



# Flight Requirement Awareness

## EASA Requirements



# Introduction

Aircraft leasing is a complex and vast area with regards to its scope, requirements, interactions and multiple party agreements.

Leasing works for different parties in different ways such as:

For lessee's it allows limited initial financial exposure while affording the ability to operate, or it might offer the realization of releasing equity based on sale and lease back.

For the lessor there is a profitable return on the asset value through payments; while limiting exposure and protecting the asset through the lease and options such as maintenance reserve funds.

On both sides we need to maintain asset value through the lease requirements and operation of the aircraft.

Regarding EASA registered aircraft, it is important to be aware of some of the requirements for aircraft flights where leasing is concerned as they are not always standard; for example, maintenance check flights (MCF).





# EASA Operation Classification

EASA applied classifications to develop a different set of technical rules for air operations:

- CAT (Commercial Air Transport)
- NC (Non-Commercial Air Transport)
- NCO (Non-Commercial Operations)
- SPO (Specialized Operations)

This is to consider the principle of proportionality and the need to have different safety levels.

Source: <https://www.easa.europa.eu/domains/general-aviation/operations-general-aviation>



# EASA Operation Classification

The safety levels were based on a risk hierarchy, and the rules for non-commercial operations were developed to achieve the following objectives:

- to maintain a proportionate level of safety depending on the complexity of the aircraft
- to guarantee sufficient flexibility and efficiency for operators and authorities
- to be compliant with the ICAO standards and recommended practices (SARPs) of Annex 6 Part II and Part III Sections III as far as feasible
- to ensure proportionate rules between NCO (**N**on-**C**ommercial **O**perations with other-than-complex aircraft) and NCC operations (**N**on-**C**ommercial operations with **C**omplex motor-powered aircraft)
- to be consistent with the rules of the other Annexes to the AIR OPS Regulation.

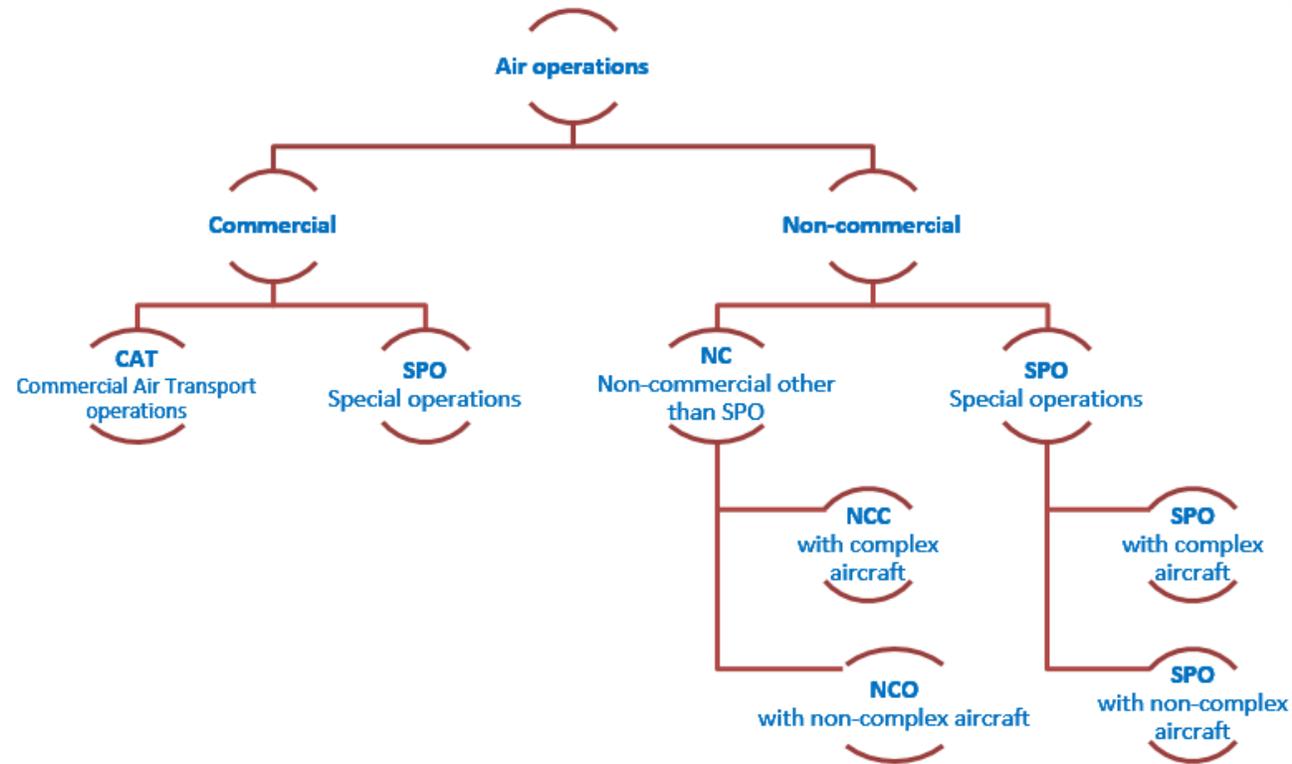
Source: <https://www.easa.europa.eu/domains/general-aviation/operations-general-aviation>



