



Explanatory Note to Decision 2022/014/R

Update of ORO.FC — review of crew training provisions

RELATED NPA/CRD: 2019-08 & OPINION No 02/2021 — RMT.0599

EXECUTIVE SUMMARY

The objective of this Decision is to facilitate the implementation of the new requirements introduced into:

- Regulation (EU) No 965/2012 (the ‘Air OPS Regulation’) related to flight crew training by Commission Implementing Regulation (EU) 2021/2237 which will apply from 30 October 2022; and
- Regulation (EU) No 1178/2011 (the ‘Aircrew Regulation’) related to flight crew training by Commission Implementing Regulation (EU) 2021/2227 which will apply from 30 October 2022.

Those Regulations and this ED Decision amend the operator’s flight crew training and checking provisions to better reflect the increased complexity in the aviation system. The updates cover aeroplanes and helicopters that carry out commercial air transport (CAT) operations, specialised operations (SPO) and non-commercial operations with complex motor-powered aircraft (NCC). The most important items are:

- (a) new conditions for multi-pilot operations in single-pilot certified helicopters,
- (b) new provisions for initial training and checking under SPO,
- (c) new provisions for recurrent training and checking under CAT and SPO,
- (d) new conditions for the operation on different aircraft types or variants,
- (e) introduction of the option for NCC operators to accept previous training and checking, and
- (f) addressing other minor issues regarding flight crew training and checking.

Some changes are expected to increase safety in a cost-effective way, whereas others should reduce the training costs without an impact on safety. Several clarifications are also introduced to maintain a high level of safety for air operations by ensuring a harmonised implementation of the Air OPS Regulation and the Aircrew Regulation.

Domain:	Competence of personnel		
Related rules:	AMC & GM to Annex I (Part-FCL) to the Aircrew Regulation; AMC & GM to Annexes III-VIII to the Air OPS Regulation		
Affected stakeholders:	National competent authorities, aircraft operators, pilots, flight instructors, flight examiners, approved training organisations		
Driver:	Safety	Rulemaking group:	Yes
Impact assessment:	Yes		

EASA rulemaking procedure milestones

Start Terms of Reference	NPA consultation NPA 2019-08	Proposal to the Commission Opinion	Adoption by Commission Implementing acts	Decision Acceptable Means of Compliance, Guidance Material
5.2.2016	14.6.2019	27.5.2021	14.12.2021 15.12.2021	18.8.2022



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1. About this Decision

The European Union Aviation Safety Agency (EASA) developed Decision 2022/014/R in line with Regulation (EU) 2018/1139¹ (the ‘Basic Regulation’) and the Rulemaking Procedure².

This rulemaking activity is included in the European Plan for Aviation Safety (EPAS) for 2022-2026 Volume II³ under rulemaking task (RMT).0599. The scope and timescales of the tasks were defined in the related ToR for RMT.0599⁴.

EASA developed the *draft* text of this Decision and published it for consultation through NPA 2019-08⁵. For further information on the NPA published, on the comments received, and on the methodology employed for their revision, please refer to Section 1.1 of Opinion No 02/2021⁶.

The comments received and EASA’s responses to them are presented in Comment-Response Document (CRD) 2019-08⁷.

Considering the input from the consultation, EASA published Opinion No 02/2021 on 27 May 2021. The Opinion was addressed to the European Commission, which adopted the following Regulations based on the Opinion:

- Regulation (EU) 2021/2227 of 14 December 2021⁸
- Regulation (EU) 2021/2237 of 15 December 2021⁹

EASA developed the *final* text of this Decision considering the input received during the consultation of the NPA and well as during the adoption procedure for the above-mentioned Regulations, and published the Decision on the Official Publication¹⁰ of EASA.

The major milestones of the RMT are presented on the cover page.

¹ Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139>).

² EASA is bound to follow a structured rulemaking process as required by Article 115(1) of Regulation (EU) 2018/1139. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the ‘Rulemaking Procedure’. See MB Decision No 01-2022 of 2 May 2022 on the procedure to be applied by EASA for the issuing of opinions, certification specifications and other detailed specifications, acceptable means of compliance and guidance material (‘Rulemaking Procedure’), and repealing Management Board Decision No 18-2015 (<https://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-no-01-2022-rulemaking-procedure-repealing-mb>).

³ <https://www.easa.europa.eu/downloads/134919/en>

⁴ <https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-concept-paper-rmt0599>

⁵ <https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2019-08>

⁶ <https://www.easa.europa.eu/downloads/128172/en>

⁷ <https://www.easa.europa.eu/document-library/comment-response-documents/crd-2019-08>

⁸ 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 (OJ L 448, 15.12.2021, p 39) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R2227>).

⁹ Commission Implementing Regulation (EU) 2021/2237 of 15 December 2021 amending Regulation (EU) No 965/2012 as regards the requirements for all-weather operations and for flight crew training and checking (OJ L 450, 16.12.2021, p 21) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R2237>).

¹⁰ <https://www.easa.europa.eu/official-publication>



2. In summary — why and what

2.1. Why we need to amend the AMC and GM — issue/rationale

Background information on the need to improve the crew training and checking requirements and related AMC and GM can be found in Section 3.1 of Opinion No 02/2021.

2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This Decision will contribute to the achievement of the overall objectives by addressing the issues outlined in Section 2.1.

The general objective is to review the flight crew training provisions while taking into account the following:

- (a) maintain the high aviation safety level established in the European regulation by:
 - (1) ensuring that the recurrent training and checking programmes are adequate to provide pilots with the necessary knowledge, skills and attitude to be competent in their job; and
 - (2) addressing the relevant safety recommendations (SRs) as defined Section 3.1.1 of Opinion No 02/2021; and
- (b) contribute to the development of an efficient regulatory framework to ensure that the level of safety can only be positively affected by:
 - (1) introducing performance-based regulation principles;
 - (2) ensuring consistency of training-related provisions as addressed to different operators (CAT, NCC or SPO); and
 - (3) ensuring the correct balance between implementing rules and AMC & GM on the subject issue.

The specific objectives of this ED Decision are the following:

- (a) Reduce the obstacles to multi-pilot operations in single-pilot certified helicopters.
- (b) Increase the safety of multi-pilot operations in single-pilot certified helicopters.
- (c) Increase safety by improving the efficiency of initial and recurrent training and checking schemes.
- (d) Increase safety and efficiency by improving the training and checking of flight crew members operating on more than one helicopter type or variant.
- (e) Increase safety by defining in-depth initial training and checking for specialised operations.
- (f) Increase efficiency, without compromising safety, as regards the amount of recurrent checking for specialised operations.
- (g) Increase safety and efficiency by improving harmonisation in NCC training and checking.



- (h) Increase safety and efficiency by streamlining the access to instrument ratings and instrument flight with helicopters.

2.3. How we want to achieve it — overview of the amendments

2.3.1 Changes of a general nature

Several AMC and GM as proposed in the NPA were associated with more than one point in the proposed implementing rule.

In order to clarify the point of the rule the means of compliance refers to, each new AMC now refers to one single point in the implementing rule. In some cases, one AMC to several implementing rules was split into several AMC. In such cases, the text was kept in one AMC and referred to in the others as relevant, to avoid duplication.

As regards the periodicity of recurrent training and checking and recency:

- a validity period is defined in the relevant implementing rule for all requirements of Subpart ORO.FC;
- the validity period is extended to the end of the month as defined in the new AMC1 ORO.FC.145(g); and
- a 3-month revalidation period is defined in the new AMC1 ORO.FC.145(g).

2.3.2 Update of the recency requirements for CAT operations

Explanatory note to GM1 ORO.FC.100(c) and deletion of AMC1 ORO.FC.100(c) Composition of flight crew

Domains affected: CAT, NCC, SPO

Certain implementation issues highlighted by several Member States before and during the COVID-19 pandemic identified a non-standardised implementation of this requirement. The requirement is currently contained in FCL.060 of the Aircrew Regulation¹¹ while point (c) of ORO.FC.100 requires that '(c) All flight crew members shall hold a licence and ratings issued or accepted in accordance with Commission Regulation (EU) No 1178/2011 and appropriate to the duties assigned to them.' The Air OPS Regulation¹² ensures the link between both regulations. However, this link was not clear for a number of European Member States and aircraft operators.

In order to perform this amendment, ICAO Annex 6 Part I and Part II have been reviewed to ensure consistency between the European regulatory framework and ICAO. In particular, the following have been considered:

¹¹ Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 311, 25.11.2011, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011R1178&qid=1658227775805>).

¹² 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 (OJ L 296, 25.10.2012, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0965&qid=1658227882395>).



Annex 6 Part I

9.4.1 Recent experience - pilot-in-command and co-pilot

9.4.1.1 The operator shall not assign a pilot-in-command or a co-pilot to operate at the flight controls of a type or variant of a type of aeroplane during take-off and landing unless that pilot has operated the flight controls during at least three take-offs and landings within the preceding 90 days of the same type of aeroplane or in a flight simulator approved for the purpose.

Annex 6 Part II

3.9.4.2 Recent experience — pilot-in-command

The operator shall not assign a pilot to act as pilot-in-command of an aeroplane unless that pilot has made at least three take-offs and landings within the preceding 90 days on the same type of aeroplane or in a flight simulator approved for the purpose.

3.9.4.3 Recent experience — co-pilot

The operator shall not assign a co-pilot to operate at the flight controls of an aeroplane during take-off and landing unless that pilot has made at least three take-offs and landings within the preceding 90 days on the same type of aeroplane or in a flight simulator approved for the purpose.

Annex 6 Part III Section 2 'International commercial air transport' includes equivalent provisions for helicopters in standard 7.4.1.

2.3.3 Route, area and aerodrome knowledge provisions related to ORO.FC.105

The new implementing rule addresses an issue related to lack of clarity in the AMC regarding route, area and aerodrome knowledge in ORO.FC.105 of the Air OPS Regulation. The former implementing rule and accompanying AMC are phrased in such a way that it appears that the evaluation and assessment of route, area and aerodrome complexity is left entirely to the operator.

In order to achieve the ORO.FC.105 objective, AMC1 ORO.FC.105(b)(2);(c) clarifies that the official information and requirements promulgated through AIP should be complied with, when operators perform such evaluations. There have been several examples of operators unknowingly having missed crucial information regarding route, area and aerodrome requirements as a result of the present regulatory description.

Explanatory note to AMC1 ORO.FC.105(b)(2);(c)

Domains affected: CAT A, CAT H, SPO A, SPO H

Member States have identified a shortcoming in the provisions for special airport operations – Category C.

As an example, operations into the Norwegian category B and C aerodromes have led to safety deviations, incidents and accidents. Enforcement by the Norwegian CAA has been made difficult by the lack of reference to national requirements and AIP information.

To address this issue, the AMC is amended.

