

**Acceptable Means of Compliance and Guidance Material  
to Annex III (Part-ORO) to Regulation (EU) No 965/2012 —  
Issue 2, Amendment 28**

**Annex IV to ED Decision 2025/010/R**

**‘AMC & GM to Part-ORO — Issue 2, Amendment 28’**

This document shows deleted, new or amended text as follows:

- deleted text is ~~struck through~~;
- new or amended text is highlighted in **blue**;
- an ellipsis ‘[...]’ indicates that the rest of the text is unchanged.

**Note to the reader**

In amended, and in particular in existing (that is, unchanged) text, ‘Agency’ is used interchangeably with ‘EASA’. The interchangeable use of these two terms is more apparent in the consolidated versions. Therefore, please note that both terms refer to the ‘European Union Aviation Safety Agency (EASA)’.

## GM1 ORO.GEN.310 Use of ~~aircraft~~ aeroplanes or helicopters listed on an AOC for non-commercial operations and specialised operations

### EXAMPLES OF POSSIBLE SCENARIOS FOR THE USE OF ~~AIRCRAFT~~ AEROPLANES OR HELICOPTERS LISTED ON AN AOC

Aeroplanes and helicopters are referred to here as 'aircraft'.

[...]

## GM1 ORO.GEN.310(a)(2) Use of ~~aircraft~~ aeroplanes or helicopters listed on an AOC for non-commercial operations and specialised operations

### EXCEEDING 30 DAYS OF CONTINUOUS OPERATION

Aeroplanes and helicopters are referred to here as 'aircraft'.

[...]

## AMC1 ORO.GEN.310(b);(e) Use of ~~aircraft~~ aeroplanes or helicopters listed on an AOC for non-commercial operations and specialised operations

### RESPONSIBILITIES OF THE AOC HOLDER

Aeroplanes and helicopters are referred to here as 'aircraft'.

[...]

## GM1 ORO.GEN.310(d) Use of ~~aircraft~~ aeroplanes or helicopters listed on an AOC for non-commercial operations and specialised operations

### CONTINUING AIRWORTHINESS MANAGEMENT

Aeroplanes and helicopters are referred to here as 'aircraft'.

[...]

## AMC1 ORO.GEN.310(b);(d);(f) Use of ~~aircraft~~ aeroplanes or helicopters listed on an AOC for non-commercial operations and specialised operations

### RESPONSIBILITIES OF THE OTHER OPERATOR

Aeroplanes and helicopters are referred to here as 'aircraft'.

[...]

## AMC1 ORO.AOC.100(a) Application for an air operator certificate

### OPERATOR SECURITY PROGRAMME

In accordance with Regulation (EC) No 300/2008, as part of granting the AOC, the ~~CAT~~ operator should provide the competent authority with the operator's security programme, including security training. The security programme should be adapted to the type and area of operation, as well as to the aircraft operated.

## AMC1 ORO.AOC.110(c) Leasing agreement

### WET LEASE-IN AGREEMENT WITH A THIRD-COUNTRY OPERATOR

If the operator is not intending to apply EU safety requirements for air operations and continuing airworthiness when wet leasing-in an aircraft registered in a third country, it should demonstrate to the competent authority that the standards complied with are equivalent to the following requirements:

- (a) Annex IV (Part-CAT) for aeroplanes and helicopters, or Annex IX (Part-IAM) for VCA, as applicable;
- (b) Part-ORO for aeroplanes, helicopters or VCA, as applicable:
  - (1) ORO.GEN.110 and Section 2 of Subpart GEN;
  - (2) ORO.MLR, excluding ORO.MLR.105;
  - (3) ORO.FC;
  - (4) ORO.CC, excluding ORO.CC.200 and ORO.CC.210(a);
  - (5) ORO.TC;
  - (6) ORO.FTL, including related CS-FTL, for aeroplanes; and
  - (7) ORO.SEC;
- (c) Annex V (Part-SPA), if applicable;

- (d) for continuing airworthiness management of the third-country operator, ~~Part-M<sup>+</sup>-Subpart-B, Subpart-C and Subpart-G, excluding M.A.707, and M.A.710~~ Annex Vc (Part-CAMO) to Commission Regulation (EU) No 1321/2014<sup>1</sup>;
- (e) for the maintenance organisation used by the third-country operator during the lease period: Annex II (Part-145) to Commission Regulation (EU) No 1321/2014 ~~Part-145~~;
- (f) retroactive airworthiness requirements in accordance with Part-26; and
- (g) the operator should provide the competent authority with a full description of the flight time limitation scheme(s), operating procedures and safety assessment demonstrating compliance with the safety objectives set out in points (b)(1)-(6).

## AMC1 ORO.AOC.125(a) Non-commercial operations of an AOC holder with ~~aircraft~~ aeroplanes or helicopters listed on its AOC

### FLIGHT AND DUTY TIME LIMITATIONS AND REST REQUIREMENTS

When aircrew members are assigned to perform a series of flights that combine several types of operation (CAT, NCC/NCO), the operator should:

- (a) ~~for aircraft~~ aeroplanes, comply at any time with the provisions of ORO.FTL.210 'Flight times and duty periods' or, as applicable, the provisions of Council Regulation (EEC) No 3922/91 (EU-OPS, Subpart Q), to ensure compliance with Subpart FTL for any CAT operation; and
- (b) include any combination of types of operation in its safety risk management process to ensure that the fatigue risks arising from such operations do not affect the CAT operation.

## AMC2 ORO.AOC.125(a) Non-commercial operations of an AOC holder with ~~aircraft~~ aeroplanes or helicopters listed on its AOC

### APPLICABLE REQUIREMENTS

~~Aircraft~~ aeroplanes and helicopters are referred to here as 'aircraft'.

[...]

## AMC1 ORO.AOC.125(a)(2) Non-commercial operations of an AOC holder with ~~aircraft~~ aeroplanes or helicopters listed on its AOC

### DIFFERENT OPERATING PROCEDURES FOR NON-COMMERCIAL OPERATIONS

~~Aircraft~~ aeroplanes and helicopters are referred to here as 'aircraft'.

[...]

<sup>1</sup> ~~Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks (OJ L 315, 28.11.2003, p. 1). Regulation as last amended by Commission Regulation (EU) No 1149/2011 of 21 October 2011 (OJ L 298, 16.11.2011, p. 1).~~

<sup>1</sup> Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks (OJ L 362, 17.12.2014, p. 1).

## AMC2 ORO.AOC.125(a)(2) Non-commercial operations of an AOC holder with ~~aircraft~~ aeroplanes or helicopters listed on its AOC

[...]

## GM1 ORO.AOC.125(a)(2) Non-commercial operations of an AOC holder with ~~aircraft~~ aeroplanes or helicopters listed on an AOC

[...]

## AMC1 ORO.MLR.100 Operations manual – general

### GENERAL

[...]

- (g) Except for IAM operations, ~~In the case of~~ for commercial operations with other-than-complex motor-powered aircraft or non-commercial operations with aeroplanes or helicopters, a 'pilot operating handbook' (POH), or equivalent document, may be used as the type-related part of the OM, provided that the POH covers the normal and abnormal/emergency operating procedures.

[...]

