

MODULE 10

FOR A CERTIFICATION

AVIATION LEGISLATION

Aviation Maintenance Technician Certification Series



72413 U.S. Hwy 40
Tabernash, CO 80478-0270 USA

www.actechbooks.com

+1 970 726-5111

WELCOME

The publishers of this Aviation Maintenance Technician Certification Series welcome you to the world of aviation maintenance. As you move towards EASA certification, you are required to gain suitable knowledge and experience in your chosen area. Qualification on basic subjects for each aircraft maintenance license category or subcategory is accomplished in accordance with the following matrix. Where applicable, subjects are indicated by an "X" in the column below the license heading.

For other educational tools created to prepare candidates for licensure, contact Aircraft Technical Book Company.

We wish you good luck and success in your studies and in your aviation career!

REVISION LOG

VERSION	EFFECTIVE DATE	DESCRIPTION OF CHANGE
001	2020 03	Module Creation and Release

AVIATION LEGISLATION

Welcome	iii
Revision Log.....	iii
Forward.....	iv
EASA License Category Chart	v
General Knowledge Requirements	v
Contents	ix

SUB-MODULE 01

REGULATORY FRAMEWORK

Knowledge Requirements	1.1
10.1 - Regulatory Framework	1.2
International Civil Aviation Organization (ICAO)	1.2
The Chicago Convention	1.2
Second Freedom Agreement	1.3
Fifth Freedom Agreement	1.3
ICAO Goals and Objectives.....	1.3
ICAO Strategic Objectives.....	1.3
ICAO Composition and Concerns.....	1.4
Technical Annexes	1.4
Annex 1 - Personnel Licensing	1.5
Annex 6 - Operation of Aircraft	1.5
Annex 8 - Airworthiness of Aircraft.....	1.5
Annex 10 - Aeronautical Telecommunications	1.5
European Union Aviation Safety System	1.5
European Union Institutions.....	1.6
The Role of the European Commission (EC).....	1.6
Role of the European Aviation Safety Agency (EASA)	1.8
EASA Responsibilities	1.9
Independence and Supervision	1.9
Working methods	1.10
Studies and Research	1.11
EASA Internal Structure and Operation.....	1.11
Staff and Language.....	1.11
Management Board	1.12
Member States' Advisory Body (MAB) and Technical Bodies (TeBs)	1.12
Executive Director	1.12
Board of Appeals.....	1.12
Financial Requirements	1.12
The Role of Members States	1.13
Sharing of Roles	1.13
Member State Obligation	1.13
Rules and Authority	1.13
Regulation (EU) 2018/1139 (Basic Regulation)	1.13
Regulation (EU) 748/2012 (Part-21)	1.14
Regulation (EC) 1321/2014	1.15

Relationship Between the Annexes (Parts)	1.16
EASA Relations with the Other Aviation Authorities	1.16
Multilateral Cooperation	1.16
Bilateral Cooperation	1.16
International Cooperation	1.16

SUB-MODULE 02

CERTIFYING STAFF – MAINTENANCE

Knowledge Requirements	2.1
10.2 - Certifying Staff – Maintenance	2.2
General.....	2.2
Part-66	2.2
Scope	2.2
License Categories	2.2
Aircraft Groups.....	2.4
Application	2.4
Eligibility	2.4
Privileges	2.4
Requirements for Exercising Privileges.....	2.7
Definitions for Exercising Privileges	2.7
Basic Knowledge Requirements	2.8
Basic Experience Requirements	2.9
License Extension	2.9
Alternate Experience	2.9
Continued Validity of the Aircraft	2.10
Maintenance License	2.10
Aircraft Rating Requirements	2.10
Limitations	2.10
Evidence of Qualification	2.10
Information in Part-66 Appendices	2.11

