

aeroplanes with maximum take off mass of more than 5 700 kg and multi engine helicopters, the owner must have a contract with an approved Continuing Airworthiness Management Organization (CAMO) who will assume this responsibility.

MAINTENANCE OF COMMERCIAL AND NON COMMERCIAL AIRCRAFT

The maintenance of commercial and non commercial aircraft, while sharing the fundamental goal of ensuring airworthiness and safety, differs in several key aspects due to the nature of their operations, regulatory requirements, and scale.

REGULATORY ENVIRONMENT

- *Commercial Aircraft*—Subject to stricter and more detailed regulatory requirements due to the responsibility of carrying fare paying passengers or cargo. Regulations are often governed by bodies like EASA (Part 145) or FAA (Part 121, or Part 135).
- *Non Commercial Aircraft*—Regulations are typically less stringent. The focus is still on safety but with more flexibility considering the scale and scope of operations.

MAINTENANCE STANDARDS AND SCHEDULES

- *Commercial Aircraft*—Maintenance schedules are highly structured and rigorous, often based on detailed manufacturer recommendations and regulatory mandates. Includes routine, periodic, and heavy maintenance checks.
- *Non Commercial Aircraft*—Maintenance schedules can be more flexible. While annual inspections are required, owners have more discretion in scheduling routine maintenance.

SCALE AND COMPLEXITY

- *Commercial Aircraft*—Maintenance operations are large scale, requiring sophisticated facilities and equipment. The complexity of commercial aircraft systems also demands specialized expertise.
- *Non Commercial Aircraft*—Typically, the scale of maintenance is smaller, and the aircraft systems may be less complex. Maintenance can often be carried out in smaller facilities.

MAINTENANCE PERSONNEL

- *Commercial Aircraft*—Maintenance must be performed by highly trained and certified technicians. Specific certifications are required for different types of aircraft.
- *Non Commercial Aircraft*—While still requiring qualified mechanics, the certification requirements are often less demanding. Aircraft owners can sometimes perform certain types of maintenance themselves.

DOCUMENTATION AND RECORD KEEPING

- *Commercial Aircraft*—Extensive documentation is required. Maintenance records are meticulously kept, detailing every repair, inspection, and maintenance activity.
- *Non Commercial Aircraft*—Record keeping is still important but may not be as exhaustive as in commercial aviation. Compliance with airworthiness directives and annual inspections is key.

AIR OPERATOR CERTIFICATE (AOC) AND SELF-DECLARATION AUTHORIZATIONS

Aircraft operators under EU regulatory framework either:

1. Declare their capability, and the availability to them of the means, to discharge the responsibilities associated with the operation of aircraft in compliance with applicable implementing acts/regulations (known as Declaration).
2. Hold an Aircraft Operator Certificate – AOC.
3. Comply with applicable regulations and rules.

This will depend on two things:

1. Which category of aircraft is used and whether aircraft is complex motor-powered aircraft or other than complex motor-powered aircraft
2. Which type/subtype of air operation is carried out.

This is explained in [Table 5-1]. EU Regulation 965/2012 air operations for aeroplanes and helicopter classification. [Table 5-2]

AIRCRAFT OPERATOR CERTIFICATE – AOC

- **Definition:** An AOC is a certificate that authorizes an aircraft operator to carry out specific commercial air transport operations. AOC shall be issued upon application, when the applicant has demonstrated that it complies with the applicable regulations. AOC shall specify the privileges granted to the aircraft operator. AOC may be amended to add or remove privileges. AOC may be limited, suspended or revoked, when the holder no longer complies with the rules and procedures for issuing and maintaining such certificate.
- **Purpose:** Airlines in Europe must obtain an AOC to operate legally. It ensures compliance with safety and operational standards.
- **Issuance:** In most cases, AOCs are issued only by the National Aviation Authority (NAA) of the operator's home country. This NAA is competent authority for issuance of AOC/ initial certification, oversight and enforcement.
- **Transfer to EASA:** Under specific conditions, an EU Member State can transfer AOC responsibilities to the European Union Aviation Safety Agency (EASA). EASA then becomes the competent authority for initial certification, oversight, and enforcement.

