



EUROPEAN AVIATION SAFETY AGENCY
AGENCE EUROPÉENNE DE LA SÉCURITÉ AÉRIENNE
EUROPÄISCHE AGENTUR FÜR FLUGSICHERHEIT

OPS Regional Workshop

Regulation 965/2012 - Air Operations

EASA Rulemaking Directorate
Flight Standards Department
Zurich, 6 February 2013

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09:00 – 09:45	Overview of OPS rules Cover Regulation
09:50 - 10:35	Part-ARO
10:35 - 11:00	break
11:00 - 11:45	Part-ORO
11:45 - 13:00	lunch break
13:00 - 14:00	Part-CAT
14:00 - 15:00	PART-SPA
15:00 - 15:30	break
15:30 - 16:00	Flight Time Limitations
16:00 - 16:30	Future rulemaking developments

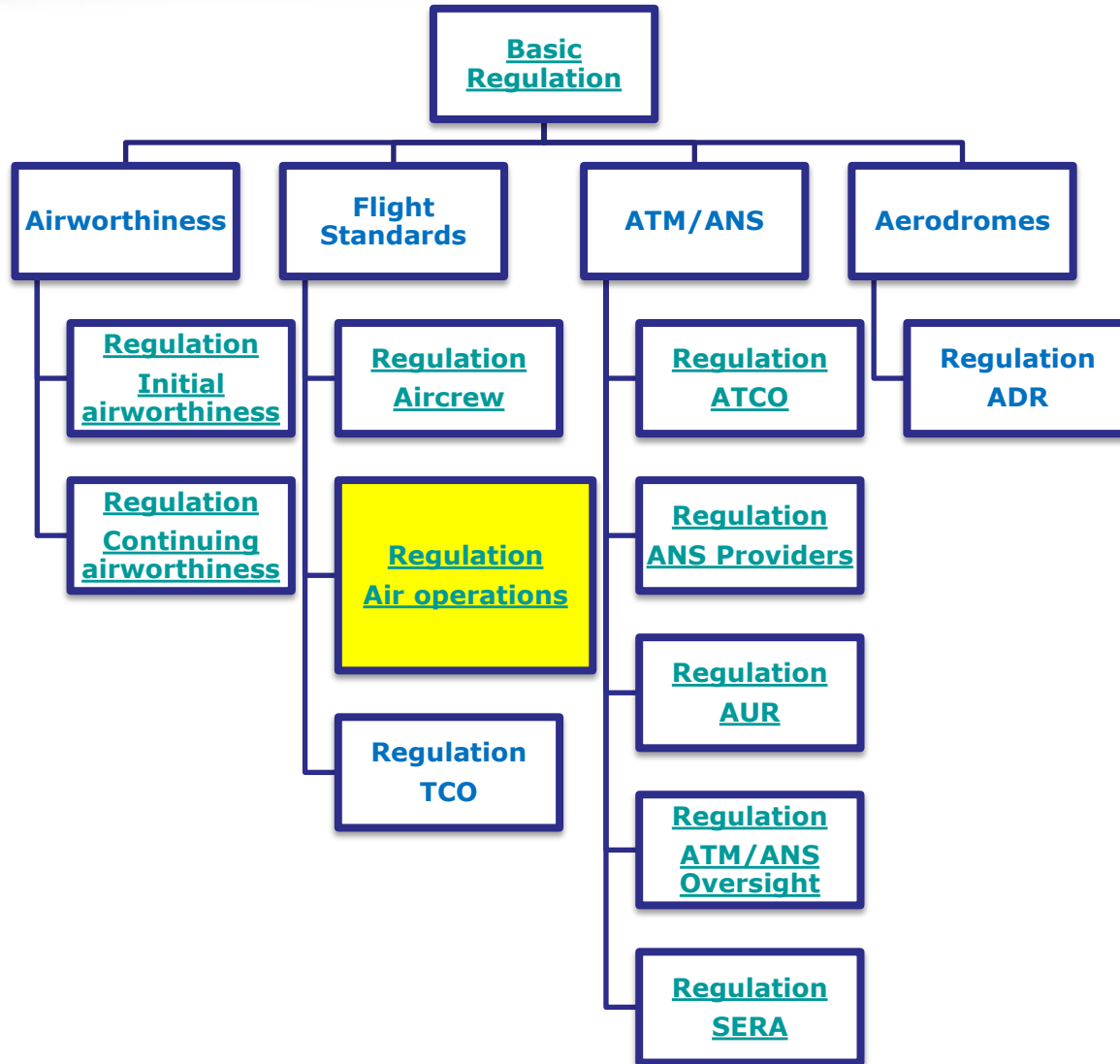


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Overview of OPS rules

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European aviation rule structure



- **ATM/ANS:** air traffic management, air navigation services
- **TCO:** third country operators
- **ATCO:** air traffic controllers
- **AUR:** airspace usage requirements
- **SERA:** single European rules of the air
- **ADR:** aerodromes

Who is concerned by those rules?

- Operators
 - Aeroplanes
 - Helicopter



- Competent authorities



- Operations personnel





Over which territory do the rules apply?

Validity of the BR



27 EU states

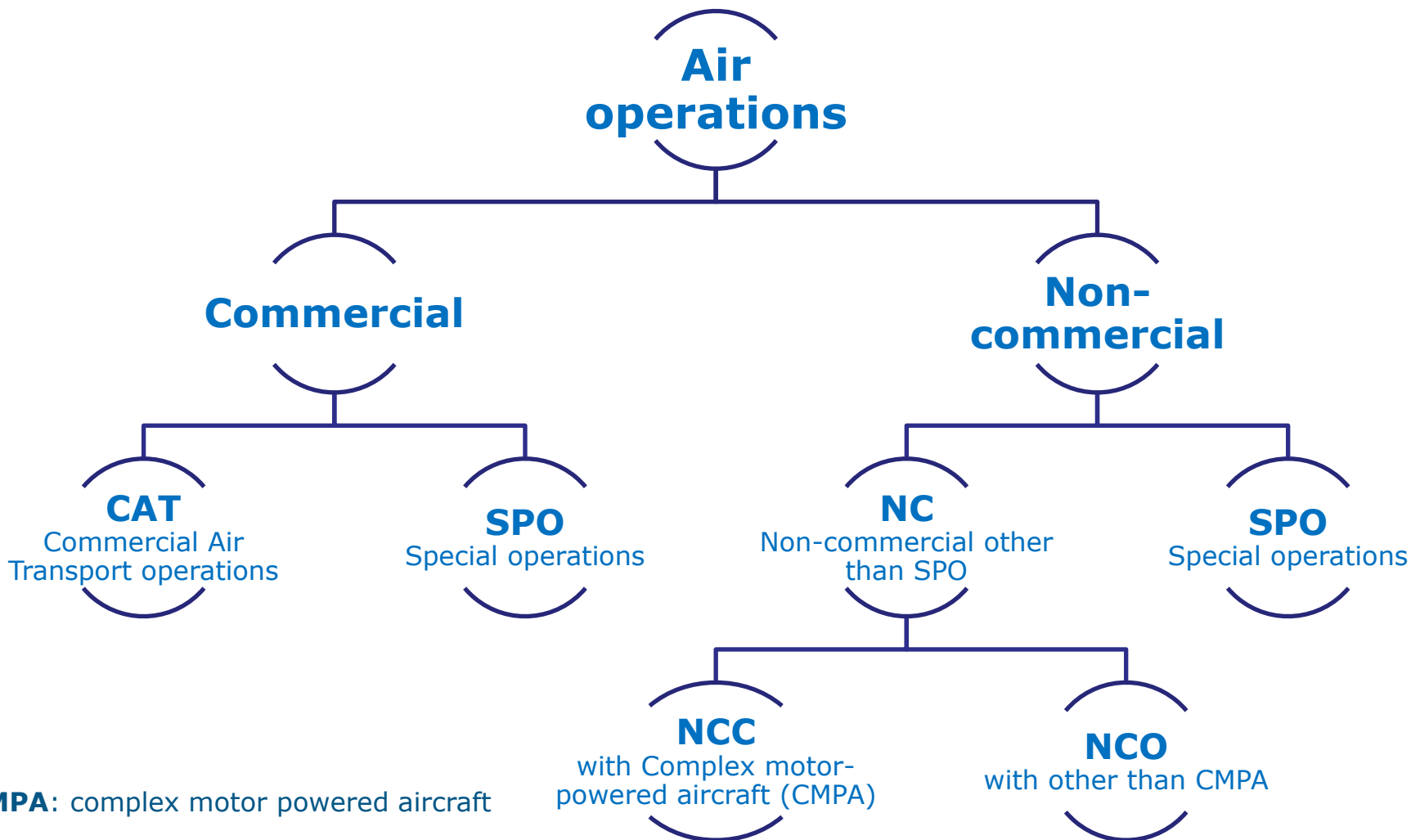


4 EFTA states





OPS rule structure



Complex



Non-complex



Basic Regulation Article 3 item (j)

‘complex motor powered aircraft’ shall mean:

An aeroplane:

- with a maximum certificated take-off mass exceeding 5 700 kg, or
- certificated for a maximum passenger seating configuration of more than 19, 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.

A helicopter certified:

- 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.



OPS rule structure and rule development

Rule development	Phase OPS I	Phase OPS II	Phase OPS III	Phase OPS IV
Cover Reg.	initial version	amendment	amendment	amendment
Definitions	initial version	amendment	amendment	amendment
Part-ARO	initial version	amendment	amendment	amendment
Part-ORO	initial version	amendment	amendment	amendment
Part-CAT	A, H			S, B, A-to-A
Part-SPA	initial version	amendment		
Part-NCC		initial version		
Part-NCO		initial version		
Part-SPO			initial version	

initial version
amendment



OPS rule structure and rule development

Document Status	Published: Reg. 965/2012	Adopted in EASA Committee	Discussed in EASA Committee	Discussed in EASA Committee
	Phase OPS I	Phase OPS II	Phase OPS III	Phase OPS IV
Cover Reg.	Dark Blue	Light Purple	Light Purple	Light Purple
Definitions	Dark Blue	Light Purple	Light Purple	Light Purple
Part-ARO	Dark Blue	Light Purple	Light Purple	Light Purple
Part-ORO	Dark Blue	Light Purple	Light Purple	Light Purple
Part-CAT	A, H	White	White	S, B, A-to-A
Part-SPA	Dark Blue	Light Purple	White	White
Part-NCC	White	Dark Blue	White	White
Part-NCO	White	Dark Blue	White	White
Part-SPO	White	White	Dark Blue	White

IR:

- Rule development finalised
- IR to be published in the Official Journal

AMC/GM:

- Rule development at final stage
- To be published together with IR



OPS rule applicability

Rule applicability	CAT operator	NCC operator	NCO operator	SPO operator	NAA
Cover Reg.					
Definitions					
Part-ARO					
Part-ORO				Com/non-com CMPA	
Part-CAT					
Part-SPA					
Part-NCC					
Part-NCO					
Part-SPO					

➤ **Safety focus**

- Emphasis on SMS and oversight capabilities.
- Risk-based approach.
- Strengthening operator and authority responsibilities.

➤ **Harmonisation**

- ICAO compatibility.
- Harmonised rules with other regional regulators, e.g. FAA, TCAA.

➤ **Flexibility and efficiency**

- Safety objective – Implementing Rule level.
- Method to comply with safety objective – AMC level.
- Operator can develop its own alternative AMC.
- Specific operational or geographical needs can be addressed.
- Proportionality.

- **Proportionality: CAT rules differentiate between; (1/2)**
 - Organisation;
 - non-complex versus complex organisations.
 - Nature of operation;
 - local/A-to-A versus A-to-B operations.
 - Flight rules;
 - IFR and night versus VFR operations.
 - Crew;
 - single-pilot versus multi-pilot operations,
 - operations with cabin crew versus operations without cabin crew.

- **Proportionality: CAT rules differentiate between; (2/2)**
 - Aircraft;
 - non-complex aircraft versus complex aircraft,
 - single-engined aircraft versus multi-engined aircraft,
 - performance classes A, B and C for aeroplanes,
 - performance classes 1, 2, 3 and categories A and B for helicopters.

➤ **For transposing EU-OPS and JAR-OPS 3**

- Rules with a safety objective are transposed as IR.
- Rules with a means to comply with a safety objective are transposed as AMC,
 - following this principle, most Appendices have been transposed as AMC.
- Rules which could not obviously be classified as safety objective or means to comply are transposed as IR.
- Notes and rules with explanatory character are transposed as GM.
- Appendices with alleviations: 1.005(a), 3.005(f), 3.005(g) have been transposed into the applicable rules, where relevant.

➤ **For transposing EU-OPS and JAR-OPS 3 (cont.)**

- Rules allowing an alternative if approved/accepted by the authority have been removed and are replaced:
 - For IRs by the Article 14 (BR 216/2008) procedure. *
 - For AMCs by the alternative means of compliance procedure.

➤ **For transposing EU-OPS and JAR-OPS 3 (cont.)**

- Rules allowing an alternative if approved/accepted by the authority have been removed and are replaced:
 - For IRs by the Article 14 procedure.
 - For AMCs by the alternative means of compliance procedure.
- Rules requiring an approval are either
 - transposed as IR, or
 - if transposed as AMC have been removed (alternative MOC procedure).
- Rules which are already covered in the essential requirements (ER) of the BR have been retained with link to the ER.

AUTHORITY REQUIREMENTS (PART-ARO)

➤ For transposing EU-OPS and JAR-OPS 3 (cont.)

- Rules containing
"acceptable to the authority"
have been transposed as
"the operator shall specify in the OM"

- Rules containing
"if approved by the authority"
have been transposed as an item requiring prior approval,
or being included in the AOC.
 - GM3 ORO.GEN.130(b) Changes



Transposition of EU-OPS

EU-OPS	Part-CAT	Part-SPA	Part-ORO	Part-ARO	Annex 1	Others
SUBPART A — Applicability and definitions					DEF	CR OPS
SUBPART B — General	GEN		GEN/AOC/MLR		DEF	
SUBPART C — Operator certification and supervision			GEN/AOC	GEN/OPS		
SUBPART D — Operational procedures	OP	MNPS/PBN /ETOPS/ RVSM	GEN/MLR	OPS	DEF	SERA AMC-20
SUBPART E — All weather operations	OP	LVO		OPS	DEF	SERA
SUBPART F — Performance general	POL.A				DEF	
SUBPART G — Performance Class A	POL.A					
SUBPART H — Performance Class B	POL.A					
SUBPART I — Performance Class C	POL.A					
SUBPART J — Mass and balance	POL.MAB				DEF	Part-M



Transposition of EU-OPS

EU-OPS	Part-CAT	Part-SPA	Part-ORO	Part-ARO	Annex 1	Others
SUBPART K — Instruments and equipment	IDE.A.					Part-M AMC-20
SUBPART L — Communication and navigation equipment	IDE.A.					Part-M AMC-20
SUBPART M — Aeroplane maintenance						Part-M
SUBPART N — Flight crew			FC		DEF	Part-FCL
SUBPART O — Cabin crew			CC	AR.CC		Part-CC
SUBPART P — Manuals, logs and records	OP		GEN/MLR			
SUBPART Q — Flight and duty time limitations and rest requirements			FTL		DEF	OPS.055
SUBPART R — Transport of dangerous goods by air	GEN	DG		OPS	DEF	
SUBPART S — Security	GEN		SEC			



Transposition of JAR-OPS 3

JAR-OPS 3	Part-CAT	Part-SPA	Part-ORO	Part-ARO	Annex 1	Others
SUBPART A — Applicability and definitions					DEF	CR OPS
SUBPART B — General	GEN	NVIS/HHO/ HEMS	GEN/AOC/ MLR		DEF	
SUBPART C — Operator certification and supervision			GEN/AOC	GEN/OPS		
SUBPART D — Operational procedures	OP	PBN	GEN/MLR	OPS	DEF	SERA AMC-20
SUBPART E — All weather operations	OP	LVO		OPS	DEF	SERA
SUBPART F — Performance general	POL.H				DEF	
SUBPART G — Performance Class 1	POL.H					
SUBPART H — Performance Class 2	POL.H					
SUBPART I — Performance Class 3	POL.H					
SUBPART J — Mass and balance	POL.MAB				DEF	



Transposition of JAR-OPS 3

JAR-OPS 3	Part-CAT	Part-SPA	Part-ORO	Part-ARO	Annex 1	Others
SUBPART K — Instruments and equipment	IDE.H.					
SUBPART L — Communication and navigation equipment	IDE.H.					
SUBPART M — Helicopter maintenance						Part-M
SUBPART N — Flight crew			FC		DEF	Part-FCL
SUBPART O — Crew members other than flight crew			TC			
SUBPART P — Manuals, logs and records	OP		GEN/MLR			
SUBPART Q — Flight and duty time limitations and rest requirements			FTL		DEF	
SUBPART R — Transport of dangerous goods by air	GEN	DG		OPS	DEF	
SUBPART S — Security	GEN		SEC			



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Flight Standards Mini-Website

EASA

<http://easa.europa.eu/flightstandards/index.html>

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Flight Standards mini-website content

- ▶ Stand-alone Flight Standards website within EASA main website
- ▶ **General aviation information**
- ▶ **FAQ – questions and answers on:**
 - ▶ General issues
 - ▶ Crew Licensing
 - ▶ Air Operations
 - ▶ Medical
 - ▶ Third country Operators
 - ▶ News & Events:
 - ▶ <http://easa.europa.eu/flightstandards/latestnews.html>



