

**Transition guide for
regulatory change
Reg. (EU) 2021/2237**



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Reg. (EU) 2021/2227	COMMISSION IMPLEMENTING REGULATION (EU) 2021/2227 of 14 December 2021 amending Regulation (EU) No 1178/2011 as regards the requirements for all-weather operations and for instrument and type rating training in helicopters.
Reg. (EU) 965/2012	COMMISSION REGULATION (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council.
<i>Decision 2022/012/R</i>	Executive Director Decision 2022/012/R del 30 de junio de 2022

LIST OF ACRONYMS	
ACRONYM	DESCRIPTION
AMC	Accepted Means of Compliance
ATPL	Air Transport Pilot Licence
AWO	All-Weather Operations
CDFA	Continuous Descent Final Approach
DH	Decision Height
EFVS	Enhanced Flight Vision Systems
FSTD	Flight Simulation Training Device
GM	Guidance Material
HOFO	Helicopter Offshore Operations
LVO	Low Visibility Operations
MDH	Minimum Descent Height
MOPSC	Maximum Operational Passenger Seating Configuration
NPA	Notice of Proposed Amendment
ODR	Operator Difference Requirements
OSAP	Offshore standard approach procedures
OTS	Other Than Standard
PINS	Point In Space



RMT	Rulemaking Task
RVR/VIS	Runway Visual Range/Visibility
SOP	Standard Operating Procedures
SPA	Specific Approval
VFR	Visual Flight Rules

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1. OBJECT AND SCOPE

The object of this guide is to describe the changes the different types of operators need to implement to comply with the new requirements of the Reg. (EU) 2021/2237¹ before it enters into force on 30 October 2022.

By means of the RMT.0379 and its corresponding NPAs 2018-06, 2019-09 and 2020-02, and the RMT.0599/NPA 2019-08, EASA developed the *Opinion* 02/2021 to modernise the regulatory framework for aviation of the European Union with regard to all-weather operations (AWOs) and training flight crew to enhance the efficiency of these operations by harnessing the latest technological advances while simultaneously ensuring the utmost levels of safety.

The Regulation (EU) 2021/2237, which modifies the Regulation (EU) 965/2012, transposes the conclusions of the *Opinion* 02/2021² into the Union's regulatory framework.

The different AMCs and GMs relating to this new regulation have been developed through EASA *Decision* 2022/012/R³ published by EASA on 30th June. However, ORO.FC AMCs y GMs are still a *draft in the Opinion* 02/2021.

In the context of this guide, "transition to the new regulation" shall be understood to refer to those actions by the operator, which are necessary for maintaining the conformity of their operation with the Regulation (EU) 965/2012, following the entry into force of the new amendment to the same.

Therefore, the main approach shall be to establish the indispensable changes the operator must make to ensure regulatory compliance before the new operational options introduced by the new Regulation (EU) 2021/2237, such as EFVS 200, LVO operational credits or SPA PINS-VFR, are applied.

The compilation of changes to the regulation identified and described in this guide should not be regarded as exhaustive, but rather it focusses on the most important changes and those with the greatest potential impact for the operator. Therefore, adherence to this guide does not exempt the operator from rigorous analysis of the regulatory changes, including their associated AMCs and GMs, under the auspices of the operator's specific process of change management.

This document is directed both at commercial air transport (CAT) operators holding an Air Operator Certificate (AOC), and those subject to declaration, whether for non-commercial operations with complex motor-powered aircraft (NCC) or specialised operations (SPO), as well as to non-commercial operations with other than complex motor-powered aircraft (NCO).

Queries about the transition can be directed to the email address ops.aesa@seguridadaerea.es.

2. CHANGES INTRODUCED BY THE REGULATION (EU) 2021/2237

In line with the new focus based on performance and risk, many of the elements of the regulation have been implemented at the level of AMCs and GMs. This fact, in combination with optimisation and reorganisation of the existing material, means that a large number of AMCs and GMs have been

¹ <https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=CELEX%3A32021R2237&qid=1659510378660>

² <https://www.easa.europa.eu/document-library/opinions/opinion-022021>

³ <https://www.easa.europa.eu/document-library/agency-decisions/ed-decision-2022012r>

modified, although in many cases this does not necessarily imply the introduction of any actual change with respect to the preceding regulation.

Below, the most important changes introduced by the aforementioned amendment to the Regulation (EU) 965/2012 are summarised briefly. For a detailed description of these changes, and their regulatory justification, the operator can consult the EASA *Opinion* 02/2021 as well as ED *Decision* 2022/012/R.

2.1. All-Weather Operations (AWO)

2.1.1. Annex I - Definitions

Annex I to the Regulation (EU) 965/2012 has been modified to eliminate definitions no longer applicable, introduce those relating to new elements, and there are modifications to existing entries to clarify concepts. Among the most significant with regard to all-weather operations are the following:

- New definitions of instrument approach operations (2D, 3D) with their corresponding categories (A and B) and those for the procedures (PA, LPV, NPA), to align them with the ICAO definitions.
- Clarification of the term “AFM or additional data from the TC/STC holder” based on the landing systems.
- Clarifications about the CDFA technique are introduced to exclude circling approach operations from its scope.
- New types of operation such as EFVS and EFVS 200 are also introduced.
- Due to its importance in the new focus for Part-SPA, the concept of “operational credit” is introduced.

2.1.2. Annex III – Organisation Requirements for Air Operations (Part-ORO)

Although the new regulation does not include changes on Annex III directly related to AWO (except on ORO.FC), AMCs and GMs related to ORO.GEN.160 have been modified regarding reportable events during LVO operations.

EASA Decision includes a list of events regarding onboard equipment failures and ground infrastructure that may lead to the end of an LVO.

2.1.3. Annex IV – Commercial air transport operations (Part-CAT)

The new CAT.OP.MPA.101 requirement is introduced, relating to altimeter checking procedures before departure and settings during each phase of the flight.

The procedure for establishing aerodrome operating minima represents one of the main changes for the purposes of the transition plan. The amendment to the requirement CAT.OP.MPA.110 sets out that the cited procedure shall now be subject to approval by the Authority, which means that operators, in addition to aligning their procedure with the changes to the requirement, must also request the corresponding approval. The method for calculating DH and RVR for operations not

subject to SPA, derived from other points of the regulation, is carried over to the AMCs and GMs of that requirement.

Clarifications to CAT.OP.MPA.115 are introduced with regard to the criteria for use of the CDFA technique, and in particular for circling approaches, and there are also clarifications to the notion of stabilised approach.

The points CAT.OP.MPA.265 and CAT.OP.MPA.300 regarding the conditions for take-off, approach and landing are modified to incorporate the requirements given in CAT.OP.MPA.110 (e) of the old regulation.

The CAT.OP.MPA 305 is modified with the criteria for commencement and continuation of an approach, to clarify the RVR/VIS applicable (by runway segment, or where the value is reduced by the application of operational credits, for example).

The new concept of EFVS 200 operations (which are not subject to approval) is introduced through the CAT.OP.MPA.312 and its AMCs and GMs. This type of operation is based on the concept of operational credit, to enable aircraft equipped with an enhanced flight vision system (EFVS) to apply lower RVR than those that would be applicable pursuant to CAT.OP.MPA.110. The minimum RVR applicable to the EFVS 200 operation shall under no circumstances be lower than 550 m, nor shall the DH be less than 200 ft.

Other regulatory points in Annex IV are modified slightly to introduce the changes in the definitions of Annex I, such as CAT.OP.MPA.107, CAT.OP.MPA.245, CAT.OP.MPA.246 CAT.OP.MPA.310.

CAT.POL.A.230 and CAT.POL.A.235 include new AMCs and GMs regarding landing distance in case of use of HUD with flare cue.

2.1.4. Annex V – Specific approvals (Part-SPA)

There are general changes in the requirements for LVO approvals.

Given that the definition of low-visibility operations is extended to all those with RVR below 550 m, the concept of LVTO operations is therefore extended to all take-offs with RVR lower than 550 m, even though specific approval shall only be required for those with RVR below 400 m, as has been the case up to now.

The LTS CAT I, OTS CAT II and EVS approach operations disappear. The operational attributions of these SPAs shall now be envisaged within the framework of operational credits.

The terms CAT IIIA and CAT IIIB disappear, and these operations shall be referred to as CAT III.