# EASA Operation Classification

What does this mean for us?

We can go through the diagram below to consider the basic requirements.



Source: <https://www.easa.europa.eu/domains/general-aviation/operations-general-aviation>



# EASA Operation Classification

The diagram splits operations into 2 basic classifications – that of commercial and noncommercial.

One key part of awareness is understanding - so what is commercial operation?

EASA define this as “commercial operation’ means any operation of an aircraft, in return for remuneration or other valuable consideration, which is available for 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”

*Source: Easy Access Rules for Air Operations (Regulation (EU) No 965/2012)*

Noncommercial operations are further defined in the regulations and examples are also given, which for the purpose of leasing awareness are of interest as this is where awareness is important; we will consider some examples over the next page.



# EASA Flight Classification

Noncommercial operations include the following examples:

## **Demonstration flights**

A flight performed with the purpose of demonstrating:

- (1) an aircraft's handling, performance and functionalities to buyers or lessees;
- (2) an aircraft's flying characteristics or the operational procedures to the competent authority, for verification of compliance with the operational requirements, as per ARO.GEN.310(a).

Other terms used: (route) proving flight; operational evaluation flight.

Flight at the end of lease or upon transfer of ownership: a flight performed at the request of the operator to verify compliance of the aircraft with the contractual specifications of the lessee/lessor or buyer.

Other term used: acceptance flight.

*Source: Easy Access Rules for Air Operations (Regulation (EU) No 965/2012)*



# EASA Flight Classification

## Maintenance check flights

Maintenance check flight (MCF) The definition of an MCF is provided in Annex I to Regulation (EU) No 965/2012. The provisions on MCF are developed in Annex VII (Part-NCO), Subpart E Section 6 and Annex VIII (Part-SPO), Subpart E Section 5.

## Ferry flights – flights changing the location of the aircraft

A ferry flight could be performed for the following purposes:

- The aircraft is moved to and from a maintenance base.

The aircraft may be operated under the permit-to-fly conditions such as:

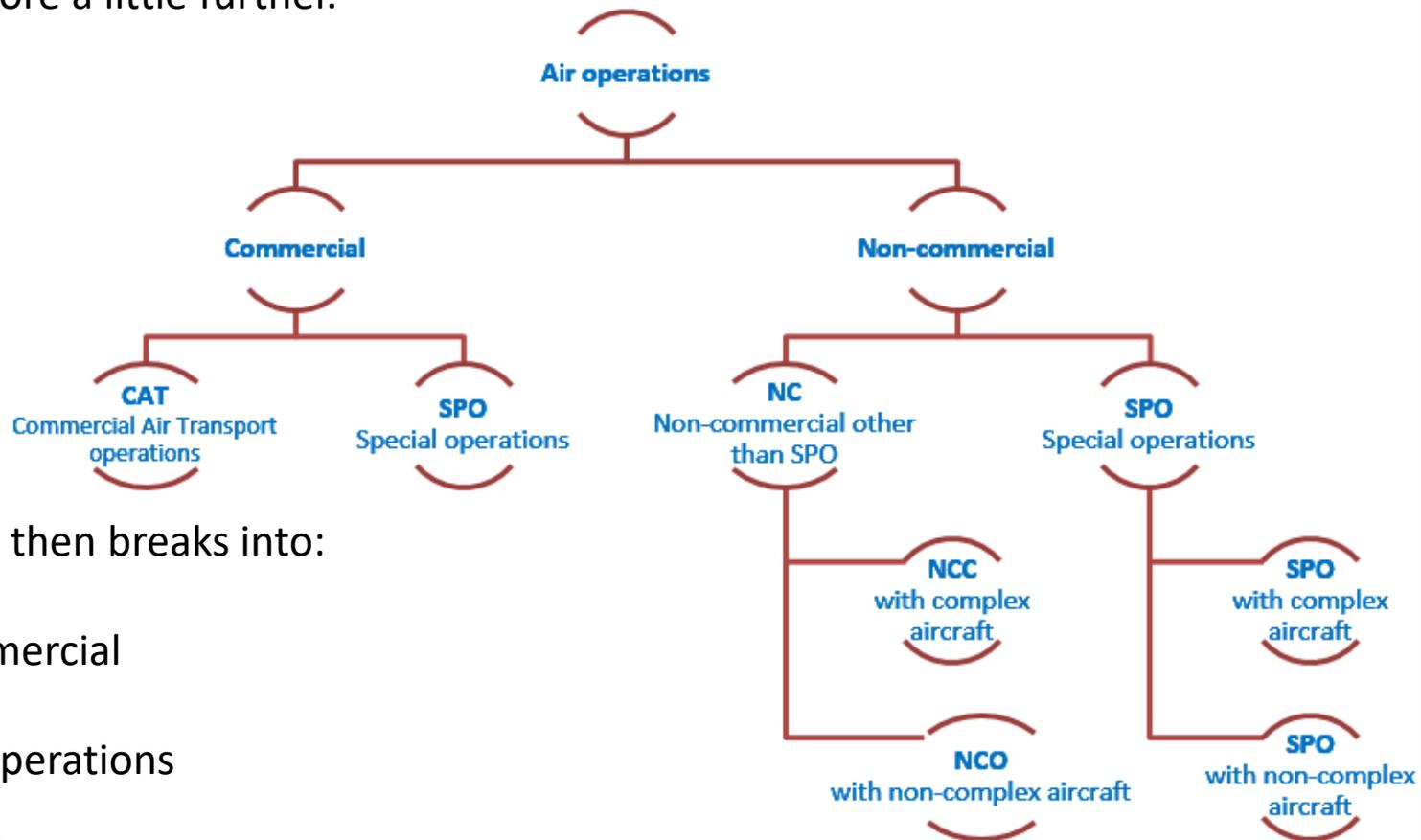
(1) unpressurised flight, (2) gear-down flight, (3) flight with one engine inoperative.

- The aircraft is moved from one location to another, e.g. from the manufacturer, refurbishment location, previous owner, lessor/lessee, long-term storage to the operator's base. (Other term used: delivery flight.)
- The aircraft and its aircrew are positioned to an aerodrome from which a further commercial air transport (CAT) operation will be performed. (Other term used: positioning flight.)
- The aircraft is moved from its current location to a secure location for various reasons (e.g. to remove it from a hazardous area). ( Other term used: recovery flight.)



# EASA Flight Classification

As we can see, concerning aircraft leasing, the flights we might be concerned with fall under non-commercial and it is here we will explore a little further.



