



European Union Aviation Safety Agency
Comment-Response Document 2019-08

RELATED NPA: 2019-08 — RMT.0599 — 3.8.2021

Table of contents

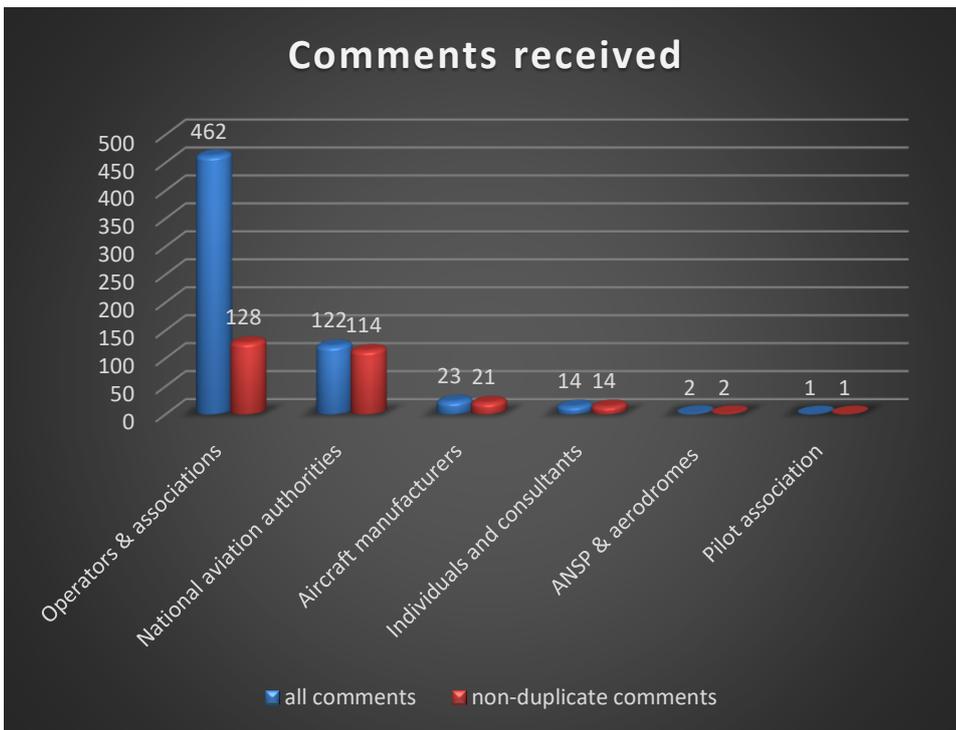
1. Summary of the outcome of the consultation	2
2. Individual comments and responses	5
3. Attachments	300



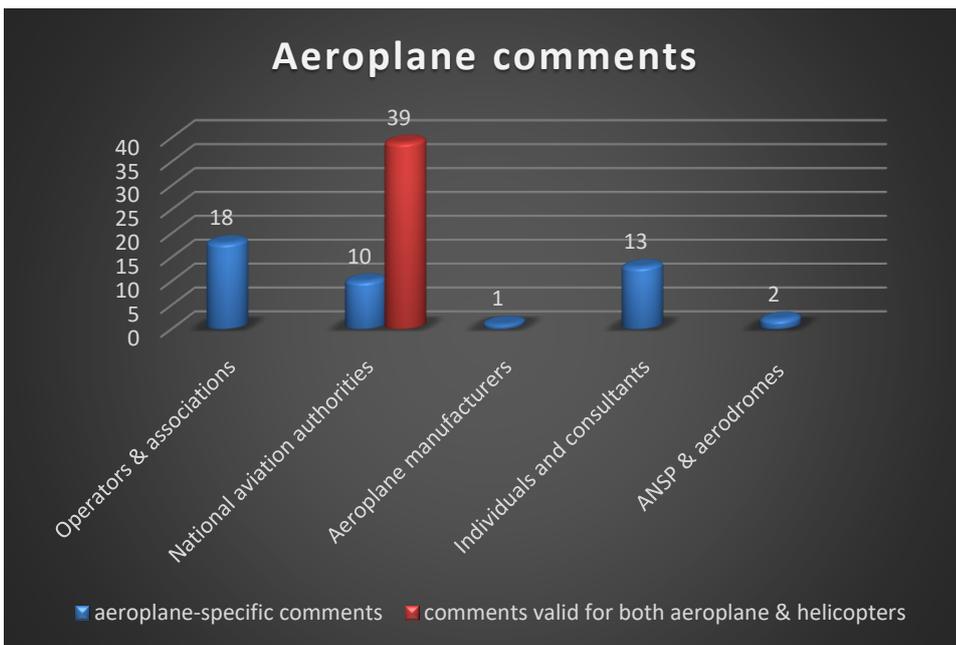
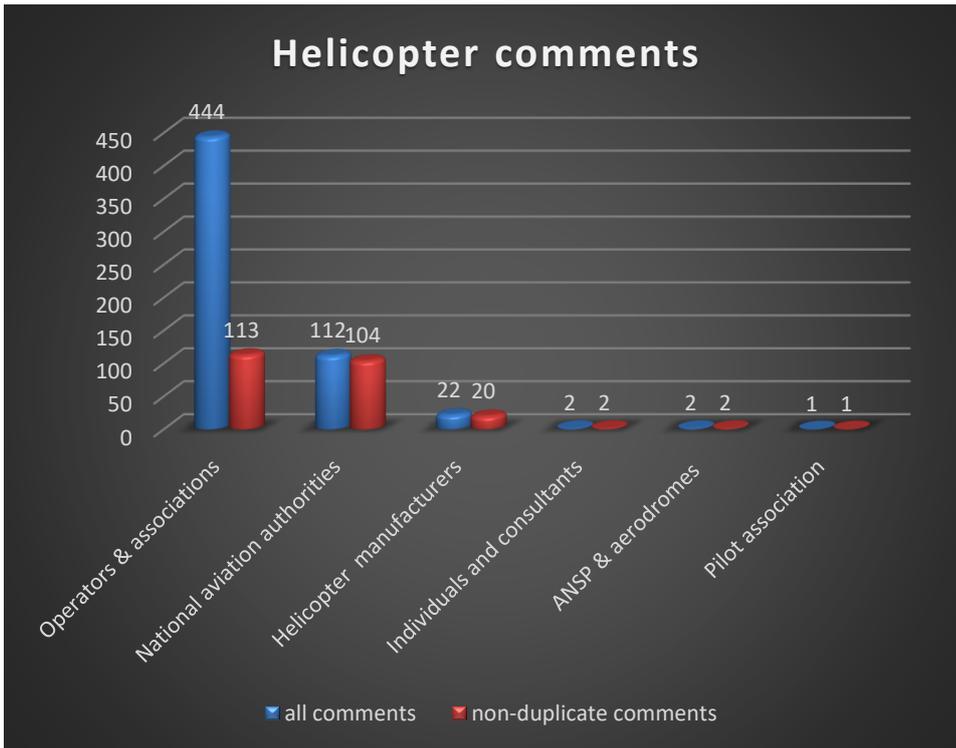
1. Summary of the outcome of the consultation

[NPA 2019-08](#) on changes to Annex I (Part-FCL) to Regulation (EU) No 1178/2011 (the ‘Aircrew Regulation’) and to Annex III (Part-ORO) to Regulation (EU) No 965/2012 (the ‘Air OPS Regulation’) received 624 comments from 49 commentators.

122 comments were submitted by national aviation authorities (NAAs), 444 comments by operator associations including 331 duplicate comments, 14 comments by individuals and consultants, 2 comments by air navigation service providers (ANSPs) and aerodrome operators, and 1 by a pilot association as shown in the bar chart below:



The bar charts below show the statistics on comments addressing helicopter and aeroplane issues:



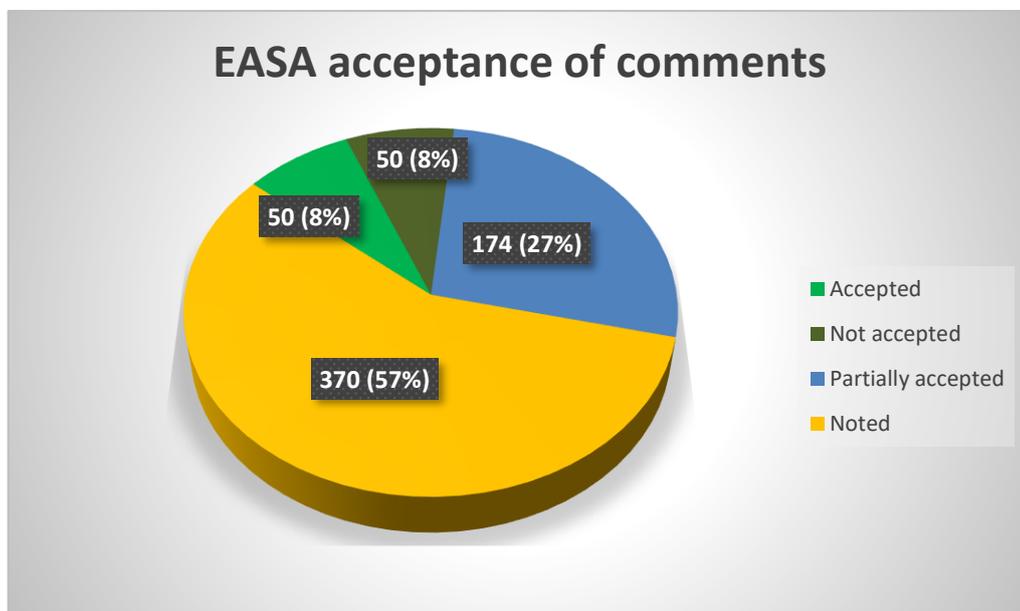
After consideration of the comments received, the proposed rules in the NPA were changed as shown in Opinion No 02/2021, Chapter 3:

- Multi-pilot operations of single-pilot helicopters are better supported by additional changes to Part-FCL of the Aircrew Regulation;
- The operations of more than one type or variant of helicopters are simplified by introducing groups of types for single-pilot helicopters operated under VFR and by including the R-44 in AMC1 FCL.740.H(a)(3);

- Access to IFR with helicopters are simplified by merging the single-engine helicopter instrument rating with the multi-engine helicopter instrument rating, and by crediting FSTD hours to the IFR experience required for single-pilot IFR in commercial air transport (CAT);
- A performance-based approach was introduced to route and area knowledge;
- Material on the acceptance of previous training initially developed for non-commercial operations of complex aircraft (NCC) was extended to non-commercial specialised operations of complex aircraft (non-commercial SPO).

Following the comments received, work remains in progress on a selected number of AMC and GM.

The pie chart below shows the statistics on comment acceptance by EASA:



2. Individual comments and responses

In responding to comments, a standard terminology has been applied to attest EASA's position. This terminology is as follows:

- (a) **Accepted** — EASA agrees with the comment and any proposed amendment is wholly transferred to the revised text.
- (b) **Partially accepted** — EASA either agrees partially with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.
- (c) **Noted** — EASA acknowledges the comment but no change to the existing text is considered necessary.
- (d) **Not accepted** — The comment or proposed amendment is not shared by EASA.



(General Comments) -

comment 29 comment by: DGAC FR (Mireille Chabroux)

Transition

DGAC FR believes that the change of definition for multi-pilot helicopters will induce a significant workload for the competent authorities as the endorsement of type rating helicopters on the license will have to be reviewed. We expect also the need to update our IT system.

Therefore to ensure a smooth transition, DGAC FR proposes on one hand that the license are updated gradually at the first occasion when the pilot comes for an endorsement on the license and on the other hand that the amended regulation enters into force one year after its publication.

response Accepted.
Transition measures to be included in the Opinion.

comment 73 comment by: Austro Control

Austro Control welcomes the update of ORO.FC provided by this NPA; there are no essential objections to the proposed rule changes.

The questions raised in the NPA are answered as follows:

Page 22 – Q 1: Which single-pilot certified helicopters should be required to be flown with two pilots in CAT IFR?

ACG Position: *Option 1: Helicopters with a MOPSC of 10 or more (no change).*

Comment: *In general it seems unclear why the current MOPSC of 10 or more was initially the preferred requirement. What was the justification for the limitation? Further explanation would be helpful.*

Page 27 – Q 2: The NPA proposes to introduce the possibility to fly up to five non-complex helicopter types in day VFR. Should the MOPSC of each helicopter be limited? If so, to which value should the MOPSC be limited?

ACG Position: *2.3.7.4 Number of helicopters types to be flown by a pilot involved in CAT operations as such is inconsistent.*

2.3.7.4 (e) A number of mitigations could allow the pilot to fly on more than 3 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

is in contradiction with the tables on page 27 which will then revert to qualify to helicopters > 5.700 kg MTOM and < 5.700 kg MTOM as



“small simple helicopters” are considered CS 27 helicopters (single engine) with a MTOM < 3.175 kg.

A MOPSC limitation is not needed for the intent as “small simple helicopters” are already limited by the number of seats available.

ACG proposes to distinguish by the “complexity of the helicopter” not in terms of CS 27 vs. CS 29 or other MTOM limitations. More

appropriate seems to distinguish in between multi-engine vs. single engine helicopters and their respective operational complexity.

A grouping of similar helicopters to be eligible for the enlargement of helicopter types flown in CAT is suggested. Currently 3 types are

possible. **An enlargement to 5 shall not compromise established safety standards for CAT operations.** Comparison to fixed wing operations (only 2 types possible) in CAT is recommended!

Comment: regardless of the types which might be flown in SPO/NCC/NCO, for CAT operations a defined higher safety standard is required (as e. g. performance requirements).

With all respect for the attempt to widen the types to be flown in CAT operations, it seems rather strange to change the helicopter type 5 times a day and

show the same level of currency on all types as it would be the case as required by the current regulation. **For CAT there is no justification to change.**

Page 30 – Q 3: Do we need to introduce a minimum pilot experience for the commander in charge of conducting line training under supervision?

if so: How much would be the minimum experience?

Total flight time hours?

Flight time as PIC/commander in hours?

Number of OPCs performed at the operator?

For multi-pilot operations, flight time in multi-pilot operations?

For HEMS, night-vision imaging systems (NVIS) and offshore, flight time in the relevant kind of operations?

For helicopter hoist operations (HHO), number of lifting cycles? (human external cargo (HEC)/helicopter sling load operations (HESLO) cycles included/not included?

ACG Position: yes, shall be introduced, proposed minimum standards

Total flight time hours?– **no expressiveness** (means that this item should not be considered for qualification)

Flight time as PIC/commander in hours? **1.000 h/PIC in helicopters**

Number of OPCs performed at the operator?– **no expressiveness** (means that this item should not be considered for qualification)

For multi-pilot operations, flight time in multi-pilot operations? **300 h/PIC in helicopters**

For HEMS, night-vision imaging systems (NVIS) and offshore, flight time in the relevant kind of operations? **100 h PIC in relevant operations**

For helicopter hoist operations (HHO), number of lifting cycles? (human external cargo (HEC)/helicopter sling load operations (HESLO) cycles included/not included **100 cycles PIC in relevant operations**

Comment: In general the most experienced company pilots should be nominated to conduct line training under supervision. Never the less introduction of

minimum pilot experience will set a **minimum requirement** to ensure that the line training supervision commanders are adequately familiar and

gained a minimum experience by themselves in order to act in the intended function.



Page 30 – Q 4: Do we need to introduce a minimum pilot experience for the commander in charge of conducting line checks?

if so: How much would be the minimum experience?

Total flight time hours?

Flight time as PIC/commander in hours?

Number of OPCs performed at the operator?

For multi-pilot operations, flight time in multi-pilot operations?

For HEMS, night-vision imaging systems (NVIS) and offshore, flight time in the relevant kind of operations?

For helicopter hoist operations (HHO), number of lifting cycles? (human external cargo (HEC)/helicopter sling load operations (HESLO) cycles included/not included?

ACG Position: *yes, shall be introduced – proposed minimum standard*

Total flight time hours? – no expressiveness (means that this item should not be considered for qualification)

*Flight time as PIC/commander in hours? **1.000 h/PIC in helicopters***

Number of OPCs performed at the operator? – no expressiveness (means that this item should not be considered for qualification)

*For multi-pilot operations, flight time in multi-pilot operations? **300 h/PIC in helicopters***

*For HEMS, night-vision imaging systems (NVIS) and offshore, flight time in the relevant kind of operations? **100 h PIC in relevant operations***

*For helicopter hoist operations (HHO), number of lifting cycles? (human external cargo (HEC)/helicopter sling load operations (HESLO) cycles included/not included **100 cycles PIC in relevant operations***

Comment: *In general the most experienced company pilots should be nominated to conduct line checks. They should be thoroughly firm with the required standards. Never the less introduction of*

*minimum pilot experience will set a **minimum requirement** to ensure that the line check commanders are adequately familiar and*

gained a minimum experience by themselves in order to act in the intended function.

Page 48

The introduction of the new ORO.FC.220 (e) is highly appreciated for reasons of reducing administrative workload and practicability as the new provision enables operators to start the CAT-operation without the need of having obtained an exemption. Austro Control recommends the development of AMC/GM addressing at least the following: The operator (or future operator) should submit an analysis / risk assessment considering the need for the exemption in relation to the operational circumstances (e.g. omission of LIFUS and Line Checks for an adequately limited number of pilots and their appropriate qualifications). The AMC/GM would support the aim of standardisation; further information and guidelines for NAAs and operators are helpful in any case.

response

Noted.

Thank you for the support and answers to the questions.

Additional response to question 2. Noted.

The vast majority of respondents supported the changes to extend the number of types flown with no consideration on variants.

Page 48. Noted. AMC and GM may be developed at a later stage.



comment	80	comment by: <i>EUROCONTROL</i>
	No comments from EUROCONTROL	
response	Noted.	
comment	86	comment by: <i>NGFT</i>
	We would like to	
response	Noted.	
comment	87	comment by: <i>DRF Luftrettung</i>
	<p>We welcome the intention of the EASA to further enhance the safety of air operations by means of extensions to Regulation (EU) 965/2012 related to Flight Crew Training and Checking. We are pleased to use the opportunity to comment on the EASA legislative proposals for the safe implementation.</p> <p>With more than 180 pilots in our company we consider ourselves to be competent enough, to look at the new proposals from our company sight of view. We have noticed with great astonishment, that you tightened some regulations while on the other hand loosened others.</p> <p>This contradicts your proposals to increase safety in a cost-effective way and reduce training costs without an impact on safety. Performance based approaches should always be cost reductive and we therefore urge you to look at your proposals more from the economical side</p>	
response	Noted.	
comment	142	comment by: <i>FNAM/SNEH</i>
	<p>FNAM (Fédération Nationale de l'Aviation Marchande) is the French Aviation Industry Federation/ Trade Association for Air Transport, gathering the following members:</p> <ul style="list-style-type: none"> • CSTA: French Airlines Professional Union (incl. Air France) • SNEH: French Helicopters Operators Professional Union • CSAE: French Handling Operators Professional Union • GIPAG: French General Aviation Operators Professional Union • GPMA: French Ground Operations Operators Professional Union • EBAA France: French Business Airlines Professional Union <p>And the following associated members:</p> <ul style="list-style-type: none"> • FPDC: French Drone Professional Union • UAF: French Airports Professional Union <p>Introduction:</p> <p>The comments hereafter shall be considered as an identification of some of the major issues the French industry asks EASA to discuss with third-parties before any publication of the proposed regulation. In consequence, the following comments shall not be considered:</p> <ul style="list-style-type: none"> • As a recognition of the third-parties consultation process carried out by the European Parliament and of the Council; • As an acceptance or an acknowledgement of the proposed regulation, as a whole or of any part of it; 	

- As exhaustive: the fact that some articles (or any part of them) are not commented does not mean FNAM has (or may have) no comments about them, neither FNAM accepts or acknowledges them. All the following comments are thus limited to our understanding of the effectively published proposed regulation, notwithstanding their consistency with any other pieces of regulation.

General comments :

FNAM thanks EASA for the will of harmonizing the applicable dispositions in terms of helicopter operations throughout Europe in order to warrant a high level of safety.

However, considering technical and economic specificities to helicopter, a proportionate approach tailored to the reality of operations needs to be considered.

Here after are detailed general comments about NPA. FNAM hopes EASA will take those into account :

- The multiplication of PNT trainings for each helicopter variant would generate a significant increase in operational costs as well as unavailability of crews.
- The need, for an identical operation, of training for each type of helicopter or variant would also lead to a very significant extra cost and an unavailability of crews without contributing to flight safety.
- Increasing the number of trainings does not necessarily lead, when looking at accident statistics, to increase flight safety.
- If the activity carried out does not change and a SOP has been validated by the supervisory authority, an OPC should be sufficient to assess the experience of the crews.
- The operator should be responsible for appointing, in agreement with the supervisory authority and under the control of the SMS, the most qualified person to conduct the crew evaluations for all the missions performed.
- The use of FSTD should not be made mandatory. Indeed, FSTD training can represent a significant economic investment for smaller companies and is often not suited to different missions and types of aircraft, for example sling operations and some high-risk operations.
- The limitation by pilot of not being able to be in control of more than 5 types of helicopters or variants does not make sense since all the current requirements of training and experience are respected. This limitation can be very restrictive for many operators and generate an operational need to recruit pilots. This cannot be financially supported.

response

Noted.
See responses to your other comments.

comment

169

comment by: *Oya Vendée Hélicoptères*

Introduction:

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General comments :

OYA thanks EASA for the will of harmonizing the applicable dispositions in terms of helicopter operations throughout Europe in order to warrant a high level of safety.

However, considering technical and economic specificities to helicopter, a proportionate approach tailored to the reality of operations needs to be considered.

Here after are detailed general comments about NPA. OYA hopes EASA will take those into account :

- The multiplication of PNT trainings for each helicopter variant would generate a significant increase in operational costs as well as unavailability of crews.
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- The limitation by pilot of not being able to be in control of more than 5 types of helicopters or variants does not make sense since all the current requirements of training and experience are respected. This limitation can be very restrictive for many operators and generate an operational need to recruit pilots. This cannot be financially supported.

response

Noted.

See responses to your other comments.

comment

196

comment by: MBH SAMU

Introduction:

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General comments :

HBG thanks EASA for the will of harmonizing the applicable dispositions in terms of helicopter operations throughout Europe in order to warrant a high level of safety.



However, considering technical and economic specificities to helicopter, a proportionate approach tailored to the reality of operations needs to be considered.

Here after are detailed general comments about NPA. HBG hopes EASA will take those into account :

- The multiplication of PNT trainings for each helicopter variant would generate a significant increase in operational costs as well as unavailability of crews.
- The need, for an identical operation, of training for each type of helicopter or variant would also lead to a very significant extra cost and an unavailability of crews without contributing to flight safety.
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- The operator should be responsible for appointing, in agreement with the supervisory authority and under the control of the SMS, the most qualified person to conduct the crew evaluations for all the missions performed.
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response

Noted.
See responses to your other comments.

comment

223

comment by: SAF

Introduction:

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- The limitation by pilot of not being able to be in control of more than 5 types of helicopters or variants does not make sense since all the current requirements of training and experience are respected. This limitation can be very restrictive for many operators and generate an operational need to recruit pilots. This cannot be financially supported.

response

Noted.
See responses to your other comments.

comment

260

comment by: FOCA Switzerland

FOCA wants to thank EASA for the opportunity to comment on this NPA.

We welcome the update of ORO.FC and the proposed amendment.

We noticed however, that ORO.FC.H.250 (Commanders holding a CPL (H)) is not addressed in this NPA.

From our perspective it would be beneficial to amend this passage as well since we believe that it is almost impossible or does at least require an enormous amount of time to gain 100 IFR hours on helicopters.

Therefore, as it is indeed very long and complicated for some operators to gain the 100 IFR hours and considering that permitting the use of an "FFS(H) level B with FTD level 3 qualification" gives at least the same instrument competences, we propose to: Replace "100 hours under IFR" by "100 hours instrument time on helicopters which may include at least 50 hours under IFR and up to 50 hours instrument time performed on FFS(H) level B with FTD level 3 qualification or higher."

We believe that the hours flown using this type of simulator can offer much more effective training (IMC, number of approaches, failure management) than long IFR flights flown in good weather conditions and this measure will not reduce the level of safety.

response

Accepted.



ORO.FC.H.250 is amended.

comment

379

comment by: HTA

FCL.915.MCCI MCCI — Prerequisites

FCL.010 Definitions

Please clarify the following points associated with the content of this article:

What are the requirements for the operational documentation?

What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.

“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.” We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multi-pilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).

FCL.510.H ATPL(H) — Prerequisites, experience and crediting

We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.

Please clarify the following points associated with the content of this article:

Will a MCC course be required or would it be possible to do a reduced multi-pilot course? Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.

What are the minimum requirements for an MCC rating for Aerial work operations in an R-44?

With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.

Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.

In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.

FCL.720.H Experience requirements and prerequisites for the issue of type ratings — helicopters



In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and multi pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: *"In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."*

FCL.905.TRI TRI — Privileges and conditions

The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather it should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This also supported by your interpretation of the value of multi-pilot hours: *"In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."*

Please clarify the following points associated with the content of this article:

Are there two types of TRI license for a R-44? One for single pilot operation and one for multi-pilot.

Is possible to do a multi-pilot type Rating on a R-44 only?

Would a TRI course automatically include multi-pilot elements?

Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?

Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?

Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?

FCL.915.TRI TRI — Prerequisites

What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.

FCL.915.MCCI MCCI — Prerequisites

What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

ORO.FC.100 Composition of flight crew



In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.

ORO.FC.105 Designation as pilot-in-command/commander

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

ORO.FC.126 Equipment and procedure training

This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:

What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)?

We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?

ORO.FC.130 Recurrent training and checking

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

ORO.FC.140 Operation on more than one type or variant

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.



ORO.FC.145 Provision of training and conduct of checking

There are two areas that we would like to highlight:

1. Use of simulators:
2. Checking during OPC and Line Check by an experience commander

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?

Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible. The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII?

We welcome the inclusion of OTD very much. We would like clarification on:

How are other training devices certified? What credits are given for what level of fidelity?

Re 2: It is currently possible to perform OPC and line checks with qualified commanders. This provision should be kept. What are the reasons to limit the amount of checking to be limited? A commander with 10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperienced pilot took the OPC?

What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required.