The concept of “operational credits” is introduced, to permit the application of reduced minima for those aircraft fitted with equipment supplementary to that required as standard, though specific to a given operation. In particular, the following operational credits are introduced:

- SA CAT I is an operational credit applied to a CAT I operation that permits the instrument segment of a CAT I approach to be extended to a minimum DH of 150 ft.
- HELI SA CAT is an operational credit applied to a CAT I helicopter operation that permits the instrument segment of a CAT I approach to be extended to a minimum DH of 130 ft.

- SA CAT II is an operational credit applied to a CAT II operation that permits use of a runway not meeting the lighting requirements for a CAT II approach. It does not imply lower DHs than for a standard CAT II.
- EFVS operations, which allow the RVR (but not the DH) to be reduced on the visual segment under certain conditions, for aircraft equipped with an enhanced flight vision system (EFVS).

The AMCs for the point SPA.LVO.105 set out the criteria necessary for the corresponding specific approval, such as operational procedures, equipment certification, etc., extracted from points like SPA.LVO.125 and SPA.LVO.130 which disappear in the new regulation. One requirement that disappears from SPA.LVO.105 is the need for operational verification for each runway/aircraft type combination before commencing CAT II or III operations as established in the former AMC6 SPA.LVO.105, which is eliminated with the new regulatory change.

The point SPA.LVO.110 and its AMCs establish the compliance requirements for navigation services and aerodrome infrastructure necessary for the corresponding LVO operation. AMCs and GMs establish detailed criteria for the assessment.

AMCs and GMs of SPA.LVO.120 have been updated regarding flight crew competency.

In addition to the SPA LVO, the following changes are introduced in the Part-SPA:

- For the specific approval SPA.NVIS, new AMCs to allow the use of NVIS devices using IFR operations are introduced.
- For the specific approval HOFO, the requirement for an onshore destination alternate aerodrome is modified, as is SPA.HOFO.125, to introduce the more general concept of offshore standard approach procedure (OSAP).
- A new specific approval for helicopter PINS approaches and departures with reduced VFR minima (SPA.PINS-VFR) is created, which under certain conditions allows reduced VFR minima to be used on the visual segment following a PINS approach, as well as before an IFR transition.

Summary of approvals for on-going operations:

- LVTO 150 m. New definition of LVO (RVR<400m) but no requirement differences.
- LVTO 125 m. No significant differences for approvals to RVR 125 m.
- LVTO 75. Requires instrument guidance certified iaw. CS-AWO.

CAT II operations:

- CAT II: RVR/DH 300m/100ft. No differences in Operations Specifications except that “HUDLS” to touchdown” also qualifies Cat D a/c for RVR 300 m.
- Special Authorization. SA CAT II: Replaces OTS CAT II on essentially unchanged conditions. The ILS classification II/D/3 changes to II/D/2 while the max GP-angle becomes 3,2° iso 3,5°. SA CAT has its own col in the tables for downgraded equipment.

CAT III operations:

- CAT III: RVR: 175m, DH: 50ft. Previously CAT IIIA with RVR ≥200m. No differences except the naming and lowest RVR is 175 m iso 200 m. Will require changes to the training programme.

- CAT III: RVR: 125m; DH: <50ft. Previously CAT IIIB. No differences except the naming.
- CAT III: RVR: 75m; No DH. Previously CAT IIIB. No differences except the naming.
- Operational Credits: EVS, RVR 350m. Operational Credits: EFVS-A. 200ft/RVR 350 m. Previously EVS. No differences except the naming.

2.1.5. Annex VI – Non-commercial operations with complex motor-powered aircraft (Part-NCC)

The changes introduced in the regulations applicable to AWO operations for NCC operators generally reflect those introduced in the Part-CAT:

- NCC.OP.101 introduces the requirement to establish the altimeter check and setting methods referred to above.
- NCC.OP.110 introduces changes analogous to point CAT.OP.MPA.110, adapted to NCC-type operations. The fundamental difference is that, in keeping with the declaratory nature of NCC operations, the method for calculating aerodrome minima established by the operator in their manual does not require approval by the authority as in the case of Part-CAT.
- New requirements are introduced in relation to the selection of destination alternate aerodromes, both for aeroplanes (NCC.OP.147) and helicopters (NCC.OP.148).
- NCC.OP.195 and NCC.OP.225 introduce changes analogous to those referred to earlier for CAT.OP.MPA.265 and CAT.OP.MPA.300 with regard to the conditions for take-off, approach and landing.
- Point NCC.OP.230 is in line with what has been said for CAT.OP.MPA 305 in relation to the criteria for commencement and continuation of an approach.
- Finally, there is a new requirement NCC.OP.235, which sets out the criteria for EFVS 200 operations, analogous to those defined in CAT.OP.MPA.312.

2.1.6. Annex VII – Non-commercial operations with other than complex motor-powered aircraft (Part-NCO)

By analogy with what has been said for NCC operators, the changes to AWO operations for NCO operators are generally similar to those for the CAT case, with the modifications appropriate to match them to the typical operational environment of the NCO operator.

The point NCO.OP.101 establishes altimeter check and setting requirements, as already referred to for CAT and NCC.

In concordance with what has been said earlier, the point about aerodrome minima relating to calculating the RVR (NCO.OP.110) is revised, and clarifications are introduced about the use of the CDFA technique for 2D operations, calculating the DH/MDH (NCO.OP.111), and NCO.OP.112 is also modified with regard to the operational circling minima for aerodromes.

One important change is introduced in the selection criteria for destination alternate aerodromes. The points affected are NCO.OP.140 and NCO.OP.141 with regard to the meteorological minima applicable at the destination (below which a destination alternate aerodrome is required) both for aeroplanes and helicopters, and NCO.OP.142, in relation to the criteria for instrument approach

procedures that must be available at the destination alternate. Points NCO.OP.143 and NCO.OP.144 are also added, with the meteorological minima applicable for the destination aerodrome.

Points NCO.OP.175, NCO.205 and NCO.OP.206 regarding the conditions for take-off, approach and landing are likewise modified in line with what was said above for the Part-CAT.

Finally, NCO.OP.210 is modified in relation to the criteria for commencement and continuation of approach.

2.1.7. Annex VIII – Specialised operations (Part-SPO)

The changes for these types of operations are very similar to those set out earlier:

The new point SPO.OP.101 is introduced, relating to the altimeter check and setting procedures that the operator must establish.

SPO.OP.110 and its AMCs and GMs with regard to aerodrome minima, are modified. This regulatory point centralises the material for determining the RVR and DH/MDH applicable. SPO.OP.112 with regard to circling operation minima is also modified.

The new points SPO.OP.143 and SPO.OP.144 specify the minima that should be considered at the destination alternate aerodrome, for aeroplanes and helicopters respectively.

The points SPO.OP.180 and SPO.OP.210 regarding the conditions for take-off, approach and landing are modified in line with what was said above for the Part-CAT.

Point SPO.OP.215 is modified in relation to the criteria for commencement and continuation of approach.

Finally, point SPO.OP.235 is added which, together with its AMCs and GMs, describes the requirements necessary for EFVS 200 operations.

2.2. Flight crew training and checking

EASA has not published yet Executive Director Decision regarding ORO.FC AMCs and GMs of Regulation (EU) 2021/2237. Therefore, all references in this text refers to the AMCs and GMs draft included in the Opinion 02/2021⁴.

The requirements of Part-ORO undergo a profound updating to enhance the safety of helicopter operations by making the training of flight crew more efficient.

In general terms:

1. The conditions applicable to multi-pilot operations in single-pilot helicopters are revised (to align them with the amendment to the Regulation (EU) 1178/2011 (*Air Crew*) by the Regulation (EU) 2021/2227).
2. The initial training and checking requirements are revised in SPO.
3. The recurrent training and checking requirements are revised in CAT and SPO.
4. The requirements for operation in different aircraft types or variants are revised.

⁴ <https://www.easa.europa.eu/document-library/opinions/opinion-022021>

5. The possibility for NCC operators to accept previous flight crew training and checking requirements is included.
6. Other flight crew training and checking requirements undergo minor changes.
7. The requirements to be satisfied by duly qualified pilots-in-command for flight/FSTD training, OPC checking, and line checking, are revised.

These changes are applied to CAT, NCC and SPO operators, both for helicopters and aeroplanes. In the subsequent description of each requirement, the types of operator that could be affected are specified.