SUB-MODULE 03

APPROVED MAINTENANCE ORGANIZATIONS

Knowledge Requirements	3.1
10.3 - Approved Maintenance Organizations	3.2
Part-145	3.2
Part-145 – Maintenance Organization Requirements	3.2
General	3.2
Definitions	3.2
Scope	3.3
Application	3.3
Terms of Approval	3.3
Facility Requirements	3.3
Personnel Requirements	3.4
Certifying Staff and Category B1 and B2	3.4
Support Staff.....	3.6

CONTENTS

Equipment, Tools and Material	3.8
Acceptance of components	3.8
Maintenance Data.....	3.9
Production planning	3.10
Certification of Maintenance	3.10
Maintenance Records	3.11
Occurrence Reporting	3.11
Safety and Quality Policy	3.12
Maintenance Organization Exposition (MOE)	3.12
Privileges of the Organization	3.13
Part-M; Subpart-F Maintenance Organization	3.13
Scope	3.13
Facilities	3.13
Personnel Requirements	3.14
Certifying Staff.....	3.14
Components, Equipment and Tools.....	3.15
Maintenance Data.....	3.15
Maintenance Work Orders	3.15
Maintenance Standards	3.15
Component Certificate of Release to Service.....	3.15
Component Certificate Of Release To Service ..	3.15
Maintenance Records	3.15
Privileges of the Organization	3.16
Organizational Review	3.16

SUB-MODULE 04

AIR OPERATIONS

Knowledge Requirements	4.1
10.4 - Air Operations	4.2
Scope	4.2
Specialized Operations	4.2
Commercial Operations and Commercial	
Air Transport	4.2
Complex Aircraft	4.2
Contents of Regulations	4.3
General Understanding of Air Operations	4.3
Regulation on Air Operations – Structure	4.3
Basic Regulation (EC) No 1139/2018 – Analysis by	
category, Regulation and Implementation	4.8
Air Operations (AIR-OPS) Annex II (Part-ARO)	4.11
Issue of the Air Operator Certificate.....	4.11
Scope	4.13
Authority Requirements for Air Operations Annex III	
(Part-ORO)	4.17
General (GEN)	4.17
Scope	4.17
Operator Responsibilities.....	4.17

Air Operator Certification (AOC).....	4.18
Air Operator Certificate	4.18
Manuals, Logs and Records (MLR)	4.18
Minimum Equipment List (ORO.MLR.105)	4.18
Technical Crew in HEMS, HHO or NVIS	
Operations (TC)	4.19
Scope	4.19
Commercial Air Transport Operations Annex IV	
(Part-CAT)	4.19
General Requirements (GEN)	4.19
Taxiing of Airplanes (CAT.GEN.MPA.125)	4.19
Rotor Engagement – Helicopters (CAT.GEN.	
MPA.130).....	4.19
Documents, Manuals and Information To	
Be Carried (CAT.GEN.MPA.180)	4.19
Operating Procedures (OP).....	4.21
Refuelling/Defuelling with Passengers	
Embarking, On Board or Disembarking.....	4.21
Pushback and Towing – Airplanes	4.21
Ice and Other Contaminants – Ground	
Procedures	4.21
Mass and Balance, Loading.....	4.21
Mass and Balance Data and Documentation	
Instruments and Equipment – General.....	4.22
Minimum Equipment for Flight	4.23
Spare Electrical Fuses	4.23
Operating Lights	4.23
Equipment to Clear Windshield	4.23
Operations Under VFR by Day – Flight	
and Navigational Instruments and	
Associated Equipment	4.23
Operations Under IFR or at Night –	
Flight and Navigational Instruments and	
Associated Equipment	4.23
Additional Equipment for Single Pilot	
Operation Under IFR	4.24
Altitude Alerting System.....	4.24
Terrain Awareness Warning System (TAWS)	4.24
Airborne Collision Avoidance System (ACAS)	4.25
Airborne Weather Detecting Equipment	4.25
Additional Equipment for Operations in	
Icing Conditions at Night	4.25
Flight Crew Interphone System.....	4.25
Crew Member Interphone System.....	4.25
Public Address System.....	4.25
Cockpit Voice Recorder	4.25
Flight Data Recorder	4.25