Cross reference table

- **Comparison EASA OPS with JAR-OPS 3 and EU-OPS**
- **Difference statements**
- **Status: version 02 was published at the end of 2012**

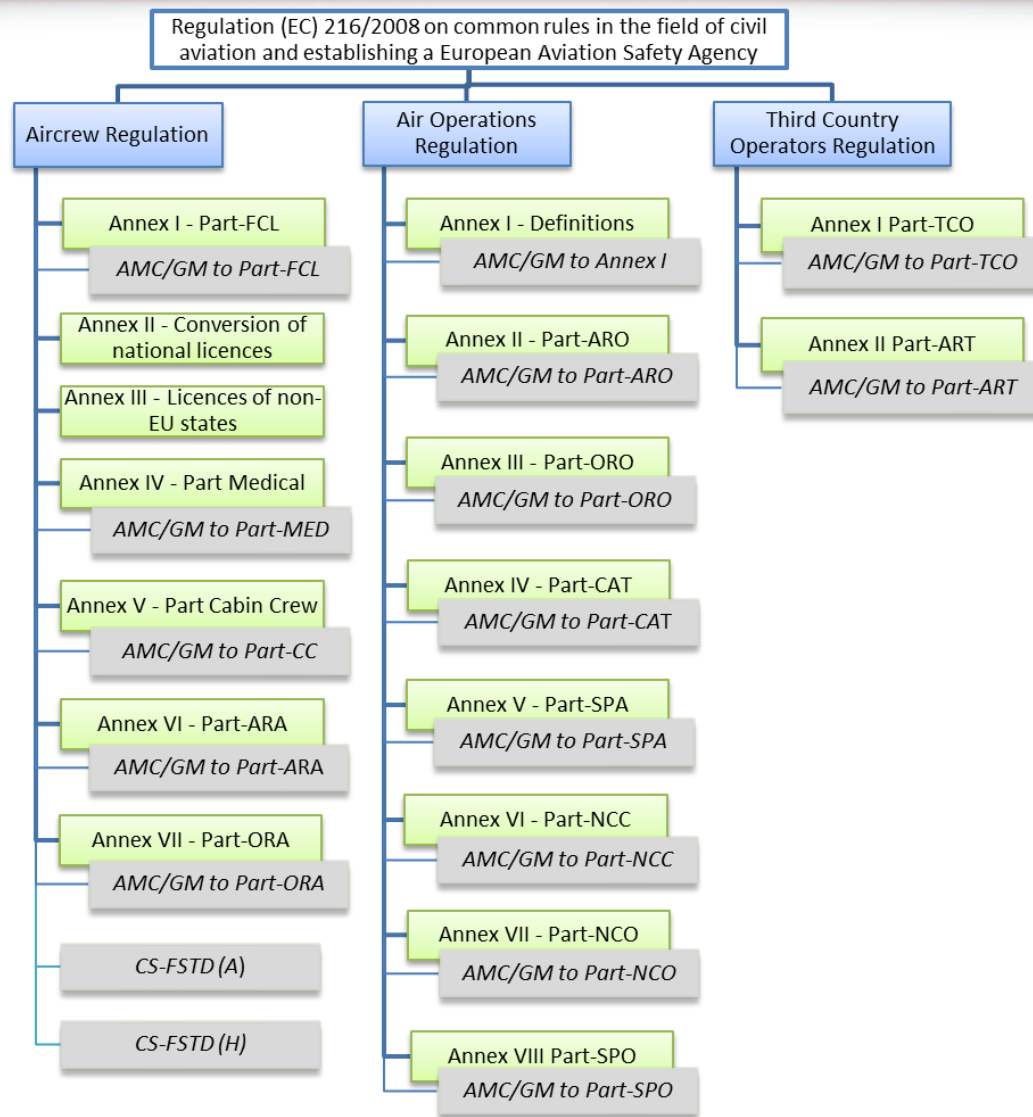
• http://easa.europa.eu/flightstandards/doc/Cross%20reference%20table_version02.xlsx

Sec. #	European rule IR/AMC/GM	European rule reference	European rule title	EU-OPS/JAR-OPS3 IR/ACJ/AMC/IEM	EU-OPS rule reference	JAR-OPS3 rule reference	EU-OPS/JAR-OPS3 rule title	Difference to EU-OPS Classification	Difference to EU-OPS Description	Difference to JAR-OPS3 Classification	Difference to JAR-OPS3 Description
1	IR	Annex I	Definitions for terms used in Annexes II to VII	IR	-	3.005(f) - Appendix 1, (a)(1)	Operations for small helicopters (VFR day only)	-	-	Amended	The definition in EASA OPS is more specific. Small helicopters (as defined in JAR-OPS 1) are treated as non-complex helicopters (in the sense of the Basic Regulation).
1	IR	Annex I	Definitions for terms used in Annexes II to VII	IR	1.037(a)4.	-	Accident prevention and flight safety programme	No change	Definition for 'flight data monitoring' extracted from EU-OPS rule	-	-
1	IR	Annex I	Definitions for terms used in Annexes II to VII	IR	1.1150(a)1, 4 - 6, 15	3.1150(a)(1), (3), (4), (15)	Terminology	No change	-	No change	-
1	IR	Annex I	Definitions for terms used in Annexes II to VII	IR	1.165(a)	3.165(a)	Leasing	Amended	The terms are aligned with Art. 2 of Reg. (EC) No 1008/2008	Amended	The terms are aligned with Art. 2 of Reg. (EC) No 1008/2008
1	IR	Annex I	Definitions for terms used in Annexes II to VII	ACJ	1.345 2.a, 2.g, 2.k	-	Ice and other contaminants	Amended	Anti-icing' and 'de-icing' refer to aircraft, not only aeroplanes. 'Hold-over time' aligns with ICAO Doc 9640, 2nd ed..	New	Definitions from EU-OPS refer to aircraft, not aeroplanes and therefore apply to helicopters too.
1	IR	Annex I	Definitions for terms used in Annexes II to VII	IR	1.430 - Appendix 1 (f)1. (i), (ii)	3.430 - Appendix 1, (d)(1)	Precision approach — Category II and other than Standard Category II operations	No change	-	Amended	The scope of OTS CAT II has been extended to helicopter operations.
1	IR	Annex I	Definitions for terms used in Annexes II to VII	IR	1.430 - Appendix 1 (New), (b)(3)	-	Aerodrome operating minima	Amended	Approach procedure with vertical guidance': does not provide for the authority to approve lower minima [Placed in main Annex I with Opinion 1/2012]	-	-
1	IR	Annex I	Definitions for terms used in Annexes II to VII	IR	1.430 - Appendix 1 (New), (b)(1)	-	Aerodrome operating minima	Amended	CAT I approach operation': GNSS using SBAS is included	-	-



Rule structure:

<http://easa.europa.eu/flightstandards/structure.html>





Easy ways to stay up to date

- **EASA official publications [weblink](#)**
 - Filter your search
 - Implementing rules (IR)
 - AMC/Guidance Material/Certification Specifications (CS)

- **Technical publications website**
 - receive automatic email notification [updates](#)

- **General publications website**
 - receive automatic email [notifications](#)

- **List of Member State [Opt-outs](#) to OPS Regulation 965/2012**



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Cover Regulation (EU) No 965/2012

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Cover regulation

The Cover regulation is the actual rule. It is followed by annexes and consists of at least the following:

Applicability of the rule.

Entry into force.

Transition measures.



“Cover Regulation” Air operations

- Article 1 Subject matter and scope
- Article 2 Definitions
- Article 3 Oversight capabilities
- Article 4 Ramp inspections
- Article 5 Air operations
- Article 6 Derogations
- Article 7 Air operator certificates
- Article 8 Flight time limitations
- Article 9 Minimum equipment lists
- Article 10 Entry into force



“Cover Regulation” Air operations

➤ **Scope (Art. 1) (OPS Phase I)**

- CAT operations with
 - aeroplanes, helicopters



➤ Excluded for the time being are:

- operations with airships, tilt-rotor aircraft, tethered balloons and remotely piloted aircraft
- operations by design or production organisations related to the introduction or modification of aircraft types
- A-to-A operations with performance class B aeroplanes and non-complex helicopters



“Cover Regulation” Air operations

- **Definitions (Art. 2) : CAT & commercial operation**
 - Commercial air transport (CAT) operation (Reg. 965/2008)
 - Aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration.
 - Commercial operation (Basic Regulation 216/2008)
 - 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**.



“Cover Regulation” Air operations

➤ **Oversight capabilities (Art. 3) :**

- Member State can designate more than one entity as competent authority provided that :
 - areas of competence, responsibility and geographic limitations are clearly defined
 - Co-ordination between entities ensures effective oversight
- Authority to have necessary capability to ensure the oversight of all persons and organisations, including sufficient resources
- Avoidance of conflict of interest
- Lists the tasks that authority personnel is empowered to perform



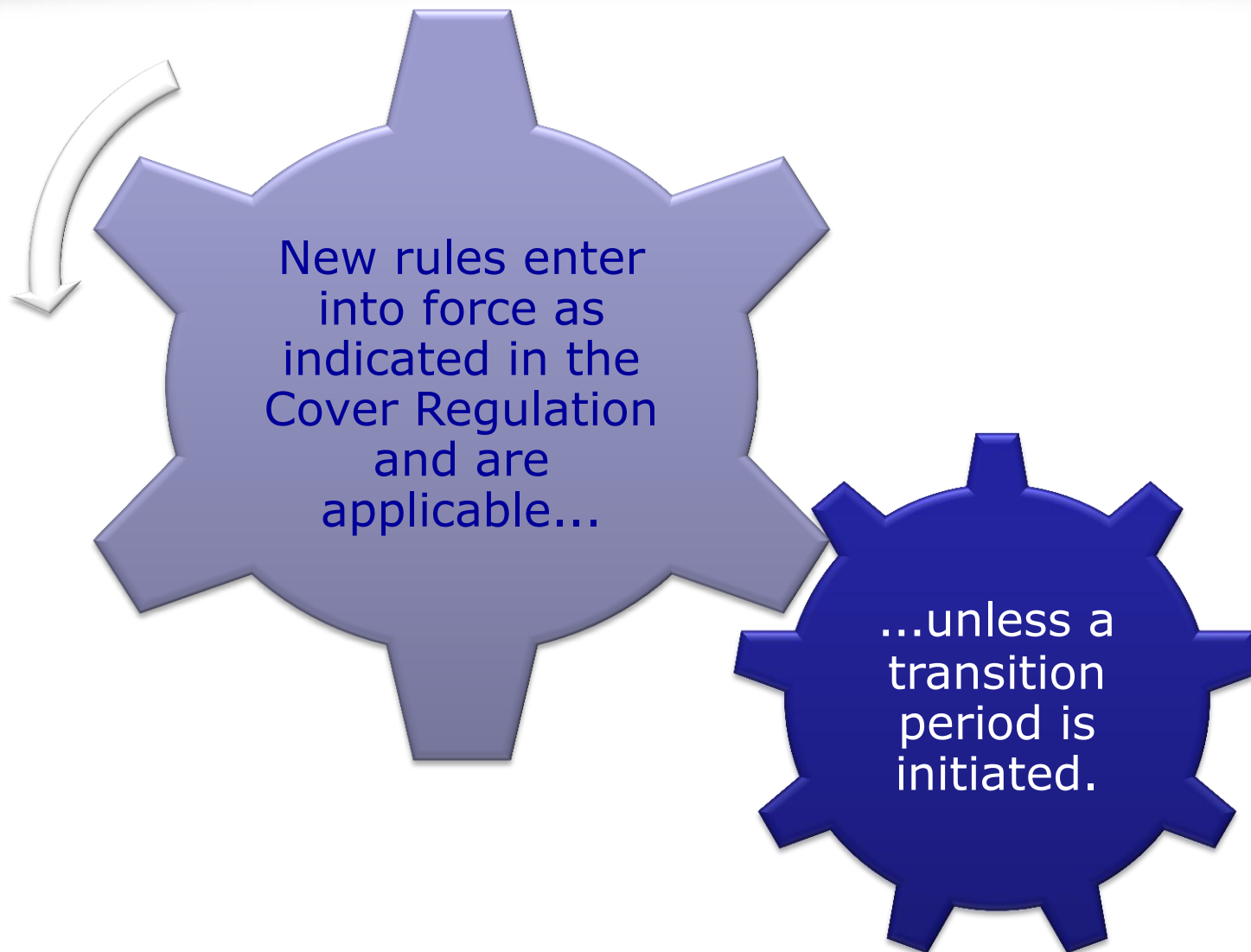
“Cover Regulation” Air operations

➤ **Derogations (Art. 6)**

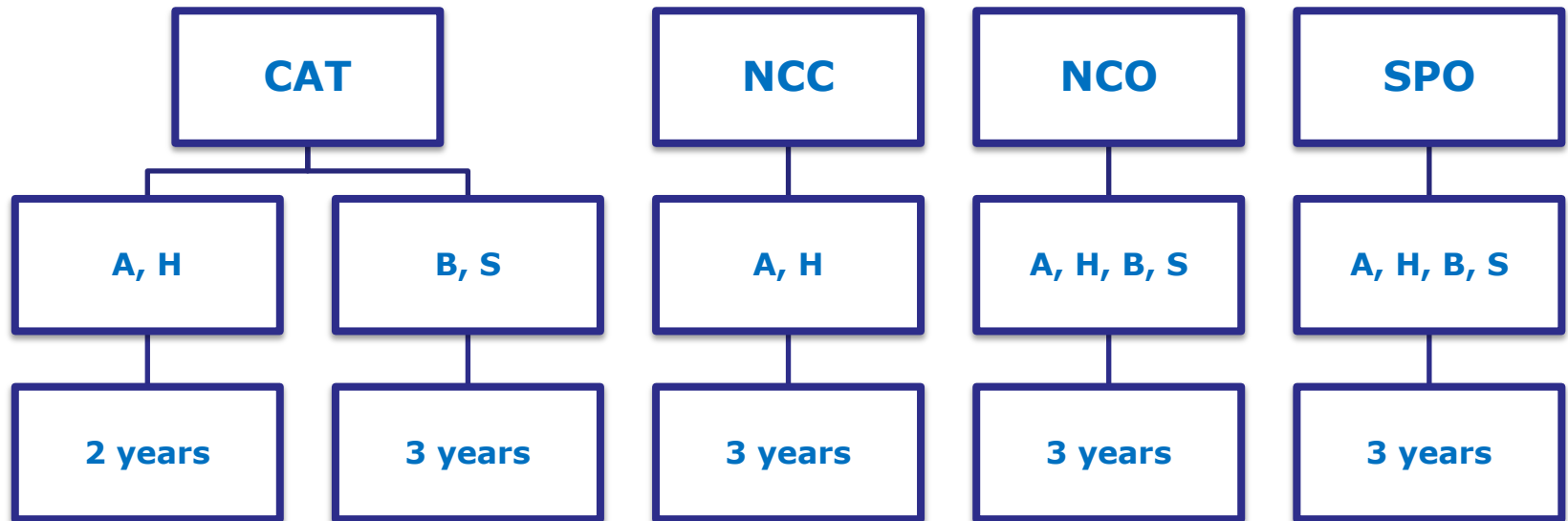
- Specific Annex II aircraft when used in CAT operations.
- Member States may continue to require a specific approval and additional requirements for helicopter offshore operations.
- Single engine IMC operations with aeroplanes may continue to be operated in accordance with the conditions contained in exemptions accepted under EU-OPS.
- Helicopter operations to public interest sites may continue outside performance class 1 and under conditions defined by the MS.



Entry into force



Transition periods (opt outs)



➤ Member States shall;

- inform Commission and EASA within 2 months if opt-out is used,
- describe reasons, duration, implementation programme.

Prior to applicability of Reg. 965/2012 (28 October 2014)

- Competent authority
 - Adapt management procedures, inspector's handbooks, certification software, etc.
 - Prepare a conversion report for CAT(H) in consultation with EASA, describing how and when CAT(H) AOCs holders will move to full compliance with new rules.
- Operators
 - Adapt management systems, operational procedures, training programmes, manuals.

Around 6 months before the transition period elapses

- Initial certification or AOC renewal to be based on new rules if likely not completed before end of opt-out period.



Grandfathering of EU-OPS AOC

- Grandfathering.
 - AOC issued in accordance with EU-OPS are deemed to be compliant with the new regulation.
- Differences between EU-OPS and new rules.
 - During opt-out phase adaptation of operator's management system, training programmes, procedures and manuals.
- New AOC format.
 - To be issued when the operator is fully compliant.



Conversion of JAR-OPS 3 (H) AOC

- MS to establish conversion report describing;
 - the national requirements on the basis of which the AOCs were issued,
 - the scope of privileges that were given to the operators,
 - the differences between the national requirements and the new rules,
 - how and when the operators will be required to ensure full compliance with new rules.
- New AOC.
 - To be issued when the operator is fully compliant.