The following table offers an overview of which operator type is affected by each change introduced:

	CAT A	CAT H	NCC A	NCC H	SPO A	SPO H
ORO.FC.100 and AMC and GM		X		X		X
ORO.FC.105 and AMC and GM	X	X	X	X	X	X
AMC and GM ORO.FC.115	X	X	X	X	X	X
AMC and GM ORO.FC.120		X	X	X	X	X
ORO.FC.125 and AMC and GM	X	X	X	X	X	X
ORO.FC.130 and AMC and GM	X	X	X	X	X	X
ORO.FC.140 and AMC and GM	X	X	X	X	X	X
ORO.FC.145 and AMC and GM	X	X	X	X	X	X
ORO.FC.146 and AMC and GM	X	X	X	X	X	X
ORO.FC.200		X				
AMC1 ORO.FC.205		X				
ORO.FC.202	X	X				
ORO.FC.220	X	X				

	CAT A	CAT H	NCC A	NCC H	SPO A	SPO H
and AMC						
ORO.FC.230 and AMC and GM	X	X				
AMC ORO.FC.231 and ORO.FC.232	X					
ORO.FC.235	X					
ORO.FC.236 and AMC and GM		X				
ORO.FC.240 and AMC and GM	X	X				
ORO.FC.245	X					
ORO.FC.H.250		X				
ORO.FC.320 and AMC	X	X			X	X
ORO.FC.325 and AMC	X	X			X	X
ORO.FC.330 and AMC and GM	X	X			X	X

The requirement ORO.FC.100 (Composition of flight crew) is modified to include aspects specific to the operation of helicopters with two pilots: both must have taken an MCC course as set out in the Regulation (EU) 1178/2011 (*Air Crew*), or else accredit 500 flying hours in multi-pilot operations.

The requirement ORO.FC.105 (Designation as pilot-in-command/commander) is rewritten to distinguish aerodrome knowledge or qualification from that for qualification for the route or area of operation, with different validity periods: 12 months for aerodromes and 36 months for routes and areas. The following AMC and GM are also introduced or modified:

- AMC1 ORO.FC.105(b)(2) (c) is modified for commercial operations, and AMC2 ORO.FC.105(b)(2) (c) is inserted for non-commercial operations. It is stated in both that operators must comply with the training and checking requirements published in the AIP. The characteristics of category A, B and C aerodromes are modified.
- A new AMC1 ORO.FC.105(c) is inserted to state that the validity periods are counted from the last day of the month.
- A new GM1 ORO.FC.105(c) is inserted, which indicates a methodology the operator can use to develop route and area familiarisation training.

- Finally, a new AMC1 ORO.FC.105(d) is inserted for the particular cases with helicopters.

AMCs and GMs relating to CRM are modified or inserted:

- AMC2 ORO.FC.115 CRM for single-pilot operations is modified to replace the expression “*Computer-based training*” by “*Virtual classroom training*”, specifying that the classroom training may be conducted remotely using videoconferencing tools, always provided that this permits real-time interaction between instructors and students (synchronous training). In addition, certain elements of table 1 are changed from required to not required, and vice versa, in the case of conversion courses (CRM elements incorporated into the conversion course).
- AMC3 ORO.FC.115, to establish new requirements for the “*FC CRM trainer*”.
- GM3 ORO.FC.115, to establish new CRM training minima for the case of EBT training.
- GM8 ORO.FC.115, to develop what is considered appropriate online training.

The following new AMCs relating to the conversion course are inserted:

- AMC1 ORO.FC.120 for NCC operations.
- AMC2 ORO.FC.120, to set out additional considerations for the case of passing from single-pilot to multi-pilot operations with helicopters.
- AMC3 ORO.FC.120, with regard to ground training for the operator conversion course for an SPO operator.
- A new GM1 ORO.FC.120 is also inserted to clarify that MCC training is generic for all aircraft types, and that in addition to the MCC, pilots will require additional training to implement multi-pilot SOPs for the helicopter in question.

The text of ORO.FC.125 (Differences training, familiarisation, equipment and procedure training) is modified. A new training requirement is introduced, for when an equipment or procedure change requires flight crew to acquire additional knowledge. The operations manual shall specify when this training is necessary.

The following AMCs and GMs relating to this requirement are modified:

- Change of name of AMC1 ORO.FC.125 and adaptation to the new requirement for training when equipment or procedures are changed.
- New AMC2 ORO.FC.125 to state that the methodology to be followed for defining training needs should be based on the concept of ODRs, and if the conversion course is combined with this differences course in the case of transition from SP to MP or vice versa, with helicopters, the indications of AMC2 ORO.FC.120 must be taken into account.
- The new GM1 ORO.FC.125 is inserted to indicate aspects relating to the base aircraft for ODR tables.
- A new AMC1 ORO.FC.125(b) is inserted to state that in the case of SPO operations, if this course is combined with the conversion course, the provisions of AMC3 ORO.FC.120 must be taken into account.

- A new GM1 ORO.FC.125(b) is inserted to indicate that equipment changes might require training using the aircraft, or an appropriate device, or both.
- A new GM2 ORO.FC.125(b) is inserted to clarify that MCC training is generic for all aircraft types, and that in addition to the MCC, pilots will require additional training to implement multi-pilot SOPs for the helicopter in question.

The requirement ORO.FC.130 (Recurrent training and checking) is modified slightly to state that the annual recurrent flight and ground training also includes the “associated equipment”, to align it with ORO.FC.125.

- A new AMC1 ORO.FC.130 is inserted to develop the syllabus for this training for the case of NCC operators.
- A new GM1 ORO.FC.130 is inserted to state which recurrent checking should be carried out in the case of CAT operations, EBT operators, SPO and operations, which are not commercial air transport.
- A new AMC1 ORO.FC.130(a) is inserted to indicate that the methodology of AMC1 ORO.FC.140(a) (ODR methodology) must be followed for pilots who operate aircraft with different equipment in the case of single-engined helicopters which are not included in the same group, and when credits are sought.

A new AMC1 ORO.FC.135 (Pilot qualification to operate in either pilot’s seat) is inserted to state that this training must include any safety-critical item when the action taken depends on the seat occupied, as specified in the operations manual.

The requirement ORO.FC.140 (Operation on more than one type or variant) is modified. The statement that, if there are no OSD established in conformity with the Regulation (EU) 748/2012, it is not possible to transfer credits between types or variants, is maintained. Nevertheless, alleviations are introduced to give credits to single-engined helicopters, which can be grouped together (credited) for the purposes of conducting a single OPC (not including in-flight training). For specialised operations (SPO), credits for different aircraft can be given in relation to flight procedures proper to the specialised operation but not specific to the type or variant. It is also stated that credits may be given between helicopter types or variants for the line check, provided that the operations are sufficiently similar. All of the foregoing shall be specified in the operations manual.

With regard to this requirement, the following AMCs and GMs are inserted:

- GM1 ORO.FC.140, on general aspects of the concept of operation on more than one type of variant.
- AMC1 ORO.FC.140(a), which is a copy of the former, but now repealed, AMC2 ORO.FC.240, which explains the ODR methodology and its scope, with one of the main points being that this is the methodology that must be used when credits with regard to changes in equipment in aircraft of a type already operated are sought. It is now stated expressly that, in this methodology, the term “*Currency*” refers to recurrent training and differences, familiarisation and equipment training. This AMC is transversal and applies to all types of air operator that are affected by ORO.FC Section 1 (CAT A, CAT H, NCC A, NCC H, SPO A and SPO H).

- GM1 ORO.FC.140(a), to state that the ODR tables can give rise to different training programmes, without regard to the base aircraft used to establish the ODR table.
- AMC1 ORO.FC.140(b), to state that the single-engined piston helicopters that can be grouped together for the purposes of OPC credit are those set out in AMC1 FCL.740.H(a)(3).
- AMC1 ORO.FC.140(d), to indicate the parameters the operator must consider defining whether two operation types are sufficiently similar for the purposes of line check credits with helicopters.

Points c) and d) of ORO.FC.145 (Provision of training, checking and assessment) are modified so that, in addition to training in the aircraft or FSTD, “*other training devices OTD*” may also be used (*Opinion 02/2021* gives examples: virtual reality, augmented reality, computer-based training), and points f) and g) on the validity of the training and checking (all validity periods are counted from the end of the month in which they took place).