The change neither deviates from the current requirements nor introduces anything new, but provides a link to national legislation, which is completely absent today.



Explanatory note to points (a)(3) and (4) of AMC1 ORO.FC.105(b)(2);(c) and GM1 ORO.FC.105(c)

AMC1 ORO.FC.105(b)(2);(c) and the GM1 ORO.FC.105(c) provide the means of compliance and guidance for the operators to determine the underlying risks and threats of a route and an area. The AMC determines as minimum the following:

- internal evidence;
- operational risk assessment;
- safety management process;
- external evidence;
- NOTAMs; and
- AIP.

The optimum training methods should be chosen based on the determined risks and threats. For instance, a threat based on an ATC procedure could be trained best by providing audio examples, whereas a decompression over high terrain could be trained best by using a flight simulator training device (FSTD). Additionally, after 12 months of not flying into the route/area, a refresher training will be provided. The method for the refresher training may differ from the optimum method for the initial training as it is based on the acquired knowledge and skills of the initial training which it aims to refresh.

The objective of the route and area training is to assure adequate:

- (a) knowledge of the route and area including:
 - (1) terrain and minimum safe altitudes;
 - (2) seasonal meteorological conditions;
 - (3) meteorological, communication and air traffic facilities, services and procedures;
 - (4) search and rescue procedures where available; and
 - (5) navigational facilities associated with the area or route along which the flight is to take place; and
- (b) awareness of the underlying risks and threats of the route and area.

Knowledge is the understanding of or information about a subject that you get by experience or training.

Awareness is perceiving, knowing, or being conscious of risks and threats which were determined by applying a risk model.

The logic and idea behind the route and area training is aligned with the logic of the 'performance-based continuous ground training' described in ORO.FC.231.

Explanatory note to AMC2 ORO.FC.105(b)(2);(c)

Domains affected: NCC A, NCC H, including non-commercial specialised operations with complex aircraft (SPO A, SPO H)

The AMC is drafted according to the following principles:



According to ICAO Annex 6 Part II 3.9.4.1.1., the operator shall ensure that each flight crew member is properly rated, and shall be satisfied that flight crew members are competent to carry out assigned duties.

According to ORO.FC.105(b)(2), a flight crew member shall only act as pilot-in-command if she or he has adequate knowledge for take-off, en-route, destination and alternates. National requirements published in the AIP should be complied with.

Explanatory note to GM2 ORO.FC.105(b)(2)

Domains affected: NCC A, NCC H, including non-commercial specialised operations with complex aircraft (SPO A, SPO H)

GM2 ORO.FC.105(b)(2) has been based on AMC1 ORO.FC.105(b)(2);(c). The AMC is applicable to CAT. It was decided to reduce the burden by moving the content of this CAT AMC to GM for non-commercial operators, so that a non-commercial operator can also use any other appropriate method specified in the operations manual.

The decision to keep the published circling minima not higher than 1 000 ft above aerodrome level was taken to ensure consistency with ORO.FC Section 2.

2.3.4 Updates to ‘provision of training and checking’ including ‘personnel providing training, checking and assessment’ and ‘use of FSTDs’

Certain implementation issues brought to the attention of EASA are addressed with this update.

ORO.FC.145, as proposed through Opinion No 08/2019¹³ and Opinion No 02/2021, has been split in two parts following the publication of Commission Implementing Regulation (EU) 2020/2036¹⁴ of 9 December 2020 amending the Air OPS Regulation. The elements regarding provision of training have remained in ORO.FC.145, and the elements regarding personnel providing training, checking and assessments have been transferred to the new ORO.FC.146. AMC and GM need to be amended accordingly.

The use of FSTDs remains described in several points, including ORO.FC.145 and the associated AMC, AMC1 ORO.FC.115 and AMC2 ORO.FC.115. The CAT-specific elements are described in AMC1 ORO.FC.230.

2.3.4.1 Provision of training and checking

Explanatory note to AMC1 ORO.FC.145(a)

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

This AMC has been introduced to improve international harmonisation and to address standardisation issues:

International harmonisation

ICAO universal safety oversight audit programme (USOAP) protocol question No 4.221 (and the associated guidance material) require the following:

¹³ <https://www.easa.europa.eu/document-library/opinions/opinion-082019-b>

¹⁴ Commission Implementing Regulation (EU) 2020/2036 of 9 December 2020 amending Regulation (EU) No 965/2012 as regards the requirements for flight crew competence and training methods and postponing dates of application of certain measures in the context of the COVID-19 pandemic (OJ L 416, 11.12.2020, p. 24) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R2036&qid=1658241510403>).

‘(d) comprehensive syllabi, including lesson plans for approved training.’

Federal Aviation Administration (FAA) Part 121 also provides a similar requirement as follows:

‘§121.403 Training program: Curriculum.

Each certificate holder must prepare and keep current a written training program curriculum for each type of airplane with respect to dispatchers and each crewmember required for that type airplane. The curriculum must include ground and flight training required by this subpart.

Each training program curriculum must include:

A list of principal ground training subjects, including emergency training subjects that are provided.

A list of all the training device mockups, systems trainers, procedures trainers, or other training aids that the certificate holder will use. No later than March 12, 2019, a list of all the training equipment approved under §121.408 as well as other training aids that the certificate holder will use.

Detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency maneuvers, procedures and functions that will be performed during each flight training phase or flight check, indicating those maneuvers, procedures and functions that are to be performed during the inflight portions of flight training and flight checks.

A list of airplane simulators or other training devices approved under §121.407, including approvals for particular maneuvers, procedures, or functions.

The programmed hours of training that will be applied to each phase of training.

A copy of each statement issued by the Administrator under §121.405(d) for reduction of programmed hours of training.’

The AMC has been based on the ICAO protocol questions described above and on the FAA requirement.

Standardisation issues

In May 2017 the OPS TeB approved a document to address the standardisation issues related to training programmes; the AMC has been based on that document.

Explanatory note to AMC1 ORO.FC.145(b)

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

The title of the AMC has been amended following the amendment in the title of the implementing rule. The verb ‘consider’ has been replaced by ‘include’ for consistency, because operational suitability data cannot be disregarded.

2.3.4.2 Use of FSTDs

Explanatory note to AMC2 ORO.FC.145(d) and GM1 ORO.FC145(d)

Domains affected: CAT A, CAT H

The definitions of ‘available FSTD’ and ‘accessible’ have been introduced so that the definitions are extended to non-CAT operations. This might be helpful, for example, for compliance with ORO.FC.115.

The Aircrew definitions are provided below for reference.



- ‘available FSTD’ means any flight simulation training device (FSTD) that is vacant for use of the FSTD operator or of the customers irrespective of any time consideration.
- ‘Accessible’ means that a device can be used by:
 - the approved training organisation (ATO) under whose approval a training course for a class or type rating is being conducted; or
 - the examiner conducting the assessment of competence, skill test or proficiency check for the purpose of assessing, testing or checking.

The definition of ‘accessible’ has been made operator-centric for the purpose of the Air OPS Regulation and in order to incentivise the use of FSTDs.

Elements of data protection have been introduced with regard to the personal data that can be extracted from simulators.

Explanatory note to points (a)(4)(ii)(A) and (b)(1)(ii)(G) of AMC1 ORO.FC.230

Domain affected: CAT H

Point (a)(4)(ii)(A) has been amended and point (b)(1)(ii)(G) has been introduced to ensure that a helicopter FSTD is used whenever available, even if not fully suitable for all aircraft/FSTD training and checking elements. Alternating the use of FSTD with the use of aircraft has been introduced for both training and checking.

Explanatory note to points (a)(4)(ii)(A) and (B) of AMC1 ORO.FC.230

Domains affected: CAT H

The amendment has been introduced to clarify that, in case no FSTD suitable to perform those exercises is available, the operator may perform those exercises in the helicopter or not at all.

Explanatory note to point (d) of AMC1 ORO.FC.230

Domains affected: CAT A, CAT H

For CAT, in addition to the definitions of ‘accessible’ and ‘available’ FSTD, a provision has been introduced to ensure that training and checking are carried out in an FSTD when available and accessible.

2.3.4.3 Qualification of personnel

Note:

Explanations regarding the new transitional measures introduced in Article 4e of the Aircrew Regulation and regarding the training and checking of multi-pilot operations in point (h) of AMC1 ORO.FC.146(e);(f)&(g) are included in Section 2.3.8. ‘Multi-pilot operations in single-pilot helicopters’.

Explanatory note to AMC1 ORO.FC.146 and AMC1 ORO.FC.146(b)

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

The AMC have been developed by moving elements of the ORO.FC.230 AMC into Section 1, and by restricting them to commercial air transport as necessary.

It should be clear that the elements of the current ORO.FC.230 AMC that have been moved to AMC1 ORO.FC.146(b) are only applicable when ORO.FC.146(b) applies; however, the scope is clarified again in the subtitle.

Points (c) and (d) of AMC1 ORO.FC.146(b) are related to multi-pilot operations in single-pilot helicopters. They are introduced to ensure that, whenever multi-pilot operations take place on a voluntary basis, the person conducting the check has sufficient experience of multi-pilot operations.

Flight experience gathered in multi-pilot operations can then be credited towards the prerequisites of the ATPL, the multi-crew cooperation instruction (MCCI) and the MCC training privilege of the TRI, regardless of whether they are flown under CAT, NCC or SPO.

Point (e) introduces the minimum experience in specialised operations.

Explanatory note to AMC1 ORO.FC.146(e);(f)&(g)

Domains affected: CAT A, CAT H*, SPO A, SPO H (* Only for operations starting and ending at the same location, with small aircraft, as defined in ORO.FC.005(b), point (b)(2) (CAT A to A))*

Point (a) describes training for non-instructors, and point (b) describes training for non-examiners. These points clarify that an instructor does not need the training in (a) and an examiner does not need the training in (b), even though there is no requirement to repeat a training taken in the past.

For example, a FI or a TRI /TRE with restricted privileges may not have all the privileges of a TRI or TRE and may not fully meet the FCL qualification requirement in ORO.FC.146(b). However, this person may be a suitably qualified PIC/Commander nominated by the operator in the context of ORO.FC.146(f) if all the other criteria are met.

Points (c) and (h) are related to multi-pilot operations in single-pilot helicopters.

The AMC defines the experience of the person conducting SPO and 'CAT A to A' training and checking. It introduces a mitigation to the fact that examiners are no longer needed to conduct OPCs, and instructors are no longer needed to conduct flight training for SPO.

It has been based on an exemption granted to Spain and has been extended to cover a wide variety of specialised operations. The exemption had been based on the national regulation in use before the introduction of the Air OPS Regulation. Also, Spain has provided the results of a safety assessment which stated that the accident/incident rate was equivalent to other countries in the EU.