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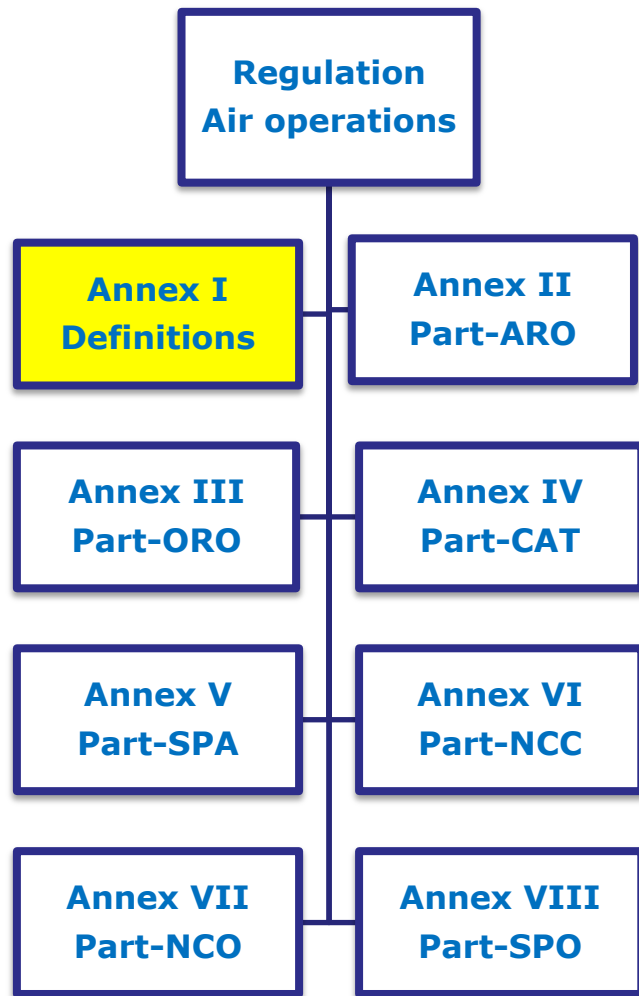
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Part-ARO

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Annex I: Definitions

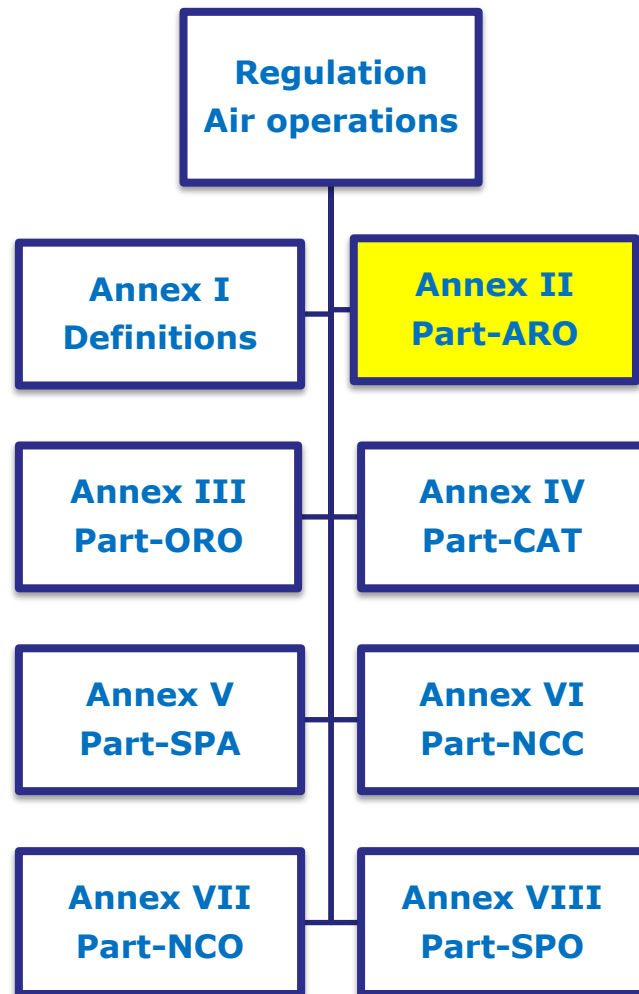


► **Applicability:**

- » operators and
- » competent authorities



Annex II: Part-ARO

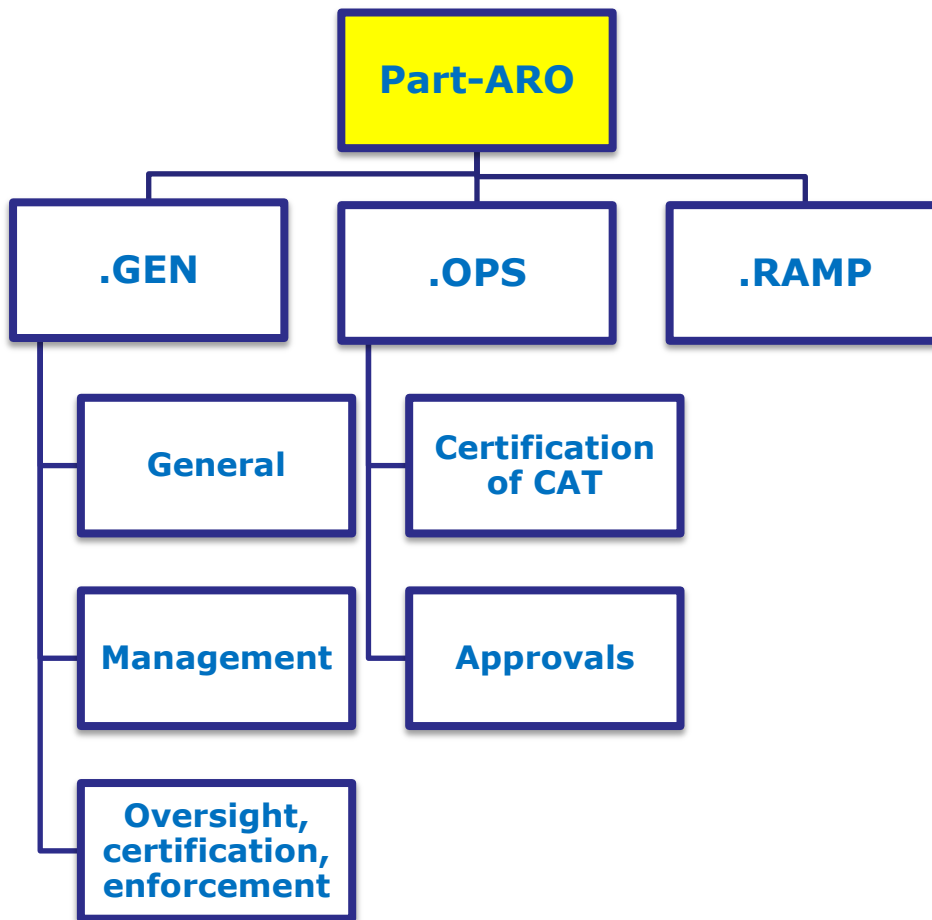


► **Applicability:**

- » Authority requirements for air operations for
- » National aviation authorities



Annex II: Part-ARO



ARO – authority requirements

.GEN – general requirements

.OPS – air operations

.RAMP – ramp inspections

- **For transposing EU-OPS and JAR-OPS 3 (cont.)**
 - Rules containing ***"acceptable to the authority"*** have been transposed as ***"the operator shall specify in the OM"***
 - Rules containing ***"if approved by the authority"*** have been transposed as an item requiring prior approval, or being included in the AOC.
 - GM3 ORO.GEN.130(b) Changes



State Safety Programme & Part-ARO

- ARs do not explicitly refer to SSP. Regulating SSP would require a general, high level rule covering all aviation areas.
- ARs prepare the ground for the EASP, they support implementation of the SSP, in particular by focussing on the ICAO critical elements of an oversight system:

CE-3: State civil aviation system and safety oversight functions

CE-4: Technical personnel qualification and training

CE-5: Technical guidance, tools and the provision of safety-critical information

CE-6: Licensing, certification, authorisation and/or approval obligations

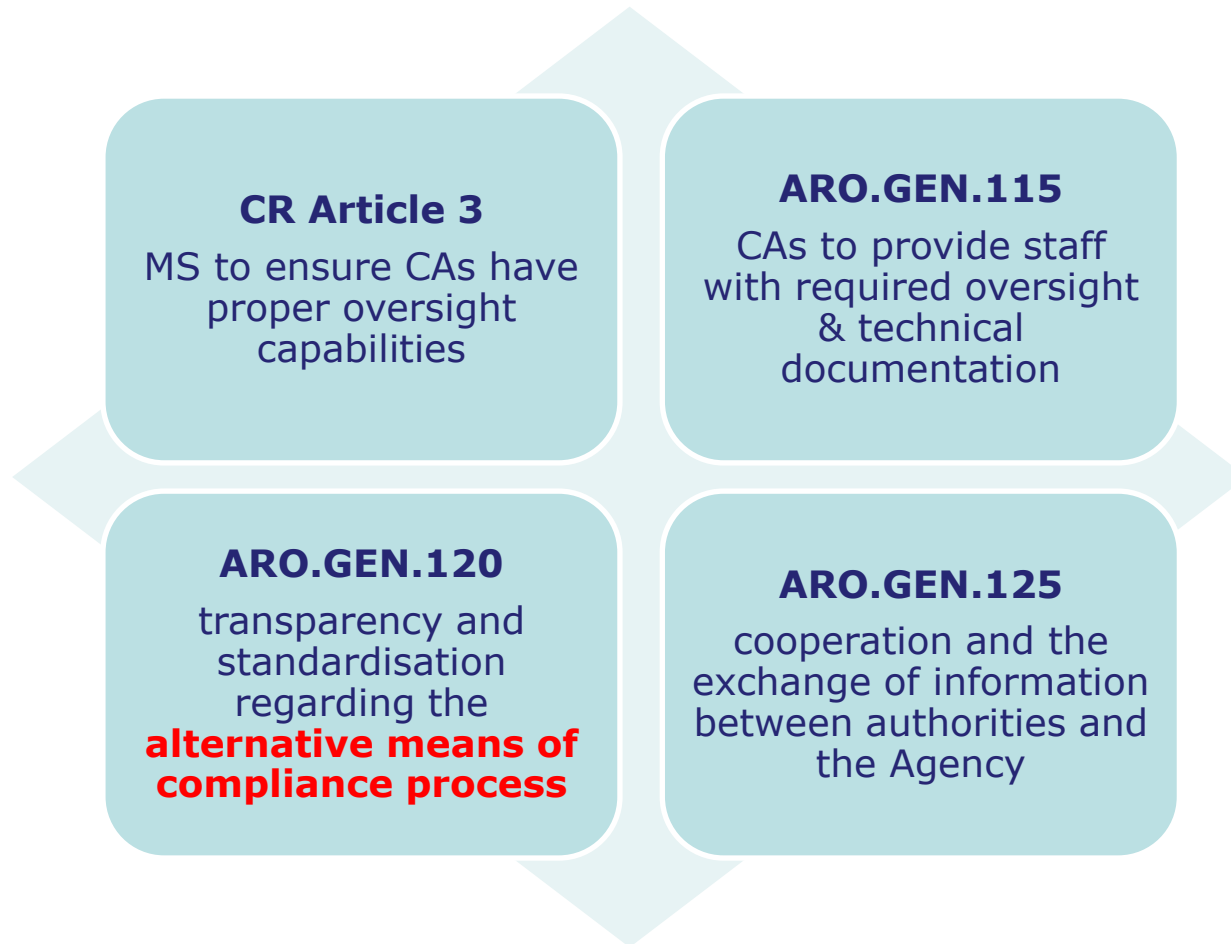
CE-7: Surveillance obligations

CE-8: Resolution of safety concerns



Part-ARO supports SSP implementation

GENERAL





Part-ARO supports SSP implementation

MANAGEMENT SYSTEM

ARO.GEN.200

CAs to establish management systems including compliance monitoring:
Internal audit & safety risk management

ARO.GEN.205

Procedures for allocation of tasks to qualified entities
(control of contractors)

ARO.GEN.210

Management of changes in the management system and information to the Agency

ARO.GEN.220

Record keeping requirements:
Storage, accessibility and traceability
Register of approved organisations



Part-ARO on Management System

NEW ELEMENTS

ARO.GEN.200(a)(2):

The implementation of a system to plan the availability of staff.

ARO.GEN.200(d) and ARO.GEN.210(c):

The transmission to the Agency of procedures and amendments thereto, the information to the Agency regarding changes affecting the management system (continuous monitoring).

ARO.GEN.200(c):

The definition and implementation of procedures for participation in a mutual exchange of information and assistance to other competent authorities.

ARO.GEN.200 (a)(4);(5) and ARO.GEN.205:

The implementation of a compliance monitoring system, including internal audits and safety risk management: corrective and preventive actions.



Part-ARO supports SSP implementation

OVERSIGHT, CERTIFICATION, ENFORCEMENT

ARO.GEN.300(c)

Scope of oversight to consider safety priorities (as per SSP – EASP)

ARO.GEN.300(d)

Oversight shall not be limited to the organisations the CA has certified – link with safety priorities

ARO.GEN.300(e)

CA may agree to share audits when the activity of an organisation involves more than one Member State

ARO.GEN.305 (c)

24-month oversight cycle to be extended or reduced depending on the safety performance of the organisation

ARO.GEN.350 / 355

Actions in case of findings – enforcement action



ARs on Oversight

ARO.GEN.300:

“cooperative oversight”: enhanced cooperation and communication between competent authorities.

ARO.GEN.305:

Standard oversight planning cycle of 24 months, possible extension 36/48 months (performance based oversight).

ARO.GEN.310:

Unlimited validity of certificates (in line with continuous monitoring).

ARO.GEN.350:

Standard definitions for level 1 and level 2 findings (organisations), standard periods for corrective action implementation (based on existing rules in Regulations 1702 /2003 and 2042/2003).



Authority Requirements **KEY POINTS**

- **Part-ARO– Subpart GEN contains general requirements**
- **Part-ARO is closely aligned with Part-ARA for Aircrew**
- **Authority Requirements**
 - mirror relevant organisation requirements
 - support the implementation of EASP without explicitly regulating State Safety Plan (SSP)
 - aim towards enhanced efficiency:
 - optimal use of authority resources
 - cooperation / exchange of information between authorities & with the Agency
 - risk based oversight



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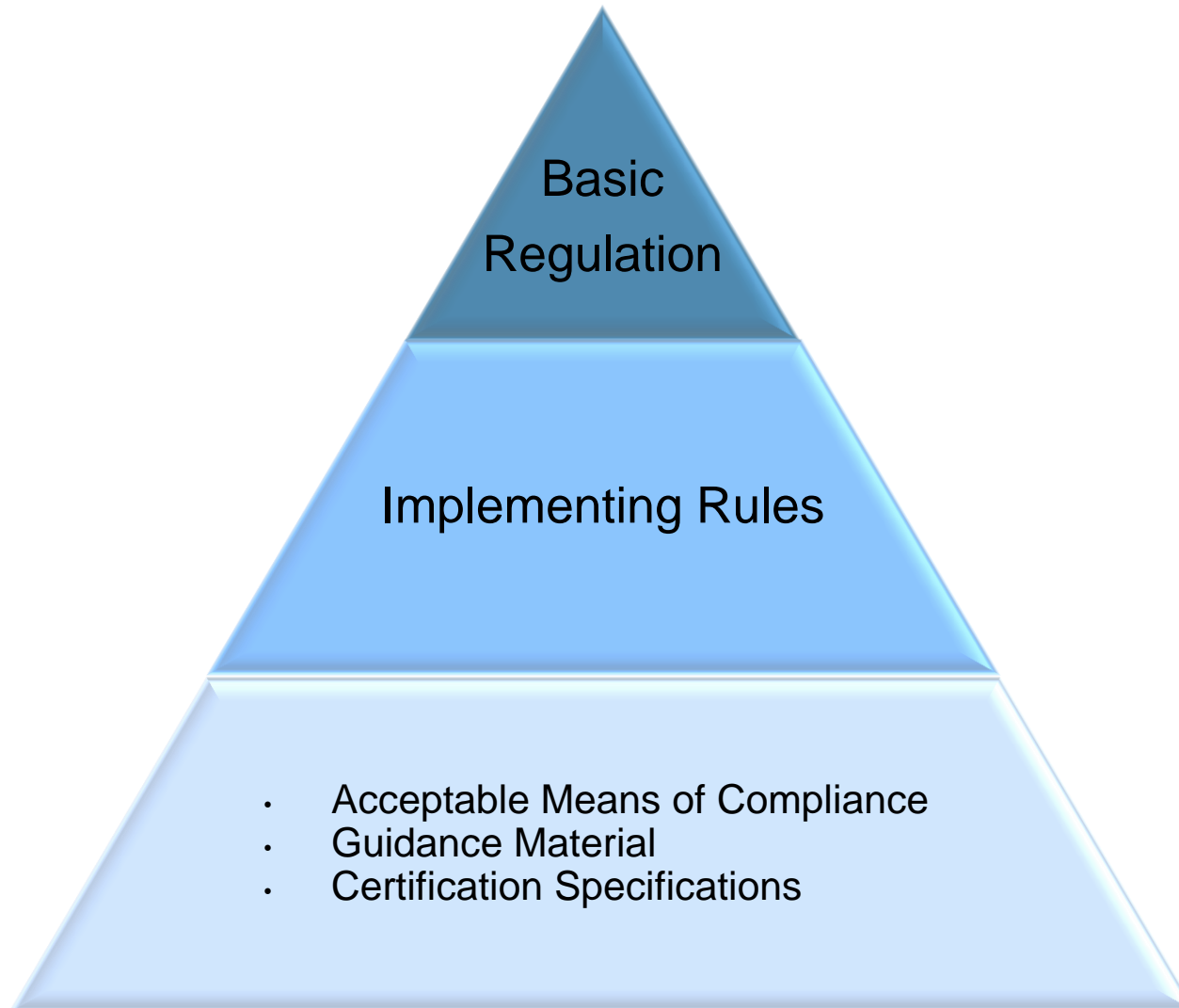
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- **Alternative means of compliance.**