Non-Commercial then breaks into:

- NC Non-Commercial
- SPO Special Operations



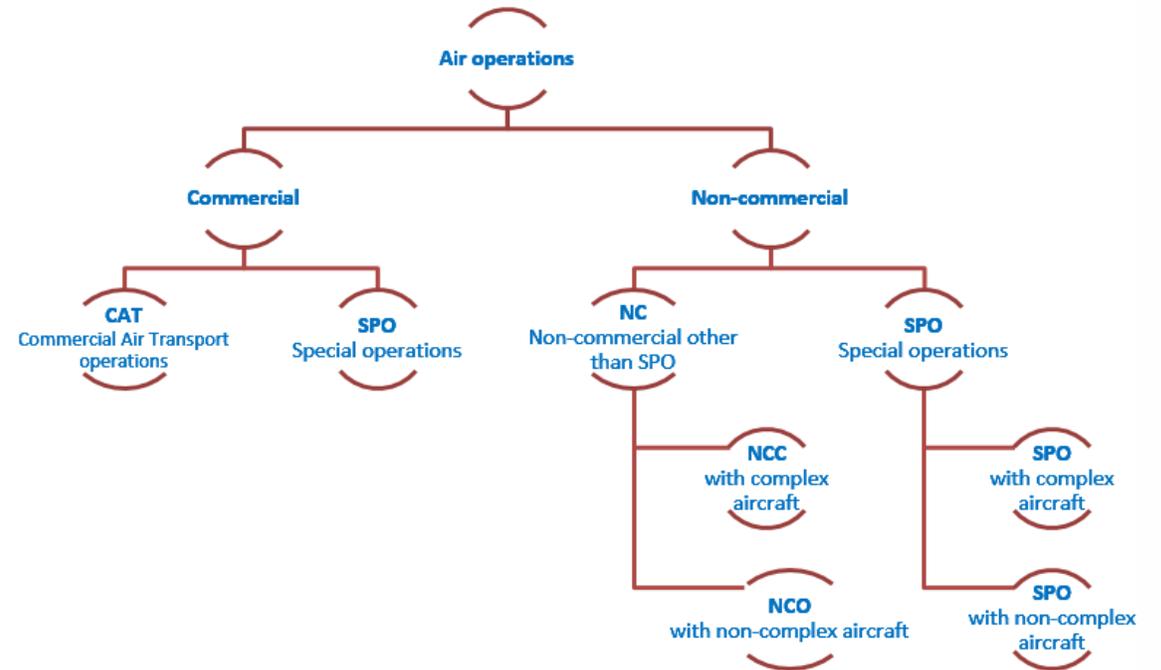
# EASA Flight Classification

What is a complex motor-powered aircraft?

The term ‘complex motor-powered aircraft’ is defined in Regulation (EU) 2018/1139 as follows:

“‘complex motor-powered aircraft’ shall mean:

An aeroplane with a maximum certificated take-off mass exceeding 5700 kg or certificated for a maximum passenger seating configuration of more than nineteen or certificated for operation with a minimum crew of at least two pilots or equipped with (a) turbojet engine(s) or more than one turboprop engine.



We will assume for example’s that we are a complex aircraft and so now have 2 options to consider: NCC Non-Commercial Operations and SPO Special Operations with complex aircraft



# EASA Flight Classification

SPO - specialized operations are where the aircraft is used for specialized activities such as agriculture, construction, photography, surveying, observation and patrol, aerial advertisement or maintenance check flights.

It is the maintenance check flights (MCF) that we have interest in here.

NCC - Noncommercial operations for complex aircraft covers the remaining flight types that we noted earlier including the following:

- **Demonstration Flights**
- **Ferry Flights**

Note that the Maintenance check flights covered under SPO have specific requirements then addressed in “Easy Access Rules for Air Operations (Regulation (EU) No 965/2012) ANNEX VIII (Part-SPO) SUBPART E: SPECIFIC REQUIREMENTS”



# EASA Maintenance Check Flights

So now we are aware that the type of flight we need to organise is of critical importance as this defines what type of approval(s) the company performing the flight will need as this can place risk on the asset value we are protecting.

If we need to perform a maintenance check flight (MCF), then additional awareness is needed as to the scope of the flight regarding requirements and profile; it is important as we will see later the operator needs to be Part SPO approved.