The AMC also defines the experience of the person conducting training and checking under commercial air transport other than 'CAT A to A'. The said person does not need to be an instructor/examiner, extending thus the scope of the exemption granted to Spain.

In addition, the flight experience is introduced as follows:

- 500 hours in the applicable specialised operations was considered excessive as compared to the number of cycles needed for the HEC/HESLO instructor, including HESLO 4. The 500 hours were reduced to 350.
- 1 000 hours in specialised operations would probably mean more than 1 500 hours in total, which was considered excessive compared to the ATPL requirements. The 1 000 hours were reduced to 800 and credit was given for CAT operations and State operations similar to SPO. The resulting criterion is achievable relatively early in a pilot's career.



Authority approvals could cover individual cases where less experience is acceptable, but SPO should remain a declared activity. The case where all or most of the pilot's experience in specialised operations is irrelevant to the specific specialised operation training and checking is covered with the need for the operator to define a number of hours in the applicable specialised operation, based on a risk assessment.

If there is no suitably qualified person to conduct the training and checking within the operator, it should seek external help until its own pilots have gathered sufficient experience. Considering the 2- and 3-year cycles introduced for the training and checking, the need for external help remains limited.

It is clarified that the suitably qualified commander should be type rated.

Explanatory note to points (b)(1)(iv) and (d) of the former AMC1 ORO.FC.230

Domains affected: CAT A, CAT H

Points (b)(1)(iv) and (d) of the former AMC1 ORO.FC.230 are deleted and moved to AMC1 ORO.FC.146(b) in order to extend their scope to non-CAT operations.

2.3.5 CRM for flight crew and cabin crew

To address CRM issues, amendments are introduced to the following AMC:

- (a) AMC1 ORO.FC.115 point (g) — to ensure that CRM theoretical training provisions are consistent with the competencies that pilots need to develop in CRM.
- (b) AMC1 ORO.FC.230 — to introduce means of compliance for in-flight CRM assessment when an observer's seat is not available.
- (c) AMC1 ORO.FC.230 — to ensure CRM assessments will take place during the helicopter OPC.
- (d) Following the NPA consultation, AMC1 ORO.FC.115 point (a)(4) has been amended to ensure that a CRM assessment takes place during the proficiency check regardless of the seating configuration during a line check. The CRM assessment is therefore extended to non-CAT operations using FSTDs.

In addition, the term 'form of operation' is introduced in the provisions. This term is used in the FCL context to refer to either single-pilot operations or multi-pilot operations. The intention to use consistent terminology in FCL and ORO.FC.

2.3.5.1 CRM training elements

Explanatory note to Table 1 in point (g) of AMC1 ORO.FC.115

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

The 'general principles' do not vary from one aircraft type to another and should not need to be re-trained when changing aircraft types within the same operator. The CRM training elements related to the 'individual flight crew member' are connected to the pilot's competencies. Some of these elements, such as stress and stress management as well as fatigue and vigilance, could be connected to the operating environment and the operator's fatigue risk management. It would therefore make

sense to train these elements when joining an operator and not only during initial and recurrent training.

2.3.5.2 In-flight CRM assessment when an observer's seat is not installed, and CRM assessments in simulators

Explanatory note to point (b)(3) 'line checks' of AMC1 ORO.FC.230

Domains affected: CAT A, CAT H

In-flight CRM performance is the result of non-technical skills and behaviours of the crew working as a team. For this reason, the in-flight CRM assessment ideally takes place only when the person in charge of the assessment is seated in an observer's seat and has no other tasks. When no observer's seat is available, and when flying certain helicopter types and small airplane types in multi-pilot operations, the in-flight CRM assessment will either be slightly biased or not take place at all.

The AMC introduces means of compliance for the CRM assessment in this non-ideal seating configuration. Options include the use of a forward-facing passenger seat with sufficient visibility, the use of a line-oriented part of an FSTD session, and when neither of these options are available, the CRM assessor may also be part of the active crew.

As the person conducting the OPC is trained in the assessment of CRM skills, the AMC introduces a CRM assessment during the OPC.

EASA has decided to clarify the text on line checks and CRM assessments by splitting the two elements: the seating of the line checker in point (v) and the CRM assessment in the new point (vi). Point (vi) describes means of compliance if the line checker cannot sit in an observer's seat.

Explanatory note to point (a)(4) of AMC1 ORO.FC.115

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

EASA has decided that a CRM assessment should take place in a line-oriented evaluation (LOE) during the OPC every time an FSTD is used, regardless of the seating configuration used during the line check, and regardless of line checks not being applicable to NCC and SPO.

The term 'line-oriented evaluation' has been replaced by 'line-oriented flight' for consistency.

The CRM assessment is called 'complementary' and relates to the same 'complementary assessment' for CAT in AMC1 ORO.FC.230 and AMC1 ORO.FC.A.245(d);(e)(2).

For SPO and NCC, it is complementary only to the LOFT sessions.

2.3.5.3 Flight crew CRM trainer

Explanatory note to AMC2 ORO.FC.146 through the amendment of the existing AMC3 ORO.FC.115

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

Point (a) is amended to ensure that (a)(2) is not used as an alleviation to (a)(1), for instructors responsible for both classroom CRM training and CRM training in an operational environment.

Point (b) is amended and merged with the current point (e) on revalidation and renewal of the qualification. It defines the qualification of the CRM trainer and 'operator ratings'. Point (b) applies to the CRM trainer.



- (b)(1) introduces the prerequisites for the CRM trainer qualification.
- (b)(2) summarises the initial training and assessment, including the knowledge of the relevant operation at one operator and the assessment by that operator.
- (b)(3) introduces the need for an ‘operator rating’ when using the CRM trainer qualification at an operator unless assisted by a person with the missing competencies (note: the initial qualification includes the operator rating at the initial operator).
- (b)(4) defines the revalidation and renewal. It includes the previous (e) with minor changes as follows: the current condition in (e)(1)(i) is amended so that practice of CRM trainings gives credit towards revalidation, otherwise renewal would remain easier than revalidation. The CRM trainer refresher training is considered to be essential to ensure that CRM training remains lively and up to date. It becomes a mandatory condition for revalidation and renewal.

Point (c) describes the CRM training of the CRM trainer with the following changes:

- The applicability is clarified: it applies to the operator that trains CRM trainers.
- The initial and recurrent training are described in more detail.
- The instructor refresher training qualifies as CRM trainer refresher training if it meets the defined criteria.
- The alleviation allowing CRM trainers of other than complex motor-powered not to receive training if they are instructors is deleted.

The new point (d) is created to clarify that knowledge of the operational environment is an essential element, is assessed by the operator, and the operator provides training to the CRM trainer as necessary. The existing point (b)(2)(i) and key elements of the existing point (b)(3) are moved to the new point (d).

The new point (e) is created to provide an alternative in case the flight crew CRM trainer does not have the knowledge of the operational environment. This alternative ensures a team of trainers where all the necessary competencies are present. This possibility was implicit in the former AMC, with the sentence ‘Assistance may be provided by experts in order to address specific areas’.

Point (f) describes the assessment process with the following changes:

- Greater focus on group management, group dynamics and personal awareness.
- Clarification that the initial assessment can take place when the person conducts the first CRM training.

Point (f) summarises the provisions related to the assessment of the CRM trainer. This ensures that a small operator can contract training to an external provider, on the condition that the trainer is a qualified and current flight crew CRM trainer and the trainer or training team have the relevant operational knowledge.

As there were several comments regarding this AMC, for the sake of clarity regarding the impacts of this AMC, the following elements of the assessment performed in the NPA and Opinion are recalled here (rather in Section 2.4):

- Impact assessment: the impacts are negligible.



- Large operators that conduct CRM training internally: there are no impacts (see also CRM trainers)
- Small operators that use external CRM trainers: the necessary clarifications are introduced in the AMC (see also CRM trainers)
- CRM trainers: The need for a 3-yearly CRM trainer refresher training adds cost that will be passed over to the trainees and their operators. The benefits should exceed the costs by ensuring that CRM trainings remain lively and up to date.

2.3.5.4 Flight crew CRM training in the non-operational environment

Explanatory note to AMC2 ORO.FC.115

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

Computer-based training (CBT) is not the best tool to train human interaction, human relationships, etc. Ideally, CRM training in the non-operational environment should be classroom training. Virtual classroom training using videoconferencing tools is the second-best option that is necessary for the smallest operators based in remote areas, and is proportionate to single-pilot operations. The current technology does not ensure sufficient interaction capability, especially in large groups, which justifies that a limitation is introduced to the number of trainees. It should be noted that too few trainees can also result in failure to achieve the expected interactions that are the key to a successful CRM training session.

EASA received several comments on this particular topic, both during the NPA consultation but also in meetings with the EASA advisory bodies (ABs), therefore a reminder of the impact assessment is provided here, rather than in Section 2.4, in order to address the specific comments on this topic: remote classroom training costs more than CBT, but it is the best way to ensure that CRM training in the non-operational environment is both effective and cost-effective.

Explanatory note to GM8 ORO.FC.115

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

The GM provides a summary of the essential elements of the existing EASA guidance document on virtual classroom training, and extend its scope to ORO.FC.115.

2.3.5.5 Cabin crew CRM training in the non-operational environment

Domain affected: Cabin crew

Explanatory note to AMC1 ORO.CC.115(e)

The ‘general principles’ do not vary from one aircraft type to another and should not need to be re-trained when changing aircraft types within the same operator. In-depth training takes place during the initial training, and annual recurrent training is foreseen.

The CRM training elements related to the ‘individual cabin crew member’ are connected to the crew competencies. Some of these elements, such as stress and stress management as well as fatigue and vigilance, could be connected to the operating environment and the operator’s fatigue risk management. It would therefore make sense to train these elements when joining an operator and not only during initial and recurrent training.

The changes ensure that flight crew and cabin crew training remain aligned.

Explanatory note to AMC2 ORO.CC.115(e)

Domain affected: Cabin crew

A single cabin crew has as many safety-critical working interactions with the flight crew and ground personnel as a senior cabin crew. They interact with passengers as any cabin crew. It is essential that the standards of their CRM training are as high as any cabin crew. Stand-alone CBT does not apply in that case. It has been replaced by the same provisions as those introduced for single pilots.

Impact assessment: this is possible for cabin crew members operating on aircraft with a maximum operational passenger seating configuration of 19 or less. It therefore is very marginal, and no impact assessment is needed.

Explanatory note to GM8 ORO.CC.115

The GM provides a summary of the essential elements of the existing EASA guidance document on virtual classroom training, and extends its scope to ORO.CC.115.

Explanatory note to GM3 ORO.CC.115

See explanation below in the EBT Section 2.3.16.2.