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Regulation (EC) No 216 / 2008





Alternative means of compliance

CS

- Technical standards to be used in the certification / approval process
- **“Building blocks” for the certification basis**

AMC

- Technical / procedural material
- One means to comply with the rule – but not the only
- **Presumption of compliance**

GM

- Interpretative / explanatory material
- Provides guidance on how the rules should be understood

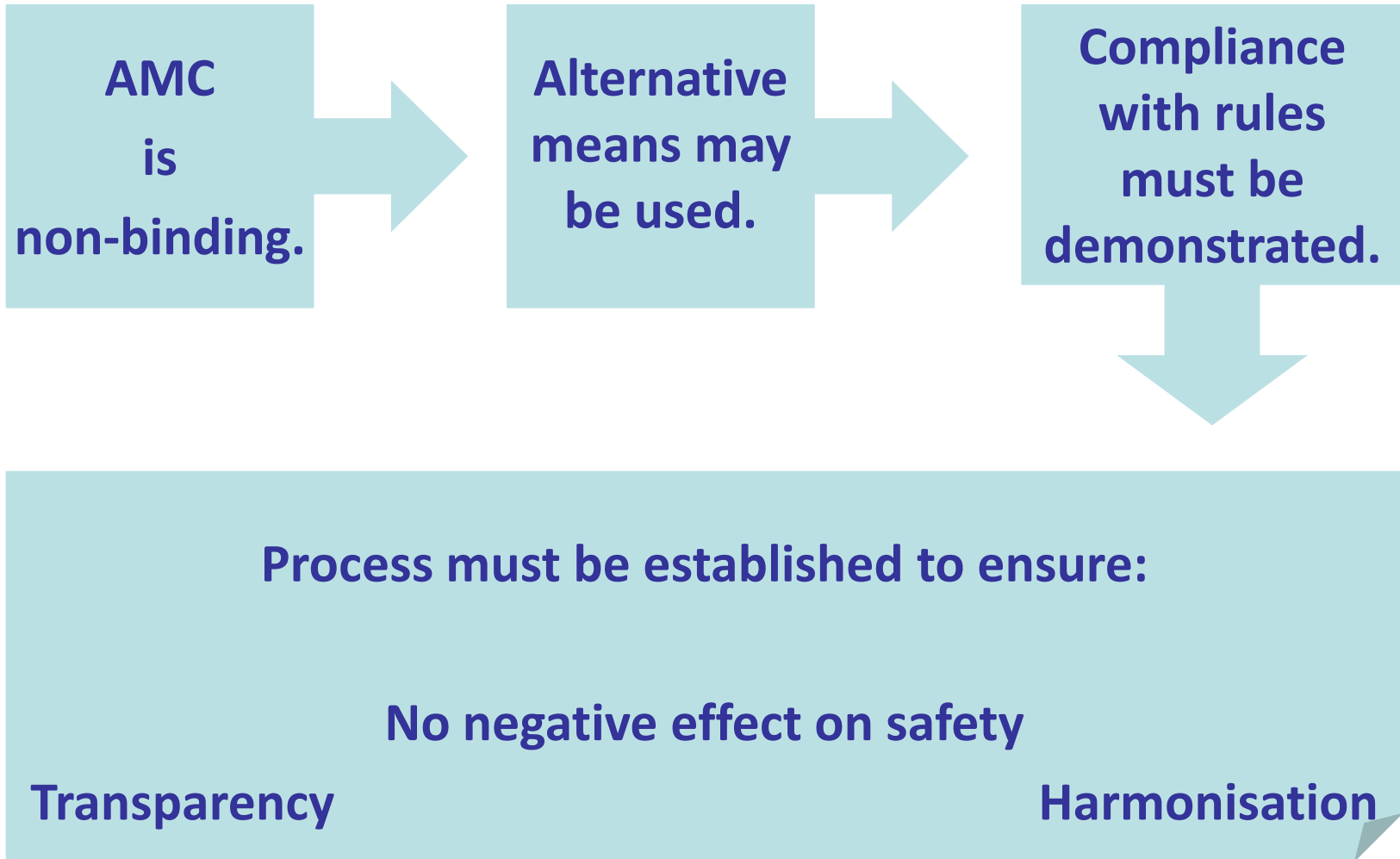


Alternative means of compliance

- **The use of AMC is not a new concept**
 - It was already used under the JAA
 - But a system of harmonised implementation was never established
- **During the drafting of the implementing measures for OPS & Air Crew it was clear that such a system was necessary**
 - To allow implementation of the performance based approach to rulemaking
 - Based on experience in the implementation of current EASA requirements
- **Embedded in Parts-ARO and Parts-ORO**



AltMOC: Principles





AltMOC: Principles

National Authority (NAA) needs a system in place to consistently evaluate the compliance of AltMOC with the rules;

- for AltMOC proposed by organisations,
- for AltMOC proposed by the NAA itself.



AltMOC: operator proposal

NAA evaluates proposed AltMOC by:

When AltMOC complies with the rule, NAA shall:

- Analysis of documentation provided and, if needed, by inspection.
- Notify applicant and change certificate, if needed.
- Notify the Agency of the content, including copies of relevant documents.
- Inform other MS.



AltMOC: NAA proposal

NAA proposes
AltMOC itself.

- Make it available to all organisations and persons under its oversight.
- Notifies the Agency;
 - Full description of the AltMOC, including any revisions to procedures.
- Demonstrate compliance with rules.



➤ **Agency receives notification from NAA.**

Standardisation

- Risk based approach.

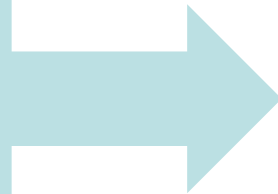
Rulemaking

- Recurrent task.
- Simplified procedure.



Agency receives notification from NAA.

Information
included in
database.



Quarterly review by
focal points in S & R



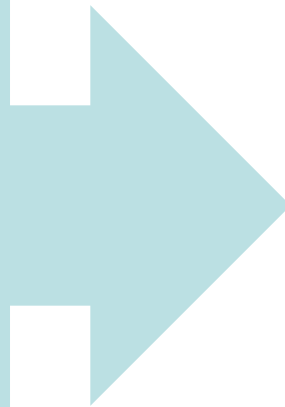
- Identification of significant AltMOC, requiring further assessment.
- Statistical report to S & R management.



AltMOC: Agency role

Significant
AltMOC
reviewed by
internal
experts:

- Compliance with rules.
- Regularity of procedure.



Input to S, for
use in
Standardisation.

Input to R, for
possible RM
task.



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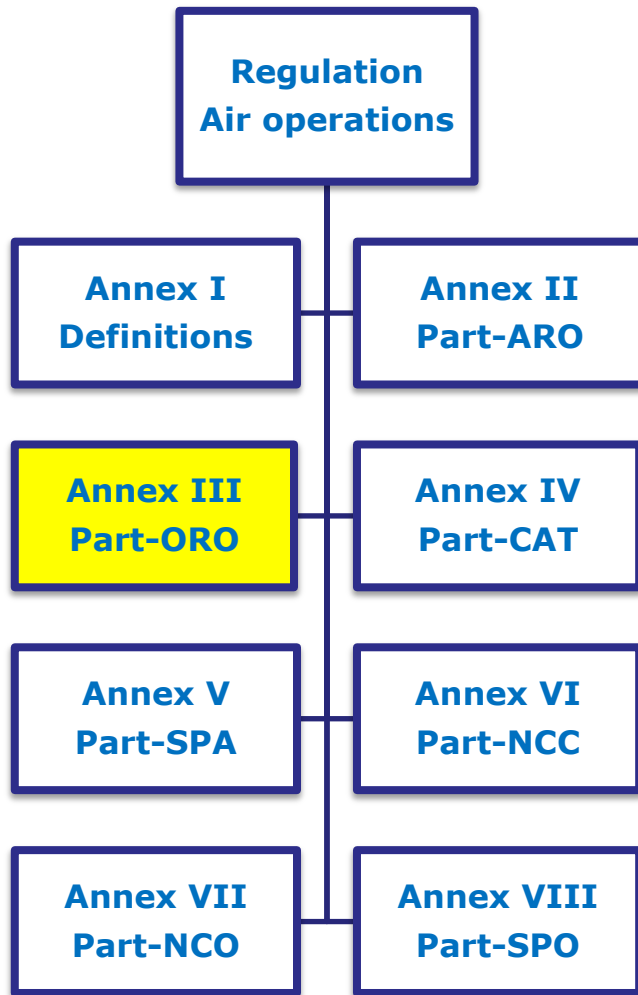
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Part-ORO

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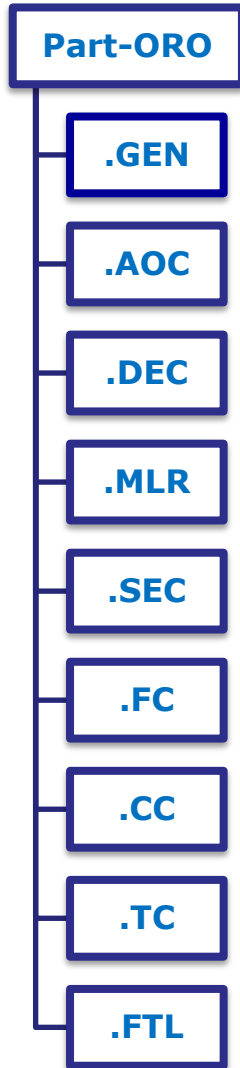


Annex III: Part-ORO



Applicability:

- **Organisation requirements for:**
 - » CAT operators
 - » NCC operators
 - » SPO operators
- » Commercial operations
- » Non-commercial operations with complex aircraft



.GEN – general requirements

.AOC – air operator certification

.DEC – declaration (added soon)

.MLR – manuals, logs, records

.SEC – security

.FC – flight crew

.CC – cabin crew

.TC – technical crew

.FTL – flight time limitations (added soon)



ORO.GEN – General requirements

Part-ORO	
.GEN	ORO.GEN.105
.AOC	
.DEC	
.MLR	
.SEC	
.FC	
.CC	
.TC	
.FTL	

	<u>Competent authority</u> <ul style="list-style-type: none">▪ Definition of principle place of business as Reg. (EC) No 1008/2008
ORO.GEN.130	<u>Changes to organisations</u> <ul style="list-style-type: none">▪ Prior approval for some major changes, see GM in ORO.GEN, e.g. changes to management system▪ Minor changes: procedure agreed with competent authority
ORO.GEN.200	<u>Management system</u> <ul style="list-style-type: none">▪ Implements ICAO standards on safety management systems (SMS)▪ Lists the elements that the organisations must address.▪ Safety concern for all personnel



ORO.GEN.200 : KEY POINTS

SMS is addressed as part of “Organisation Requirements – Management System”

Organisation requirements

- are compatible with existing management systems
- encourage integrated management
- provide proportionality (complex versus non-complex organisations)
- provide flexibility (details in AMC)

These organisation requirements set the standard for implementing SMS in the other areas within EASA’s remit.



Management System

most relevant IR: **ORO.GEN.200** (extract)

(a) An operator shall establish, implement and maintain a management system that includes:

- (1) clearly defined lines of **responsibility and accountability** throughout the organisation, including a direct safety accountability of the accountable manager;
- (2) a description of the overall philosophies and principles of the organisation with regard to safety, referred to as the **safety policy**;
- (3) the **identification of aviation safety hazards** entailed by the activities of the organisation, their **evaluation and the management of associated risks**, including taking **effective actions to mitigate the risk**;
- (4) maintaining **personnel trained and competent** to perform their tasks;
- (5) **documentation** of all management system key processes, including a process for making personnel aware of their responsibilities, and its amendment procedure;
- (6) a function to **monitor compliance of the organisation** with the relevant requirements. Compliance monitoring shall include a feedback system of findings to the accountable manager to **ensure effective implementation of corrective actions** as necessary.



SMS integrated approach





Integrated approach

SMS should not be implemented through an additional management system requirement superimposed onto the existing rules, but be fully integrated in the organisation's existing management system.



Safety management should include every facet of management that may impact aviation safety
(financial, operational, health and safety, etc...).



Safety, as well as compliance with rules, should be a concern for all personnel and for all activities of the organisation.



The management system shall correspond to the size of the organisation and the complexity of its activities, taking into account the hazards and associated risks inherent in these activities.

(see also ICAO Annex 6 Appendix 7)



How is this achieved?

different sets of AMCs for
“complex” and “non-complex”
organisations

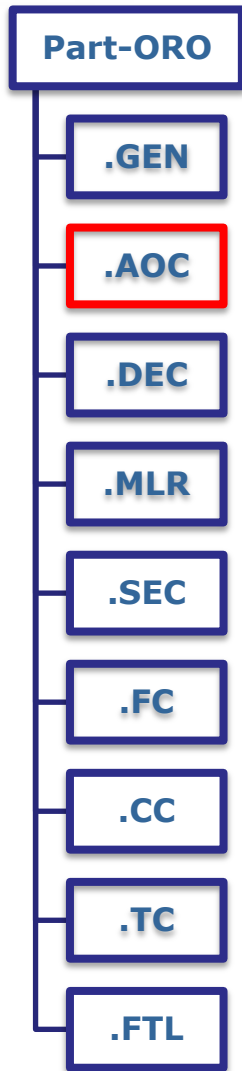
details of SMS implementation
are contained as AMC



- **Definition of organisational complexity - three criteria:**
 - Size, in terms of staffing
 - Complexity of the activities
 - » number of operating sites
 - » number and type of contractors
 - » ...
 - Risks involved
 - » type of operations, e.g. specialised operations (helicopter external sling load)
 - » type of aircraft
 - » operating environment (offshore)



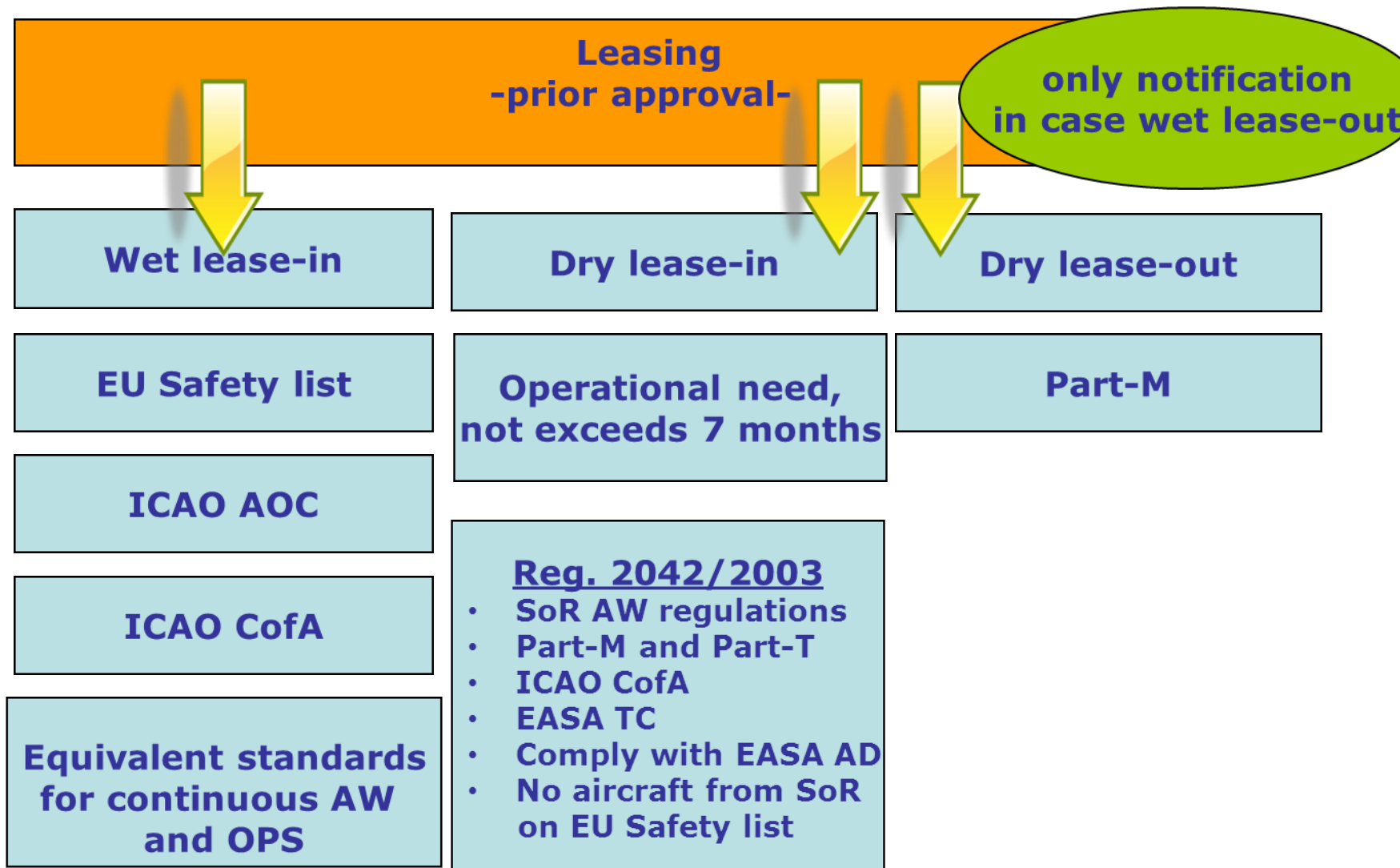
ORO.AOC – Air Operator certification



ORO.AOC.100	<u>Application for an AOC</u>
ORO.AOC.105	<u>OPS SPECS and privileges of an AOC holder</u>
ORO.AOC.110	<u>Leasing</u>
ORO.AOC.115	<u>Code-share</u>
ORO.AOC.120	Approvals to provide cabin crew training and to issue cabin crew attestations
ORO.AOC.125	Non-commercial operations of aircraft listed in the operations specifications by the holder of an AOC
ORO.AOC.130	Flight Data Monitoring - aeroplanes
ORO.AOC.135	Personnel requirements
ORO.AOC.140	Facility requirements
ORO.AOC.150	Documentation requirements