- A new AMC1 ORO.FC.145 is inserted on the acceptability of previous NCC experience, including non-commercial SPO operations, with the operations manual developing the policy on credit for that previous training.
- In GM1 ORO.FC.145, it is stated that the operator may make use of subcontracted activities in accordance with ORO.GEN.205 (ATO or another operator).
- In AMC1 ORO.FC.145(a), the minimum content included in the training and checking programmes, and syllabus is stated:
 - If training and checking are combined, the distinction between the two phases;
 - List of items covered;
 - Minimum duration;
 - Means of instruction (FSTD, OTD, computer-based, virtual reality, etc.); and
 - Personnel providing instruction and checking.
- In GM1 ORO.FC.145(a), it is stated that, but depending on the complexity of the training and checking programmes, additional details should be included.
- The titles of AMC1 ORO.FC.145(b) and AMC1 ORO.FC.145(d) are changed.
- A new AMC2 ORO.FC.145(d) is inserted to define the concepts of availability and accessibility for the FSTD.
- A new GM1 ORO.FC.145(d) is inserted on confidentiality and data protection for CAT training operations.
- A new AMC1 ORO.FC.145(g) is inserted on maintenance of the original expiry date for training and checking carried out in the final 3 months within their validity period.

The requirement ORO.FC.146 (Personnel providing training, checking and assessment) is modified. Letter b) is modified to add that the training and checking personnel for SPO operations shall be suitably qualified for the specialised operation in question. The text of point d) is changed from “shall be conducted” to “may be conducted” with regard to the suitably qualified commander responsible for competence line checking for EBT operators. The new points e), f), g) and h) are

added, relating to the profile of the suitably qualified commandant who performs proficiency checking and line checking for CAT operations of helicopters meeting the criteria defined in point ORO.FC.005(b)(2), CAT for other than complex helicopters, by day and over routes navigated by reference to visual landmarks, CAT for performance class B aircraft which do not comply with ORO.FC.005(b)(1), and SPO operations.

The following AMCs and GMs are inserted:

- AMC1 ORO.FC.146, covering general points about the profile of the personnel who perform ground training and checking, for emergency and safety equipment and CRM.
- AMC1 ORO.FC.146(b), on the profile of the personnel who perform flight/FSTD training and conduct OPC in conformity with *Air Crew*, including the requirements for cases of multi-crew operations of helicopters.
- AMC1 ORO.FC.146(e), to indicate which of the requirements of AMC1 ORO.FC.146(f) apply to the suitably qualified commanders who perform operator proficiency checks and who hold an FI/TRI/SFI certificate.
- AMC1 ORO.FC.146(f), on the requirements applicable to suitably qualified commanders for training, operator competence checks, LIFUS and line checks, setting out general aspects, specific points for CAT operations and specific points for the case of SPO operations.
- AMC1 ORO.FC.146(g), to state which of the requirements of AMC1 ORO.FC.146(f) apply to the suitably qualified commanders who perform line checking.

The regulatory change introduced by EASA has been drafted in terms similar to those included in the “Decision of 13 May 2020, by the Dirección de la Agencia Estatal de Seguridad Aérea, which extends the validity of the exemption conceded by the Decision of 28 April 2017, with regard to the personnel responsible for flight checking”. This AESA decision, valid until 25 May 2022, or until such time as the Commission Regulation (EU) 965/2012, of 5 October is updated, whichever is the earlier, shall be extended again until the date of entry into force of the new requirements (30 October 2022).

Letter d) of the requirement ORO.FC.200 (Composition of the flight crew) is modified to indicate for which types of helicopter operations with MOPSC of more than 19, and IFR operations with helicopters with MOPSC of more than 9, the minimum crew is for 2 pilots. The express statement that the commander for this type of operation shall hold an ATPL(H) licence, as was stated before the modification, has been eliminated, although this requirement implicitly remains fully in force, and does not need to be stated expressly, in accordance with the new definitions of multi-pilot and single-pilot helicopters in the Regulation (EU) 1178/2011, as amended by the Regulation (EU) 2021/2227.

AMC1 ORO.FC.205 (Command course) is modified to leave as sole possibility that of combining the conversion course with upgrading to helicopter commander when that crew member changes to a new type (and not to a new variant).

The introductory part of ORO.FC.202 is rewritten and letter b) is eliminated to align it with the new text of ORO.FC.200.

Letter b) of ORO.FC.220 is modified to permit crew members to be assigned to flights on single-engined helicopters during a conversion course on a single-engined helicopter, provided that the

training is not affected. Finally, a letter f) is added to permit a specific operator conversion course to be used temporarily for a limited number of pilots in the case of a new AOC or a new aircraft type or class.

The following AMCs are modified or inserted:

- AMC1 ORO.FC.220 to:
 - Develop the content of the ground training and checking.
 - Develop the content of the training and checking for the emergency and safety equipment when *cabin crew are not required*.
 - Establish the list of abnormal and emergency procedures to form part of the OPC for the conversion course for CAT helicopter operations, with the list of requirements being moved from AMC1 ORO.FC.230 to AMC1 ORO.FC.220.
- AMC3 ORO.FC.220, to specify what should be included in the feedback from the training programme management system.
- AMC3 ORO.FC.220(b), to establish restrictions upon the assignment of flight duties to helicopter crew members during operator conversion courses for single-engined turbine and single-engined piston helicopters, under VFR rules.

The recurrent training and checking requirements of ORO.FC.230, as well as its AMCs and GMs, are modified.

In addition to completing recurrent training and checking relevant to the type or variant operated by the crew member, he/she must also complete this for the equipment of that aircraft.

Numbers (4) and (5) of letter (b), on the operator competence check, in ORO.FC.230, are eliminated. These numbers entailed the inclusion of alleviations relating to the capacity to group OPCs together, and on the profile of the commander suitably qualified for carrying out OPCs, in the case of other than complex helicopters flying by day and by reference to visual landmarks, and on the profile of the commander suitably qualified to conduct OPCs for performance class B aircraft. These alleviations have not been eliminated from the regulation, as they have been moved to other sections such as ORO.FC.140 and ORO.FC.146.

Number (2) of letter (c) (Line check) of ORO.FC.230, on the possibility that these checks can be performed by a suitably qualified commander, has been eliminated, as this requirement has been moved to ORO.FC.146.

In letter (d) (Emergency and safety equipment training and checking), it is stated that the validity period for that training and checking is 12 calendar months, whereas it formerly said that the validity period of 12 calendar months was for the checking, without reference to the training validity period.

Letter (g) on how validity periods are counted is eliminated, as this requirement has been moved to ORO.FC.145.

The following AMCs and GMs are modified or inserted:

- AMC1 ORO.FC.230, whose subtitle has had the term “and checking” added, and is now labelled "Recurrent training and checking syllabus".

- In the section on ground training, letter (B) is replaced by new content stating that ground training should include normal procedures (flight planning, ground and flight operations), performance, mass and centre of gravity, fuel policy, etc. A new letter (C) about abnormal and emergency procedures is added. The former letter (C) is modified by the new (D) to add the study of the incidents, accidents and occurrences which are relevant to the type of operations in question.
- In the section on flight/FSTD training, it is stated that the “major failures” must be trained within a period of 3 years instead of “covered...”. This section included the possibility of combining flight/FSTD training with the OPC, but many operators misunderstood this point. While it is useful to permit some kind of training to take place during the OPC session, a single task or manoeuvre cannot be used for training and checking purposes at the same time. The proposed amendments to the AMC clarify this.
- With the existing text of the section (ii) Helicopters of paragraph (4) (Flight/FSTD training), EASA has discovered that the alleviation the former text of the AMC introduced with regard to use of the aircraft in complete substitution of the FSTD for training (not for the OPC, as this was only included in the training section), justified by the operator by a risk assessment, was interpreted differently in the different Member States. EASA, believing firmly in the use of simulators and new training and checking devices, and taking into account the current state of available simulators (many helicopter FFS do not hold level D certificate), has modified this AMC so that, supported by the risk assessment, the operator can alternate use of the aircraft with use of the FSTD, both for training and checking, so that the maximum benefit is obtained from both scenarios. This new text of the AMC is equally applicable to multi-engined and single-engined helicopters, as it draws no distinction between them.
- With regard to the operator proficiency check (OPC), the text of (b)(1)(i) applicable to aeroplanes is modified to aid comprehension, though without introducing changes. With regard to helicopters, the proposed modification to this AMC maintains the list of OPC manoeuvres in the conversion course (AMC1 ORO.FC.220), introducing the concept of the 3-year cycle for checking the major failures, with the operator being responsible for establishing these, considering a series of factors which are listed in this AMC1 ORO.FC.230. In the case of helicopter pilots under IFR rules, in addition to undergoing abnormal and emergency procedure proficiency checks during the OPC, the need to check the normal emergency procedures is now included. It is also stated that, during the OPC, the crew must be made up of two qualified pilots in the case of multi-pilot operations, and of one pilot for single-pilot operations. In the event that the pilot may need to fly in both situations, he/she will be evaluated for multi-pilot operations, and the relevant failures or manoeuvres for a single-pilot proficiency check shall be added.
- With respect to line checks, the new AMC text indicates that the operator must maintain a list of commanders nominated by the operator who perform those checks. In the event that there is no observer seat, but there is a passenger seat facing forward from which the cockpit and crew can be seen and heard properly, that

passenger seat may also be used as observer seat. If this is not available, the commander nominated to perform the line check shall occupy a flight crew seat.

