



# Part-OPS | OPS.GEN

**OPS Workshop Austria**  
**16 June 2009**  
**Willy Sigl**  
**EASA**

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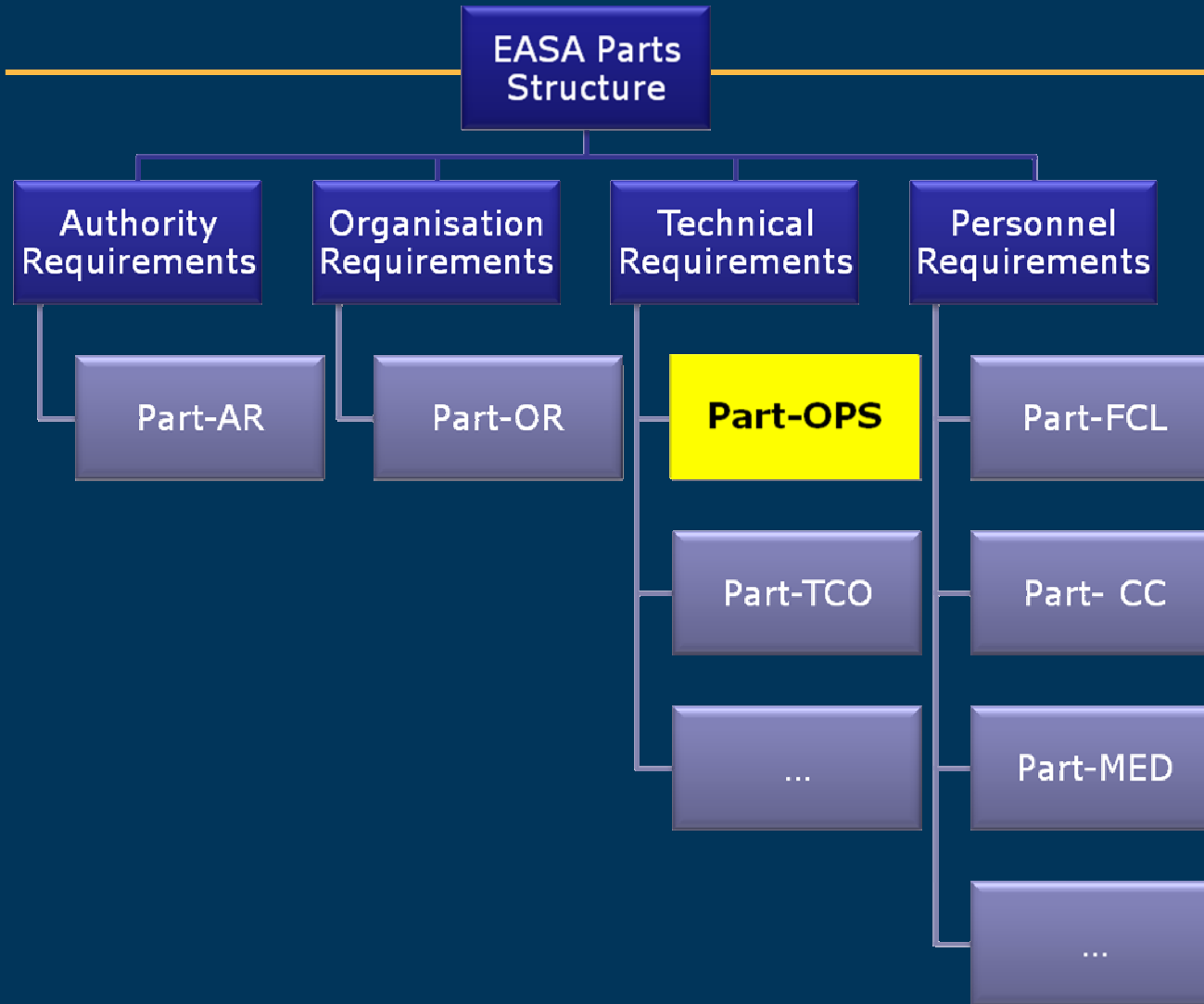
## **Outline**

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- ★ **Overview of Part-OPS**
- ★ **Definitions**
- ★ **Subpart OPS.GEN**