2.3.5.6 Other CRM issues

Explanatory note to point (b)(3)(v) of AMC1 ORO.FC.230

Domains affected: CAT A, CAT H

Point (b)(3)(v) is amended to achieve the improvements to CRM training, and to align the wording with the provisions already introduced for EBT.

2.3.6 Ground training and emergency and safety equipment training

The ground training and checking provisions were not aligned between AMC to ORO.FC.220 and ORO.FC.230: elements of knowledge were checked but had not been trained, and topics were not initially trained but were reviewed in recurrent training and checking. No AMC would define the content of ground training and checking for NCC and SPO.

As a result, the ground training for CAT was reviewed as follows and the final wording for CAT was then extended to NCC and SPO.

Explanatory note to AMC1 ORO.FC.220 and to point (a)(1)(i) of AMC1 ORO.FC.230

Domains affected: CAT A, CAT H

EASA has decided to introduce additional changes to the ground training defined in point (a) of AMC1 ORO.FC.220 to meet the following principles:

- The initial ground training should include all the elements that are included in the recurrent training.
- Training should include everything that is being checked.



The review of relevant samples of accidents/incidents and occurrences should also be included in the initial training, based on the above principles.

One phrase has been deleted from point (b)(2) of AMC1 ORO.FC.220 and introduced in (a)(1)(i) of AMC1 ORO.FC.230, for consistency with the above.

The wording related to initial and recurrent ground training has been aligned.

Explanatory note to AMC1 ORO.FC.120, AMC3 ORO.FC.120, AMC1 ORO.FC.130 and AMC1 ORO.FC.330

Domains affected: NCC A, NCC H, SPO A, SPO H

The ground training defined for NCC and SPO has been aligned with that defined for CAT.

2.3.7 Periodic checks

2.3.7.1 Basic principles

Explanatory note to GM1 ORO.FC.130

Domains affected: All

GM1 ORO.FC.130 complements the definitions of operator proficiency check in the Air OPS Regulation and proficiency check in the Aircrew Regulation and clarifies which periodic checks are required for the different kinds of operations. It clarifies the difference between ‘periodic checks’, ‘operator proficiency checks’ and ‘line checks’ for CAT, NCC and SPO operators.

Ground checks are also part of the ‘periodic checks’.

Note: This new GM1 ORO.FC.130 is different from the one published in NPA 2019-08.

2.3.7.2 Editorial update to combine CAT OPC and LPC

Explanatory note to point (a)(4)(i)(C) of AMC1 ORO.FC.230

Domains affected: CAT A, CAT H

Regarding the combination of OPCs with aircraft/FSTD training, it has happened that some operators have misunderstood the word ‘combined’. While there is value in allowing some 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 amended AMC clarifies this.

Explanatory note to point (b)(1)(i) of AMC1 ORO.FC.230

Domains affected: CAT A

The wording has been improved to better link the AMC to the related implementing rule (ORO.FC.230(b)(1)).

Explanatory note to point (b)(1)(iii) of AMC1 ORO.FC.230

Domains affected: CAT A, CAT H

EASA has decided to introduce an amendment to address an issue related to an unintended editorial change when the EU-OPS Regulation (EC) No 1899/2006 was transposed into the current Air OPS

Regulation. The editorial change involves point (b)(1)(iii) of AMC1 ORO.FC.230 and is related to the combined check of a licence proficiency check (LPC) and an OPC.

The former wording in point (b)(1) of AMC1 ORO.FC.230 caused an uneven implementation issue across Member States because of a tabulation error which causes confusion regarding the combined LPC/OPC content. Moreover, the current point (b)(1) of AMC1 ORO.FC.230 does not clearly mention the possibility to combine the licence skill test (LST) with the aeroplane OPC.

The objective of this amendment is to clarify that the OPC content can also be combined with the LST for the ATPL and for the revalidation, renewal and initial issue of a type rating.

The possibility to combine the LPC and the OPC is a well-established European practice existing since the 1990s under the Joint Aviation Requirements (JARs). The provisions applicable to commercial air transport concerning combined LPC/OPC were based on JAR-OPS 1.965 and have been transferred into EU OPS 1.965. Besides the changes in the legal value of the texts, the EU-OPS has introduced the possibility to combine the LST with the OPC.

Explanatory note to point (b)(3)(viii) of AMC1 ORO.FC.230

Domains affected: CAT A, CAT H

The regulator (JAA-1990s) intended this provision to promote task sharing, for operators with Monitoring approaches and integrated flight & cockpit preparation.

Today, manufacturers' documentation (e.g. FCOM) provides comprehensive SOPs promoting appropriate task sharing and best practices (e.g. integrated flight & cockpit preparation).

CRM and other provisions in the Air OPS Regulation further promote such practices.

Therefore, the promotion of those procedures has become obsolete. The former point (b)(3)(vi) is re-numbered as (b)(3)(viii) and amended accordingly.

2.3.7.3 Operators' proficiency checks for helicopter CAT operations

Domain affected: CAT H

Currently, the OPC is conducted by a suitably qualified commander trained in the assessment of CRM skills. Considering the contents of the helicopter OPC, the relative lack of simulator availability for helicopter training and checking, and for safety reasons, the person that conducts the OPC should be at least an instructor.

As the person that conducts the OPC is trained in the assessment of CRM skills, a CRM assessment should take place during the OPC.

It appears that the crew composition, together with the single-pilot or multi-pilot environment, had not been defined for helicopter OPCs. AMC1 ORO.FC.230 point (b)(1)(ii)(E) has been introduced to fill in this gap.

The OPC currently consists of a long list of emergency manoeuvres to be repeated every 6 months. In the current prescriptive format, the OPC does not allow the introduction of many variations in the checks, making them too repetitive. Considering this situation, the need for all the items in the current list to be checked on a 6-month basis has been then reviewed. It appeared that many of the items that are currently checked during every OPC on a 6-month basis could instead be checked on a yearly basis as part of the LPC, or every 3 years.



It has been also considered that it was detrimental not to check major failures that did not appear on the list, including helicopter type-specific failures. A 3-year cycle was deemed necessary for the recurrent checking of such failures. Abnormal failures were considered to be too many and often not training-critical. They should therefore not to be checked.

The amended AMC1 ORO.FC.220 keeps the initial OPC as it is. The amended AMC1 ORO.FC.230 introduces a 3-year cycle for the checking of all major failures during recurrent OPCs.

Explanatory note to AMC1 ORO.FC.220

Domain affected: CAT H

The new point (e)(2) has been developed. The list of emergency/abnormal procedures to be checked, initially included in AMC1 ORO.FC.230, is updated and maintained only for the initial OPC.

Explanatory note to point (b)(1)(ii) of AMC1 ORO.FC.230

Domain affected: CAT H

Point (b)(1)(ii) has been amended to introduce the amended recurrent OPC scheme.

Explanatory note to GM1 ORO.FC.230

Domain affected: CAT H

GM1 ORO.FC.230 has been amended to complement the changes described above regarding helicopter OPCs.

2.3.7.4 Operator proficiency checks for CAT A to A operations

Domain affected: CAT A to A (Only for operations starting and ending at the same location, with small aircraft, as defined in ORO.FC.005(b), point (b)(2)*

Explanatory note to AMC1 ORO.FC.320

This AMC has been introduced to complement the changes introduced at implementing rule level.

Note: For SPO, more explanations can be found in Section 2.3.13.

2.3.8 Multi-pilot operations in single-pilot certified helicopters

Domains affected: CAT H, NCC H and SPO H

The following AMC and GM have been developed or amended to support the new implementing rules introducing multi-pilot operations in single-pilot helicopters: GM6 FCL.010, AMC1 FCL.050, AMC2 FCL.725(a) and AMC1 ORO.FC.230.

It should be noted that, for the same reason, AMC and GM to CAT.IDE.H.125(b) and to CAT.IDE.H.130(h) have been developed or amended — see ED Decision 2022/012/R¹⁵.

Explanatory note to GM6 FCL.010

Domains affected: CAT H, NCC H, SPO H

¹⁵ <https://www.easa.europa.eu/document-library/agency-decisions/ed-decision-2022012r>

This GM clarifies that ‘multi-pilot operation’ should not be understood to also include experience under Part-NCO. Experience gathered under an equivalent system to Part-CAT, Part-NCC or Part-SPO, such as non-European or military multi-pilot operations, may be included.

Editorial changes have been introduced to clarify the intent, including additional text that highlights the ‘MPO nature’ of training towards multi-pilot operations at an ATO, even though ATOs need to follow Part-NCO. In this case, the training towards multi-pilot operations is defined in the training manual of the ATO, which meets the amended definition.

Explanatory note to GM1 FCL.725(d)(4)(ii)(B)(2)

This GM complements GM6 FCL.010 on clarifications to the scope of the term ‘multi-pilot operation’.

Together, these two points of GM ensure that it is well-understood that training towards multi-pilot operations can take place in an ATO, even if the ATO itself operates non-complex helicopters and Part-NCO rules apply to the operations of the ATO.

Explanatory note to AMC1 FCL.510.H(f)

Domain affected: CAT H

After the consultation of NPA 2019-08, EASA introduced an additional point (f) in point FCL.510.H to allow crediting for previous experience in multi-pilot operation in the context of the MCC requirement for ATPL(H) applicants (see EASA Opinion No 02/2021, page 65, for explanations). After this new point (f) was added to point FCL.510.H with amending Regulation (EU) 2021/2227, this new AMC outlines detailed arrangements for MCC training that are necessary when making use of this new crediting provision.

Explanatory note to AMC2 FCL.725(a)

Domains affected: CAT H, NCC H, SPO H

The table has been amended for the following reasons:

- (1) to reflect the option to fly multi-pilot operations in single-pilot helicopters, by adding additional training paths (with credits) for pilots who have experience in multi-pilot operations in single-pilot helicopters and who wish to extend their privileges to multi-pilot helicopters;
- (2) to remove contradictions between this AMC and Appendix 9 to Part-FCL as follows:
 - Appendix 9 to Part-FCL Section A paragraph 1 requires training for helicopter type ratings to be completed in FFS, if available and accessible.
 - AMC should not include a minimum time of aircraft training in parallel to the training conducted in an available and accessible FFS. However, even if an FFS does not have the capability to serve as a training platform for the entire type rating training syllabus, additional in-aircraft training will be possible, since, to the extent to which the FFS cannot serve as a training platform, it is to be deemed ‘not available’. These amendments were developed with RMT.0587 (Regular update of Regulation (EU) No 1178/2011) but are processed with this AMC in the context of point (1) above, also giving the opportunity to remove the afore-mentioned contradictions as early as possible. This amendment was consulted with the EASA ABs during the focused consultation on 21 June 2022 and received support. With RMT.0587 (Opinion planned



for the end of 2022), it is further planned to clarify the requirements for in-aircraft take-off and landing training for helicopters in complementation of FFS training.