## AMC2 ORO.MLR.100 Operations manual – General

### CONTENTS OF THE OPERATIONS MANUAL FOR CERTAIN TYPES OF OPERATION

Except for IAM operations, ~~For~~ for non-commercial operations with complex motor-powered aircraft, or CAT operations with either single-engined propeller-driven aeroplanes with an MOPSC of 5 or less, or single-engined non-complex helicopters with an MOPSC of 5 or less, taking off and landing at the same aerodrome or operating site, under VFR by day, the OM should contain at least the following information, where applicable:

[...]

## AMC3 ORO.MLR.100 Operations manual – general

### CONTENTS — CAT OPERATIONS WITH AEROPLANES AND HELICOPTERS AND IAM OPERATIONS WITH VCA

[...]

- 4.3 Flight crew incapacitation. For multi-pilot operation, ~~Instructions~~ instructions on the succession of command in the event of flight crew incapacitation.

[...]

- 8.1.2 Criteria and responsibilities for determining the adequacy of aerodromes to be used. For IAM operations, also criteria and responsibilities for determining the adequacy of diversion locations. For VEMS operations, also instructions for the assessment of VEMS

operating sites (elevation, landing direction, and obstacles in the area) and for surveillance of those sites.

[...]

- 8.1.4 En-route operating minima for VFR flights or VFR portions of a flight and, where single-engined aircraft are used, instructions for route selection with respect to the availability of surfaces that permit a safe forced landing. For IAM operations, instructions for route selection with respect to the availability of vertiports or diversion locations that permit a continued safe flight and landing (CSFL).

[...]

- 8.1.6 Interpretation of meteorological information. Explanatory material on the decoding of meteorological (MET) forecasts and MET reports relevant to the area of operations, including the interpretation of conditional expressions. For IAM operations, including VEMS, also instructions for the assessment of the weather conditions at vertiports, diversion locations and VEMS operating sites.

- 8.1.7 Determination of the quantities of fuel or amount of energy, oil and water methanol carried. The methods by which the quantities of fuel or amount of energy, oil and water methanol to be carried are determined and monitored in-flight. This section should also include instructions on the measurement and distribution of the fluid carried on board. Such instructions should take account of all circumstances likely to be encountered on the flight, including the possibility of in-flight ~~re-planning~~ replanning and of failure of one or more of the aircraft's power plants or lift and thrust units. The system for maintaining fuel/energy and oil records should also be described.

[...]

- 8.2.1 Fuelling procedures. A description of fuelling procedures, including:

(a) safety precautions during refuelling and defuelling including when:

- (1) an aircraft auxiliary power unit is in operation; or
- (2) for helicopters, when rotors are turning; or
- (3) for aeroplanes, when an engine is running; or
- (4) for VCA, when the lift and thrust units are powered on;

[...]

- 8.2.2 Aircraft, passengers and cargo handling procedures related to safety. A description of the handling procedures to be used when allocating seats, embarking and disembarking passengers and when loading and unloading the aircraft. Further procedures, aimed at achieving safety whilst the aircraft is on the ramp, such as charging or swapping of VCA batteries while passengers embark, are on board, or disembark, should also be given. Handling procedures should include:

[...]

- (f) safety ~~at~~ on the aerodrome, ~~operating site~~ or diversion location, including fire prevention and safety in blast and suction areas;

- (g) start-up, ramp departure and arrival procedures, including, for aeroplanes, push-back and towing operations **and, for VCA, ground movement;**

[...]

- (j) special loads and classification of load compartments; ~~and~~

- (k) multiple occupancy of aircraft seats; ~~and~~

- (l) safety on the ramp, including danger posed by aircraft rotors or propellers or other rotating parts.**

[...]

8.3.4 Altitude alerting system procedures for aeroplanes or audio voice alerting devices for helicopters **or height determination equipment for VCA;**

8.3.5 Ground proximity warning system (GPWS)/terrain avoidance warning system (TAWS); ~~for aeroplanes~~ **or VCA, where applicable.** Procedures and instructions required for the avoidance of controlled flight into terrain, including limitations on high rate of descent near the surface (the related training requirements are covered in OM-D 2.1).

8.3.6 Policy and procedures for the use of traffic collision avoidance system (TCAS)/airborne collision avoidance system (ACAS) for aeroplanes and, when applicable, for helicopters **or VCA.**

8.3.7 Policy and procedures for in-flight fuel/**energy** management. **For VCA, the fuel/energy scheme comprising policy and procedures for fuel/energy planning and in-flight replanning, selection of vertiports, diversion locations or VEMS operating sites, and in-flight fuel/energy management.**

[...]

8.3.9 Wake turbulence. Wake turbulence separation criteria, taking into account aircraft types, wind conditions and runway/final approach and take-off area (FATO) location. For helicopters, consideration should also be given to rotor downwash. **For VCA, consideration should also be given to the radial component of the downwash (outwash) around the VCA.**

[...]

8.3.14 Incapacitation of crew members. Procedures to be followed in the event of incapacitation of crew members in-flight, **including in single-pilot operations with VCA.** Examples of the types of incapacitation and the means for recognising them should be included.

8.3.15 Cabin safety requirements. Procedures:

- (a) covering cabin preparation for flight, in-flight requirements and preparation for landing, including procedures for securing the cabin and galleys;
- (b) to ensure that passengers are seated where, in the event that an emergency evacuation is required, they may best assist and not hinder evacuation from the aircraft;
- (c) to be followed during passenger embarkation and disembarkation;

- (d) when refuelling/defuelling with passengers embarking, on board or disembarking;
- (da) when charging or swapping VCA batteries while passengers embark, are on board, or disembark;
- (e) covering the carriage of special categories of passengers;
- (f) covering smoking on board;
- (g) covering the handling of suspected infectious diseases.

8.3.16 Passenger briefing procedures. The contents, means and timing of passenger briefing in accordance with Annex IV (Part-CAT) or Annex IX (Part-IAM), as applicable.

[...]

## 11 HANDLING, NOTIFYING AND REPORTING ACCIDENTS, INCIDENTS AND OCCURRENCES AND USING THE CVR RECORDING

[...]

- (h) Procedures required by CAT.GEN.MPA.195 or IAM.GEN.VCA.195 for using the ~~CVR recording~~ recordings or its transcripts without prejudice to Regulation (EU) No 996/210 and Regulation (EU) 2016/679, when applicable.

- (i) for IAM operations, procedures for the preservation of recorder recordings following an accident or a serious incident or when so directed by the investigating authority. These procedures should include:

- (1) a full quotation of point (a) of point IAM.GEN.VCA.195; and

- (2) instructions and means to prevent inadvertent manipulation that could impair the preservation of recorder recordings by operator personnel or by third parties, and to ensure that recorder recordings are preserved for the needs of the investigating authority.

## B AIRCRAFT OPERATING MATTERS — TYPE RELATED

[...]

### 1 LIMITATIONS

- 1.1 A description of the certified limitations and the applicable operational limitations should include the following:

[...]

- (k) for aeroplanes or, if applicable, for VCA, limitations on wet or contaminated runways;

### 2 NORMAL PROCEDURES

[...]

- (n) for aeroplanes or, if applicable, for VCA, limitations on wet or contaminated runways.

### 3 ABNORMAL AND/OR EMERGENCY PROCEDURES



[...]

- (i) guidance for diversion in case of serious technical failure **or CFP**,
- (k) ACAS/TCAS warning for aeroplanes **or, for VCA, if applicable**, audio voice alerting device (AVAD) warning for helicopters,

[...]

- (n) for aeroplanes **or for VCA**, departure contingency procedures.