We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check *"should be conducted by a nominated PIC with the following flight experience: more than 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant"*

Would it be possible to reduce the MOPSC of a twin engine helicopter voluntarily to 5 in order to comply with this new requirement? Would it be possible to perform an MET OPC single pilot IFR check with a qualified commander?

ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.

What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

ORO.FC.230 Recurrent training and checking

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license



proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

ORO.FC.240 Operation on more than one type or variant

We suggest to allow one complex and one non-complex helicopter to be operated under VFR day conditions. Under VFR only if the philosophy and generation of the avionics are identical (steam gauges vs integrated electronic displays).

ORO.FC.326 Equipment and procedure training and checking

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?

Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?

What is the difference between a minor change and a difference? What about the interaction with ground crew?

Do the task specialist also have to perform OPC in Aerial Work?

Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.

We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.

How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?

ORO.FC.330 Recurrent training and checking — operator proficiency check

Please provide clarification on the questions below.

What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?



AMC1 and AMC2 OFO.FC.105(b)(2);(c)

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?

We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

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

We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.

AMC1 ORO.FC.125 Differences training and familiarization training

We do see several issues with compliance covering various legal requirements. Please provide guidance on how the issues below can be resolved.

How is the terminology consistent with the OSD requirements? What about equipment that is not listed in the ODR tables? Aerial work often work with STC and material that is certified according to EC regulation.

How is the operator able to identify the relevant changes when the OEM limits the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is always compliant with all relevant regulation if some relevant documents are not officially published?

Also, the issue of OSD as discussed in the R-COM has a significant influence on the proper implementation of this regulation.

With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?

How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?

AMC1 ORO.FC.125 & ORO.FC.126 & ORO.FC.140(a)

This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.

AMC1 ORO.FC.120 & 126 & 320 & 326

Please clarify the following points associated with the content of this article:

(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.

(c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal

variations.

What would be considered as procedures that is specific to the operator?

Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

AMC1 ORO.FC.130(a) Recurrent training and checking

We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well. We suggest that training needs to be performed annually. This is along the principle more training less checking.

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

We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

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

We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.

GM1. ORO.FC.145

What is meant by audit pooling in non complex aerial work operations?

AMC1 ORO.FC.145(a)(1) Provision of training and conduct of checking

Please provide clarification to the following questions. Would it be necessary to describe in detail the difference training for aerial work operations? What type of operations could be combined into one? How detailed do you expect lesson plans to be?

We suggest that the training program for training and checking needs to be approved for all aerial work operations if cross crediting between different operations and types of helicopters is requested and used by an SPO operator.

AMC1 ORO.FC.145(a)(2) Provision of training and conduct of checking

We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the aircraft variant".

Currently it is possible to perform the required CRM training by means of a WBT solution. Adding classroom elements increases complexity and coordination efforts for small operators. What indications do you have from past accidents where this lack of classroom training is stated as the contributing factor?

AMC1 ORO.FC.145(a)(2)(ii) & (a)(2)(iii) Provision of training and conduct of checking

We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on



the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.

AMC3 ORO.FC.220 & 230 Operator conversion training and checking & recurrent training and checking

In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?

AMC1 ORO.FC.230 Recurrent training and checking

It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.

Use of simulators:

Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the are of helicopters.

Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?

What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?

AMC1 ORO.FC.240 Operation on more than one type or variant

We agree with the limitation to five types in various operations. We urge you to make the following changes:

We suggest that the number of multi-engine helicopters be limited to two. VFR day operations do not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation.

Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a R44I and a R44II nor between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.

AMC1 ORO.FC.130 & 330 Recurrent training and checking — operator proficiency check

Please clarify the following points associated with the content of this article:

What is a similar specialized operation? It should be that operations that use similar procedures to fulfill various tasks be seen as one operation. This could be either (1) to perform the task from the cabin (e.g. fotoflight), (2) to have a sling attached, (3) to have some equipment attached to helicopter leading to a significant change in aerodynamic qualities (e.g. boom) or (4) to pull a load in contact with the ground or water. No further differentiations should be made.

We suggest that as a basic principle, if the SOP and related training and checking can be standardized between different operators, cross crediting of training and checking should be possible.

This will ease mobility of pilots and ground crew based on the basic european principle freedom of movement. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.



What would be considered as procedures that is specific to the operator?

Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

Impact assessment

We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated?

Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator. We take the following assumptions as baseline:

Crew: 4 Pilots, 6 Task Specialists

Two helicopters (same type) flying 600 hrs. each, total 1200 hrs.

CAT Operations 100 hrs., 1100hrs SPO with 16 different types of operation

Total Revenue at 20€/min: 1.44 Mio €

Profit Margin 5%, -> 72'000€ for reinvestments, etc.

Current training requirements:

2 OPC, 1 line check, two training sessions per pilot per year

Total costs:

Each OPC 40 Min, Line Check 20 Min, training 1 hr., total 3 hrs. per pilot per year, 12 hrs. total.

At 1000€ per hour this comes to 12'000€ per year for four pilots (this is 17% of the current profit margin)

New training requirements:

2 OPS, 1 Line Check

Each OPC 40 Min, Line Check 20 Min, training 1 hr., total 3 hrs. per pilot per year, 12 hrs. total
Training and checking for SPO (12 different types of operation minus possible combinations) at 25 min training and 20 min checking (total 9 hrs.)

New total 12 hrs. training and checking per pilot per year, new total 48 hrs. for all operations

At 1000€ per this comes to 48'000€ per year for all four pilots (this is 67% of the profit margin)

This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

Same company with chargeable minute price of 30€

Revenue: 2.16 Mio €

Profit Margin: 108'000€ at 5%

Percentage of costs with current requirements: 11.1% of profit

Percentage of costs with proposed requirements: 44.4% of profit

This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

resp
onse

Noted.

Please refer to the responses to the comments below.

143+144+263+264+265+307+147+148+149+269+151+152+180+276+155+156+157+158+280+622+160+161+42+346+629+288+526+165+528+292+339+295



comment	<p data-bbox="359 241 411 271">520</p> <p data-bbox="1034 241 1469 271" style="text-align: right;">comment by: <i>Valair AG Switzerland</i></p> <p data-bbox="359 300 740 329">Response to EASA NPA 2019-08</p> <p data-bbox="359 369 456 398">General</p> <p data-bbox="359 443 1425 544">Today's EASA AIR OPS regulations for helicopters are too complicated. too extensive and not understandable. For small helicopter operator up to 4 Helicopters. (Remember 90% of all helicopter operators in Europe have 4 helicopters or less)</p> <p data-bbox="359 584 1469 651">The regulations are too complicated and cost intensive. The operator can no longer act, understand and implement such complex regulations.</p> <p data-bbox="359 692 1137 721">Result Uncertainty in flight operations = accident risk increases.</p> <p data-bbox="359 797 1469 864">The regulations change constantly and are adapted on an ongoing basis. Major revisions of the manuals. Result: Uncertainty in application.</p> <p data-bbox="359 871 1115 900">Uncertainty = unsafe flight operation = more aircraft accidents.</p> <p data-bbox="359 940 1469 1008">Non-complex helicopter operations require simple, clearly understandable regulations. Constant without annual revisions.</p> <p data-bbox="359 1014 1469 1081">It needs new regulation for noncomplex helicopter operation. easy to understand, easy to operate. keep it simple</p> <p data-bbox="359 1122 1281 1189">FAA has simple very understandable Air Regulation. No changes for 30 years. In the US has 50% less Helicopter accidents than Europe, <u>THAT IS FACT.</u></p> <p data-bbox="359 1209 368 1229">-</p> <p data-bbox="359 1263 488 1292">Important</p> <p data-bbox="359 1335 1469 1435">The Helicopter industry in Europe is missing accident statistics and regular reports. To determine which helicopter operation is a risk, which operations need more training = the industry has the right regulation to get more safety.</p>
response	<p data-bbox="359 1503 580 1532">Partially accepted.</p> <p data-bbox="359 1538 1457 1606">SEP and SET helicopter groups are created, for the crediting of OPCs and for the limit to the number of types.</p>

comment	<p data-bbox="359 1664 411 1693">532</p> <p data-bbox="1150 1664 1465 1693" style="text-align: right;">comment by: <i>Reto Ruesch</i></p> <div data-bbox="359 1727 1469 2027" style="border: 1px solid black; padding: 5px;"> <p data-bbox="363 1731 1425 1760"><u>Impact assesmtant for small operators (less than 10 helicopters) of proposed changes</u></p> <p data-bbox="363 1803 1414 1939">We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated?</p> <p data-bbox="363 1946 1425 2013">Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator.</p> </div>
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New total 12 hrs. training and checking per pilot per year, new total 48 hrs. for all operations

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This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

Same company with chargeable minute price of 30€

Revenue: 2.16 Mio €

Profit Margin: 108'000€ at 5%

Percentage of costs with current requirements: 11.1% of profit

Percentage of costs with proposed requirements: 44.4% of profit

This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

response

Not accepted.

This cost impact assessment is based on mistaken assumptions.

Mistaken assumption 1: An operator with two helicopters operates CAT and 16 different specialised operations under SPO and currently does no training or checking for SPO.

The current regulations require the whole of ORO.FC to be applicable for each type or variant, including the requirement to train and check normal, abnormal and emergency procedures for each individual SPO every year.

It is understood that the current regulations are not widely implemented in several Member States. However, no training or checking for SPO cannot be the baseline 'no change' scenario for an impact assessment. Authority oversight and EASA standardisation will eventually ensure that training and checking are put in place. Also, with 16 different specialised operations, a pilot needs recurrent training and checking, because some of the 16 are bound to require specific skills and not many of the 16 will be flown on a regular basis.



Mistaken assumption 2: The NPA proposal will require 12 additional flight hours per pilot per year for SPO training and checking.
 The NPA splits the SPO training and checking into the type-specific checking, which is already covered under the LPC, and the SPO-specific training and checking for which a 3-year cycle can be introduced with an operator risk assessment. With this NPA, the number of hours for this training and checking is likely to be much lower than 12 hours and much lower than in case of no change.

comment

534

comment by: *Europe Air Sports*

Europe Air Sports (EAS) thanks EASA for its efforts in modernizing the training requirements covered by this NPA.

As the flight operations of our members are mostly performed as non-commercial operations (NCO) which are not in the scope of this NPA, EAS refrains from making specific comments to this NPA.

response

Noted.
 Thank you.

EXECUTIVE SUMMARY

p. 1

comment

455

comment by: *BCAA (OPS - Department SPO)*

At the level of principles, the BCAA's SPO Department supports any initiative to increase safety in a cost-effective ways and to reduce training costs without an impact in safety, in particular in the area of commercial specialised operations.

response

Noted.
 Thank you.

2. In summary—why and what - 2.1. Why we need to change the rules—issue/rationale

p. 5-14

comment

76

comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

NPA Number: NPA 2019-08

Author: The Swedish Transport Agency (STA)

Section: 2.1 c

Page: 5

Relevant Text:

Holders of airline transport pilot licence (ATPL) for the helicopter category (ATPL(H)) are very rare except in offshore operations, because few pilots have passed the ATPL(H)



theoretical knowledge examination and even fewer pilots manage to acquire the required multi-pilot experience.

Comment: A reference to the basis for this statement is needed

Rationale:

It should be clear that this statement is not just a general opinion

Proposal: Insert a reference to where the statement originates

response Noted

comment 88

comment by: DRF Luftrettung

Page 6

SECTION:

"This NPA addresses the flight crew training and checking requirements for all operators except those operating under NCO and those who will fully implement EBT."

COMMENT:

We cannot see the point, why NCO operations are exempted from the new regulations.

The official EASA Statement for the difference between NCO and NCC is:

„The rules concerning non-commercial operations are developed separately for complex motor-powered aircraft (MPA) and other-than-complex MPA because it does not make sense to have the same requirements apply to operations with an Airbus 320 for example and a Cessna 172. This way, the principle of proportionality of rules is preserved. “

Today a major variety of NCO helicopters, most popular the EC135 type with ist’s helioniox variants are in operation and to sustain a level playing field for all operators and authorities it should be noted, that of course there are differences in the operation, but all pilots should undergo the same training and checking to increase the safety in aviation.

The NPA about evidence-based training for Helicopters is not even published and you already have stated, that when using EBT, the operators are also excempted from the new proposals. But what will happen, when the EBT NPA and the comments of the operators suggests a different approach?

SUGGESTION:

We therefore suggest to remove all references about EBT until the correspondig NPA comes to service and think about training and checking requirements also for NCO Operations.



response Noted.
A number of EBT concepts have been used in the drafting of this NPA.
This NPA follows a review of ORO.FC under RMT.0599. Part-ORO is not applicable to NCO and NCO operations are not included in the terms of reference for this rulemaking task.

comment 112 comment by: UK CAA

Page No: 5

Paragraph No: 2.1

Comment: The CAA fully supports the aims of this NPA and the safety improvements and benefits that will undoubtedly arise from its adoption. Specific comments provided as required.

response Noted.
Thank you.

2. In summary—why and what - 2.2. What we want to achieve—objectives

p. 14

comment 95 comment by: *Advisair*

2.3.5. Multi-pilot operations of single-pilot certified helicopters

It is agreed that both Part FCL and Part ORO need amending with regards to definitions of single –pilot and multi-pilot helicopters.
The problem at the moment is that the definitions of single-pilot and multi-pilot helicopters are structured slightly differently and this leads to confusion and different interpretations across Member States

FCL.010 Definitions
"Single-pilot aircraft" means an aircraft certificated for operation by one pilot.
"Multi-pilot aircraft":
— for aeroplanes, it means aeroplanes certificated for operation with a minimum crew of at least two pilots;
— for helicopters, airships and powered-lift aircraft, it means the type of aircraft which is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate or equivalent document.
"Multi-pilot operation":
— for aeroplanes, it means an operation requiring at least 2 pilots using multi-crew cooperation in either multi-pilot or single-pilot aeroplanes;
— for helicopters, it means an operation requiring at least 2 pilots using multi-crew cooperation on multi-pilot helicopters.

Suggested change

“Single-Pilot aircraft” means an aircraft certificated for operation by one pilot
“Multi-Pilot aircraft” means an aircraft certificated for operation with a minimum crew of at least two pilots



“Multi-Pilot operation” means an operation with at least 2 pilots using multi-crew co-operation which is required in either multi-pilot or single pilot aircraft as specified in the flight manual, EU Regulation 965/2012 or as specified by the operator.

The above change proposal achieves the following:

- • Classifies aircraft on the basis of their certification
- • Ensures that multi-pilot operations are conducted in accordance with MCC procedures
- • Allows operators to specify multi-pilot operations as long as they are conducted in accordance with MCC
- • Ensures Licensing compliance in accordance with Part FCL and Safety Compliance in accordance with Part OPs

FCL.305 CPL – Privileges and conditions

Regulation (EU) No 1178/2011

(a) Privileges. The privileges of the holder of a CPL are, within the appropriate aircraft category, to:

(1) exercise all the privileges of the holder of an LAPL and a PPL;

(2) act as PIC or co-pilot of any aircraft engaged in operations other than commercial air transport;

(3) act as PIC in commercial air transport of any single-pilot aircraft subject to the restrictions specified in FCL.060 and in this Subpart;

(4) act as co-pilot in commercial air transport subject to the restrictions specified in FCL.060.

(b) Conditions. An applicant for the issue of a CPL shall have fulfilled the requirements for the class or type rating of the aircraft used in the skill test.

FCL.505 ATPL – Privileges

Regulation (EU) No 1178/2011

(a) The privileges of the holder of an ATPL are, within the appropriate aircraft category, to:

(1) exercise all the privileges of the holder of an LAPL, a PPL and a CPL;

(2) act as PIC of aircraft engaged in commercial air transport.

(b) Applicants for the issue of an ATPL shall have fulfilled the requirements for the type rating of the aircraft used in the skill test.

From the above it can be seen that a CPL(H) can act as PIC of a single-pilot aircraft, there has been much discussion across Member States as to whether this applies to multi-pilot operations.

My belief is that the interpretation of FCL.305 CPL is that it does as there is no mention of it not being permitted in FCL.305 or any AMC to prevent it

The proposed text change clarifies this and allows CPL(H) holders to act as PIC on single-pilot certificated helicopters as long as they are conducted in accordance with MCC

Single Pilot (SP) and Multi Pilot (MP) ratings on single pilot certificated helicopters

It is right and proper that if a single pilot certificated helicopter is operated multi-pilot then the pilot(s) should have received adequate training on that type.



This shall include MCC training in accordance with **FCL.735.H Multi-crew cooperation training course – helicopters**

and should include the requirements of **AMC2 FCL.725(a) Requirements for the issue of class and type ratings**

Extend privileges on the same type rating from SPH to MPH (except for initial MP issue), or from MPH to SPH 2 hrs Using FFS C/D: At least 1 hr helicopter and at least 3 hrs total
 AMC 2 FCL.725 (a) states that the requirement for Initial MPH is 10 hours, the initial intention of this AMC was to provide additional initial training for the MPH over the requirements of SPH (an additional 2 hours)

However, this presents a problem, as written, to a pilot rated on a single-pilot certificated helicopter wishing to gain an initial MP rating on that type in that the AMC requires 10 hours, I do not believe this is the intention of the AMC and should be amended.as shown below

Extend privileges on the same type rating from SPH to MPH (~~except for initial MP issue~~), or from MPH to SPH 2 hrs Using FFS C/D: At least 1 hr helicopter and at least 3 hrs total

If the proposed definitions I have given above re single-pilot helicopters, multi-pilot helicopters and multi-pilot operations FCL.720.H will require amendment to reflect the definitions.

For example

Current text

Unless otherwise determined in the operational suitability data established in accordance with Part-21, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

- a. **(a) Multi-pilot helicopters.** An applicant for the first type rating course for a **multi-pilot helicopter type** shall:
- b. (b)

Proposed new text:

Unless otherwise determined in the operational suitability data established in accordance with Part-21, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

- a. **(a) Multi-pilot type rating.** An applicant for the **first multi pilot type rating** course shall:
- b. (b)

ie Refer to ratings MP/SP not the helicopter type

The above achieves:

- • Clarity between helicopter certification and helicopter ratings whether MP or SP

This means that from a Licencing perspective the Type on your licence will be specified as a Type eg EC135 / S92 etc



- • The addition of SP/MP to the type rating means that the pilot can operate that aircraft SP or MP dependent on requirements in accordance with the definitions in Part FCL

So:

An S92 will be entered on the Licence as S92 (as in can only be operated MP)

An EC225 will be entered on the Licence as EC225 MP, SP or SP/MP as it is certified Single Pilot VFR and Multi Pilot IFR

An EC135 will be entered on the Licence as EC135 SP or SP/MP as it is certificated single pilot but may be operated multi-pilot

NPA 2019-08 proposed new text 720.H (a) (2) (i) deletes “in helicopters” this is not supported, it is important that MCC training for helicopters is delivered in helicopters or helicopter FSTD to ensure the most appropriate level of training

In conclusion, NPA 2019-08 seeks to address the problem of single-pilot and multi-pilot helicopters and MCC requirements but seems to have gone about it in a very complicated way.

My proposal seems more straight forward, in that I seek to address the underlying problem; One of definitions and a disconnect between Licensing and Operations. I believe my proposed text amendments are a simple and very straight forward solution to the overall problem.

response

Partially accepted.

AMC2 FCL.725.H is amended.

MCC on helicopters to be required.

With regard to definitions: Noted.

This option has been considered carefully when developing the NPA. It has clear advantages in terms of simplicity and ensures alignment with aeroplanes.

But, as discussed in the explanatory note, almost all helicopters are single-pilot certified under VFR, and helicopter single-pilot IFR certification is becoming mainstream across the board. With such an option, the privileges of the CPL(H) and ATPL(H) would be almost the same, which was the main reason for rejection.

With regard to the SP/MP addition on the type rating: Noted.

Under the NPA proposal:

- The SP/MP additions are required only on single-pilot certified types that are capable of CAT IFR operations with 10 passengers or more.
- All other single-pilot certified helicopters have only 1 type rating.
- ATPL(H) theory is not required for MP operations of single-pilot certified helicopters on a voluntary basis.

If this comment was implemented:



- Each single-pilot helicopter would require two type ratings: a SP/SPO type rating for SP operations and a SP/MPO type rating for MP operations.
- ATPL(H) theory would be required for MP operations of single-pilot certified helicopters on a voluntary basis.
- OR possibly, ATPL(H) theory would no longer be a prerequisite to a type rating on a multi-pilot certified helicopter.
- The regulation would appear to be more simple, but its implementation would be more complex.

comment	<p>456</p> <p style="text-align: right;">comment by: <i>BCAA (OPS - Department SPO)</i></p> <p>As regards items (e) and (f) in the specific objectives of this NPA, the Department SPO shares the view that the safety needs to be improved (in particular with a high quality training). However, it is important to keep in mind the field reality, i.e. in SPO, existence of very small operators, SPO operator's maturity level lower than that of CAT operators, high costs of external trainings, etc..</p>
response	<p>Noted</p>

2. In summary—why and what - 2.3. How we want to achieve it—overview of the proposals p. 15-33

comment	<p>8</p> <p style="text-align: right;">comment by: <i>Norwegian Helikopter Employee Association</i></p> <p>2.3.10.4 Commanders in charge of conducting line training under supervision and line checks —Helicopter CAT Domain affected: CAT H</p> <p>Comment to answers below in bold text: Ref Q.3 and Q.4, in general we need better requirements described for this. The requirements for HHO/NVIS/HEMS and HESLO, needs to be higher that offshore, due to a more complex operation.</p> <p><u>Question 3:</u> Do we need to introduce a minimum pilot experience for the commander in charge of conducting line training under supervision? Yes, see requirements below in bold text If so: How much would be the minimum experience?</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>Total flight time in hours?</td> <td style="text-align: right;">4000</td> <td style="text-align: right;">hrs</td> </tr> <tr> <td>Flight time as PIC/commander in hours?</td> <td colspan="2" style="text-align: right;">2000 hrs/minimum one year in role as PIC</td> </tr> <tr> <td>Number of OPCs performed at the operator?</td> <td colspan="2" style="text-align: right;">N/A</td> </tr> </table> <p>For multi-pilot operations, flight time in multi-pilot operations? 2000 hrs/minimum one year in role as PIC</p> <p>For HEMS, night-vision imaging systems (NVIS) and offshore, flight time in the relevant kind of operations? For Offshore: 2000 hrs PIC and minimum one (1) year in role as PIC</p>	Total flight time in hours?	4000	hrs	Flight time as PIC/commander in hours?	2000 hrs/minimum one year in role as PIC		Number of OPCs performed at the operator?	N/A	
Total flight time in hours?	4000	hrs								
Flight time as PIC/commander in hours?	2000 hrs/minimum one year in role as PIC									
Number of OPCs performed at the operator?	N/A									



For HEMS/NVIS: Minimum three (3) years in role as PIC

For helicopter hoist operations (HHO), number of lifting cycles? (human external cargo (HEC)/ helicopter external sling load operations (HESLO) cycles included / not included)?

300 hrs and Minimum three (3) years, in role as PIC. Lifting/hoist cycles N/A

Question 4:

Do we need to introduce a minimum pilot experience for the commander in charge of conducting line checks? **Yes, see requirements below in bold text**
If so: How much would be the minimum experience?

Total flight time in hours? **4000 hrs**

Flight time as PIC/commander in hours? **2000 hrs/minimum one year in role as PIC**

Number of OPCs performed at the operator? **N/A**

For multi-pilot operations, flight time in multi-pilot operations? **2000 hrs/minimum one year in role as PIC**

For HEMS, NVIS and offshore, flight time in the relevant kind of operations?

Minimum three (3) years in role as PIC

For HHO, number of lifting cycles? (HEC/HESLO cycles included / not included)?

300 hrs and Experience minimum three (3) years, in role as PIC. Lifting/hoist cycles N/A.

response

Noted.

Thank you for answering the questions.

comment

69

comment by: DGAC FR (Mireille Chabroux)

Question 1:

DGAC is in favour of option 1 i.e. keeping the limitation as it is in the current regulation (this limitation is consistent with the limitation set up for aeroplanes).

response

Noted.

Thank you for answering the questions.

comment

70

comment by: DGAC FR (Mireille Chabroux)

Question 2:

DGAC FR is not in favour of having a limitation for MOPSC for the possibility to fly up to five non-complex helicopter types in day VFR. Only one twin engine helicopter can be operated; the other types must be single which in most cases limit the MOPSC.

response

Noted.

Thank you for answering the questions.

comment

71

comment by: DGAC FR (Mireille Chabroux)



response	<p>Question 3: DGAC FR is in favour of giving the responsibility to the operator to define the minimum pilot experience for the commander in charge of conducting line training under supervision. It should be noticed that for CAT operations, this minimum experience is approved via the approval of the trainings and checkings. So if the minimum experience is not considered as appropriate, the authority can make the operator review this minimum experience.</p> <p>Noted.</p> <p>Thank you for answering the questions.</p>
comment	<p>72 comment by: <i>DGAC FR (Mireille Chabroux)</i></p> <p>Question 4: DGAC FR is in favour of giving the responsibility to the operator to define the minimum pilot experience for the commander in charge of conducting line check. It should be noticed that for CAT operations, this minimum experience is approved via the approval of the trainings and checkings. So if the minimum experience is not considered as appropriate, the authority can make the operator review this minimum experience. If a limit is to set up, it is suggested to define only a minimum total flight hours.</p>
response	<p>Noted.</p> <p>Thank you for answering the questions.</p>
comment	<p>89 comment by: <i>DRF Luftrettung</i></p> <p><u>PAGE 17</u></p> <p>SECTION: b) MCC training is required only for the first Part-FCL multi-pilot type rating. As a result, some of the above-mentioned pilots manage to extend their multi-pilot privilege to new Part-FCL type ratings, even though it was not the intent of the rule to enable them to do so;</p> <p>COMMENT: We do not see the point for changing the rule. If a pilot has passed the first multi pilot type rating, he has a valid MCC course. Flying now in this role, he is always current in MCC and all training and checking on this type of helicopter is done in a multi crew environment.</p> <p>Why shall he undergo his second type rating with an additional MCC course. Please remember, that MCC principles are part of the Skill test:</p> <p>FLIGHT TEST TOLERANCE 2. Applicants shall demonstrate the ability to: (f) understand and apply crew coordination and incapacitation procedures; and (g) communicate effectively with the other crew members.</p> <p>That means, if he has passed the skill test, he has also proofed his knowledge and application of MCC principles.</p> <p>SUGGESTION:</p>

We therefore suggest to stay with the original implementation rules in FCL 720.H, but just change the objective ‚multi pilot helicopter‘ to ‚multi pilot operation‘

PAGE 20

SECTION/ NPA STATEMENT:

Many operations that could be conducted with two pilots, including HEMS operations, are conducted with one pilot instead. This situation is detrimental to safety.