ORO.AOC - Leasing



only notification in case wet lease-out

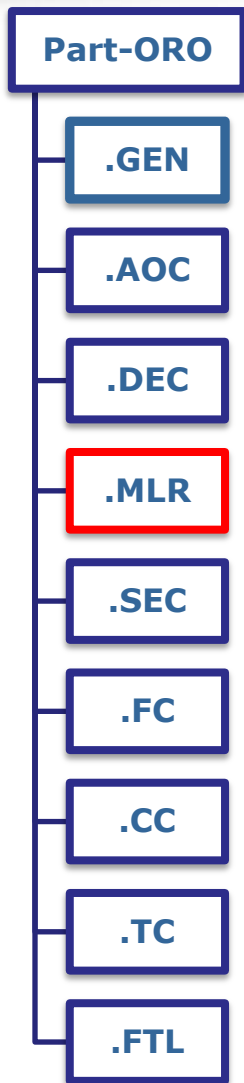


Non-commercial operations of aircraft listed in the operations specifications by the holder of an AOC

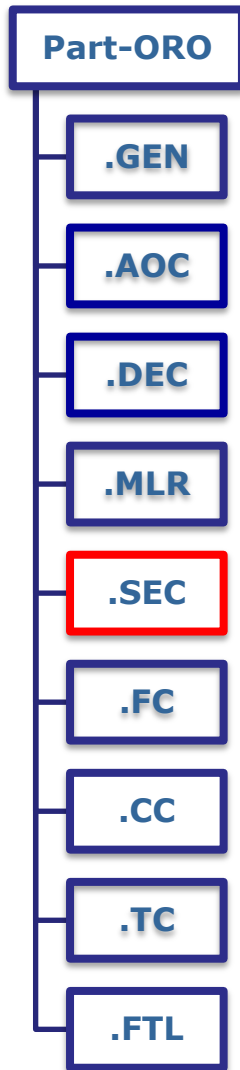
- » No declaration is needed
- » Identification of:
 - » the applicable requirements
 - » differences between operating procedures when used in commercial and non-commercial operations
- » Ensure that personnel are familiar with procedures
- » Prior approval



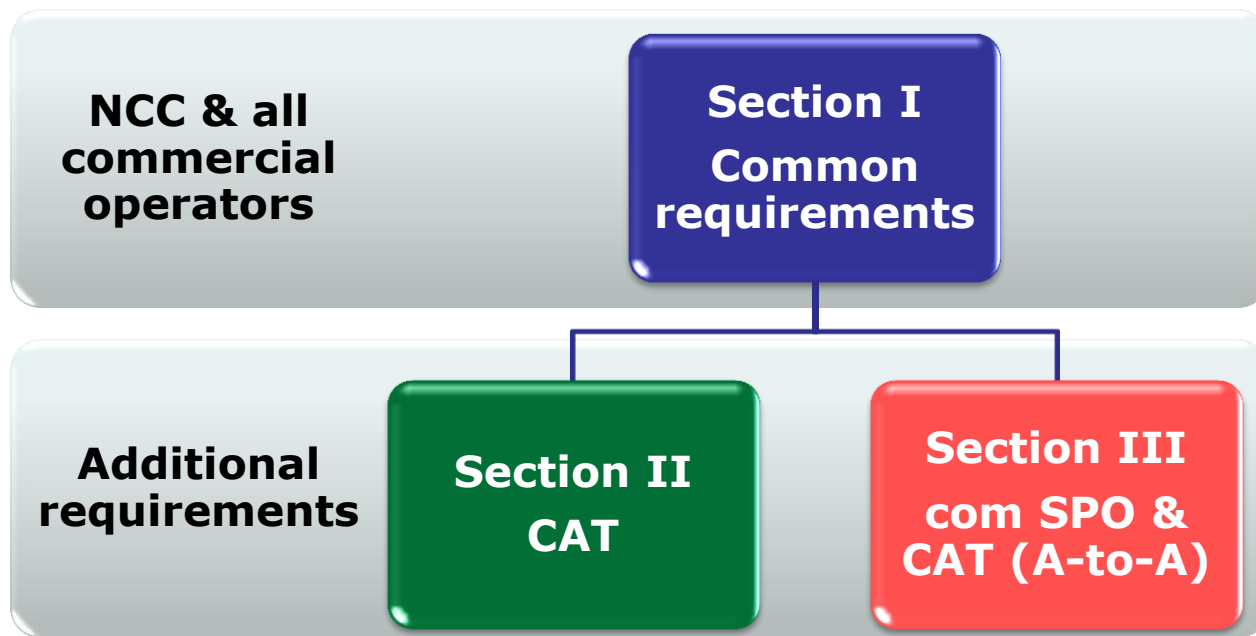
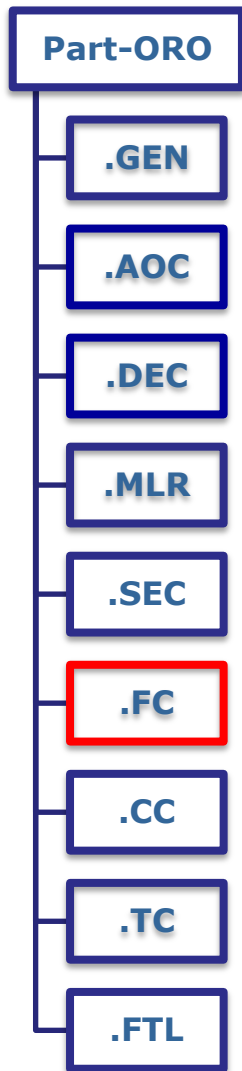
ORO.MLR - Manuals, Logs and Records



ORO.MLR.100	<u>Operations Manual- general</u> <ul style="list-style-type: none">Up to date & inform relevant personnel on changes to manual
ORO.MLR.101	<u>Structure of Manual for CAT</u> <ul style="list-style-type: none">Part A, B, C & D
ORO.MLR.105	<u>Minimum Equipment List</u> <ul style="list-style-type: none">Approved by competent authorityMEL based on MMEL resulting from the OSD
ORO.MLR.110	<u>Journey log</u>
ORO.MLR.115	<u>Record Keeping</u> <ul style="list-style-type: none">Management System information 5 yrsOperational information 3 yrs



- Only requirements on Flight Compartment Security are left
- The other former EU-OPS/JAR-OPS.3 requirements (Subpart S) are under the scope of Regulation 300/2008



NCC

**based on
ICAO
Annex 6**

**commercial
SPO and CAT
(A-to-A)**

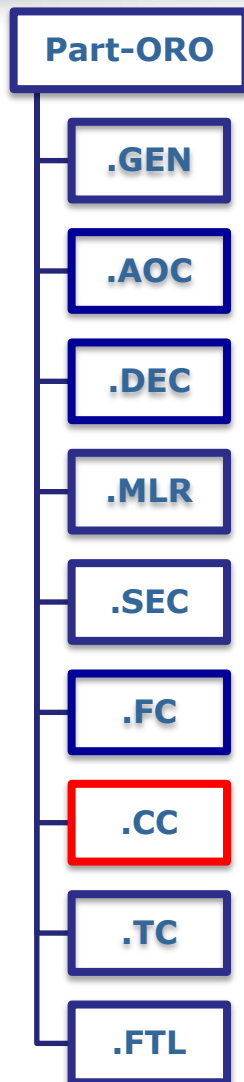
**in addition:
annual
proficiency
check**

CAT

**based on
EU-
OPS/JAR-
OPS 3**

➤ Highlights

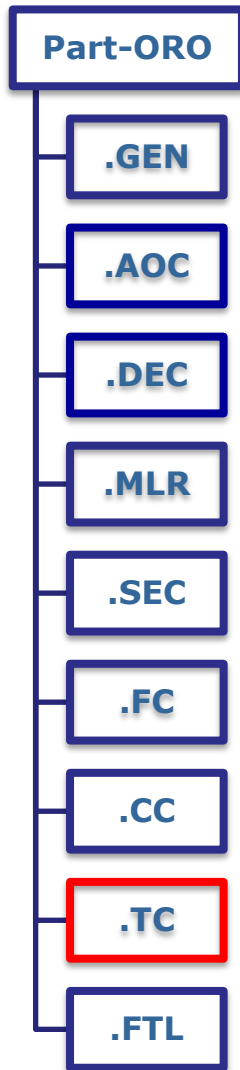
- CRM training for single pilot operations now mandatory (ORO.FC.115)
- Integration of Operational Suitability Data (OSD) (ORO.FC.145)
 - for operators to account for OSD standards and recommendations when developing their training programmes
- FSTD “user approval” for commercial operators:
 - FSTD shall replicate the aircraft, as far as possible
 - management of differences between FSTD and aircraft
 - management of changes to the FSTD



- Contains conversion and recurrent training
- Reference to Aircrew Regulation (290/2012) for initial training
- Integration of Operational Suitability Data (OSD) (ORO.CC.125)



ORO.TC – Technical Crew



.GEN – general requirements

.AOC – air operator certification

.DEC – declaration

.MLR – manual, logs, records

.SEC – security

.FC – flight crew

.CC – cabin crew

.TC – technical crew

.FTL – flight time limitations



➤ **Applicability:**

- technical crew members in commercial air transport HEMS, HHO, NVIS operations
- further experience and training requirements for HEMS, HHO and NVIS operations are contained in the specific Part-SPA subparts
- aerial work task specialists are included in Part-SPO

➤ **Main change compared to JAR-OPS 3: no limitation on number of types in IR anymore**

- operator to specify the maximum number of aircraft types in the OM, taking into account the specific operating environment, equipment, procedures



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09:00 – 09:45	Overview of OPS rules Cover Regulation
09:50 - 10:35	Part-ARO
10:35 - 11:00	break
11:00 - 11:45	Part-ORO
11:45 - 13:00	lunch break
13:00 - 14:00	Part-CAT
14:00 - 15:00	PART-SPA
15:00 - 15:30	break
15:30 - 16:00	Flight Time Limitations
16:00 - 16:30	Future Rulemaking developments



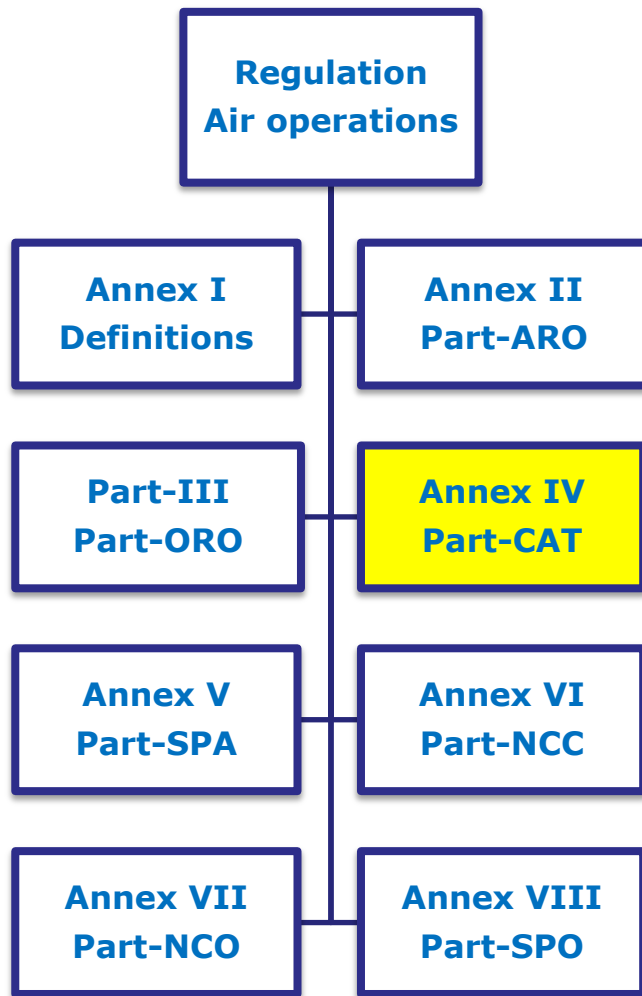
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Part-CAT

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Annex IV: Part-CAT

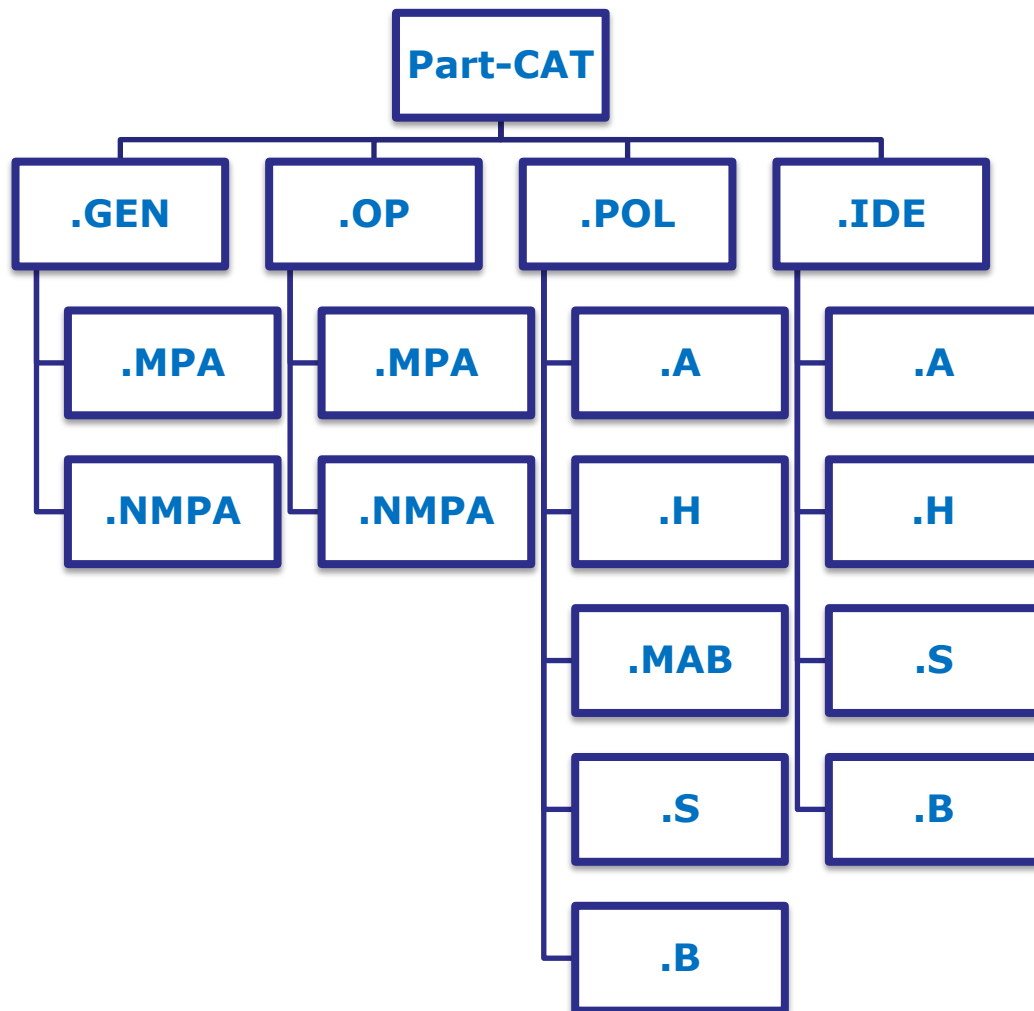


Applicability:

- Technical rules for CAT operations with;
 - Complex aircraft:
A, H
 - Non-complex aircraft:
A, H (S, B to be added soon)
 - A-to-A operations with A, H
(to be added soon)



Annex IV: Part-CAT



CAT – commercial air transport

.GEN – general requirements

.OP – operational procedures

.POL – performance and operating limitations

.IDE – instruments, data, equipment

.MPA – motor-powered aircraft

.NMPA – non-motor-powered aircraft

.A, .H, .S, .B - aeroplanes, helicopters, sailplanes, balloons

.MAB – mass and balance



Key issues

- ▶ Part structured into **aircraft-specific sections/chapters**.
- ▶ Part could be easily amended in the future for other aircraft categories, e.g. tilt rotor aircraft, airships, remotely piloted aircraft systems.
- ▶ Rule text aligned with the content of;
 - » EU-OPS and Section 1 of JAR-OPS 3,
 - » section 2 material of JAR-OPS 1 and JAR-OPS 3.
- ▶ Improved balance between Implementing Rules and AMC/GM.
- ▶ EU-OPS/JAR-OPS 3 text has been given precedence over ICAO SARPs.