#### 4 PERFORMANCE

[...]

- 4.1 Performance data. Performance material that provides the necessary data for compliance with the performance requirements prescribed in Annex IV (Part-CAT) **or in Annex IX (Part-IAM)**. For aeroplanes, this performance data should be included to allow the determination of the following:

[...]

- 4.1.2 If performance data, as required for the **aircraft operations**, appropriate performance class, are not available in the AFM, then other data should be included. The OM may contain cross-reference to the data contained in the AFM where such data ~~is~~**are** not likely to be used often or in an emergency. **If performance data, as required for VCA operations, is not available in the AFM, then other data should be included.**

[...]

#### 5 FLIGHT PLANNING

[...]

- 5.2 The method for calculating fuel/**energy** needed for the various stages of flight.

[...]

### C ROUTE/ROLE/AREA AND AERODROME, ~~OPERATING SITE~~ **OR DIVERSION LOCATION** INSTRUCTIONS AND INFORMATION

- 1 Instructions and information relating to communications, navigation and aerodromes, ~~operating sites~~ **or diversion locations**, including minimum flight levels and altitudes for each route to be flown and operating minima for each aerodrome, ~~operating site~~ **or diversion location** planned to be used, including the following:

[...]

- (b) operating minima for departure, destination and alternate aerodromes **or, for IAM operations, operating minima for departure, destination and en-route vertiports and diversion locations**;

[...]

- (d) runway/final approach and take-off area (FATO) data and aerodrome, ~~operating site~~ **or diversion location** facilities;

[...]

## D TRAINING

[...]

2 Content: Training syllabi and checking programmes should include the following:

2.1 for flight crew, all relevant items prescribed in Annex IV (Part-CAT), Annex IX (Part-IAM), Annex V (Part-SPA) and Subpart FC of Annex III (Part-ORO) ~~FC~~;

[...]

2.3 for technical crew, all relevant items prescribed in Annex IV (Part-CAT), Annex IX (Part-IAM), Annex V (Part-SPA) and Subpart TC of Annex III (Part-ORO) ~~TC~~;

2.4 for operations personnel concerned, including crew members:

(a) all relevant items prescribed in Subpart G of Annex IV (Part-SPA ~~DG~~); and

(b) all relevant items prescribed in Annex IV (Part-CAT), Annex IX (Part-IAM) and Subpart SEC of Annex III (Part-ORO) ~~SEC~~; and

2.5 for operations personnel other than crew members (e.g. dispatchers, handling personnel, etc.), all other relevant items prescribed in Annex IV (Part-CAT), Annex IX (Part-IAM) and in this Annex pertaining to their duties.

3 Procedures:

[...]

3.3 Procedures to ensure that abnormal or emergency situations requiring the application of part or all ~~of~~ the abnormal or emergency procedures, and simulation of instrument meteorological conditions (IMC) by artificial means are not simulated during CAT operations with aeroplanes or helicopters or during IAM operations with VCA.

[...]

## AMC4 ORO.MLR.100 Operations manual – General

CONTENTS — ~~NON-COMMERCIAL SPECIALISED OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT AND COMMERCIAL SPECIALISED OPERATIONS~~ — AEROPLANES AND HELICOPTERS

[...]

## AMC1 ORO.FC.105(b)(2);(c) Designation as pilot-in-command/commander

### GENERAL

The operator should comply with the national training and checking requirements published in the aeronautical information publication (AIP).

## **ROUTE, AREA AND AERODROME KNOWLEDGE FOR COMMERCIAL OPERATIONS WITH AEROPLANES AND HELICOPTERS**

The experience of the route or area to be flown and of the aerodrome facilities and procedures to be used should include the following:

[...]

### **AMC2 ORO.FC.105(b)(2);(c) Designation as pilot-in-command/ commander**

#### **GENERAL**

The operator should comply with the national training and checking requirements published in the AIP.

## **ROUTE, AREA AND AERODROME KNOWLEDGE FOR NON-COMMERCIAL OPERATIONS WITH AEROPLANES AND HELICOPTERS**

The knowledge of the route and area to be flown and of the aerodrome facilities and procedures to be used should include the following:

[...]

### **GM2 ORO.FC.105(b)(2) Designation as pilot-in-command/ commander**

## **AERODROME KNOWLEDGE FOR NON-COMMERCIAL OPERATIONS WITH AEROPLANES AND HELICOPTERS**

The operator may, based on complexity, categorise all aerodromes in one of the following three categories:

[...]

### **AMC3 ORO.FC.105(b)(2);(c) Designation as pilot-in-command/commander**

#### **GENERAL**

The operator should comply with the national training and checking requirements published in the AIP.

## **ROUTE, AREA AND VERTIPOINT KNOWLEDGE FOR IAM OPERATIONS**

Knowledge of the area and route to be flown, and of the vertipoint facilities and procedures to be used, should include the following:

#### **(a) Area and route knowledge**

(1) Area and route familiarisation training should ensure that the pilot has knowledge of:

(i) the terrain and the minimum applicable altitudes/heights;

- (ii) the seasonal meteorological conditions;
  - (iii) the meteorological, communication and air traffic facilities, services and procedures;
  - (iv) the search and rescue procedures, where available; and
  - (v) the navigational facilities associated with the route along which the flight is to take place, as applicable.
- (2) Area and route familiarisation training should also ensure that the pilot is aware of the most significant underlying risks and threats of a route that could affect IAM operations following the 'threat and error management model' or an alternative risk management model agreed with the competent authority.
- (3) The area and route familiarisation training should be delivered:
- (i) as initial training before operating to a route and area;
  - (ii) as refresher training after not having operated to a route and area for 12 months.
- (4) The OM should describe appropriate methods and tools for area and route familiarisation depending on the complexity of the route, the type of risk or threat that training needs to address, and the experience of the pilot-in-command. Methods of familiarisation may include briefing or self-briefing by means of programmed instruction, instruction in a suitable FSTD or other means.

**(b) Vertiport knowledge**

- (1) Vertiport familiarisation training should include knowledge of obstacle limitation surfaces, physical layout, lighting, take-off and landing profiles, hover, applicable visibility and distance from cloud minima, unusual local weather conditions, as well as taxiing and ground movement.
- (2) The OM should describe appropriate methods of familiarisation depending on the complexity of the vertiport. Methods of familiarisation may include briefing or self-briefing by means of programmed instruction, instruction in a suitable FSTD or other means.
- (3) If the competent authority of the vertiport requires specific training or familiarisation, the operator should maintain all records of this training or familiarisation in accordance with point ORO.GEN.220.
- (4) Where floating installations/surfaces are used, the limitations determined in accordance with the approval for operations on floating surfaces should be taken into account.

**(c) Diversion location knowledge**

- (1) The OM should describe appropriate methods of familiarisation with diversion locations depending on their complexity and/or risks associated with landing at diversion locations. Methods of familiarisation may include briefing or self-briefing by means of programmed instruction, instruction in a suitable FSTD or other means.

- (2) Diversion location familiarisation should include knowledge of the overall dimensions, the location and height of relevant obstacles, the approach and take-off flight paths, surface condition, and means indicating wind speed and direction.