- The CRM evaluation requirements during the line check are modified.
- A new AMC2 ORO.FC.230 is inserted to indicate that training programmes shall include management system feedback.
- GM1 ORO.FC.230 adds extra information about the major failures of helicopters.

AMC1 ORO.FC.231(d)(2), AMC2 ORO.FC.232 and AMC4 ORO.FC.232 are modified slightly with regard to EBT training programmes, with spelling corrections (“*rejected take-off*” instead of “*engine failure*”, as well an explication about including the element “*emergency descent*”.

AMC1 ORO.FC.235(d) is eliminated with regard to the qualification of the pilot to operate in either pilot's seat in the case of single-engined helicopters and the autorotation path.

The former ORO.FC.235 requirements, which covered aspects for fixed-wing and rotary-wing, is now divided into two requirements: ORO.FC.235 for aeroplanes and ORO.FC.236 for helicopters.

It was realised that this requirement was only for the commanders, while helicopter copilots can also fly in either seat. EASA has modified the regulation and the AMC to demand this qualification of all pilots involved, not just commanders. It also guarantees that no additional check is required if the OPC alternate between the left and right seats. It is clarified that the validity period is 12 calendar months.

ORO.FC.236, on helicopters, clarifies that the FI or TRI can be exempted from this requirement if he/she has exercised any activity as FI or TRI in the type of helicopter within the preceding six months.

In AMC1 ORO.FC.236, the list of manoeuvres required to qualify pilots for both positions has been included.

In GM1 ORO.FC.236, it is clarified that if the line checker does not perform any flight duties, he/she does not need to be qualified for both pilot positions.

Letter (b) of the requirement ORO.FC.240 with regard to pilots who operate aeroplanes and helicopters has been eliminated, with these points being moved to letter (c) of AMC1 ORO.FC.240.

In AMC1 ORO.FC.240, in addition to the foregoing relating to pilots who operate aeroplanes and helicopters, letter (b) has been modified to include additional considerations to permit assignment of a pilot to flying more than one type during a single period of activity, as well as to establish the conditions that must be met for defining groups of helicopter types for the purposes of this AMC (single-engined turbine on the one hand, and single-engined piston on the other, for VFR operations).

With regard to ORO.FC.A.245:

- Letter a) has been replaced to add references to the regulations to ensure legal certainty. There are no changes to the content.
- Letter b) has been modified to ensure legal certainty in compliance with the LOE.
- Point (e) has been replaced to avert duplication of the provisions in ORO.FC.145. There are no changes to the content.

- Point (f) has been replaced for reasons that include consistency with the *Air OPS* Regulation with regard to CRM. In addition, for ATQP and EBT, there must be a consistent baseline for both programmes. The new point (f) guarantees equality of conditions between the two programmes and an equivalent level of prescription for both. The current version of the text has been moved to the EBT regulation with the amendments appropriate to ensuring consistency with ATQP.

AMC1 ORO.FC.A.245 and AMC1 ORO.FC.A.245(d)(e)(2) are modified to align this with the new text of the requirement: requirements on integrating CRM elements into the ATQP programmes and requirements on crew evaluations during conversion courses, and recurrent evaluations.

The requirements ORO.FC.320 and ORO.FC.325 are added, and ORO.FC.330 modified, with the following purposes:

- An initial OPC is required in the operator conversion course (ORO.FC.320).
- An OPC is required for the specialist equipment and procedures when the crew member is receiving training on equipment and procedures that require flight/FSTD training and which affect the SOPs. If this equipment and procedures does not require flight/FSTD training (minor changes) or does not impact the SOPs, the OPC will not be necessary (ORO.FC.325).
- The new text includes the requirement that crew members shall submit to recurrent training and checking (only checking was stated before). In addition, for the case of specialised operations (SPO), the training and checks must cover the relevant aspects of specialised operations.

With regard to the AMCs and GMs for these three points, the following AMCs are included:

- AMC1 ORO.FC.320, indicating that the OPC shall take place at the end of the conversion course defined in AMC3 ORO.FC.120.
- AMC1 ORO.FC.325, indicating the requirements applicable from AMC3 ORO.FC.120, where the syllabus of the conversion course for SPO operators is developed.
- AMC1 ORO.FC.330, to develop the recurrent training syllabus, the operator competence check and the relevant procedures to be trained and checked for SPO operators. A section is also included on the combination of training and checking for CAT and SPO operations, stating that if elements relevant to specialised tasks are included during CAT training or checks, credits may be given towards complying with ORO.FC.330 if the authority should so approve, in conformity with ORO.FC.115(c).

With regard to CRM training requirements for cabin crew members (ORO.CC.115):

- AMC1 ORO.CC.115(e) is modified, to change some elements in table 1 on CRM training elements for Cabin Crew Members from required to not required, or vice versa.
- AMC2 ORO.CC.115(e) is modified to indicate that online means such as TEAMS, WEBEX meetings, or similar videoconferencing platforms may be used in the virtual classroom, provided that they permit real-time interaction (not asynchronous/recorded training).
- A new GM6 ORO.CC.115(e) is inserted to develop what is considered to be suitable online training.

Until there is no Decision published regarding ORO.FC AMCs and GMs, only hard law regulation requirements (published on Regulation (UE) 2021/2237⁵) are applicable.

There is a list of minimum requirements hereunder that an air operator must assess and, if necessary, adapt before 30th October 2022, to operate according to applicable regulation.

All air operators:

- In case of two pilots helicopter operations, air operator must adapt its operations manual to meet flight crew qualification requirements: MCC course in accordance with Regulation (UE) 1178/2011 or, at least 500 flight hours in multipilot operations (ORO.FC.100 (f)).
- Air operator must assess and, if needed, include in its operations manual an equipment and procedure training, according to ORO.FC.125 b), when changing equipment or changing procedures requiring additional knowledge on types or variants currently operated, for example in case of change from one pilot to multipilot operation.

Commercial air transport Air Operators affected by Section 2 of ORO.FC:

- Air operator must assess and, if needed, modify recurrent training and checking according to ORO.FC.230 in order to introduce an equipment and procedure training (ORO.FC.125 b).
- If a helicopter operator has included in its manual any reference to ORO.FC.235, it must be changed to new ORO.FC.236.
- If an airplane air operator has an approval of Alternative training and qualification programme, the operator must assess and, if needed, modify the content of this training to include when LOE is considered completed (ORO.FC.A.245 d) and include new requirements specified in letters f and g.
- Helicopters air operators that perform CAT operations under IFR rules with CPL(H) commander must assess and, if needed, modify its operations manual to include that the total flight time on helicopters shall include 100 hours under IFR. Up to 50 hours instrument time performed on an FFS(H) level B or FTD level 3 qualification or higher qualified for instrument training, may be credited towards the 100 hours (ORO.FC.H.250 (a)(1)).

Air Operators affected by Section 3 of ORO.FC:

- SPO operator must ensure that personnel that provide training and conduct the checking for SPO operations must be properly qualified for the operation itself (ORO.FC.146 b)
- Air operator must assess and, if needed, modify its conversion training and checking to include an operator proficiency check (OPC) (ORO.FC.320).
- If a flight crew member undergoes equipment and procedure training that requires training on a suitable FSTD or the aircraft, with regard to standard operating procedures related to a specialised operation, the flight crew member shall undergo an operator proficiency check (ORO.FC.325).