COMMENT:

With nearly 90.000 HEMS Mission each year the German HEMS Operators fly more than 40% of the HEMS Missions counted by all 27 member states and the four associates. We therefore consider ourselves to be competent enough, to look at HEMS from the German sight of view.

To state it again very clear: Flying with one pilot and HEMS-TC does not jeopardize the flight safety, but flying with one inexperienced Co-Pilot without MCC does.

SUGGESTION:

We therefore suggest to eliminate all destructive speculations from the NPA with regards to a unsafe operation with HEMS-TC

PAGE 20

SECTION/ NPA STATEMENT:

Neither of the two pilots may have been trained for MCC training for a NCC or SPO flight in a multi-pilot environment because their type ratings may have been granted under a national interpretation of the definition of a multi-pilot helicopter. It was not intended that the multi-pilot experience could be gathered in such a way.

COMMENT:

We agree to the fact, that this behaviour was not intended. But thinking of the German regulations and the German authorities you have to trust the authorities, that when they put in charge different interpretations, that they also implemented specific rules for the respective type ratings and skill tests.

We therefore would please you to compare the national regulations and publish them in a table with the mitigation measures taken.

We do not understand the intention of the EASA that when one country jeopardizes existing rules, all countries have to take additional burdens instead of supervising this specific country under control of the EASA

SUGGESTION:

We therefore would please you to compare the national regulations and publish them in a table with the mitigation measures taken.

PAGE 21



SECTION/ NPA STATEMENT:

For CAT operations, a large complex helicopter is expected to be operated with a minimum crew of two pilots in IFR, with a commander that holds an ATPL(H).

COMMENT:

However, the current rules allow the same helicopter to be flown in IFR by one pilot with a CPL(H), if certified for single-pilot IFR operations and if the MOPSC is reduced to 9 or less.

The term „large complex helicopter“ is not explained in Regulation (EU) 2018-1139. Although ICAO makes here a difference, the EASA has adopted the following term: a helicopter certificated:

- for a maximum take-off mass exceeding 3175 kg, or
- for a maximum passenger seating configuration of more than nine, or
- for operation with a minimum crew of at least two pilots, or

The statements of the NPA are therefore misleading and give a wrong picture on the current questions, background knowledge and possible solutions.

PAGE 22**QUESTION 1:**

Which single-pilot certified helicopters should be required to be flown with two pilots in CAT IFR?

COMMENT:

We are still astonished, why the EASA makes the MOPSC as a decision, if the helicopter has to be operated with one or two pilots. Talking about safety, it gives more potential to a hazardous incident, if a helicopter, which is certified for 9 MOPSC is flown with 8 passengers than a helicopter, which is certified for 19 MOPSC which is flown with one passenger. So we consider the MOPSC as not relevant for the decision, when a helicopter has to be flown with 2 pilots.

SUGGESTION:

We suggest, that single-pilot certified helicopters should be required to be flown with two pilots in CAT IFR with an MTOM of 5700kg.

PAGE 24**SECTION/ NPA STATEMENT:**

2.3.6. Currently, the OPC is conducted by a suitably qualified commander trained in the assessment of CRM skills.

COMMENT:

This statement is not true and leads to wrong conclusions.

ORO.FC.145 and AMC1 ORO.FC.230 (b)(iv) states very clear, that Operator proficiency checks



/ flight checking should be conducted by a type rating examiner (TRE) or a synthetic flight examiner (SFE), as applicable

The wording „should“ expresses an obligation when an acceptable means of compliance is to be applied. When an AOC holder does not stick to this AMC, he has to forward an ALTMoc and it then is in charge of the EASA to define an adequate mitigation measure

SUGGESTION:

Please delete text, because it can lead to wrong conclusions

PAGE 26

SECTION/ NPA STATEMENT:

2.3.7.2 The NPA therefore proposes to allow an operator to consider the grouping of line checks across helicopter types and proposes an AMC to define when it may and may not be acceptable to do so.

COMMENT:

We highly appreciate the new intention of the EASA, to perform line checks operation oriented. Regarding HEMS we have to emphasize on the following subjects:

- (i) local area meteorology;
- (ii) HEMS flight planning;
- (iii) HEMS departures;
- (iv) the selection from the air of HEMS operating sites;
- (v) low level flight in poor weather; and
- (vi) familiarity with established HEMS operating sites in the operator's local area register

These subjects are all operation oriented and we would like to consider, that line checks on one type or variant fulfils the requirements for all types and variants in the same type of operation.

PAGE 27

QUESTION 2:

The NPA proposes to introduce the possibility to fly up to five non-complex helicopter types in day VFR. Should the MOPSC of each helicopter be limited? If so, to which value should the MOPSC be limited?

COMMENT:

Again, we have to question the selection of different categories with the help of MOPSC. Thinking of EC135 T3 with Helionix we have a non-complex helicopter with a sophisticated 4 axis autopilot system and an advanced flight control system. Staying up to date with these helicopters becomes more and more difficult, if you are allowed to fly several different types.

SUGGESTION:

We consider MOPSC not appropriate to make a distinction

PAGE 30



QUESTION 3:

Do we need to introduce a minimum pilot experience for the commander in charge of conducting line training under supervision?

COMMENT:

Line flying under supervision provides the opportunity for a flight crew member to carry into practice the procedures and techniques he/she has been made familiar with during the ground and flight training of an operator conversion course. At the end of line flying under supervision the respective crew member should be able to perform a safe and efficient flight conducted within the tasks of his/her crew member station.

We would like to emphasize, that the above tasks have to be performed under the supervision of a flight crew member specifically nominated and trained for the task.

With an absolved and successfully passed operator training for the trainer in charge, there is no need to introduce minimum pilot experience.

PAGE 30**QUESTION 4:**

Do we need to introduce a minimum pilot experience for the commander in charge of conducting line checks?

COMMENT:

The person conducting the line check should occupy an observer's seat where installed. His/her CRM assessments should solely be based on observations made during the initial briefing, cabin briefing, flight crew compartment briefing and those phases where he/she occupies the observer's seat.

The commander conducting line check has to be trained in CRM principles. His role is primary in the observation, not the handling of the helicopter.

We do not see the point, while he should have specific minimum flight experience

response

Noted.

Page 17: Noted. MCC training does not need to be taken twice. MP helicopter is the threshold for the ATPL theory. For multi-pilot operations of SP helicopters, MCC training is required under ORO.FC.100.

Page 20 suggestion 1: Noted.

Page 20 suggestion 2: Noted.

Page 21 suggestion: Noted.

Page 22. Thank you for answering the questions.

Page 24. Noted. Examiners are trained in the assessment of CRM skills. Also: Text of the explanatory note should have been introduced by 'when authorised under ORO.FC.230(b)(4)'.
Page 26. Noted. Covered under 'similar kinds of operations' and under SPA.HEMS.

Pages 27, 30. Thank you for answering the questions.

comment

90

comment by: AESA



Question 1. Which single-pilot certified helicopters should be flown with two pilots in CAT IFR? From a technical viewpoint considering just MOPSC or MTOM does not seem to be always reasonable at all. Aircraft complexity does not depend only on passenger seating configuration or takeoff weight. A provision should be made for specific helicopters showing specially demanding flight characteristics although being below the MOPSC and/or MTOM limits.

response

Noted.

Thank you for answering the questions. 'helicopters showing specially demanding flight characteristics' are expected to be certified with a minimum crew of 2 pilots.

comment

91

comment by: AESA

Question 2. The NPA proposes to introduce the possibility to fly up to five non-complex helicopter types in day VFR. Should the MOPSC of each helicopter be limited? If so, to which value should the MOPSC be limited? See previous comment.

response

Noted.

Thank you for answering the questions.

comment

92

comment by: AESA

Question 3. Do we need to introduce a minimum pilot experience for the commander in charge of conducting line training under supervision? In the case of HEMS, NVIS and offshore, flight hours in the specific operation should be considered. In the case of HHO, HEC and HESLO, number of cycles in the specific operation should be considered.

response

Noted.

Thank you for answering the questions.

comment

93

comment by: AESA

Question 4. Do we need to introduce a minimum pilot experience for the commander in charge of conducting line checks? In the case of HEMS, NVIS and offshore, flight hours in the specific operation should be considered. In the case of HHO, HEC and HESLO, number of cycles in the specific operation should be considered.

response

Noted.

Thank you for answering the questions.

comment

135

comment by: Airbus Helicopters

Airbus Helicopters answer to question 1 is that single-pilot certified helicopters should be required to be flown with two pilots in CAT IFR for Helicopters with an MOPSC of 10 or more (no change) corresponding to option 1.

Rationale: Should a criteria based on MTOM limit to prohibit CAT IFR SP operations be introduced, this may drive the operators with MOPSC <9 Pax, typically HEMS, to use lighter helicopters to conduct their operations based on single pilot + HEMS technical crew.

	The end result in terms of safety in IFR might be questionable as larger helicopters usually integrate additional level of equipment thus allowing reduced crew workload in IFR flight compared to lighter versions standard equipped helicopters.
response	Noted. Thank you for answering the questions.
comment	136 comment by: Airbus Helicopters Airbus Helicopters answer to question 2 is that the MOPSC of each helicopter should not be limited.
response	Noted. Thank you for answering the questions.
comment	137 comment by: Airbus Helicopters Airbus Helicopters answer to question 3 on how much would be the minimum experience is that a similar experience to what is required for FI or TRI should be required. Airbus Helicopters answer to question 4 about we need to introduce a minimum pilot experience for the commander in charge of conducting line checks is yes and that that a similar experience to what is required for FE or TRE should be required.
response	Noted. Thank you for answering the questions.
comment	138 comment by: Devon AA P24 (f) - Implies that 2 CPL holders can fly multi pilot, but it does not mention MCC courses. It should. 2.3.6 - refers to OPC's being conducted by a TRI. It should be an examiner.
response	Noted. P 24. MCC courses are mentioned in the proposed ORO.FC. rules. 2.3.6. Noted.
comment	139 comment by: Devon AA P30 Q3 2 years' experience in role, 2 'very good' line checks, 'recommendation' by operator. P30 Q4 As above
response	Noted. Thank you for answering the questions.
comment	322 comment by: British Helicopter Association

	<p>Page 22 Question 1. A pilot flying CAT IFR single-pilot is limited to a MOPSC of 9 or less. In the case of an S76/AS365 which has a MOPSC of 12 the NPA requires a multi-crew operation, however, the a suitably qualified pilot could fly the same aircraft with 12 passengers under NCC ops. MOPSC limit of 9 for IFR/night is irrelevant</p>
response	<p>Noted.</p> <p>Thank you for answering the questions.</p>
comment	<p>330 comment by: <i>British Helicopter Association</i></p> <p>Page 23 Conclusion (a) This statement has caused confusion in some cases as clarification had to be sought. It is only on the same flight that both definitions cannot apply. A helicopter can do both types of flight, but not at the same time.</p>
response	<p>Noted.</p>
comment	<p>334 comment by: <i>British Helicopter Association</i></p> <p>Pg 22 Question 1 Option 4</p> <p>Instead of using MOPSC why not resort to the pre-JAAR criteria of using just MTOM of 5.700 Kg</p>
response	<p>Noted.</p> <p>Thank you for answering the questions.</p>
comment	<p>457 comment by: <i>BCAA (OPS - Department SPO)</i></p> <p>Point 2.3.1. : Domains affected : why limit to "CAT A and CAT H" --> Impact also on SPO & NCC (see page 45 and following)</p> <p>Point 2.3.11 : BCAA's SPO Department fully supports the development of AMC and GM for SPO domain.</p>
response	<p>Noted.</p> <p>Thank you.</p>
comment	<p>533 comment by: <i>Kusi</i></p> <p>Question 2:</p> <p>No, there is no reason to keep the MOSPEC into Account. it's already regulated with the MTOM</p>
response	<p>Noted.</p> <p>Thank you for answering the questions.</p>

comment	<p>535</p> <p style="text-align: right;">comment by: <i>Kusi</i></p> <p>Question 3: No The Flight hours do not give any statement about the quality in which the Line Training is done.. Training and Checking personell himself is defined in every operator manual and checked by the NPFO</p> <p>Question 4 : Same as 3</p>
response	<p>Noted.</p> <p>Thank you for answering the questions.</p>
comment	<p>536</p> <p style="text-align: right;">comment by: <i>Kusi</i></p> <p>All SPO operations are defined in the operator manual, also the Initial training. In most companys CAT pilots also fly SPO operations, therefore the pilots have to conduct lot of at least 3 checks every year, why should there also a recurrency checking of the helicopter handling in SOPO be necessary?</p> <p>Every pilot have to read and understand the SOP manuals before conducting any flight.</p>
response	<p>Noted.</p> <p>The SPO training and checking requirements are already very lean and synergies with CAT training and checking can be approved by the authority if relevant.</p>

3. Proposed amendments and rationale in detail

p. 34

comment	<p>21</p> <p style="text-align: right;">comment by: <i>FlightSafety International - Regional Director Regulatory Affairs</i></p> <p>By FlightSafety International EASA.ATO.0012: Many of the proposed amendments are well-reasoned and strongly supported, bringing much needed clarity to definitions and flexibility to operators and ATOs. A positive safety measure.</p>
response	<p>Noted.</p> <p>Thank you.</p>
comment	<p>22</p> <p style="text-align: right;">comment by: <i>FlightSafety International - Regional Director Regulatory Affairs</i></p> <p>By FlightSafety Internatioinal:</p> <ol style="list-style-type: none"> 1. The continued use of flight hours as an indicator of instructor competence, the fallacy that flight hours = experience = proficiency, is not supported by FlightSafety



International. Training and assessment is the only true indicator of competence; suitability for a particular task or role should be determined by the operator/ATO using the principles of CBT. RMT.0194 will need to revisit these proposals in order to apply the concept of competency-based assessment of suitability to exercise instructor privileges.

2. The focus in this NPA is on the TRI(H). There is no mention of amendments to prerequisites and privileges for SFI(H), continuing and further extending the wasteful and restrictive anomalies between TRI and SFI that are prevalent throughout Part-FCL Subpart J. SFIs have been excluded from this NPA yet the delivery of training outside the scheduled carrier/airline model is wholly dependent upon them. As an example, the impossible-to-meet requirements of FCL.915.SFI(e)(1) go unchanged - SFIs cannot take observer flights, a fact repeatedly notified to EASA by NAAs, ATOs, in the previous Part-FCL-related CRD-2014-29A and by the ATPG in its paper on Part-FCL Subpart J and K anomalies submitted in May 2019 to DG.MOVE and the Agency.

response

Accepted.

FCL.905.SFI and FCL.915.SFI are amended in an equivalent way as FCL.905.TRI and FCL.915.TRI.

3.1. Draft regulation (Draft EASA opinion) — Part-FCL

p. 34

comment

299

comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

NPA Number: NPA 2019-08

Author: The Swedish Transport Agency

Section: 3.1

Page:

Relevant Text: Omitted text

Comment: The NPA does not consider any changes to the requirements regarding SFI(H). It is necessary to also change the relevant parts of the SFI requirements in parallel with the changes for TRI(H)

Proposal: Review and change the relevant parts of the SFI requirements. E.g. FCL.905.SFI d) 2, where MCC privileges should be allowed in the same way as for TRI, or FCL.915.SFI e) 2 where the requirement for multi-pilot experience should be possible in a single-pilot helicopter.

response

Accepted.

FCL.905.SFI and FCL.915.SFI are amended in an equivalent way as FCL.905.TRI and FCL.915.TRI.



comment

302

comment by: Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)

NPA Number: NPA 2019-08

Author: The Swedish Transport Agency

Section: 3.1

Page:

Relevant Text:

Comment: While making the changes for helicopter, it would be very beneficial to make the changes for aeroplane as well. This to avoid introducing even more inconsistencies within chapter J in Part-FCL.

Proposal:

Change the text in FCL.720.A b) 4, to reflect the changes proposed for helicopter.

Change the requirements for SPHPCA to reflect the changes proposed for helicopter. E.g. allow a TRI(A)/SP to give MCC training with the same experience requirements as for TRI(H).

response

Noted.

Alignment is not necessary. The helicopter amendment is introduced to tackle a helicopter-specific problem. Aeroplane regulations remain unchanged.

FCL.010 Definitions

p. 34

comment

1

comment by: FOCA

Definition of "multi-pilot helicopter" (FCL.720.H) is missing.

response

Clarification: Multi-pilot helicopter is defined under multi-pilot aircraft.

comment

26

comment by: DGAC FR (Mireille Chabroux)

DGAC FR supports the proposed definition for multi-pilot helicopter.

We only propose a slight amendment in order to align the first part of the definition with the aeroplane one.

PROPOSAL

‘Multi-pilot aircraft’:

— for aeroplanes, it means aeroplanes certificated for operation with a minimum crew of at least two pilots;



— for helicopters, airships and powered-lift aircraft, it means the type of aircraft which is **certificated for operation with a minimum crew of at least two pilots** or required to be operated with a co-pilot at least two pilots **as specified in the flight manual or** in accordance with ~~by the air operator certificate or equivalent document~~ Regulation (EU) 965/2012.

response Accepted.

comment 94

comment by: AESA

· **Proposed amendment of FCL.010 Definitions.** The definition of 'Multi-pilot aircraft' in the cases required by regulation should only be applied to the helicopters with cockpit fitted with suitable instruments in both pilot positions.

response Partially accepted.

AMC and GM are introduced in Subpart IDE.H of Part-CAT, Part-NCC and Part-SPO.

comment 96

comment by: *Advisair*

2.3.5. Multi-pilot operations of single-pilot certified helicopters

It is agreed that both Part FCL and Part ORO need amending with regards to definitions of single –pilot and multi-pilot helicopters.

The problem at the moment is that the definitions of single-pilot and multi-pilot helicopters are structured slightly differently and this leads to confusion and different interpretations across Member States

FCL.010 Definitions

"Single-pilot aircraft" means an aircraft certificated for operation by one pilot.

"Multi-pilot aircraft":

— for aeroplanes, it means aeroplanes certificated for operation with a minimum crew of at least two pilots;

— for helicopters, airships and powered-lift aircraft, it means the type of aircraft which is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate or equivalent document.

"Multi-pilot operation":

— for aeroplanes, it means an operation requiring at least 2 pilots using multi-crew cooperation in either multi-pilot or single-pilot aeroplanes;

— for helicopters, it means an operation requiring at least 2 pilots using multi-crew cooperation on multi-pilot helicopters.

Suggested change

“Single-Pilot aircraft” means an aircraft certificated for operation by one pilot

“Multi-Pilot aircraft” means an aircraft certificated for operation with a minimum crew of at least two pilots



“Multi-Pilot operation” means an operation with at least 2 pilots using multi-crew co-operation which is required in either multi-pilot or single pilot aircraft as specified in the flight manual, EU Regulation 965/2012 or as specified by the operator.

The above change proposal achieves the following:

- • Classifies aircraft on the basis of their certification
- • Ensures that multi-pilot operations are conducted in accordance with MCC procedures
- • Allows operators to specify multi-pilot operations as long as they are conducted in accordance with MCC
- • Ensures Licensing compliance in accordance with Part FCL and Safety Compliance in accordance with Part OPs

FCL.305 CPL – Privileges and conditions

Regulation (EU) No 1178/2011

(a) Privileges. The privileges of the holder of a CPL are, within the appropriate aircraft category, to:

(1) exercise all the privileges of the holder of an LAPL and a PPL;

(2) act as PIC or co-pilot of any aircraft engaged in operations other than commercial air transport;

(3) act as PIC in commercial air transport of any single-pilot aircraft subject to the restrictions specified in FCL.060 and in this Subpart;

(4) act as co-pilot in commercial air transport subject to the restrictions specified in FCL.060.

(b) Conditions. An applicant for the issue of a CPL shall have fulfilled the requirements for the class or type rating of the aircraft used in the skill test.

FCL.505 ATPL – Privileges

Regulation (EU) No 1178/2011

(a) The privileges of the holder of an ATPL are, within the appropriate aircraft category, to:

(1) exercise all the privileges of the holder of an LAPL, a PPL and a CPL;

(2) act as PIC of aircraft engaged in commercial air transport.

(b) Applicants for the issue of an ATPL shall have fulfilled the requirements for the type rating of the aircraft used in the skill test.

From the above it can be seen that a CPL(H) can act as PIC of a single-pilot aircraft, there has been much discussion across Member States as to whether this applies to multi-pilot operations.

My belief is that the interpretation of FCL.305 CPL is that it does as there is no mention of it not being permitted in FCL.305 or any AMC to prevent it

The proposed text change clarifies this and allows CPL(H) holders to act as PIC on single-pilot certificated helicopters as long as they are conducted in accordance with MCC

Single Pilot (SP) and Multi Pilot (MP) ratings on single pilot certificated helicopters

It is right and proper that if a single pilot certificated helicopter is operated multi-pilot then the pilot(s) should have received adequate training on that type.



This shall include MCC training in accordance with **FCL.735.H Multi-crew cooperation training course – helicopters** and should include the requirements of **AMC2 FCL.725(a) Requirements for the issue of class and type ratings**

Extend privileges on the same type rating from SPH to MPH (except for initial MP issue), or from MPH to SPH 2 hrs Using FFS C/D: At least 1 hr helicopter and at least 3 hrs total
 AMC 2 FCL.725 (a) states that the requirement for Initial MPH is 10 hours, the initial intention of this AMC was to provide additional initial training for the MPH over the requirements of SPH (an additional 2 hours)

However, this presents a problem, as written, to a pilot rated on a single-pilot certificated helicopter wishing to gain an initial MP rating on that type in that the AMC requires 10 hours, I do not believe this is the intention of the AMC and should be amended.as shown below

Extend privileges on the same type rating from SPH to MPH (~~except for initial MP issue~~), or from MPH to SPH 2 hrs Using FFS C/D: At least 1 hr helicopter and at least 3 hrs total

If the proposed definitions I have given above re single-pilot helicopters, multi-pilot helicopters and multi-pilot operations FCL.720.H will require amendment to reflect the definitions.

For example

Current text

Unless otherwise determined in the operational suitability data established in accordance with Part-21, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

- a. **(a) Multi-pilot helicopters.** An applicant for the first type rating course for a **multi-pilot helicopter type** shall:
- b. (b)

Proposed new text:

Unless otherwise determined in the operational suitability data established in accordance with Part-21, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

- a. **(a) Multi-pilot type rating.** An applicant for the **first multi pilot type rating** course shall:
- b. (b)

ie Refer to ratings MP/SP not the helicopter type

The above achieves:

- • Clarity between helicopter certification and helicopter ratings whether MP or SP

This means that from a Licencing perspective the Type on your licence will be specified as a Type eg EC135 / S92 etc

- • The addition of SP/MP to the type rating means that the pilot can operate that aircraft SP or MP dependent on requirements in accordance with the definitions in Part FCL

So:

An S92 will be entered on the Licence as S92 (as in can only be operated MP)

An EC225 will be entered on the Licence as EC225 MP, SP or SP/MP as it is certified Single Pilot VFR and Multi Pilot IFR

An EC135 will be entered on the Licence as EC135 SP or SP/MP as it is certificated single pilot but may be operated multi-pilot

NPA 2019-08 proposed new text 720.H (a) (2) (i) deletes “in helicopters” this is not supported, it is important that MCC training for helicopters is delivered in helicopters or helicopter FSTD to ensure the most appropriate level of training

In conclusion, NPA 2019-08 seeks to address the problem of single-pilot and multi-pilot helicopters and MCC requirements but seems to have gone about it in a very complicated way.

My proposal seems more straight forward, in that I seek to address the underlying problem; One of definitions and a disconnect between Licensing and Operations. I believe my proposed text amendments are a simple and very straight forward solution to the overall problem.

response Partially accepted.
Please refer to the response to comment #95.

comment 143 comment by: *FNAM/SNEH*

Please clarify the following points associated with the content of this article:
What are the requirements for the operational documentation?
What are the technical requirement for the helicopter?

response Noted.
By definition, FCL.010 includes only definitions and does not set requirements.
Unchanged paragraphs of the Air OPS Regulation require:
— multi-pilot SOPs for multi-pilot operations, and
— SOPs to be described in the operational documentation.
For clarification purposes, AMC and GM are introduced in Subpart IDE.H of Part-CAT, Part-NCC and Part-SPO regarding the technical requirements for the helicopter.

comment 144 comment by: *FNAM/SNEH*

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.
“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

	<p>We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO.</p>
response	<p>Noted. A flight can be conducted in either SP operations or MP operations, but not both. Clarification: The NPA and the existing rules define multi-pilot and single-pilot helicopters. They also define single-pilot and multi-pilot operations.</p>
comment	<p>170 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>Please clarify the following points associated with the content of this article: What are the requirements for the operational documentation? What are the technical requirement for the helicopter?</p>
response	<p>Noted. Please refer to the response to comment #143.</p>
comment	<p>171 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot. “The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.” We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO.</p>
response	<p>Noted. Please refer to the response to comment #144.</p>
comment	<p>197 comment by: <i>MBH SAMU</i></p> <p>Please clarify the following points associated with the content of this article: What are the requirements for the operational documentation? What are the technical requirement for the helicopter?</p>
response	<p>Noted.</p>

Please refer to the response to comment #143.

comment

198

comment by: MBH SAMU

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.

“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO.

response

Noted.

Please refer to the response to comment #144.

comment

224

comment by: SAF

Please clarify the following points associated with the content of this article:

What are the requirements for the operational documentation?

What are the technical requirement for the helicopter?

response

Noted.

Please refer to the response to comment #143.

comment

225

comment by: SAF

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.

“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO.

response

Noted.



Please refer to the response to comment #144.

comment 261 comment by: *European Helicopter Association (EHA)*

Please clarify the following points associated with the content of this article:
 What are the requirements for the operational documentation?
 What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.

response Noted.
 Please refer to the response to comment #143.

comment 298 comment by: *Heliswiss International AG*

Heliswiss International would like to have a definiton of „Multi-Crew Operation,,
 - For helicopters, single pilot certified, A Multi-Crew, based on Pilot and Cert. Staff could operate a single pilot Helicopter.

