

EASA Workshop: From JARs to IRs

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Part-OPS Subpart A

General operating and flight rules

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Structure





Structure

Subpart A – General operating and flight rules

- Section I - General Requirements (OPS.GEN.001)
- Section II - Operational procedures (OPS.GEN.100)
- Section III - Aircraft performance and operating limitations (OPS.GEN.300)
- Section IV - Instruments, data and equipment (OPS.GEN.400)
- Section V - Manuals, Logs and Records (OPS.GEN.600)
- Section VI – Security (OPS.GEN.700)



Structure

- It follows closely the structure of the Essential Requirements:
 1. General
 2. Flight preparation
 3. Flight operations
 4. Aircraft performance and operating limitations
 5. Instruments, data and equipment
 6. Continuing airworthiness
 7. Crew members
 8. Additional requirements for operation for commercial purposes and operation of complex motor-powered aircraft



Structure

- It is based on:
 1. ICAO Annex 6 Part II
 2. ICAO Annex 6 Part III section III
- Complemented by:
 1. common requirements for non-commercial operations with complex motor-powered aircraft
 2. common requirements for commercial operations derived from EU-OPS/JAR-OPS 3
- Account has been taken of:
 1. JAA A-NPA for JAR-OPS 0, 2 and 4



Section I – General requirements





Section I - General Requirements

- **This section establishes the scope of the regulation and contains the general requirements.**
 - ★ **It is meant to include all aircraft (aeroplanes, helicopters, airships, balloons, sailplanes and tilt-rotor) within the remit of the Basic Regulation, whether:**
 - ➔ complex or non-complex; and
 - ➔ commercial or non-commercial.
 - ★ **Since operator is defined in the Basic Regulation as:**
 - ➔ Any legal or natural person, operating or proposing to operate one or more aircraft.
 - ★ **It ranges from the LPL holder conducting a pleasure flight in the vicinity of his 'airfield' until the large internationally operating airline.**



Section I - General Requirements

➤ OPS.GEN.005 Scope

- ★ This subpart establishes the requirements to be met by an operator to ensure that air operations are conducted in compliance with Annex IV to Regulation (EC) No 216/2008 (Essential requirements for air operations).



Section I - General Requirements

➤ OPS.GEN.010 Definitions

- ★ **Contains all the definitions used in Part-OPS.**

- ➔ 'New' ones have been included since the scope is wider than that of EU-OPS/JAR-OPS 1/3.

- ★ **This is a difference to JAA-system or EU-OPS, where they were contained in the respective subparts.**

- ★ **It may disappear and be included in the future cover regulation to which Part-OPS will be an Annex, in line with the drafting principles of the EU**



Section I - General Requirements

➤ OPS.GEN.010 Definitions

★ Important 'new' definitions are:

★ Aerodrome

- Any area on land, water or man made structure or vessel, especially adapted for the landing, taking-off and manoeuvring of aircraft.

★ Operating site

- A site selected by the operator or pilot-in-command for landing, take-off or hoist operations.

★ The definition 'aerodrome' is taken from the Commission proposal for the extension of scope of the Basic Regulation in the field of aerodromes, air traffic management and air navigation services, and required the introduction of operating site to facilitate off-aerodrome operations (typically balloons, sailplanes, airships helicopters and seaplanes).



Section I - General Requirements

It further includes:

- **OPS.GEN.001 Competent authority**
 - ➔ In line with the definition in Part-M.
- **OPS.GEN.015 Pilot-in-command responsibilities and authority**
 - ★ **ALL AIRCRAFT**
 - ➔ Complementing those already contained in the Essential Requirements
 - ★ **BALLOONS**
 - ➔ Particular requirements due to the nature of balloon operations
- **OPS.GEN.020 Crew responsibilities**
 - ➔ Complementing those already contained in the Essential Requirements
- **OPS.GEN.025 Common language**
- **OPS.GEN.030 Accessibility of emergency equipment**
- **OPS.GEN.035 Transport of dangerous goods**



Section II – Operational procedures





Section II - Operational procedures

- This section supplements the essential requirements contained in chapters 2 and 3 of Annex IV.
 - ★ In particular the EU/JAR-OPS subparts B, D and E have been transposed into this section.
 - ★ AMC's to this section have been provided for non-commercial and commercial operations as well as different categories of aircraft.