Combination Recorder.....	4.26	Operator's Responsibilities	4.32
Seats, Seat Safety Belts, Restraint Systems And		Responsibilities (M.A.201)	4.32
Child Restraint Devices.....	4.26	Aircraft Maintenance Program.....	4.32
Fasten Seat Belt And No Smoking Signs	4.26	General Presentation	4.32
Internal Doors And Curtains	4.26	The General Maintenance Review Board	
First-Aid Kit.....	4.27	(MRB) Process	4.33
Emergency Medical Kit.....	4.27	Structure Program	4.33
First-Aid Oxygen.....	4.27	Analysis of Accidental Damage.....	4.34
Supplemental Oxygen – Pressurized Airplanes	4.27	Damage Analysis due to the Environment	4.34
Supplemental Oxygen –		The "ALI" (Airworthiness Limitation Items)	4.34
Non-Pressurized Airplanes	4.28	Zonal Inspection Program (ZIP)	4.34
Crew Protective Breathing Equipment	4.28	The MRB Report (Maintenance Review Board)	4.34
Hand Fire Extinguishers	4.28	Maintenance Planning Document (MPD)	4.35
Crash Axe And Crowbar	4.29	Minimum Equipment Lists & CDL	
Marking of Break-In Points.....	4.29	(Operator's Responsibilities)	4.35
Means For Emergency Evacuation	4.29	MEL	4.35
Megaphones	4.29	CDL	4.35
Emergency Lighting and Marking	4.29	Manuals To Be Carried (OPS 1.130)	4.35
Emergency Locator Transmitter (ELT)	4.29	Identification of Parts and Appliances	4.35
Flight Over Water	4.30	Identification of Products	4.35
Survival Equipment	4.30	Identification of Parts and Appliances	4.36
Headset.....	4.30	Marking of Break-In Points.....	4.36
Radio Communication Equipment	4.30	Emergency Markings.....	4.36
Audio Selector Panel	4.31	Emergency Exit Markings	4.36
Transponder	4.31	Interior Emergency Lighting and Emergency	
Specific Approvals – Annex V (Part-SPA)	4.31	Light Operation	4.37
Operations in Airspace with Reduced Vertical			
Separation Minima (RVSM)	4.31	SUB-MODULE 05	
RVSM Operations	4.31	CERTIFICATION OF AIRCRAFT, PARTS AND	
RVSM Operational Approval	4.31	APPLIANCES	
Helicopter Emergency Medical Services		Knowledge Requirements	5.1
(HEMS) Flight	4.31		
Equipment Requirements (SPA.RVSM.110)	4.31	SUB-MODULE 06	
Extended Range Operations with Two-Engined		CONTINUING AIRWORTHINESS	
Airplanes (ETOPS)	4.31	Knowledge Requirements	6.1
ETOPS.....	4.31	10.6 - Continuing Airworthiness	6.2
Operational Approval	4.31	Part-21 General Provisions	6.2
En-Route Alternate Aerodrome	4.31	Failures, Malfunctions And Defects	6.2
Annexes Vi, VII and VIII	4.32	Airworthiness Directives	6.2
Non-Commercial Air Operations with		Part-M	6.3
Complex Motor-Powered Aircraft (PART-NCC)		General – Subpart-A.....	6.3
Annex VI	4.32	Scope	6.3
Non-Commercial Air Operations with Other		Accountability – Subpart-B	6.3
Than Complex Motor Powered Aircraft		Responsibilities.....	6.3
(PART-NCO) Annex VII	4.32	Occurrence Reporting	6.4
Specialized Operations (PART-SPO)		Continuing Airworthiness - Subpart-C	6.5
Annex VIII.....	4.32	Continuing Airworthiness Tasks	6.5

