for the use of cosmic or solar radiation detection equipment and for recording its readings including actions to be taken in the event that limit values specified in the Operations Manual are exceeded. In addition, the procedures, including ATS procedures, to be followed in the event that a decision to descend or re-route is taken.

2.9.4 All Weather Operations

A description of the operational procedures associated with all weather operations (see also OPS Subpart D and E).

Concerning take-off minima, an operator must describe how the commander assures himself that RVR or meteorological visibility in the take-off direction is above applicable minima, particularly taking into account following points:

(c) Possibilities of RVR/visibility evaluation by commander
(d) Cases when the commander must assure himself that LVPs are in force
(e) Cases when multiple RVR is required
(f) If applicable, specific conditions in regard to LVTO with RVR les than 150/200m

For the operators excercising LVO, use of operational minima must contain also:

- Conditions to proceed to the destination aerodrome in relation to the last meteorological information available (OPS 1.340)
- Conditions to commence and continue an approach (OPS 1.405)
- The rules for use of meteorological visibility/RVR conversion tables (Appendix 1 to OPS 1.430) – minimum visual references for decision
- Effect on Landing Minima of temporarily failed or downgraded Ground Equipment (AMC 1.430(b)(4).

Operational approvals/acceptances:

- **OPS 1.440(a)(3), OPS 1.440(b) and Appendix 1 to OPS 1.430(a)(4): CATII/III, LVTO operations must be approved by the authority**

2.9.5 ETOPS (OPS 1.245, OPS 1.246, AMC 20-6)

A description of the ETOPS operational procedures.

Detailed information on ETOPS approval is provided in AMC 20-6.

Operational approvals/acceptances:

- **OPS 1.245, OPS 1.246: ETOPS must be approved by the authority**

2.9.6 Use of the Minimum Equipment and Configuration Deviation List(s) (OPS 1.030, OPS 1.085, OPS 1.630, JAR MMEL/MEL)

The MEL preambule may figure here or in OM Part B 9 depending on the operator's choice.

2.9.7 Non Revenue Flights

Procedures and limitations for:

(a) training flights;
(b) test flights;
(c) delivery flights;
(d) ferry flights;

(e) demonstration flights; and
(f) positioning flights, including the kind of persons who may be carried on such flights.

Describe operational methods and crew composition for the non revenue flights.

In particular, for the single pilot certified aircraft, but operated in MCC environment, define crew composition for the positioning and delivery flights.

Indicate, should the case arise, means of record keeping for non revenue flights, particularly taking into account crew flight, duty and rest time as well as aircraft maintenance records.

2.9.8 Oxygen Requirements (OPS 1.385, OPS 1.760, OPS 1.770, OPS 1.775, OPS 1.780 and Appendixes, AMC and IEM)

An operator must describe oxygen equipment and its use for each aircraft. The description of non installed oxygen equipment on its aircraft is not allowed.

2.9.8.1 The conditions under which oxygen must be provided and used

An explanation of the conditions under which oxygen must be provided and used

2.9.8.2 The oxygen requirements

The oxygen requirements specified for:

(a) flight crew;
(b) cabin crew; and
(c) passengers.

An operator must remind to the regulation having in mind its operation. This reminder must contain the number of distribution systems, describe the systems (oxygen mask or not, portable bottles…) and required quantities.

If the fleet equipment of the operator is standardized, it is recommended that the oxygen distribution systems and their usage are described here. If that is not the case, it is preferable that these descriptions figure in OM Part B.

2.10 Dangerous Goods and Weapons (OPS 1.065, OPS 1.070, OPS 1.420(e), Subpart R, OPS 1.1160(b) and associated AMC, OPS 1.1215(b)(c) and associated AMC)

2.10.1 Information, Instructions and General Guidance on the Transport of Dangerous Goods

Information, instructions and general guidance on the transport of dangerous goods including:

(a) operator's policy on the transport of dangerous goods;
(b) guidance on the requirements for acceptance, labelling, handling, stowage and segregation of dangerous goods;
(c) special notification requirements in the event of an accident or occurrence when dangerous goods are being carried;
(d) procedures for responding to emergency situations involving dangerous goods;
(e) duties of all personnel involved as per OPS 1.1215; and
(f) instructions on the carriage of the operator's employees.

The conditions under which weapons, munitions of war and sporting weapons may be carried.

Operational approvals/acceptances:

- **OPS 1.1155: An operator shall not transport dangerous goods unless approved to do so by the Authority.**
- **OPS 1.220(a): An operator shall establish and maintain staff training programmes, as required by the Technical Instructions, which shall be approved by the Authority.**

Specific approvals/acceptances:

- **OPS 1.070(b)(1): An operator accepting the carriage of sporting weapons shall ensure that they are: 1. stowed in the aeroplane in a place which is inaccessible to passengers during flight unless the Authority has determined that compliance is impracticable and has accepted that other procedures might apply;**

2.11 Security (SUBPART S)

2.11.1 Security instructions and guidance of a non-confidential nature which must include the authority and responsibilities of operations personnel. Policies and procedures for handling and reporting crime on board such as unlawful interference, sabotage, bomb threats, and hijacking must also be included

Security program description is considered as an integral part of OM or separate document. Non confidential instructions of that description must cover, in particular, following points:

a) Nomination of a person responsible for security
b) Security definition and objectives, operators security policy and the operators commitment to regulations and specific security instructions compliance by its employees at the airports the operator serves
c) Security organization in the company:
   - o Security program description adapted to the route network, flight identifications and operating fleet covered by the program. This system must be able to treat different nature of threats, whether it is permanent or temporary
   - o Define links between the person responsible for security and post holders and links with station managers
   - o Feedback to the person responsible for security
   - o Description of communication means and reaction to the new threats (communication to commanders and station managers via supplementary means

may be considered)

d) Information handling:
   - o Regulation references. Is the operator familiar with security measures at each station it serves?
   - o Description of communication means: a mean of communication to the crew and station manager at each station the operator serves (e.g. SITA message)
   - o Handling of confidentiality of information in relation to the applicable measures (e.g. controlled distribution and restriction of at least confidential part of Chapter 10)

e) Security program monitoring: provisions for monitoring of the quality and effectiveness of applicable security measures, security incidents reports are addressed to the responsible person, in case of hijacking, report addressed to the Authority.

f) Emergency action plan and in particular protection measures in case of unlawful act to limit the consequences and use of the rules of the air.

g) Control of subcontractors: contractual clauses description used in the area of required security measures training and its application (e.g. IATA contract).

2.11.2 A Description of Preventive Security Measures and Training

Note: Parts of the security instructions and guidance may be kept confidential.

Each of the following areas must be covered by the operator:

1) Aircraft protection including the access to the aircraft and parking of the aircraft during short and long turnarounds and during night. Access to the flight deck during flight and security speeds of the aircraft,
2) Passengers treatment including passengers documents reconciliation, transport of the persons under armed escort and diplomats,
3) Checked baggage treatment including the acceptance of suspected baggage, crew baggage protection
4) Cargo and mail treatment. An operator must take into account the dangerous goods regulations.
5) Treatment of the on board security officers
6) Treatment of the flights classified as sensible by the state.

Each of these measures must be completed by additional measures or reinforced in the following cases:

- General increase of threat level
- Evolution of commercial operations identity (flight identifications)
- Evolution of route network.

Application means must be described in a way to enable commander to control the compliance.

Basic approvals/acceptances:

- **OPS 1.1240: An operator shall establish, maintain and conduct approved training programs which enables the operator's crew members to take appropriate action to prevent acts of unlawful interference**
- **OPS 1.070(b)(1): An operator accepting the carriage of sporting weapons shall ensure that they are: 1. stowed in the aeroplane in a place which is inaccessible to passengers during flight unless the Authority has determined that compliance is impracticable and has accepted that other procedures might apply.**

2.12 Handling, Notifying and Reporting Occurences (OPS 1.050, OPS 1.055, OPS 1.085, OPS 1.160, OPS 1.420, OPS 1.1225, ICAO Annex 13)

Procedures for the handling, notifying and reporting occurrences. This section must include:

a) definitions of occurrences and of the relevant responsibilities of all persons involved;
b) illustrations of forms used for reporting all types of occurrences (or copies of the forms themselves), instructions on how they are to be completed, the addresses to which they should be sent and the time allowed for this to be done;
c) in the event of an accident, descriptions of which company departments, Authorities and other organizations that have to be notified, how this will be done and in what sequence;
d) procedures for verbal notification to air traffic service units of incidents involving ACAS RAs, bird hazards and hazardous conditions;
e) procedures for submitting written reports on air traffic incidents, ACAS RAs, bird strikes, dangerous goods incidents or accidents, and unlawful interference;
f) reporting procedures to ensure compliance with OPS 1.085(b) and 1.420. These procedures must include internal safety related reporting procedures to be followed by crew members, designed to ensure that the commander is informed immediately of any incident that has endangered, or may have endangered, safety during flight and that he/she is provided with all relevant information.
g) Accident, incident and serious incident definitions mentioned in OPS 1.420 must be reproduced in this chapter. Moreover, OM must provide the list of reporting occurrences defined in OPS 1.420. If the operator is authorized for the transportation of dangerous goods an idea of incident, serious incident and accident in terms of dangerous goods transportation must be given.
h) This paragraph must present all the reporting forms used by the operator as well as the list of all the events that have to be reported by the commander. These forms must be up to date and contain all information required and cover the cases defined in OPS 1.420
i) OM must define the instructions to all crew members, station personnel and company personnel in case of accident. It is recommended to distinct the actions which are to be conducted immediately during the flight (notification, declaration,…) and after (reports…)

   Instructions which are to be applied during the flight must describe:

   - Valid security measures to be taken by the commander and other crew members. Rescue organization by OCC if applicable (transmission of SAR information, number and identity of the crew members and passengers…)
   - The role of the crew members in case of accident in regard to the evidence protection and the use of FDRs and CVRs, prohibition to disable or switch off the FDR and CVR unless he/she believes that the recorded data, which otherwise would be erased automatically, should be preserved for incident or accident investigation nor permit recorded data to be manually erased during or after flight in the event of an accident or an incident subject to mandatory reporting
   - the role of the OCC and out stations in connection to line maintenance in case of incident or accident (particularly in the matter of evidence protection)
   - immediate notification to the Aircraft Investigation Agency. After the flight, these instructions must provide the use (by the commander or the operator, if the case arises) of the reporting form adapted to each type of accident/incident described in paragraph b) of this section of OM.

j) This paragraph must provide the procedures for the verbal ATC notification by the commander (OPS 1.420(b))
k) Procedures for submitting written reports on air traffic incidents, ACAS RAs, bird strikes,

dangerous goods incidents or accidents, and unlawful interference

l) Reporting procedures to ensure compliance with OPS 1.085(b) and 1.420. These procedures must include internal safety related reporting procedures to be followed by crew members, designed to ensure that the commander is informed immediately of any incident that has endangered, or may have endangered, safety during flight and that he/she is provided with all relevant information.