➤ **Crew responsibilities**

- CAT.GEN.MPA.100 – 1/3.085(a), (b), (c), (d)
- Includes rules for crew undertaking duties for more than one operator

➤ **Portable electronic devices**

- AMC 1 CAT.GEN.MPA.140
- Transposing and amending parts of TGL29:
 - new approach to risk assessment
 - general allowance for Bluetooth is removed
 - definition for switched-off status added
 - criteria for demonstrating that radiation levels are tolerable to the aircraft systems added



- **Documents, manuals and information to be carried**
 - CAT.GEN.MPA.180 – 1/3.050, 1/3.125, 1/3.130, 1/3.135
 - extends the use of electronic documents
 - clarifies which documents need to be original: CoR, CoA, radio licence
 - copy of the AOC to be a certified true copy
 - journey log to be carried
 - alleviations for A-to-A and local operations
- **Preservation, production and use of flight recorder recordings**
 - CAT.GEN.MPA.195 – 1/3.160
 - rule updated with recent ICAO amendments



➤ **Transport of dangerous goods**

- CAT.GEN.MPA.200 – 1/3.1160, 1/3.1165
- CAT.GEN address the circumstances under which DG might be carried without holding an SPA.DG approval
- Dynamic reference to T.I. Extracts from the T.I. are not repeated except those specifying certain operator responsibilities



➤ **Aerodrome operating minima**

- CAT.OP.MPA.110 – 1/3.225, 1/3.430, Appendix 1 to 1/3.430
- Part-CAT contains the operator requirement to establish aerodrome operating minima
- The associated AMC material contains the detailed rules for take-off (except LVTO), NPA, APVs, CAT I and circling operations
- All rules below related to LVTO and operations below CAT I minima are prescribed in SPA.LVO
- System minima tables have been amended with operations using GNSS facilities
- Airborne radar approaches (ARAs) for overwater operations do not need a prior authorisation



➤ **Fuel policy**

- CAT.OP.MPA.150 - 1/3.255
- The fuel policy and any change to it require a prior approval by the competent authority

➤ **Carriage of special categories of passengers (SCPs)**

- CAT.OP.MPA.155 - 1/3.260, 1/3.265
- Redrafted taking into account Regulation (EC) No 1107/2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air



- **Ground proximity detection
TERRAIN AWARENESS WARNING SYSTEM (TAWS)
FLIGHT CREW TRAINING PROGRAMMES**
 - CAT.OP.MPA.290 – 1.665
 - A GM Transposes with minor amendments the content of JAA TGL 27

- **Use of airborne collision avoidance system (ACAS)**
 - CAT.OP.MPA.295 – 1/3.398
 - The operator shall establish operational procedures and training programmes; the IR links to AUR.ACAS, Commission Regulation (EU) No 1332/2011
 - Technical details on the training programme are given at GM level



➤ **Commencement and continuation of approach**

➤ CAT.OP.MPA.305 – 1/3.405

➤ The outer marker is replaced by 1 000 ft; additional rule for approaches where the DH/MDH is above 1 000 ft of the aerodrome height.

➤ A new AMC summarizes the specifications for visual references for different approach operations.

➤ The rule sources for this AMC are the specifications for visual references contained in Appendix 1 OPS 1/3.430.

➤ The text for EVS has been amended to align with SPA.LVO.110(c)

➤ **Scope**

- Performance and operating limitations (POL) for CAT operations with A & H
- Containing all performance requirements, including specific approvals (except HEMS and HHO)

➤ **CAT.POL consists of 4 Chapters following EU-OPS / JAR-OPS 3 structure**

- Chapter 1 – General requirements
- Chapter 2 – Performance class 1
 - Appendix 1 to JAR-OPS 3.005(i) – Public Interest Site
- Chapter 3 – Performance class 2
 - Appendix 1 to JAR-OPS 3.517(a) – Operations without an assured safe forced landing capability
- Chapter 4 – Performance class 3
 - Appendix 1 to JAR-OPS 3.005(e) – Mountain and remote areas in Performance class 3

➤ **Scope**

- Performance and operating limitations (POL) for CAT operations with A & H
- Containing all performance requirements, including prior approvals (except HEMS and HHO)
- **CAT.POL consists of 4 Chapters following EU-OPS / JAR-OPS 3 structured according to performance classes for aeroplanes and helicopters**

chapter	Aeroplanes	Helicopters
1	General requirements	General requirements
2	PC A	PC 1
3	PC B	PC 2
4	PC C	PC 3



- **Main changes are for Helicopters**

- **CAT.POL consists of 4 Chapters following EU-OPS / JAR-OPS 3 structure**
 - Chapter 1 – General requirements
 - Chapter 2 – Performance class 1
 - Appendix 1 to JAR-OPS 3.005(i) – Public Interest Site
 - Chapter 3 – Performance class 2
 - Appendix 1 to JAR-OPS 3.517(a) – Operations without an assured safe forced landing capability
 - Chapter 4 – Performance class 3
 - Appendix 1 to JAR-OPS 3.005(e) – Mountain and remote areas in Performance class 3



➤ **Chapter 1 – General requirements**

➤ Small changes, to better differentiate between the objective and method of compliance

➤ Definitions

➤ aligned with CS definitions, and updated since EASA is the authority responsible for the TC

➤ Several are deleted, as they have become obsolete as a result of definitions used in the Basic Regulation

➤ CAT.POL.H.110 – obstacle accountability



➤ **Chapter 2 – Performance class 1**

- Small changes, to delete duplication

➤ **Chapter 3 – Performance class 2**

- Already mentioned before

- the 'set of conditions' to be implemented to operate without an assured safe forced landing capability is spelled out and no longer explained in an AMC
- New GM addressing FADEC for the purpose of recording the required engine parameters



➤ **Chapter 4 – Performance class 3**

- CAT.POL.H.420 – helicopter operations over a hostile environment located outside a congested area
 - Redrafted following the outcome of discussions in the EASA committee
 - Approval can only be given following a safety risk assessment by the operator
 - Elements to be considered in this safety risk assessment are now included in a new AMC
 - An example of a safety risk assessment is provided in new GM
- Current text agreed with the Commission



➤ **Prior approvals**

- CAT.POL.H.225 – Helicopter operations to/from a Public Interest Site
 - CAT.POL.H.420 – Helicopter operations over a hostile environment located outside a congested area
-
- **The obligation for obtaining a prior approval of the authority of the State in which it is intended to conduct these operations has been changed into the obligation to obtain an endorsement.**
 - In cases where that authority is not the same as the authority issuing the AOC.



➤ **Prior approvals**

➤ CAT.POL.H.225 – Helicopter operations to/from a Public Interest Site

➤ Changes have been made to reflect EASA competence

- Aerodromes, including equipment, located in the territory subject to the provisions of the Treaty, open to public use and which serve commercial air transport and where operations using instrument approach or departure procedures are provided, and:

- (a) have a paved runway of 800 m or above; or

- (b) exclusively serve helicopters;

shall comply with this Regulation. Personnel and organisations involved in the operation of these aerodromes shall comply with this Regulation.

➤ EASA can therefore not mandate a site improvement programme for hospital sites

- EASA will endeavour to make Member States aware of this necessity by promoting its inclusion in the SSP of the Member States and investigate the inclusion in the EASP/EASp.

➤ **Scope and content**

- CAT.POL.MAB consists of two chapters:
 - Chapter 1 – motor-powered aircraft
 - Chapter 2 – other-than motor-powered aircraft

- Unlike the rest of Subpart POL, where the performance requirements are broken down into aircraft-specific sections, mass and balance requirements were kept together, since only a few differences exist between aeroplanes and helicopters.



➤ **Scope and content of CAT.POL.MAB (cont.)**

- Only two implementing rules in the final version:
 - **CAT.POL.MAB.100** Mass and balance, loading
 - **CAT.POL.MAB.105** Mass and balance data and documentation
- Appendices are transposed at AMC level
- Some further changes have been introduced after the public consultation of the NPA and the CRD



➤ **Differences to EU-OPS / JAR-OPS 3**

➤ Appendix 1 to 1/3.605 and related IEM

➤ 1/3.607 - Terminology

➤ 1/3.620 and Appendices:

➤ **Approval for alternative standard masses
(AMC1 CAT.POL.MAB.100(e))**

➤ **Additional criteria for the approval of standard masses for load
items other than passengers and baggage
(CAT.POL.MAB.100 (f))**



- **Differences to EU-OPS / JAR-OPS 3**
 - 1/3.625 and Appendixes
 - Mass and balance computer systems
(CAT.POL.MAB.105(e) / GM1 & GM2 CAT.POL.MAB.105(e))
 - Electronic signature (AMC1 CAT.POL.MAB.105(c))



➤ **Scope and content**

- Implementing Essential Requirements for air operations referred to in Article 8 of EC 216/2008 Annex IV:

- *5. Instruments, data and equipment*

- *5.a Equipment necessary for the intended flight*
 - *5.b Safety, medical, evacuation and survival equipment*
 - *5.c Data necessary for the execution of the flight*

while preserving as much as possible existing standards (EU-OPS/JAR-OPS 3 subpart K, L & related Section 2 material), ensuring compliance with ICAO SARPs and taking into account certain JAA NPAs.

- Subpart IDE consists of four sections addressing different aircraft categories.

➤ **Scope and content of CAT.IDE (cont.)**

- The rule sequence is aligned as much as possible with EU-OPS/JAR-OPS 3 Subparts K and L respectively.
- Equipment and instruments specifications are, as far as possible, given at AMC level, being performance objectives set at IR level. This approach, while ensuring flexibility, will also facilitate the development of alternative AMCs in the future.
- Proportionality is ensured using criteria of Mass, Passenger seating configuration (MOPSC) or date of first issue of the CofA in order to define the applicability of certain requirements.

➤ Differences to EU-OPS / JAR-OPS 3

➤ Approval of instruments and equipment

- The approval requirements on the instruments and equipment required by **CAT.IDE.A/H.100** have been drafted with regard to Part-21. Additional provisions have been added to ensure that instruments and equipment not required by Part-CAT, that do not need to be approved in accordance with Part-21, are not used for safety functions and do not affect airworthiness.

➤ MEL

- The former content of OPS 1/3.030 is transposed in Subpart IDE (**CAT.IDE.A/H.105**)

➤ TAWS for aeroplanes

- Requirement updated (**CAT.IDE.A.150**) in line with JAA NPA-OPS 39

➤ Differences to EU-OPS / JAR-OPS 3 (cont.)

➤ Cockpit voice & flight data recorders

- These requirements (**CAT.IDE.A/H.185 &190**) have been revised in accordance with the latest developments of ICAO Annex 6 and EUROCAE standards taking into account certain JAA NPAs.
- Relevant AMCs and GMs have been developed

➤ Data link recording

- A requirement for recording of data link communications (**CAT.IDE.A/H.195**) is added in accordance with ICAO Annex 6
- The date for mandating data link communication recording ideally should be as soon as data link is used for essential VHF communications, but many comments requested sufficient notice to avoid costly retrofit. It is proposed to mandate two years after the OPS Regulation enters into force, i.e. 2014.
- Relevant AMCs and GMs have been developed



➤ **Restraint systems**

- The requirements on upper torso restraint (UTR) systems (**CAT.IDE.A/H.205**) have been updated.

➤ **Oxygen**

- The alleviation for oxygen requirements for pilots (**CAT.IDE.A/H.240**) is kept, as originally given in JAR-OPS 3, for other-than-complex helicopters operated between 10 000 ft and 13 000 ft for a period up to 30 minutes, after comments to the CRD. Further exemptions for short incursions between 13 000 ft and 16 000ft, originally foreseen by JAR-OPS 3 under a specific approval of the authority will have to be handled through Article 14 of the Basic Regulation. These further exemptions are not in line with ICAO SARPs and to be approved should be based on specific mitigating measures (e.g. operator's experience, pilot's physiological adaptation to certain altitudes. Furthermore, they would usually be achievable only in certain regions (i.e. mountainous areas).

➤ **First-aid kits (FAK)**

- This requirement (**CAT.IDE.H.220**) has been updated with regards to maintenance and replenishment of the kit after use and especially with regards to the content to comply with the latest ICAO developments and to take into account a JAA NPA.

➤ **Emergency Medical Kit (EMK)**

- Same changes for maintenance and replenishment of the kit
- Content revised in line with latest ICAO developments
- Defibrillators included based on risk assessemnt



➤ Fire extinguishers

- The provision mandating the use of Halon have been removed to comply with Regulation (EC) No 1005/2009 that forbids its use. The new rule (**CAT.IDE.A/H.250**) contains a general safety objective on the efficiency of the fire extinguishing agent. In order to allow a smooth transition from Halon to new extinguishing agents.

➤ Emergency lighting and marking for H

- Requirements on emergency exit markings visibility are clarified and regrouped in the same rule (**CAT.IDE.H.275**) for large helicopters and helicopters operated overwater under certain conditions.



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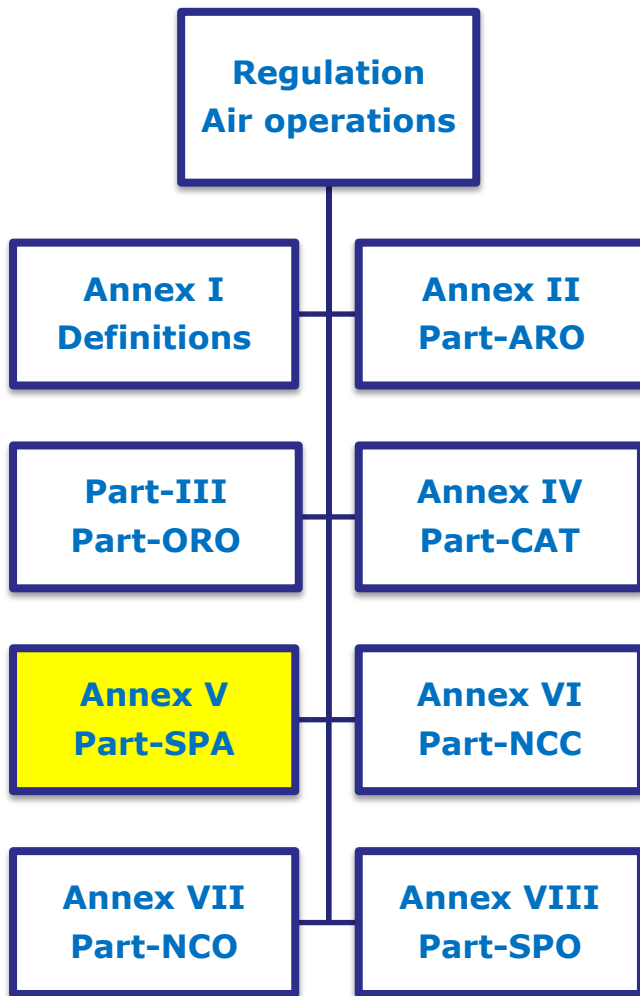
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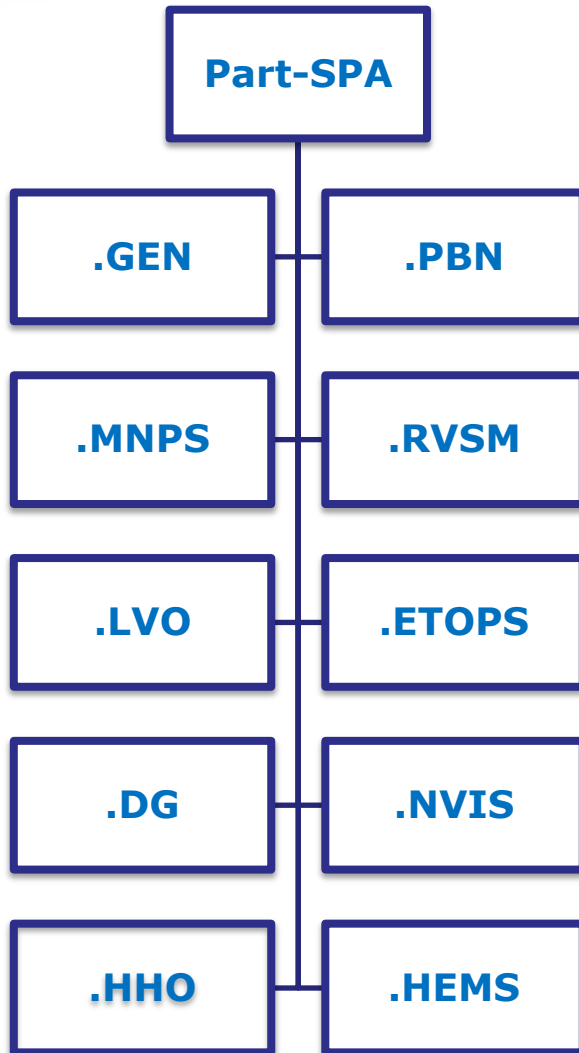


Annex V: Part-SPA



Applicability:

- Operators wishing to conduct an operation requiring a specific approval.
- To be documented in;
 - OPSPECS for certified operators,
 - list of specific approvals for non-certified operators.



- **.GEN** – general requirements.
- **.PBN** – performance based navigation
- **.MNPS** – minimum navigation performance specifications.
- **.RVSM** – reduced vertical separation minima.
- **.LVO** – low visibility operations.
- **.ETOPS** – extended range operations with two-engined aeroplanes.
- **.DG** – dangerous goods.
- **.NVIS** – night vision imaging systems.
- **.HHO** – helicopter hoist operations.
- **.HEMS** – helicopter emergency medical services.

SPA.GEN.100 Competent authority

For commercial operations;

- » operator's principal place of business.

For non-commercial operations;

- » place where the operator is established or residing,
- » when using an aircraft registered in a third country, the approvals for PBN, MNSP, RVSM may be issued by the third country State of Registry.