CONTENTS

Maintenance Program	6.5	General	7.2
Airworthiness Directives	6.6	"A" Check	7.2
Data For Modifications And Repairs	6.6	"B" Check	7.2
Aircraft Continuing Airworthiness		"C" Check	7.2
Record System	6.6	"D" Check	7.2
Owner And/Or The Operator Obligations	6.7	Airworthiness Directives.....	7.3
Operator Technical Log System	6.7	Purpose	7.3
Maintenance Standards – Subpart-D.....	6.7	Service Bulletins	7.4
Maintenance Data	6.7	ATA Spec 2200	7.4
Performance of Maintenance.....	6.8	Scope	7.4
Aircraft Defects	6.8	Types of Service Bulletins	7.4
Components – Subpart-E	6.8	Alert SB	7.4
Installation	6.8	Standard SB	7.5
Components Maintenance.....	6.9	Engine Conversion SB	7.5
Caution	6.9	Service Bulletin Contents.....	7.5
Control of Unserviceable Components	6.9	General	7.5
Maintenance Organization – Subpart-F	6.10	Material Information	7.5
Continuing Airworthiness Management		Service Letter (SL).....	7.6
Organization - Subpart-G	6.10	Modifications And Repairs	7.6
Certificate of Release to Service (CRS) –		Maintenance Documentation	7.6
Subpart-H	6.10	Continuing Airworthiness	7.6
Aircraft Certificate Of Release To Service	6.10	Minimum Equipment Lists (MMEL/MEL)	7.6
Component Certificate Of Release To Service	6.11	DDL Dispatch Deviation List (OR CDL)	7.7
Pilot-Owner Authorization	6.12	Minimum Equipment Requirements.....	7.7
Airworthiness Review Certificate – Subpart-I ..	6.12	Test Flights	7.7
Aircraft Airworthiness Review	6.12	Permit To Fly.....	7.7
Validity Of The Airworthiness Review		ETOPS/EDTO	7.7
Certificate.....	6.14	Definitions:	7.7
Findings	6.14	All Weather Operations	
Part-T	6.15	(Cat 2 and 3 Operations)	7.8
Acceptable Means of Compliance and Guidance		Definitions:	7.8
Material to Annex Va (Part-T) to Commission		Air Operations Subpart-E	7.8
Regulation (EU) No 1321/2014.....	6.15	Low Visibility Operations - General	
Part-T Scope and Responsibilities	6.15	Operating Rules	7.8
Annex VA (Part-T)	6.15	Maintenance	7.8
Scope	6.15	General	7.8
Responsibilities	6.15	Equipment Approval	7.9
Section 1	6.15	Maintenance Control System	7.9
Section 2	6.16	Maintenance Control Manual	7.9
Section 3	6.16		
		Acronym Index.....	A.1
		Glossary	G.1

SUB-MODULE 07

APPLICABLE NATIONAL AND INTERNATIONAL REQUIREMENTS

Knowledge Requirements	7.1
10.7 - Applicable National and Int'l Requirements.....	7.2
Maintenance Checks And Inspections	7.2

10.4 - AIR OPERATIONS

Commission Regulation (EU) No 965/2012 of 5 October 2012 and its subsequent amendments lay down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European parliament and of the council (basic regulation).

This Regulation is officially referred to as IR-OPS (implementing rules – operations), but it is also known as EASA OPS or EASA AIR OPS; it replaces EU-OPS (Regulation (EC) 859/2008) with regard to commercial operations of airplanes (A) and JAR-OPS 3 with regard to commercial operations of helicopters (H) as well as old national requirements on commercial operations of sailplanes (S) and balloons (B) and existing national requirements on non-commercial operations of complex and other-than-complex aircraft (including S and B) and specialized air operations (most notably aerial work). The Regulation also establishes detailed rules for ramp inspections of aircraft of operators under the safety oversight of another State when landed at aerodromes located in the territory subject to the provisions of the Treaty.

SCOPE

The following types of civil air operations are within the scope of Regulation (EU) No 965/2012 and its subsequent amendments:

- Specialized and non-specialized;
- Commercial and non-commercial;
- With complex motor-powered aircraft and with other-than-complex motor-powered aircraft.