Means: A Concept where a Type Rated Pilot CPL/ATPL(H) could manage a cockpit with a Cert. Staff Part 66.

The Type Rated Cert. staff will receive a company training about the multi-pilot task in the cockpit (only applies for SPO, not CAT).

This applies for Single-pilot aircraft. AS332 and KA32-A12.

Please clarify the following points associated with the content of this article:
 What are the requirements for the operational documentation?
 What are the technical requirement for the helicopter?

General Comments to implement Multi-Pilot to Helicopter above 5700kg in SPO.

The single-Pilot System was in place for more than 30 years. Since last year several operators in Europe applies for Mullit-Crew Concept with 2 pilots for SPO for Helicopter above 5700kg.

Heliswiss International doesn not agrees this approach.

Pilots how arrive in Switzerland to 5700kg Helicopter have flown 3-4 years the K-Max in single pilot. Why this pilots could not operate a Helicopter how is certified as Single pilot (AS332C1/KA32A12) under single pilot conditions?

the Commercial Aspect: We are based close to the cities Lucerne, Zug and Zürich. There are often single roatation to fly in congested areas. Do we really have to have 2 pilots for one single rotation? As the pilots leave all over switzerland and abroad. Or does this functions could not be performed by a qualified cert. staff?



	<p>the safety Aspect: Since HSI AG has implemented the KA32A11BC in Juli 2019 to European SPO HESLO under ATPL(H) Multi-Pilot Operation. The Occurrence Reports and internal Reports has dramatically increased. We had several accidents and incidents. We may think, that two person should be in the cockpit, but we are not sure that this should be 2 pilots.</p>
response	<p>Not accepted. Pilot tasks require a pilot licence. A multi-pilot operation is already defined. Neither the NPA nor the existing rules would require the operator to fly a specialised operation in multi-pilot operation unless the helicopter is certified with a minimum crew of two pilots. This comment is understood as a disagreement with regard to the multi-pilot certification of certain versions of the Ka-32. It should be addressed to the manufacturer.</p>
comment	<p>310 comment by: <i>Company</i></p> <p>Unclear: What are the requirements for the documentation? What are the technical requirement for the helicopter?</p>
response	<p>Noted. Please refer to the response to comment #143.</p>
comment	<p>373 comment by: <i>Helialpin AG</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>Please clarify the following points associated with the content of this article: What are the requirements for the operational documentation? What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.</p> </div>
response	<p>Noted. Please refer to the response to comment #143.</p>
comment	<p>396 comment by: <i>KMN</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>Please clarify the following points associated with the content of this article: What are the requirements for the operational documentation? What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.</p> <p>We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could</p> </div>

revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).

response

Noted.
Please refer to the response to comment #143 and 144.

comment

418

comment by: BCAA (OPS - Department SPO)

FCL.010 Definitions:

The BCAA's SPO Department supports any proposal to clarify the existing definitions and to harmonize the interpretation.

However, the proposed new definitions raise questions from operators :

- Is it possible to use a helicopter under a single pilot operation in a mission lasting from 08:00-10:00 and then use the helicopter in the same "Type" of mission multi-pilot from 10:00-12:00? What are the requirements for the operational documentation?

What are the training and checking requirements if a company flies the above mentioned mission with three types of helicopters? What are the documentation requirements? What are the training and checking requirements for a pilot who flies all the helicopters and both single and multi-pilot?

What are the minimum requirements for an MCC rating for Aerial work operations in an R-44?

· - Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.

response

Noted.
Please refer to the response to comment #143.

comment

458

comment by: Kusi

Please clarify the following points associated with the content of this article:

What are the requirements for the operational documentation?

What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.



“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).

response

Noted.
Please refer to the response to comment #143 and 144.

comment

497

comment by: *Reto Ruesch*

Please clarify the following points associated with the content of this article:
What are the requirements for the operational documentation?
What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.

response

Noted.
Please refer to the response to comment #143.

comment

507

comment by: *Reto Ruesch*

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.
“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”
We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because

the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).

response Noted.
Please refer to the response to comment #144.

comment 538

comment by: *DHV e.V.*

Please clarify the following points associated with the content of this article:
What are the requirements for the operational documentation?
What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.

“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).

response Noted.
Please refer to the response to comment #143 and 144.

comment 567

comment by: *AIRGREEN*

Please clarify the following points associated with the content of this article:
What are the requirements for the operational documentation?
What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.



response Noted.
Please refer to the response to comment #143.

comment 600 comment by: *Air-Glaciers (pf)*

Please clarify the following points associated with the content of this article:
What are the requirements for the operational documentation?
What are the technical requirement for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.

response Noted.
Please refer to the response to comment #143.

comment 641 comment by: *AIR ZERMATT AG*

Please clarify the following points associated with the content of this article:
What are the requirements for the operational documentation?
What are the technical requirement for the helicopter? It is not possible for an R-44 to have dual instruments. Dual controls yes.

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.

“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO.

response Noted.
Please refer to the responses to comments #143 and 144.

Explanatory note to FCL.010 — Definitions

p. 34-35

comment 262 comment by: *European Helicopter Association (EHA)*



What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.

“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).

response

Noted.
Please refer to the response to comment #144.

comment

602

comment by: *Air-Glaciers (pf)*

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.

“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).

response

Noted.
Please refer to the response to comment #144.



comment	<p data-bbox="359 239 408 271">100</p> <p data-bbox="1104 239 1465 271" style="text-align: right;">comment by: <i>DRF Luftrettung</i></p> <p data-bbox="359 300 507 327">COMMENT:</p> <p data-bbox="359 333 1294 365">We appreciate the change from multi pilot helicopter to multi pilot operation.</p> <p data-bbox="359 405 1362 436">We have to question, why all other minimum flight requirements are set to 500 hrs.</p> <p data-bbox="359 477 531 508"><u>First example:</u></p> <p data-bbox="359 548 1471 651">According FCL.720.H an applicant for the first multi pilot helicopter has to have 500 hrs in a multi pilot operation. That means, that an applicant can make his ATPL with 350 hrs mpOps, but then has to fly 150 more hrs until he can achieve his first Mp helicopter rating</p> <p data-bbox="359 692 568 723"><u>Second example:</u></p> <p data-bbox="359 763 1471 826">According ORO.FC.100(c) in MpOps each pilot shall either: (1) or (2) have at least 500 hours as a pilot in multi-pilot operation “. Why is this value more restrictive than in FCL.510</p> <p data-bbox="359 907 531 938">SUGGESTION:</p> <p data-bbox="359 945 1059 976">We suggest aligning all minimum values to 350 hrs MpOps</p>
response	<p data-bbox="359 1070 443 1102">Noted.</p> <p data-bbox="359 1108 1471 1211">500 hours are an alternative to MCC training for pilots whose initial training and experience took place outside Part-FCL (e.g. former military or non-European pilots). It remains unchanged.</p> <p data-bbox="359 1218 1471 1281">350 hours is the experience prerequisite for ATPL and MP instruction/examination (usually starting with the Part-FCL MCC training).</p>
comment	<p data-bbox="359 1350 408 1382">263</p> <p data-bbox="836 1350 1465 1382" style="text-align: right;">comment by: <i>European Helicopter Association (EHA)</i></p> <p data-bbox="359 1408 1471 1471">We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.</p> <p data-bbox="359 1478 1273 1509">Please clarify the following points associated with the content of this article:</p> <p data-bbox="359 1516 1471 1547">Will a MCC course be required or would it be possible to do a reduced multi-pilot course?</p> <p data-bbox="359 1554 1471 1688">Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.</p> <p data-bbox="359 1695 1471 1798">What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.</p> <p data-bbox="359 1805 1471 1939">Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.</p> <p data-bbox="359 1946 1471 2049">In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.</p>

response Partially accepted.
The rules regarding MCC training remain unchanged.
Flight instruction is considered to be different from multi-pilot operation. However, flexibility provisions are introduced to the 350-hour criterion, on an individual basis, under an authority approval.

comment 300 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

NPA Number: NPA 2019-08

Author: The Swedish Transport Agency

Section: 3.1

Page: 35

Relevant Text: Applicants for an ATPL(H) shall:

(a) Hold a CPL(H) and have received instruction in MCC;

Comment: A pilot may receive credit for multi-pilot experience for the first multi-pilot type rating, but not for the ATPL(H). This makes little sense as it is unclear what a pilot with 500 hours of multi-pilot experience will gain from a MCC-course.

Proposal: Add the same possibility to credit multi-pilot experience for the ATPL as for a Multi-pilot type rating.

This comment is also valid for ATPL(A)

response Partially accepted.
For the ATPL(H), a person who has the 500 hours experience in multi pilot-operations before operating under Part-FCL and ORO.FC (e.g. former military or non-European pilot), will not need the MCC until they request an ATPL. When all other prerequisites are met, the person already has 500 hours experience in multi pilot-operations and does not need a full MCC training. An equivalent training is created for the purpose.
For aeroplanes, this is not needed, because almost all pilots undego MCC training early in their careers.

comment 311 comment by: *Company*

We welcome the possibility to perform multi-pilot operation without thaving an ATPL(H)!
A MCC for VFR operation on non-complex helicopters should remain simple. Otherwise it will be legally possible, but nobody can afford it or/and instructors are not available.
No civil helicopter instructor in Switzeralnd has logged 350h MPH!

response Partially accepted.
Please refer to the response to comment #263.



comment 372 comment by: Helialpin AG

What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.

“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”

We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).

response Noted.
Please refer to the response to comment #144.

comment 397 comment by: KMN

We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.

Please clarify the following points associated with the content of this article:

Will a MCC course be required or would it be possible to do a reduced multi-pilot course?

Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.

What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.

Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.

In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.

response Partially accepted.



Please refer to the response to comment #263.

comment

424

comment by: AIR ZERMATT AG

We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.
Please clarify the following points associated with the content of this article:
Will a MCC course be required or would it be possible to do a multi-pilot course?
What are the minimum requirements for an MCC rating for Aerial work operations in an R-44?
Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training.
In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.

response

Partially accepted.
Please refer to the response to comment #263.

comment

459

comment by: Kusi

We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.
Please clarify the following points associated with the content of this article:
Will a MCC course be required or would it be possible to do a reduced multi-pilot course?
Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.
What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.
Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.
In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.

response

Partially accepted.
Please refer to the response to comment #263.

comment

508

comment by: Reto Ruesch



We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.

Please clarify the following points associated with the content of this article:

Will a MCC course be required or would it be possible to do a reduced multi-pilot course? Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.

What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.

Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.

In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.

response Partially accepted.
Please refer to the response to comment #263.

comment 539

comment by: *DHV e.V.*

We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.

Please clarify the following points associated with the content of this article:

Will a MCC course be required or would it be possible to do a reduced multi-pilot course? Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.

What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.

Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.

In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.



response Partially accepted.
Please refer to the response to comment #263.

comment 568 comment by: AIRGREEN

We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.
Please clarify the following points associated with the content of this article:
Will a MCC course be required or would it be possible to do a reduced multi-pilot course? Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.
What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.
Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.
In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.

response Partially accepted.
Please refer to the response to comment #263.

FCL.510.A ATPL(A) – Prerequisites, experience and crediting p. 35

comment 308 comment by: Heli Service Belgium

Response to EASA NPA 2019-08 Please, in general, look at the needs of the helicopter operators, and not just making rules for making rules	
Legal Reference	Text
FCL.010 Definitions	Please clarify the following points associated with the content of this article: What are the requirements for the operational documentation? What are the technical requirements for the helicopter? It should be possible to use an R-44 for this type of operation without having to install dual instruments. However, CAT.IDE.H125(b) seems to prevent this type of operation.



	<p>What are the consequences of this statement. What exactly does it mean? It must be possible for a helicopter to be used in Mission A from 08:00-10:00 as single pilot and between 10:00-12:00 as multipilot.</p> <p>“The amended definitions of multi-pilot helicopter and single-pilot helicopter ensure that a helicopter can no longer belong to both categories at the same time, and thus have consequences on the privileges of the CPL(H) and the requirement for multi-pilot type ratings.”</p> <p>We suggest to allow an aerial work mission to be split in various phases. In each phase it would be possible to define the type operation to be performed. So for a pipeline patrol flight, the first phase would be multi-pilot, once the pilot monitoring has to perform some tasks for the client as defined in the SOP (e.g. taking photos), the operation would turn to single-pilot with a task specialist, then after having completed these tasks, the flight could revert to a multi-pilot operation. This approach would provide significant benefits because the less experienced pilot is able to learn the job under supervision of the more experienced PIC and also it would permit a wider use of multipilot operations in SPO. Alternatively, the Pilot-Monitoring also is allowed to perform the tasks that are required for the aerial work mission (e.g. take, pictures, document status of pipeline).</p>
<p>FCL.510.H ATPL(H) — Prerequisites, experience and crediting</p>	<p>We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.</p> <p>Please clarify the following points associated with the content of this article:</p> <p>Will a MCC course be required or would it be possible to do a reduced multi-pilot course? Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.</p> <p>What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.</p> <p>Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR</p>

	<p>multi-engine environment. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.</p>
<p>FCL.720.H Experience requirements and prerequisites for the issue of type ratings — helicopters</p>	<p>In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and multi pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."</p>
<p>FCL.905.TRI TRI — Privileges and conditions</p>	<p>The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather it should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type." 172</p> <p>Please clarify the following points associated with the content of this article:</p> <p>Are there two types of TRI license for a R-44? One for single pilot operation and one for multi-pilot.</p> <p>Is possible to do a multi-pilot type Rating on a R-44 only?</p> <p>Would a TRI course automatically include multi-pilot elements?</p>

	<p>Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation? Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience? Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?</p>
FCL.915.TRI TRI — Prerequisites	<p>What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.</p>
FCL.915.MCCI MCCI — Prerequisites	<p>What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.</p>
ORO.FC.100 Composition of flight crew	<p>In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.</p>
ORO.FC.105 Designation as pilot-in-command/commander	<p>What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.</p>
ORO.FC.126 Equipment and procedure training	<p>This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points: What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)? We agree that this should be left to the operator.</p>

	<p>However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?</p>
<p>ORO.FC.130 Recurrent training and checking</p>	<p>We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.</p>
<p>ORO.FC.140 Operation on more than one type or variant</p>	<p>We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.</p> <p>For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for</p>

	<p>the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
<p>ORO.FC.145 Provision of training and conduct of checking</p>	<p>There are two areas that we would like to highlight:</p> <ol style="list-style-type: none"> 1. Use of simulators: 2. Checking during OPC and Line Check by an experience commander <p>Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.</p> <p>Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?</p> <p>Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible. The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII?</p> <p>We welcome the inclusion of OTD very much. We would like clarification on:</p> <p>How are other training devices certified? What credits are given for what level of fidelity?</p> <p>Re 2: It is currently possible to perform OPC and line checks with qualified commanders. This provision should be kept. What are the reasons to limit the amount of checking to be limited? A commander with</p>



	<p>10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperience pilot took the OPC?</p> <p>What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required.</p> <p>We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the following flight experience: more than 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant"</p> <p>Would it be possible to reduce the MOPSC of a twin engine helicopter voluntarily to 5 in order to comply with this new requirement? Would it be possible to perform an MET OPC single pilot IFR check with a qualified commander?</p> <p>ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.</p> <p>What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?</p>
<p>ORO.FC.230 Recurrent training and checking</p>	<p>For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3)</p>



	<p>Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.</p> <p>If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
<p>ORO.FC.240 Operation on more than one type or variant</p>	<p>We suggest to allow one complex and one non-complex helicopter to be operated under VFR day conditions. Under VFR only if the philosophy and generation of the avionics are identical (steam gauges vs integrated electronic displays).</p>
<p>ORO.FC.326 Equipment and procedure training and checking</p>	<p>Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?</p> <p>Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?</p> <p>What is the difference between a minor change and a difference? What about the interaction with ground crew?</p> <p>Do the task specialist also have to perform OPC in Aerial Work?</p> <p>Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.</p> <p>We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?</p>

<p>ORO.FC.330 Recurrent training and checking — operator proficiency check</p>	<p>Please provide clarification on the questions below. What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?</p>
<p>AMC1 and AMC2 OFO.FC.105(b)(2);(c)</p>	<p>Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking? We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.</p>
<p>GM1 ORO.FC.105(e) Designation as pilot-in-command/commander</p>	<p>We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.</p>
<p>AMC1 ORO.FC.125 Differences training and familiarization training</p>	<p>We do see several issues with compliance covering various legal requirements. Please provide guidance on how the issues below can be resolved. How is the terminology consistent with the OSD requirements? What about equipment that is not listed in the ODR tables? Aerial work often work with STC and material that is certified according to EC regulation. How is the operator able to identify the relevant changes when the OEM limits the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is always compliant with all relevant regulation if some relevant documents are not officially published? Also, the issue of OSD as discussed in the R-COM has a significant influence on the proper implementation of</p>

	<p>this regulation.</p> <p>With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?</p> <p>How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?</p>
<p>AMC1 ORO.FC.125 & ORO.FC.126 & ORO.FC.140(a) Differences training and familiarization training & equipment and procedure training & Operation on more than one type or variant</p>	<p>This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.</p>
<p>AMC1 ORO.FC.120 & 126 & 320 & 326 Operator conversion training and checking & equipment and procedure training and checking</p>	<p>Please clarify the following points associated with the content of this article:</p> <p>(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.</p> <p>(c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.</p> <p>What would be considered as procedures that is specific to the operator?</p> <p>Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p>

AMC1 ORO.FC.130(a) Recurrent training and checking	We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well. We suggest that training needs to be performed annually. This is along the principle more training less checking.
AMC1 ORO.FC.140(b) Operation on more than one type or variant	We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.
AMC1 ORO.FC.140(d) Operation on more than one type or variant	We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.
GM1. ORO.FC.145	What is meant by audit pooling in non complex aerial work operations?
AMC1 ORO.FC.145(a)(1) Provision of training and conduct of checking	Please provide clarification to the following questions. Would it be necessary to describe in detail the difference training for aerial work operations? What type of operations could be combined into one? How detailed do you expect lesson plans to be? We suggest that the training program for training and checking needs to be approved for all aerial work operations if cross crediting between different operations and types of helicopters is requested and used by an SPO operator.
AMC1 ORO.FC.145(a)(2) Provision of training and conduct of checking	We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check

	<p>"should be conducted by a nominated PIC with the aircraft variant".</p> <p>Currently it is possible to perform the required CRM training by means of a WBT solution. Adding classroom elements increases complexity and coordination efforts for small operators. What indications do you have from past accidents where this lack of classroom training is stated as the contributing factor?</p>
<p>AMC1 ORO.FC.145(a)(2)(ii) & (a)(2)(iii) Provision of training and conduct of checking</p>	<p>We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.</p>
<p>AMC3 ORO.FC.220 & 230 Operator conversion training and checking & recurrent training and checking</p>	<p>In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?</p>
<p>AMC1 ORO.FC.230 Recurrent training and checking</p>	<p>It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.</p> <p>Use of simulators: Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the are of helicopters.</p> <p>Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?</p> <p>What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?</p>
<p>AMC1 ORO.FC.240 Operation on more than one type or variant</p>	<p>We agree with the limitation to five types in various operations. We urge you to make the following changes: We suggest that the number of multi-engine helicopters be limited to two. VFR day operations do</p>



	<p>not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation.</p> <p>Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a R44I and a R44II nor between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.</p>
<p>AMC1 ORO.FC.130 & 330 Recurrent training and checking — operator proficiency check</p>	<p>Please clarify the following points associated with the content of this article:</p> <p>What is a similar specialized operation? It should be that operations that use similar procedures to fulfill various tasks be seen as one operation. This could be either (1) to perform the task from the cabin (e.g. fotoflight), (2) to have a sling attached, (3) to have some equipment attached to helicopter leading to a significant change in aerodynamic qualities (e.g. boom) or (4) to pull a load in contact with the ground or water. No further differentiations should be made. We suggest that as a basic principle, if the SOP and related training and checking can be standardized between different operators, cross crediting of training and checking should be possible. This will ease mobility of pilots and ground crew based on the basic european principle freedom of movement. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations. What would be considered as procedures that is specific to the operator? Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p>
<p>Impact assessment</p>	<p>We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated?</p> <p>Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as</p>

	<p>follows for a small operator. We take the following assumptions as baseline: Crew: 4 Pilots, 6 Task Specialists Two helicopters (same type) flying 600 hrs. each, total 1200 hrs. CAT Operations 100 hrs., 1100hrs SPO with 16 different types of operation Total Revenue at 20€/min: 1.44 Mio € Profit Margin 5%, -> 72'000€ for reinvestments, etc. Current training requirements: 2 OPC, 1 line check, two training sessions per pilot per year Total costs: Each OPC 40 Min, Line Check 20 Min, training 1 hr., total 3 hrs. per pilot per year, 12 hrs. total. At 1000€ per hour this comes to 12'000€ per year for four pilots (this is 17% of the current profit margin)</p> <p>New training requirements: 2 OPS, 1 Line Check Each OPC 40 Min, Line Check 20 Min, training 1 hr., total 3 hrs. per pilot per year, 12 hrs. total Training and checking for SPO (12 different types of operation minus possible combinations) at 25 min training and 20 min checking (total 9 hrs.) New total 12 hrs. training and checking per pilot per year, new total 48 hrs. for all operations At 1000€ per this comes to 48'000€ per year for all four pilots (this is 67% of the profit margin) This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.</p> <p>Same company with chargeable minute price of 30€ Revenue: 2.16 Mio € Profit Margin: 108'000€ at 5% Percentage of costs with current requirements: 11.1% of profit Percentage of costs with proposed requirements: 44.4% of profit This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.</p>
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response

Noted.
 Please refer to the responses to the comments below.
 143+144+263+264+265+307+147+148+149+269+151+152+180+276+155+156+157+158+280+622+160+161+42+346+629+288+526+165+528+292+339+295



comment	<p>335 comment by: <i>British Helicopter Association</i></p> <p>Page 35 FCL.510.H ATPL(H) - Prerequisites, experience and crediting</p> <p>It is requested that some credit is granted for hours flown as a flight instructor (FI) against the requirement at "(b) (1) for 350 hours in a multi-pilot operation on helicopters" as these FI hours will have been spent monitoring and communicating with a second pilot by the nature of the cockpit manning.</p> <p>Suggest:</p> <p>(b) (1) for 350 hours in a multi-pilot operation on helicopters; a credit of 50% of flight instructor hours, upto a maximum credit of 150 hours may be given.</p>
response	<p>Partially accepted. Please refer to the response to comment #263 on the 350-hour issue.</p>
comment	<p>371 comment by: <i>Helialpin AG</i></p> <p>We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter. Please clarify the following points associated with the content of this article: Will a MCC course be required or would it be possible to do a reduced multi-pilot course? Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations. What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training. Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.</p>
response	<p>Partially accepted. Please refer to the response to comment #263.</p>
comment	<p>509 comment by: <i>Reto Ruesch</i></p>
response	<p>Noted.</p>

comment

601

comment by: Air-Glaciers (pf)

We welcome the possibility to perform multi-pilot operation without the need for a multi-pilot helicopter.

Please clarify the following points associated with the content of this article:

Will a MCC course be required or would it be possible to do a reduced multi-pilot course? Since this type of operation is not common in number of countries it should be possible to allow during a transition period to allow for airplane MCC courses to be acceptable (e.g. 5 years) until the industry has been able to set up the infrastructure and gained experience and best practice in helicopter multi-pilot operations.

What are the minimum requirements for an MCC rating for Aerial work operations in an R-44? With regards to FCL.735.H (b) it should be possible to use task trainers and also non-complex helicopters in flight for the practical part of the training.

Would it be possible to perform the training for coordination outside a simulator? For example there is no R-44 simulator and to perform MCC training for an aerial work mission would have almost no relation to the current curriculum where pilots operate in an IFR multi-engine environment.

In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required.

response

Partially accepted.
Please refer to the response to comment #263.

CL.720.H Experience requirements and prerequisites for the issue of type ratings—helicopters

p. 36

comment

27

comment by: DGAC FR (Mireille Chabroux)

FCL.720.H and ORO.FC100

DGAC FR believes that the requirement introduced in regulation 965/2012 - ORO.FC.100 paragraph (c) should be moved to regulation 1178/2011 - FCL.720.H.

“(c) Specific requirements for helicopter operations. If the helicopter is operated with a crew of two pilots, each pilot shall either:

- (1) hold a certificate of satisfactory completion of an MCC course in accordance with Commission Regulation (EU) No 1178/201113; or*
- (2) have at least 500 hours as a pilot in multi-pilot operations.”*

It will be more coherent to find all the requirements and pre-requisites in Part FCL especially if the competent authority is supposed to endorse the privileges on the licence. We propose a new draft for FCL.720.H that covers both multi-pilot helicopter (within the meaning of the new definition) and single-pilot helicopter operated in multi-operations. Multi-pilot helicopters are covered by existing paragraph (a) and single-pilot helicopter in MPO are covered by the additional paragraph (c). In other words the paragraph (c) covers CAT, NCC or SPO operator that carries multi-pilot operations on a voluntary basis (when not required by regulation 965/2012).



The approach proposed is similar to the one for aeroplane. FCL.720.A includes requirements to operate a single-pilot aeroplane in multi-pilot operations.

PROPOSAL

FCL.720.H Experience requirements and prerequisites for the issue of type ratings – helicopters

Unless otherwise determined in the operational suitability data established in accordance with Part 21~~Part 21~~, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

(a) Multi-pilot helicopters. An applicant for ~~the first~~ a type rating course for a multi-pilot helicopter type shall:

- (1) have at least 70 hours as PIC on helicopters;
- (2) except when the type rating course is combined with an MCC course:
 - (i) hold a certificate of satisfactory completion of an MCC course ~~in helicopters~~; or
 - (ii) have at least 500 hours as a pilot ~~on~~ in multi-pilot operations ~~aeroplanes~~; or
 - (iii) ~~have at least 500 hours as a pilot in multi-pilot operations on multi-engine helicopters~~;
- (3) have passed the ATPL(H) theoretical knowledge examinations.

(b) An applicant for ~~the first~~ a type rating course for a multi-pilot helicopter type who is a graduate from an ATP(H)/IR, ATP(H), CPL(H)/IR or CPL(H) integrated course and who does not comply with the requirement of (a)(1), shall have the type rating issued with the privileges limited to exercising functions as co-pilot only. The limitation shall be removed once the pilot has both:

- (1) completed 70 hours as PIC or pilot-in-command under supervision of helicopters;
- (2) passed the multi-pilot skill test on the applicable helicopter type as PIC.