Section II - Operational procedures

➤ **The section can also be subdivided into provisions relating to:**

★ **Flight preparation**

➔ e.g. ice and other contaminants

★ **Passenger safety**

➔ e.g. briefing, seating, use of safety belts, smoking on board, use of portable electronic devices, use of safety belt

★ **Safety of flight operations**

➔ e.g. use of aerodromes/operating sites adequate for the type of operation, IFR operating minima, minimum flight altitudes, departure and approach procedures, fuel supply



Section II - Operational procedures

➤ OPS.GEN.150 IFR Operating minima

- ★ This requirement contains the majority of the objectives contained in EU/JAR-OPS subpart E
- ★ Its AMC and GM deal with all approaches upto and including Cat I
- ★ For operations below Cat I criteria
 - ➔ a decision height not lower than 60 m (200 ft); and
 - ➔ either a visibility not less than 800 m or a runway visual range not less than 550 m.

a specific approval is required in accordance with Part-OPS.SPA.LVO



Section II - Operational procedures

➤ OPS.GEN.165 Noise abatement

★ **Operating procedures shall take into account the need to minimise the effect of aircraft noise.**

- Based on EU-OPS and JAA NPA-OPS 53 material.
- It aligns with ICAO PANS OPS Volume 1.
- AMC containing general means of compliance for aeroplanes.
- GM containing guidance and examples for complex motor-powered aircraft used in CAT.



Section II - Operational procedures

➤ OPS.GEN.200 Commencement and continuation of approach

- ★ **This requirement has changed due to a proposal made by the JAA OPSG.**
- ★ **The reference to the outer marker has been deleted and replaced by a height criteria of 1 000 ft above the aerodrome.**
 - ➔ New technology replaces the outer marker and therefore the 1 000 ft requirement is the more appropriate reference point, since it does not imply the use of a particular approach aid system.
 - ➔ It is universally applicable and reduces the need for flight crew to check which reference point is applicable to that particular runway.
 - ➔ It coincides with a commonly used reference/check point for the stabilised approach in IMC.



Section II - Operational procedures

- **OPS.GEN.200 Commencement and continuation of approach**
 - ★ **One of the criteria for continuing an approach below the DA/H or MDA/H was establishing and maintaining visual reference with:**
 - ★ **'Other visual references specified by the Authority'**
 - ➔ It appears that this may lead to variations in the application of the rule and therefore gives no legal certainty to operators. It has therefore been deleted.
 - ➔ The Agency is willing to put more precise criteria in the Implementing Rules and is therefore inviting Member States to provide any other visual references that they may have specified so that these may be incorporated, if necessary.



Section II - Operational procedures

- This section further contains requirements for:
 - ✦ OPS.GEN.100 Ice and other contaminants
 - ✦ OPS.GEN.105 Simulated abnormal situations in flight
 - ✦ OPS.GEN.110 Carriage of persons
 - ➔ ALL AIRCRAFT
 - ➔ AEROPLANES AND HELICOPTERS
 - ➔ HELICOPTERS
 - ✦ OPS.GEN.115 Passenger briefing
 - ✦ OPS.GEN.120 Securing of passenger cabin and galleys
 - ✦ OPS.GEN.125 Portable electronic devices
 - ✦ OPS.GEN.130 Smoking on board
 - ➔ ALL AIRCRAFT
 - ➔ COMPLEX MOTOR-POWERED AIRCRAFT
 - ✦ OPS.GEN.135.A Taxiing of aeroplanes
 - ✦ OPS.GEN.140.H Rotor engagement



Section II - Operational procedures

➤ and:

- ✦ OPS.GEN.145 Use of aerodromes/operating sites
- ✦ OPS.GEN.155 Selection of alternate aerodromes
- ✦ OPS.GEN.160 Departure and approach procedures
- ✦ OPS.GEN.170 Minimum terrain clearance altitudes
- ✦ OPS.GEN.175 Minimum flight altitudes
- ✦ OPS.GEN.180 Routes and areas of operation
- ✦ OPS.GEN.185 Meteorological conditions
- ✦ OPS.GEN.190 Take-off conditions
- ✦ OPS.GEN.195 Approach and landing conditions
- ✦ OPS.GEN.205 Fuel and oil supply
- ✦ OPS.GEN.210 Refuelling with passengers embarking, on board or disembarking
- ✦ OPS.GEN.215 In-flight fuel checks