SPECIALIZED OPERATIONS

The term 'specialized operations' refers to activities meeting the following criteria:

- The aircraft is flown close to the surface to fulfill the mission;
- Abnormal maneuvers are performed;
- Special equipment is necessary to fulfill the mission and which affects the maneuverability of the aircraft;
- Substances are released from the aircraft during the flight where these substances are either harmful or affect the maneuverability of the aircraft;
- External loads or goods are lifted or towed;

- Persons enter or leave the aircraft during flight.
 - Operations not meeting the above criteria are 'non-specialized'.

COMMERCIAL OPERATIONS AND COMMERCIAL AIR TRANSPORT

The term “Commercial Air Transport” refers to an operation for the transport of passengers, cargo or mail for remuneration or other valuable consideration.

“Commercial Operation” refers to any operation of an aircraft, in exchange for remuneration or other valuable consideration, that is available to the public or, when not made available to the public, that is made by contract between an operator and a customer. In each case, the operator is responsible for:

- Air operations;
- The maintenance of aircraft;
- Training and training of crews;
- Ground operations;
- Registration of aircraft;
- The maintenance and validity of the airworthiness certificate.

COMPLEX AIRCRAFT

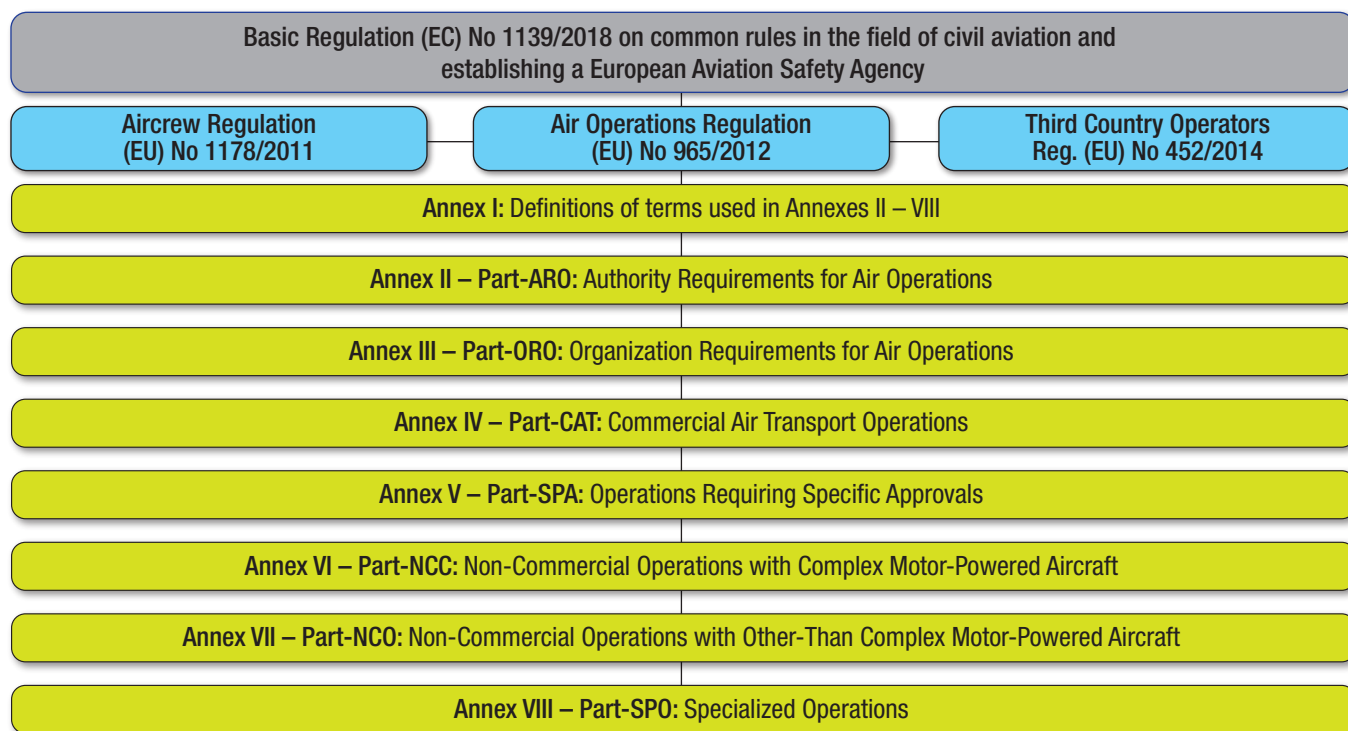
The term 'complex motor-powered aircraft' refers to:

An airplane:

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

A helicopter certificated:

- For a maximum take-off mass exceeding 3 175 kg;
- For a maximum passenger seating configuration of more than nine;
- For operation with a minimum crew of at least two pilots;
- A tilt rotor aircraft.
 - An aircraft not meeting the above criteria is an 'other than complex motor powered aircraft'.



CONTENTS OF REGULATIONS

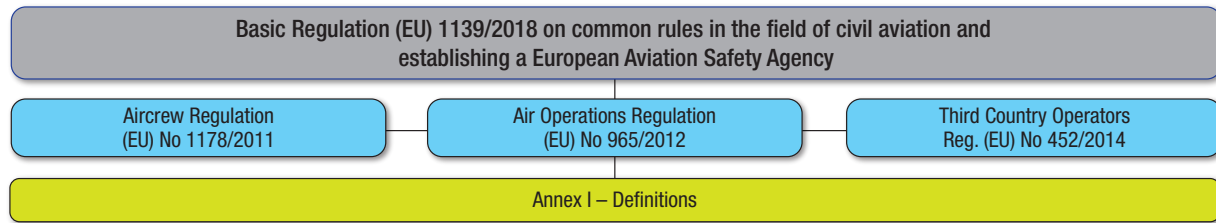
- Annex I Definitions
- Annex II Authority Requirements for Air Operations (Part-ARO)
- Annex III Organization Requirements for Air Operations (Part-ORO)
- Annex IV Commercial Air Transport Operations (Part-CAT)
- Annex V Specific Approvals (Part-SPA)
- Annex VI Non-Commercial Operations with Complex Motor-Powered Aircraft (Part-NCC)
- Annex VII Non-Commercial Operations with other-than Complex Motor-Powered Aircraft (Part-NCO)
- Annex VIII Specialized Operations (Part-SPO)

GENERAL UNDERSTANDING OF AIR OPERATIONS

REGULATION ON AIR OPERATIONS – STRUCTURE

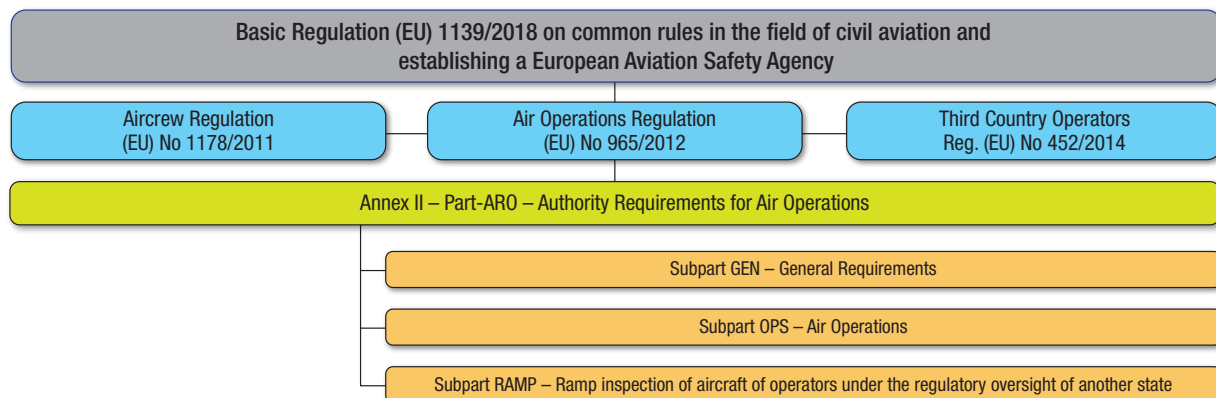
Regulation (EU) No 965/2012 on Air Operations contains eight Annexes. The following diagrams illustrate the contents of each Annex. The contents of the Annexes are available via the Regulations page which can be found at: <http://easa.europa.eu/regulations#regulations-air-operations>.