2.13 Rules of the Air

Rules of the Air including:

(a) visual and instrument flight rules;
(b) territorial application of the Rules of the Air;
(c) communication procedures including COM-failure procedures;
(d) information and instructions relating to the interception of civil aeroplanes;
(e) the circumstances in which a radio listening watch is to be maintained;
(f) signals;
(g) time system used in operation;
(h) ATC clearances, adherence to flight plan and position reports;
(i) visual signals used to warn an unauthorised aeroplane flying in or about to enter a restricted, prohibited or danger area;
(j) procedures for pilots observing an accident or receiving a distress transmission;
(k) the ground/air visual codes for use by survivors, description and use of signal aids; and
(l) distress and urgency signals.

This section must, as a minimum, contain a copy of the latest valid civil aviation regulations on the date of the OM publication. It is convenient to mention the civil aviation regulations used in the creation of this OM part.

2.14 Leasing (OPS 1.165)

A description of the operational arrangements for leasing, associated procedures and management responsibilities. An operator must define here the procedures put in place for different cases of leasing:

- Dry lease in
- Dry lease out
- Wet lease in
- Wet lease out

And depending on the nationality of the contracted operator:

- B&H
- Community
- Non - community.

These procedures will precisely define the cases where the authority must approve the leasing as required by OPS 1.165, operators responsibility during the operations, the cases of sub-leasing.
An operator will describe the procedure for the selection of his partners (method, services provided,…) and if it is applicable, their monitoring.

Basic approvals/acceptances:

- **OPS 1.165(b)(2)(i): Except as provided by subparagraph (b)(1) of OPS 1.165, a Community operator utilising an aeroplane from, or providing it to, another Community operator, must obtain prior approval for the operation from his respective Authority.**
- **OPS 1.165(c)(1)(i): A Community operator shall not dry lease-in an aeroplane from an entity other than another Community operator, unless approved by the Authority.**
- **OPS 1.165(c)(2)(i): A Community operator shall not wet lease-in an aeroplane from an entity other than another Community operator without the approval of the Authority.**

3 OM PRODUCTION INSTRUCTION- AEROPLANE OPERATING MATTERS- TYPE RELATED

Taking account of the differences between types, and variants of types, under the following headings:

3.1 General Information and Units of Measurement

3.1.1 General Information

E.g. aeroplane dimensions, including a description of the units of measurement used for the operation of the aeroplane type concerned and conversion tables.

3.2 Limitations

3.2.1 A Description of the Certified Limitations and the Applicable Operational Limitations (Subparts H, I and J)

3.2.1.1 A description of the certified limitations and the applicable operational limitations

A description of the certified limitations and the applicable operational limitations including:

(a) certification status (e.g. CS–23, CS–25, ICAO Annex 16 (CS–36 and CS–34), etc.);
(b) passenger seating configuration for each aeroplane type including a pictorial presentation;
(c) types of operation that are approved (e.g. VFR/IFR, CAT II/III, RNP Type, flight in known icing conditions, etc.);
(d) crew composition;
(e) mass and centre of gravity;
(f) speed limitations;
(g) flight envelope(s);
(h) wind limits including operations on contaminated runways;
(i) performance limitations for applicable configurations;
(j) runway slope;
(k) limitations on wet or contaminated runways;
(l) airframe contamination; and
(m) system limitations.

An operator must specify, in the limitations description, the ones which correspond to the AFM limitations (preceded by-) and the ones which reflect operational considerations (preceded by •).

(a) Certification status:
- JAR or FAR used for the certification
- CoA reference for the type and the date of certification and/or extensions of CoA
- Noise Certificate reference and the date showing the compliance with one of the chapters of ICAO Annex 16.

(b) Passenger seating configuration for each aeroplane type including a pictorial presentation:
- Maximum certified passenger number
- Different cabin layout envisaged by the operator including mixed version, cargo or medical. Passenger seats must be clearly differentiated from the other seats in an aeroplane. Cabin layout plan may figure in OM Part B 6.
- Maximum passenger seat configuration (which has to be approved if

different from the one specified in the AFM)

(c) Types of operation that are approved (e.g. VFR/IFR, CAT II/III, RNP Type, flight in known icing conditions, etc.):
- VFR
- IFR
- ETOPS: specify diversion time
- B-RNAV: specify RNP level
- RVSM
- LVTO: specify authorized RVR
- CATII/CATIII: specify authorized DH and RVR
- MNPS
- Flight in known icing conditions
- Steep approaches
- Dangerous goods

(d) Crew composition:
- Flight crew: minimum certified and/or operational
- Cabin crew: minimum certified and/or operational as requested by the cabin layout

(e) Mass and centre of gravity
- Maximum structural mass limitations: MTOM, MLM, MZFM, MRM
- CG position limitations
- Maximum structural floor resistance limitations
- Maximum mass and volume for each baggage compartment

(f) Speed limitations
- Maximum speeds: VNE, VMO, MMO
- Speed limitations associated with maneuvers and landing gear, flaps and cowling operation
- Minimum control speed and stall speed (reference to OM Part B 4. may be stated)
- Other maximum speed limitations: operation of speed breaks, windshield wipers…

(g) Flight envelope(s):
- Load factor
- In flight engine and APU start
- Temperature limitations
- Operating ceiling

(h) Wind limits including operations on contaminated runways:
These limitations must be defined for dry, wet and contaminated runways for all type of operations proposed by the operator (including CATII operations).
- Maximum headwind
- Maximum tailwind
- Maximum crosswind

(i) Performance limitations for applicable configurations:
- Flaps position limitations for each flight phase
- Limitations in regard to a flight with landing gear and/or flaps extended.

(j) Runway slope:
- Maximum up-slope allowable
- Maximum down-slope allowable

(k) Limitations on wet or contaminated runways:
- Maximum contaminant depth in regard to its nature

(l) Airframe contamination:
- Limitations in regard to the aircraft protection against icing

(m) System limitations:
- System limitations classified by ATA is acceptable.

Specific approvals/acceptances:
- **OPS 1.480(a)(6): "Maximum approved passenger seating configuration". The maximum passenger seating capacity of an individual aeroplane, excluding pilot seats or flight deck seats and cabin crew seats as applicable, used by the operator, approved by the Authority and specified in the Operations Manual.**

3.3 Normal Procedures

3.3.1 The normal procedures and duties assigned to the crew, the appropriate check-lists, the system for use of the checklists and a statement covering the necessary coordination procedures between flight and cabin crew

The following normal procedures and duties must be included:

(a) pre-flight;
(b) pre-departure;
(c) altimeter setting and checking;
(d) taxi, take-off and climb;
(e) noise abatement;
(f) cruise and descent;
(g) approach, landing preparation and briefing;
(h) VFR approach;
(i) instrument approach;
(j) visual approach and circling;
(k) missed approach;
(l) normal landing;
(m) post landing; and
(n) operation on wet and contaminated runways.

Preambule must contain:
- Chapter structure (content, table of subjects, possible commentaries)
- Symbols and codes used in this chapter and possibly a checklist example
- Instructions associated with procedures corresponding to all flight phases (including flight preparation, pre flight, turnaround) specifying the role of each crew member(PF/PNF/FE and/or CMDR/FO/FE) for:
  - Start of the actions
  - Checklist start
  - Checklist use (call/reply)
  - Checklist closure
  - The rules for mutual control
- Other instructions specifying for each case general principles of task allocation (PF/PNF/FE and/or CMDR/FO/FE) for:
  - The use of automatic equipment: flight director (FD), autopilot (AP), auto throttle (A/THR), parameters readings (heading, speed and altitude)
  - Transfer of control
  - Navigation (conventional means or other)
  - Telecommunications
  - Technical announcements

Task allocation has to be specified, item per item, in the developed procedures. However, if the task allocation is defined in a precise way in the preambule (PF/PNF/FE and/or CMDR/FO/FE), task allocation, item by item, is not necessary (except for the procedures to which these principles do not apply).

Procedures covering all items from (a) to (n) (including cockpit preparation).

“Procedures developed” produced by the operator. The use of manufacturer’s reduced documentation in place of normal procedures developed in the OM Part B 2. is not acceptable.

Schemas of flight phases:

- Normal take-off
- Noise abatement normal take-off
- Visual approach
- Precision approach
- Standard direct approach
- Standard indirect approach
- Missed approach.

Checklists for each flight phase. It is recommended that these checklists are developed by the operator and it is necessary that they contain at least verifications specified by the aircraft manufacturer. For the checklist, it is acceptable that the operator refers to manufacturer’s reduced documentation (QRH or other…) under condition that the coherence between these checklist and developed procedures is assured and that each flight crew member possesses one example (and corresponding updates) of the document.

3.4 Abnormal and Emergency Procedures

3.4.1 The abnormal and emergency procedures and duties assigned to the crew, the appropriate check-lists, the system for use of the check-lists and a statement covering the necessary coordination procedures between flight and cabin crew

The following abnormal and emergency procedures and duties must be included:

(a) crew incapacitation;
(b) fire and smoke drills;
(c) unpressurised and partially pressurised flight;
(d)exceeding structural limits such as overweight landing; (e) exceeding cosmic radiation limits;
(f) lightning strikes;
(g) distress communications and alerting ATC to emergencies; (h) engine failure;
(i) system failures;
(j) guidance for diversion in case of serious technical failure; (k) ground proximity warning;
(l) TCAS warning;
(m) wind shear; and
(n) emergency landing/ditching; and
(o) departure contingency procedures.

Preambule must treat each of the following aspects:

- Chapter structure (content, table of subjects, possible commentaries). The respect of ATA classification is recommended. In case of an aircraft equipped with ECAM or EICAS, an operator must explain how he differentiates ECAM/EICAS from NON ECAM/EICAS procedures.
- Symbols and codes used in this chapter and possibly a checklist example

- Classification of emergency procedures and abnormal procedures in separate chapters
- Instructions on the use of emergency and abnormal procedures specifying general principles of task allocation and rules of mutual control:
  - Identifying the procedures which have to be executed by heart, the ones to be executed with the assistance (paper or ECAM/EICAS)
  - Methods of failure treatment
- Task allocation has to be specified, item per item, in the developed procedures. However, if the task allocation is defined in a precise way in the preambule (PF/PNF/FE and/or CMDR/FO/FE), task allocation, item by item, is not necessary (except for the procedures to which these principles do not apply).

Procedures covering all items from (a) to (n).