⁵ <https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=CELEX%3A32021R2237&qid=1659510378660>

- Air operators must assess and, if needed, modify its recurrent training and checking (ORO.FC.330) in order to include, besides operator proficiency checks (OPC), recurrent trainings.

2.3. Multi-pilot operations in certified single-pilot helicopters

The majority of helicopters are certified for single-pilot operations. Therefore, according to the former regulations, they were classified as single-pilot helicopters.

All helicopters, except those with only one crew seat, can be operated with two pilots. If the operations manual established that the helicopter was flown with two pilots, then that helicopter was then deemed to be a multi-pilot helicopter. Therefore, the majority of helicopters could formerly be simultaneously defined as single-pilot and multi-pilot types.

In view of this, different interpretations of the definitions of single-pilot and multi-pilot helicopters had been established in the different Member States. These differences of interpretation also led to different ways of applying the requirements in the Regulation (EU) 1178/2011, *Air Crew*, regarding MCC training and the theoretical training of ATPL(H).

EASA has modified these requirements in an endeavour to encourage multi-pilot operations with helicopters for CAT, NCC and SPO operations, so that when they are operated with a minimum crew of two pilots, it is necessary to:

- Have completed a crew cooperation course (MCC) in helicopters; or
- Possess at least 500 flight hours on multi-pilot operations.

These requirements have been collected under letter d) of ORO.FC.100 of the Regulation (EU) 965/2012, *Air Ops*.

In addition, in the case that an operator wishes to voluntarily perform multi-pilot operations with certified single-pilot helicopters, that is, when this is not demanded expressly by *Air Ops* or in the helicopter certification, it is not necessary to have completed the ATPL(H) theoretical examinations for the multi-pilot qualification, and nor is it necessary for the commander to hold an ATPL(H) licence.

Therefore, it will only be necessary to accredit theoretical ATPL(H) knowledge in the following cases:

- For NCC and SPO operations, when the helicopter is certified for two pilots.
- For CAT operations when the helicopter is certified for two pilots, or when the CAT requirements demand two pilots (examples: MOPSC of more than 19, MOPSC of more than 9 under IFR).

This last requirement has been embodied in the new text of letter d) of the requirement ORO.FC.200 (Composition of the flight crew).

To perform these types of operations, it will be necessary to implement standard operating procedures (SOPs) in a multi-crew environment.

In summary, the Regulations 2021/2227 and 2021/2237 have modified the points FCL.010, FCL.510.H, FCL.605 (b)(2), FCL.725, FCL.720.H, FCL.905.TRI, FCL.910.TRI, FCL.915.TRI, FCL.905.SFI,

FCL.915.SFI, FCL.915.MCCI, FCL.1010.TRE, FCL.1010.SFE, Appendices 8 and 9 to Annex I to the Part-FCK, and ORO.FC.100, ORO.FC.200 of *Air Ops*, to achieve the following results:

- a) A helicopter may not be simultaneously defined as being single-pilot and multi-pilot.
- b) A helicopter operated as multi-pilot will continue to be considered to be single-pilot if the second pilot is not required by the certification or by *Air Ops*.
- c) Pilots must have completed MCC training to be able to fly in a multi-crew environment for CAT, NCC and SPO operations.
- d) Acquired rights (*grandfather rights*) are permitted for pilots who possess multi-pilot experience and experience gained in military operations and non-European operations. The requirement to accredit 500 h of experience of multi-pilot operations is maintained as an alternative to the MCC training, except for the ATPL.
- e) The hours flown in a multi-crew environment with MCC training and the SOPs for multi-crew environments are valid for accrediting the multi-pilot experience required for award of the ATPL(H) licence. This includes voluntary multi-pilot operations for CAT, NCC and SPO operations.
- f) The pilots of helicopters performing multi-pilot operations voluntarily shall not require multi-pilot rating, accreditation of the ATPL(H) theoretical knowledge, or ATPL(H) licence.
- g) Certification that the ATPL(H) theoretical knowledge has been completed shall no longer be necessary for NCC or SPO operations, unless the helicopter is certified for a minimum of two pilots.
- h) The ATPL(H) licence shall not be required for CAT VFR operations unless the helicopter is certified for a minimum of two pilots, or when the MOPSC is more than 19.
- i) Instructors and examiners who conduct multi-pilot training or checking must hold relevant experience in multi-crew operations (in general: 350 h in multi-crew operations and 100 h in multi-pilot operations, in the type in question).

3. ACTIONS BY OPERATOR

This chapter offers guidance to the actions the operator should take with regard to the changes to the Regulation 965/2012 introduced.

The list set out below must be considered as purely for guidance, because the scope of the changes required will depend on the particular circumstances of the operator, so that observance of the indications in this chapter does not exempt the operator from rigorous analysis of the regulatory change under the auspices of their specific change management process.

3.1. All Air Operators

3.1.1. *Minimum Equipment List (MEL)*

MMELs do not pose a problem in respect of removal of CAT III subcategories. However, the operators will need to review their MELs and introduce the changes that may be needed due to the

revised regulation (UE) 2021/2237. It may affect mainly to air operators holding CAT III A and CAT III B approvals.

If the operator identifies that MEL must be adapted to the new regulation and therefore approved, but changes do not affect to critical dispatch conditions and there is no impact on operational safety, then air operator may submit MEL for approval together with MMEL review.

In case there is an impact on operational safety, it is necessary to submit MEL for approval.

3.1.2. LVO Operations

LVO Air operators affected by Regulation (UE) 2021/2237 must consider the following in order to meet new requirements:

- Adapt all affected Operations Manuals/Procedures/Checklists/Briefings regarding new terminology,
- Definition of Type A & B approach concept in the OM,
- Review of MEL,
- Review of Safety Performance Monitoring & Data Collection Requirements,
- Define and implement process for the runway suitability check,
- Review of operational procedures for LVOs, and
- Adapt Flight Crew training syllabus.

3.1.3. Multi-pilot operations in certified single pilot helicopters

A helicopter shall be considered to be multi-pilot when it is certified to fly with a minimum crew of two pilots, or when it must be operated by at least two pilots according to *Air Ops*.

Likewise, a helicopter shall be considered to be single-pilot when it is certified to be operated by one pilot and does not require to be operated by at least two pilots in accordance with *Air Ops*.

Therefore, an operator wishing to operate a helicopter certified for a single pilot for operations for which *Air Ops* does not demand two pilots, must fulfil the new requirements included both in the Regulation (EU) 2021/2237 and the Regulation (EU) 2021/2227.

In this type of situation, it is not necessary to have completed the ATPL(H) theoretical examinations for the multi-pilot qualification, and nor is it necessary for the commander to hold an ATPL(H) licence.

It is, however, necessary to comply with the following:

- Have completed a crew cooperation course (MCC) in helicopters; or
- Possess at least 500 flight hours on multi-pilot operations.

In addition, the operator must adapt their operations manual (sections A.8, B.2 and B.3, principally) to establish standard operating procedures for multi-crew operations, to include, at least, normal, abnormal and emergency checklists for these kinds of operations.

The SOPs in multi-crew environments must be trained and checked during:

- Operator conversion course;
- Differences training, familiarisation, equipment and procedure training; and
- Recurrent training and checking.

Additional experience is also required of instructors and examiners for multi-pilot operations, as set out in ORO.FC.146 and AMC and GM: 350 flight hours with multi-pilot operations. The transitional measures valid until 30 October 2025, as indicated in article 4 sexies of the Regulation (EU) 2021/2227, should also be borne in mind.

3.2. Commercial air transport (CAT) operator

Until Decision for ORO.FC AMCs and GMs is published, only hard law regulation requirements (published on Regulation (UE) 2021/2237⁶) are applicable.

Therefore, section 2.2 defines minimum requirements an air operator must assess to be adapted to the new regulation before 30th October 2022.

Details on changes for a Commercial Air Transport Operator according to the draft AMCs and GMs defined in the Opinion 02/2021 regarding ORO.FC can be found below.

The operator must submit a revision of the Operations Manual with the changes applicable to them.