Section III – Aircraft performance and operating limitations





Section III - Aircraft performance and operating limitations

- **This section III contains aircraft performance and operating limitations**
 - ★ **Based on draft JAR-OPS 0, 2 and 4 as well as EU-OPS/JAR-OPS 1 and 3.**
 - ★ **The first three paragraphs address mass and balance while the following paragraphs address aircraft performance.**
 - ★ **JAA NPA-OPS 39C has also been incorporated in the AMC's.**



Section III - Aircraft performance and operating limitations

➤ OPS.GEN.300 Operating limitations

- ★ **Aircraft loading, mass and balance needs to be within the respective limitations as specified in the appropriate aircraft documentation.**



Section III - Aircraft performance and operating limitations

➤ OPS.GEN.305 Weighing

★ **All aircraft need to be weighed before initial entry into service.**

- ➔ Non-complex aircraft used in non-commercial operations need to be reweighed after major modifications.
- ➔ Specific reweighing intervals are specified for complex motor-powered aircraft used in non-commercial operations and all aircraft used in commercial operations.
- ➔ Weighing has to be accomplished by a Part-M Subpart F or Part-145 organisation, as applicable.



Section III - Aircraft performance and operating limitations

- **OPS.GEN.310 Mass and balance system - complex motor-powered aircraft used in non-commercial operations and aircraft used in commercial operations**
 - ★ **Requires a mass and balance system specifying certain criteria that need to be determined for each flight.**



Section III - Aircraft performance and operating limitations

- **The performance requirements of OPS.GEN take into account Chapter 4 of the Essential Requirements and elaborate on some of the elements.**
 - ★ **It is based on Amendment 27 to ICAO Annex 6 Part II 'International General Aviation-Aeroplanes' and Amendment 13 to ICAO Annex 6 Part III Section III 'International General Aviation-Helicopters'.**
 - ★ **Considerations was also given to draft JAR-OPS 0 and 2.**



Section III - Aircraft performance and operating limitations

- **OPS.GEN.320.B Operational limitations – balloons**
 - ★ **Contains the restriction for a night landing with a balloon, except in the case of an emergency.**



Section III - Aircraft performance and operating limitations

- This section further contains requirements for:
 - ★ OPS.GEN.315 Performance - general
 - ★ OPS.GEN.325.A Take-off - complex motor - powered aeroplanes
 - ★ OPS.GEN.330 Critical engine inoperative - complex motor-powered aircraft
 - ★ OPS.GEN.335.A Landing - complex motor-powered aeroplanes



Section IV – Instruments, data and equipment



Section IV: Instruments, data and equipment – All aircraft -GEN

- This section supplement the essential requirements contained in chapters 5 of Annex IV:
 - ★ It is based on:
 - Amendment 27 to ICAO Annex 6 Part II,
 - Amendment 13 to ICAO Annex 6 Part III Section III,
 - Draft JAR-OPS 0 and 2, and
 - Requirement applicable to other categories of aircraft (e.g. balloons) based on existing regulations in different EASA Member States or foreign regulators.
 - ★ The equipment requirements also incorporate the prescribed use of the equipment, since they may apply to operators not subject to compliance with Part-OR.
 - ★ Equipment related to health issues are not included (e.g. EMK, cosmic radiation indicator)



Section IV: Instruments, data and equipment – All aircraft -GEN

➤ OPS.GEN.400 Instruments and equipment – General

- ★ **Mainly based on:**

- ➔ ICAO Annex 6 standards, and
- ➔ JAR-OPS x.630.

- ★ **There is no list of equipment not needing an equipment approval (e.g. ETSO);...but**
- ★ **Equipment required by Part-OPS which do not need an approval in accordance with Part-21, and any additional equipment which is not required by Part-OPS, but is carried on a flight, shall not affect the safety of the aircraft and its occupants.**



Section IV: Instruments, data and equipment – All aircraft -GEN

➤ Safety equipment for all aircraft:

★ OPS.GEN.405 Equipment for all aircraft

- ➔ fire extinguishers
- ➔ seat or berth (pax > 24 months)
- ➔ safety belt
- ➔ restrain device (pax < 24 months)
- ➔ spare fuses
- ➔ cabin crew seats.