## AMC1 ORO.FC.105(c) Designation as pilot-in-command/commander

### ROUTE/AREA AND AERODROME OR DIVERSION LOCATION KNOWLEDGE RECENCY

- (a) The 12-month period of validity of the aerodrome knowledge should be counted from the last day of the month:
  - (1) when the initial familiarisation training was undertaken; or
  - (2) of the latest operation on the route or area to be flown and of the aerodromes, facilities and procedures to be used.
- (b) The 36-month period of validity of the route or area knowledge or diversion location knowledge should be counted from the last day of the month:
  - (1) when the initial familiarisation training was undertaken; ~~or~~
  - (2) when the latest operation on the route or area was flown; ~~or~~
  - (3) when the latest operation involving a diversion location was flown.

## GM1 ORO.FC.105(c) Designation as pilot-in-command/commander

### AREA AND ROUTE FAMILIARISATION TRAINING DELIVERY

When developing the area and route familiarisation training, the operator may apply the following methodology:

- (a) Internal evidence
  - (1) Operator assessment by conducting an operational risk evaluation according to the following criteria:
    - (i) terrain and minimum and maximum applicable flight altitudes/heights;
    - (ii) seasonal meteorological conditions;
    - (iii) meteorological, communication and air traffic facilities, services and procedures;
    - (iv) search and rescue procedures where available; ~~and~~
    - (v) diversion locations associated with the route along which the flight is to take place, as applicable; and
    - (vi) navigational facilities associated with the route along which the flight is to take place, as applicable.
  - (2) Operator-specific evidence gathered through the safety management process in accordance with point ORO.GEN.200.

[...]

## AMC2 ORO.FC.115 Crew resource management (CRM) training

### CRM TRAINING — SINGLE-PILOT OPERATIONS

- (a) For single-pilot helicopter operations with technical crew or single-pilot VEMS operations with technical crew, AMC1 ORO.FC.115 should be applied.

[...]

## AMC1 ORO.FC.120 Operator conversion training

### OPERATOR CONVERSION TRAINING FOR NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT (NCC) — AEROPLANES AND HELICOPTERS

[...]

## AMC1 ORO.FC.125 Differences training, familiarisation, equipment and procedure training

### GENERAL

- (a) Differences training requires additional knowledge of and training on the aircraft or an appropriate training device. It should be carried out:
- (1) in the case of aeroplanes, when operating another variant of an aeroplane of the same type or another type of the same class currently operated; ~~or~~
  - (2) in the case of helicopters, when operating a variant of a helicopter currently operated;
  - (3) in the case of VCA, when operating a variant of a VCA different from the VCA currently operated.
- (b) Familiarisation requires only the acquisition of additional knowledge. It should be carried out when operating another ~~helicopter or aeroplane~~ aircraft of the same type.

## AMC1 ORO.FC.130 Recurrent training and checking

### RECURRENT TRAINING AND CHECKING TO DEMONSTRATE COMPETENCE FOR NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT (NCC) — AEROPLANES AND HELICOPTERS

[...]

## GM1 ORO.FC.130 Recurrent training and checking

### PERIODIC CHECKS

- (a) For CAT operations with aeroplanes and helicopters and for IAM operations with VCA, the operator proficiency checks and the line checks are both part of the periodic checks. For EBT

operators, the EBT module and the line evaluations of competence are both part of the periodic checks.

- (b) For SPO operations **with aeroplanes and helicopters**, the operator proficiency checks are part of the periodic checks.
- (c) For non-CAT operations **with aeroplanes and helicopters**, the periodic checks may include a line check.

## AMC1 ORO.FC.135 Pilot qualification to operate in either pilot's seat

### GENERAL

The training and checking for pilot qualification to operate in either pilot's seat should include any safety-critical items as specified in the operations manual where the action to be taken by the pilot is different depending on which seat they occupy.

### NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT (NCC) — **AEROPLANES AND HELICOPTERS**

Training should be arranged so that all such items will have been covered in the preceding 3-year period.

## AMC1 ORO.FC.140(d) Operation on more than one type or variant

### LINE CHECKS — **HELICOPTERS AND VCA**

- (a) Prior to using a line check on one helicopter type or variant **or on one VCA type or variant** to revalidate the line check on other helicopter types or variants **or VCA types or variants**, the operator should consider whether the types of operations are sufficiently similar in terms of:
  - (1) use of aerodromes, operating sites **or diversion locations**;
  - [...]

## AMC1 ORO.FC.145 Provision of training, checking and assessment

ACCEPTANCE OF PREVIOUS TRAINING FOR NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT **(AEROPLANES AND HELICOPTERS)**, INCLUDING NON-COMMERCIAL SPECIALISED OPERATIONS

[...]

## GM1 ORO.FC.145 Provision of training, checking and assessment

POLICY FOR ACCEPTANCE OF PREVIOUS TRAINING AND CHECKING FOR OTHER THAN COMMERCIAL AIR TRANSPORT OPERATIONS (NCC) — **AEROPLANES AND HELICOPTERS**

[...]

## AMC1 ORO.FC.145(a) Provision of training, checking and assessment

### TRAINING AND CHECKING PROGRAMMES AND SYLLABI

[...]

- (b) Further details on the training and checking programmes and syllabi should be included in the operations manual depending on the complexity of the operations (e.g. further contextualisation of the training programme, details of the ~~airport~~ aerodrome at ~~in~~ which some items will be covered, time allocation to brief and debrief, whether the item to be trained is a legal requirement or an SMS item, etc.).

## GM1 ORO.FC.145(d) Provision of training, checking and assessment

### CONFIDENTIALITY AND PROTECTION OF TRAINING DATA IN ~~COMMERCIAL AIR TRANSPORT~~ CAT OPERATIONS WITH AEROPLANES AND HELICOPTERS AND IN IAM OPERATIONS WITH VCA

- (a) Without prejudice to applicable ~~national legislation~~ Union law on the protection of individuals with regard to the processing of personal data, for the training conducted in accordance with ~~point~~ ORO.FC.145, the operator may have a training data access and security policy (including the procedure to prevent disclosure of crew identity).
- (b) If the operator decides to have such a policy, it should:
  - (1) be agreed by all parties involved (~~airline~~ operator management and flight crew member representatives nominated either by the union or the flight crew themselves);
  - (2) be in line with the organisation's safety policy in order to not make available or to not make use of the training data to attribute blame or liability.
- (c) The training data access and security policy may include a policy for access to information only to specifically authorised persons identified by their position in order to perform their duties.

## AMC1 ORO.FC.146(b) Personnel providing training, checking and assessment

### PERSONNEL PROVIDING AIRCRAFT/FSTD TRAINING AND CONDUCTING OPERATOR PROFICIENCY CHECKING AND ~~THAT ARE~~ QUALIFIED UNDER ANNEX I (PART-FCL) TO REGULATION (EU) No 1178/2011

Training and checking should be provided by the following personnel:

- (a) Flight training by a type rating instructor (TRI) or class rating instructor (CRI), flight instructor (FI) or, in the case of the FSTD content, a synthetic flight instructor (SFI). For ~~commercial-air transport~~ CAT operations with aeroplanes and helicopters and, if applicable, for IAM operations with VCA, the FI, TRI, CRI or SFI should satisfy the operator's experience and knowledge requirements sufficiently to instruct on aircraft systems and operational procedures and requirements.



[...]