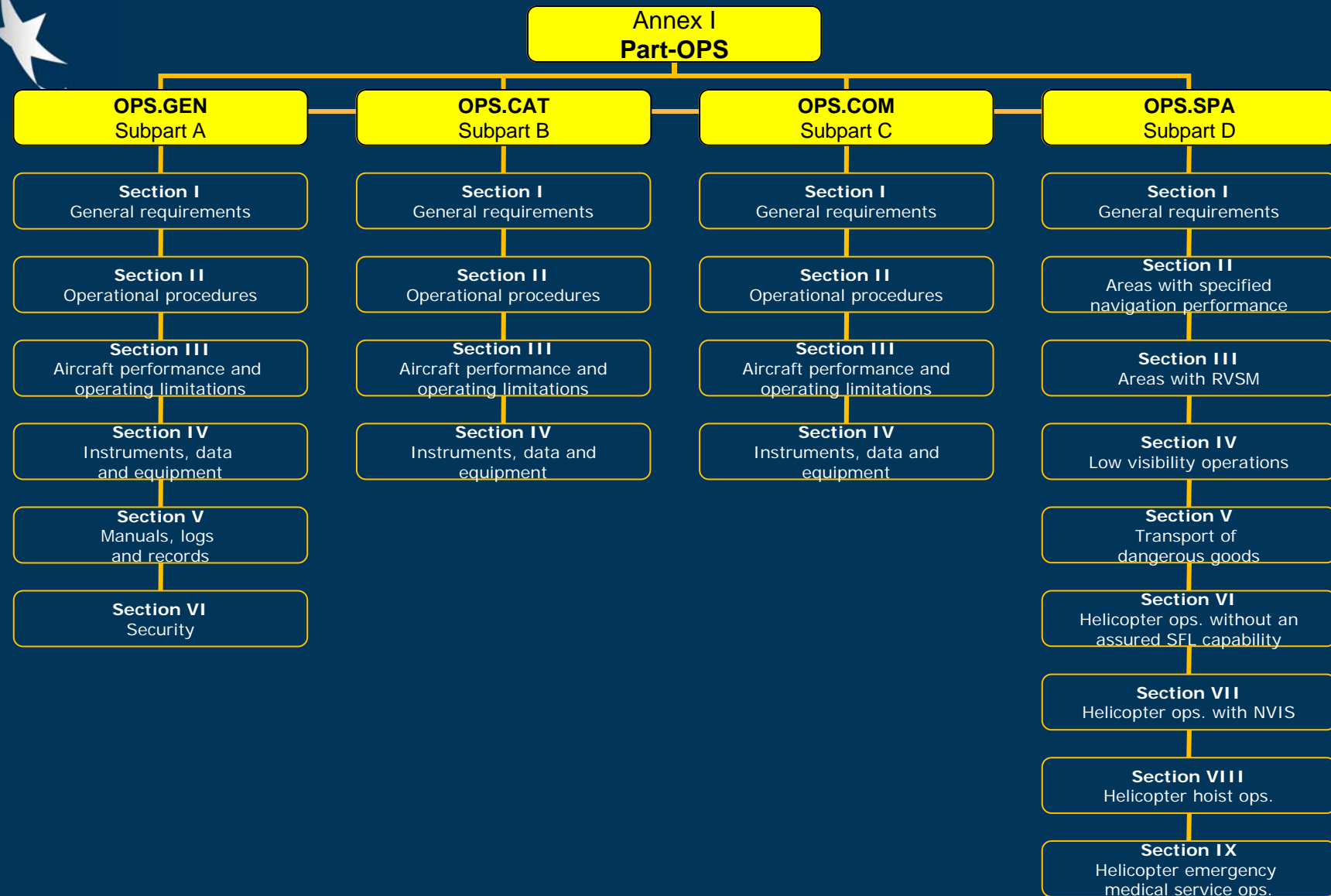


# New Parts Structure - proposed





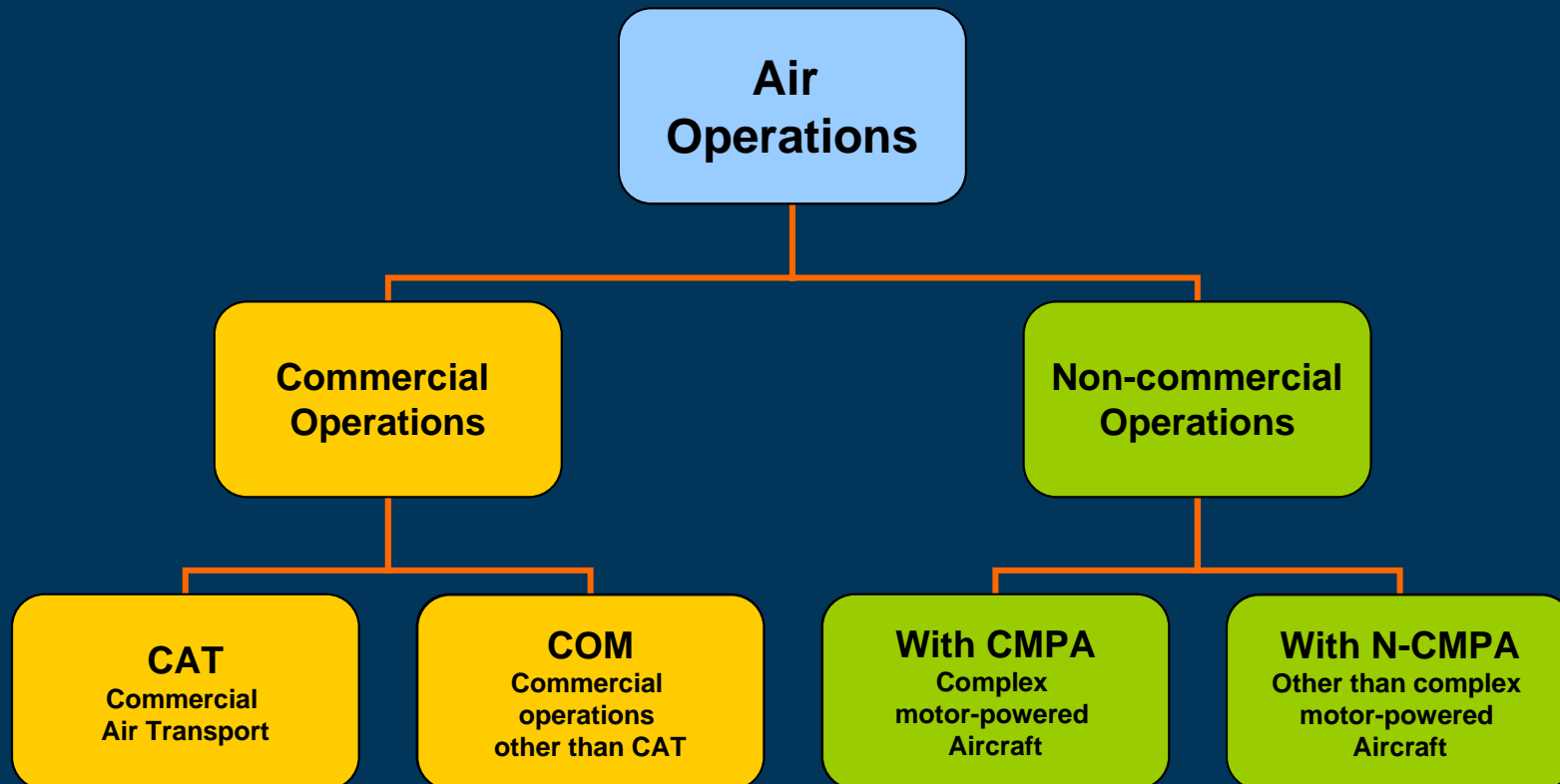
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# Operation classification





# Applicability of requirements

	Commercial Operator		Non-commercial Operator	
	CAT	COM	CMPA	N-CMPA
OPS.GEN	✓	✓	✓	✓
OPS.CAT	✓			
OPS.COM		✓		
OPS.SPA	✓	✓	✓	✓



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# Basic Regulation - Definitions