(c) Single-pilot helicopters in multi-pilot operations

Applicants for the issue of a type rating on a single-pilot helicopter seeking the privilege to operate the helicopter in multi-pilot operations shall meet the requirements in points (a)(2).

~~(e)~~ **(d) Single-pilot multi-engine helicopters.** An applicant for the issue of a first type rating for a single-pilot multi-engine helicopter shall:

- (1) before starting flight training:
 - (i) have passed the ATPL(H) theoretical knowledge examinations; or
 - (ii) hold a certificate of completion of a pre-entry course conducted by an ATO. The course shall cover the following subjects of the ATPL(H) theoretical knowledge course:
 - Aircraft General Knowledge: airframe/systems/power plant, and instrument/electronics,
 - Flight Performance and Planning: mass and balance, performance;
- (2) in the case of applicants who have not completed an ATP(H)/IR, ATP(H), or CPL(H)/IR integrated training course, have completed at least 70 hours as PIC on helicopters.

response

Not accepted.

The requirement for MCC remains in ORO.FC.100 to clarify that multi-pilot operations do not exist in NCO.



comment

97

comment by: *Advisair***2.3.5. Multi-pilot operations of single-pilot certified helicopters**

It is agreed that both Part FCL and Part ORO need amending with regards to definitions of single –pilot and multi-pilot helicopters.

The problem at the moment is that the definitions of single-pilot and multi-pilot helicopters are structured slightly differently and this leads to confusion and different interpretations across Member States

FCL.010 Definitions

"Single-pilot aircraft" means an aircraft certificated for operation by one pilot.

"Multi-pilot aircraft":

— for aeroplanes, it means aeroplanes certificated for operation with a minimum crew of at least two pilots;

— for helicopters, airships and powered-lift aircraft, it means the type of aircraft which is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate or equivalent document.

"Multi-pilot operation":

— for aeroplanes, it means an operation requiring at least 2 pilots using multi-crew cooperation in either multi-pilot or single-pilot aeroplanes;

— for helicopters, it means an operation requiring at least 2 pilots using multi-crew cooperation on multi-pilot helicopters.

Suggested change

“Single-Pilot aircraft” means an aircraft certificated for operation by one pilot

“Multi-Pilot aircraft” means an aircraft certificated for operation with a minimum crew of at least two pilots

“Multi-Pilot operation” means an operation with at least 2 pilots using multi-crew co-operation which is required in either multi-pilot or single pilot aircraft as specified in the flight manual, EU Regulation 965/2012 or as specified by the operator.

The above change proposal achieves the following:

- • Classifies aircraft on the basis of their certification
- • Ensures that multi-pilot operations are conducted in accordance with MCC procedures
- • Allows operators to specify multi-pilot operations as long as they are conducted in accordance with MCC
- • Ensures Licensing compliance in accordance with Part FCL and Safety Compliance in accordance with Part OPs

FCL.305 CPL – Privileges and conditions

Regulation (EU) No 1178/2011

(a) Privileges. The privileges of the holder of a CPL are, within the appropriate aircraft category, to:

(1) exercise all the privileges of the holder of an LAPL and a PPL;



(2) act as PIC or co-pilot of any aircraft engaged in operations other than commercial air transport;

(3) act as PIC in commercial air transport of any single-pilot aircraft subject to the restrictions specified in FCL.060 and in this Subpart;

(4) act as co-pilot in commercial air transport subject to the restrictions specified in FCL.060.

(b) Conditions. An applicant for the issue of a CPL shall have fulfilled the requirements for the class or type rating of the aircraft used in the skill test.

FCL.505 ATPL – Privileges

Regulation (EU) No 1178/2011

(a) The privileges of the holder of an ATPL are, within the appropriate aircraft category, to:

(1) exercise all the privileges of the holder of an LAPL, a PPL and a CPL;

(2) act as PIC of aircraft engaged in commercial air transport.

(b) Applicants for the issue of an ATPL shall have fulfilled the requirements for the type rating of the aircraft used in the skill test.

From the above it can be seen that a CPL(H) can act as PIC of a single-pilot aircraft, there has been much discussion across Member States as to whether this applies to multi-pilot operations.

My belief is that the interpretation of FCL.305 CPL is that it does as there is no mention of it not being permitted in FCL.305 or any AMC to prevent it

The proposed text change clarifies this and allows CPL(H) holders to act as PIC on single-pilot certificated helicopters as long as they are conducted in accordance with MCC

Single Pilot (SP) and Multi Pilot (MP) ratings on single pilot certificated helicopters

It is right and proper that if a single pilot certificated helicopter is operated multi-pilot then the pilot(s) should have received adequate training on that type.

This shall include MCC training in accordance with **FCL.735.H Multi-crew cooperation training course – helicopters**

and should include the requirements of **AMC2 FCL.725(a) Requirements for the issue of class and type ratings**

Extend privileges on the same type rating from SPH to MPH (except for initial MP issue), or from MPH to SPH 2 hrs Using FFS C/D: At least 1 hr helicopter and at least 3 hrs total

AMC 2 FCL.725 (a) states that the requirement for Initial MPH is 10 hours, the initial intention of this AMC was to provide additional initial training for the MPH over the requirements of SPH (an additional 2 hours)

However, this presents a problem, as written, to a pilot rated on a single-pilot certificated helicopter wishing to gain an initial MP rating on that type in that the AMC requires 10 hours, I do not believe this is the intention of the AMC and should be amended.as shown below

Extend privileges on the same type rating from SPH to MPH (except for initial MP issue), or from MPH to SPH 2 hrs Using FFS C/D: At least 1 hr helicopter and at least 3 hrs total

If the proposed definitions I have given above re single-pilot helicopters, multi-pilot helicopters and multi-pilot operations FCL.720.H will require amendment to reflect the definitions.

For example



Current text

Unless otherwise determined in the operational suitability data established in accordance with Part-21, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

- a. **(a) Multi-pilot helicopters.** An applicant for the first type rating course for a **multi-pilot helicopter type** shall:
- b. (b)

Proposed new text:

Unless otherwise determined in the operational suitability data established in accordance with Part-21, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

- a. **(a) Multi-pilot type rating.** An applicant for the **first multi pilot type rating** course shall:
- b. (b)

ie Refer to ratings MP/SP not the helicopter type

The above achieves:

- • Clarity between helicopter certification and helicopter ratings whether MP or SP

This means that from a Licencing perspective the Type on your licence will be specified as a Type eg EC135 / S92 etc

- • The addition of SP/MP to the type rating means that the pilot can operate that aircraft SP or MP dependent on requirements in accordance with the definitions in Part FCL

So:

An S92 will be entered on the Licence as S92 (as in can only be operated MP)

An EC225 will be entered on the Licence as EC225 MP, SP or SP/MP as it is certified Single Pilot VFR and Multi Pilot IFR

An EC135 will be entered on the Licence as EC135 SP or SP/MP as it is certificated single pilot but may be operated multi-pilot

NPA 2019-08 proposed new text 720.H (a) (2) (i) deletes “in helicopters” this is not supported, it is important that MCC training for helicopters is delivered in helicopters or helicopter FSTD to ensure the most appropriate level of training

In conclusion, NPA 2019-08 seeks to address the problem of single-pilot and multi-pilot helicopters and MCC requirements but seems to have gone about it in a very complicated way.

My proposal seems more straight forward, in that I seek to address the underlying problem; One of definitions and a disconnect between Licencing and Operations. I believe



	my proposed text amendments are a simple and very straight forward solution to the overall problem.
response	Partially accepted. Please refer to the response to comment #95.
comment	<p>113 comment by: UK CAA</p> <p>Page No: 36</p> <p>Paragraph No: FCL.720H (a) (2) (ii)</p> <p>Comment: The proposed changes are supported but it is recommended that the “multi-pilot” experience at sub-paragraph (a)(2)(ii) be explicitly linked to aeroplanes and helicopters rather than just ‘multi-pilot operations’.</p> <p>Justification: Clarity and for the avoidance of doubt.</p> <p>Proposed Text:</p> <p>(ii) have at least 500 hours as a pilot on in multi-pilot operations in aeroplanes or helicopters</p>
response	Noted. The paragraph remains unspecified, so that it is clearly open to all categories including, for example, powered-lift.
comment	<p>250 comment by: UK CAA</p> <p>Page No: 36</p> <p>Paragraph No: FCL.720H (a) (2) (i) Experience requirements and prerequisites for the issue of type ratings - helicopters</p> <p>Comment: The proposed changes are supported and the explanation for them understood but it is considered that at sub-paragraph (a)(2)(i) the “satisfactory completion of an MCC course” should remain one specific to helicopters and not any aircraft as amended. The different crew operating environment for fixed wing and rotary wing aircraft means that the safety benefits may not be fully realised if ‘any’ is used as the criteria. This view is supported by operator and training organisations.</p> <p>Justification: To ensure appropriate training is provided in the necessary environment to achieve the anticipated and desired safety benefit.</p> <p>Proposed Text:</p> <p>(2) except when the type rating course is combined with an MCC course: (i) hold a certificate of satisfactory completion of an MCC course in helicopters; or</p>
response	Accepted. The MCC course shall be on helicopters.

comment

264

comment by: *European Helicopter Association (EHA)*

In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and mulit pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

response

Noted.

The generic multi-crew cooperation training already exists. It is the MCC.

This generic training needs to be complemented by training for multi-pilot operations on type, with the SOPs of the operator. Data can be found on this training in OSD.

Only the endorsements on the licence can be simplified if all training and checking requirements are met.

comment

306

comment by: *Heliswiss International AG*

In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and mulit pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "*In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type.*"

Another Questions:

Does the future HESLO Pilots really need to have an ATPL(H) to operate in a multi pilot operation?

We have several senior pilots with more than 10000H experience in HESLO. They wan't apply for an ATPL(H) theory.

Comments of the Pilots: „ATPL(H) theory has nothing to do with what we are doing and not 5% is needed for HESLO Operation, even if we operate true the whole EASA Memberstates,,.



The young pilot generation is growing up with ATPL(H) theory, this is clear. But for the transition period a solution should be presented by EASA for special exemption without any Modul of the ATPL(H). This should apply for Pilots between 45-65 and more than 5000H HESLO/HEC.

Switzerland already applies for this by EASA.

response

Noted. Please refer to the response to comment #265.

In addition, regarding the other questions: Neither the proposal nor the existing rules would require to fly a specialised operation in multi-pilot operation unless the helicopter is certified with a minimum crew of two pilots. This comment is understood as a disagreement with regard to the multi-pilot certification of certain versions of the Ka-32. It should be addressed to the manufacturer.

comment

370

comment by: *Helialpin AG*

In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and multi pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

response

Noted.
Please refer to the response to comment #264.

comment

398

comment by: *KMN*

In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations



should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and mulit pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

response Noted.
Please refer to the response to comment #264.

comment 425 comment by: AIR ZERMATT AG

In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

response Noted.
Please refer to the response to comment #264.

comment 460 comment by: Kusi

In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and mulit pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."



response Noted.
Please refer to the response to comment #264.

comment 510

comment by: *Reto Ruesch*

In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and mulit pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

response Noted.
Please refer to the response to comment #264.

comment 537

comment by: *DHV e.V.*

In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and mulit pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

response Noted.
Please refer to the response to comment #264.



comment	<p>569</p> <p>In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and mulit pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."</p>	comment by: AIRGREEN
response	<p>Noted. Please refer to the response to comment #264.</p>	
comment	<p>603</p> <p>In order to facilitate the introduction of multi-pilot operation, we suggest that the multi-crew extension is of a generic type that is not linked to a type rating. Multi-Crew is a philosophy and not linked to specific type. If it is possible to perform a check under multi-crew conditions and this check is applicable to other types as well, multi-pilot operations should become more common. If it is linked to a type, the operators will not use this possibility because increases complexity in training and checking. A pilot would need to perform a check on a type for single pilot operation as well as for multi-pilot operation. It should be possible to combine a single pilot and mulit pilot check in a single check flight. This will lead to a significant increase in costs that the operators are not willing to put forward. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."</p>	comment by: Air-Glaciers (pf)
response	<p>Noted. Please refer to the response to comment #264.</p>	
comment	<p>638</p> <p>We propose that if the candidate has the SP rating on the specific type and holds 500H in MP, he is cleared to extend such type rating to MP with the standard course (i.e. a bridge SP to MP as per FCL.725a) without undergoing an initial MP tyoe rating training course.</p>	comment by: Leonardo Helicopters ATO
response	<p>Accepted. AMC2 FCL.725(a) is amended.</p>	

comment	<p>172 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather is should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation.</p>
response	<p>Noted. Thank you.</p> <p>Helicopter instructors hold one single TRI rating. FCL.910.H restricts its privilege until the relevant experience in multi-pilot operations has been obtained on any type. The privileges are then extended to MCC training and MP type rating training on all types available to the instructor.</p> <p>MP type rating training is required only for helicopters involved in CAT IFR with MOPSC of 10 or more, and for helicopters certified with a minimum crew of two.</p> <p>For single-pilot certified helicopters not involved in CAT IFR with MOPSC of 10 or more:</p> <ul style="list-style-type: none"> — No MP instructor privilege is required for type rating training. — The helicopter is a SP helicopter and is never a MP helicopter. — The SP helicopter may be operated multi-pilot on a voluntary basis. — MCC instructor privilege (MCCI, TRI and SFI) will be required for the initial MCC training required under ORO.FC.100.
comment	<p>199 comment by: <i>MBH SAMU</i></p> <p>The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather is should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation.</p>
response	<p>Noted. Please refer to the response to comment #172.</p>
comment	<p>226 comment by: <i>SAF</i></p> <p>The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather is should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation.</p>
response	<p>Noted. Please refer to the response to comment #172.</p>
comment	<p>265 comment by: <i>European Helicopter Association (EHA)</i></p> <p>The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional</p>

courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather it should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This is also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

Please clarify the following points associated with the content of this article:

Are there two types of TRI license for a R-44? One for single pilot operation and one for multi-pilot.

Is it possible to do a multi-pilot type Rating on a R-44 only?

Would a TRI course automatically include multi-pilot elements?

Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?

Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?

Will single-pilot and multi-pilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multi-pilot training given)?

response

Noted.

Thank you.

Helicopter instructors hold one single TRI rating. FCL.910.H restricts its privilege until the relevant experience in multi-pilot operations has been obtained on any type. The privileges are then extended to MCC training and MP type rating training on all types available to the instructor.

MP type rating training is required only for helicopters involved in CAT IFR with MOPSC of 10 or more, and for helicopters certified with a minimum crew of two.

For single-pilot certified helicopters not involved in CAT IFR with MOPSC of 10 or more:

- No MP instructor privilege is required for type rating training.
- The helicopter is a SP helicopter and is never a MP helicopter.
- The SP helicopter may be operated multi-pilot on a voluntary basis.

MCC instructor privilege (MCCI, TRI and SFI) will be required for the initial MCC training required under ORO.FC.100.

Multi-pilot type rating on a R-44 only? No. As all other single-pilot certified helicopters not involved in CAT IFR with MOPSC of 10 or more, it is always a SP helicopter. A SP helicopter can be operated in multi-pilot operation without a 'MP type rating'.

Two types of TRI licence for a R-44? No. Helicopter instructors hold one single TRI rating. Moreover, the MP extended privilege is never needed. It is always a SP helicopter.

Would a TRI course automatically include multi-pilot elements? No. The MP extended privilege will come from MCC training and experience in MP operations.

Multi-pilot instructor without the experience in a multi-pilot operation? No. 350 hours are considered to be necessary.

Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience? No. A HEMS technical crew member is not a pilot. If operators require multi-pilot experience, they may operate HEMS with a multi-pilot crew.

Will single-pilot and multi-pilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single-pilot training as well as multi-pilot training given)? No. FCL.935.TRI and FCL.940.TRI set the conditions for revalidations and renewal of TRI ratings. They do not include multi-pilot hours or training hours. They are proposed to remain unchanged for simplicity.



comment	<p>312 comment by: <i>Company</i></p> <p>Seems too demanding. It should remain simple, otherwise no schools/operators will be interested in. What about a licence covering both? Does a multi-crew operation (e.g. HHO: Pilot and Techn. Crew Member) count towards MP-experience?</p>
response	<p>Noted.</p> <p>What about a licence covering both? For single-pilot helicopters, the type rating covers both multi-pilot and single-pilot privileges.</p> <p>Does a multi-crew operation (e.g. HHO: pilot and technical crew member) count towards MP-experience? No. A technical crew member is not a pilot.</p>

comment	<p>369 comment by: <i>Helialpin AG</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather it should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This is also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."</p> <p>Please clarify the following points associated with the content of this article:</p> <p>Are there two types of TRI license for a R-44? One for single pilot operation and one for multi-pilot.</p> <p>Is it possible to do a multi-pilot type Rating on a R-44 only?</p> <p>Would a TRI course automatically include multi-pilot elements?</p> <p>Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?</p> <p>Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?</p> <p>Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?</p> </div>
response	<p>Noted.</p> <p>Please refer to the response to comment #265.</p>

comment	<p>399 comment by: <i>KMN</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather it should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot</p> </div>
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operation. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

Please clarify the following points associated with the content of this article:
 Are there two types of TRI license for a R-44? One for single pilot operation and one for multi-pilot.
 Is possible to do a multi-pilot type Rating on a R-44 only?
 Would a TRI course automatically include multi-pilot elements?
 Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?
 Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?
 Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?

response

Noted.
 Please refer to the response to comment #265.

comment

419

comment by: *BCAA (OPS - Department SPO)*

Questions received from operators :

Is is possible to do a multi-pilot type Rating on a R-44 only?
 Would a TRI course automatically include multi-pilot elements?
 Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?
 Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?
 Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?

response

Noted.
 Please refer to the response to comment #265.

comment

426

comment by: *AIR ZERMATT AG*

The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather is should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

Please clarify the following points associated with the content of this article:



Are there two types of TRI license for a R-44? One for single pilot operation and one for multi-pilot.
 Is possible to do a multi-pilot type Rating on a R-44 only?
 Would a TRI course automatically include multi-pilot elements?
 Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?
 Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?
 Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?

response

Noted.
 Please refer to the response to comment #265.

comment

461

comment by: *Kusi*

The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather is should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."
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 Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?

response

Noted.
 Please refer to the response to comment #265.

comment

511

comment by: *Reto Ruesch*

The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and schools will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather is should be a general multi-crew instruction

license that is also credited for all types that are used in both single and multi-pilot operation. This is also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

Please clarify the following points associated with the content of this article:
 Are there two types of TRI license for a H125? One for single pilot operation and one for multi-pilot.
 Is possible to do a multi-pilot type Rating on a H125 only?
 Would a TRI course automatically include multi-pilot elements?
 Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?
 Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?
 Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?

response Noted.
 Please refer to the response to comment #265.

comment 540

comment by: DHV e.V.

The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather it should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This is also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

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 Is possible to do a multi-pilot type Rating on a R-44 only?
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 Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?
 Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?
 Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?



response Noted.
Please refer to the response to comment #265.

comment 570 comment by: AIRGREEN

The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather is should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

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Would a TRI course automatically include multi-pilot elements?
Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?
Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards multi-pilot experience?
Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?

response Noted.
Please refer to the response to comment #265.

comment 604 comment by: Air-Glaciers (pf)

The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather is should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation. This also supported by your interpretation of the value of multi-pilot hours: "In order for a TRI(H)SP on such a helicopter type to become TRI(H)MP on the same type, 350 hours in multi-pilot operations on any type is more relevant than 100 hours on the given type."

Please clarify the following points associated with the content of this article:
Are there two types of TRI license for a R-44? One for single pilot operation and one for multi-pilot.
Is possible to do a multi-pilot type Rating on a R-44 only?
Would a TRI course automatically include multi-pilot elements?
Is it possible to become a multi-pilot instructor without the experience in a multi-pilot operation?
Would multi-crew experience (e.g. pilot and technical crew in a HEMS flight) count towards

multi-pilot experience?
Will single-pilot and multipilot TRI renewals also be automatic or would it be necessary to have more (e.g. number of hours for single pilot training as well as multipilot training given)?

response Noted.
Please refer to the response to comment #265.

FCL.910.TRI TRI—Restricted privileges

p. 37-38

comment 145 comment by: *FNAM/SNEH*
The same principle of complexity for obtaining a TRI for both single and multi-pilot operation on the same type is too complex. Operators and school will not use this possibility if additional courses have to be taken in order to obtain single pilot and multi-pilot permissions for training a type. Rather it should be a general multi-crew instruction license that is also credited for all types that are used in both single and multi-pilot operation.

response Noted.
Please refer to the response to comment #172.

comment 303 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

NPA Number: NPA 2019-08
Author: The Swedish Transport Agency
Section: 3.1
Page: 37
Relevant Text: FCL.910.TRI (c) (1) ...in which the skill test for the issue...
Comment: Skill test should be changed to assessment of competence.
Proposal: Change text to ...in which the assessment of competence for the issue...

response Noted. This has already amended as proposed in the August 2020 amendment of Regulation 1178/2011 (the Aircrew regulation).

Explanatory note to FCL.910.TRI TRI—Restricted privileges

p. 38



comment	<p>304 comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i></p> <p>NPA Number: NPA 2019-08</p> <p>Author: The Swedish Transport Agency</p> <p>Section: 3.1</p> <p>Page: 38</p> <p>Relevant Text: FCL.910.TRI (c) (2) Before the privileges of a TRI(H) are extended from single-pilot to multi-pilot privileges on the same type of helicopter...</p> <p>Comment: One of the problems that this NPA seeks to remedy is that the same helicopter may be considered as both a multi-pilot helicopter and a single-pilot helicopter. Therefore, the definition is changed in FCL.010. This text still allows the problem to remain as it suggests that the same helicopter type may be considered single pilot as well as multi-pilot.</p> <p>Proposal: We suggest that a helicopter type rating are considered separate from each other, even though operational rules may allow that the same helicopter individual can be defined both as single-pilot as well as multi pilot.</p>
response	<p>Noted.</p> <p>Thank you. Under the operational rules, a SP helicopter may be required to be operated with two pilots if flying CAT IFR with a MOPSC of nine or more. In this case, only in this case, the helicopter becomes a MP helicopter. Only for such helicopters does the need remain for separate MP and SP type ratings.</p>

FCL.915.TRI TRI—Prerequisites	p. 38-39
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comment	<p>146 comment by: <i>FNAM/SNEH</i></p> <p>What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.</p>
response	<p>Partially accepted.</p> <p>The rules regarding MCC training remain unchanged.</p> <p>Flight instruction is considered to be different from multi-pilot operation. However, flexibility provisions are introduced to the 350-hour criterion, on an individual basis, under an authority approval.</p>



comment	173	comment by: <i>Oya Vendée Hélicoptères</i>
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
response	Partially accepted. Please refer to the response to comment #146.	
comment	200	comment by: <i>MBH SAMU</i>
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
response	Partially accepted. Please refer to the response to comment #146.	
comment	227	comment by: <i>SAF</i>
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
response	Partially accepted. Please refer to the response to comment #146.	
comment	266	comment by: <i>European Helicopter Association (EHA)</i>
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
response	Partially accepted. Please refer to the response to comment #146.	
comment	307	comment by: <i>Heliswiss International AG</i>
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
	For HSI AG, almost no TRI/TRE for KA32A11BC is available with EASA MCC License.	
	What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the	

time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response Partially accepted.
 Flight instruction is considered to be different from multi-pilot operation. However, flexibility provisions are introduced to the 350-hour criterion, on an individual basis, under an authority approval.
 Moreover, the prerequisites for the MCCI are no longer increased to 1 500 hours.

comment 313 comment by: *Company*

Are hours performed as FI credited 50% for MP ops?

response Partially accepted.
 Please refer to the response to comment #263.

comment 368 comment by: *Helialpin AG*

What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.

response Partially accepted.
 Please refer to the response to comment #146.

comment 400 comment by: *KMN*

What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.

response Partially accepted.
 Please refer to the response to comment #146.

comment	427	comment by: AIR ZERMATT AG
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
response	Partially accepted. Please refer to the response to comment #146.	
comment	462	comment by: Kusi
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
response	Partially accepted. Please refer to the response to comment #146.	
comment	512	comment by: Reto Ruesch
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
response	Partially accepted. Please refer to the response to comment #146.	
comment	541	comment by: DHV e.V.
	What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.	
response	Partially accepted. Please refer to the response to comment #146.	
comment	571	comment by: AIRGREEN

What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #146.

comment 605 comment by: Air-Glaciers (pf)

What are the requirements for a regular FI. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 350 hrs. required for obtaining a TRI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #146.

Explanatory note to FCL.915.TRI TRI—Prerequisites p. 39

comment 301 comment by: Swedish Transport Agency, Civil Aviation Department
(Transportstyrelsen, Luftfartsavdelningen)

NPA Number: NPA 2019-08
Author: The Swedish Transport Agency
Section: 3.1
Page: 39
Relevant Text: FCL.915.TRI (d) (4) Holders of an FI(H) certificate shall be fully credited towards the requirements of (1) and (2)
Comment: The explanatory note says that point (4) is amended because an FI with no multi-engine experience should not exercise TRI privilege on ME helicopters until the experience criteria under (d) (2) are met. However, as (d) (4) is written a FI(H) holder is credited in full towards the requirement in (d) (2), regardless of the ME experience of the FI(H).
Proposal: Change the credit to only include point (d) (1) if the intention is to require ME experience.



response

Accepted.
FCL.915.TRI (d)(4) is amended accordingly, and a new (d)(5) is introduced to ensure a minimum experience of 100 hours on multi engines.