## AMC1 ORO.FC.146(e);(f)&(g) Personnel providing training, checking and assessment

### SUITABLY QUALIFIED PIC OR COMMANDER NOMINATED BY THE OPERATOR — GENERAL

- (a) The nominated PIC/commander conducting training should either be qualified as an instructor under Regulation (EU) No 1178/2011 or receive training which should cover at least:
- (1) techniques of briefing and debriefing;
  - (2) CRM concepts and CRM assessment;
  - (3) for SPO **with aeroplanes or helicopters**, which manoeuvres the nominated PIC/commander should not train or check unless qualified as an instructor.

[...]

### CAT **OPERATIONS WITH AEROPLANES AND HELICOPTERS AND IAM OPERATIONS WITH VCA** — SUITABLY QUALIFIED **PIC OR** COMMANDER OR INSTRUCTOR NOMINATED BY THE OPERATOR

- (f) For CAT operations **with aeroplanes or helicopters** under VFR by day, the minimum experience of the nominated commander should be more than 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant, **obtained in flight operations**.
- (fa) For IAM operations with VCA, the minimum experience of the nominated PIC should be more than 350 hours total flight time with at least 25 hours on the type or the VCA variant, **obtained in flight operations**.
- (g) For CAT operations **with** performance class B aeroplanes under night VFR or under IFR, the minimum experience of the nominated commander should be more than 1 000 hours total flight time with at least 100 hours on the type, class or the aircraft variant, **obtained in flight operations**.
- (h) In the case of CAT operations **with** helicopters, the 350 hours flying experience in multi-pilot operations defined in **point** (c) may be reduced on an individual basis, as part of the approval of the training and checking programmes. The operator may apply for such a reduced flying experience based on the unavailability of experienced pilots in both multi-pilot operations and in their types of operations. An FI/TRI/SFI rating and MCC training in helicopters should be a prerequisite for any reduced flying experience in multi-pilot operations. In addition, the operator should define mitigation measures after having performed a risk assessment. The following should be taken into account:
- (1) flying experience criteria in single-pilot operations in the types of operation;
  - (2) any other training, checking, recency and experience criteria; and
  - (3) robustness and maturity of multi-pilot SOPs.
- (i) **Points** ORO.FC.220(f) **and** ORO.FC.420(e) **allows** the operator to develop a specific conversion course to address an operational circumstance, when the operator intends to have pilots

temporally joining the operator to conduct line checks. The content of the specific operator's conversion course is included in AMC1 ORO.FC.220(f) or in AMC1 ORO.FC.420(e), as applicable.

#### **SPO — SUITABLY QUALIFIED PIC OR INSTRUCTOR NOMINATED BY THE OPERATOR**

[...]

### **AMC1 ORO.FC.415 Initial operator's crew resource management (CRM) training**

#### **TRAINING ELEMENTS AND TRAINER QUALIFICATION**

The initial operator's CRM training should:

- (a) cover the applicable requirements of AMC1 ORO.FC.115, including the training elements as specified in its Table 1; and
- (b) be conducted by a flight crew CRM trainer that is qualified as specified in AMC2 ORO.FC.146.

### **AMC1 ORO.FC.420 Operator conversion training and checking**

#### **OPERATOR CONVERSION TRAINING SYLLABUS FOR IAM OPERATIONS WITH VCA**

##### **(a) General**

- (1) The operator conversion training should include, in the following order:
  - (i) ground training, including the following:
    - (A) VCA systems;
    - (B) normal procedures, including but not limited to flight planning, ground handling, flight operations, fuel/energy schemes, selection of vertiports and diversion locations, VCA performance, mass and balance;
    - (C) abnormal and emergency procedures, which include pilot incapacitation;
    - (D) a review of the occurrences that may be relevant for the intended operation;
  - (ii) emergency and safety equipment training and checking, including survival equipment training (completed before any flight training in a VCA commences);
  - (iii) flight training and checking (aircraft and/or suitable FSTD); and
  - (iv) line flying under supervision and line check.
- (2) When the pilot has not previously completed an operator's conversion course, he or she should receive general first-aid training and, if applicable, ditching procedures training using the equipment in the water.
- (3) The operator's conversion course may be combined with a new type rating course, as required by Regulation (EU) No 1178/2011.
- (4) The operator should ensure that:
  - (i) the applicable elements of CRM training, as specified in Table 1 of AMC1 ORO.FC.115, are integrated into all appropriate phases of the conversion training;

- (ii) the personnel that integrate the elements of CRM into the conversion training are suitably qualified, as specified in AMC2 ORO.FC.146.

**(b) Ground training**

- (1) Ground training should comprise a properly organised programme of ground instruction supervised by training staff with adequate facilities, including any necessary audio, mechanical and visual aids. Self-study using appropriate electronic learning aids, computer-based training (CBT), etc., may be used with adequate supervision of the standards achieved. However, if the aircraft concerned is relatively simple, unsupervised self-study may be adequate if the operator provides suitable manuals and/or study notes.
- (2) The ground instruction course should incorporate formal tests.

**(c) Emergency and safety equipment training**

- (1) Emergency and safety equipment training should be delivered in conjunction with technical crew receiving similar training, as far as applicable and practicable; emphasis should be placed on the importance of effective coordination and two-way communication between crew members in various emergency situations.
- (2) During the initial conversion course and subsequent conversion courses, as applicable, the following should be addressed:
  - (i) Instruction on first aid in general (initial conversion course only; instruction on first aid as relevant to the type of operation (initial and subsequent)).
  - (ii) Aeromedical topics, as relevant to the type of operation.
  - (iii) The effect of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment.
  - (iv) Actual firefighting, using equipment representative of that carried in the VCA, of actual or simulated fire.
  - (v) The operational procedures of security, rescue and emergency services.
  - (vi) Survival information appropriate to the areas of operation and training in the use of any survival equipment required to be carried.
  - (vii) A comprehensive drill to cover all ditching procedures when flotation equipment is carried aboard. This should include practice of the actual donning and inflation of life jackets, together with a demonstration or audiovisual presentation of the inflation of life rafts and/or slide rafts and associated equipment. This practice should, on an initial conversion course, be conducted using the equipment in water, although previous certified training with another operator or the use of similar equipment will be accepted in lieu of further wet-drill training.
  - (viii) Instruction on the location of emergency and safety equipment, on the correct use of all appropriate drills, and on procedures that could be required for flight crews in different emergency situations. Evacuation of the aircraft (or a representative training device) through the use of a slide, if fitted, should be included when the

operations manual procedure requires the early evacuation of flight crew to assist on the ground.

(3) Passenger handling

(i) Other than general training in dealing with people, emphasis should be placed on the following:

- (A) advice on the recognition and management of passengers who appear to be or are intoxicated with alcohol, under the influence of drugs, or aggressive;
- (B) methods used to motivate passengers and the crowd control necessary to expedite aircraft evacuation; and
- (C) the importance of correct seat allocation with reference to aircraft mass and balance; particular emphasis should also be given on the seating of special categories of passengers.

(ii) Discipline and responsibilities

Emphasis should be placed on discipline and on individual's responsibilities in relation to:

- (A) his or her continuous competence and fitness to operate as an aircrew member with special regard to flight and duty time limitation (FTL) requirements; and
- (B) security procedures.

(iii) Passenger briefing / safety demonstration

Training should be given in the preparation of passengers for normal and emergency situations.