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## Art. 3 Definitions

(i) '**commercial operation**' shall mean any operation of an aircraft, in return for remuneration or other valuable consideration, which is available to the public or, when not made available to the public, which is performed under a contract between an operator and a customer, where the latter has no control over the operator



# Basic Regulation - Definitions

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## Art. 3 Definitions

### (j) 'complex motor-powered aircraft'

An **aeroplane**:

- with a maximum certificated **take-off mass exceeding 5 700 kg**, or
- certificated for a maximum **passenger seating configuration of more than nineteen**, or
- certificated for operation with a **minimum crew** of at least **two pilots**, or
- equipped with (a) **turbojet engine(s)** or **more than one turboprop** engine, or

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# Basic Regulation - Definitions

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## Art. 3 Definitions

### (j) 'complex motor-powered aircraft'

A **helicopter** certificated:

- for a maximum **take-off mass exceeding 3 175 kg**, or
- for a maximum **passenger seating configuration of more than nine**, or
- for operation with a **minimum crew of at least two pilots**, or

A **tilt rotor aircraft**.

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# Implementing Rules - Definitions

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## Commercial Air Transport

**An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.**

(Paragraph 53 of NPA 2009-02a Explanatory memorandum Part-OPS)



## Subpart OPS.GEN Structure

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➤ **Build on the structure of the Essential Requirements (Annex IV of the BR):**

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
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## Subpart OPS.GEN Content

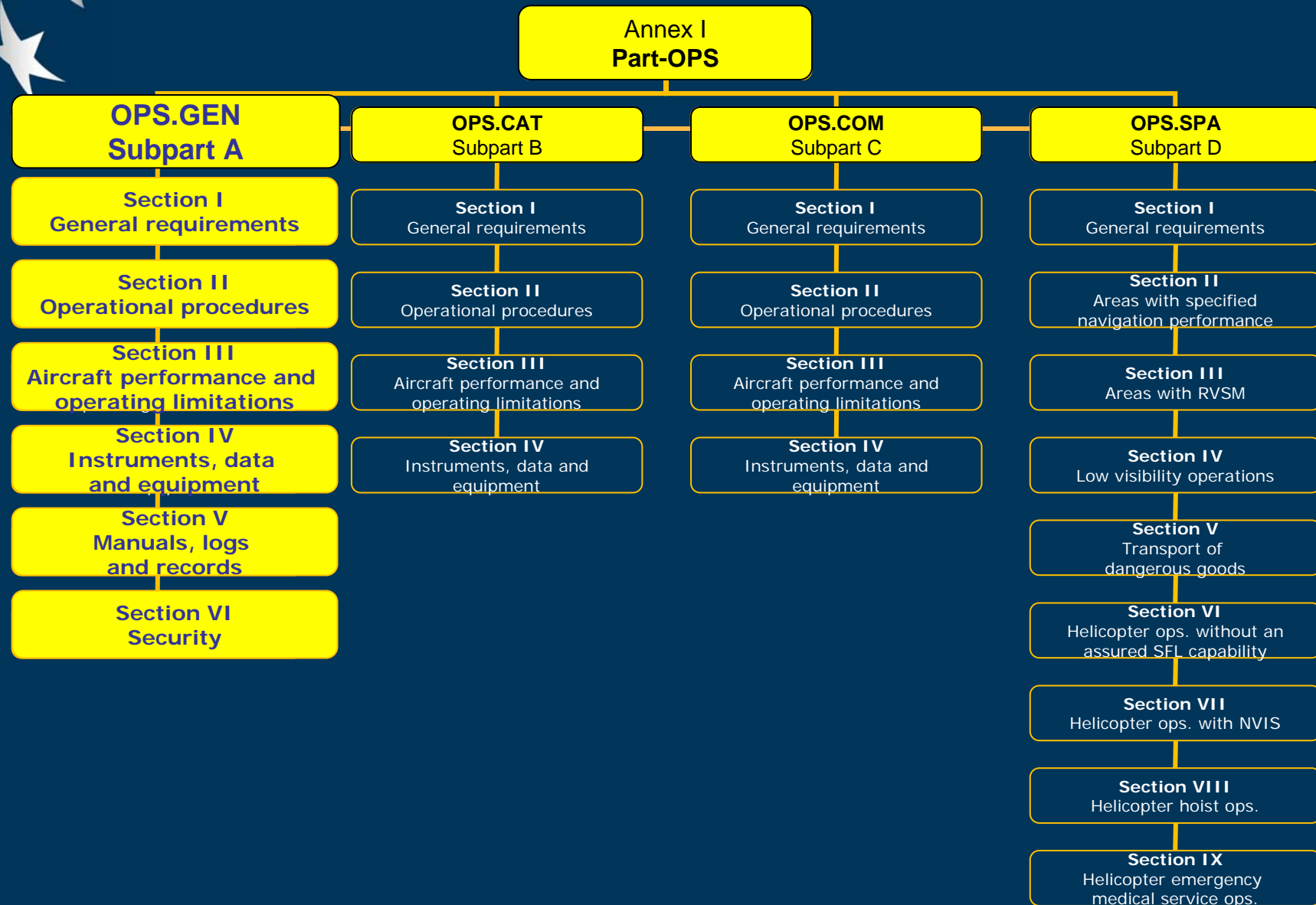
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- **Based on:**
    - ✦ ICAO Annex 6 Part II
    - ✦ ICAO Annex 6 Part III section III
  - **Complemented by:**
    - ✦ Requirements for non-commercial operations with complex motor-powered aircraft and
    - ✦ Common requirements for commercial operations derived from EU-OPS/JAR-OPS 3
  - **Account has been taken of:**
    - ✦ draft JAR-OPS 0, 2 and 4
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# Section I