- The operator must have all procedures produced on paper. It is not acceptable that the ECAM/EICAS checklists are not reproduced on paper and included in OM (equally applicable for NON ECAM/EICAS procedures).
- All abnormal and emergency procedures defined by the aircraft manufacturer in the AFM must be reproduced by the operator
- In this chapter an operator must develop abnormal and emergency procedures not produced by the aircraft manufacturer, required by operational regulations relative to the line operations (as opposite to the procedures relative to training flights…). E.g. these procedure may concern:

  - Exeedence of cosmic radiation limits
  - Lightning strike
  - ATS distress message and alert in case of emergency
  - Aborted take-off
  - Emergency descent
  - Traffic alert (TCAS/ACAS)
  - Windshear
  - Cabin fire for the aircraft operated without cabin crew.
- Certain abnormal and emergency procedures are developed in OM Part A. It is necessary that these procedures are reproduced in OM Part B except in the case where type related differences do not exist. In such a case, an operator my simply refer to OM Part A.
- The use of manufacturer's reduced documentation in place of abnormal and emergency procedures developed in the OM Part B 3. are not acceptable. However, the on board use of reduced documentation established by the aircraft manufacturer (QRH or other….) is allowed. In that case, OM Part B 3 must be coherent with reduced aircraft
  manufacturer documentation.

3.5 Performance (Subparts F, G, H, I)

Performance data must be provided in a form in which it can be used without difficulty.

3.5.1 Performance Data

Performance material which provides the necessary data for compliance with the performance requirements prescribed in OPS 1 Subparts F, G, H and I must be included to allow the determination of:

(a) take-off climb limits — mass, altitude, temperature;
(b) take-off field length (dry, wet, contaminated);

(c) net flight path data for obstacle clearance calculation or, where applicable, take-off flight path;
(d) the gradient losses for banked climb outs;
(e) en-route climb limits;
(f) approach climb limits;
(g) landing climb limits;
(h) landing field length (dry, wet, contaminated) including the effects of an in-flight failure of a system or device, if it affects the landing distance;
(i) brake energy limits; and
(j) speeds applicable for the various flight stages (also considering wet or contaminated runways).

3.5.1.1 Supplementary data covering flights in icing conditions

Any certificated performance related to an allowable configuration, or configuration deviation, such as anti-skid inoperative, must be included.

3.5.1.2 If performance data, as required for the appropriate performance class, is not available in the approved afm, then other data acceptable to the authority must be included

Alternatively, the Operations Manual may contain cross reference to the approved data contained in the AFM where such data is not likely to be used often or in an emergency.

3.5.2 Additional Performance Data

Additional performance data where applicable including:

(a) all engine climb gradients;
(b) drift-down data;
(c) effect of de-icing/anti-icing fluids;
(d) flight with landing gear down;
(e) for aeroplanes with three or more engines, one engine inoperative ferry flights; and
(f) flights conducted under the provisions of the CDL.

This section provides, among other, performance considerations and operational limitations for the flight preparation. In that sense this section must be created in a structured, coherent and complete manner and presented in the form simple for use to enable the flight crew to completely and effectively prepare the flight.

The reference to AFM and FCOM, often seen in certain OMs, must be limited to clear data and particular situations which a flight crew will rarely be confronted to. In effect, such a reference, not only is non user-friendly and it may be source of error, but it meets the sense of Appendix 1 to OPS 1.1045 B.4.1.2.

In application of this concept, it is recommended that OM Part B 4 is structured in the following way and contain following elements:

- Preambule
- Reminder of regulatory requirements for each flight phase
- Instructions, methods and data elaborated by the operator to satisfy these requirements, by each flight phase, in normal operating situations
- Elements and additional data applied in occasional situations or particular flights, not normally met in normal operation.

Elements described in OM Part B must be adjusted to aircraft performance class as defined in OPS 1.470.

Preambule must define:

- Introduction defining the objective and the structure of the section
- Reminder to the manufacturer's documents, that presented data are derived from
- Reminder to the aircraft engines which are used in the production of the performance data
- Particular aircraft systems, different from the standard version, which have been taken into account for the performance production
- Reminder to the performance class which was the base for the elaboration of present section
- Definition list pertinent to the limitation elements and performance used in this section.

Reminder of regulatory requirements (except if not already given in OM Part A) must cover every flight phase and situation: take- off, aborted take-off, take-off path, climb, cruise, descent, holding, missed approach, go around, landing.

This part must remind to limitation elements of the considered aircraft performance class stated in OPS 1 and taking into account:

- Declared available distances
- Required distances
- Associated speeds and weighing factors
- Obstacle clearances
- Required climb gradients
- Associated conditions.

This part should present a standard take-off profile with associated elements (derived from aircraft certification)

- Climb
- Speeds
- Aircraft configurations (position of drag generators).

Instructions, methods and data in normal operating situations to determine the performance in order to satisfy limitations from previous paragraph. For the presentation reasons, this part should be described by flight phase in chronological order of its progress. It should present:

- Utilization method of different performance plates (curves or tables) as well as possible electronic tools, with true examples of calculation
- A reminder of assumed values, concerning aircraft configuration (flaps, slats position), systems conditions (ANTI- SKID, bleed air), aerodrome and meteorology (wet/contaminated runways), the performance data calculations in this section are based on
- A table drawing up predefined aircraft configuration (landing gear, slats, flaps, engine regime) in the take-off and landing phase
- Different climb, descent and cruise regimes and the ones preferred by the operator.
- Operational practices defined by the operator in form of instructions to the flight crews for the performance determination for each flight phase
- Data plates necessary for performance calculation. These plates must correspond to the aircraft type and engines concerned and must cover all operational fields proposed by the operator. They must take into account all elements which have influence on aircraft performance:
    - Atmospheric conditions of the moment (temperature, wind, icing)
    - Aerodrome infrastructure (runway slope, clearway, stopway)
    - Runway condition (dry, wet, contaminated)
    - Aircraft configuration (e.g. flaps/slats position, thrust reversers, bleed air, ANTI-SKID, ANTI-ICE)

- The data must establish different operational speeds associated to the corresponding data plates (V_1, V_R, V_2, V_3, V_{REF}) and applicable corrections in case of runway condition degradation
- Corrections must be given if conditions differ from the ones used for the performance data plates calculation (e.g. wet/contaminated runway, known icing conditions, ANTI-SKID or ANTI-ICE inoperative, thrust reversers inoperative…)

A particular attention must be taken in case of wet/contaminated runway data which have to be approved or accepted by the Authority.

Elements and additional data for non standard operation linked to aircraft systems degradation or particular aircraft use. This paragraph provides, depending on the case, following possibilities:

- Engine failure in climb and flight continuation with one engine out (climb, cruise, descent and landing)
- Engine failure in cruise associated to recovery altitudes (Drift down procedures)
- For three or four engine aircraft, two engine failure in cruise and associated recovery altitudes
- Steep approach techniques
- Short landing procedures
- Flights under CDL
- Positioning flights with landing gear extended
- Positioning flights with one engine out
- Positioning flights with depressurization.

Specific approvals/acceptances:

- **OPS 1.475(b), OPS 1.485(a), OPS 1.560: Other data acceptable to the Authority if the approved performance data in the Aeroplane Flight Manual is insufficient**
- **OPS 1.485(b), OPS 1.520(b): An operator shall ensure that, for the wet and contaminated runway case, performance data determined in accordance with applicable requirements on certification of large aeroplanes or equivalent acceptable to the Authority is used.**
- **OPS 1.495 (c)(3), Appendix 1 to OPS 1.495(c)(3): an operator must use special procedures, subject to the approval of the Authority, to apply increased bank angles of not more than 20° between 200 ft and 400 ft, or not more than 30° above 400 ft**
- **OPS 1.510(b): For instrument approaches with decision heights below 200 ft, an operator must verify that the expected landing mass of the aeroplane allows a missed approach gradient of climb, with the critical engine failed and with the speed and configuration used for go-around of at least 2,5 %, or the published gradient, whichever is the greater (see CS AWO 243). The use of an alternative method must be approved by the Authority.**
- **Appendix 1 to OPS 1.515(a): The Authority may approve the application of steep approach procedures using glide slope angles of 4,5° or more and with screen heights of less than 50 ft but not less than 35 ft.**
- **OPS 1.515(a)(3) and (4): An operator shall ensure that the landing mass of the aeroplane determined in accordance with OPS 1.475(a) for the estimated time of landing at the destination aerodrome and at any alternate aerodrome allows a full stop landing from 50 ft above the threshold:**

  3. For steep approach procedures the Authority may approve the use of landing distance data factored in accordance with subparagraphs (a)1 and (a)2 above as appropriate, based on a screen height of less than 50 ft, but not less than 35 ft. (See Appendix 1 to OPS 1.515(a)3);

  4. When showing compliance with subparagraphs (a)1 and (a)2 above, the Authority may exceptionally approve, when satisfied that there is a need (see Appendix 1), the use of short landing operations in accordance with Appendices 1

and 2 together with any other supplementary conditions that the Authority considers necessary in order to ensure an acceptable level of safety in the particular case.

- **AMC OPS 1.530(c)(5), AMC OPS 1.565(d)(4): Unless otherwise specified in the Aeroplane Flight Manual, or other performance or operating manuals from the manufacturers, the take-off distance should be increased by 5% for each 1% of upslope except that correction factors for runways with slopes in excess of 2% require the acceptance of the Authority.**
- **OPS 1.550(a): (a) An operator shall ensure that the landing mass of the aeroplane determined in accordance with OPS 1.475 (a) for the estimated time of landing allows a full stop landing from 50 ft above the threshold within 70 % of the landing distance available at the destination aerodrome and at any alternate aerodrome.**
  1. The Authority may approve the use of landing distance data factored in accordance with this paragraph based on a screen height of
  less than 50 ft, but not less than 35 ft (see Appendix 1 to OPS 1.550 (a)).
  2. The Authority may approve short landing operations, in accordance with the criteria in Appendix 2 to OPS 1.550 (a).
- **OPS 1.555(b), OPS 1.600(b): An operator shall ensure that when the appropriate weather reports or forecasts, or a combination thereof, indicate that the runway at the estimated time of arrival may be contaminated, the landing distance, determined by using dana acceptable to the Authority for these conditions, does not exceed the landing distance available.**

3.6 Flight Planning

3.6.1 Data and instructions necessary for pre-flight and in-flight planning including factors such as speed schedules and power settings

Where applicable, procedures for engine(s)-out operations, ETOPS (particularly the one-engine inoperative cruise speed and maximum distance to an adequate aerodrome determined in accordance with OPS 1.245) and flights to isolated aerodromes must be included.

3.6.2 The Method for Calculating Fuel Needed for the Various Stages of Flight, in accordance with OPS 1.255.

3.6.2.1 Performance data for ETOPS critical fuel reserve and area of operation

Including sufficient data to support the critical fuel reserve and area of operation calculation based on Approved Aeroplane Performance Data. The following data is required:

(a) Detailed engine(s) inoperative performance data including fuel flow for standard and non-standard atmospheric conditions and as a function of airspeed and power setting, where appropriate, covering:
  (i) drift down (includes net performance) see OPS 1.505 where applicable;
  (ii) cruise altitude coverage including 10 000 feet;
  (iii) holding;
  (iv) altitude capability (includes net performance); and
  (v) missed approach.