(d) Flight training

- (1) Flight training should be provided to flight crew members to familiarise themselves thoroughly with all aspects of limitations and of normal, abnormal and emergency procedures associated with the VCA and should be delivered by suitably qualified type rating instructors and/or examiners or a suitably qualified PIC that holds an FI/TRI/SFI certificate and is nominated by the operator, as applicable.
- (2) When planning flight training on a VCA with a flight crew of two or more, particular emphasis should be placed on the practice of LOFT with emphasis on CRM, and the use of crew coordination procedures, including coping with incapacitation.
- (3) Normally, the same training and practice in the flying of the VCA should be delivered to all flight crew members. The 'flight handling' sections of the syllabus should include all the requirements of the operator proficiency check required by point ORO.FC.430.
- (4) Unless the type rating training programme has been carried out in a suitable FSTD, the training should include at least three take-offs and landings with the VCA.

(e) Operator proficiency check

(1) For VCA, the operator proficiency check that is part of the operator's conversion checking should include at least the following emergency/abnormal procedures, as relevant to the VCA and the operations, as applicable:

- (i) lift and thrust system fire;
- (ii) interior VCA fire or smoke;
- (iii) emergency operation of undercarriage;
- (iv) hydraulic failure;
- (v) electrical failure;
- (vi) malfunction of the flight and lift and thrust units control system;
- (vii) recovery from unusual attitudes;
- (viii) landing with one or more lift and thrust unit(s) inoperative;
- (ix) pilot incapacitation;
- (x) directional control failures and malfunctions;
- (xi) other system failures;
- (xii) CFP during take-off before decision point;
- (xiii) CFP during take-off after decision point;
- (xiv) CFP during landing before decision point; and
- (xv) CFP during landing after decision point.

(2) The flight crews' CRM skills should be assessed in accordance with the methodology described in AMC1 ORO.FC.115 and AMC2 ORO.FC.115, as applicable, and as specified in the operations manual.

(3) The use of FSTDs, the composition of the flight crew, and the possible combinations with training or with licence proficiency checks should be defined as per AMC1 ORO.FC.430.

(f) Line flying under supervision (LIFUS)

(1) Following completion of the flight training and checking as part of the operator's conversion course, each flight crew member should operate a minimum number of flight hours under the supervision of a flight crew member nominated by the operator.

(2) The minimum number of flight hours should be specified in the operations manual and should be determined by all the following:

- (i) previous experience of the flight crew member; and
- (ii) complexity of the operation, considering the type of aircraft as well as the type and area of operation.

## AMC2 ORO.FC.420 Operator conversion training and checking

### TRAINING PROGRAMMES

The operator should ensure that training programmes include the relevant de-identified feedback from the management system, including occurrence reporting.

## GM1 ORO.FC.420(b) Operator conversion training and checking

### COMPLETION OF OPERATOR'S CONVERSION COURSE

- (a) The operator conversion course is deemed to have started when the flight training has begun. The theoretical element of the course may be undertaken ahead of the practical element.
- (b) Under certain circumstances, the conversion course may have started and reached a stage where, for unforeseen reasons, its completion is not possible without delay. In these circumstances, the operator may allow the pilot to revert to the original aircraft type.
- (c) Before the resumption of the operator's conversion course, the operator should evaluate what part of the course needs to be repeated before the pilot continues with the remainder of the course.

## GM1 ORO.FC.420(d) Operator conversion training and checking

### LINE FLYING UNDER SUPERVISION (LIFUS)

- (a) LIFUS provides the opportunity for a flight crew member to put into practice the procedures and techniques he or she has been made familiar with during the ground and flight training of an operator's conversion course. This is accomplished under the supervision of a flight crew member that is specifically nominated and trained for the task. At the end of LIFUS, the respective flight crew member should be able to perform a safe and efficient flight.
- (b) A variety of reasonable combinations may exist with respect to:
  - (1) a flight crew member's previous experience; and
  - (2) the complexity of the operation, considering the type of aircraft as well as the type and area of operation.
- (c) The operator defines the details to be flown under supervision in the operations manual.

## AMC1 ORO.FC.420(e) Operator conversion training and checking

### SPECIFIC CONVERSION COURSE — PILOTS THAT TEMPORARILY JOIN THE OPERATOR AND ARE NOMINATED TO CONDUCT LINE CHECKS

- (a) In some cases, operational circumstances may require the operator to develop a specific conversion course to nominate pilots that temporarily join the operator as suitably qualified PIC to conduct line checks in accordance with point ORO.FC.146. In such cases, the operator's conversion training should include the following:

- (1) normal procedures including but not limited to flight planning, ground handling, flight operations, including performance, mass and balance, fuel/energy schemes, selection of vertiports and/or diversion locations, VCA performance, mass and balance;
  - (2) abnormal and emergency procedures, which include pilot incapacitation.
- (b) The operator should ensure that the line checker is familiar with:
- (1) the operating procedures and the use of checklists used by the operator;
  - (2) the emergency and safety equipment installed or carried on the operated aircraft.
- (c) After the completion of the specific conversion course, the following apply:
- (1) The line checker should not exercise duties at the controls of the aircraft.
  - (2) The line checker should only conduct recurrent line checks of pilots whose previous line check has not expired, in accordance with point ORO.FC.430.
- (d) The validity of the specific conversion course should be limited to 6 months.

## GM1 ORO.FC.420; 430 Operator conversion training and checking

### SINGLE-PILOT INCAPACITATION IN IAM OPERATIONS WITH VCA

'Pilot incapacitation' is the term used to describe a sudden degradation of the medical fitness of an operating flight crew member, rendering the flight crew member unable to carry out their normal duties because of the onset, during flight, of the effects of physiological factors.

Incapacitation may have different severity states. Death is the most extreme example of incapacitation (typically due to cardiovascular disease). By far, the most common cause of flight crew incapacitation is gastroenteritis.

Other causes may include:

- hypoxia at altitudes above 10 000 ft;
- smoke or fumes associated with contamination of the air-conditioning system;
- food poisoning or food allergy;
- falling asleep;
- heart attack, stroke due to cardiovascular disease;
- physical injury;
- a hostile act by an unruly passenger, terrorist action.

Initial and recurrent training in the form of classroom instruction, discussion, audiovisual presentation or other similar formats may be provided to pilots involved in single-pilot IAM operations or to pilots and technical crew members involved in VEMS operations to be able to (self-)detect the early stages of pilot incapacitation and handle it including by activating the relevant operator's procedure.

The training objectives may include:

- (self-)detection of pilot incapacitation;

- taking appropriate actions including correct stop/go decision;
- applying the appropriate operator's procedure correctly;
- maintaining aircraft control, as applicable (e.g. in single-pilot operations with a technical crew member aboard);
- managing the consequences for non-incapacitated crew members, as applicable (e.g. in single-pilot operations with a technical crew member aboard).

## AMC1 ORO.FC.430 Recurrent training and checking

### RECURRENT TRAINING AND CHECKING SYLLABUS

#### (a) Recurrent training

Recurrent training should comprise the following:

##### (1) Ground training

###### (i) The ground training programme should include:

- (A) aircraft systems;
- (B) normal procedures including but not limited to flight planning, ground handling, flight operation, including VCA performance, mass and balance, fuel/energy schemes, selection of vertiports and diversion locations;
- (C) abnormal and emergency procedures, which include pilot incapacitation;
- (D) the review of relevant occurrences to increase awareness regarding the occurrences that may be relevant for the intended operation.

###### (ii) Knowledge of the ground training should be verified by means of a questionnaire or other suitable methods.

##### (2) Emergency and safety equipment training

###### (i) Emergency and safety equipment training may be combined with emergency and safety equipment checking, and should be delivered in a VCA or a suitable, alternative training device.