The additional requirements for performing maintenance check flights (MCF) note :

Before conducting a maintenance check flight, the operator shall determine the applicable level of the maintenance check flight as follows:

“Level A” maintenance check flight for a flight where the use of abnormal or emergency procedures, as defined in the aircraft flight manual, is expected, or where a flight is required to prove the functioning of a backup system or other safety devices;

“Level B” maintenance check flight for any maintenance check flights other than a “Level A” maintenance check flight.



# Lease Flight Regulation Awareness

Why are the regulations there and why there are specific requirements for the different flights –

On 27 November 2008, an Airbus A320-200 was being operated by XL Airways Germany on a nonrevenue flight from Perpignan to Frankfurt during which it was planned to carry out airworthiness system testing in the vicinity of the departure aerodrome before routing to Germany.

When it was at 3000 ft in day Visual Meteorological Conditions (VMC) before setting out en route, the flight crew attempted a low-level check of the angle of attack protection in normal control law during which they lost control of the aircraft which crashed into the sea and was destroyed, killing all 7 occupants.

From the report several recommendations were made; it is these recommendations that caused the changes in regulations and is why such flights are treated differently.

## Report

Accident on **27 November 2008**  
off the coast of **Canet-Plage (66)**  
to the **Airbus A320-232**  
registered **D-AXLA**  
operated by **XL Airways Germany**

BEA

Ministère de l'écologie, de l'énergie, du développement durable et de la mer, en charge des technologies vertes et des négociations sur le climat

Bureau d'Enquêtes et d'Analyses  
pour la sécurité de l'aviation civile



# Lease Flight Regulation Awareness

The recommendations that followed on from the report are:

- Detail in the EU-OPS the various types of non-revenue flights that an operator from an EU state is authorised to perform.
- Require that non-revenue flights be described precisely in the approved parts of the Operations Manual, this description specifically determining their preparation, programme and operational framework as well as the qualifications and training of crews.
- As a temporary measure, require that such flights be subject to an authorisation, or a declaration by the operator, on a case-by-case basis.

What this means is the EASA requirements were amended, and this is where the awareness of which flight you are requiring becomes of importance.



# Lease Flight Regulation Awareness

Essentially from a lease point of view you need to classify your flight requirement into one of the following:

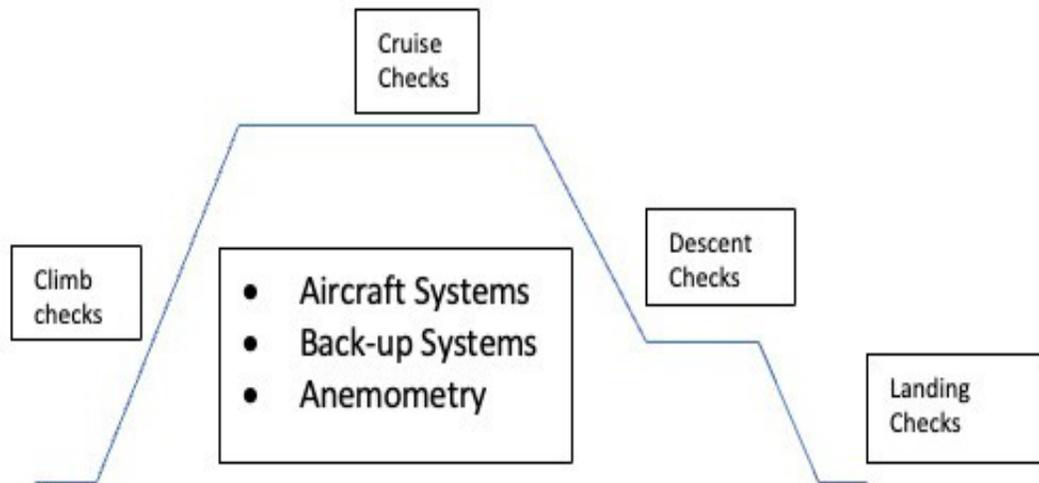
## Part NCC:

- Ferry/Delivery Flights

## Part SPO:

- Maintenance Check Flights
- Elective Check Flights
- Acceptance Check Flights

Typical Check Profile





# Lease Flight Regulation Implementation

Now we know about what we need to consider regarding awareness and classifying the flight requirement we come back to the initial concern – protecting the asset value.