## General requirements



## Section I - General Requirements

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- Establishes the scope of Subpart OPS.GEN and contains general requirements
- Applicable to all aircraft (aeroplanes, helicopters, balloons, sailplanes) and activities



## Section I - General Requirements

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- **OPS.GEN.001 Competent authority**
  
  - **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).
  
  - **OPS.GEN.010 Definitions**
    - ✧ Contains all definitions used in Part-OPS
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## Section I - General Requirements

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### ➤ 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
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## Section I - General Requirements

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- OPS.GEN.020 Crew responsibilities
- OPS.GEN.025 Common language
- OPS.GEN.030 Transport of dangerous goods



## Section II

# Operational procedures



## Section II - Operational procedures

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- Supplements the Essential Requirements contained in chapters 2 and 3 of Annex IV
- AMC/GM for non-commercial and commercial operations as well as different categories of aircraft are provided





## Section II - Operational procedures

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### ➤ 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

#### ★ 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

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# **Section III**

## **Aircraft performance and operating limitations**



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## Section III - Aircraft performance and operating limitations

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- Supplements the Essential Requirements contained in chapter 4 of Annex IV
- Mass and balance: operating limitations and weighing
- Aircraft performance



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## Section III - Aircraft performance and operating limitations

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### ➤ OPS.GEN.300 Operating limitations

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



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## Section III - Aircraft performance and operating limitations

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### ➤ 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.
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## Section III - Aircraft performance and operating limitations

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- 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, e.g. traffic and fuel load, load distribution



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## Section III - Aircraft performance and operating limitations

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- Performance requirements take into account chapter 4 of the Essential Requirements and elaborate on some elements
  - ✦ based on ICAO SARPs
  - ✦ consideration was also given to draft JAR-OPS 0 and 2



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## Section III - Aircraft performance and operating limitations

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### ➤ OPS.GEN.315 Performance - general

- ✦ Adequate performance to comply with applicable rules of the air and any other restrictions applicable to the flight, the airspace or the aerodromes/operating sites used.
- ✦ Aircraft shall only be operated over congested areas of cities, towns or settlements or over an open-air assembly of persons, if able to make a landing without undue hazard to the aircraft occupants or to third parties, in the event of a power-unit failure.