###### (ii) Every year, the emergency and safety equipment training programme should include the following:

- (A) actual donning of life jackets if the VCA is operated over water;
- (B) actual handling of handheld fire extinguishers of the type used;
- (C) instruction on the location and use of all emergency and safety equipment carried on the VCA;
- (D) instruction on the location and use of all types of exits;
- (E) security procedures.

###### (iii) Every 3 years, the emergency and safety equipment training programme should include the following:



- (A) actual operation of all exits;
- (B) demonstration of the method used to deploy a slide, if fitted;
- (C) actual firefighting using equipment that is representative of that carried in the VCA of an actual or simulated fire except that, with halon extinguishers, an alternative extinguisher may be used;
- (D) the effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment;
- (E) actual handling of pyrotechnics, real or simulated, where applicable;
- (F) demonstration and use of life rafts if the VCA is involved in overwater operations at hostile or non-hostile sea at a distance from land corresponding to more than 10 minutes flying time at normal cruise speed.

#### VCA water survival training

If the VCA is equipped with life rafts in accordance with point UAM.IDE.MVCA.310, a comprehensive wet drill to cover all ditching procedures should be practised by crew members. The wet drill should include, as appropriate, practice of the actual donning and inflation of life jackets, together with a demonstration or audiovisual presentation of the inflation of life rafts. Crew members should board the same (or similar) life rafts from the water whilst wearing a life jacket. The training should include the use of all survival equipment carried on board, of life rafts and of any additional survival equipment carried separately on board the VCA.

The provision of further specialist training should be considered, such as underwater escape training. Where operations are predominately conducted over water at hostile or non-hostile sea at a distance from land corresponding to more than 10 minutes flying time at normal cruise speed, operators should provide VCA underwater escape training every 3 years at an appropriate facility.

Wet drill should always be practised in initial training unless the crew member concerned has received similar training by another operator;

- (G) first aid, appropriate to the type of operation and crew complement.
- (iv) The successful resolution of emergencies involving VCA requires flight crew and technical crew interaction, if applicable, and emphasis should be placed on the importance of effective coordination and two-way communication between all crew members in various emergency situations.
- (v) As regards emergency and safety equipment training, flight crews and technical crews should jointly practise VCA evacuation so that all those involved are aware of the duties other crew members should perform. When such practice is not possible, combined flight crew and technical crew training should include joint discussion of emergency scenarios.

- (vi) Emergency and safety equipment training should, as far as practicable, be provided in conjunction with technical crews receiving similar training with emphasis on coordinated procedures and two-way communication between the flight crew compartment and the cabin.

(3) CRM

Elements of CRM training, as specified in Table 1 of AMC1 ORO.FC.115, should be integrated into all appropriate phases of recurrent training.

(4) VCA/FSTD training

(i) General

- (A) The VCA/FSTD training programme should be established in a way that all major failures, including CFP, of VCA systems and associated procedures will have been trained in the preceding 3-year period.
- (B) The CFP should preferably be simulated and trained in an FSTD, and not trained in a VCA.
- (C) The recurrent VCA/FSTD training of a single task or a manoeuvre should be separate from, and should not take place at the same time as, an operator proficiency check of the item.

(ii) VCA/FSTD

- (A) If the operator can demonstrate, on the basis of a compliance and risk assessment, that alternating the use of an FSTD with the use of a VCA for the training provides standards of training equivalent as regards safety levels to those achieved using an FSTD, the VCA may be used (alternating it with the use of an FSTD) for the training to the extent necessary.

(b) Recurrent checking

Recurrent checking should comprise the following:

(1) Operator proficiency checks

(i) VCA/FSTD

- (A) The VCA/FSTD checking programme should be established in a way that ensures all major failures of VCA systems, including CFP, and associated procedures have been checked in the preceding 3-year period.

The operator should define which failures are major for the purpose of the operator proficiency check based on a risk assessment, taking the following into account:

- (a) cautions or warnings associated with the failure;
- (b) the criticality of the situation or failure;
- (c) the outcome of the procedure ('land immediately' or 'land as soon as possible' as opposed to 'land as soon as practicable');

- (d) when available, manufacturer documentation including relevant information in OSD; and
- (e) the list of abnormal/emergency procedures described in point (e) of AMC1 ORO.FC.420.

(B) The flight crew should be assessed on their CRM skills in accordance with the methodology described in AMC1 and AMC2 ORO.FC.115, and as specified in the operations manual.

(C) If the operator can demonstrate, on the basis of a compliance and risk assessment, that alternating the use of an FSTD with the use of a VCA for the training provides standards of checking equivalent as regards safety levels to those achieved using an FSTD, the aircraft may be used (alternating it with the use of an FSTD) for the checking to the extent necessary.

- (ii) The checks prescribed in point (b)(1)(i) may be combined with the skill test or proficiency check required for the issue, revalidation or renewal of the aircraft type rating.

## (2) Emergency and safety equipment checks

The items to be checked should be those for which training has been provided in accordance with point (a)(2).

## (3) Line checks

- (i) A line check should establish the ability of the flight crew to perform satisfactorily a complete line operation, including pre-flight and post-flight procedures and the use of the equipment provided, as specified in the operations manual. The route chosen should be such as to give adequate representation of the scope of a pilot's normal operations. The PIC should also demonstrate their ability to manage the operation and take appropriate command decisions.
- (ii) The flight crew should be assessed on their CRM skills in accordance with the methodology described in AMC1 ORO.FC.115 and as specified in the operations manual.
- (iii) The CRM assessment should not be used as a reason for the failure of the line check unless the observed behaviour could lead to an unacceptable reduction in the safety margin.
- (iv) When pilots are assigned duties as 'pilot flying' and 'pilot monitoring', they should be checked in both functions.
- (v) A line check should be conducted by a PIC nominated by the operator. The operator should maintain a list of nominated PICs and inform the competent authority about the persons nominated.
- (vi) CRM assessment during the line check

The CRM assessment that takes place during the line check should be solely based on observations made during the initial briefing, flight crew compartment briefing and those phases where the line checker occupies the observer's seat.

(vii) Complementary CRM assessment

If a suitable FSTD is available and accessible for operator proficiency checks or FSTD training, then the CRM assessment should take place in a line-oriented flight scenario (LOFT or line-oriented section of the OPC) of an FSTD session. This assessment complements the CRM assessment that takes place during the line check, but is not part of the line check.

- (4) The recurrent checks referred to in points (b)(1) and (b)(3) should be performed in the single-pilot role in an environment representative of the operation.

(c) Flight crew incapacitation training

- (1) Procedures should be established to train flight crew to recognise and handle flight crew incapacitation. This training should be conducted every year and can form part of other recurrent training programmes. It should take the form of classroom instruction, discussion, audiovisual presentation or other similar formats.
- (2) If an FSTD is available for the type of aircraft operated, practical training in flight crew incapacitation should be provided at intervals not exceeding 3 years.