(b) Detailed all-engine-operating performance data, including nominal fuel flow data, for standard and nonstandard atmospheric conditions and as a function of airspeed and power setting, where appropriate, covering:
  (i) cruise (altitude coverage including 10 000 feet); and
  (ii) holding.

(c) Details of any other conditions relevant to ETOPS operations which can cause significant deterioration of performance, such as ice accumulation on the unprotected surfaces of the aeroplane, ram air turbine (RAT) deployment, thrust-reverser deployment, etc. The altitudes, airspeeds, thrust settings, and fuel flow

used in establishing the ETOPS area of operations for each airframe- engine combination must be used in showing the corresponding terrain and obstruction clearances in accordance with this regulation.

Information presented in other OM parts might not be reproduced here. However, well designed section B5 might present useful summary of aircraft operations to be included in QRH.

Main elements that might be included in this part are listed below. Notes in brackets and italic font indicate in which other parts of OM these elements might figure.

- Regulatory fuel planning tables for each flight phase (separate flight phase tables giving fuel burn in relation to aircraft mass, flight level, flight distance, temperature…). Operator must specify if he uses fixed values. An example of numbered flight preparation must be presented
- Speeds and engine parameters for normal procedures and/or N1 *(B2, B3)*
- Instructions for ETOPS flight preparation *(A8.5)*.

Other elements might be found in B5, but are rather presented in parts indicated in brackets and italic font, particularly:

- Mass limitations in relation to wind, temperature and QFU pressure pre-calculated for the most usual airfields *(C)*
- Take-off and landing data charts instructions for use with numbered examples *(B2 or C)*

3.7 Mass and Balance (OPS Subpart J)

Instructions and data for the calculation of the mass and balance including:

(a) calculation system (e.g. index system);
(b) information and instructions for completion of mass and balance documentation, including manual and computer generated types;
(c) limiting masses and centre of gravity for the types, variants or individual aeroplanes used by the operator; and
(d) dry operating mass and corresponding centre of gravity or index.

General aspects, already described in OM Part A 8.1.8, might not be reproduced here (terminology, methods, procedures and responsibilities for the preparation and acceptance of M&B documentation, use of standard/non standard masses, etc.).

The following elements specific to a type must be described.(and must be coherent with M&B manual or other equivalent document):

- Cabin layout for different aircraft configuration (pax, cargo, mixed) used by the operator
- Aircraft masses and indexes for different versions, paying special attention to mention elements included in indicated masses and to indicate usual corrections
- Operational limits associated to versions/variants used:
  - Take off mass limitations (particularly when special limitations are imposed)
  - CG limits (certified and operational limits to allow for the divers variations during a flight)
  - Loading limits (cargo compartments and other compartments loading limitations)

Specific approvals/acceptances:

- **OPS 1.605, Appendix 1 to OPS 1.605(b): In addition to standard masses for passengers and checked baggage, an operator can submit for approval to the Authority standard masses for**

other load items.

- **OPS 1.605, Appendix 1 to OPS 1.605(d)(1): The CG margins and associated operational procedures, including assumptions with regard to passenger seating, must be acceptable to the Authority.**
- **OPS 1.615(a)(3): Other than standard crew masses must be acceptable to the Authority**
- **OPS 1.620(g): If an operator wishes to use standard mass values other than those contained in Tables 1 to 3 contained in OPS 1.620, he must advise the Authority of his reasons and gain its approval in advance. He must also submit for approval a detailed weighing survey plan and apply the statistical analysis method given in Appendix 1 to OPS 1.620 (g).**
- **OPS 1.625, Appendix 1 to OPS 1.625(a)(1)(ii): Subject to the approval of the Authority, an operator may omit some of Data defined in Appendix 1 to OPS 1.625(a)(1) from the mass and balance documentation**
- **OPS 1.625 Appendix 1 to OPS 1.625(c): An operator must obtain the approval of the Authority if he wishes to use an onboard mass and balance computer system as a primary source for despatch.**
- **OPS 1.625(c): Subject to the approval of the Authority, an operator may use an alternative to the procedures required by paragraphs (a) and (b) of OPS 1.625**

3.8 Loading (OPS 1.260 to 1.280, OPS 1.325, OPS Subpart J)

Procedures and provisions for loading and securing the load in the aeroplane.

General aspects might figure in OM Part A like loading plans instructions, definitions, responsibilities, verifications, loading confirmation, record keeping.

In connection to OM Part A 8.2.2 define instructions for the baggage and cargo transportation specific to the aircraft type (cabin baggage, conditional items and forbidden items) loading and unloading instructions (no unpacked goods or the objects which might break through the compartment net), doors (pax access, compartment, service), loading/unloading of the cargo compartment, stowing (nets, straps, fixation points, baggage holds, bulk…).

Characteristics, methods of utilization and limits associated to:

- Passenger cabin
- Baggage/cargo holds
  - Characteristics (precise type, ventilation, pressurization, access, fire detection and extinguishing systems)
  - Dimensions
  - Capacity
- Galleys/layout
- Nets/stowage (cargo door protection, secure nets, stowage)
- Loading instruction concerning passenger cabin, baggage and cargo, special transports, AVI transport in cargo holds.

3.9 Configuration Deviation List

The configuration deviation list(s) (CDL), if provided by the manufacturer, taking account of the aeroplane types and variants operated including procedures to be followed when an aeroplane is being dispatched under the terms of its CDL.

Creation of operator's CDL follows the same logic as the creation of MEL (Minimum Equipment List) established from a reference list Master Minimum Equipment List (MMEL) elaborated by the manufacturer or authorized organization.

Equally, operator's CDL must be restrictive at least as manufacturer's CDL. Non publication of operator's CDL means his declaration that no deviation from type configuration (meaning CoA configuration) is allowed. That means that any missing structural element is NO GO element.

Equally, if an operator's CDL is published, any missing structural element not specified in the operator's CDL is NO GO item.

Presentation of section OM Part B 8 is identical to the presentation of part OM Part B 9, with the difference in rectification intervals.

Commitments that have to be taken in creating CDL preambule:

In the preambule an operator must commit to:

- Operator's CDL compliance to manufacturer's CDL
- Operator's CDL compliance to ADs
- Adequacy of CDL and aircraft (serial number, model, Service Bulletins (SB), equipment…)
- Proposed type of operation
- CDL amendment system. An amendment must be made:
  - In case of AD, SB or modification
  - In case of manufacturer's CDL revision within 90 days
  - In case of regulations change (operational, ATC…)
- CDL amendments distribution system in order to assure that all concerned personnel receive the amendments (if the distribution system is not described in other OM part).

Writing of preambule:

Summary might be useful to enable easier access to the document and assist pilots to identify a tolerance provided by CDL. Ideally, this summary lists the structural elements per ATA nomenclature.

It is recommended to describe clearly as possible the use of CDL. In that sense, following must be indicated in particular:

- Procedure to record the deviations and inform the crews of the deviations non rectified
- That the decision to accept a deviation rests with the commander
- That the multiple deviations are not foreseen by CDL and necessities a particular analysis.

3.10 Minimum Equipment List (OPS 1.030(a))

The minimum equipment list (MEL) taking account of the aeroplane types and variants operated and the type(s)/area(s) of operation. The MEL must include the navigational equipment and take into account the required performance for the route and area of operation.

Following text presents, in most of the cases, a reference to MEL Policy. This title originates from Temporary Guidance Leaflet 26 which has been decided to be retained by BHDCA administration as the mean of conformity with the safety level targeted in OPS 1 in order to permit the MEL approval.

If an operator wants to propose an alternative solution to one or more particular points he is required to justify this demand with operational limitations. Such a demand can not be accepted except in case where an equal safety level is assured.

MEL approved by means of alternative solutions shall not be less restrictive than the one which would result from application means held by the administration.

Required documents:

In order to design a MEL, knowledge of last revision of approved MMEL and MEL Policy (JAA TGL 26) are essential.

Commitments that have to be taken in creating MEL preambule:

In the preambule an operator must commit to:

- MEL compliance to MMEL
- MEL compliance to MEL Policy (JAA TGL 26)
- MEL compliance to all ADs
- Adequacy of MEL and aircraft (serial number, model, Service Bulletins (SB), equipment…)
- Proposed type of operation:
  - Specify IFR/VFR, day and/or night
  - Specify utilization in known or predicted icing conditions
  - Specify special operations envisaged (ETOPS, RVSM, MNPS…)
  - If MEL is used for flights other than commercial transport, specify
- MEL amendment system. An amendment must be made:
  - In case of AD, SB or modification
  - In case of manufacturer's MMEL revision within 90 days from the date of receipt or notification of all revision elements
  - In case of regulations change (operational, ATC…)
- MEL amendments distribution system in order to assure that all concerned personnel receive the amendments (if the distribution system is not described in other OM part).

Writing of preambule:

The preambule must contain terminology. Following items must be defined in particular:

- Reference documents used for the MEL design (origin of MMEL, revision and edition number)
- Used symbols (O), (M) and (*)
- Rectification intervals A, B, C and D
- Conditions to be fulfilled for the extension of rectification intervals levels B, C and D if the case arises and follow up.

Summary might be useful to enable easier access to the document and assist pilots to identify a tolerance provided by MEL. Ideally, this summary lists the systems and equipment per ATA nomenclature.

It is recommended to describe clearly as possible the use of MEL. In that sense, following must be indicated in particular:

- When the use of MEL is needed. MEL is:
  - Necessarily applied in case of failure detected before the moment an aircraft started the movement in order to access take-off area
  - Consulted in case of failure detected between the moment an aircraft started the movement in order to access take-off area and the moment of break release for the purpose of take-off
  - Consultative in flight.
- In which conditions MEL tolerances are used:
  - A possibility to rectify a malfunction before a flight must be systematically envisaged
  - That the decision to accept a tolerance rests with the commander

Preambule should explain the interpretation of MEL conditions and precise in particular:

- That some flight essential elements are never listed in MEL (wings, engines…), that certain elements non related to airworthiness do not qualify to be listed in MEL (passenger comfort items, galleys….) and how to evaluate if a not MEL listed failure has an impact to the security of the operation

- How to interpret an absence of a system in MEL: If a sub-system is inoperative and is not listed in MEL, all related systems must be considered inoperative. If a system is inoperative and not listed in MEL, there is no tolerance.
- That multiple MEL tolerances are not foreseen by MEL and requires particular analysis, especially if possible interferences related to simultaneous system failures are concerned and if they have influence on pilots workload
- In which cases maintenance procedure (M) is not subject to CRS. It is recommended that an operator class the maintenance procedures in two categories. Maintenance procedures subject to CRS by JAR 145 maintenance organization personnel and other procedures.

Presentation of MEL provisions:

It is highly recommended to present provisions on each equipment or system by their listing per chapter according to ATA100 classification.