The aircraft being our asset and its value being the point of a lease agreement; this does not change when we require flights.

It is vital that the company performing the flight holds the correct approval(s) based upon the flight requirement; particularly the requirements for maintenance check flights (MCF) which requires Part SPO, as specific training is required here for crews performing these flights in addition to normal crew training given the demands and potential from an MCF is so much more complex than a regular flight as the report into the 2008 Perpignan crash showed.

It is also worth noting that larger operators under their AOC approvals may have procedures in place to allow MCF flights to take place – this is an expensive undertaking regarding additional procedures and training, so commonly only occurs with larger operators. In such a case the MCF may only be made when the aircraft is operated on that specific AOC.



# EASA Flight Classification

## Flight Terminology

While the flights are defined with regard to their intended scope manufacturers typically do not use these term's and to an extent the terms might be “mis used” within the industry as regards to the flight description Vs the intended flight profile.

Consider a demo flight in which we need to show the aircraft operating a specific lease requirement or ferry flight which moves an aircraft from one location to another; while the aircraft may operate under provision with such conditions such as: (1) unpressurised flight, (2) gear-down flight, (3) flight with one engine inoperative, where the flight is limited to a routine flight essentially.

If we perform a certain profile, plan certain tests, any other functions or evaluation to be achieved on the flight, then the flight is not a ferry flight and might not be classed as a demonstration flight, but rather, could move into being classed as an MCF, which requires different approvals regarding operation.



# EASA Flight Classification

## Flight Terminology

Essentially the scope of the flight will define the requirements regarding certification required to operate it and in Regulation (EU) 2019/13877 SPO.SPEC.MCF.100 the Levels of maintenance check flight are considered:

The first question – is our flight classified as a maintenance check flight (MCF) regardless of OEM terminology?

Looking at the regulation for MCF consider will your flight use abnormal or emergency procedures, as defined in the aircraft flight manual, or is the flight required to prove the functioning of a backup system or other safety devices?

“Level A” maintenance check flight for a flight where the use of abnormal or emergency procedures, as defined in the aircraft flight manual, is expected, or where a flight is required to prove the functioning of a backup system or other safety devices;

**What is important is noted in “Level A” – as soon as we intend emergency procedures, backup systems, safety systems or abnormal operation functions to be tested then we immediately require an operator with SPO approval**



# EASA Flight Classification

## Flight Terminology

If we do not classify our flight as a MCF then we will require an NCC operator for a either a ferry/positioning flight or a demonstration flight; where the demonstration flight does not classify as an MCF. Be careful to evaluate the flight content and not just consider the flight name such as “demo flight”; this is where we can easily mistakenly arrange incorrectly approved operators.

In order to be classed as an SPO operator there are additional requirements which include specific crew training based on the flight profiles that can be undertaken and it is for this reason that awareness of the flight we need to perform Vs. the approvals of the operator are correct.

**In the event we perform a flight that is operated by a company / crew who do not hold the correct approvals then we are ultimately placing a risk on the asset because we are placing a question over the aircraft insurance due to operation not complying to the regulations.**

**While the regulation has existed for some time, this is a common area where nonawareness of the regulations and requirements has been causing an issue. It is now common for a CAMO to be requested to risk assess such flights and as such the risk mitigation is using the correctly approved operator.**



# EASA Flight Classification

Ensure you get the correctly certified and approved operator for the flight which you will be undertaking.

It is important to ask for clarification of their approvals when requesting/progressing quotes or arranging a flight.

The lease is there to protect the asset; operating an aircraft during a transition is a key part of that protection and the correct approval means the insurance is valid and the asset protected without question.

