EASA Air Operations Regulations 965/2012

Annex VIII (Part-SPO) Specialised Operations
(All Commercial & Non-Commercial Complex a/c)

&

Annex VII (Part-NCO) NCO.SPEC
(Non-Commercial, other-than complex)
Contents

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What is Specialised Operations (SPO)?

‘Specialised Operations’ means any operation other than commercial air transport where the aircraft is used for specialised activities such as: agriculture, construction, photography, surveying, observation and patrol, aerial advertisement.

- This covers much of what used to be called aerial work.

- Some activities may be deemed to be ‘High Risk’, particularly to third parties, and be subject to *prior authorisation*.

Note: More examples of SPO activities and classification criteria can be found in the Acceptable Means of Compliance and Guidance Material in Annex VIII (Part-SPO) of the Air Operations Regulations.
The European Union Aviation Safety System

National Aviation Authorities
- Implement EU law
- Oversee organisations
- Receive Declarations
- Issue most certificates, approvals, authorisations and licences
- Conduct ramp inspections

European Aviation Safety Agency

European Commission

Industry
European Aviation Regulations

Rule hierarchy and responsible organisations

- EASA Basic Regulation including Essential Requirements
  (European Council and Parliament)
- Implementing Rules
  (European Commission)
- Certification Specifications, Acceptable Means of Compliance, Guidance Material
  (EASA)
Each Part to each implementing regulation has its own Acceptable Means of Compliance and Guidance Material (AMC/GM). These AMC and GM are amended along with the amendments of the regulations. These AMC/GM are so-called ‘soft law’ (non-binding rules), and put down in form of EASA Decisions. A comprehensive explanation on AMC in form of questions and answers can be found on the FAQ section of the EASA website.

Furthermore, Certification Specifications are also related to the implementing regulations, respectively their parts. Like AMC/GM they are put down as Decisions and are non-binding.
Examples of an Essential Requirement (ER)

Basic Regulation (European Commission) No 216/2008

Example:
Annex IV of Basic Regulation 5.a

- Essential Requirements (ER)

An aircraft must be equipped with all navigation, communication and other equipment necessary for the intended flight........
Examples of an Implementing Rule (IR)

EASA Air Operations Regulations

- Implementing Regulation (IR)

- SPO.IDE.A.210 Headset
  Aeroplanes shall be equipped with a headset with a boom microphone or equivalent for each flight crew member……
Examples of an Acceptable Means of Compliance (AMC)

- AMC1 SPO.IDE.A.210 Headset

GENERAL
A headset consists of a communication device that includes two earphones to receive and a microphone to transmit audio signals to the aeroplane’s communication system. To comply with the minimum performance requirements……..
Example of Guidance Material (GM)

GM1 SPO.IDE.A.210 Headset

GENERAL
The term ‘headset’ includes any aviation helmet incorporating headphones and microphone worn by a flight crew member.
How do I ensure compliance?

- There are **Acceptable** Means of Compliance (AMC) and Guidance Material (GM) to help you comply.

- **Alternative** Means of Compliance (AltMoc) may be used by complex or commercial SPO operators, subject to them meeting the intent of the rule and being *advised* to the CAA under any Declaration.

- NCO Operators may use alternative means of compliance without advising the CAA but the operator is responsible for ensuring it meets the intent of the IR.
Who is affected by SPO?

- Commercial and non-commercial SPO operators using complex aircraft
- Operators conducting commercial SPO with other-than complex aircraft
- Operators conducting non-commercial specialised operations may comply with Part-NCO and NCO.SPEC

Notes:
- Regulations are applicable regardless of aircraft State of Registry
- Rules have been in place since 1 July 2014 but become applicable from: 21 April 2017
What does this mean for you?

- The Regulations are structured differently to previous National Rules.
- If you need to comply with Part-SPO you will need to make a Declaration to the CAA.
- You may need to comply with more than one Annex of the Air Ops regulations e.g. Annex VIII, Annex III (Part-ORO) and V (Part-SPA).
- Part-SPO and Part-NCO contain detailed:
  - Operating rules,
  - Performance, and
  - Equipment requirements with which you must comply.
- Part-NCO and NCO.SPEC cover non-commercial operations with other-than complex motor-powered aircraft.
Regulation 965/2012 Air Operations - Rule Structure

- **Part-ARO**: Authority Requirements Operations
- **Part-ORO**: Organisation Requirements Operations
- **Part-CAT**: Commercial Air Transport operations
- **Part-SPA**: Operations requiring Specific Approvals
- **Part-NCC**: Non-commercial operations with complex motor-powered aircraft
- **Part-NCO**: Non-commercial operations with other-than-complex motor-powered aircraft
- **Part-SPO**: Specialised Operations
Annexes applicable to Specialised Operations