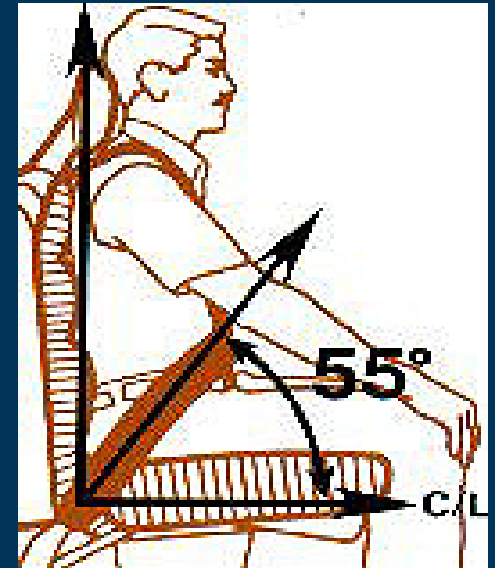
★ OPS.GEN.425.H Ditching – Helicopters

★ OPS.GEN.440 Operations in icing conditions

- ➔ means for ice detection

★ OPS.GEN.480 Seat belts and harnesses

- ➔ shoulder harness for flight crew seat (complex and commercial)
- ➔ safety harness for CC seats and helicopters (CoA> 1999)
- ➔ safety harness or shoulder strap for each pax > 24 months





Section IV: Instruments, data and equipment – All aircraft -GEN

➤ Safety equipment for complex motor-powered aircraft:

- ✧ OPS.GEN.460 Airborne Collision Avoidance System (ACAS) II
- ✧ OPS.GEN.465.A Terrain Awareness Warning System (TAWS) – Aeroplanes
- ✧ OPS.GEN.490 Flight data recorder - Aeroplanes and Helicopters
 - List of parameters in AMC depending of the date of issuance of CoA of the aircraft
 - JAA NPA-OPS 39C and draft NPA-OPS 67 have been incorporated





Section IV: Instruments, data and equipment – All aircraft -GEN

- **Safety equipment for complex motor-powered aircraft cont'd:**
 - ★ **OPS.GEN.495 Cockpit voice recorder - Aeroplanes and Helicopters**
 - ★ **OPS.GEN.500 Data link recording - Aeroplanes and Helicopters**
 - ➔ Based on JAA NPA-OPS 48A
 - ★ **OPS.GEN.505 Preservation of FDR and CVR recordings - Aeroplanes and Helicopters**
 - ★ **OPS.GEN.510 Use of FDR and CVR recordings - Aeroplanes and Helicopters**



Section IV: Instruments, data and equipment – All aircraft -GEN

- **Flight instruments for VFR, VFR night and IFR:**
 - ★ **OPS.GEN.410 Flight instruments and equipment - VFR flights**
 - ★ **OPS.GEN.415 Flight instruments and equipment - VFR night flights and IFR flights**
 - ➔ Includes flight parameters to be measured and displayed instead of name of particular equipment (e.g. pressure altitude instead of altimeter) to align with latest version of ICAO Annex 6.
 - ➔ Additional instruments for aircraft operating under VFR when the aircraft cannot be maintained in a desired attitude without reference to one or more flight instruments (based on draft JAR-OPS 0)





Section IV: Instruments, data and equipment – All aircraft -GEN

➤ Survival equipment:

★ OPS.GEN.420 Flights over water

- ➔ Life jacket
- ➔ Life-saving raft
- ➔ Life-saving equipment including means of sustaining life.