(d) Use of FSTD

- (1) Training and checking provide an opportunity to practise abnormal/emergency procedures that rarely arise in normal operations and should be part of a structured recurrent training programme. Training and checking should be carried out in an FSTD, when available and accessible.
- (2) The line check should be performed in a VCA. All other training and checking should be performed in an FSTD, or, if it is not reasonably practicable to gain access to such devices, in an aircraft of the same type or, in the case of emergency and safety equipment training, in a representative training device. The type of equipment used for training and checking should be representative of the instrumentation, equipment and layout of the VCA type operated by the flight crew member.
- (3) Due to the unacceptable risk when simulating CFP, the CFP should preferably be covered in an FSTD. If there is no FSTD available, CFP may be covered in an aircraft using a safe airborne simulation, bearing in mind the effect of any subsequent failure, and the exercise should be preceded by comprehensive briefing.

## AMC2 ORO.FC.430 Recurrent training and checking

### TRAINING PROGRAMMES

The operator should ensure that training programmes include the relevant de-identified feedback from the management system, including occurrence reporting.

## GM1 ORO.FC.430 Recurrent training and checking

### LINE CHECK AND IAM OPERATOR PROFICIENCY TRAINING AND CHECKING

- (a) Line checks, route and vertiport knowledge, and recent experience requirements are intended to ensure the flight crew member's ability to operate efficiently under normal conditions, whereas other checks and emergency and safety equipment training are primarily intended to prepare the flight crew member for abnormal/emergency procedures.
- (b) The line check is considered a particularly important factor in the development, maintenance and refinement of high operating standards, and can provide the operator with a valuable indication of the usefulness of its training policy and methods. Line checks are a test of a flight crew member's ability to perform a complete line operation, including pre-flight and post-flight procedures and the use of the equipment provided, and an opportunity for an overall assessment of their ability to perform the duties required as specified in the operations manual. The line check is not intended to determine knowledge of any particular route.
- (c) Operator proficiency training and checking  
When an FSTD is used, the opportunity should be taken, where possible, to use LOFT.

### MAJOR FAILURES — VCA

- (d) The list of major failures, as defined by the operator under AMC1 ORO.FC.430 for training purposes, may be more extensive than the list covered in the triennial operator proficiency checking programme for the following reasons:
  - (1) it may happen that several training elements are covered by a single check; and
  - (2) certain complex system malfunctions are best explored in recurrent training, where the trainee will derive more benefit, and training to proficiency is also employed.

## AMC1 ORO.FC.440 Operations on more than one type or variant

### MORE THAN ONE VCA TYPE OR VARIANT

- (a) For operations on more than one VCA type or variant, the following should be met:
  - (1) the recency requirements and the requirements for recurrent training and checking should be met and confirmed prior to the commencement of IAM operations on any VCA type/variant, and the minimum number of flights on each VCA type/variant should be specified in the operations manual;
  - (2) point ORO.FC.430 requirements with regard to recurrent training; and
  - (3) point ORO.FC.430 requirements with regard to IAM operator proficiency checks. When credits related to the training, checking and recent experience requirements are defined in the OSD established in accordance with Commission Regulation (EU) No 748/2012 for the relevant VCA types or variants, the requirements of point ORO.FC.430 with regard to proficiency checks may be met by a check every 6 months on any one VCA type or variant operated. However, a proficiency check on each VCA type or variant operated should be completed every 12 months.

(b) For any combination of aircraft types or groups of types, including at least one VCA, the following should be met:

- (1) when more than one VCA type or variant is operated in IAM operations as part of the combination, the applicable requirements are those specified in point (a) with respect to the VCA types/variants;
- (2) when the combination consists of aeroplanes and/or helicopters, operated in CAT, NCC and/or SPO, and at least one VCA operated in IAM, the applicable requirements with regard to those aeroplanes and/or helicopters are contained in point ORO.FC.240.

## GM1 ORO.FC.440 Operations on more than one type or variant

### GROUP OF HELICOPTER TYPES

Information about the 'group of types of helicopters' is provided in AMC1 ORO.FC.240.

## AMC1 ORO.TC.105 Conditions for assignment to duties

### GENERAL

- (a) The technical crew member in HEMS, VEMS, HHO or NVIS operations should undergo an initial medical examination or assessment and, if applicable, a re-assessment before undertaking duties.

[...]

## AMC1 ORO.TC.115 Initial training

### ELEMENTS

- (a) The elements of initial training mentioned in point ORO.TC.115 should include in particular:

[...]

- (2) Fire and smoke training:
  - (i) reactions to emergencies involving fire and smoke and identification of the fire sources, including battery fire;
  - (ii) the classification of fires and the appropriate type and techniques of application of extinguishing agents, the consequences of misapplication, and of use in a confined space; and
  - (iii) the general procedures of ground-based emergency services at aerodromes;
  - (iv) the risks of overcharging, overheating, short circuit and fire when charging or swapping VCA batteries; heat generation and 'thermal runaway', if applicable.
- (3) When conducting extended overwater operations with helicopters or operations with VCA over water at hostile or non-hostile sea at a distance from land corresponding to more than 10 minutes flying time at normal cruise speed, water survival training, including the use of personal flotation equipment.

[...]

## AMC1 ORO.TC.120; ~~8~~-125 Operator conversion training and differences training

### ELEMENTS

- (a) Operator conversion training mentioned in **point** ORO.TC.120(b) and differences training mentioned in **point** ORO.TC.125(a) should include the following:
- (1) Fire and smoke training, including practical training in the use of all ~~fire-fighting~~ **firefighting** equipment as well as protective clothing representative of that carried in the aircraft. Each technical crew member should:
    - (i) extinguish a fire characteristic of an aircraft interior fire except that, in the case of Halon extinguishers, an alternative extinguishing agent may be used; ~~and~~
    - (ii) practise the donning and use of protective breathing equipment (~~when~~**if** fitted) in an enclosed, simulated smoke-filled environment; **and**
    - (iii) **manage a fire of a battery mounted on a VCA, where applicable.**
  - (2) Practical training ~~in~~**on** operating and opening all normal and emergency exits for passenger evacuation in an aircraft or representative training device and demonstration of the operation of all other exits.
  - (3) Evacuation procedures and other emergency situations, including:
    - (i) recognition of planned or unplanned evacuations on land or water — this training should include recognition of unusable exits or unserviceable evacuation equipment;
    - (ii) in-flight fire and identification of fire source; and
    - (iii) other in-flight emergencies.
  - (4) ~~When the flight crew is more than one, training~~ **Training on** assisting if a pilot becomes incapacitated, including a demonstration of:
    - (i) the pilot's seat mechanism;
    - (ii) fastening and unfastening the pilot's seat restraint system;
    - (iii) use of the pilot's oxygen equipment, when applicable; and
    - (iv) use of pilots' checklists.

[...]

## AMC1 ORO.TC.135 Recurrent training

### ELEMENTS

[...]

- (c) Recurrent training should include every 3 years:

- (1) practical training ~~in~~<sup>on</sup> operating and opening all normal and emergency exits for passenger evacuation in an aircraft or representative training device and demonstration of the operation of all other exits;
- (2) practical training in the use of all firefighting equipment as well as protective clothing representative of that carried in the aircraft. Each technical crew member should:
  - (i) extinguish a fire characteristic of an aircraft interior fire except that, in the case of Halon extinguishers, an alternative extinguishing agent may be used; ~~and~~
  - (ii) practise the donning and use of protective breathing equipment (~~when~~<sup>if</sup> fitted) in an enclosed, simulated smoke-filled environment; ~~and~~
  - (iii) manage a fire of a battery mounted on a VCA, where applicable;
- (3) use of pyrotechnics (actual or representative devices); and
- (4) demonstration of the use of the life raft, ~~where~~<sup>if</sup> fitted.