- **Part-ARO**: Authority Requirements Operations
- **Part-ORO**: Organisation Requirements Operations
- **Part-CAT**: Commercial Air Transport operations
- **Part-SPA**: Operations requiring Specific Approvals
- **Part-NCC**: Non-commercial operations with complex motor-powered aircraft
- **Part-NCO**: Non-commercial operations with other-than complex motor-powered aircraft, including NCO.SPEC
- **Part-SPO**: Specialised Operations
Annex VIII (Part-SPO)

In order to comply with Part-SPO you will need to establish:

- Standard operating procedures (SOP)
- Aerodrome operating minima
- Departure and approach procedures
- Noise abatement procedures
- Flight preparation (Flight Planning)
- Safety briefing
- In-flight fuel management
- Use of oxygen
- Ground proximity detection
- Airborne collision avoidance system (ACAS II)

For more information please refer to: CAP1452 Specialised Operations
Definitions

What is a commercial operation?

- ‘Commercial operation’ shall mean any operation of an aircraft, in return for remuneration or other valuable consideration, which is available to the public or, when not made available to the public, which is performed under a contract between an operator and a customer, where the latter has no control over the operator.

What is an operator?

- ‘Operator’ shall mean any legal or natural person, operating or proposing to operate one or more aircraft or one or more aerodromes.
How do I determine who the operator is?

To determine who the operator is you should consider who is responsible for functions such as:

- Making sure the pilots are licensed, trained and hold the correct ratings
- Making sure the aircraft is insured
- Making sure flight planning is undertaken
- Ensuring the aircraft is airworthy/maintained and properly equipped in accordance with the operating rules
- Writing and updating the Operations Manual (if applicable)
- Applying for approvals (Dangerous goods, Low Visibility Operations etc.) and therefore, in whose name is the approval given
- Maintaining records, submitting MORs
- Who is responsible for delivering those functions where, in the rules, it says 'an operator shall...'
Definitions

What is a complex motor-powered aircraft?

- **An aeroplane:**
  - With a maximum certificated take-off mass exceeding 5,700kg, 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
  - Equipped with more than one turboprop engine and exceeding 5,700kg

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

- **A tilt rotor aircraft**
Definitions

What is a Task Specialist?

‘Task Specialist’ a person assigned by the operator or a third party, or acting as an undertaking, who performs tasks on the ground directly associated with a specialised task or performs specialised tasks on board or from the aircraft.

GM14 Annex I Definitions – Task specialists

For the purpose of this Regulation, persons that are carried in a specialised operation, e.g. on a parachute flight, sensational flight or scientific research flight, are considered to be task specialists.

NOTE: EASA Air Operations Article 5:-

(7) Flights taking place immediately before, during or immediately after specialised operations and directly connected to those operations shall be operated in accordance with paragraphs 3, 4 and 6 as applicable. Except for crew members, persons other than those indispensable to the mission shall not be carried on board.
What is High Risk SPO?

- ‘High Risk commercial specialised operation’ is any commercial specialised aircraft operation carried out over an area where the safety of third parties on the ground is likely to be endangered in the event of an emergency, or, as determined by the competent authority of the place where the operation is conducted, any commercial specialised aircraft operation that, due to its specific nature and the local environment in which it is conducted, poses a high risk, in particular to third parties on the ground.
High Risk SPO

- Affects commercial specialised operations only

- The operator requires an Authorisation to conduct High Risk SPO \((\textit{prior} \text{ to conducting the activity})\) Ref. ORO.SPO.110

- ANO 2016 and SERA requirements for 3rd party protection are also relevant e.g. an exemption from SERA.5005 f(2), \(<500’\), would still be required if applicable to the flight.

- A list of High Risk activities has been developed by each NAA alongside an authorisation process, details of high risk activities can be found on the SPO website. These include (not exhaustive and subject to change):
  - underslung loads
  - helicopter external loads and
  - construction work flights, including stringing power line operations and clearing saw operations
Annex III Part-ORO
Air Operations – Annex III Part-ORO

- **Applicability:**
  - Organisation requirements for:
    - CAT operators
    - NCC operators
  - SPO operators conducting:
    - Commercial SPO operations with any aircraft
    - Non-commercial SPO operations with complex aircraft
Specialised Operations - Operator requirements

Annex III (Part-ORO)

This annex is only applicable if you are conducting commercial SPO

- This Annex establishes requirements to be followed by an air operator conducting:

  (a) commercial air transport operations (CAT);

  (b) commercial specialised operations;

  (c) non-commercial operations with complex motor-powered aircraft;

  (d) non-commercial specialised operations with complex motor-powered aircraft.
Compliance with Part-ORO requires a declaration to be made to the CAA