1. Procedure for establishing the aerodrome operating minima.

This procedure must be in accordance with the provisions of the AMCs and GMs of the point CAT.OP.MPA.110. Should the operator hold specific approval for low-visibility operations pursuant to Annex V, Part-SPA, Subpart E (SPA LVO), the procedure referred to must also conform with the provisions of the AMCs and GMs of the point SPA.LVO.100 with regard to the specific approval in question.

2. Training programmes for flight crew.

CAT operators must adapt their training programmes and request AESA for approval of the modification to the following training programmes:

a) Route/aerodrome knowledge procedure (ORO.FC.105)

Change the validity period of the aerodrome knowledge with respect to route and area of operation, to 12 and 36 months, respectively. Change to the categorisation of aerodromes. An AMC dedicated to the case of helicopter operations is included.

b) Initial operator training in crew resource management (CRM) (ORO.FC.115 and ORO.FC.215).

Operators conducting single-pilot operations must adapt their initial CRM course to comply with the new requirements relating to the use of online means.

⁶ <https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=CELEX%3A32021R2237&qid=1659510378660>

In addition, all operators (single-pilot or multi-pilot operations) must modify section A.5 of the operations manual which states the qualification of the CRM instructor for flight crew ("FC CRM trainer"), because the requirements for that instructor have been changed.

Moreover, the CRM elements which are part of the conversion course, and which change from required to not required, or vice versa, must be changed.

c) Differences and familiarisation training (ORO.FC.125).

This training will now be called "Differences training, familiarisation, equipment and procedure training". This is a development of the former "Differences and familiarisation training" to include the training necessary for a flight crew member to be suitably trained when equipment or procedure changes requiring flight crew to acquire additional knowledge are introduced. This will have particular impact for helicopter operators which, typically, encounter greater differences between equipment installed on helicopters of the same type and variant.

d) Operator conversion training and checking (ORO.FC.120 and ORO.FC.220).

CAT operators of aeroplanes and helicopters will find that their Operator conversion training and checking is affected, due to the changes made to ORO.FC.220.

These operators must verify that their conversion programmes include all the ground training and checking elements, and that the management system gives appropriate feedback.

In addition, CAT helicopter operators must adapt their conversion programmes to make sure that the content of the OPC covers all the abnormal and emergency procedures of AMC1 ORO.FC.220, because the existing text does not envisage any minimum list of manoeuvres for that OPC. Optionally, a CAT operator of single-engined helicopters may avail of the new alleviations to the regulation in relation to the possibility of assigning flight duties to crew members on other types of single-engined helicopters.

Optionally, in cases where a CAT operator (aeroplane or helicopter) includes a new aircraft, or when an AOC is new, the operator may prepare a specific conversion course which shall be used temporarily for a limited number of pilots.

e) Recurrent training and checking (ORO.FC.130 and ORO.FC.230)

Ground training. The syllabi of the flight crew recurrent training programmes must be modified to include, as part of the ground training, training in the equipment associated when equipment or procedure changes requiring flight crew to acquire additional knowledge are introduced, in accordance with ORO.FC.130. The content of the ground training must also be modified to include the following sections: normal procedures (flight planning, ground and flight operations), performance, mass and centre of gravity, fuel policy, selection of alternates, de-icing and anti-icing procedures, and abnormal and emergency procedures.

Flight/FSTD training. In the case of helicopters, alternation between simulator and the aircraft is permitted when the FSTD is not completely suitable for the recurrent training or checking, to extract the maximum benefit from both scenarios.

OPC. In the case of helicopters, the operator must adapt the OPC manoeuvres so that all the major failures are verified during a cycle of 3 years, it being the responsibility of the operator to establish these, considering a series of factors listed in AMC1 ORO.FC.230.

f) Qualification of the pilot to operate in either pilot's seat (ORO.FC.235)

ORO.FC.235 for aeroplanes: No changes with respect to the version currently approved, so that CAT aeroplane operators need not take any action.

ORO.FC.236 for helicopters: The operator must review the scope of the pilots involved in this course: commanders, copilots and FI/TRI. These last-named are exempted if they have worked as FI/TRI during the preceding 6 months.

1. Change to the LVTO and CAT II requirements. An operator with specific LVTO and/or CAT approval must request the corresponding change to adapt to the new requirements.
2. Change to the EVS, LVO CAT IIIA and/or CAT IIIB approval. An operator with specific EVS and/or LVO CAT IIIA and/or CAT IIIB approval must request the corresponding change to adapt to the new requirements and terminology.
3. Other changes:
 - Updated definitions of Annex I to the Regulation 965/2012 applicable to the operator.
 - Updates to the terms affected by these changes.
 - Updates reportable events in accordance with AMC3 ORO.GEN.160 y GM1 ORO.GEN.160.
 - Altimeter check and setting procedures in accordance with CAT.OP.MPA.101.
 - Clarifications to CDFA/CDA flight technique.
 - Updates to the conditions for take-off, approach and landing, in accordance with CAT.OP.MPA.265 and CAT.OP.MPA.300.
 - Updates to the criteria for commencement and continuation of approach according to CAT.OP.MPA 305.
 - Modification to the CRM instructor qualification for the flight crew "*flight crew CRM trainer*".
 - For air operators holding an LVO approval, review of training, checking and recency programmes in accordance with SPA.LVO.120 and its AMCs and GMs.

3.3. Non-commercial complex motor-powered aircraft (NCC) operator

Until Decision for ORO.FC AMCs and GMs is published, only hard law regulation requirements (published on Regulation (UE) 2021/2237⁷) are applicable.

Therefore, section 2.2 defines minimum requirements an air operator must assess to be adapted to the new regulation before 30th October 2022.

Details on changes for a Non Commercial Complex Motor-Powered Operator according to the draft AMCs and GMs defined in the Opinion 02/2021 regarding ORO.FC can be found below.

⁷ <https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=CELEX%3A32021R2237&qid=1659510378660>

Training programmes for flight crew.

- a) Route/aerodrome knowledge procedure (ORO.FC.105).

Prior to this regulatory change, there was no requirement for this training for non-commercial operations. It follows that the operator will have to develop this training in the operations manual.

- b) Initial operator training in crew resource management (CRM) (ORO.FC.115).

Operators conducting *single-pilot* operations must adapt their initial CRM course to comply with the new requirements relating to the use of online means.

In addition, all operators (single-pilot or multi-pilot operations) must modify section A.5 of the operations manual which states the qualification of the CRM instructor for flight crew ("FC CRM trainer"), because the requirements for that instructor have been changed.

Moreover, the CRM elements which are part of the conversion course, and which change from required to not required, or vice versa, must be changed.

- c) Differences and familiarisation training (ORO.FC.125).

This training is now called "Differences training and familiarisation, equipment and procedure training", so that these courses must include the training necessary for a flight crew member to be suitably trained when equipment or procedure changes requiring flight crew to acquire additional knowledge are introduced. This will have particular impact for helicopter operators which, typically, encounter greater differences between equipment installed on helicopters of the same type and variant.

- d) Operator conversion training and checking (ORO.FC.120 and ORO.FC.220)

The operator must adapt their conversion course to the new requirements introduced by AMC1 ORO.FC.120, as well as introduce additional considerations in the case of an operator passing from SP to MP operation with helicopters, in accordance with AMC2 ORO.FC.120.

- e) Recurrent training and checking (ORO.FC.130).

The syllabi of the flight crew recurrent training programmes must be modified to include, as part of the ground training, training in the equipment associated when equipment or procedure changes requiring flight crew to acquire additional knowledge are introduced, in accordance with ORO.FC.130 and AMC1 ORO.FC.130, where the content is indicated.

Low Visibility Operations (LVO)

- Change to the LVTO and CAT II requirements. An operator with specific LVTO and/or CAT approval must request the corresponding change to adapt to the new requirements.
- Change to the EVS, LVO CAT IIIA and/or CAT IIIB approval. An operator with specific EVS and/or LVO CAT IIIA and/or CAT IIIB approval must request the corresponding change to adapt to the new requirements and terminology.