Explanatory note on trainers and checkers for multi-pilot operations

Explanatory note to points (c) and (d) of AMC1 ORO.FC.146(b) and points (c) and (h) of AMC1 ORO.FC.146(e);(f)&(g)

Domains affected: CAT H, NCC H, SPO H, CAT A, NCC A, SPO A

Points (c) and (d) of AMC1 ORO.FC.146(b) and points (c) and (h) of AMC1 ORO.FC.146(e);(f)&(g) are introduced to ensure that, whenever multi-pilot operations take place on a voluntary basis, the person conducting the check has sufficient experience of multi-pilot operations. Flight experience gathered in multi-pilot operations can then be credited towards the prerequisites of the ATPL, the MCCI and the MCC training privilege of the TRI, regardless of whether they are flown under CAT, NCC or SPO.

Onshore operations with helicopters take place essentially in single-pilot operations. The level of experience of trainers and checkers in multi-pilot operations is seen as a key safety factor for onshore operators who wish to convert to multi-pilot operations. However, it is likely that in the initial phase of implementation, too few pilots will have both the relevant experience in multi-pilot operations and in the underlying activity (e.g. HEMS, HHO, SPO or simply transportation to operating sites).

The AMC makes use of the approval of training and checking programmes, to allow NCAs to lower the experience level in multi-pilot operations if mitigations are in place.

This approval exists only for CAT with small helicopters where the operator can choose to use a 'suitably qualified nominated commander'.

Furthermore:

- Most SPO operators are also CAT operators. Pilots who gather experience under multi-pilot CAT operations will be able to pass on this experience in SPO operations once they have reached 350 hours.
- NCC operations are not very different from CAT. NCC operators will be able to draw on the multi-pilot experience of CAT pilots, once they have reached 350 hours OR use the flexibility provisions introduced in Part-FCL.

The changes to the AMC and GM are complementary to the new Article 4e of the Aircrew Regulation that also allows reduced experience in multi-pilot operations on an individual basis.

Explanatory note to AMC2 ORO.FC.120 and GM2 ORO.FC.125(b)

Training from single-pilot operations to multi-pilot operations in a single-pilot helicopter requires training under Part-FCL. This training is not limited to the MCC. In the operational context, the training should include the standard operating procedures of the operator on a given type. AMC2 ORO.FC.120 is therefore introduced to ensure that this is the case. GM2 ORO.FC.125(b) is a reminder of the training requirements in Part-FCL.



Explanatory note to point (b)(1)(ii)(E) of AMC1 ORO.FC.230

Domain affected: CAT H

Additional manoeuvres should take place in single-pilot operations, in addition to an OPC completed in multi-pilot operations, in order to revalidate both forms of operations.

If the OPC is not combined with an LPC, then Appendix 9 does not apply, and only (b)(1)(ii)(E) of AMC1 ORO.FC.230 applies. Additional manoeuvres will also take place in single-pilot operations, but the operator will be able to choose which ones. This allows variations to its checking programme.

2.3.9 Operations on more than one type or variant for helicopter CAT operations and combined helicopter and aeroplane operations**2.3.9.1 Revalidation of helicopter type ratings****Explanatory note to AMC1 FCL.740.H(a)(3)**

Domains affected: CAT H, SPO H, NCO H

The R44 has been introduced into the list of eligible helicopter types in the AMC because of the following:

- Its rotor system is not very different from that of Bell 206 and has sufficient inertia to be compared with the other types in the group.
- The FAA has deleted its FAA S743 that specifically targeted R44. In any case, this document required only a minimum number of flight hours for the initial type rating, no greater than that in the requirements of Subpart H ‘Class and type ratings’ of Part-FCL and did not prescribe any specific requirements for the initial or recurrent proficiency checks.
- The credit granted in the OSD across the R22/R44 types remains valid if a skill test is taken on R22 or R44. However, if the skill takes place on a helicopter type other than R44, it is not valid for R22, and if the skill test takes place on R22, it is credited only towards R44 and not towards the other type ratings of the group.

2.3.9.2 Initial training including differences training, familiarisation, equipment and procedure training

Note: The explanatory note to AMC1 ORO.FC.140(a) is included in Section 2.3.10.

Explanatory note to AMC1 ORO.FC.205

Domains affected: CAT A, CAT H

The term ‘variant’ has been deleted. It is not appropriate here because both (a) and (b) apply only when changing types.

The conversion from one variant to another is already covered under familiarisation and differences training.

Explanatory note to AMC1 ORO.FC.125 and GM1 ORO.FC.125(b)

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H



AMC1 ORO.FC.125 is amended and GM1 ORO.FC.125(b) is introduced in order to:

- align the definitions of differences training and familiarisation with those in Part-FCL; and
- introduce the concept of equipment or procedure training in order to cover training previously included in the OPS definition of differences and familiarisation training.

Explanatory note to AMC1 ORO.FC.220(b)

Domains affected: CAT H

The amendment extends the alleviations accessible to performance class B aeroplane to single-engined helicopters of the same group of type. The groups of types are as defined for the operator proficiency check, licence proficiency check and for the maximum number of types that a pilot can fly. See ORO.FC.140 as amended by Regulation (EU) 2021/2237 and Section 2.3.9.6.

2.3.9.3 Recurrent training and checking

Note: The explanatory note to AMC1 ORO.FC.140(a) is included in Section 2.3.10.

Any crediting of aircraft/FSTD training across types or variants should be defined by OSD.

Explanatory note to AMC1 ORO.FC.130(a)

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

This new AMC clarifies that AMC1 ORO.FC.140(a) should be used to define the relevant training and checking for operations on more than one type or variant.

In cases defined in ORO.FC.140 (b), (c), and (d), AMC1 ORO.FC.140(a) does not apply, and OSD is not necessary.

EASA has decided to restrict the scope of the AMC to ‘variations in aircraft configuration’. The term ‘ground training’ has been introduced for clarification, considering the restriction in scope. The justification is as follows:

ODR tables to OSD should apply to types/variants, rather than the tables developed under AMC1 ORO.FC.140(a).

The AMC is introduced by a description of the cases where AMC1 ORO.FC.140(a) applies to recurrent training.

Finally, the proposed AMC1 ORO.FC.230(a) of NPA 2019-08 has been extended to non-CAT operations and has become AMC1 ORO.FC.130(a).

Explanatory note to AMC1 ORO.FC.140(b)

The AMC defines how the operator proficiency check can be credited towards single-engined helicopters of the same group, in alignment with Part-FCL.

2.3.9.4 Helicopter line checks

Explanatory note to AMC1 ORO.FC.140(d)

Domain affected: CAT H



The new AMC1 ORO.FC.140(d) has been introduced to complement the changes to the implementing rule and to define when a line check on one type could be credited to other types.

The approach to develop this AMC was as follows:

- (1) The differences between single-engined and twin-engined helicopters are already captured in the OPC and LPC, including the differences in the normal procedures, therefore there is no need to amend AMC1 ORO.FC.140(d).
- (2) For IFR, line checks can only be credited under OSD, and AMC1 ORO.FC.140(d) reflects this approach.
- (3) Points (a) and (b) ensure that points (1) and (2) above are properly reflected.
- (4) Point (a)(4) describes important components of 'normal procedures'. For consistency, 'flight preparation' has been added.

2.3.9.5 Operations on aeroplanes and helicopters

Explanatory note to point (c) of AMC1 ORO.FC.240

Domains affected: CAT A, CAT H (* NCC and SPO are only affected if pilots also fly CAT. CAT A is only affected if pilots also fly helicopters.)*

Operations on aeroplanes and helicopters are the most restricted by the current regulations, and the least likely to involve confusion between aircraft types.

The requirements have been deleted from the implementing rules and are re-introduced at AMC level.

Point (c) of the AMC ensures that the pilot can be current on helicopter and aeroplane types flown, when flying CAT on either aeroplanes, helicopters, or both, and possibly flying SPO or NCC as well as CAT. The intent is to ensure a sufficient level of safety and pilot proficiency on CAT flights.

The amendment is based on the following rationale:

If a pilot flies both aeroplanes and helicopters, experts agreed that there should be no more than two complex types. In the context of the number of types or variants flown, complexity should be defined in terms of how complex is for the pilot to handle the avionics of the aircraft; including the use of FMS and automation.

Single-engine helicopter types flown VFR are considered non-complex from this perspective, and can remain in a group. However, if this group of helicopters is flown, it should count as a complex type.

Single-engine piston aeroplanes are considered non-complex. Multi-engine piston aeroplanes can have a variety of avionics suites and levels of automation, but are used essentially under NCO in flight schools, and are considered to be of little relevance under CAT and SPO.

Explanatory note to point (b)(1)(iv)(D) of AMC1 ORO.FC.240

Domains affected: CAT H

The point has been amended to introduce some flexibility through convergence with the aeroplane AMC, while keeping in mind that some complex helicopter variants have a combination of

differences and similarities that can create confusion and result in the mismanagement of the flight if the risk is not properly managed.

2.3.9.6 Number of helicopter types to be flown by a pilot involved in CAT operations

Explanatory note to the points of AMC1 ORO.FC.240 other than point (c)

*Domain affected: CAT H**

** NCC H and SPO H are only affected if pilots also fly CAT.*

Following feedback from various stakeholders, it was considered that the current limitation to three different helicopter types was too restrictive for CAT operations only.

In addition, AMC1 ORO.FC.240 is applicable only to pilots involved in CAT operations, but was not meant to include helicopter types flown in NCC, SPO or NCO operations as part of the limitation to three helicopter types.

A re-drafting of the AMC was considered necessary, keeping in mind the aim of avoiding confusion between the types during CAT operations, and of ensuring that pilots have sufficient level of knowledge of the aircraft flown in CAT.

The following was then considered:

- (a) The larger helicopters likely need the most specialisation.
- (b) If a pilot flies only one helicopter type in CAT, it is likely that the pilot will undergo more training and checking on that particular type. No confusion should occur during CAT flights on this type, regardless of the number of other types flown in NCC, SPO and NCO operations.
- (c) If a pilot flies more than one helicopter type in CAT, then the number of helicopter types flown in NCC and SPO should also be taken into consideration.
- (d) The number of helicopter types or variants flown in NCO should not be taken into account. Types or variants flown in NCO as an instructor in a training organisation would have to be taken into account by the operator's and the training organisation's management systems.
- (e) A number of mitigations could allow the pilot to fly on more than three types, such as:
 - (1) flying by day VFR only;
 - (2) flying on small, simple helicopters;
 - (3) flying on a limited number of variants within each type.

To redefine the maximum number of helicopter types flown by pilots involved in CAT operations in accordance with point 1, 2 and 3 above, the following principles are applied in the AMC:

- Maximum number of helicopter types if all helicopters have an MTOM of 5 700 kg or less
- For the purpose of the maximum number of types or groups of types, single-engine piston helicopter types can be considered as part of the same group, and single-engine turbine helicopter types can be considered as part of the same group.