SPA.GEN.110

- Documentation of specific approvals
 - for commercial operations:
“operations specifications” (OPSPECS)
 - for non-commercial operations:
“list of specific approvals”
- The corresponding authority requirements are specified in Part-ARO including the forms for
 - OPSPECS and
 - list of specific approvals

Each Subpart contains provisions for:

- » Type of operation / applicability
- » Operational approval
- » Technical requirements

Changes to EU-OPS and JAR-OPS 3:

- » Extensive re-balancing between implementing rules and AMCs

➤ Overview of operations and reference documents

	EASA AMC	Other documents
RNAV 10	AMC 20-12	FAA order 8400.12a
RNAV 5 (B-RNAV) (approval not required)	AMC 20-4	TGL 2
RNAV2 (non-European)	To be developed	
RNAV 1 (~P-RNAV)	To be developed	TGL10
RNP 4	To be developed	ICAO DOC 9613
BASIC-RNP 1	To be developed	ICAO DOC 9613
RNP APCH (LNAV)	AMC 20-27	ICAO DOC 9613
RNP APCH (LNAV/VNAV)	AMC 20-27	ICAO DOC 9613
RNP APCH (LPV)	AMC 20-28	
RNP AR APCH	AMC 20-26	



- **No significant content changes for MNPS**
- **Applicability generally extended to aircraft other than aeroplanes**

- **Transposition of JAA TGL 6 on height keeping errors for RVSM**
- **Applicability generally extended to aircraft other than aeroplanes**

➤ **Sources:**

- OPS 1/3.430
- Appendix 1 to OPS 1/3.430
- Related Section 2 material

➤ **Containing:**

- LVTO
- LTS CAT I
- CAT II
- OTS CAT II
- CAT III
- approach operation utilising EVS for which an operational credit on RVR minima is applied



➤ **Operating minima**

- Lowest minima are defined in Annex I – Definitions
- LVO-related rules transposed in Part-SPA
- Non-LVO related rules transposed in CAT.OP.110
- Relevant provisions of Appendix 1 to OPS 1/3.430 moved to AMC

➤ **Harmonisation with FAA provisions**

- For LVTO: RVR minima depending on aerodrome lighting facilities
- For failed or downgraded equipment: effect on operating minima

➤ **LVTO**

- Approval required for take-off with an RVR <400m
- For LVTO with RVR $150\text{m} < x < 400\text{m}$ training programme required
- For LVTO with RVR <150m additional conditions

➤ **EVS / OTS CAT II**

- Amendments with safety justifications
- Operations with call-outs below 200ft the terrain ahead of the runway threshold should be surveyed

➤ **LVP**

- Required for all LVO
- New subparagraph added to clarify the application of the requirement where the term LVP is not used



➤ **Key issues**

- Essential points of AMC 20-6 are specified at IR level (SPA.ETOPS.105)
 - Approval for engine/type combination
 - Training programme
 - Operators' organisation and experience
 - Operating procedures
- Alignment with ICAO Annex 6 for specification of en-route ETOPS alternates in the operational flight plan and ATS flight plan

➤ **Changes to EU-OPS / JAR-OPS 3**

- Dynamic reference to the ICAO Technical Instructions (T.I.)
- SPA.DG is shorter than Subpart R
- Extracts from the T.I. are not repeated
- Remind: CAT.GEN address the circumstances under which DG might be carried without holding an SPA.DG approval

➤ **Transposition of:**

- JAR-OPS 3.005 (j)

➤ **Inclusion of:**

- JAA TGL-34

➤ **Changes:**

- Deletion of all reference to covert operations
 - References to IR lights/capability

➤ **Only applicable to CAT(H)**

- EASA (and rulemaking group) has no knowledge of NVIS operations outside CAT (within the remit)
 - Therefore no expertise for determining what proportionate rules may be for other than CAT operations

➤ **Transposition of:**

- JAR-OPS 3.005 (h)
- Appendix 1 to JAR-OPS 3.005(h)
- All related AMC, ACJ and IEM

➤ **Inclusion of:**

- JAA NPA-OPS 69, as AMC

➤ **Changes:**

- Based on comments received
 - Communication requirements
- To better differentiate between the objective and method of compliance:
 - Training objectives, versus methods of compliance with respect to detailed items to be included in the training programme

➤ **Transposition of:**

- JAR-OPS 3.005 (d)
- Appendix 1 to JAR-OPS 3.005(d)
- All related AMC, ACJ and IEM

➤ **Inclusion of:**

- JAA HSST Working Paper HSST-WP-07-03.4
- New rule on fuel policy
- New/amended AMC and GM material to better explain the rule, based on comments received, e.g.:
 - Explain 'to afford every assistance' in training ground emergency service personnel
 - Possibility to train a Medical Passenger, rather than briefing before every flight
 - Provide guidance in determining when 2 pilots should be required



➤ **Changes:**

- To better differentiate between the objective and method of compliance:
 - Training objectives, versus methods of compliance with respect to detailed items to be included in the training programme
 - Primary and secondary task of a HEMS technical crew member
- To address the remit of EASA
 - Reference to SAR deleted



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Flight Time Limitations

Opinion 04/2012 on flight and duty time limitations and rest requirements (FTL) for commercial air transport (CAT) with aeroplanes and other FTL rulemaking tasks.

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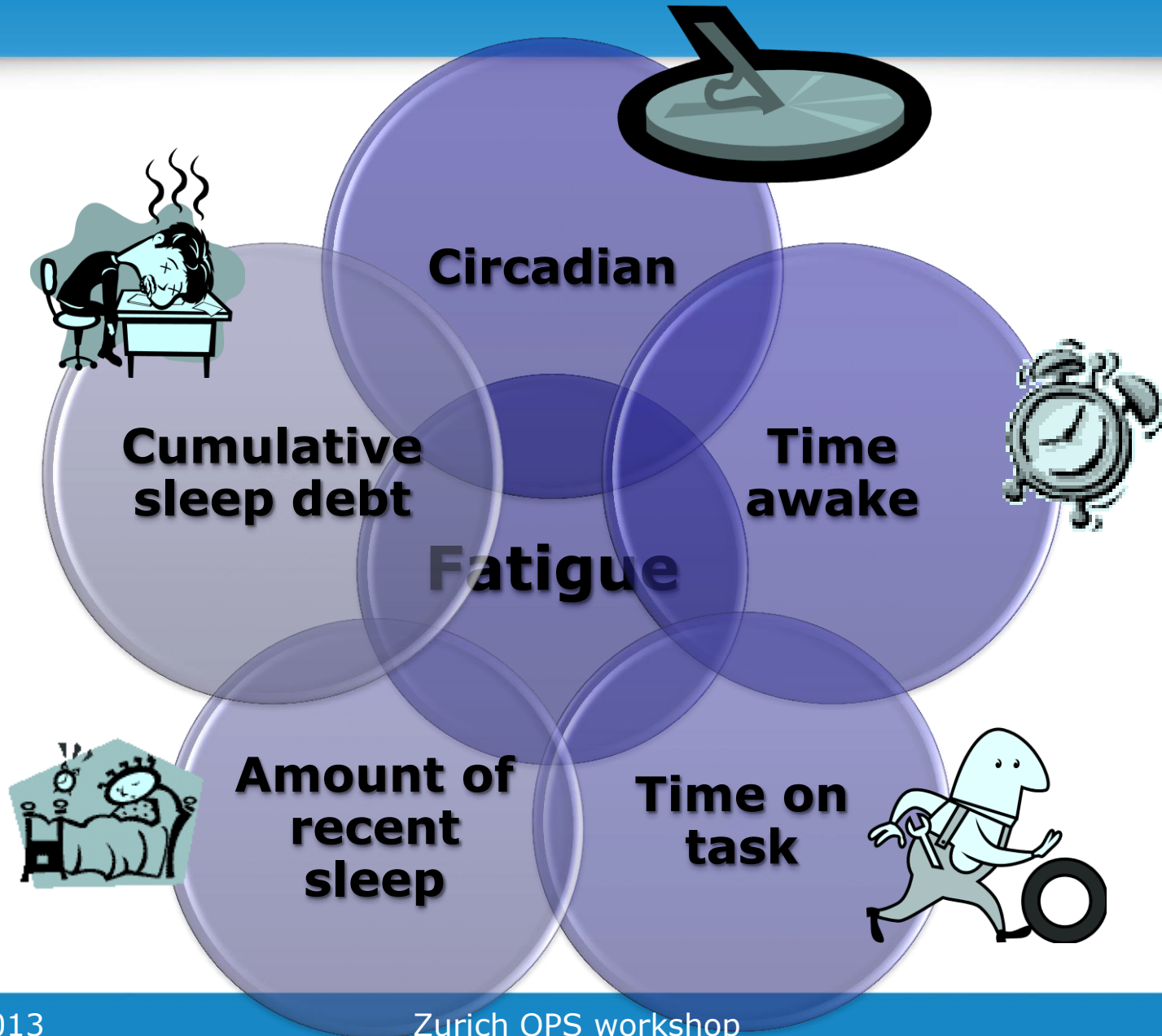


“My mind clicks on and off...I try letting one eyelid close at a time while I prop the other open with my will. But the effort’s too much. Sleep is winning. My whole body argues dully that nothing, nothing life can attain, is quite so desirable as sleep.”

- Charles Lindbergh, describing the fatigue that struck him
- nine hours into his 33-hour solo Atlantic crossing.



Fatigue Factors





...regulations shall be based upon scientific principles and knowledge,...



...rules based on scientific knowledge and best practices...



...taking into account the latest scientific and technical evidence...



FTL – Background

•Present

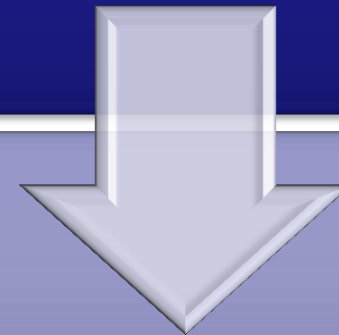
Regulation 1899/2006 (EU-OPS)

- Recital 7: Non-regression clause
- Recital 11: MS may apply more stringent FTL
- Art. 8(4): Areas not covered by Subpart Q

Regulation 216/2008 (Basic Regulation) Art. 22(2):

- EASA shall issue **Certification Specifications** and **Implementing Rules** including substantive Subpart Q provisions

•Future





FTL – EU OPS national rules (Art. 8(4))

OPS 1.1105 point 6 – extended FDP (**split duty**);

OPS 1.1110 point 1.3 rest compensating **time zone differences**;

OPS 1.1110 point 1.4.1 –**reduced rest** arrangements;

OPS 1.1115 – extension of flight duty period due to **in-flight rest**; and

OPS 1.1125 point 2.1 – other forms of **standby**.

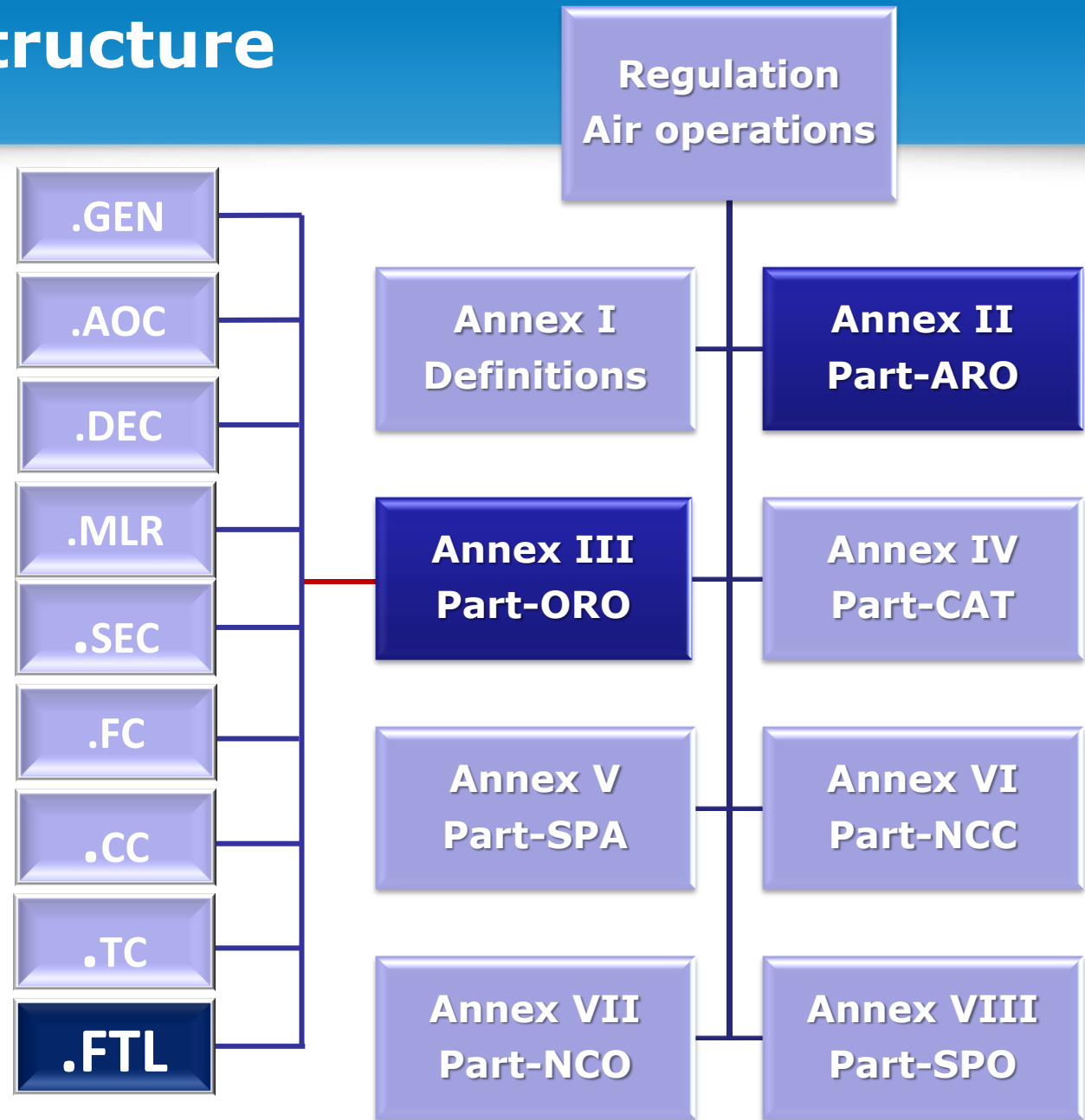


**Core FTL
elements in
IR, based on
Subpart Q**

**Art. 8
provisions in
CS, based on
MS & industry
best practices**

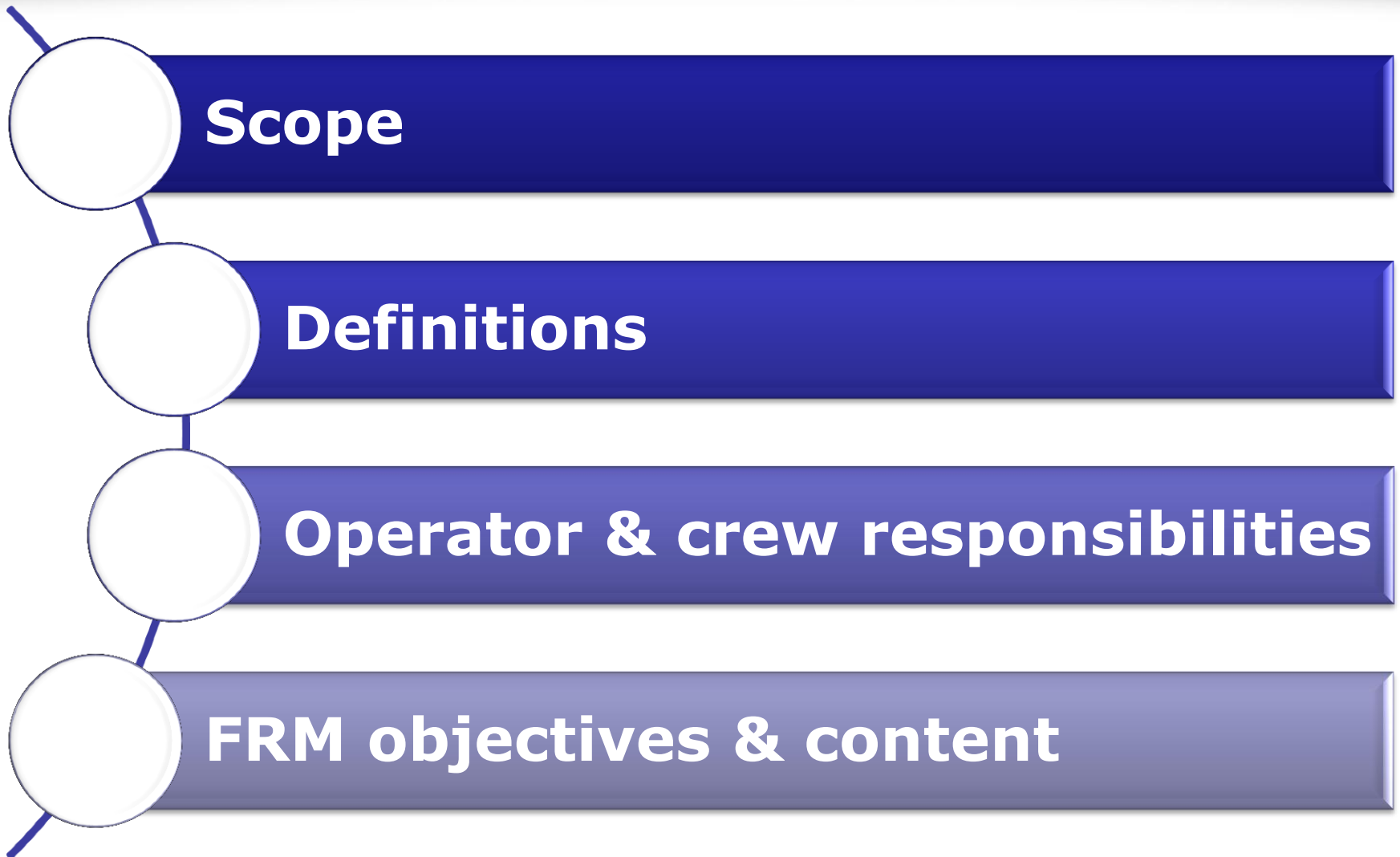


FTL - Structure





FTL – Section 1





Technical requirements

Section 1 – Definitions (1)