Provisions are presented in a 5 column table as presented in Appendix 1 to ACJ-MMEL/MEL.025 of JAR-MMEL/MEL, Amendment 1, of 1.8.2005.

Column 1: number and each system description (it is recommended that the numbering corresponds to the MMEL numbering) Column 2: rectification interval
Column 3: number installed
Column 4: number required for dispatch
Column 5: remarks or exceptions: this column indicate the conditions in which a flight is possible

Definitions of provisions:

1) Introduction:

In practice, it is recommended to reproduce, to the most possible extent, the MMEL and MEL Policy, adding necessary restrictions to the type of operation and to the aircraft type.

2) Items with possible provisions, minimum number for dispatch, associated conditions and rectification intervals:

These columns are edited in such a way that provisions of MMEL and MEL Policy are not exceeded. However:

- Certain maintenance procedures (M) issued from pre-flight check might be transformed into operational procedures (O)
- Concerning items required by subparts K and L of OPS 1, MEL Policy must be respected in relation to the intended type of operation
- For single engine and small two engine aircraft, if MEL Policy is not applicable concerning the standard aircraft equipment, other provisions may be submitted to BHDCA for approval
- Rectification interval D (120 days) might concern optional equipment or supernumerary equipment to the equipment required by OPS 1 subparts K and L.

All ADs must be taken into consideration. Adjustment of differences within one fleet:

A provision text presented in MMEL (or restrictions imposed by an AD), may vary in relation to aircraft serial number, application or not of an SB… It may equally refer to the Flight Manual. In that case, a provision will often vary from one aircraft to another within one type. It is, therefore, necessary to adjust MEL to the fleet of the operator.

3) Number installed. It has to conform to the standard really present on the aircraft.

Number installed may vary within one fleet in relation to optional equipment selected in the process of aircraft acquisition or to the modifications applied by SB, STC…

In that case, MEL must specify different cases possible for each version of the same aircraft. The symbol "-" may be used in MEL only when the number installed on board is variable for the same aircraft (life rafts…).

Operational procedures (O) may be described in annex to the MEL or, if the space permits, directly in the column 5 of the MEL provisions table. In general, MEL Policy or MMEL is not copied here, but the procedure which enables to achieve MEL Policy or MMEL objectives.

It is not necessary to define a maintenance procedure (M) in MEL which a crew is not used to execute. In fact, only properly skilled personnel must be familiar with the procedure in detail. Crew must be informed of the cases when logging of a provision is possible only if such a procedure is conducted.

At the same time, Maintenance post holder assures him/herself that maintenance personnel is appropriately qualified and have procedures necessary for the accomplishment of their tasks available (this does not enter into the process of MEL approval).

Basic approvals/acceptances:

- **OPS 1.030(a): MEL approval**

3.11 Survival and Emergency Equipment Including Oxygen (OPS 1.280, OPS 1.285, OPS 1.310(b), OPS 1.315, OPS 1.320, OPS 1.325, OPS 1.330, OPS 1.335, Subpart K)

3.11.1 A list of the Survival Equipment to Be Carried

A list of the survival equipment to be carried for the routes to be flown and the procedures for checking the serviceability of this equipment prior to take-off. Instructions regarding the location, accessibility and use of survival and emergency equipment and its associated check list(s) must also be included.

Introduction:

Complete or a part of this section may be treated in a separate manual (e.g. Cabin Crew Manual). In that case, the operator must refer to it and consider that manual as a part of OM.

For aircraft without cabin crew, this part has an intention to cover survival and emergency activities that have to be known and executed by flight crew.

1) Position of all survival and emergency equipment must be specified assuring that the position of any equipment ensures its accessibility.
2) All survival and emergency equipment must be described as well as its use, particularly:
   - Interphone and public address system
   - Normal and emergency lighting
   - Seats, belts, harnesses
   - Briefing cards
   - Exits (if not described elsewhere)
   - Emergency evacuation devices (slides…)
   - First aid kit
   - Fire extinguishers
   - Oxygen, including oxygen masks
   - Crash axes and crowbars
   - Megaphones
   - Life jackets, life rafts, survival equipment
   - ELTs
   - The means of automatic equipment tests, like automatic fire extinguishers in toilettes or smoke detectors may be described (if applicable).

Good description of the use of this equipment is often presented in the form of schemas. Regulations reminder is not necessary as it is normally given in OM Part A.

Reference to OM Part A is possible for the equipment common to all aircraft in the fleet. Reference to OM Part B 11 is possible for the emergency equipment.

3) Cabin Emergency equipment checklist must be described (emergency equipment verification, cabin crew composition and if applicable, reduced cabin crew composition).

3.11.2 The Procedure for Determining the Amount of Oxygen Required and the Quantity that is Available

The flight profile, number of occupants and possible cabin decompression must be considered. The information provided must be in a form in which it can be used without difficulty.

1) Required oxygen amount:

The minimum oxygen amount which must be supplied by the main aircraft oxygen system must be calculated having in mind the functioning of portable oxygen devices. In general, the distribution of main oxygen system covers for livelihood and respiratory protection of the flight crew. It may cover for the first aid oxygen.

The required oxygen amount depends on the number of crew members and passengers on board; possible descent profiles and aircraft oxygen distribution system. Having in mind different oxygen distribution systems (with or without dilution…) the calculation must be based on AFM data. If AFM gives FAR data only, it must be recalculated to obtain oxygen amount required by JAR. Furthermore, to make the data easy to use, it is advised to use fixed amounts for simple cases like:

- Aircraft limited to FL250, recovery route on FL130
- Aircraft limited to FL250, other routes
- Aircraft not limited to FL250, typical descent profile to FL100 (no limitations on obstacles or fuel)
- Aircraft not limited to FL250, other descent profiles.

The fixed amounts may be presented for maximum passenger number and crew members or in parts (0-30 pax, 31-60 pax…).

2) Available amounts

Available amounts of oxygen must be verified:

- Fixed oxygen circuits and portable bottles: see manometer readings
- Chemical generators: ensure its non percussion.

3.12 Emergency Evacuation Procedures (OPS 1.280, OPS 1.285, OPS 1.310(b), OPS 1.315, OPS 1.320, OPS 1.325, OPS 1.330, OPS 1.805, OPS 1.830, OPS 1.835, OPS 1.840)

3.12.1 Instructions for Preparation for Emergency Evacuation Including Crew Co-ordination and Emergency Station Assignment

Complete or a part of this section may be treated in a separate manual (e.g. Cabin Crew Manual, Security and Emergency Manual…). In that case such a manual must be referenced here and considered as an integral part of OM.

Reference to OM Pat B 10 is possible for the instructions (schemas and paragraphs) for the emergency evacuation preparation. Schemas are recommended to define emergency posts and evacuation plans.

An operator must distinct here the emergency evacuation preparation on land and on sea. An operator must foresee the treatment of PRM, UM…

Relevant cabin crew check lists must be presented.

3.13 Emergency Evacuation Procedures

A description of the duties of all members of the crew for the rapid evacuation of an aeroplane and the handling of the passengers in the event of a forced landing, ditching or other emergency.

Present emergency procedures:

- With preparation
- Without preparation
- With minimal preparation

Emergency evacuation means must be presented with supporting schemas (exits, slides, cockpit windows, cords/straps…). Who operates them and in what order? Foresee unserviceable exits.

Clearly present the task distribution among cabin and flight crew (preparation phase and initiation). Clear phraseology must be defined.

Describe possible specifics of certain evacuation procedures:

- Aborted take-off
- Fire/smoke on board
- Divers technical problems
- Bomb alert
- Hijack
- …..

Describe ditching particularities. Present relevant cabin crew checklists.

3.14 Aeroplane Systems (OPS 1.635 to 1.645, OPS 1.652 to 1.725, OPS 1.735, OPS 1.760 to 1.775, OPS 1.820, OPS 1.850 to 1.872, OPS 1.440)

A description of the aeroplane systems, related controls and indications and operating instructions.

This section is the description of aircraft systems, system components, their functioning in normal mode and in case of failure and procedure of their use with the description of their visual elements, indicators enabling the use and control of the systems.

It is advised that the operators class aircraft systems according to ATA classification.

This section is based on documentation provided by aircraft manufacturer and/or equipment manufacturer, adjusted by the operator to reflect possible particularities of each of its aircraft, even if sometimes manufacturer documentation may be reproduced in its entirety. If applicable, a reference to the manufacturer documentation is possible and in that case this documentation must be available on board the aircraft.

Specific approvals/acceptances:

- **Appendix 1 to OPS 1.455: Other forms of guidance systems or displays may be certificated and approved.**
- **OPS 1.670(b): For propeller driven pressurised aeroplanes having a maximum certificated take-off mass not exceeding 5 700 kg with a maximum approved passenger seating configuration not exceeding nine seats the airborne weather radar equipment may be replaced by other equipment capable of detecting thunderstorms and other potentially hazardous weather conditions, regarded as detectable with airborne weather radar equipment, subject to approval by the Authority.**

4 OM PRODUCTION INSTRUCTION - ROUTE AND AERODROME INSTRUCTIONS AND INFORMATION

4.1 Instructions and Information Relating to Communications, Navigation and Aerodromes

Instructions and information relating to communications, navigation and aerodromes including minimum flight levels and altitudes for each route to be flown and operating minima for each aerodrome planned to be used.

Part C gathers information specific to aerodromes and routes to be used by the operator. General operational instructions are part of OM Part A.

It is recommended that the operator commits to ensure that the documentation is up to date and corresponding to its area of operations.

Part C must contain following information or describe documents which contain this information:

1) For each aerodrome intended to be used on a regular basis:

a) aerodrome charts containing:
   - operating minima for departure, destination and alternate aerodromes
   - approach, missed approach and departure procedures including noise abatement procedures
b) communication facilities and navigation aids
c) COM-failure procedures

During take-off, approach and landing flight phase (general procedure may be described in OM Part A and aerodrome specific procedures must be described in OM Part C).

d) availability of aeronautical information and MET services
e) runway data and aerodrome facilities

For the points a) to e) a reference to relevant operational documentation (Jeppesen, Atlas, Lido…) is acceptable. In that case an operator must specify which part of that documentation describes each of mentioned points.

f) assistance means on aerodromes (maintenance and handling)
g) special aerodrome limitations (performance limitations and operating procedures).
h) specific operational procedures (deicing…)

2) For all aerodromes:

i) aerodrome categorisation for flight crew competence qualification

Aerodrome identification categorized as C or B for flight crew qualification.

As OM can not be maintained up to date with the pace of the operations development it is acceptable that the aerodrome list present in it is not exhaustive. Consequently, the operator must indicate how he updates the specific list with used aerodromes and aerodrome categorization. He must specify who is responsible to keep the list up to date and the criteria for aerodrome categorization (reproduction of AMC OPS 1.975 is acceptable). Categorization method may figure in OM Part A or in OM Part C.