Other changes

The operator must update their operations manual to include the changes described in 2.1.5 which are applicable to their operation:

- Updated definitions of Annex I to the Regulation 965/2012 applicable to the operator.
- Updates to the terms affected by these changes.
- Altimeter check and setting procedures in accordance with NCC.OP.101.
- Updates to the procedure for determining the aerodrome minima according to NCC.OP.110.
- Updates to the destination alternate aerodrome planning criteria according to NCC.OP.147 or NCC.OP.148.
- Updates to the conditions for take-off, approach and landing, in accordance with NCC.OP. 195 and NCC.OP.225.
- Update to the criteria for commencement and continuation of approach according to NCC.OP.230.

If the operator holds with specific LVO (CAT IIIA/CAT IIIB) approval which is affected by the new regulation, they must request the corresponding change to adapt to the new terminology.

3.4. Non-commercial other than complex motor-powered aircraft (NCO) operator

Low Visibility Operations (LVO)

- Change to the LVTO and CAT II requirements. An operator with specific LVTO and/or CAT approval must request the corresponding change to adapt to the new requirements.
- Change to the EVS, LVO CAT IIIA and/or CAT IIIB approval. An operator with specific EVS and/or LVO CAT IIIA and/or CAT IIIB approval must request the corresponding change to adapt to the new requirements and terminology.

Other changes

The operator must update their operations manual to include the changes described in 2.1.6 which are applicable to their operation.

- Updated definitions of Annex I to the Regulation 965/2012 applicable to the operator.
- Updates to the terms affected by these changes.
- Altimeter check and setting procedures in accordance with NCO.OP.101.
- Updates to the procedure for determining the aerodrome minima according to NCO.OP.110, NCO.OP.111 and NCO.OP.112.
- Updates to the destination alternate aerodrome planning criteria according to NCO.OP.140, NCO.OP.141, NCO.OP.142, NCO.OP.143 and NCO.OP. 144.
- Updates to the conditions for take-off, approach and landing, in accordance with NCO.OP.175, NCO.OP.205 and NCO.OP.206.

- Updates to the criteria for commencement and continuation of approach according to NCO.OP.210.

3.5. Specialised operators (SPO)

Until Decision for ORO.FC AMC3 and GM3 is published, only hard law regulation requirements (published on Regulation (UE) 2021/2237⁸) are applicable.

Therefore, section 2.2 defines minimum requirements an air operator must assess to be adapted to the new regulation before 30th October 2022.

Details on changes for a Specialised Operator according to the draft AMC3 and GM3 defined in the Opinion 02/2021 regarding ORO.FC can be found below.

Training programmes for flight crew.

- a) Route/aerodrome knowledge procedure (ORO.FC.105)

Change the validity period of the aerodrome knowledge, with respect to route and area of operation, to 12 and 36 months, respectively. Change to the categorisation of aerodromes. An AMC dedicated to the case of helicopter operations is included.

- b) Initial operator training in crew resource management (CRM) (ORO.FC.115)

Operators conducting *single-pilot* operations must adapt their initial CRM course to comply with the new requirements relating to the use of online means.

In addition, all operators (single-pilot or multi-pilot operations) must modify section A.5 of the operations manual which states the qualification of the CRM instructor for flight crew ("FC CRM trainer"), because the requirements for that instructor have been changed.

Moreover, the CRM elements which are part of the conversion course, and which change from required to not required, or vice versa, must be changed.

- c) Differences and familiarisation training (ORO.FC.125)

This training is now called "Differences training and familiarisation, equipment and procedure training", so that these courses must include the training necessary for a flight crew member to be suitably trained when equipment or procedure changes requiring flight crew to acquire additional knowledge are introduced. This will have particular impact for helicopter operators which, typically, encounter greater differences between equipment installed on helicopters of the same type and variant.

- d) Operator conversion training and checking (ORO.FC.120, ORO.FC.320 and ORO.FC.325)

The operator must adapt their conversion course to the new ground training and flight training requirements introduced by AMC3 ORO.FC.120. The operator may also give credits to crew members with experience in similar specialised operations, when that crew member changes

⁸ <https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=CELEX%3A32021R2237&qid=1659510378660>

operator or changes specialised operation with the same operator, or when he/she changes type or variant.

The requirement for the OPC and the equipment and procedure training and checking with impact on the SOPs must be included at the end of the conversion course, in accordance with ORO.FC.320

e) Recurrent training and checking (ORO.FC.330)

The syllabi of the flight crew recurrent training programmes must be modified to include, as part of the ground training, training in the equipment associated when equipment or procedure changes requiring flight crew to acquire additional knowledge are introduced, in accordance with ORO.FC.130 and AMC1 ORO.FC.130, where the content is indicated.

They must also be modified to state that the crew member will periodically undergo a period of recurrent training and checking, on the ground and in flight, in accordance with AMC1 ORO.FC.330.

Low Visibility Operations (LVO)

- Change to the LVTO and CAT II requirements. An operator with specific LVTO and/or CAT approval must request the corresponding change to adapt to the new requirements.
- Change to the EVS, LVO CAT IIIA and/or CAT IIIB approval. An operator with specific EVS and/or LVO CAT IIIA and/or CAT IIIB approval must request the corresponding change to adapt to the new requirements and terminology.

Other changes

The operator must update their operations manual to include the changes described in 2.1.72.1.6 which are applicable to their operation:

- Updated definitions of Annex I to the Regulation 965/2012 applicable to the operator.
- Updates to the procedure for determining the aerodrome minima according to SPO.OP.110 and SPO.OP.112.
- Updates to the destination alternate aerodrome planning criteria according to SPO.OP.143 or SPO.OP.144.
- Updates to the conditions for take-off, approach and landing, in accordance with SPO.OP.180 and SPO.OP.210.
- Updates to the criteria for commencement and continuation of approach according to SPO.OP.215

4. CONCLUSIONS AND RECOMMENDATIONS

Operators should identify the aspects of this regulation that impact their operation to adapt their procedures to the new regulatory requirements and AMCs and GMs introduced by the Regulation (EU) 2021/2237, and modify their Operations Manual accordingly. Air operators shall assess its MEL and if they must be adapted to the new Regulation (EU) 2021/2237 according to Section 3.

For **commercial air transport** operators, all the changes must be implemented by the date of the entry into force of the Regulation (EU) 2021/2237, which is 30 October 2022. At a minimum, all operators will have to request approval for their aerodrome operating minima (CAT.OP.MPA.110) and adapt to the new ORO.FC requirements.

NCC, NCO and SPO operators must adapt their Operations Manual or procedures (SOPs) by the entry into force of the Regulation (EU) 2021/2237, 30 October 2022.

Depending on the approval requested by the operator, the corresponding annex to this guide should be attached to the approval request submitted to the AESA:

- AOC without SPA approvals affected by the Regulation (EU) 2021/2237.

To adapt to the new regulation, operators must submit a request for approval:

- Aerodrome operating minima. All operators must submit this.
- In the case of ORO.FC requirements, the forms published at the online office relating to the Air Operator Certificate (AOC) shall be used.

<https://sede.seguridadaerea.gob.es/sede-aesa/catalogo-de-procedimientos/certificado-de-operador-a%C3%A9reo-aoc-avi%C3%B3n-y-helic%C3%B3ptero>.

- AOC with SPA approvals affected by the Regulation (EU) 2021/2237.

To adapt to the new regulation, operators must submit a request for approval:

- Aerodrome operating minima. All operators must submit this.
- The part corresponding to the operator's SPA approvals shall be submitted. This is both for adaptation to the new regulation and for new requests. This will be applicable from 30 October 2022.
- In the case of ORO.FC requirements, the forms published at the online office relating to the Air Operator Certificate (AOC) shall be used.

<https://sede.seguridadaerea.gob.es/sede-aesa/catalogo-de-procedimientos/certificado-de-operador-a%C3%A9reo-aoc-avi%C3%B3n-y-helic%C3%B3ptero>.

If the AOC is modified by the change of name for the SPA approval, the operator must submit an AOC modification request.

- NCC. Operators currently holding SPA.LVTO approval should adapt to the new Regulation and submit an approval request.

All the changes introduced by the Regulation (EU) 2021/2237 should be submitted in a single request.

It is recommended to request the appropriate approvals as soon as possible. For applications after 5 September, it cannot be guaranteed that the approvals will be issued prior to the entry into force of the Regulation (EU) 2021/2237, which is 30 October 2022.



ORO.FC AMCs and GMs are still in the draft phase. It is expected that this material will be published by means of the corresponding EASA Decision during the next weeks of 2022. It follows that this guide may be subject to updating once the EASA publishes the Decision.