★ OPS.GEN.435 High altitude flights – Oxygen

- ➔ Requirement to carry enough breathing oxygen for high altitude flights (> 10 000 ft)

★ OPS.GEN.450 First-aid kits





Section IV: Instruments, data and equipment – All aircraft -GEN

➤ Emergency equipment:

- ★ **OPS.GEN.430 Emergency Locator Transmitter (ELT)**
 - ➔ Alignment with ICAO Annex 6 (1 automatic ELT for aeroplanes with CoA > July 2008)
- ★ **OPS.GEN.445 Marking of break-in points**
- ★ **OPS.GEN.455 Flight crew parachutes - Aerobatic flights***
- ★ **OPS.GEN.470.A Means for emergency evacuation - Aeroplanes**
- ★ **OPS.GEN.475 Emergency lighting - Aeroplanes and Helicopters**
- ★ **OPS.GEN.485.A Crash axes and crowbars – Aeroplanes**



* Awaiting outcome of a RIA on this topic



Section IV: Instruments, data and equipment – All aircraft -GEN

➤ Communication, Navigation and Surveillance equipment:

★ OPS.GEN.515 Microphones Aeroplanes and Helicopters

➔ Based on draft NPA-OPS 68 'Use of Headset'

★ OPS.GEN.520 Flight crew interphone system

★ OPS.GEN.525 Communication equipment

➔ Radio communication equipment

★ OPS.GEN.530 Pressure-altitude-reporting transponder

★ OPS.GEN.535 Navigation equipment

➔ Not prescriptive, as required by the airspace requirements





Section IV: Instruments, data and equipment – All aircraft -GEN

- Data and MEL (complex and commercial):
 - ★ **OPS.GEN.540.A Electronic navigation data management - Complex motor-powered aeroplanes**
 - ➔ NPA-OPS 57A and ICAO Annex 6 Part I & II
 - ➔ In AMC NAV DB from suppliers holding Type 2 LoA
 - ★ **OPS.GEN.545 Minimum equipment for flight**
 - ➔ General principles from JAR-MMEL/MEL and OPS 1.030



Section V – Manuals, logs and records





Section V - Manuals, Logs and Records

- This section is included in OPS.GEN to specifically address non-commercial operations with non-complex motor-powered aircraft.
- Most applicable complimentary requirements for non-commercial operations with complex motor-powered aircraft and commercial operations can be found in OR.OPS, as these are addressed to the operator.



Section V - Manuals, Logs and Records

- **OPS.GEN.600 Documents and information to be carried on all aircraft**
 - ★ **Only one paragraph on the documents and information to be carried has been included.**
 - ★ **Certain alleviations have been introduced for:**
 - ➔ flights returning to the aerodrome/operating site of departure
 - ➔ flights conducted within a local area
 - ➔ balloon operations.



Section V - Manuals, Logs and Records

- **OPS.GEN.605 Documents and information to be carried on non-commercial flights with complex motor-powered aircraft and aircraft used in commercial operations**
 - ★ **This paragraph contains additional information to be carried by:**
 - ➔ non-commercial operators of complex motor-powered aircraft
 - ➔ aircraft used in commercial operations
 - ★ **Alleviations contained in Appendix 1 to EU-OPS 1.005(a) and Appendix 1 to JAR-OPS 3.005 (f) and (g) have been transposed into this paragraph.**



Section V - Manuals, Logs and Records

- **OPS.GEN.610 Journey log book**
 - ★ **This paragraph contains the requirement of a journey log book in accordance with ICAO SARPs.**



Section V - Manuals, Logs and Records

- **OPS.GEN.615 Production of documentation and records**
 - ★ **The requirement for the pilot-in-command to produce the required documents when requested to do so by the competent authority, e.g in case of a ramp check, is included here.**



Section VI - Security





Section VI – Security

- The last section of OPS.GEN, security, contains requirements on disruptive passenger behaviour and reporting acts of unlawful interference.
- These requirements are derived from ICAO SARPs.
 - ★ The common requirement for commercial operators to take into account the national security programme is an alignment with Regulation (EC) 300/2008 as well as transfer of the appropriate EU/JAR-OPS provisions.



Section VI – Security

- OPS.GEN.700 Disruptive Passenger Behaviour
- OPS.GEN.705 Security programme - commercial operations
- OPS.GEN.710 Reporting acts of unlawful interference



Disclaimer

- Although this presentation is a summary of the explanatory note it is not intended to substitute reading it.
- The explanatory note contains valuable other information that is required to understand the framework of Community regulations in the field of Air Operations.
- During the ongoing internal consultation (part of the EASA rulemaking procedure) comments have been given indicating that some rules need to be reconsidered regarding their inclusion in wrong sections. Therefore the numbering given in this presentation may deviate from the numbering contained in that of the NPA to be published.