Annex I – Definitions for terms used in Annexes II to VII



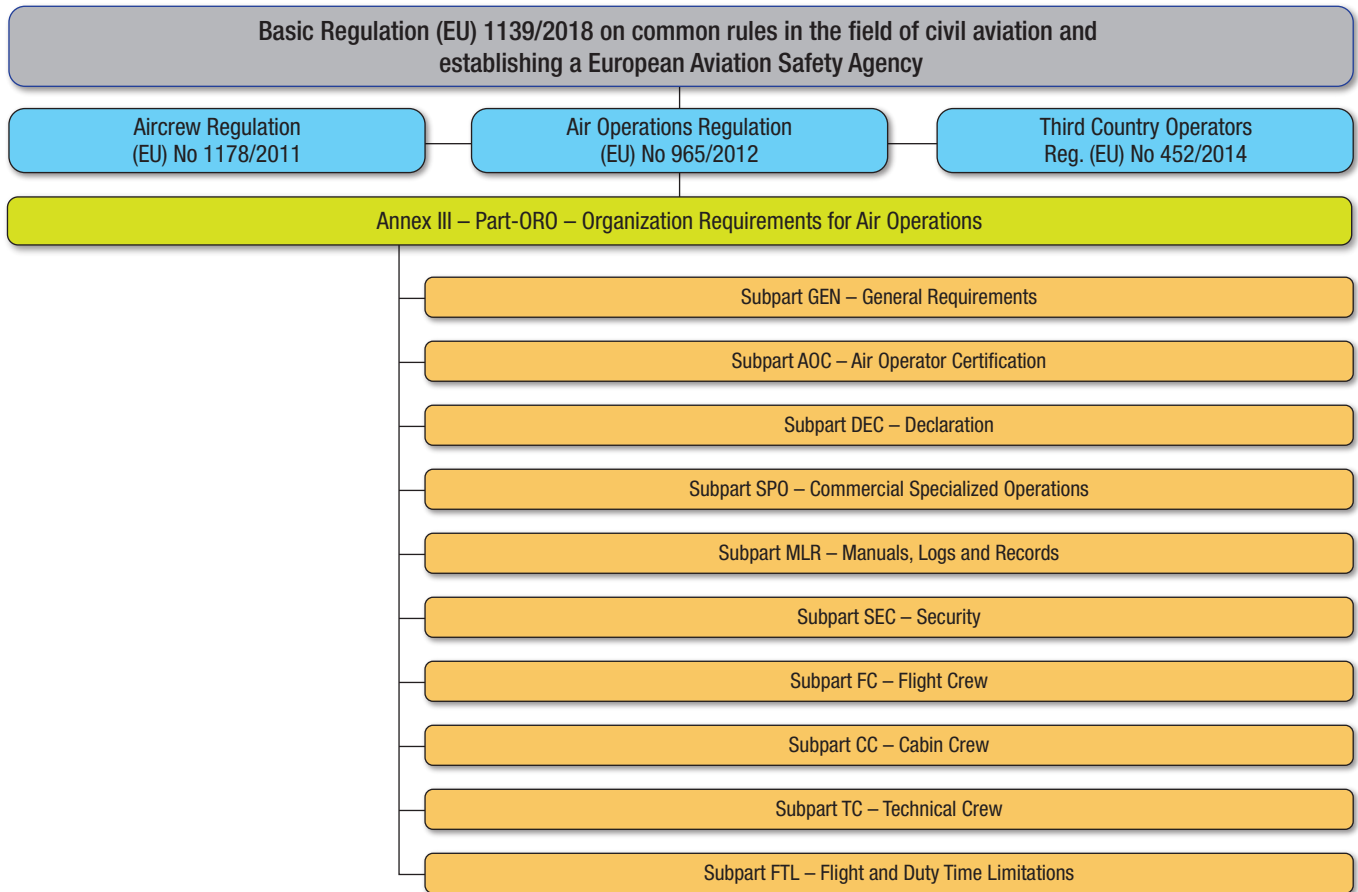
- Critical phases of flight' in the case of aeroplane means the take-off run, the take-off flight path, the final approach, the missed approach, the landing, including the landing roll, and any other phases of flight as determined by the pilot-in-command or commander.
- Dangerous Goods (DG)' means articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the technical instructions or which are classified according to those instructions.
- Dry lease agreement' means an agreement between undertakings pursuant to which the aircraft is operated under the air operator certificate (AOC) of the lessee or, in the case of commercial operations other than CAT, under the responsibility of the lessee.
- Ramp inspection' means the inspection of aircraft, of flight and cabin crew qualifications and of flight documentation in order to verify the compliance with the applicable requirements. (Refer to page 80/179)
- 'Offshore location' includes, but is not limited;
 - Helidecks
 - Shipboard heliports and
 - Winching areas on vessels or renewable energy installations.