CAT	NCC SPO	NCO
0	No restriction	

Up to 3 types or groups of types	No restriction
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2.3.10 Use of operator difference requirements (ODRs) tables

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

Changes are introduced to ensure that:

- (a) OSD should be used every time it is available but should not be used for changes in configurations within a given variant of an aircraft, as defined under Part-FCL and as illustrated in the EASA type ratings list.
- (b) The use of ODRs tables is extended to NCC and SPO, with the associated credits regarding recurrent training and checking.
- (c) The use of ODRs tables is extended to differences training, familiarisation and equipment training to guide operators in the design of initial training.

These changes align the ORO.FC definition of ‘differences training and familiarisation’ with the Part-FCL definition, by taking ‘equipment and procedure training’ out of this definition. ‘Equipment and procedure training’ remains in the regulatory framework.

Explanatory note to the new GM1 ORO.FC.125 and GM1 ORO.FC.140(a)

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

GM1 ORO.FC.125 and GM1 ORO.FC.140(a) have been introduced to explain the concept of ‘base aircraft’ and its implications on training.

Explanatory note to GM1 ORO.FC.140

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

Elements of the current point (b) of AMC2 ORO.FC.240 have been moved to guidance material. As the considerations introduced in this GM are valid for all operators, this GM has become GM1 ORO.FC.140. It was finally considered that sufficient similarity between the types or variants is not the only key factor to safely operate more than one type or variant. The focus of the GM has been broadened accordingly.

Explanatory note to AMC1 ORO.FC.140(a) and AMC1 ORO.FC.125

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

This AMC has been introduced based on AMC2 ORO.FC.240 with the following changes:

Point (a)(3) is a new definition needed following the alignment of the Air OPS definition of ‘differences training and familiarisation’ with the Aircrew definition. For variations that do not fall under the Aircrew definition, credit can be established without being backed by OSD.

Point (a)(4) is a simplified definition of credit. The last sentence of the former definition ‘For substantiation of the credits ODRs tables or other appropriate documentation for comparison of the relevant aircraft characteristics may be provided.’ has been moved to point (b) ‘Scope of ODRs’ and amended.

The current point (b) 'Philosophy' is moved to GM1 ORO.FC.140 because it includes only considerations. See explanatory note to GM1 ORO.FC.140.

The new point (b) 'Scope of ODRs' is introduced to extend the scope of ODRs as described above, and to clarify that ODRs tables may define credit without OSD backing for variations in aircraft configuration that do not fall under the Aircrew definition of a variant, which has now been extended to the Air OPS Regulation.

The final sentence in the previous point (c)(1) 'The methodology described below should be used as a means of evaluating aeroplane differences and similarities to justify the operation of more than one type or variant, and when credit is sought.' has been moved to the new point (b) 'Scope of ODRs' and amended.

Point (c)(1) is amended to clearly refer to OSD instead of 'Commission Regulation (EU) No 748/2012'.

The initial part of the first sentence of the previous points (c)(1) and (c)(2) 'Before assigning/requiring flight crew members to operate more than one type or variant of aircraft,' has been deleted following the extension of the scope of ODRs to differences training and familiarisation.

Points (c)(3), (c)(4) and (d) are transposed without changes.

Explanatory note to the deletion of AMC2 ORO.FC.240

Domains affected: CAT A, CAT H

AMC2 ORO.FC.240 has been deleted. Its content has been moved to AMC1 ORO.FC.140(a) and GM1 ORO.FC.140.

2.3.11 Simplification of access to IFR for helicopters

Explanatory note to AMC2 FCL.725(a)

Point (e) of this AMC has been deleted as its content has been transferred to the rule (new point FCL.630.H, as amended with Regulation (EU) 2021/2227) (see also the explanatory note to the new AMC1 FCL.630.H).

Explanatory note to AMC1 FCL.630.H

This AMC indicates which types of FSTDs would be appropriate for completing training to extend IR(H) privileges to another type. This information has been so far contained in AMC2 FCL.725(a) point (e). However, this point (e) of that AMC has been deleted, since its main content (extension of privileges of an IR(H) to another type of helicopter) was transferred to the rule (new point FCL.630.H, as amended with Regulation (EU) 2021/2227). Hence, the indication of appropriate FSTDs has been restored in this new AMC to the amended point FCL.630.H.

2.3.12 AMC and GM for non-commercial operations

Domains affected: NCC A, NCC H

A lack of AMC and GM for non-commercial operations was reported by NCAs and many NCC operators. Section 1 of ORO.FC applies to Annex VI to the Air OPS Regulation (Part-NCC) and AMC and GM are partly missing for some sections.



The former AMC and GM to ORO.FC were introduced only in Section 2 which is applicable to CAT only. These AMC and GM to ORO.FC are therefore not fully applicable to Part-NCC.

The new AMC and GM for NCC contribute to the uniform implementation of ORO.FC requirements for NCC operations, and improve the safety levels by providing guidance to the competent authorities and operators.

- (a) AMC2 ORO.FC.105(b)(2);(c) 'Designation as pilot-in-command/commander' to specify the content of the operator's command course for operations other than CAT
- (b) GM2 ORO.FC.105(b)(2) 'Designation as pilot-in-command/commander' to provide the operator with guidance on the aerodrome categorisation
- (c) AMC1 ORO.FC.105(b)(3) 'Designation as pilot-in-command/commander' to provide means of compliance for the content of the command course
- (d) AMC1 ORO.FC.120 'Operator conversion training' to provide a standard for the operator conversion course (OCC) for Part-NCC. As stated in the implementing rule, the operator conversion training shall include emergency and safety equipment training.
- (e) AMC1 ORO.FC.130 'Recurrent training and checking' for operations of non-commercial air transport. Annual recurrent flight and ground training should be completed to ensure competence of each flight crew member in carrying out normal, abnormal and emergency procedures. This AMC also describes the use of aircraft/FSTD for a training programme.
- (f) AMC1 ORO.FC.135 'Pilot qualification to operate in either pilot's seat' to provide guidance to the operator on how to establish such training
- (g) AMC1 ORO.FC.140(a) 'Operation on more than one type or variant' and GM1 ORO.FC.140 'Operation on more than one type or variant' to clarify:
 - (1) the meaning of type or variant
 - (2) the safety principles to operate and train in more than one type or variant
- (h) AMC1 ORO.FC.145 'Provision of training, checking and assessment' to introduce the possibility for operators to develop a policy for the crediting of training delivered by other persons or organisations. This provision will remove the need for elements of training to be repeated provided that the operator has evidence that the training has already taken place.
- (i) GM1 ORO.FC.145 'Provision of training, checking and assessment' to credit training between operators under NCC

Explanatory note to AMC1 ORO.FC.105(b)(3)

Domains affected: NCC A, NCC H

AMC1 ORO.FC.105(b)(3) has been developed to ensure that the pilot-in-command should be familiar with command responsibilities and duties.

Since checking is not required according to ORO.FC.120 of the Air OPS Regulation (see below), and the Basic Regulation requires personnel to be competent, training to proficiency has been introduced in the AMC.



A pilot joining the operator or changing aircraft for which a new type or class rating is required in Part-FCL, needs to conduct at least one flight under the supervision and to the satisfaction of a suitably qualified pilot-in-command nominated by the operator. This principle is reflected in this AMC to ensure that the pilot is able to perform the tasks required by the operator.

Explanatory note to AMC1 ORO.FC.120

Domains affected: NCC A, NCC H

Note: This explanatory note is complemented by Section 2.3.6.

According to ORO.GEN.200, the operator shall establish, implement and maintain a management system that includes maintaining personnel trained and competent to perform their tasks.

Since checking is not required according to ORO.FC.120 of the Air OPS Regulation (see below) and the Basic Regulation requires personnel to be competent, training to proficiency has been introduced in the AMC.

According to ICAO Annex 6 Part II, 3.9.4.1.1. and 3.9.3.3., the operator shall ensure that all flight crew members are properly rated and shall be satisfied that flight crew members are competent to carry out assigned duties, and the training programme shall include training to competency for all equipment installed.

AMC1 OFO.FC.120 point (a)(1)(i) has been introduced because, according to ICAO Annex 6 Part II, 3.9.3.2., ground training is necessary. Aircraft systems, normal, abnormal and emergency procedures are part of the type rating course and are covered by the AFM. There are no operator-specific items. If the operator uses different procedures, this will be covered under (a)(3). However, for the emergency and safety emergency equipment training, there is no clear provision; that is why this provision has been introduced.

AMC1 OFO.FC.120 point (b) has been introduced for the same reason as for point (a)(1)(i): In order to fulfil Annex 6 Part II, ICAO 3.9.3.3., the training programme for the operator conversion training shall include training to competence for all equipment installed.

Explanatory note to AMC1 ORO.FC.130

Domains affected: NCC A, NCC H

Note: This explanatory note is complemented by Section 2.3.6.

Point (a) has been introduced because, according to ICAO Annex 6 Part II, 3.9.3.1., an operator shall establish and maintain a training programme that is designed to ensure that a person who receives training acquires and maintains the competence to perform assigned duties, including skills related to human performance.

Also, according to the implementing rule, each flight crew member shall complete annual recurrent flight and ground training including training on the location and use of all emergency and safety equipment carried.

Point (b) has been introduced because a periodic check to demonstrate competence is required according to the Air OPS Regulation (ORO.FC.130(b)) and ICAO Annex 6 Part II (3.9.4.4).

Point (b)(1) has been introduced to ensure that, whenever multi-pilot operations take place on a voluntary basis, the check takes place with a multi-pilot crew. Flight experience gathered in multi-



pilot operations under NCC can then be credited towards the prerequisites of the ATPL, the MCCI and the MCC training privilege of the TRI.

Explanatory note to point (a)(4)(iii) of AMC1 ORO.FC.130

Domains affected: NCC A, NCC H

GM1 ORO.FC.130 of NPA 2019-08 has been converted to AMC and included in AMC1 ORO.FC.130.

This point has been introduced because, according to ICAO Annex 6 Part II, 3.9.3.4., ‘Flight simulators should be used to the maximum extent practicable for initial and annual recurrent training.’ If an FSTD is not available, the operator needs to perform training and checking on the aircraft.

This point is intended to help operators set up a training programme to minimise the risk if an aircraft is used for training instead of an FSTD.

Explanatory note to AMC1 ORO.FC.135

Domains affected: NCC A, NCC H

For proportionality reasons, it was decided that for NCC, training to operate in either pilot’s seat should take place on a 3-year cycle, and that no recurrent checking would be needed once a pilot is qualified.