FCL.915.MCCI MCCI—Prerequisites

p. 39

comment

127

comment by: *Airbus Helicopters*

Airbus Helicopters proposes to stay at 1000h for helicopters and not to be aligned on airplanes justified by the difference of average activity

response

Accepted.

comment

314

comment by: *Company*

Within Switzerland only 2 operators of 30 are operating MP, because nobody, except airline pilots or army pilots, has the required amount of MP hours. Without an simpler way, operators won't operate in MP, even when it's a safety increase: there are no instructors available on the market!

response

Partially accepted.
Please refer to the response to comment #307.

comment

367

comment by: *Helialpin AG*

What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response

Partially accepted.
Please refer to the response to comment #307.

comment

401

comment by: *KMN*



What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #307.

comment 428

comment by: AIR ZERMATT AG

What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #307.

comment 463

comment by: Kusi

What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #307.

comment 513

comment by: Reto Ruesch

What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the

time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #307.

comment 542

comment by: *DHV e.V.*

What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #307.

comment 572

comment by: *AIRGREEN*

What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #307.

comment 606

comment by: *Air-Glaciers (pf)*

What are the requirements for a regular FI? The hours required will severely limit the number of FI / TRI becoming MCCI. While airlines always fly multi-pilot, this is most of the time not the case for helicopters. The amount of time required to obtain 1500 hours (e.g. 600 hours total, 150 hrs. multi-pilot, 10 years required to obtain hours) is very long so that

it will disincentivize pilots and instructors from going that route. In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 500 hrs. of the 1500 hrs. required for obtaining a MCCI license for Multi-pilot operations.

response Partially accepted.
Please refer to the response to comment #307.

GM5 FCL.010 Multi-pilot operations

p. 40

comment 28

comment by: DGAC FR (Mireille Chabroux)

GM5 FCL.010

DGAC FR believes that the content of GM5 FCL.010 should be introduced at AMC level. We consider also that the reference to “an equivalent document” should be removed as only the multi-pilot hours under the framework of an operation manual should be considered to credited and considered as actual MPO hours (in particular for the 350h of MPO required for ATPL(H) prerequisites).

PROPOSAL

GM5 AMC1 FCL.010 Multi-pilot operations

For helicopters, multi-pilot operations include operations where two pilots are required by the operations manual **or an equivalent document**.

response Partially accepted.
AMC are means of compliance with a requirement. A definition is not a requirement and has no means of compliance.
The GM is however amended to clarify the meaning of equivalent document.

comment 98

comment by: Advisair

2.3.5. Multi-pilot operations of single-pilot certified helicopters

It is agreed that both Part FCL and Part ORO need amending with regards to definitions of single –pilot and multi-pilot helicopters.

The problem at the moment is that the definitions of single-pilot and multi-pilot helicopters are structured slightly differently and this leads to confusion and different interpretations across Member States

FCL.010 Definitions

"Single-pilot aircraft" means an aircraft certificated for operation by one pilot.

"Multi-pilot aircraft":



- for aeroplanes, it means aeroplanes certificated for operation with a minimum crew of at least two pilots;
- for helicopters, airships and powered-lift aircraft, it means the type of aircraft which is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate or equivalent document.

"Multi-pilot operation":

- for aeroplanes, it means an operation requiring at least 2 pilots using multi-crew cooperation in either multi-pilot or single-pilot aeroplanes;
- for helicopters, it means an operation requiring at least 2 pilots using multi-crew cooperation on multi-pilot helicopters.

Suggested change

"Single-Pilot aircraft" means an aircraft certificated for operation by one pilot

"Multi-Pilot aircraft" means an aircraft certificated for operation with a minimum crew of at least two pilots

"Multi-Pilot operation" means an operation with at least 2 pilots using multi-crew co-operation which is required in either multi-pilot or single pilot aircraft as specified in the flight manual, EU Regulation 965/2012 or as specified by the operator.

The above change proposal achieves the following:

- • Classifies aircraft on the basis of their certification
- • Ensures that multi-pilot operations are conducted in accordance with MCC procedures
- • Allows operators to specify multi-pilot operations as long as they are conducted in accordance with MCC
- • Ensures Licensing compliance in accordance with Part FCL and Safety Compliance in accordance with Part OPs

FCL.305 CPL – Privileges and conditions

Regulation (EU) No 1178/2011

(a) Privileges. The privileges of the holder of a CPL are, within the appropriate aircraft category, to:

- (1) exercise all the privileges of the holder of an LAPL and a PPL;
- (2) act as PIC or co-pilot of any aircraft engaged in operations other than commercial air transport;
- (3) act as PIC in commercial air transport of any single-pilot aircraft** subject to the restrictions specified in FCL.060 and in this Subpart;
- (4) act as co-pilot in commercial air transport subject to the restrictions specified in FCL.060.

(b) Conditions. An applicant for the issue of a CPL shall have fulfilled the requirements for the class or type rating of the aircraft used in the skill test.

FCL.505 ATPL – Privileges

Regulation (EU) No 1178/2011

(a) The privileges of the holder of an ATPL are, within the appropriate aircraft category, to:

- (1) exercise all the privileges of the holder of an LAPL, a PPL and a CPL;
- (2) act as PIC of aircraft engaged in commercial air transport.



(b) Applicants for the issue of an ATPL shall have fulfilled the requirements for the type rating of the aircraft used in the skill test.

From the above it can be seen that a CPL(H) can act as PIC of a single-pilot aircraft, there has been much discussion across Member States as to whether this applies to multi-pilot operations.

My belief is that the interpretation of FCL.305 CPL is that it does as there is no mention of it not being permitted in FCL.305 or any AMC to prevent it

The proposed text change clarifies this and allows CPL(H) holders to act as PIC on single-pilot certificated helicopters as long as they are conducted in accordance with MCC

Single Pilot (SP) and Multi Pilot (MP) ratings on single pilot certificated helicopters

It is right and proper that if a single pilot certificated helicopter is operated multi-pilot then the pilot(s) should have received adequate training on that type.

This shall include MCC training in accordance with **FCL.735.H Multi-crew cooperation training course – helicopters**

and should include the requirements of **AMC2 FCL.725(a) Requirements for the issue of class and type ratings**

Extend privileges on the same type rating from SPH to MPH (except for initial MP issue), or from MPH to SPH 2 hrs Using FFS C/D: At least 1 hr helicopter and at least 3 hrs total
AMC 2 FCL.725 (a) states that the requirement for Initial MPH is 10 hours, the initial intention of this AMC was to provide additional initial training for the MPH over the requirements of SPH (an additional 2 hours)

However, this presents a problem, as written, to a pilot rated on a single-pilot certificated helicopter wishing to gain an initial MP rating on that type in that the AMC requires 10 hours, I do not believe this is the intention of the AMC and should be amended.as shown below

Extend privileges on the same type rating from SPH to MPH (except for initial MP issue), or from MPH to SPH 2 hrs Using FFS C/D: At least 1 hr helicopter and at least 3 hrs total

If the proposed definitions I have given above re single-pilot helicopters, multi-pilot helicopters and multi-pilot operations FCL.720.H will require amendment to reflect the definitions.

For example

Current text

Unless otherwise determined in the operational suitability data established in accordance with Part-21, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

- a. **(a) Multi-pilot helicopters.** An applicant for the first type rating course for a **multi-pilot helicopter type** shall:
- b. (b)

Proposed new text:



Unless otherwise determined in the operational suitability data established in accordance with Part-21, an applicant for the issue of the first helicopter type rating shall comply with the following experience requirements and prerequisites for the issue of the relevant rating:

- a. **(a) Multi-pilot type rating.** An applicant for the **first multi pilot type rating** course shall:
- b. (b)

ie Refer to ratings MP/SP not the helicopter type
The above achieves:

- • Clarity between helicopter certification and helicopter ratings whether MP or SP

This means that from a Licencing perspective the Type on your licence will be specified as a Type eg EC135 / S92 etc

- • The addition of SP/MP to the type rating means that the pilot can operate that aircraft SP or MP dependent on requirements in accordance with the definitions in Part FCL

So:

An S92 will be entered on the Licence as S92 (as in can only be operated MP)
An EC225 will be entered on the Licence as EC225 MP, SP or SP/MP as it is certified Single Pilot VFR and Multi Pilot IFR
An EC135 will be entered on the Licence as EC135 SP or SP/MP as it is certificated single pilot but may be operated multi-pilot

NPA 2019-08 proposed new text 720.H (a) (2) (i) deletes “in helicopters” this is not supported, it is important that MCC training for helicopters is delivered in helicopters or helicopter FSTD to ensure the most appropriate level of training

In conclusion, NPA 2019-08 seeks to address the problem of single-pilot and multi-pilot helicopters and MCC requirements but seems to have gone about it in a very complicated way.
My proposal seems more straight forward, in that I seek to address the underlying problem; One of definitions and a disconnect between Licensing and Operations. I believe my proposed text amendments are a simple and very straight forward solution to the overall problem.

response Partially accepted.
Please refer to the response to comment #95.

comment **114** comment by: UK CAA
Page No: 40
Paragraph No: GM5 FCL.010 Multi-pilot operations



Comment: This new GM, not an amendment, is helpful but perhaps should align better with the revised definitions of Multi and Single-pilot helicopters with regards to the reference documents – suggest “equivalent document” should be changed to ‘in accordance with Regulation (EU) 965/2012’. Also, to be correct the term “Multi-pilot operations” should be in the singular.

Justification: Clarity and uniformity

Proposed Text: We recommend the text should be amended to read:

GM5 FCL.010 Multi-pilot operations

For helicopters, multi-pilot operations includes operations where two pilots are required by the operations manual or ~~an equivalent document~~ **in accordance with Regulation (EU) 965/2012.**

response

Noted.
Operations where two pilots are required by a non-EU operations manual should qualify as multi-pilot operations.
The equivalent document should be understood as the equivalent of the operations manual under military, search and rescue, or other State flights.
The GM is re-drafted for clarity.

comment

128 comment by: Airbus Helicopters
The explanatory note text is not consistent with the proposed update of GM5 FCL.010.

response

Accepted.
Please refer to the response to comment #305.

comment

305 comment by: Swedish Transport Agency, Civil Aviation Department
(Transportstyrelsen, Luftfartsavdelningen)

NPA Number: NPA 2019-08
Author: The Swedish Transport Agency
Section: 3.1
Page: 40
Relevant Text: GM5 FCL.010
<p>Comment: The GM does not explain the application of the definition in the way the explanatory note suggests.</p>
<p>Proposal: Change the GM to add the text in the explanatory note: For helicopters, multi-pilot operations where two pilots are required by the operations manual or an equivalent document. Experience under NCO is not included in the definition, whereas experience gathered under an equivalent system to CAT, NCC or SPO such as non-European or military operations may be included.</p>



response Accepted.

comment 420 comment by: BCAA (OPS - Department SPO)
Why not clearly mention in GM5 also that "experience under NCO are not included" (see explanatory note) to avoid any discussion.

response Accepted.
Please refer to the response to comment #305.

ORO.FC.100 Composition of flight crew

p. 40-41

comment 147 comment by: FNAM/SNEH
In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.

Response Not accepted.
Pilots should have MCC training before starting multi-pilot operations.
This paragraph is useful in rare cases where a pilot has gathered multi-pilot experience under military operations, state operations, or non-European operations. If the multi-pilot experience gathered under these conditions does not meet the 500-hour requirement, this pilot shall receive MCC training.

Comment 174 comment by: Oya Vendée Hélicoptères
In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.

response Not accepted.
Please refer to the response to comment # 147.

comment 201 comment by: MBH SAMU
In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.

response Not accepted.
Please refer to the response to comment # 147.

comment 228 comment by: SAF



	<p>In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.</p>
response	<p>Not accepted. Please refer to the response to comment # 147.</p>
comment	<p>258 comment by: DGAC FR (Mireille Chabroux)</p> <p>In order to sale aircraft, manufacturers may organize flights on European registered aircraft to demonstrate the characteristics and capabilities of the aircraft to the potential customers. The aim of these flights is to demonstrate the aircraft capabilities to a guest pilot but not to issue a new type rating. These flights are not operated within an ATO.</p> <p>There are some cases where the guest pilot does not hold an Aircrew licence, but a licence issued by a third country or a military licence and/or does not hold the appropriate type rating.</p> <p>DGAC FR position is that this type of flight should be allowed, providing some mitigation measures are implemented.</p> <p>1- Nobody apart from the guest pilot would be allowed on board during these flights. 2- In order to allow this type of flights, the options could be:</p> <p>a) to amend article 6 “derogation” of the Air OPS cover regulation in order to add a sub paragraph c) to paragraph 3 to allow these flights to be operated under national regulations of the member states .</p> <p>b) To amend ORO.FC.100 by adding a sub paragraph 2) in paragraph d) as suggested below. The operator would have the responsibility to define the minimum experience to be met by the guest pilot and to implement mitigation procedures.</p> <p>PROPOSAL</p> <p>ORO.FC.100 Composition of flight crew</p> <p>(d) 1) 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.</p> <p>2) by way of derogation of a), in case of a flight during which the characteristics of an aircraft are demonstrated by aircraft manufacturer to a guest pilot who does not hold a licence and ratings issued or accepted in accordance with Commission Regulation (EU) No 1178/2011, this guest pilot may participate in the conduct of the flight provided that</p> <p>a) technical crew is, in addition to the guest pilot, composed of:</p> <p>i. a pilot in command who holds a licence issued or accepted in accordance with Commission Regulation (EU) No 1178/2011 and appropriate to the duties assigned to him/her and either is an instructor on the aircraft type <i>or</i> holds a flight test rating in accordance with FCL.820, and</p> <p>ii. for a multi pilot aircraft, a safety pilot who holds a licence issued or accepted in accordance with Commission Regulation (EU) No 1178/2011 and appropriate to the duties assigned to him/her and holds either the aircraft type qualification or a flight test rating in accordance with FCL.820</p>

b) b) no passenger or cargo is allowed on board during the flight.

AMC.ORO.FC.100 d) 2)

The manufacturer should define the minimum experience and the medical requirements for the guest pilot and should ensure that the guest pilot fulfils these requirements.

The manufacturer should describe in a dedicated part of the operation manual the procedures developed to mitigate the risks in a flight during which the characteristics of an aircraft are demonstrated to a guest pilot. These procedures should cover the operational limitations and minima to conduct these flights.

The manufacturer should ensure that the flight crew members can communicate with each other in a common language.

response

Noted.

Such a demonstration flight by manufacturers of complex aircraft, with untrained guest pilots, would require a derogation from the whole of ORO.FC, or the guest pilot should not be considered as part of the flight crew.

There may be conflicts with the Basic Regulation. The question is deferred to another RMT.

comment

315

comment by: *Company*

It should be possible to credit 50% of hours gained as an instructor or TRI towards the required amount of hours.

response

Not accepted.

Please refer to the response to comment # 147.

comment

336

comment by: *British Helicopter Association*

The multi-pilot crew should hold 'equivalent' qualifications. A VFR only qualified pilot (who has an MCC) when crewed with an IR pilot the whole crew qualification should default to the lower qualification. A VFR pilot could not be expected to take over in the case of sudden incapacitation, but because the non-IFR pilot's lack of knowledge increases the IR's workload exponentially.

response

Noted.

This case is covered under ORO.FC.100(c) of the current regulation. The paragraph is proposed to be re-numbered ORO.FC.100(d) without further changes.



comment	366	comment by: <i>Helialpin AG</i>
	In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.	
response	Not accepted. Please refer to the response to comment # 147.	
comment	402	comment by: <i>KMN</i>
	In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.	
response	Not accepted. Please refer to the response to comment # 147.	
comment	421	comment by: <i>BCAA (OPS - Department SPO)</i>
	<p>questions from operators about point c)(2): <i>How would it be possible to obtain 500 hrs in multi-pilot operations without an MCC course? Would it be possible to count training given as FI (which basically is multi.-crew) to count towards these 500 hrs ?</i></p>	
response	Not accepted. Please refer to the response to comment # 147.	
comment	429	comment by: <i>AIR ZERMATT AG</i>
	<p>In case an operator has a single pilot ops, there is a possibility that for a VIP (CAT) flight, the client requests two pilots (in order to have a redundancy). In such a setup the 2nd pilot is a safety pilot only and doesn't have an active duty. Article ORO.FC.100(c) would per se make such a setup impossible. There should be either single pilot ops and multi-pilot ops and nothing in between. There is no need to regulate two pilots flying together. We recommend to condemn this proposal.</p>	
response	<p>Noted. The operation described, in which the second person has no duties, remains a single-pilot operation. The additional person needs not hold a pilot licence and cannot log flight hours as a pilot. However, if a second person with pilot duties is in the cockpit, it has to be documented in the OPS manual. Multi-pilot SOPs, training, checking and experience are required.</p>	

comment	464	comment by: <i>Kusi</i>
	In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.	
response	Not accepted. Please refer to the response to comment # 147.	
comment	543	comment by: <i>DHV e.V.</i>
	In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.	
response	Not accepted. Please refer to the response to comment # 147.	
comment	565	comment by: <i>European Helicopter Association (EHA)</i>
	In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.	
response	Not accepted. Please refer to the response to comment # 147.	
comment	573	comment by: <i>AIRGREEN</i>
	In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.	
response	Not accepted. Please refer to the response to comment # 147.	
comment	599	comment by: <i>Leonardo Helicopters ATO</i>
	It is highly recommended to clarify how the Multi Pilot Flight Time hours will be registered in the Pilot Logbook of a Single Pilot Rated Pilot holding an MCC and flying multi-pilot operations of single-pilot certified helicopters	
response	Accepted	

comment	607	comment by: <i>Air-Glaciers (pf)</i>
	<p>In order to increase the number of pilots transitioning to multi-pilot operations, we suggest that hours obtained during flight instruction as FI / TRI, etc. are credited 50% up to a total of 100 hrs. of the 500 hrs. required.</p>	
response	<p>Partially accepted. Please refer to the response to comment #263.</p>	

ORO.FC.105 Designation as pilot-in-command/commander	p. 41-42
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comment	30	comment by: <i>DGAC FR (Mireille Chabroux)</i>
	<p>Paragraph (e) states that “For helicopter operations under VFR by day, familiarisation training of the route and aerodromes may be provided by other training means, such as area familiarisation training. The other training means shall be described in the operations manual”</p> <p>DGAC FR does not see the reason for limiting the other training means such as aera familiarization training to helicopters. DGAC FR considers that the same possibility should be given to aeroplane and suggest the following change:</p> <p>PROPOSAL</p> <p>“For helicopter and aeroplane operations under VFR by day, familiarisation training of the route and aerodromes may be provided by other training means, such as area familiarisation training. The other training means shall be described in the operations manual”</p>	
response	<p>Noted. The aeroplane alleviation from area, route and aerodrome knowledge remains under ORO.FC.105(d).</p>	
comment	148	comment by: <i>FNAM/SNEH</i>
	<p>What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.</p>	
response	<p>Noted. Thank you for supporting the NPA proposal. The new ORO.FC.105 is applicable to all. It proposes that, for all helicopter day VFR operators including A to A and local flights, the requirement for aerodrome competency can be covered under area familiarisation training.</p>	



A to A or local flights with performance class B aeroplanes have equivalent alleviations that remain unchanged.

comment 175 comment by: *Oya Vendée Hélicoptères*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 202 comment by: *MBH SAMU*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 229 comment by: *SAF*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 365 comment by: *Helialpin AG*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 380 comment by: *Fabian Pietsch*

I am requesting a new approach to the route and area qualification described in ORO.FC.105 focussing on a risk and threat based approach using the optimum training method for each risk / threat within an area.

response Accepted.



A 3-year validity is introduced for route/area knowledge, instead of 12 months. New GM introduces the performance-based approach.

comment 403 comment by: *KMN*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 430 comment by: *AIR ZERMATT AG*

It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operations nor for CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 465 comment by: *Kusi*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 485 comment by: *BCAA (OPS - Department SPO)*

BCCA's SPO Department fully supports the proposed change for helicopter operations under VFR by day.

However, why no reference to this point (e) in the proposed AMC/GM ?
It is not clear in AMC that aerodrome knowledge is not required prior to the flight in day VFR helicopter operations where an in-flight reconnaissance can be used. It is not clear in AMC that the new proposed point (e) can be interpreted as a relaxation of the point (c), in particular to the requirements of an initial training and of the periodicity (12 months). Why not specify for helicopter operations under VFR by day that carrying out an "in-flight reconnaissance" is an "other training means" to be compliant with ORO.FC.105 regarding the aerodrome competency ?

question received from operators : *What is the reason to abolish AtoA and local flights?*

response Partially accepted.
The training to carry out an 'in-flight reco' shall be considered an equivalent training means to the aerodrome competency. The following extract of the GM will become an AMC.

AREA FAMILIARISATION TRAINING — HELICOPTERS

The area familiarisation training for day VFR should ensure that a pilot is 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.

Operator's question: Please refer to the response to comment #148.

comment 514 comment by: *Reto Ruesch*

What is the reason to abolish A to A and local flights? There are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for A to A CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 544 comment by: *DHV e.V.*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 574 comment by: *AIRGREEN*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.

response Noted.
Please refer to the response to comment #148.

comment 608 comment by: *Air-Glaciers (pf)*

What is the reason to abolish AtoA and local flights? It seems that there are no accidents that would indicate that more training is needed in this regard. Aerodrome competency should not be required for local operation nor for AtoA CAT flights.



response Noted.
Please refer to the response to comment #148.

ORO.FC.125 Differences training and familiarisation training

p. 42

comment 129 comment by: Airbus Helicopters

Airbus Helicopters recommends that a reference to credits have been established by the operational suitability data in accordance with Commission Regulation (EU) No 748/2012 is included at ORO.FC.125 level, in consistency with the ORO.FC.140(a).

response Noted.
ORO.FC.125 refers to FCL which refers to OSD.
Moreover, ORO.FC.140(a) refers to OSD credit and this does not need to be duplicated in ORO.FC.125.

ORO.FC.126 Equipment and procedure training

p. 42

comment 102 comment by: DRF Luftrettung

COMMENT:
AMC 1 ORO.FC.125 explains the familiarisation and means introducing a significant change of equipment and/or procedures on types or variants currently operated.
This definition is more or less the same as the new definition in ORO.FC.126, with the exception of the word „significant “.

SUGGESTION:

We suggest adopting the AMC material in ORO.FC.125 and delete the word ,significant ‘. This will make a familiarisation or equipment training necessary, every time an equipment has changed.

response Noted.
The word ‘significant’ is not needed.
ORO.FC.126 is re-numbered ORO.FC.125(b). It applies only when additional knowledge is required.
If additional knowledge is required, the operator should use the ODR methodology defined in an AMC to this rule and classify differences levels in categories A to E. Training may vary from self-instruction and no checks for category A, to aircraft/FSTD training and checking for category E.

comment 115 comment by: UK CAA

Page No: 42

Paragraph No: ORO.FC.126 Equipment and procedure training



	<p>Comment: Although the term “equipment” was used in ORO.FC.125 and has been transposed into this new regulation, it is not clear what equipment is actually meant here. If left undefined, it could lead to confusion and a lack of coherence across operators and authorities. It is recommended that the types of equipment or intention is better explained or defined.</p> <p>Justification: Clarity and standardisation to prevent unintended interpretations and training.</p>
response	<p>Noted. A definition of ‘equipment’ is not needed. ORO.FC.126, re-numbered ORO.FC.125(b), applies only when additional knowledge is required. If additional knowledge is required, the operator should use the ODR methodology defined in an AMC to this rule and classify differences levels in categories A to E. Training may vary from self-instruction and no checks for category A, to aircraft/FSTD training and checking for category E. The methodology is sufficiently detailed. The risk of confusion and lack of coherence is low.</p>
comment	<p>149 comment by: <i>FNAM/SNEH</i></p> <p>This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points: What is meant by equipment (e.g. different brand of fire extinguisher)? We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots. We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.</p>
response	<p>Noted. A definition of ‘equipment’ is not needed. ORO.FC.126, re-numbered ORO.FC.125(b), applies only when additional knowledge is required. If additional knowledge is required, the operator should use the ODR methodology defined in an AMC to this rule and classify differences levels in categories A to E. Training may vary from self-instruction and no checks for category A, to aircraft/FSTD training and checking for category E. The methodology is sufficiently detailed. The risk of confusion and lack of coherence is low. Also, equipment and procedure training is a one-off training when the changes are implemented. The recurrent training and checking of differences and equipment remains unchanged and covered under ORO.FC.230, with an added reference to the ODR methodology.</p>
comment	<p>176 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:</p>

	<p>What is meant by equipment (e.g. different brand of fire extinguisher)? We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots. We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.</p>
response	<p>Noted. Please refer to the response to comment #149.</p>
comment	<p>203 comment by: <i>MBH SAMU</i></p>
	<p>This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points: What is meant by equipment (e.g. different brand of fire extinguisher)? We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots. We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.</p>
response	<p>Noted. Please refer to the response to comment #149.</p>
comment	<p>230 comment by: <i>SAF</i></p>
	<p>This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points: What is meant by equipment (e.g. different brand of fire extinguisher)? We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots. We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.</p>
response	<p>Noted. Please refer to the response to comment #149.</p>
comment	<p>268 comment by: <i>European Helicopter Association (EHA)</i></p>
	<p>This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points: What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)?</p>

We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?

response Noted.
Please refer to the response to comment #149.

comment 316 comment by: *Company*

Unclear: the requirements regarding the equipment should be more precise.

response Noted.
Please refer to the response to comment #115.

comment 364 comment by: *Helialpin AG*

This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:
What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)?

We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?

response Noted.
Please refer to the response to comment #149.

comment 404 comment by: *KMN*

This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:
What is meant by equipment (e.g. different brand of fire extinguisher, different types of

sling)?
 We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?

response Noted.
 Please refer to the response to comment #149.

comment 431 comment by: AIR ZERMATT AG

In general we agree that flight crew members must be trained for new equipment. Nevertheless, the choice of the format in order to provide an adequate training to ensure a safe operation shall be left to the operator. E. g. a simple self-study briefing must be sufficient for small changes. Briefings like that are being used already today.

response Noted.
 This is precisely what the proposal achieves. Thank you.

comment 466 comment by: Kusi

This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:
 What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)?
 We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?

response Noted.
 Please refer to the response to comment #149.

comment 515 comment by: Reto Ruesch



This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:
 What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)?
 We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?

response Noted.
 Please refer to the response to comment #149.

comment 545

comment by: *DHV e.V.*

This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:
 What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)?
 We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?

response Noted.
 Please refer to the response to comment #149.

comment 575

comment by: *AIRGREEN*

This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:



	<p>What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)?</p> <p>We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?</p>
response	<p>Noted.</p> <p>Please refer to the response to comment #149.</p>
comment	<p>597 comment by: AIRBUS</p> <p>Airbus agrees with the principle of differentiating equipment and procedure training vs. difference and familiarization training. Airbus recommends the introduction of this terminology and these principles in the CS-FCD.</p> <p><u>Justification:</u> Consistency between Air-OPS and CS-FCD.</p>
response	<p>Noted.</p> <p>CS-FCD is not within the scope of this rulemaking task. Moreover, consistency is not the objective, because the scope of CS-FCD and the the scope of the Air OPS Regulation are distinct:</p> <p>Equipment training may cover variations in equipment, including uninstalled equipment, which are not within the scope of CS-FCD.</p> <p>Procedure training may include training towards specialised operations, which are not within the scope of CS-FCD.</p>
comment	<p>609 comment by: Air-Glaciers (pf)</p> <div style="border: 1px solid black; padding: 5px;"> <p>This article should indicate what is meant by equipment. Simple to use equipment like a new first aid kit should not fall under this category. Only more complex equipment like new radios, GPS receiver need to have a structured introduction. Please clarify the following points:</p> <p>What is meant by equipment (e.g. different brand of fire extinguisher, different types of sling)?</p> <p>We agree that this should be left to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field. This should not lead to undue burdens for training for the operator (e.g. organize classroom course vs. individual introduction on site with individual pilots). We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking. How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment? How can we ensure a level playing field for cross border operations?</p> </div>

response Noted.
Please refer to the response to comment #149.