- **Intent of the Declaration is to:**
  - ensure that the operator has acknowledged its responsibilities under the applicable safety regulations and that it holds all necessary specific approvals
  - inform the competent authority of the existence of any operator required to comply with Part-SPO
  - enable the competent authority to fulfil its oversight responsibilities
Includes:

Common requirements for commercial specialised operations
  Includes the following:
    Management, supervision and training of personnel
    Continuing airworthiness
    Adequacy of facilities
    Documentation

Leasing arrangements

Authorisation of High Risk commercial specialised operations
Changes to High Risk Authorisations
Continued validity of High Risk Authorisations
Annex VII Part-NCO
**Air Operations – Annex VII Part-NCO**

**Applicability**

- Technical rules for:
  - Non-commercial operations of other-than complex motor-powered aircraft including sailplanes and balloons
Specialised Operations – Non-commercial other-than complex aircraft

Annex VII (Part-NCO)
Subpart E (NCO.SPEC)

- Specialised Operations by operators conducting *non-commercial* activities with other-than complex motor-powered aircraft
Part-NCO Subpart E NCO.SPEC

- This is a subset of Part-SPO with a lighter touch for non-commercial specialised operations.

- It applies to any specialised activity in other-than complex motor-powered EASA aircraft, including but not limited to:
  - Helicopter external sling loads
  - Human external cargo
  - Parachute operations
  - Aerobatic flights

- Compliance with all the appropriate elements of Part-NCO are still required.

- Some elements of the ANO and SERA continue to apply to all UK registered aircraft and other aircraft operating within the UK.
If the activity does fall within the scope of a non-commercial SPO the PIC shall comply with all the assigned requirements. These include (*not exhaustive*):

- conducting a risk assessment

- using a checklist based on the risk assessment
  - Crew duties shall be specified in the checklist.
  - The task specialists duties shall be specified in the checklist.

- Safety briefing
  - (a) Before take-off, the pilot-in-command shall brief task specialists on:
    o (1) emergency equipment and procedures;
    o (2) operational procedures associated with the specialised task before each flight or series of flights.
LIST OF SPECIALISED OPERATIONS 1

(a) Specialised operations include the following activities:
   (1) helicopter external loads operations;
   (2) helicopter survey operations;
   (3) human external cargo operations;
   (4) parachute operations and skydiving;
   (5) agricultural flights;
   (6) aerial photography flights;
   (7) glider towing;
   (8) aerial advertising flights;
   (9) calibration flights;
   (10) construction work flights, including stringing power line operations, clearing saw operations;
LIST OF SPECIALISED OPERATIONS 2

- (11) oil spill work;
- (12) avalanche mining operations;
- (13) survey operations, including aerial mapping operations, pollution control activity;
- (14) news media flights, television and movie flights;
- (15) special events flights, including such as flying display, competition flights;
- (16) aerobatic flights;
- (17) animal herding and rescue flights and veterinary dropping flights;
- (18) maritime funeral operations;
- (19) scientific research flights (other than those under Annex II of Regulation 216/2008); and
- (20) cloud seeding.

(b) For other operations, the pilot-in-command can apply the criteria specified in AMC1 NCO.SPEC.100 to determine whether an activity falls within the scope of specialised operations.
Criteria

- CRITERIA
- The operators should consider the following criteria to determine whether an activity falls within the scope of specialised operations:
  - (a) the aircraft is flown close to the surface to fulfil the mission;
  - (b) abnormal manoeuvres are performed;
  - (c) special equipment is necessary to fulfil the mission and which affects the manoeuvrability of the aircraft;
  - (d) substances are released from the aircraft during the flight where these substances are either harmful or affect the manoeuvrability of the aircraft;
  - (e) external loads or goods are lifted or towed; or
  - (f) persons enter or leave the aircraft during flight.
Are abnormal manoeuvres to be performed?

Photograph courtesy of J Wickenden
Will the aircraft be flown close to the ground in order to fulfil the mission?
Will persons enter or leave the aircraft during flight?
What does this mean for you?

- Non-commercial SPO with other-than complex motor-powered aircraft may be conducted in accordance with Annex VII Part-NCO.

- **NCO.SPEC** provides specific requirements for specialised operations in such aircraft.

- **AMC to NCO.SPEC.100**
  Provides guidance on how to determine whether an activity is a specialised operation.
Are my Operating Rules Part.SPO or NCO.SPEC?

1. Start
2. Is it an EASA aircraft?
   - Yes: Part-SPO
   - No: Is it a complex Aircraft?
     - Yes: Part-NCO (NCO.SPEC)
     - No: Is it commercial?
       - Yes: Part-NCO (NCO.SPEC)
       - No: Refer to ANO
Please send any questions on specialised operations to: SPOWorkshop@caa.co.uk
Visit our SPO website and take a look at CAP1452 Part-SPO Presentations