Explanatory note to AMC1 ORO.FC.145

Domains affected: NCC A, NCC H, including non-commercial specialised operations with complex aircraft (SPO A, SPO H)

It was identified that there is a common practice of NCC operators to exchange pilots between NCC operations, or to employ pilots trained under CAT for NCC operations.

Under CAT, the operator conversion course takes into account the previous training and experience of the individual in accordance with ORO.FC.220, and authorities may approve recurrent training and checking programmes to be valid for several operators.

This AMC has been developed to clarify how previous training should be accepted and/or credited under NCC.

This AMC does not provide for the acceptance of previous checking, but there is already less checking in NCC than in CAT or SPO.

Note: The scope of this AMC includes also non-commercial specialised operations with complex motor-powered aircraft (SPO A, SPO H).

2.3.13 Initial training and checking for specialised operations

Domains affected: SPO A, SPO H

Initial training for a given specialised operation should take place either under ORO.FC.120 ‘Operator conversion training’, or under ORO.FC.125 ‘Differences training, familiarisation, equipment and procedure training’.

This is not well-understood under the current provisions because an operator conversion training is not needed when changing specialised operations, and because familiarisation and differences



training was used only under CAT and NCC until 21 April 2017 and was commonly identified as covering only differences between types and variants.

ORO.FC.125 also covers differences between SOPs with regard to different specialised operations, but the lack of AMC and GM does not make it obvious to the reader.

Training provisions may vary from one operator to another because each operator has developed their own SOPs. No flight crew operating manual (FCOM) standardises the operating procedures for SPO, and no ATO standardises the training.

For the above-mentioned reasons, it is considered necessary to introduce OPCs immediately after the SPO initial training. The burden associated with it is offset by the reduction in the provisions for recurrent checking.

Explanatory note to AMC3 ORO.FC.120, AMC1 ORO.FC.125(b), AMC1 ORO.FC.320 and AMC1 ORO.FC.325

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

AMC3 ORO.FC.120 defines initial training for a given specialised operation. Initial training is defined as in-depth training that will usually include flight training.

There will be cases where a pilot needs initial training for a specialised activity that is either closely related to other specialised activities in which he or she has experience, or not significantly different from other specialised operations he or she is experienced in. In such cases, flight training may not be necessary. The operator should define which experience in what specialised activity it considers sufficient to skip the flight training phase.

The amendments do not provide means to accept and/or credit previous checking for the SPO operator conversion course because commercial operators should always ensure that their flight crew are competent for the tasks they are requested to complete. Also, the operating procedures and training and checking needs are likely to vary from one operator to the other.

2.3.14 Recurrent training and checking for specialised operations

Explanatory note to AMC1 ORO.FC.330

Domains affected: SPO A, SPO H

AMC1 ORO.FC.330 has been developed in order to complement the changes introduced at implementing rule level.

Points (a), (b) and (c) have been introduced to clarify that ORO.FC.130 (a) requires training related to the type or variant, ORO.FC.130(b) requires an OPC to be conducted periodically, and ORO.FC.330(a) requires the OPC to include aspects relevant to the specialised operations.

It was considered that the checking related to the type or variant was already covered under the licence proficiency check, while the requirements of ORO.FC.330 that are additional to the licence proficiency check should only cover the specialised operations. In other words, under SPO the requirements of ORO.FC.130 are fully covered by the licence proficiency check and the ORO.FC.330 OPC.

Point (e) has been introduced to clarify that CRM is part of SPO normal procedures and that CRM skills should be assessed during the OPC.

Point (f) has been introduced to ensure that whenever multi-pilot operations take place on a voluntary basis, the check takes place with a multi-pilot crew. Flight experience gathered in multi-pilot operations under SPO can then be credited towards the prerequisites of the ATPL, the MCCI and the MCC training privilege of the TRI.

Point (h) has been introduced to acknowledge that not all normal, abnormal and emergency situations in a defined specialised operation are useful to be trained and checked.

The operator should define which operating procedures are relevant to be trained and checked, because the variety of different specialised operations is such that the rules cannot define training and checking in a prescriptive way for all activities. Also, the operator is the one best placed to know the level of experience and currency of its pilots in a given specialised operation, and to define the training and checking needs accordingly.

The intent is also to avoid duplication in the operator's training and checking for operators that are involved in several operations but there are similarities between them. A 3-year cycle is therefore introduced for these operators, for both the training and the checking of specialised operations.

Point (i) has been introduced because it is considered that the training and checking of SPO should complement each other and there are cases where checking is not needed in addition to training. These provisions allow the operator to increase the amount of recurrent training at the expense of recurrent checking, if this is relevant to their operations.

Point (j) has been introduced to address SPO-specific risks to be considered during training and checking.

Point (k) has been introduced for operators involved in both CAT and SPO, so that the SPO part of the operations could benefit from the approved CAT training and checking scheme. This is expected to be useful for SPO operations with low level of specialisation. As the CAT training and checking requires the approval of the competent authority in accordance with ORO.FC.145, the authority can also define what is also relevant to SPO.

The previous SPO checking by an operator should not be accepted or credited by another SPO operator. Commercial operators should always ensure that their flight crew are competent in the tasks they are requested to complete, and also because the specialised operations conducted, the on-board equipment, the recent experience in each, the risk assessment and the resulting 3-year checking cycle may vary significantly from one operator to the other.

Should two operators happen to:

- conduct the same specialised operations with the same aircraft type/variant/specialised equipment,
- have identical recurrent checking programmes, and
- have nominated the same person to conduct the OPC,

future OPCs could be conducted jointly and be valid for both operators.

The AMC includes a 2-year cycle for training and checking for operators and pilots involved in a single specialised operation. The 3-year cycle remains for operators involved in more than one specialised operation.

The AMC introduce a recency provision to cover the specialised operation where such activity is either a small part of the operator's activity or the specialised operation is seasonal.

EASA decided to introduce editorial changes and to move point (h) of the AMC into the new GM1 ORO.FC.330.

2.3.15 Other helicopter training and checking issues

2.3.15.1 Aerodrome competency

Explanatory note to AMC1 ORO.FC.105(d)

Domains affected: CAT H, NCC H, SPO H

For helicopters, it was postulated that aerodrome competency was not needed prior to the flight for day VFR operations, especially as in-flight reconnaissance can be used. Instead, the area knowledge should be sufficient to ensure that pilots are capable of selecting aerodromes and operating sites from the ground and from the air, and of establishing a safe flight path for landing and take-off. Areas such as mountains need specific familiarisation training.

2.3.15.2 Training programmes

Explanatory note AMC3 ORO.FC.220 and AMC3 ORO.FC.230

Domains affected: CAT A, CAT H

These new AMC are introduced to ensure that training programmes are improved following feedback from various sources.

2.3.15.3. Qualification to fly in either pilot's seat

Domain affected: CAT H

It was found out that this qualification was needed only for commanders, whereas helicopter co-pilots may also fly in both seats. EASA introduces this qualification for all pilots involved, not only for commanders.

AMC1 ORO.FC.236 also clarifies that no additional checking is needed if OPCs alternate between left and right seats. In other words, either checking, or alternating training and checking can be used to extend the validity of the qualification.

Explanatory note to AMC1 ORO.FC.236

Domain affected: CAT H

For helicopters, the detailed description of the training and checking options to meet the objective of the amended implementing rule have been moved to AMC.

Emphasis is put on training and checking towards the procedures relevant to the allocated tasks and roles.

Explanatory note to GM1 ORO.FC.236

The GM has been introduced to emphasise and clarify the changes at implementing rule level.

Explanatory note to the deletion of AMC1 ORO.FC.235(d)

AMC1 ORO.FC.235(d) has been deleted and its content moved to the new AMC1 ORO.FC.236.

2.3.16 Other aeroplane training and checking issues**2.3.16.1 Training and checking programmes**

Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H

It was considered that the relevant de-identified feedback from the management system should be used when defining the CRM training programme. It was also considered that such feedback should be used to define other training programmes such as the ground training and the 3-yearly flight training programme.

Explanatory note to AMC3 ORO.FC.220 & AMC3 ORO.FC.230

Domains affected: CAT A, CAT H

These new AMC are introduced to ensure that training programmes are improved following feedback from various sources.

Explanatory note to AMC1 ORO.FC.230 point (b)(1)(i)

Domain affected: CAT A

The provision to conduct aeroplane operator proficiency checks as part of the normal crew complement has been introduced.

Explanatory note to AMC1 FCL.725(a) — Deletion of training items related to low-visibility operations

With Regulation (EU) 2021/2227, Part-FCL was amended by removing training requirements for privileges for instrument approaches with a decision height below 200 ft, since such 'low-visibility operation' privileges constitute additional privileges that pilots may obtain solely within an air operator, in accordance with the requirements of Part-SPA, not leading to an additional licence endorsement. For consistency, the elements related to training for such low-visibility operation have been removed from the syllabus of this AMC.

2.3.16.2 Evidence-based training (EBT)

During the implementation of the new EBT regulatory framework, EASA was informed about some changes that would improve the said framework. Some of them are included in this ED Decision as part of the continuous improvement of the regulatory framework while others need further study.

Explanatory note to GM3 ORO.FC.115 and GM2 ORO.CC.115(e)

As EBT pilots are evaluated in non-technical competencies, there is evidence that some CRM training is done twice; once in EBT and once more under CRM. For this reason, the pilot CRM training may move to EBT thus impacting on the minimum time recommended for CRM. The EASA checklist provides further explanation on this matter.



For cabin crew, EASA would like to promote the implementation of the latest ICAO recommended practices in regard to the competency framework for cabin crew under PANS-TRG. This should only be done under an EBT baseline operator. *Note: 'EBT operator' is defined as the operator that has successfully implemented an EBT baseline programme under ORO.FC.231 and ORO.FC.232.*

Explanatory note to AMC1 ORO.FC.231(c)

The term 'abstract' refers to a short summary of the session provided by the instructor, points from the simulator session highlighted by the instructors, etc.

Explanatory note to AMC2 ORO.FC.232

New example scenario element 'ACAS warning (resolution advisory to level off) during climb or descent; for example, close to the cleared level when the capture mode has already been activated'.

This new example scenario element is introduced as data shows that about 30 % of level off RAs have weak or no responses; this scenario element gives an opportunity to cover this weakness in pilot performance. Level off RAs typically happen close to the cleared level when the capture mode has already been activated.

Clarification for the scenario element 'ACAS warning (resolution advisory) immediately following a go-around, with a descent manoeuvre required. (The RA should be a command for descent when above 1 100 ft AGL)'. EASA introduced a clarification that below 1 100 ft AGL descent RAs are inhibited by TCAS, so the scenario should take this into account. This is the only ACAS warning which warrants a pilot reaction. Response to other warnings (Traffic Advisory or TA and Proximate Traffic or PA) are not permitted (ref. ICAO PANS-OPS chapter 3, 3.2.a).