Acclimatised

- ✓ Reference time for 48 hours after departure
- ✓ Afterwards 'un-known state of acclimatisation'
- ✓ Acclimatisation depends on how many TZ have been crossed and the time elapsed since reporting

Reference time

- ✓ To allow for operations based on local time for crew members with home bases in neighbouring time zones



Technical requirements

Section 1 – Definitions (2)

Accommodation

✓ **Used for airport standby and split duty**

Suitable accommodation

✓ **Used for split duty and back-to-back operation**

Rest facility

✓ **Criteria & objectives for in-flight rest facilities**

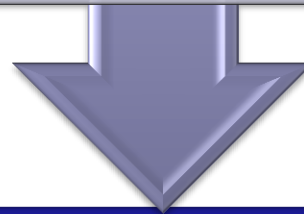


Fatigue risk management

Compliant with ICAO

Integrated in management system

Mandatory only for certain provisions



Fatigue management training

In Section 2

Mandatory for CAT operators



Home base

FDP

Without extensions

Different reporting times for Cabin Crew

Conditions for FDP extensions

Cumulative limits

Standby

Rest periods

Nutrition

Record keeping



Technical requirements

Section 2 – FDP

Start of FDP	1-2 Sectors	3 Sectors	4 Sectors	5 Sectors	6 Sectors	7 Sectors	8 Sectors	9 Sectors	10 Sectors
0600-1329	13:00	12:30	12:00	11:30	11:00	10:30	10:00	09:30	09:00
1330-1359	12:45	12:15	11:45	11:15	10:45	10:15	09:45	09:15	09:00
1400-1429	12:30	12:00	11:30	11:00	10:30	10:00	09:30	09:00	09:00
1430-1459	12:15	11:45	11:15	10:45	10:15	09:45	09:15	09:00	09:00
1500-1529	12:00	11:30	11:00	10:30	10:00	09:30	09:00	09:00	09:00
1530-1559	11:45	11:15	10:45	10:15	09:45	09:15	09:00	09:00	09:00
1600-1629	11:30	11:00	10:30	10:00	09:30	09:00	09:00	09:00	09:00
1630-1659	11:15	10:45	10:15	09:45	09:15	09:00	09:00	09:00	09:00
1700-0459	11:00	10:30	10:00	09:30	09:00	09:00	09:00	09:00	09:00
0500-0514	12:00	11:30	11:00	10:30	10:00	09:30	09:00	09:00	09:00
0515-0529	12:15	11:45	11:15	10:45	10:15	09:45	09:15	09:00	09:00
0530-0544	12:30	12:00	11:30	11:00	10:30	10:00	09:30	09:00	09:00
0545-0559	12:45	12:15	11:45	11:15	10:45	10:15	09:45	09:15	09:00

• Consecutive night duties are limited to 4 sectors

• 'Night duties' of ≥ 10 hours should be managed

•CS

•AMC

Technical requirements

Section 2 – FDP extensions

CS

Start of FDP	1–2 sectors	3 sectors	4 sectors	5 sectors
0600–0614	Not allowed	Not allowed	Not allowed	Not allowed
0615–0629	13:15	12:45	12:15	11:45
0630–0644	13:30	13:00	12:30	12:00
0645–0659	13:45	13:15	12:45	12:15
0700–1329	14:00	13:30	13:00	12:30
1330–1359	13:45	13:15	12:45	12:15
1400–1429	13:30	13:00	12:30	12:00
1430–1459	13:15	12:45	12:15	Not allowed
1500–1529	13:00	12:30	12:00	Not allowed
1530–1559	12:45	12:15	11:45	Not allowed
1600–1629	12:30	12:00	11:30	Not allowed
1630–1659	12:15	Not allowed	Not allowed	Not allowed
1700–1729	12:00	Not allowed	Not allowed	Not allowed
1730–1759	11:45	Not allowed	Not allowed	Not allowed
1800–1829	11:30	Not allowed	Not allowed	Not allowed
1830–1859	11:15	Not allowed	Not allowed	Not allowed
1900–0359	Not allowed	Not allowed	Not allowed	Not allowed
0400–0414	Not allowed	Not allowed	Not allowed	Not allowed
0415–0429	Not allowed	Not allowed	Not allowed	Not allowed
0430–0444	Not allowed	Not allowed	Not allowed	Not allowed
0445–0459	Not allowed	Not allowed	Not allowed	Not allowed
0500–0514	Not allowed	Not allowed	Not allowed	Not allowed
0515–0529	Not allowed	Not allowed	Not allowed	Not allowed
0530–0544	Not allowed	Not allowed	Not allowed	Not allowed
0545–0559	Not allowed	Not allowed	Not allowed	Not allowed

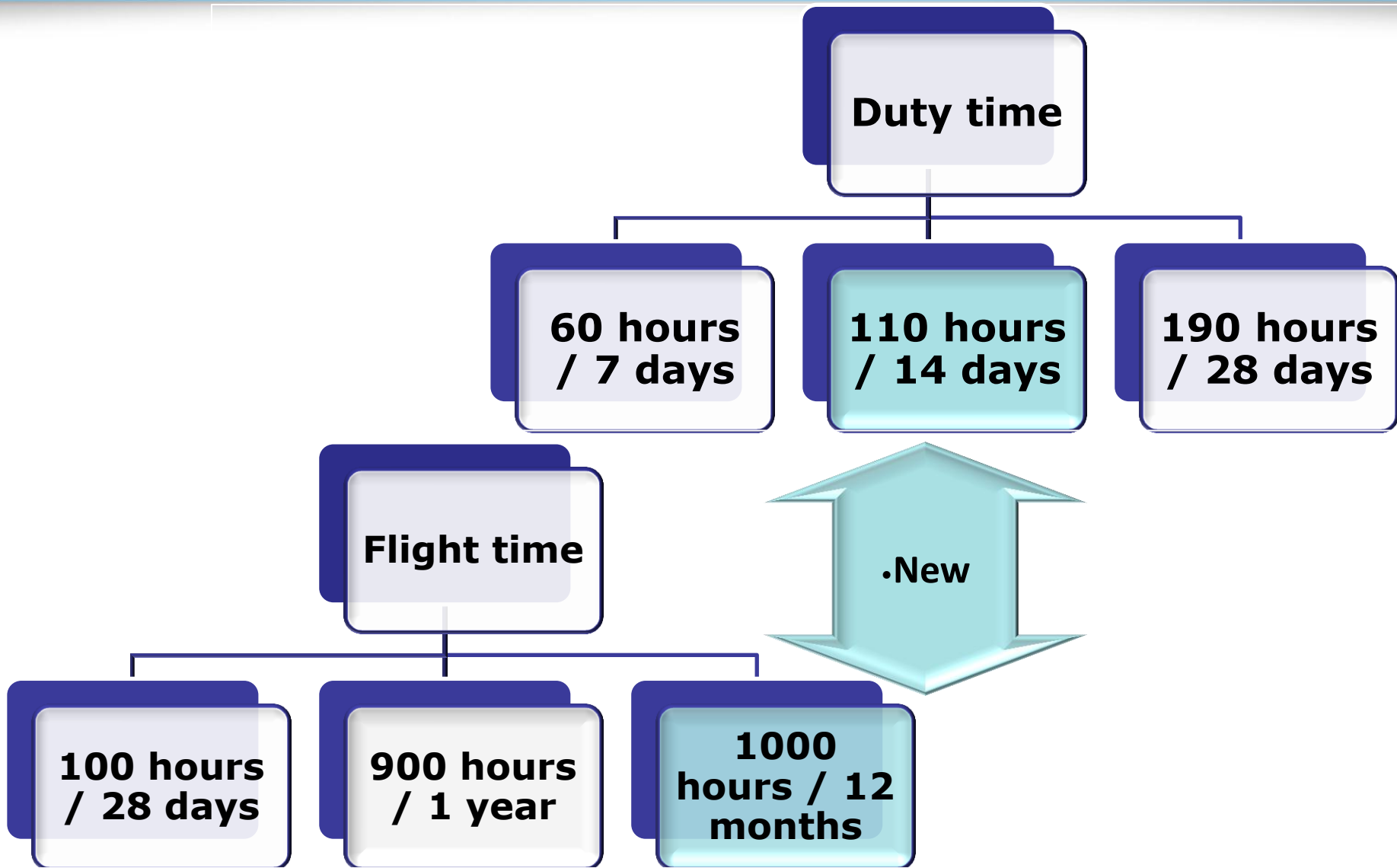
Up to 2 times per 7 days

Additional rest:
 Pre- and post-flight + 2 hours
 Post-flight + 4 hours

Planned in advance

Not to be combined with:
 In-flight rest
 Split duty

Technical requirements Section 2 – Cumulative limits





Minimum rest

Home base
12h or FDP

.IR

Away
10h or FDP

.Reduced rest

12h home base – 10h away

.CS

.IR

Recurrent recovery rest

36h incl. 2 local nights – 48h 2x/month

TZC

.CS

**Disruptive
schedules**

.CS

**Home base
change**



Subpart Q vs. Opinion 04/2012

Item	Q	EASA FTL	
Cumulative limits	60h duty/7 days 190h duty/28 days 100h block/28 days 900h block/calendar year	60h duty/7 days 110h duty/14 days 190h duty/28 days 100h flight/28 days 900h flight/calendar year 1000h flight/12 month ☺	++
FDP	13h day / 11h night -30min 3 rd – 6 th sector Extension night 11:45h	13h day / 11h night -30min 3 rd sector – 9h No extension night	= + +
Rest	12h or duty home base 10h or duty away 36h 2 local nights 2 nd local night exception	12h or duty home base 10h or duty away 36h 2 local nights 48h 2x/months No 2nd local night exception Disruptive schedules rest	= = = + + +



Key safety improvements (1)

General

- Harmonised standards

Home base

- Single airport location
- Additional rest upon change of home base

Cumulative fatigue

- Improved extended recovery rest
- Compensation for disruptive schedules



Key safety improvements (2)

FDP

- Extended time window for night restrictions
- No extensions during night hours
- In-flight rest extension based on high quality of in-flight rest facilities

Standby

- 'Cap' on combined duration of airport standby and FDP
- Other standby limited to 16 hours, FDP reduced after 8 hours
- Minimum rest after standby, 25% count as duty

FRM

- Mandatory fatigue management training
- Operator responsibilities

Publication dates	TOR	NPA	CRD	Opinion (or Decision if only CS)	Decision after Opinion
A & H EMS RMT.0346	2012 18 April	2013 Quarter 3	2014 Quarter 1	2015 Quarter 1	One year later
A Air Taxi RMT.0429	2012 21 August	2014 Quarter 1	2014 Quarter 3	2015 Quarter 3	One year later
H Other CAT ops by H RMT.0430	2013 Quarter 3	2015 Quarter 1	2015 Quarter 3	2016 Quarter 3	One year later



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Update on ongoing rulemaking tasks

EASA

<http://easa.europa.eu/flightstandards/index.html>

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Progress OPS rules : “NCC/NCO package

- **“Non-commercial with complex & other than complex MPA package”**
 - amending cover regulation OPS including minor amendments to
 - Annex I Definitions
 - Annex II Part-ARO
 - Annex III Part-ORO
 - Annex V Part-SPA
 - New Annex VI Part-NCC
 - New Annex VII Part-NCO
 - Scheduled to go to EP & Council early March 2013.
 - 3-year opt-out



Progress OPS rules : “SPO package”

- **“Specialised operations package”**
 - amending cover regulation OPS including amendments to
 - Annex II Part-ARO
 - Annex III Part-ORO
 - New Annex VIII Part-SPO
 - under discussion by EASA Committee



Progress OPS rules “CAT A-A & S/B”

- **“CAT A-A and Sailplane and Balloon package”**
 - amending cover regulation OPS including amendments to
 - Annex II Part-ARO
 - Annex III Part-ORO
 - Annex IV Part-CAT
 - amending cover regulation Air crew including amendments to
 - Annex VII Part-ORA

- Under discussion by EASA Committee



Progress OPS rules : other opinions

➤ **FTL for CAT aeroplane**

- Opinion published
- Under discussion in EASA Committee

➤ **Third country operators (TCO)**

- Under discussion in EASA Committee

➤ **Operational suitability data (OSD) = Type related data necessary for safe operation**

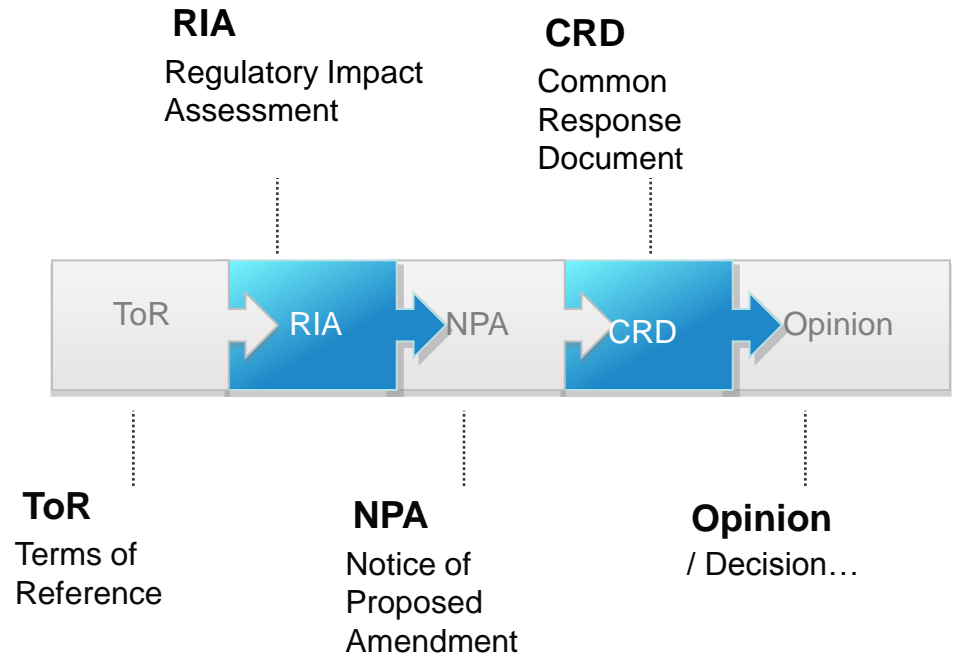
- Under discussion in EASA Committee
- CS-MMEL (CMPA, othCMPA), CS Flight crew data, CS-Cabin Crew, CS-Simulators



4 year rulemaking programme

➤ Rulemaking programme on [EASA website](#)

➤ 2013-2016





2013 Terms of reference (TOR) planned

- **Carbon monoxide detector on board all piston-engined aircraft (IRs) (RMT.0329, 0330)**
 - ToR planned Q1/2013

- **Loss of control avoidance and recovery training (RMT.0581, 0582)**
 - ToR planned Q1/2013

- **Helicopter H-V limitations (RMT.0132, 0515)**
 - ToR planned Q1/2013

- **Updating Parts-ARO and ORO (RMT.0516, 0517)**
 - ToR planned Q3/2013



2013 NPAs planned

Notice of Proposed amendment (NPA)

➤ **SAFA/SACA (RMT.0385, 0435, 0441)**

- Harmonisation and standardisation of ramp inspections (qualification of ramp inspectors, approval of training organisations, ramp inspection procedures)
- NPA under preparation and publication expected Q1/2013

➤ **Offshore helicopter operations (RMT.0409,0410)**

- NPA under preparation and publication expected Q1/2013



2013 CRDs planned

- **Airworthiness and Operational Approval of Electronic Flight Bags (RMT.0001)**
 - CRD planned Q3/2013
- **Airworthiness and operational aspects for maintenance check flights (RMT.0344, 0393)**
 - CRD expected Q3/2013
- **Sterile flight deck procedures (RMT 0416/0417)**
 - CRD expected Q2/2013
- **Alignment of Airworthiness and OPS (Opinion 06-2012)**
 - Compliance with State of Registry requirements; ICAO CofA, EASA TC, Compliance with EASA Ads, No aircraft from State of Registry on safety list



2013 Opinions planned

- ▶ **Guidance material for development of a safety risk assessment for flight operations with known or forecast volcanic cloud contamination (RMT.0460)**
 - ▶ transposition of the related ICAO Document and work as requested by stakeholders in response to A-NPA 2011-06
 - ▶ leads to AMC/GM
 - ▶ Decision expected Q1/2013



Other tasks started in 2012

- **Carriage of special categories of passengers (RMT.0269, 0270)**
 - NPA planned for 3Q 2013
- **CRM training (RMT.0411)**
 - Review and update of material inherited from EU-OPS / JAR-OPS 3 / TGL 44
 - Rulemaking group had first meeting
- **Flights related to design and production activities (RMT.0348/0349)**
 - Development of OPS requirements for such flights
 - Rulemaking group had first meeting



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