3) For routes intended to be used on regular basis:

a) minimum flight level/altitude
b) communication facilities and navigation aids c) en-route COM/NAV procedures

d) COM-failure procedures
e) search and rescue facilities in the area over which the aeroplane is to be flown
f) a description of the aeronautical charts that must be carried on board in relation to the type of flight and the route to be flown, including the method to check their validity
g) availability of aeronautical information and MET services
h) all limitations related to a route particularity or area to be over flown (e.g. MNPS, RVSM areas, polar area, carriage of supplemental oxygen for the overflight of high terrain, etc.…), or operational particularity (e.g. isolated aerodrome, ETOPS route, etc.…). Certain elements may figure in OM Part A.

Information required in a) and b) are in general provided by route documentation specified under f). A part of this information may as well be presented in a separate document if this information corresponds to a specific area as specified in h).

For all of above points a reference to relevant operational documentation (Jeppesen, Atlas, Lido…) is acceptable (for point h) accompanied if applicable with procedures described in OM-A8. In that case an operator must specify which part of that documentation describes each of mentioned points.

5 OM PRODUCTION INSTRUCTION - TRAINING

Note: The content of different OM Part D chapters must be treated by persons responsible for operations and not the TRTO. Elements concerning crew must be treated under supervision of crew training post holder.

5.1 Training Syllabi and Checking Programmes – General

Training syllabi and checking programmes for all operations personnel assigned to operational duties in connection with the preparation and/or conduct of a flight.

An operator must describe in general manner different trainings conducted within its organization. It is advised to present the terminology, often specific to the operator.

In case where procedures or instructions are presented in a language other than the native tongue of the persons supposed to apply these instructions and procedures, the operator must define the means of assuring that the concerned personnel understand these procedures and instructions (e.g. operator's local staff abroad, English documents use by flight crew,…).

5.2 Training Syllabi and Checking Programmes

In paragraphs 9.2.1 to 9.2.4 hereafter, an operator must describe for each training:

- objective
- personnel concerned by each training and the time when it has to be conducted
- instructors to conduct the training
- instructors/examiners to conduct the checks. This information may be presented in a single table for all trainings and checking indicating which instructor/examiner (TRI, TRE, CRI, CRE, SFI, GI, security instructor,….) is supposed to conduct which type of training/checking.
- Locations and didactic means used, possible subcontractors (FSTD, CRM, security…)
- Duration
- Documents and forms associated to each training
- Program:

  Training program is often a function of previous trainings of each student. If that is the case, describe different programs associated to each type of student.
  Examples:
  - Commander course for a pilot who was already a commander with another operator
  - Conversion course for a pilot who already operated the same type or conversion course for a pilot who did not operate the type

  If a program extends to several years, training schedule for the period must be given.
- Detailed checking programs (scenarios, duration) as well as associated forms. The operator will take care of the checking program adequacy with the time given to each control. For simulator checks, the operator must take care of technical feasibility (logical chain of events…).

An operator not authorized for the transport of dangerous goods must describe dangerous goods training for its staff as prescribed in OPS 1.220(b). Otherwise, the description of dangerous goods and security training for crews may figure in OM Part D 2.1 or in OM Part D 2.3.

5.2.1 For Flight Crew

All relevant items prescribed in Subpart E and N must be described.

A) Laws, regulations and procedures (OPS 1.020)

B) Trainings relevant to operator's specific authorizations: In case of operation evolution of the operator:

- ETOPS
- BRNAV and MNPS
- RVSM
- AWO
- GNSS, RNP

C) Operator's conversion course (OPS 1.945 and AMC OPS 1.945)

- Minimum experience
- Organization and responsibilities
- Training content:
  - Ground training and checking (aircraft systems, normal, abnormal and emergency procedures)
  - Emergency and safety equipment training and checking which must be completed before aeroplane training commences
  - CRM
  - Aeroplane/simulator training and checking
  - Line flying under supervision and line check
  - Quality training
  - Initial safety training (this training may be described in OM Part D 2.3)
  - Initial dangerous goods training (this training may be described in OM Part D 2.3)
- Particularities of conversion course:
  - Commander or F/O already type qualified joining the operator
  - Commander or F/O changing the type
  - F/O without type qualification joining the operator
  - Commander without type qualification joining the operator.

If the operator holds certain specific authorizations for the considered type, corresponding training modules foreseen in point D) must be integrated in conversion course.

D) Differences and familiarization training (OPS 1.950) E) Nomination of commander (OPS 1.955)

- First assignment to the function of commander on MCC aircraft, commander assignment course
- Other…

F) Training for pilot qualification to operate in either pilot's seat (OPS 1.968 and Appendix 1 to OPS 1.968)

G) Replacement of commander by relieving pilot (OPS 1.968 and Appendix 1 to OPS 1.968)

H) Route and aerodrome competence qualification training (OPS 1.975)

I) Recurrent training and checking (OPS 1.965 and Appendix 1 to OPS 1.965)
(a) General. An operator shall ensure that:

1) each flight crew member undergoes recurrent training and checking and that all such training and checking is relevant to the type or variant of aeroplane on which the flight crew member operates;
2) a recurrent training and checking programme is established in the Operations Manual and approved by the Authority;
3) recurrent training is conducted by the following personnel:
   (i) ground and refresher training — by suitably qualified personnel;
   (ii) aeroplane/STD training — by a type rating instructor (TRI), class rating instructor (CRI) or in the case of the STD content, a synthetic flight instructor (SFI), providing that the TRI, CRI or SFI satisfies the operator's experience and knowledge requirements sufficient to instruct on the items specified in paragraphs (a)1.(i)(A) and (B) of Appendix 1 to OPS 1.965;
   (iii) emergency and safety equipment training — by suitably qualified personnel; and
   (iv) crew resource management (CRM):
      (A) integration of CRM elements into all the phases of the recurrent training — by all the personnel conducting recurrent training. The operator shall ensure that all personnel conducting recurrent training are suitably qualified to integrate elements of CRM into this training;
      (B) modular CRM training — by at least one CRM trainer acceptable to the Authority who may be assisted by experts in order to address specific areas;
4) recurrent checking is conducted by the following personnel:
   (i) operator proficiency checks — by a type rating examiner (TRE), class rating examiner (CRE) or, if the check is conducted in a STD, a TRE, CRE or a synthetic flight examiner (SFE), trained in CRM concepts and the assessment of CRM skills;
   (ii) line checks — by suitably qualified commanders nominated by the operator and acceptable to the Authority;
   (iii) emergency and safety equipment checking — by suitably qualified personnel.

(b) Operator proficiency check

1. An operator shall ensure that:
   (i) each flight crew member undergoes operator proficiency checks to demonstrate his/her competence in carrying out normal, abnormal and emergency procedures; and
   (ii) the check is conducted without external visual reference when the flight crew member will be required to operate under IFR;
   (iii) each flight crew member undergoes operator proficiency checks as part of a normal flight crew complement.
2. The period of validity of an operator proficiency check shall be six calendar months in addition to the remainder of the month of issue. If issued within the final three calendar months of validity of a previous operator proficiency check, the period of validity shall extend from the date of issue until six calendar months from the expiry date of that previous operator proficiency check.

(c) Line Check. An operator shall ensure that each flight crew member undergoes a line check on the aeroplane to demonstrate his/her competence in carrying out normal line operations described in the Operations Manual. The period of validity of a line check shall be 12 calendar months, in addition to the remainder of the month of issue. If issued within the final three calendar months of validity of a previous line check the period of validity shall extend from the date of issue until 12 calendar months from the expiry date of that previous line check.

(d) Emergency and Safety Equipment training and checking. An operator shall ensure that each flight crew member undergoes training and checking on the location and use of all emergency and safety equipment carried. The period of validity of an emergency and safety equipment check shall be 12 calendar months in addition to the remainder of the month of issue. If issued within the final three calendar months of validity of a previous emergency and safety check, the period of validity shall extend from the date of issue until 12 calendar months from the expiry date of that previous emergency and safety equipment check.

(e) CRM. An operator shall ensure that:
1. elements of CRM are integrated into all appropriate phases of the recurrent training, and;
2. each flight crew member undergoes specific modular CRM training. All major topics of CRM training shall be covered over a period not exceeding three years;

(f) Ground and refresher training. An operator shall ensure that each flight crew member undergoes ground and refresher training at least every 12 calendar months. If the training is conducted within 3 calendar months prior to the expiry of the 12 calendar months period, the next ground and refresher training must be completed within 12 calendar months of the original expiry date of the previous ground and refresher training.

(g) Aeroplane/STD training. An operator shall ensure that each flight crew member undergoes aeroplane/STD training at least every 12 calendar months. If the training is conducted within 3 calendar months prior to the expiry of the 12 calendar months period, the next aeroplane STD training must be completed within 12 calendar months of the original expiry date of the previous aeroplane/STD training.

It is necessary to pay special attention to inclusion of TCAS and EGPWS elements into recurrent training and checking.

Basic approvals/acceptances:

- **OPS 1.965(a)(2): A flight crew recurrent training and checking programme is established in the Operations Manual and approved by the Authority.**

Operational approvals/acceptances:

- **OPS 1.450(a)(2): AWO training and checking is conducted in accordance with a detailed syllabus approved by the Authority and included in the Operations Manual**

Specific approvals/acceptances:

- **Appendix 1 to OPS 1.450(a): The operator may abbreviate the course content as prescribed by subparagraphs 2 and 3 of Appendix 1 to OPS 1.450 provided the content of the abbreviated course is acceptable to the authority.**
- **Appendix 1 to OPS 1.450(f)(2): Where no flight simulator is available to represent that specific aeroplane, the Authority may approve LVTO training in an aeroplane without the requirement for minimum RVR conditions (See Appendix 1 to OPS 1.965).**
- **OPS 1.968(a)(2): The Pilot qualification to operate in either pilot's seat training and checking programme must be specified in the Operations Manual and is acceptable to the Authority.**
- **OPS 1.978(a): An operator, following a minimum of two years continuous operations, may substitute the training and checking requirements for flight crew specified in Appendix 1 to OPS 1.978(a) by an alternative training and Qualification programme (ATQP) approved by the Authority. The two years continuous operations may be reduced at the discretion of the Authority.**

5.2.2 For Cabin Crew

All relevant items prescribed in Subpart O.

A) Laws, regulations and procedures (OPS 1.020)

B) Quality training (OPS 1.035)

C) Conversion and differences training (OPS 1.1010)

D) Initial safety training (OPS 1.1005)

E) Dangerous good training (OPS 1.1220)

F) Recurrent training (OPS 1.1015)

Specific approvals/acceptances:

- **OPS 1.1005: Approval for cabin crew initial training**
- **OPS 1.1010: Approval for Conversion and Differences training programs**
- **OPS 1.1015(b): Approval of content of cabin crew recurrent training program**
- **OPS 1.1030(a): Approval for cabin crew to operate on more than three types**
- **ASIL 2010/005: Acceptance of cabin crew instructors**

5.2.3 For Operations Personnel Concerned, Including Crew Members

(a) all relevant items prescribed in Subpart R (transport of dangerous goods by air); and
(b) all relevant items prescribed in Subpart S (security)

The following trainings may be described in OM Part D 2.1 for flight crew or in OM Part D 2.2 for cabin crew.