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## Section III - Aircraft performance and operating limitations

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- OPS.GEN.320.A Take-off - complex motor-powered aeroplanes
  - OPS.GEN.325 Critical engine inoperative - complex motor-powered aircraft
  - OPS.GEN.330.A Landing - complex motor-powered aeroplanes
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# Section IV

## Instruments, data and equipment



## Section IV - Instruments, data and equipment

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- **Supplements the Essential Requirements contained in chapter 5 of Annex IV**
  - **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
    - ✧ Requirements applicable to other categories of aircraft (e.g. balloons) based on existing regulations in different EASA MS or foreign regulations
    - ✧ Equipment requirements also incorporate prescribed use of the equipment
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## Section IV - Instruments, data and equipment

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### ➤ OPS.GEN.400 Instruments and equipment – General

- ✧ In general, instruments and equipment shall be approved and installed in accordance with Part-21
  - ✧ Except: additional instruments and equipment not required by Part-OPS and not required to be approved i.a.w. Part-21, shall comply with the following:
    - The information provided by these instruments, equipment shall not be used to fly the aircraft;
    - The instruments and equipment shall not affect the airworthiness of the aircraft, even in the case of failures or malfunction, the safety of the aircraft and its occupants.
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## Section IV - Instruments, data and equipment

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- **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



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## Section IV - Instruments, data and equipment

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- **Safety equipment for all aircraft (cont'd)**
  - ✦ OPS.GEN.445 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 or shoulder strap for each pax > 24 months



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## Section IV - Instruments, data and equipment

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- **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



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## Section IV - Instruments, data and equipment

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- **Safety equipment for complex motor-powered aircraft (cont'd):**
  - ✦ OPS.GEN.490 Flight data recorder - Aeroplanes and Helicopters
    - List of parameters in AMC depending on the date of issuance of CoA of the aircraft
  - ✦ OPS.GEN.495 Cockpit voice recorder - Aeroplanes and Helicopters





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## Section IV - Instruments, data and equipment

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- **Safety equipment for complex motor-powered aircraft (cont'd):**
  - ✦ OPS.GEN.500 Data link recording - Aeroplanes and Helicopters
  - ✦ 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

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- **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)
      - 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)
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## Section IV - Instruments, data and equipment

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### ➤ Survival equipment:

#### ★ OPS.GEN.420 Flights over water

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

#### ★ OPS.GEN.440 High altitude flights – Oxygen

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

#### ★ OPS.GEN.455 First-aid kits

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## Section IV - Instruments, data and equipment

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### ➤ 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.450 Marking of break-in points
  - ✧ 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
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## Section IV - Instruments, data and equipment

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- **Communication, Navigation and Surveillance equipment:**
    - ✧ OPS.GEN.515 Microphones  
Aeroplanes and Helicopters
    - ✧ 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
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## Section IV - Instruments, data and equipment

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- Data and MEL (complex and commercial):
  - ✦ OPS.GEN.540.A Electronic navigation data management  
- Complex motor-powered aeroplanes
  - ✦ OPS.GEN.550 Minimum equipment for flight
    - General principles from JAR-MMEL/MEL and OPS 1.030



## Section V

# Manuals, logs and records



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## Section V - Manuals, Logs and Records

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- OPS.GEN to specifically address MLR requirements for
    - ✧ non-commercial operations with other than complex motor-powered aircraft
  - Complimentary requirements can be found in OR.OPS for
    - ✧ non-commercial operations with complex motor-powered aircraft and
    - ✧ commercial operations
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## Section V - Manuals, Logs and Records

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- OPS.GEN.600 Documents and information to be carried on all aircraft
  - ✧ Certain alleviations for
    - flights returning to the aerodrome/operating site of departure
    - flights conducted within a local area
    - balloon operations



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## Section V - Manuals, Logs and Records

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- OPS.GEN.605 Documents and information to be carried on non-commercial flights with complex motor-powered aircraft and 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



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## Section V - Manuals, Logs and Records

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### ➤ OPS.GEN.610 Journey log book

- ★ requirement of a journey log book in accordance with ICAO SARPs

### ➤ OPS.GEN.615 Production of documentation and records

- ★ Requirement for the pilot-in-command to produce the required documents when requested to do so by the authority, e.g. in case of a spot/ramp check



## Section VI Security



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## Section VI – Security

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- Requirements on disruptive passenger behaviour and reporting acts of unlawful interference
- Derived from ICAO SARPs



**Thank you  
for your attention**

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