ORO.FC.130 Recurrent training and checking

p. 42

comment 17 comment by: LBA

response Noted.

comment 20 comment by: German Business Aviation Association e.V.

German Business Aviation Association e.V is commenting as follows:

Comment:

We identified ORO.FC.130 (a) (2) (iii) (C)

(iii) Every year the emergency and safety equipment training programme should include the following:

(C) actual handling of fire extinguishers of the type used;

to be more restrictive than the correlated CAT prescription ORO.FC.230 (a), (2) (ii), that provides a relieve for the Halon environmental issue and for the actual use of the equipment to a less frequent schedule in sub paragraph (iii).

(iii) (iii) Every 3 years the programme of training should include the following:

(C) actual fire-fighting using equipment representative of that carried in the aircraft on an actual or simulated fire except that, with Halon extinguishers, an alternative extinguisher may be used;

it is therefore suggested that ORO.FC.130 (a) (2) is amended with a sub-paragraph (iv) with the text of ORO.FC.230 (a) (2) (iii) (C).

Justification:

To avoid ORO.FC.130 (a) (2) to be more restrictive than ORO.FC.230 (a) (2) and to clarify that handling does exclude the activation of the fire extinguisher and the release of the extinguishing agent.

response Noted.
In AMC1 ORO.FC.230, point (a)(2)(ii)(C), it is obvious that 'actual handling of fire extinguishers' is required every year and is not the same as 'actual firefighting', which is covered on a 3-year cycle under (a)(2)(iii)(C).



In AMC1 ORO.FC.130, it is obvious that ‘actual handling of fire extinguishers’ is the same wording and the same meaning as under AMC1 ORO.FC.230, and therefore different from ‘actual firefighting’.

comment

31

comment by: DGAC FR (Mireille Chabroux)

The terms “line check” or “line operations” are not adapted to SPO or NCC operations.

PROPOSAL

DGAC suggests to replace “line check” by “a check covering the relevant aspects associated with "the operator specific activities" throughout ORO.FC

response

Partially accepted.

‘Line check’ is required only for CAT and is optional for NCC and SPO. It is now defined in Annex I (Part-Definitions) for clarity.

The term ‘line check’ is useful in ORO.FC.145 and ORO.FC.146.

comment

32

comment by: DGAC FR (Mireille Chabroux)

DGAC FR proposes to require one check at least every year.

The proposal is to change “periodically” by “at least annually”

DGAC FR proposes to rewrite paragraph b) (see below)

PROPOSAL

b)

Each flight crew member shall be annually checked as follows :

. - operator proficiency checks to demonstrate competence in carrying out normal, abnormal and emergency procedures, including :

· _____ The content of the Licensing Proficiency Check (as required by Annex I (Part-FCL) to Regulation (EU) No 1178/2011)

· _____ ground check to demonstrate knowledge of abnormal and emergency procedures specific to the operation

- a check covering the relevant aspects associated with the operator specific activities to demonstrate competence in carrying out normal procedures in operation".

~~Periodic checks shall include operator proficiency checks to demonstrate competence in carrying out normal, abnormal and emergency procedures, and may include line checks to demonstrate competence in carrying out normal line operations described in the operations manual~~



response

Partially accepted.
 'Periodically' varies with the kinds of operations.
 'Periodically' is defined in CAT.OP.MPA.230 for CAT.
 It is defined as 'annually' in AMC1 ORO.FC.130 for NCC.
 'At least annually' is introduced in AMC1 ORO.FC.330 for SPO.

comment

78 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

NPA Number: NPA 2019-08

Author: The Swedish Transport Agency (STA)

Section:3.3

Page: 42

Relevant Text:

New proposed text in ORO.FC.130 (b).

Comment: Delete "may" and replace with "as applicable" in order not to confuse with text on mandatory line-checks in ORO.FC.230 (c).

Rationale:

Clarification

Proposal:

"and ~~may~~ include line checks as applicable to demonstrate competence in carrying out normal line operations described in the operations manual.

response

Partially accepted.
 Definitions of line checks and operator proficiency checks are moved to the definitions sections to avoid confusion.

comment

116

comment by: *UK CAA*

Page No: 42

Paragraph No: ORO.FC.130 Recurrent training and checking, subparagraph (b)

Comment: Sub-paragraph (b) has been amended to extend the scope of periodic checks and says that "Line Checks may be included." For a regulation this needs to be more direct and it is recommended that the text is changed as shown below.

Justification: Correct use of definitive requirements in regulations

Proposed Text:



(b) Each flight crew member shall be periodically checked. Periodic checks shall include operator proficiency checks to demonstrate competence in carrying out normal, abnormal and emergency procedures, and may include line checks to demonstrate competence in carrying out normal line operations described in the operations manual.

response

Noted.

The intent is not to require line checks from NCC or SPO operators.

comment

177

comment by: *Oya Vendée Hélicoptères*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work.

response

Noted.

The intent is to demonstrate competence in normal, abnormal and emergency procedures. These are likely to include the use of PEDs and radios.

Line checks are indeed not required in SPO. The definition is moved to Annex I (Part-Definitions) for clarity. Line checks remain optional under SPO or NCC.

comment

204

comment by: *MBH SAMU*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work.

response

Noted.

Please refer to the response to comment #177.

comment

231

comment by: *SAF*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work.

response

Noted.

Please refer to the response to comment #177.

comment

269

comment by: *European Helicopter Association (EHA)*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and



checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

response Partially accepted.
The R44 is introduced in the list in AMC1 FCL.740.H.
All other equipment: Noted. The intent is to demonstrate competence in normal, abnormal and emergency procedures. These are likely to include the use of PEDs and radios.
Line checks are indeed not required in SPO. The definition is moved to Annex I (Part-Definitions) for clarity. Line checks remain optional under SPO or NCC.
As described in ORO.FC.140(c), certain elements of the SPO OPC that are related to a specialised operation and that are not type-specific can be credited across types. Thank you for supporting the NPA.

comment 317 comment by: *Company*
Most operators are performing with the same pilots CAT and SPO, even training (ATO). Content of training and checking which is similar should be credited towards the other kind of operation and vice versa. The R44 should also be a part of the list (AMC1 FCL.740.H(a)(3)).

response Partially accepted.
The R44 is introduced in the list in AMC1 FCL.740.H.
As defined under AMC1 ORO.FC. 330, point (j), the cross-crediting of CAT and SPO training and checking is possible when relevant. Thank you for supporting the NPA.

comment 339 comment by: *Helialpin AG*

Please clarify the following points associated with the content of this article:
What is a similar specialized operation? It should be that operations that use similar procedures to fulfill various tasks be seen as one operation. This could be either (1) to perform the task from the cabin (e.g. fotoflight), (2) to have a sling attached, (3) to have some equipment attached to helicopter leading to a significant change in aerodynamic qualities (e.g. boom) or (4) to pull a load in contact with the ground or water. No further differentiations should be made.
We suggest that as a basic principle, if the SOP and related training and checking can be standardized between different operators, cross crediting of training and checking should be possible.
This will ease mobility of pilots and ground crew based on the basic european principle freedom of movement. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
What would be considered as procedures that is specific to the operator?
Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?



response

Noted.

With regard to similar specialised operations: The NPA proposes to rely on operator risk assessments. Your description might be the starting point of your risk assessment.

With regard to the acceptance of previous training and checking:

Under NCC: AMC1 ORO.FC.145 describes the available options. The concept is extended to non-commercial SPO with complex aircraft.

Under commercial SPO or CAT: If all conditions are met, the rule does not prevent two operators from having the same SOPs on the same aircraft types, similar equipment, the same training and checking programmes with synchronised 3-year cycles and to nominate the same instructor. If this happens, then this person may be able to train and check a pilot on behalf of both operators at the same time.

Under SPO, two operators may have the same SOPs for the same specialised operation. However, business models and combinations of different kinds of specialised operations vary widely from one operator to the other. This means that the conclusions of the operator risk assessments, the training & checking needs, and the resulting training & checking syllabi are likely to be very different.

It must be emphasised that environmental conditions (mountains, offshore, etc) may significantly affect SOPs as well as training and checking programmes of otherwise quasi-identical operators.

comment

363

comment by: *Helialpin AG*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

response

Partially accepted.

Please refer to the responses to comments #269 and 317.

comment

385

comment by: *Andrew McKECHNIE***ORO.FC.130(b)**

Use of 'may' is inappropriate in the IR as it doesn't place any obligation on an operator to comply. If the intention is to mandate line checks for all operators, then 'may include' should be deleted.



The NPA proposes that non-commercial and specialised operators should conduct all of the same training and checking events as commercial air transport operators (OPC, Line check, ESET, CRM). If this is the intention, then the rule can use the same wording as ORO.FC.230. Any differences in the required content of the training checking events are described in AMC.

Proposal

ORO.FC.130

- Transpose the text of ORO.FC.230 to ORO.FC.230 amending the validity period of the operator's proficiency check (OPC) to twelve months.
- Replace ORO.FC.230 with the following "**For commercial Air Transport the validity period of the operator proficiency check shall be six months**".

response Partially accepted regarding the use of 'may'. Definitions of line checks and OPC are moved to the definition section.

comment 405

comment by: *KMN*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters.

response

Noted.

Please refer to the response to comment #177.

As described in ORO.FC.140(c), certain elements of the SPO OPC that are related to a specialised operation and that are not type-specific can be credited across types. Thank you for supporting the proposal.

comment 432

comment by: *AIR ZERMATT AG*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) is being trained and checked during SPO training. These trainings can be cross-credited to other types of helicopters.

OPCs for SPOs should not be considered if OPCs in another ops are already in place. Normal and abnormal operations are not significantly different between CAT and SPO. Hence one OPC every 6 months is sufficient for a safe operation as a whole. EASA still too much focuses



on the single types of operations instead of looking at an AOC holder as a whole. The main goal is a safe flight ops through well trained and checked flight crews. Hence it should be a top down approach meaning: 2 OPCs, 1 LPC and 1 Line Check per year are sufficient. For all ops conducted underneath that hood, cross crediting must be possible. More training & checking will lead to higher training & checking cost which then put even more pressure on AOC holders. That pressure is then forwarded to flight crews because more flight services must be sold over time. The produced stress leads to a bad corporate culture and a bad corporate culture will decrease the level of safety significantly.

response

Noted.

Please refer to the response to comment #177.

As described in ORO.FC.140(c), certain elements of the SPO OPC that are related to a specialised operation and that are not type-specific can be credited across types. Thank you for supporting the proposal.

As defined under AMC1 ORO.FC.330, point (j), the cross-crediting of CAT and SPO training and checking is possible when relevant. Thank you for supporting the proposal.

Whenever cross-crediting is not an option, specialised operation requires additional training and checking. In this case, 1 aircraft/FSTD training flight, 2 OPCs, 1LPC and 1 line check are no longer sufficient.

comment

467

comment by: Kusi

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

response

Partially accepted.

Please refer to the responses to comments #269 and 317.

comment

496

comment by: BCAA (OPS - Department SPO)

Why introduce line checks for specialised operations ?

questions from operators : *what would a line check for aerial work operations look like? How long would that check have to be (difference between a 3 Min rotation to a 2 hrs pipeline patrol mission)? Aerial work does not perform any line flying. What have been the reasons to introduce such a check? What is the underlying safety data that would require this introduction?*

response

Partially accepted.



Please refer to the responses to comments #116 and #78.

comment

517

comment by: *Reto Ruesch*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations, must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters.

response

Noted.
Please refer to the response to comment #405.

comment

521

comment by: *Valair AG Switzerland*

Legal Reference
ORO.FC.130 Recurrent training and checking

Comment

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above

response

Partially accepted.
Please refer to the responses to comments #269 and 317.

comment

522

comment by: *Star Work Sky S.a.s.*

Recurrent training for equipment and the addition of OPC and line check , potentially, in SPO operations will cause an high impact in cost and organisations.

response

ORO.FC.126 applies only when additional knowledge is required.
If additional knowledge is required, the operator should use the ODR methodology defined in an AMC to this rule and classify differences levels in categories A to E. Training may vary from self-instruction and no checks for category A, to aircraft/FSTD training and checking for category E.
The methodology is sufficiently detailed. The risk of confusion and lack of coherence is low.



Also, the ORO.FC.126 equipment and procedure training is a one-off training taking place when the changes are implemented.
The recurrent training and checking of differences and equipment remains unchanged and covered under ORO.FC.230, with an added reference to the ODR methodology.

comment

546

comment by: *DHV e.V.*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters.

response

Noted.
Please refer to the response to comment #405.

comment

610

comment by: *Air-Glaciers (pf)*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) may be checked during the OPC. These checks can be cross-credited to other types of helicopters. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

response

Partially accepted.
Please refer to the response to comment #269 and 317.

Explanatory note to ORO.FC.130

p. 42-43

comment

150

comment by: *FNAM/SNEH*

We understand relevant to the type meaning that any equipment that affects the handling of the helicopter and requires specific procedures during emergency operations must be trained. All other equipment like (PED) or use of radios is not included. The training and



response	<p>checking should cover flying relevant parts only. Line checks in SPO are not required. There is no definition for line flying in aerial work.</p> <p>Noted. Please refer to the response to comment #177.</p>
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ORO.FC.140 Operation on more than one type or variant

p. 43

comment	<p>33 comment by: DGAC FR (Mireille Chabroux)</p> <p>DGAC FR proposes to require that the operator proficiency checks shall be performed each time on a different type or variant.</p> <p>PROPOSAL</p> <p>(b) The operator may define groups of single-engined helicopter types. An operator proficiency check on one type shall be valid for all the other types within the group if both of the following conditions are met.</p> <p>(1) The group includes only single-engined turbine helicopters or only single-engined piston helicopters.</p> <p>(2) The operator proficiency check shall be performed on each time on a different type or variant.</p> <p>(3) For commercial air transport, at least two operator proficiency checks per type shall be conducted within a 3-year cycle.</p> <p>The new definition proposed above makes it possible to delete paragraph d)</p> <p>d) For operations on more than one helicopter type or variant that conduct sufficiently similar operations, if line checks alternate between types or variants, each line check shall revalidate the line check for the other helicopter types or variants</p>
response	<p>Not accepted.</p> <p>Point (b) is about OPCs. Point (d) is about line checks.</p> <p>For point (b), point (b)(2) of the NPA is preferred to the (b)(2) proposed by this comment for two reasons.</p> <ul style="list-style-type: none"> • Alternating between variants is desirable but should not be mandated. • For pilot flying two helicopter types and alternating LPC types in compliance with FCL, combining LPCs and OPCs in not compatible with alternating types for OPCs as shown below. <p style="margin-left: 40px;">step a: LPC&OPC type 1 step b: 6 months later OPC type 2 step c: 6 months later LPC type 2 (to alternate LPCs) AND OPC type 1 (to alternate OPCs) step d: 6 months later OPC type 2 step e: 6 months later, go to step a.</p>



comment	<p data-bbox="359 275 406 309">151</p> <p data-bbox="1145 275 1465 309" style="text-align: right;">comment by: <i>FNAM/SNEH</i></p> <p data-bbox="359 331 1471 824">We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
response	<p data-bbox="359 857 443 891">Noted.</p> <p data-bbox="359 891 1471 1104">With regard to operations on several types or variants: Thank you for supporting the proposal. With regard to the checking of single-pilot and multi-pilot operations: If the operator proficiency check takes place in multi-pilot operations, only a few additional manoeuvres are required in single-pilot operations to validate both. The concept is extended to Appendix 9 for licence proficiency checks. The cross-crediting of proficiency checks within a group is unaffected.</p>
comment	<p data-bbox="359 1171 406 1205">178</p> <p data-bbox="997 1171 1465 1205" style="text-align: right;">comment by: <i>Oya Vendée Hélicoptères</i></p> <p data-bbox="359 1227 1471 1720">We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
response	<p data-bbox="359 1753 443 1787">Noted.</p> <p data-bbox="359 1787 925 1821">Please refer to the response to comment #151.</p>
comment	<p data-bbox="359 1888 406 1921">205</p> <p data-bbox="1157 1888 1465 1921" style="text-align: right;">comment by: <i>MBH SAMU</i></p> <p data-bbox="359 1944 1471 2045">We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with</p>

elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed.

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response

Noted.
Please refer to the response to comment #151.

comment

232

comment by: SAF

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed.

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response

Noted.
Please refer to the response to comment #151.

comment

270

comment by: European Helicopter Association (EHA)

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.



response	<p>If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p> <p>Noted. Please refer to the response to comment #151.</p>
comment	<p>318 comment by: <i>Company</i></p> <p>It's quite according the AltMoC we already use. It's good to have the same content in the AMC. It should remain simple. Otherwise operators and pilots will be confused in regard to the required training and checking. AS350/EC130: What training for the different variants (B2, B3, B3e, EC130, EC130T2)?</p>
response	<p>Noted. Thank you. Training for variants are usually defined in OSD.</p>
comment	<p>362 comment by: <i>Helialpin AG</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.</p> <p>For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.</p> <p>If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p> </div>
response	<p>Noted. Please refer to the response to comment #151.</p>
comment	<p>406 comment by: <i>KMN</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being</p> </div>

performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response

Noted.
Please refer to the response to comment #151.

comment

433

comment by: AIR ZERMATT AG

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focuses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with one check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response

Noted.
Please refer to the response to comment #151.

comment

468

comment by: Kusi

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed.

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same



time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.
If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response Noted.
Please refer to the response to comment #151.

comment 498 comment by: BCAA (OPS - Department SPO)

point (d) : according to explanatory note, the only affected domain is CAT H. However, it is not specified in the text.

question from operators : *An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. Would it be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks?*

response Noted.
Point (d): Line checks are expected to impact CAT operators. NCC and SPO operators are not impacted unless they wish to implement line checks.
Question from operators: This is the intent of ORO.FC.140(c) and AMC1 ORO.FC.130&330. SPO OPCs can be split in two parts. One part focuses on the helicopter type and can be merged with the LPC. The other part focuses on specific elements in relation to the specialised operation and can be credited across types and group of types, as relevant. A risk assessment is needed to determine the relevance of the cross-crediting, or if specific training is required for a given specialised operation on a given type/variant.

comment 519 comment by: Reto Ruesch

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.
If a helicopter is also used in multi-pilot operations, only one of the checks has to be



performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response Noted.
Please refer to the response to comment #151.

comment 547

comment by: *DHV e.V.*

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.

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If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response Noted.
Please refer to the response to comment #151.

comment 564

comment by: *Airbus Helicopters*

ORO.FC.140 (c) is indicated to be applicable to Helicopters only in the explanatory notes but the requirement is written in a generic manner. EASA should confirm applicability.

response Noted.
Please refer to the response to comment #498 point (d).

comment 576

comment by: *AIRGREEN*

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.



For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response Noted.
Please refer to the response to comment #151.

comment 611

comment by: *Air-Glaciers (pf)*

We welcome this article and believe it is a great step in the direction of reducing complexity and thereby increasing safety. An OPC focusses on the mastery of the helicopter and the correct handling of emergencies. It must therefore be possible to extend an OPC with elements of aerial work and credit them for all other types so that it would no longer be necessary to perform other checks for the type of aerial work being performed. See attached document for cross crediting in a mixed operation of a smaller helicopter operator.

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If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response Noted.
Please refer to the response to comment #151.

comment 618

comment by: *Leonardo Helicopters ATO*

on point (d) we recommend to add the following concept;

credits for operations on more than one type or variant that are defined as similar or have a high level of commonality as defined in the OSD, shall be given for the purpose of providing alternate checks between the types and/or the variants.

response Partially accepted.
The NPA proposed that only OSD could allow the crediting of the line checks for IFR with complex helicopter types.
The proposal is amended so that only OSD can allow the crediting of the line checks for IFR.



ORO.FC.145 Provision of training and conduct of checking

p. 44-45

comment	5	comment by: FOCA
	<p>Proposal: (iv) "(...) flight instructor" instead of "instructor".</p>	
response	<p>Noted. Instructor means in this context FI, TRI, or SFI.</p>	
comment	11	comment by: Aliparma/FOPh
	<p>Point (iii) of ORO.FC.145 needs clear criteria for the suitability of the Line Training Commander by the Operator.</p> <p>Considering the purpose of line check (supervising normal operations only including Company SOPs), it is suggested to allow Line Check even by a Line Training Commander not holder of a current type rating (eg Chief Pilot / FOPh) if the following are met:</p> <ul style="list-style-type: none"> -Line Training Commander or TRI-E on another type within Operator fleet; -previous flight experience on the airplane type (more than 1000 hrs); -not seated in the cockpit as minimum crew; -trained on CRM skills assessment (NOTECHS); <p>This allows better supervision and standardization within small flight department.</p>	
response	<p>Thank you for answering the questions.</p> <p>Regarding line trainers/checkers without type ratings: Not accepted. A line training/checking commander needs to be a PIC/commander. As part of the flight crew, this person needs to be current. Even if the line check is conducted from an observer's seat on a non-commercial flight, a type rating with a good knowledge of the operator SOPs on the type are necessary to be able to assess the conduct of normal operating procedures. This requires a type rating and training on the operator's SOPs. For CAT operations, the criteria are defined in AMC1 ORO.FC.230.</p>	
comment	34	comment by: DGAC FR (Mireille Chabroux)
	<p>DGAC FR dissents with this proposal where training and checking for abnormal or emergency procedures would be conducted by a pilot who is not instructor (and not examiner).</p> <p>DGAC suggests to delete 2) ii) or to limit the possibility to conduct checks by a suitably qualified pilot-in-command only for the part of the check where no abnormal or emergency procedure are carried out.</p> <p>If this second option is chosen, (B) has to be deleted since helicopter operations addressed by ORO .FC.005(b)(2) fall within the scope of paragraph (c) (other than complex motor powered helicopters operated by day and with reference to visual landmarks)</p>	



response Partially accepted. The proposal is amended as suggested, using an equivalent wording proposed by the UK CAA.

comment 35 comment by: DGAC FR (Mireille Chabroux)

ORO.FC.145 (a)(2)(iii)

PROPOSAL

Replace “commander” by “pilot-in-command/commander”

response Accepted.

comment 36 comment by: DGAC FR (Mireille Chabroux)

ORO.FC.145 (a)(2)(iv)

Replace the sentence with “The operator shall keep a current list of the persons nominated under (ii) and (iii) above”.

PROPOSAL

(vi) The operator shall keep a current list of the persons nominated under (ii) and (iii) above. The operator shall inform the competent authority about the persons nominated under (ii) and (iii) above.

response Noted.
This would mean a difference to ICAO.

comment 37 comment by: DGAC FR (Mireille Chabroux)

ORO.FC.145 (a)(2) (5)

DGAC FR suggests to rephrase the sentence (it seems in contradiction with (ii)(B) and (ii)(C)) may be by adding “notwithstanding paragraph...”

DGAC does not see the reason for requiring an instructor only for helicopters and not for aeroplanes

response Accepted except for CAT A to A with non-complex aeroplanes.

comment 38 comment by: DGAC FR (Mireille Chabroux)



ORO.FC.145(b)

DGAC FR suggests to add “and checking”

PROPOSAL

(b) When establishing the training and the checking programmes and syllabi, the operator shall include the relevant elements defined

response Accepted.

comment

77

comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

NPA Number: NPA 2019-08

Author: The Swedish Transport Agency (STA)

Section: ORO.FC.145 (a)(2)(ii)

Page: 44

Relevant Text: (ii) By way of derogation from point (i), the aircraft/FSTD training and the operator proficiency check may be conducted by a suitably qualified pilot-incommand/commander nominated by the operator for any of the following operations:
 (A) specialised operations;
 (B) commercial air transport operations meeting the criteria defined in point ORO.FC.005(b)(2);
 (C) commercial air transport operations of other-than complex motor-powered helicopters by day and over routes navigated by reference to visual landmarks;
 (D) commercial air transport operations of performance class B aeroplanes.

Comment: The alleviations from requirement for examiner are cumbersome to interpret. Would it be possible to simplify?

Rationale:

Proposal:

For example, group (A) and (D) and state requirements. And then group (B) and (C) and state requirements

NPA Number: NPA 2019-08

Author: The Swedish Transport Agency (STA)

Section:3.3



Page: 45
Relevant Text: ORO.FC.145 (a)(2)(ii)(D)
Comment: Clarify the scope of operation eligible for an alleviation in relation to performance class B aeroplanes in the explanatory note. If you read the explanatory note the proposal covers only CAT A-A operations. Though it is clear that the proposed AMC-material cover more than A-A operations.
Rationale: Clarification
Proposal:

NPA Number: NPA 2019-08
Author: The Swedish Transport Agency (STA)
Section: 3.3
Page: 44
Relevant Text: ORO.FC.145 (a)(2)(iii)
Comment: This is not a new requirement. The current provisions in ORO.FC.230 (c)(2) already allow an operator to nominate a suitably qualified commander to perform a line check. See extract below. <i>“(2) Notwithstanding ORO.FC.145(a)(2), line checks may be conducted by a suitably qualified commander nominated by the operator, trained in CRM concepts and the assessment of CRM skills.”</i>
The substantial change is more of an editorial exercise where “notwithstanding” has been replaced by “by way of derogation”. Since the provisions in ORO.FC.145 (a)(2) are explained in a context of CAT A-A it creates confusion. STA accept that the text in ORO.FC.230 (c) (2) is moved to ORO.FC.145 (a)(2)(iii) without any substantial change.
Rationale:
Proposal:

NPA Number: NPA 2019-08
Author: The Swedish Transport Agency (STA)
Section: 3.3
Page: 45
Relevant Text: ORO.FC.145(a)(2)(vi) <i>(vi) The operator shall inform the competent authority about the persons nominated under (ii) and (iii) above.</i>



Comment: STA does not see the value added by imposing a requirement to inform the competent authority. The nomination process, qualification of a commander and training should be properly described in the operators OM-D with a list of such personnel.