A) Security training (OPS 1.1240)

- Initial training
- Recurrent training (each 3 years)

B) Dangerous goods training (OPS 1.1220)

- Initial training
- Recurrent training (each 2 years)

Basic approvals/acceptances:

- **OPS 1.1240: Security training program**

Operational approvals/acceptances:

- **OPS 1.1220(a): Dangerous goods training program**

5.2.4 For Operations Personnel Other than Crew Members

E.g. dispatcher, handling personnel, etc. All other relevant items prescribed in OPS pertaining to their duties.

A) Laws, regulations and procedures (OPS 1.020)

B) Quality training (OPS 1.035)

C) Operational personnel competence training (OPS 1.205), FOO/FDO (ICAO Annex 1 and 6)

- Traffic
- Passengers

- Runways
- Cargo
- Operational supervisors

D) Anti/deicing (AMC OPS 1.345) (Foresee additional training in case of new procedure, new type of fluid and/or equipment and new aircraft type).

5.3 Procedures

5.3.1 Procedures for Training and Checking

An operator must define here:

- Reminder of the method of check validity and anticipation
- Recent experience requirements (OPS 1.970)
- A yearly training program structure: a description of typical training and checking program for crew members.

5.3.2 Procedures to be applied in the event that personnel do not achieve or maintain the required standards

5.3.3 Procedures to ensure that abnormal or emergency situations requiring the application of part or all of abnormal or emergency procedures and simulation of IMC by artificial means are not simulated during commercial air transportation flights

6 OM PRODUCTION INSTRUCTION-DESCRIPTION OF DOCUMENTATION TO BE STORED AND STORAGE PERIODS (See APPENDIX 1 TO OPS 1.1065)

7 Training

All Ops Inspectors of the BHDCA (including trainees) should receive training on this procedure.

Assistant DG-QAD shall be responsible for the monitoring of the proper implementation of this procedure.

8 Procedure Review

This procedure shall be reviewed on a regular basis and amended, if needed.

9 Appendices

9.1 APPENDIX 1 – EU OPS Approval

Aircraft Type	OM reference addressing EU- OPS Requirements	EU- OPS Requirements	Explanatory material	Approval issued- Yes/ No	BHDCA Approval Signature	Effective/ Expiry Date
SUBPART B- GENERAL						
		1.005 (e)	Approval of STD's used (CCAA User Approval)			
		1.03D (a)	Approval of the MEL required			
		1.065 (a)	Approvals by all States concerned (origin, over light and destination) for the transport of wespons of war and munitions of war			
		1.065 (b)(2)	Approval by all States concerned for the carriage of weapons, unloaded, to differ from the requirement (b)(2)			
		1.165 (b)(2)(I)	Approval of leasing arrange ments between Community operators in all cases except " wet lease-out"			
		1.165(c)(1)(I)	Approval for dry lease-in by Community operator from an entity other than Community operator			
		1.165 (c)(2)(I)	Approval for wet lease-in from an entity other a Community operator			
SUBPART C - OPERATOR CERTIFICATION AND SUPERVISION						
		1.175 (c)(1)	Approval for an operator to hold an AOC from another Authority if approved by both			
		App. 1 to 1.175 (e)	Approval to alter the basic requirement to list aircraft registrations on the AOC			

		App.2 to 1.175 (b)(3)	Acceptance of nomination as postholder on more than one AOC			
		1.180(a)(2)	Approval of the maintenance system for issue/variation/continued validity of AOC	Approval Required by AWD		
SUBPART D - OPERATIONAL PROCEDURES						
		1.195	Approval of method of exerdsing operational control			
		1.230 (c)	Approval by the State in which an aerodrome is located to vary the specified aerodrome approach and departure procedures			
		1.241	RVSM Approval for operation in airspace where reduced vertical separation minimal apply			
		1.243	MNPS Approval for operation in defined areas or a defined portion of airspace where navigation performance is required			
		1.243	RNAV Approval for operation in defined areas for a defined portion of airspace where special navigation performance is required			
		1.243	RNP Approval operation in defined areas or a defined portion of airspace where special navigation performance is required			
		1.245 (a)(2)	Approval to operate in accordance wth 1.245 (a)(2)			
		1.246	Approval of Extended range operations with two-engined aeroplanes (ETOPS)			
		1.250	Approval of method of establishing minimum altitudes			
		App. 1 to 1.255 (a)(3)(I) (D)	Approval (by the Authority) of an amount of fuel bassed on a stastistical			

			method which ensures an appropnate statistical coverage of the deviation form the planned to the actual trip fuel			
SUBPART E - ALL WEATHER OPERATIONS						
		App. 1 (NEW) to 1.430 (a)(4)(i)	Approval of Reduced take-off minima in accordance with 1.430 (a)(4)(i)			
		App. 1 (NEW) to 1.430 (a)(4)(II)	Approval of Reduced take-off minima in accordance with 1.430 (a)(4)(ii)			
		App. 1 (NEW) to 1.430 (b)(3)	Approval of Reduced take-off minima in accordance with 1.430 (b)(3)			
		App. 1 (NEW) to 1.430 (c)(1)(I)	Approval of criteria establishing RVR/Converted Met Visibility in accordance with 1.430 (c)(1)(i)			
		App. 1 (NEW) to 1.430 (c)(1)(II)	Approval of criteria establishing RVR/Converted Met Visibility in accordance with 1.430 (c)(1)(ii)			
		App. 1 (NEW) to 1.430 (d)(3)	Approval of Determination of RVR/CMV/Visibility minima for Category I, APV and non-precision approach operations in accordance with 1.430 (d)(3)			
		App. 1 (NEW) to 1.430 (d)(6)	Approval of Determination of RVR/CMV/Visibility minima for Category I, APV and non-precision approach operations in accordance with 1.430 (d)(6)			
		App. 1 (NEW) to 1.430 (d)(5)	Approval of Determination of RVR/CMV/Visibility minima for Category I, APV and non-precision approach operations in accordance with 1.430 (d)(5)			
		App. 1 (NEW) to 1.430 (e)(5)	Approval in accordance with 1.430 (e)(5)			
		App. 2 to 1.430 (c) (b)(1)	Approval for operator to change the category of an aeroplane by imposing			

			permanent, lower, landing mass			
		1.440 (a)(3)	Approval for Category II or III (LVO) operations			
		1.440 (b)	Approval for Low visibility take- of operations			
		1.440 (c)	Approval to conduct lower than standard Category operations			
		App. 1 to 1.440 (b) (1)	General Operating Rules for Approval of Low Visibility Operations			
		App. 1 to 1.440 (f)(1)(II)	Approval for CAT II or IIIA Operations (with no previous CAT or III experience) having gained minimum experience fo 6 months CAT I operations on aeroplane type			
		1.450	Approval for LVO training/checking syllabus including simulator training to include operating to limiting RVR and DH appropriate to the operator's Cat II/III approval			
		App. 1 to 1.450 (c)(5)	Approval of other simulator for visual scenarios of Category II operations for aeroplanes with no type spedific simulator			
		App. 1 to 1.450 (f)(2)	Approval for Low Visibility take-off Training to be carried out in an aeroplane, without the requirement for minimum RVR conditions, where no simulator exists			
		App. 1 to 1.455 (a) Note 2	Approval for certificated guidance systems or displays other than those specified in (a) (1) to (4)			
		1.470 (d)	Approval for use with non-standard designs of performance standards ensuring an equivalent level of safety			

		1.495 (c)(3)	Approval of special procedures for use of increased bank angles			
		1.510 (b)	Approval for alternative method to 1.510 (b)			
		1.510 (c)	Approval for alternative method to 1.510 (c)			
		1.515 (a)(3)	Approval for use of factored landing distance data for steep approach procedure using a screen height not below 35 ft			
		1.515 (a)(4)	Approval for alternative safety case using Short Landing Operations			
		App. 1 to 1.515 (a)(3) (a)	Approval of Steep Approach procedures			
		App. 1 to 1.515 (a)(4) (a)	Approval of Short Landing operations			
		1.530	Approval required under App. 1 to 1.005 (a)(b)(23)			
		1.542	Approval for a single-engine aeroplane, in the event of engine failure, of an alternative requirement to that of carrying out a safe forced landing on land			
		1.545	Approval required under App. 1 to 1.005 (a)(b)(25)			
		1.550	Approval required under App. 1 to 1.005 (a)(b)(26)			
		1.550(a) (1)	Approval when landing on a dry runway for use of factored landing distance data using a screen height not below 35 ft			
		1.550(a) (2)	Approval for Short Landing Operations			
		App. 1 to 1.550(a) (a)	Approval of Steep Approach Procedures using glideslope angles of 4.5 or more, and with screen heights of less than 50 ft but not less than 35 ft			
		App. 2 to	Approval for Short Landing Operations			

		1.550(a) (a)				
		App. 1 to 1.605 (b)	Approval to use standard masses for load items other than passengers and baggage			
		1.620	Approvals to use alternative standard mass values			
		App. 1 to 1.620 (g) (c)(4)	Approval for passengers weighing survey plan			
		App. 1 to 1.620 (g) (c)(5)	Approval to use non-standard male/female rations for revised standard adult mass values			
		1.625 (c)	Approval to use alternative procedures to the standard for mass and balance documentation and LMCs			
		App. 1 to 1.625 (a)(1)(II)	Approval to omit information from standard mass and balance documentation			
		App. 1 to 1.625 (c)	Approval to use on-board mass and balance computer as primary source for dispatch			
SUBPART K - INSTRUMENTS AND EQUIPMENT						
		1.670 (b)	Approval to ft on small aeroplanes, equipment other than weather radar capable of detecting thunderstorms and other potentially hazardous weather conditions			
		1.715 (g)	Approval for use of reduced parameter flight recorders			
		1.825 (a)(2)	Approval for other approved lotation devices equipped with a survivor locator light to be substituted for infants			
		1.825 (b)	Approval for other approved lotation devices, on seaplanes and amphibians, equipped with a survivor locator light to be substituted for life jackets for infants			