New example scenario element 'ACAS warning (resolution advisory) requires the pilot to climb or ATC calls for immediate climb (preferably during descent which requires a significant change in aircraft attitude).' Also, improved wording to ensure consistency with 'ACAS warning (resolution advisory) requires the pilot to descend or ATC calls for immediate descent (preferably during climb which requires a significant change in aircraft attitude).' Data shows that the weakest pilot responses to climb and descent RAs (~50 %) are when attitude change is required, i.e. from climb to descent or the other way around.

New example scenario element 'Dilemma: Visual acquisition of conflicting traffic followed by an ACAS warning (resolution advisory) triggered by the same traffic or other traffic. Even if the traffic is in sight, the pilot should follow the RA.'

New example scenario element 'While in descent, ACAS warning (traffic advisory) of an aircraft below. The crew should not initiate an avoidance manoeuvre based on TA (except decreasing the rate of descent unless otherwise instructed by ATC, etc.). This example scenario can be done during climb with conflicting traffic above.' Visual acquisition: RAs shall be followed even if the conflicting traffic is in sight (ICAO PANS-OPS Chapter 3, 3.2.c.1) as the visually acquired traffic might not be that causing an RA or, in coordinated encounters, a non-response may undermine the collision avoidance advice offered by TCAS.

It should be noted that visual acquisition requires an assessment of the sighting and determining which manoeuvre might be appropriate (which bears the risk of misjudgement). RAs are just to be followed and would work regardless of the visual conditions.



However, ICAO provisions do not prevent pilots-in-command from exercising their best judgement (including visual manoeuvres) to avoid a collision.

ACAS TA: Per ICAO PANS-OPS Chapter 3, 3.2.a), no manoeuvres are permitted in response to TAs. TAs are intended to alert pilots to the possibility of an RA and to enhance crew's situational awareness.

2.3.16.3 ATQP

Explanatory note to AMC1 ORO.FC.A.245

Domain affected: CAT A

The AMC has been amended to ensure correct implementation of CRM into the ATQP programme.

Explanatory note to AMC1 ORO.FC.A.245(d);(e)(2)

Domain affected: CAT A

This AMC has been amended to ensure clear separation of training and checking following feedback received from standardisation inspections.

2.3.17 Other clarifications and simplifications, including the logging of flight hours

2.3.17.1 Clarifications and simplifications

EASA has introduced the following necessary clarifications and simplifications.

- (a) amend AMC1 ORO.FC.115 to align the wording with that of ORO.FC.120 regarding operator conversion courses. (*Domains affected: CAT A, CAT H, NCC A, NCC H, SPO A, SPO H*);
- (b) delete points (b)(1)(iv) and (d)(5)(i) of AMC1 ORO.FC.230 because they duplicate ORO.FC.146. (*Domain affected: CAT H*);
- (c) amend AMC1 ORO.FC.240 (b)(1)(iv)(C) in order to clarify the meaning of ‘and/or in’ the AMC. (*Domain affected: CAT H*);
- (d) amend AMC1 ORO.FC.240 in order to no longer use the wording ‘significantly different variant’ (a variant being already defined as a significant change), and to ensure that the terms ‘type’ and ‘type or variant’ are used in an appropriate manner. (*Domains affected: CAT A, CAT H*);and
- (e) move the current points (f), (g) and (h) of AMC1 ORO.FC.220 to the new point (c)(3) for clarification and simplification of the structure of the AMC.

2.3.17.2 Clarifications regarding the logging of flight time

Explanatory note to AMC1 FCL.050

AMC1 FCL.050 is amended to clarify the logging of flight time of:

- supervisors that are nominated by the operator to conduct training and checking under the Air OPS Regulation but who are not instructors under Part-FCL (they can log flight time as PIC but not as instructors); and
- pilots that are licensed and type rated but are acting in the single-pilot role under the supervision of a PIC/commander in accordance with the Air OPS Regulation (they can also log flight time as PIC).

For multi-pilot operations in single-pilot helicopters, a proficiency check in multi-pilot operation activates dormant multi-pilot operation — privileges associated with the type rating, with no need for an endorsement on a pilot’s licence. New text is added to explain that such proficiency checks should be recorded in the pilot logbook, including information on the form of operation.

The logging of simulator time remains to be clarified with a future rulemaking task.

Explanatory note to GM1 FCL.050

The aim of this GM is to provide guidance to pilots as to which experience in specific types of operation in accordance with the Air OPS Regulation is relevant to log in their logbooks, in order to demonstrate compliance with applicable experience and recent experience requirements of that Regulation.



2.3.18 Other clarifications and improvements in the AMC & GM to the Air OPS Regulation

Certain implementation issues brought to the attention of EASA regarding provisions related to all-weather operations (AWOs) and fuel planning and management are addressed with this update.

2.4. What are the benefits and drawbacks of the amendments

The regulatory impact assessment (RIA) for the changes covered by this Decision can be found in NPA 2019-08. This assessment has been reviewed, and it was found that there is only one case where a change to an AMC needs to be reflected in terms of the impact assessment.

AMC1 ORO.FC.230, point (a)(4)(ii)(A) and point (b)(1)(ii)(G). The text was amended following the comments received to increase the use of simulators for training and allow less use of simulators for checking. Theoretically, the impact of this change evens out. In practice, the previous AMC, which did not allow the use of simulators for training, was likely to be abused and extended to checking. The final text of the AMC provides that operators that have access to simulators should use them. Therefore, the real impact could well be a positive safety impact at an acceptable cost.

All other changes introduced since the NPA consultation have a negligible impact on the regulatory impact assessment, which is therefore still valid and up to date. For information, refer to the RIA included in the NPA.

A reminder of the impact of AMC3 ORO.FC.115 and AMC2 ORO.CC.115 is also provided in the explanatory note to AMC3 ORO.FC.115 and the explanatory note to AMC2 ORO.CC.115 (Section 2.3.5.3).



3. How we monitor and evaluate the amended AMC & GM

Monitoring is a continuous and systematic process of data collection and analysis with regard to the implementation/application of a rule/activity. It generates factual information for future possible evaluations and impact assessments and helps to identify actual implementation issues. The monitoring plan proposed by EASA in Opinion No 02/2021 applies to this Decision. For more information, please refer to Sections 2.10 and 3.6 of EASA Opinion No 02/2021.



4. References

4.1. Related EU regulations

- 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 (OJ L 96, 15.10.2012, p 1)
- Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 311, 25.11.2011, p 1)

4.2. Related EASA decisions

- Decision 2014/017/R of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-ORO of Regulation (EU) No 965/2012 and repealing Decision 2012/017/R of the Executive Director of the Agency of 24 October 2012 — ‘AMC and GM to Part-ORO — Issue 2’
- Decision 2014/015/R of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-CAT of Regulation (EU) No 965/2012 and repealing Decision 2012/018/R of the Executive Director of the Agency of 24 October 2012 — ‘AMC and GM to Part-CAT — Issue 2’
- Decision N° 2012/019/Directorate R of the Executive Director of the Agency of 24th October 2012 on Acceptable Means of Compliance and Guidance Material to 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 — ‘Acceptable Means of Compliance and Guidance Material to Part-SPA’
- Decision N° 2013/021/Directorate R of the Executive Director of the Agency of 23 August 2013 on adopting Acceptable Means of Compliance and Guidance Material for Non-commercial operations with complex motor-powered aircraft (Part-NCC)
- Decision 2014/016/R of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-NCO of Regulation (EU) No 965/2012 and repealing Decision 2013/022/R of the Executive Director of the Agency of 23 August 2013 — ‘AMC and GM to Part-NCO — Issue 2’
- Decision 2014/018/R of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-SPO of Regulation (EU) No 965/2012 — ‘AMC and GM to Part-SPO’
- Decision No 2011/016/R of the Executive Director of the Agency of 15 December 2011 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the



European Parliament and of the Council 'Acceptable Means of Compliance and Guidance Material to Part-FCL'

4.3. Other reference documents

- JAR-OPS1
- EU-OPS Regulation (EC) No 1899/2006
- RMT OPS 001 – Comment and respond document (CRD) 2009 02.c Organisation Requirements
- ICAO Annex 1 to the Convention on International Civil Aviation 'Personnel Licensing', 11th Edition, July 2011
- ICAO Annex 6 to the Convention on International Civil Aviation 'Operation of Aircraft', 10th Edition, July 2016
- ICAO Doc 9868 'Procedures for air navigation services Training', Second Edition, 2016
- EASA SIBs — Safety Recommendations — Helicopter type ratings list
- SESAR project
- ICAO Annex 6 — Operation of Aircraft (Part I — International Commercial Air Transport — Aeroplanes: the relevant new definitions have been taken into account (e.g. aerodrome operating minima (Annex 6, 4.2.8.1) in case of 2D and 3D instrument approach operations, as well as certain principles such as operational credit(s) (for operations with aeroplanes equipped with automatic landing systems (ALSs), head-up displays (HUDs) or equivalent displays, an EFVS, synthetic vision systems (SVSs) or combined vision systems (CVSs)); the new classification of the instrument approach operations (as Type A and Type B from ICAO Annex 6, 4.2.8.3.) has been also included; finally, the definitions of 'decision altitude (DA) or decision height (DH)' as well as that of 'final approach segment (FAS)' have been transposed.
- ICAO Doc 4444 — Procedures For Air Navigation Services — Air Traffic Management, 6th Edition, 2016
- ICAO Annex 14 — Aerodromes (Volume I — Aerodrome Design and Operations), 7th Edition, 2016
- ICAO Annex 14 — Aerodromes (Volume II— Heliports), 4th Edition, 2013 ICAO
- Doc 9830 — Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual, 1st Edition, 2004 ICAO
- Doc 8168 — Procedures For Air Navigation Services — Aircraft Operations (Volume I — Flight Procedures), Fifth edition, 2006: the definition of circling approach and a straight-in approach has been also transposed, 5th Edition, 2006
- ICAO Doc 8168 — Procedures For Air Navigation Services — Aircraft Operations (Volume II — Construction of Visual and Instrument Flight Procedures), 6th Edition, 2014
- ICAO EUR Doc 013 — European Guidance Material On Aerodrome Operations Under Limited Visibility Conditions, 5th Edition, 2016



- ICAO Annex 10 — Aeronautical Telecommunications (Volume I — Radio Navigation Aids): SARPs for the global navigation satellite system (GNSS).
- ICAO Paper GNSSP-WP-8, Validation of GBAS CAT I Accuracy: A GLS Model and Autoland Simulations for Boeing Airplanes, presented at the ICAO Global Navigation Satellite Systems Panel, Working Group B Meeting, Seattle, WA, May 29 - June 9, 2000.