SELF-DECLARATION AUTHORIZATIONS

- **Definition:** Self-declaration authorizations allow aircraft operators to declare compliance with specific regulations without external certification.
- **Scope:** Typically used for non-commercial operations or specific activities within commercial operations.
- **Responsibility:** The operator assumes responsibility for compliance.
- **Risk-Based Approach:** Self-declaration relies on the operator's assessment of risk and adherence to applicable regulations.
- **Examples:** Some non-commercial flights, such as private flights or certain aerial work operations, may operate under self-declaration.

| Category of Aircraft | Type of Air Operation | Applicable regulation within EU regulatory framework based on Basic Regulation (EU 2018/1139) | AOC or Declaration |
|---|--|---|--|
| Aeroplane | Aeroplane Operations | EU Regulation 965/2012 | See Table 5-2 |
| Helicopter | Helicopter Operations | EU Regulation 965/2012 | See Table 5-2 |
| Balloon | Balloon Operations | EU Regulation 2018/395 | Declaration – Only for commercial air transport with balloons. |
| Sailplanes | Sailplanes Operations | EU Regulation 2018/1976 | Declaration – Only for commercial air transport with sailplanes. |
| Unmanned Aircraft System (UAS) | UAS Operations | EU Regulation 2019/947 | |
| Vertical Take-Off and Landing (VTOL) Capable Aircraft (VCA) | Innovative Air Mobility (IAM) Operations | EU Regulation 965/2012 | |

Table 5-1. AOC or declaration for different aircraft categories.

| (CAT) Commercial Air Transport Operations | AOC (and Operating License According EU 1008/2012) |
|---|--|
| (SPO) Commercial Special Operations | Declaration |
| (SPO) Non-commercial Special Operations with EASA Complex Motor Powered Aircraft | Declaration |
| (SPO) Non-commercial Special Operations with EASA Other Than Complex Motor Powered Aircraft | Declaration |
| (NCC) Non-commercial Operations with EASA Complex Motor Powered Aircraft | No Need For Declaration |
| (NCO) Non-commercial Operations with EASA Other Than Complex Motor Powered Aircraft | No Need For Declaration |

Table 5-2. AOC or declaration for aeroplanes and helicopters.

Remember that AOCs are essential for commercial airlines, while self-declaration is more common for specific scenarios.

AIR OPERATOR'S CERTIFICATE (SUBPART AOC)

Prior to the commencing of Commercial Air Transport (CAT) operations, the operator shall apply for and obtain an Air Operator Certificate (AOC) issued by the competent authority. [Figure 5-3] To do so, the operator shall provide the following information to the competent authority:

- The official name and business name, address, and mailing address of the applicant.
- A description of the proposed operation, including the type(s), and number of aircraft to be operated.
- Description of the management system, including organizational structure.
- The name of the accountable manager.
- The names of the nominated persons together with their qualifications and experience.
- A copy of the operations manual.
- A statement that all the documentation sent to the competent authority have been verified by the applicant and found in compliance with the applicable requirements.

Applicants should be able to demonstrate to the competent authority the following:

- They comply with all the requirements of Annex IV to the Basic Regulation 2018/1139, the Organizational Requirements Annex (Part ORO), Annex IV (Part CAT) and Annex V (Part SPA).

- All aircraft operated have a certificate of airworthiness (CofA).
- Its organization and management are suitable and properly matched to the scale and scope of the operation.

Privileges of the operator, including those granted in accordance with Annex V (Part SPA), shall be specified in the operations specifications (OPS SPEC) of the certificate. [Figure 5-4]

OPERATOR'S RESPONSIBILITIES

The owner of the aircraft shall be responsible for the continuing airworthiness of aircraft and shall ensure that no flight takes place

| AIR OPERATOR CERTIFICATE (Approval schedule for air operators) | | |
|--|---|---|
| Types of operation: Commercial air transport (CAT) <input type="checkbox"/> Passengers; <input type="checkbox"/> Cargo; <input type="checkbox"/> Other ¹ : | | |
| Commercial specialised operations (SPO) <input type="checkbox"/> ² | | |
| 5 | State of the Operator ³ Issuing Authority ⁴ | 5 |
| AOC # ⁶ : | Operator Name ⁷ Dba Trading Name ⁸ Operator address ¹⁰ : Telephone ¹¹ : Fax: E-mail: | Operational Points of Contact: ⁹ Contact details, at which operational management can be contacted without undue delay, are listed in ¹² . |
| This certificate certifies that ¹³ is authorised to perform commercial air operations, as defined in the attached operations specifications, in accordance with the operations manual, Annex IV to Regulation (EC) No 216/2008 and its Implementing Rules . | | |
| Date of issue ¹⁴ : | Name and Signature ¹⁵ : Title: | |

Figure 5-3. EASA Form 138 Issue 1 (App. I of Part ARO).