Subpart M CHANGED TO EASA *PART* M- SUBPART G - Maintenace Operator to provide EASA Part M Subpart G Approval Number:_____						
SUBPART N - FLIGHT CREW						
		1.945 (d)(2)	Approval to reduce the number of take-offs and landings, when recommended by Joint Operational Evaluation Board (JOEB)			
		1.945 (d)(3)	Approval to reduce the number of take-offs and landings, when recommended by Joint Operational Evaluation Board (JOEB)			
		1.985 (a)(2)	Approval of flight crew recurrent Training and checking programme			
		1.978 (a)	Approval of Alternative Training Programme			
		1.978 (e)	Approval of Alternative Training Programme			
		1.978 (e) (2)	Approval to combine Line check with a Line Oriented Quality Evaluation			
		App. 1 to 1.978 (c) (1)(I)	Approval of an equivalent method other than a formal			
		1.980 (c)	Approval of the use of credits related to training, checking and recency for a flight crew member operating more than one type or variant if not all requirements prescribed in Subpart N for each type or variant are complied with			

		1.980 (d)	Approval of procedures for flight crew to operate more than one type or variant			
		App. 1 to 1.980 (d)(7)(l)	Approval for relevant recurrent traning to be specified in Ops Manual If OPCs alternate between two types			
		1.981 (a)(2)	Approval for flight crew members to operate both helicopters and aeroplanes			
SUBPART O - CABIN CREW						
		1.1005	Approval for cabin crew init all training			
		1.1010	Approval for Conversion and Difference training programmes			
		1.1015 (b)	Approval of content of cabin crew recurrent training programme			
		1.1030 (a)	Approval for cabin crew operate on more than three types			
SUBPART P - MANUALS, LOGS AND RECORDS						
		1.1040 (b)	Contents of the Operations Manual, including any amendments or revisions, do not controv one the conditions in the AOC or any applicable regulations and are acceptable to or, where applicable, approved by, the Authority			
		1.1040 (e)	Approval for an operator to prepare the			

			Ops Manuel in a language other than English			
		1.1105 1.2	Approval of Reporting times that realistically reflect the time for safety related ground duties			
		1.1105 6.1	Approval of an operation bassed on an extended PDF including a break, subject to provisions of Article 8.			
		1.1155	Approval to transport Dangerous Goods			
		1.1220 (a)	Approval of staff training programmes			
SUBPART S- SECURITY						
		1.1240	Approval of security training programmes including unlawful interference/ sabotage/ hi-jacking, and the minimization on the consequence	Approval Required Security Section of BHDCA		

9.2 APPENDIX 2 – EU OPS Acceptances

Aircraft Type	OM reference addressing EU- OPS Requirement	EU- OPS Requirement	Explanatory material	Acceptances issued- Yes/ No	BHDCA Acceptances Signature	Effective/ Expiry Date
SUBPART B - GENERAL						
		App. 1 to 1.005 (a) (b)(23)(I)	Acceptance of other Take-out performance data produced by the operator and based on demonstration or documented experience			
		App. 1 to 1.005 (a) (b)(23)(I)	Acceptance of performance, not conflicting with the Aeroplane Flight Manual, data relating to the special procedures, produced by the operator and based on demonstration or documented experience			
		App. 1 to 1.005 (a) (b)(25)(I)	Acceptance of other Landing Destination and Alternate Aerodromes performance, not conflicting with the Aeroplane Flight Manual, data relating to the special procedures, produced by the operator and based on demonstration or documented experience			
		App. 1 to 1.005 (a) (b)(33)	Acceptance of abbreviated command course relevant to the type operation conducted			
		App. 1 to 1.005 (a) (b)(35)(II)	Acceptance of OPC conducted by a Type Rating Examiner, Class Rating Examiner or by a suitably qualified commander nominated by the operator trained in CRM concepts and the assessment of CRM skills			
		App. 1 to 1.005	Acceptance of a self study training			

		(a) (b)(46)	programme for VFR operations			
		1.030 (a)	Content of MMEL to be accepted (note, the MEL requires approval)			
		1.035 (c)	Quality system (including quality assurance-procedures) and quality manager to be acceptable			
		1.035 (e)	Nomination of Quality Managers (Operations and Engineering) to be acceptable			
		1.070	Alternative procedures for storage acceptable			
		1.085 (e)	Acceptance of appropriate requirements on the consumption of alcohol which shall be established by the Operator			
		1.130 (a)(3)	Authority may accept that the OPS Manual contains necessary Flight Manual information			
		1.135 (b)	Operational documents, if no printed paper, to be an acceptable standard accessbility etc			
		1.165 (c)(1)(II)	Dry lease in form an entry other than a Community operator), acceptance of any difference in instrumentation etc.			
SUBPART C- OPERATOR CERTIFICATION AND SUPERVISION						
		1.175 (h)	Accountable manager to be acceptable			
		1.175 (I)	Nominated post holders to be acceptable			
		1.175(I)	Nominated Maintenance post holders to be acceptable			
		1.175 (j)	Person holding more than one of the nominated posts to be acceptable			
		1.175 (k)	Operations employing two or less full time staff, one or more of the nominated posts being filled by the Accuntable Manager to be acceptable			
		App. 2 to	Acceptance of the nomination as post			

		1.175 (b)(3)	holder more of one AOC			
SUBPART D- OPERATIONAL PROCEDURES						
		1.230 (c)	Variation of the approach and departure procedures in any state to be acceptable in addition in the States approval			
SUBPART E- ALL WEATHER OPERATIONS						
		1.430	Method of determining Aerodrome Operating Minima to be acceptable			
		App. 1 to 1.430 (b)(3)(x)	Other visual referents to be acceptable			
		App.1 (NEW) to 1.430 (b)(1)	Acceptance of App. 1 (NEW) to 1.430 (b)(1)			
		App.1 (NEW) to 1.430 (b)(2)	Acceptance of App. 1 (NEW) to 1.430 (b)(2)			
		1.440 (a)(1)	" Equivalent" equipment of a aeroplane to be acceptable			
		App. 1 to 1.440(b) (2)	Acceptance of reduction of number of approach and landings based on credit given for expetience ganed by another operator with an AOC issued in accordance with JAR-OPS 1 using same aeroplane type variant and procedures			
		App.1 to 1.450 (a)	Abbreviated course of LVO training be acceptable			
		1.475 (b)	Performance data in the AFM may need to be supplemented with other acceptable data as per the relevant subpart			
		1.485 (a)	Performance data in the AFM may need to be supplemented with other acceptable data in the approved performance data in the AFM is insufficient			

		1.485 (b)	For the wet and contaminated runway case, performance data of requirement may be acceptable			
		1.520 (b)	Acceptability of “equivalent” contaminated landing distance data			
		1.556	Acceptable data for the landing distance required on a contaminated runway			
		1.560	Approved Performance Data in the AFM supplemented with other Acceptable data			
		1.600 (b)	Data used to calculate the landing distance on a contaminated runway to be acceptable			
		App. 1 to 1.605 (d)(1)	CG margins and associated operational procedures, including assumptions with regard to passenger seating to be acceptable			
		1.615 (a)(3)	Other standard masses to be acceptable			
SUBPART K- INSTRUMENTS AND EQUIPMENT						
		1.680(a)(2)	Establishment of system of on-board quarterly radiation sampling to be acceptable			
		1.715 (c)(4)(III)	Aircraft equipment with electronic display, with an individual C of A issued before 20 August 2002 with parameters that do not need to be recorded, to be acceptable			
		1.720 (d)	Aircraft with a maximum certified take-off mass of 27000 kg or below not recording parameters 14 and 15 of App 1 to JAR-OPS 1.720 to be acceptable			
		1.720 (e)	Aircraft with a maximum certified take-off mass over 27000 kg not recording			

			parameters of Tables A and B of App 1 to JAR-OPS 1.720, to be acceptable			
		1.720 (f)	Non-recording of individual parameters that can be detived by calculation from the other recorded parameters, to be acceptable			
		1.725 (c)(2)	Non-recording parameters 13,14 and 15b in Table B of App 1 to JAR-OPS 1.720 to be acceptable			
		1.725 (d)	Non-recording of individual parameters that can be derived by calculation from the other recorded parameters, to be acceptable			
		1.730 (a)(3)	Child restraint Device to be acceptable			
		1.730 (a)(6)	Alternative to location of seats for cabin crew members near required floor level emergency exist to be acceptable			
Subpart M CHANGED TO EASA PART M- SUBPART G - Maintenance Operator to provide EASA Part M Subpart G Approval Number _____						
SUBPART N FLIGHT CREW						
		1.940 (a) (3)	All flight crew numbers hold an applicable and valid licence to be acceptable			
		1.940 (a) (4)	Procedure to prevent crewing together of inexperience flight crew members to be acceptable			
		1.940 (a) (6)	When a dedicated system panel operator is required by the AFM the flight crew includes one member who holds a Flight Engineers Licence or is suitably qualified crew member to be acceptable			
		App. 1 to 1.940 (f)	System or relief of dedicated system panel operator to be acceptable			

		1.943 (c)	Intial CRM training to be conducted by at least one acceptable CRM trainer			
		1.945	Syllabus of conversion training to be acceptable			
		1.945 (d)(1)	Appropriate training, if Line Flying Under Supervision has not been commenced within the 21 days, to be acceptable			
		1.945 (d)(2)	Refresher training to be acceptable			
		1.955 (a)(1)	Minimum level of experience to be acceptable			
		1.965 (a)(3)(IV)(B)	Modular CRM training to be conducted by at least one acceptable CRM trainer			
		1.965 (a)(4)(III)	Nomination by operator of suitably qualified Commander for the conduct of Line Check to be acceptable			
		App 1 to 1.965 (a)(3)(III)(C)	Alternative method to Halon extinguishers for actual fire fighting using representative equipment to be acceptable			
		App. 1 to 1.965 (b)(3)(II)	Methodology of assessment of CRM skills to be acceptable			
		App. 2 to 1.965 (c)	Nomination by Operator of suitably qualified Commander of System Panel Operator Type Rating instituctor of Examiner for the conduct of Line Check to be acceptable			
		1.968(a)(2)	Pilot requalification training and checking programme to be acceptable			
		App. 1 to 1.978 (b)(3)	Progress to curriculum development to be acceptable			
		App. 1 to 1.978 (c)	Evaluation and implementation strategy to be acceptable			
		App. 1 to 1.980 (a)(2)	Specific procedures and/ or operational restriction, other than JAR-OPS 1.985, to be acceptable			

SUBPART O CABIN CREW						
		1.1000(d)	Procedure to select next most suitably qualified cabin crew unable to operate, to be acceptable			
SUBPART P- MANUALS, LOGS AND RECORDS						
		1.1040 (b)	Contents of the operations manual, including any amendments or revisions, do not contravene to conditions in the AOC or any applicable regulations and are acceptable to or, where applicable, approved by, the Authority			
		1.1040 (m)	Assured level of accessibility, usability and reliability to be acceptable			
		1.1045 (c)	Detalied structure of the Operations Manual to be acceptable			
		1.1060 (b)	Acceptance to omit items which are readly available in other documentation from the operational flight plan			
		App. 1 to 1.1065	Form of information documentation storage to be acceptable			
SUBPART S- SECURITY						
		1.1255	Means or procedure for cabin crew notify flight crew of suspicious activity or	Acceptance required by Security Section of BHDCA		