Annex II – Part-ARO – Authority Requirements for Air Operations



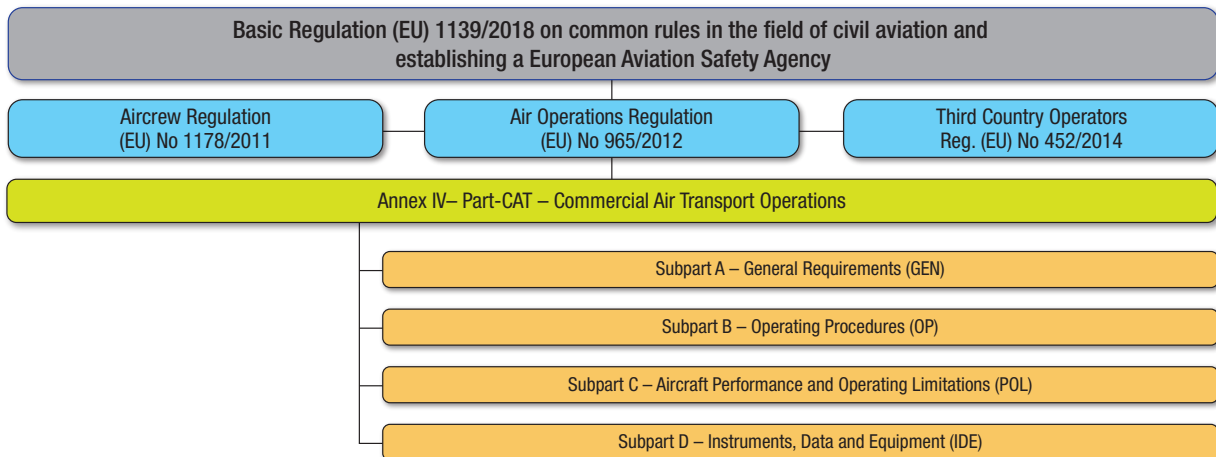
This Annex establishes requirements for the administration and management system to be fulfilled by the Agency and Member States for the implementation and enforcement of Basic Regulation in force and its Implementing Rules regarding civil aviation air operations.

Annex III – Part-ORO – Organization Requirements for Air Operators



AIR OPERATIONS

Annex IV– Part-CAT – Commercial Air Transport Operations



Commercial Air Transport (CAT) operation’ means an aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration; Commercial Air Transportation is not intended to cover Aerial Work or Corporate Aviation. ‘Aerial Work’ means an aircraft operation in which an aircraft is used for specialized services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement, etc.