Rationale:

Creates unnecessary administrative burden upon operators and authorities. Should be covered by the operators management of change processes OM-D.

Proposal:

Delete the proposed text.

NPA Number: NPA 2019-08

Author: The Swedish Transport Agency (STA)

Section: 3.3

Page: 45

Relevant Text: ORO.FC.145 (c)

Comment: The STA agrees with the text but a clarification in the rule or in corresponding AMC is necessary to make sure that the “means” per se shall not be approved e.g. a CBT. The “means” in such a case is part of the approved training program. Unless it is an FSTD, an approval process for every type of “means” to provide training will most likely create an unnecessary administrative burden. The corresponding AMC material only list training means that should be included in a training and checking program.

Proposal:

response

Partially accepted.

ORO.FC.145 (a)(2)(ii): accepted. The text is re-drafted for clarity.

ORO.FC.145 (a)(2)(ii)(D) and (a)(2)(iii): The text has been transferred from ORO.FC.230 to ORO.FC.145, extending its scope to SPO and CAT A to A. The change does not impact other CAT operators. Hence, the explanatory note.

ORO.FC.145(a)(2)(vi): Noted. This would mean a difference to ICAO.

Elements of ORO.FC.145 related to the personnel conducting training and checking are moved to a new point ORO.FC.146.

ORO.FC.145(d): Accepted. Qualification requirement taken out of ORO.FC.145(d) for other training solutions.

comment

103

comment by: DRF Luftrettung

Page 44

SECTION:

(ii) By way of derogation from point (i), the aircraft/FSTD training and the operator proficiency check may be conducted by a suitably qualified pilot-in command/ commander nominated by the operator for any of the following operations:

....



(B) commercial air transport operations meeting the criteria defined in point ORO.FC.005(b)(2);

(C) commercial air transport operations of other-than complex motor-powered helicopters by day and over routes navigated by reference to visual landmarks;

COMMENT:

ORO.FC.005(b)(2) is valid for non-complex single engine helicopter. To avoid cross checking with different chapters it would be better to specify, that point c) is valid for multi engine helicopters.

SUGGESTION:

Please change the wording to:

(C) commercial air transport operations of other-than complex motor-powered helicopters, multi engined, by day and over routes navigated by reference to visual landmarks;

Page 45

SECTION:

c) In the case of CAT operations, training and checking programmes, including syllabi and use of the training means to deliver the programme such as individual flight simulation training devices (FSTDs), and other training devices, shall be approved by the competent authority.

d)The Certification Specifications for Helicopter Flight Simulation Training Devices distinguishes between FFS, FSTD and OTD (other training devices).

COMMENT:

Regulation (EU) 1178/2011 ORA.FSTD.225 distinguishes between FFS, FSTD and FNPT. Only these Devices have to be approved.

According to the mentioned regulations OTD do not need any certification.

This is a completely new proposal, which leads to a high increase in authority requirements. Any AVT / ADT used would falls under the definition OTD and would have to be approved.

SUGGESTION:

We suggest to complete delete this new proposal and stick with the current implementation.

response

Partially accepted.

Page 44. (B) and (C) can overlap so that everyone benefits from the simplification.

Page 45. ORO.FC.145(c) is unchanged. Under CAT, it is the training programmes and syllabi, including any training means intended to be used, that already fall under the operator approval. It does not imply certification of the OTD. The new insertion allows for a greater use of OTDs.

ORO.FC.145(d) is amended: The qualification requirement is taken out of ORO.FC.145(d) for other training solutions.



comment	<p data-bbox="359 237 408 271">117</p> <p data-bbox="1206 237 1465 271" style="text-align: right;">comment by: UK CAA</p> <p data-bbox="359 297 647 331">Page No: 45</p> <p data-bbox="359 367 1471 439">Paragraph No: ORO.FC.145 Provision of training and conduct of checking, subparagraph 2 (v)</p> <p data-bbox="359 474 1471 792">Comment: The new text in subparagraph 2 (v) effectively reverts the ‘derogation’ under subparagraph 2 (ii) which provides for the OPCs for certain categories, including CAT helicopter operations at (ii) (B) and (C), to be conducted by a nominated PIC/commander, by requiring that person to be an instructor. It is understood what is intended here but we believe the construct is unclear and also leaves open the question as to what type of instructor is acceptable. For the absence of doubt, it is recommended that the text is changed to specify FI/TRI/SFI or the CAT section of AMC1 ORO.FC.145(a)(2)(ii) & (a)(2)(iii) could be amended to accommodate the instructor requirements and the title changed to add relevance to sub-paragraph 2 (v).</p> <p data-bbox="359 828 1471 900">Justification: Clarity of requirement and ensuring that an instructor with a rating is employed.</p> <p data-bbox="359 936 547 969">Proposed Text:</p> <p data-bbox="359 1005 1471 1115">(v) For commercial air transport operations of helicopters, the person nominated under (ii) shall be an instructor a FI/TRI/SFI. Or see suggestion for AMC.</p>
response	Accepted.
comment	<p data-bbox="359 1232 408 1265">130</p> <p data-bbox="1078 1232 1465 1265" style="text-align: right;">comment by: Airbus Helicopters</p> <p data-bbox="359 1292 1471 1431">Part FCL (Appendix 9) doesn’t mention use of OTD for helicopters while it is clearly specified for airplanes. In addition, use of OTDs in training is now considered as a lever to enhance aviation safety. Airbus Helicopters requests that this discrepancy between h/c and airplanes should be corrected in the next Part FCL amendment.</p>
response	Noted. Deferred to another RMT.
comment	<p data-bbox="359 1581 408 1615">152</p> <p data-bbox="1144 1581 1465 1615" style="text-align: right;">comment by: FNAM/SNEH</p> <p data-bbox="359 1641 979 1675">There are two areas that we would like to highlight:</p> <ol data-bbox="359 1680 1190 1751" style="list-style-type: none"> 1. Use of simulators: 2. Checking during OPC and Line Check by an experience commander <p data-bbox="359 1756 1471 2036">Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot</p>

need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?

Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible. The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII?

We welcome the inclusion of OTD very much. We would like clarification on:

How are other training devices certified? What credits are given for what level of fidelity?

Re 2: It is currently possible to perform OPC and line checks with qualified commanders. This provision should be kept. What are the reasons to limit the amount of checking to be limited?

A commander with 10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperience pilot took the OPC?

What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required.

We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the

following flight experience: more than 750 hours total flight time with at least 50 hours on the type, class or

the aircraft variant"

Would it be possible to reduce the MOPSC of a twin engine helicopter voluntarily to 5 in order to comply with this new requirement? Would it be possible to perform an MET OPC single pilot IFR check with a qualified commander?

ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.

What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

What is the exact definition of "available" for FSTD ?

response

Partially accepted.

Simulators and EBT: This NPA introduces a number of EBT concepts in the rules, for those who do not meet the prerequisites for EBT.

FNPTs can only be used for what they are good for and this does not include the CAT operator proficiency check.

The requirement for the qualification of OTDs was removed.

For CAT operations, the availability and accessibility of a FSTD are defined under AMC1 ORO.FC.230 (d)(5).

Line checkers and OPC checkers. Noted. The option remains for the line check, for aeroplanes and for the part of the SPO OPC dealing with specialised operations. On a helicopter, elements of training and checking such as autorotation training and hydraulic failure training generate an unnecessary number of accidents. They require an instructor who will gather experience and maintain sufficient recent experience of these manoeuvres.



The MOPSC can be lower than maximum certified value. See the unchanged Annex I Definitions.

comment

179

comment by: *Oya Vendée Hélicoptères*

There are two areas that we would like to highlight:

1. Use of simulators:

2. Checking during OPC and Line Check by an experience commander

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

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What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required.

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the aircraft variant"

Would it be possible to reduce the MOPSC of a twin engine helicopter voluntarily to 5 in order to comply with this new requirement? Would it be possible to perform an MET OPC single pilot IFR check with a qualified commander?

ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.



	<p>What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)? What is the exact definition of "available" for FSTD ?</p>
response	<p>Partially accepted. Please refer to the response to comment #152.</p>
comment	<p>206 comment by: MBH SAMU</p> <p>There are two areas that we would like to highlight:</p> <ol style="list-style-type: none"> 1. Use of simulators: 2. Checking during OPC and Line Check by an experience commander <p>Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators. Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation? Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible. The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII? We welcome the inclusion of OTD very much. We would like clarification on: How are other training devices certified? What credits are given for what level of fidelity? Re 2: It is currently possible to perform OPC and line checks with qualified commanders. This provision should be kept. What are the reasons to limit the amount of checking to be limited? A commander with 10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperience pilot took the OPC? What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required. We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the following flight experience: more than 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant" Would it be possible to reduce the MOPSC of a twin engine helicopter voluntarily to 5 in order to comply with this new requirement? Would it be possible to perform an MET OPC single pilot IFR check with a qualified commander?</p>



	<p>ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.</p> <p>What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?</p> <p>What is the exact definition of "available" for FSTD ?</p>
response	<p>Partially accepted.</p> <p>Please refer to the response to comment #152.</p>

comment	<p>233 comment by: SAF</p> <p>There are two areas that we would like to highlight:</p> <ol style="list-style-type: none"> 1. Use of simulators: 2. Checking during OPC and Line Check by an experience commander <p>Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.</p> <p>Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?</p> <p>Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible. The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII?</p> <p>We welcome the inclusion of OTD very much. We would like clarification on: How are other training devices certified? What credits are given for what level of fidelity?</p> <p>Re 2: It is currently possible to perform OPC and line checks with qualified commanders. This provision should be kept. What are the reasons to limit the amount of checking to be limited? A commander with 10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperience pilot took the OPC?</p> <p>What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required.</p> <p>We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the following flight experience: more than 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant"</p>
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response	<p>Partially accepted.</p> <p>Please refer to the response to comment #152.</p>

comment	<p>273 comment by: <i>European Helicopter Association (EHA)</i></p> <p>There are two areas that we would like to highlight:</p> <ol style="list-style-type: none"> 1. Use of simulators: 2. Checking during OPC and Line Check by an experience commander <p>Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators. Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?</p> <p>Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible. The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII?</p> <p>We welcome the inclusion of OTD very much. We would like clarification on:</p> <p>How are other training devices certified? What credits are given for what level of fidelity?</p> <p>Re 2: It is currently possible to perform OPC and line checks with qualified commanders. This provision should be kept. What are the reasons to limit the amount of checking to be limited? A commander with 10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperience pilot took the OPC?</p> <p>What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required.</p> <p>We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the</p>
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following flight experience: more than 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant"

Would it be possible to reduce the MOPSC of a twin engine helicopter voluntarily to 5 in order to comply with this new requirement? Would it be possible to perform an MET OPC single pilot IFR check with a qualified commander?

ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.

What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

response Partially accepted.
Please refer to the response to comment #152.

comment 319 comment by: *Company*

Regarding simulators (FSTD) the rule should differentiate between single- and multi-engined helicopters. For a single-engined helicopter an FFS will be never an alternative, because the simulator is more expensive than the real helicopter. Therefore, other (simpler) requirements should be defined for new simulation technology (e.g. VR). To force pilots to fly from Europe to the US or even within Europe (Switzerland to Norway) to gain access to is simulator won't be accepted by the society (climat debate). We have to find more sustainable (economical and environmental friendly) solutions.

response Noted.
FSTD does not include only FFS, and may include new simulation technology. New training devices used for 'knowledge' are introduced under 'other training solutions'.

comment 361 comment by: *Helialpin AG*

There are two areas that we would like to highlight:

1. Use of simulators:
2. Checking during OPC and Line Check by an experience commander

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?

Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible. The current set of rules is still in place. When referring to (d) and (e), will it possible to



perform training and checking in an FNPTII?
 We welcome the inclusion of OTD very much. We would like clarification on:
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 This provision should be kept. What are the reasons to limit the amount of checking to be limited? A commander with 10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperienced pilot took the OPC?
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 What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

response Partially accepted.
 Please refer to the response to comment #152.

comment 386 comment by: Andrew McKECHNIE

ORO.FC.145(c): 'other training devices'.
 The proposal would require use of 'other training devices' to be approved by the competent authority. The intention is to encourage innovation in the development and use of new training devices and techniques. The effect may be the opposite. The delay, expense and administration involved in obtaining approval from the competent authority may discourage operators from implementing or trialling new training means. It may also lead to a situation where crew are provided with complementary training, not described in the operations manual, in addition to the approved training programme.

Proposal
 Retain the current wording of ORO.FC.145(c)

response Noted.



Under CAT, training programmes and syllabi, including any training means, already fall under the ORO.FC.145 approval. The new insertion allows for a greater use of OTDs and other training tools. This is the same approach as in ATOs.
ORO.FC.145(d) is amended so that 'other training solutions' need not be 'qualified'.

comment

387

comment by: Andrew McKECHNIE

ORO.FC.145(d): 'other training devices'

The proposed text would require 'other training devices' (OTD) to be qualified in accordance with Regulation (EU) No 1178/2011 (the 'Aircrew Regulation'), whereas there is no provision in the Aircrew Regulation for qualification of OTD.

Proposal

Replace ORO.FC.145(d) with the following

FSTDs used to meet the requirements of this Subpart shall be qualified in accordance with Regulation (EU) No 1178/2011 and replicate the aircraft used by the operator, as far as practicable. Differences between the FSTD and the aircraft shall be described and addressed through a briefing or training, as appropriate."

response

Accepted.

comment

407

comment by: KMN

There are two areas that we would like to highlight:

1. Use of simulators:
2. Checking during OPC and Line Check by an experience commander

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?

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How are other training devices certified? What credits are given for what level of fidelity?

ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.



What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

response Partially accepted.
Please refer to the response to comment #152.

comment 434

comment by: AIR ZERMATT AG

There are two areas that we would like to highlight:

1. Use of simulators;
2. Amount of training & checking;

Re 1: Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. Most of the simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Due to the delayed projection of the scenery image and control inputs, critical maneuvers must not be trained in the simulator, since trainees could train a wrong behavior on the controls. We propose to abandon the proposal for non-complex helicopters, hence the simulator should not be mandatory. For complex helicopters once every 12 months is sufficient.

Re 2: Training & checking is important and we would never question that. The problem is that for companies conducting CAT, SPO, etc. training & checking beats up a lot of resources. Currently working at profit margins of around 5%, this puts a lot of pressure on managements, they move the pressure on to flight crews and putting flight crews under pressure in order to increase turnover to cover the additional expenses will produce a dangerous environment. Therefore we suggest that the following is taken as a framework and all training & checking is included in the framework: 2 OPCs, 1 LPC and 1 Line Check per year are sufficient. For all ops conducted underneath that hood, cross crediting must be possible. CAT is e.g counted as a base ops and the differences to SPO are trained in the SPO part. In case of SPOs, they can be clustered into three groups:

1. SPO in the cabin
2. HESLO
3. HEC

We propose that in a 3-year cycle all groups need to be covered, specifically the one which was the least conducted ops shall be trained and checked. Like that training & checking is practicable and adds value to a pilot's career.

response Partially accepted.
Re 1 : Please refer to the response to comment #152.
Re 2: As described in ORO.FC.140(c), certain elements of the SPO OPC that are related to a specialised operation and that are not type-specific can be credited across types. Thank you for supporting the proposal.
As defined under AMC1 ORO.FC.330, point (j), the cross-crediting of CAT and SPO training and checking is possible when relevant. Thank you for supporting the proposal.



Whenever cross-crediting is not an option, specialised operation requires additional training and checking. In this case, 1 aircraft/FSTD training flight, 2 OPCs, 1LPC and 1 line check are no longer sufficient.

The proposal includes the option for operators to conduct a risk assessment and establish a SPO training and checking programme on a 3-year cycle. Thank you for supporting the proposal.

comment 469

comment by: Kusi

There are two areas that we would like to highlight:

1. Use of simulators:

2. Checking during OPC and Line Check by an experience commander

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL.

There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?

Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible.

The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII?

We welcome the inclusion of OTD very much. We would like clarification on:

How are other training devices certified? What credits are given for what level of fidelity?

Re 2: It is currently possible to perform OPC and line checks with qualified commanders.

This provision should be kept. What are the reasons to limit the amount of checking to be limited? A commander with 10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperience pilot took the OPC?

What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required.

We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the following flight experience: more than 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant"

Would it be possible to reduce the MOPSC of a twin engine helicopter voluntarily to 5 in



order to comply with this new requirement? Would it be possible to perform an MET OPC single pilot IFR check with a qualified commander?
 ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.
 What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

response Partially accepted.
 Please refer to the response to comment #152.

comment 500 comment by: *BCAA (OPS - Department SPO)*

The BCAA's SPO Department fully supports a relaxation of current requirements (as interpreted by EASA) for SPO domain.

response Noted.
 Thank you.

comment 524 comment by: *Reto Ruesch*

There are two areas that we would like to highlight:

1. Use of simulators:
2. Checking during OPC and Line Check by an experience commander.

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators do not provid sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This is leading to the situation that a pilot needs to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators. Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?
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What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

response Partially accepted.
Please refer to the response to comment #152.

comment 548

comment by: DHV e.V.

There are two areas that we would like to highlight:

1. Use of simulators:

2. Checking during OPC and Line Check by an experience commander

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL.

There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?

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The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII?

We welcome the inclusion of OTD very much. We would like clarification on:



How are other training devices certified? What credits are given for what level of fidelity?

ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.

What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

response Partially accepted.
Please refer to the response to comment #152.

comment 577

comment by: AIRGREEN

There are two areas that we would like to highlight:

1. Use of simulators:

2. Checking during OPC and Line Check by an experience commander

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

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What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

response

Partially accepted.
Please refer to the response to comment #152.

comment

612

comment by: *Air-Glaciers (pf)*

There are two areas that we would like to highlight:

1. Use of simulators:
2. Checking during OPC and Line Check by an experience commander

Re 1. Currently there are only very few SE simulators available. This is understandable given the high requirements for producing a simulator that can provide credits for training and checking for CAT and SPO operators. One significant problem with simulators is the fidelity of the simulator and the visibility from the simulator during the last 20 ft AGL. There most simulators are not providing sufficient fidelity to really train all the visual and sensory cues required for correct training and checking. Evidence based training currently is only achievable with simulators. The limitation that a simulator has to be used if it is available would be waived for non-complex helicopters. This could lead to the situation that a pilot need to fly to the OEM overseas for an OPC every six months if he only uses one type. The costs associated with this requirement are too burdensome for small operators.

Given the limited number of simulators in operation and expected to be constructed, EBT is not an option for the majority of operators with SE helicopters. How has this been taken into consideration when developing this regulation?

Currently the CS-FSTD-H Specifications require a very high level of fidelity to be approved in as an FTD where first credits for training and checking in CAT operations are possible. The current set of rules is still in place. When referring to (d) and (e), will it possible to perform training and checking in an FNPTII?

We welcome the inclusion of OTD very much. We would like clarification on:

How are other training devices certified? What credits are given for what level of fidelity?

Re 2: It is currently possible to perform OPC and line checks with qualified commanders. This provision should be kept. What are the reasons to limit the amount of checking to be limited? A commander with 10'000hrs experience may be able to perform a better OPC than a 250 hrs. FI. Are there any accidents that had as root cause that an inexperience pilot took the OPC?

What exactly does qualified in accordance with Annex I mean? Some countries interpret it to mean that only an EASA license holder at the level CPL and higher will be permitted to perform these checks. ICAO licenses are not sufficient. It does not say that an instructor or examiner license is required.



We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the following flight experience: more than 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant"

Would it be possible to reduce the MOPSC of a twin engine helicopter voluntarily to 5 in order to comply with this new requirement? Would it be possible to perform an MET OPC single pilot IFR check with a qualified commander?

ORO.FC.005 (b)(2) means other-than-complex motor-powered helicopters, single-engine, with an MOPSC of 5 or less.

What are the safety relevant data for the limitation under (v)? How is this article to be understood vs the exceptions given under (ii) (B) and (C)?

response Partially accepted.
Please refer to the response to comment #152.

comment 627 comment by: *Leonardo Helicopters ATO*
a) (1) followings the word Operator, the word ATO shall be added hence allowing the operators to outsource such training to ATOs

response Noted.
Operators may outsource training to ATOs or other operators or organisations under ORO.GEN.110. An ATO operating under NCC or as a sub-contractor to the operator is referred to as the operator.

comment 635 comment by: *Leonardo Helicopters ATO*
a) (3)
the option for an Operator to outsource EBT to an ATO shall be clearly stated, hence allowing smaller operator to share data with ATO and have access to an accessible and standardized EBT rather than being forced to establish their own from scratch.

response Noted.
Operators may outsource training to ATOs or other operators or organisations under ORO.GEN.110. An ATO operating under NCC or as a sub-contractor to the operator is referred to as the operator.

Explanatory note to ORO.FC.145 Provision of training and conduct p. 45-46

comment 526 comment by: *Reto Ruesch*



We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.

response Noted.

ORO.FC.202 Single-pilot operations under IFR or at night

p. 47

comment 81 comment by: DGAC FR (Mireille Chabroux)

PROPOSAL

In order to be able to fly under IFR or at night with a minimum flight crew of one pilot, as foreseen in ORO.FC.200(c)(2) and (d)(2), the following shall be complied with:

response Accepted.
(d)(2) has been deleted. (d) now refers to multi-pilot operations only. The part of the sentence introduced by 'as foreseen by' is unnecessary.

ORO.FC.220 Operator conversion training and checking

p. 48

comment 12 comment by: Aliparma/FOPh

point (e) needs further considerations for the employment of external Line Training Commander, when applying for a new aircraft type.

response Noted.
Line training commanders need to be commanders, and therefore they cannot be external.

comment 39 comment by: DGAC FR (Mireille Chabroux)

PROPOSAL

DGAC suggests to change the wording:

"By way of derogation from point (d), if the operator has an operational need of limited duration such as applying for a new AOC or aircraft type, the operator may propose submit to the authority a reduced conversion course for a limited number of pilots.



response Accepted.

comment 43 comment by: DGAC FR (Mireille Chabroux)
 paragraph e) seems to be a derogation from point c) and not from point d)

PROPOSAL

By way of derogation from point ~~(d)~~ (c), if the operator has an operational need of limited duration such as applying for a new AOC or aircraft type, the operator may propose a reduced conversion course for a limited number of pilots.

response Not accepted.
 The intent is to allow OCCs to not include OPCs, LIFUS and LCs, when OPC checkers and line training & checking commanders are not available; for example, when applying for a new AOC or when introducing a new aircraft type. (c) does not need a derogation.

comment 118 comment by: UK CAA

Page No: 48

Paragraph No: ORO.FC.220 Operator conversion training and checking,(e)

Comment: Subparagraph (e) has been introduced as a derogation from point (d) but included that “the operator may propose a reduced ...” For a regulation this needs to be more direct and it is recommended that the text is changed to ‘shall’ as shown below.

Additionally, the Explanatory Note asks: “Stakeholders are invited to comment on the need to develop such AMC” and the UK CAA agrees that it should be developed.

Justification: Correct use of definitive requirements in regulations

Proposed Text:

(e) By way of derogation from point (d), if the operator has an operational need of limited duration such as applying for a new AOC or aircraft type, the operator ~~may~~ **shall** propose a reduced conversion course for a limited number of pilots.

response Noted.
 The operator shall never be compelled to request a derogation.

comment 388 comment by: Andrew McKECHNIE

ORO.FC.220(e): 'reduced conversion course'



The intention to alleviate requirements for a new AOC or introduction of a new aircraft type is valid, but the provision is unnecessary.

Under the current rule it is for the operator to determine training required for each pilot during the OCC based on the pilots' previous training and experience [ORO.FC.220(c)]. An operator applying for an AOC or introducing a new aircraft type may therefore propose a 'reduced' conversion course provided that this is justified based on the training and experience of the pilots.

Under the current rule NP Crew Training may apply different criteria for the first crews to be qualified for a new operation compared to those described in the operations manual for 'routine' LIFUS/line checks. LIFUS and line checks for these crew will be on non-commercial flights (the crew and operator are not, at this stage qualified to operate CAT) and must be supervised or conducted by suitably qualified commanders nominated by the operator. The NP crew training must decide which qualifications are suitable. He/she could conduct these line checks him/herself, nominate an 'external' type-rated pilot or another pilot with specific knowledge of the operational environment. The competent authority must be informed about the persons nominated [AMC1 ORO.FC.230(b)(3)(v)] so has the opportunity to examine the training and qualifications of the person nominated before the event [ORO.FC.200(a)(4)]. An AOC application or addition of an aircraft type are both major changes requiring the prior approval of the Authority [ORO.GEN.130] and a formal change management process [AMC1 ORO.GEN.200(a)(3)]. The Authority therefore has full visibility of the process. In the case of a 'small airline that faces the situation of having all their experienced crew leave at the same time' the same arrangements could apply.

It is not necessary to amend the rule or issue exemptions and there is no justification to do so. As it appears that the current rules are not well understood, it may be helpful to include GM explaining that LIFUS/Line check for 'new operations' may be conducted on non-commercial flights but that exemptions from the rule will rarely be required.

Proposal:

Delete the proposed item (e) of ORO.FC.220

response

Not accepted.

(c) allows operators to tailor the OCC to the pilot's experience, but (d) always requires an OPC, LIFUS and a line check under the conduct of a 'suitably qualified commander nominated by the operator'. In order to apply for a new AOC or to introduce a new aircraft type, derogations need to be provided under (e).

comment

523

comment by: *Valair AG Switzerland*

Legal Reference

AMC3 ORO.FC.220 & 230 Operator conversion training and checking & recurrent training and checking

Comment

The effort for training and checking will be excessive without safety benefit.

The costs for the operator increase enormously and become unbearable.

The helicopter operator comes under financial pressure.

The operator must absorb the cost pressure, which puts more pressure on the flight operation. More pressure in flight operations means a safety risk and accidents will increase.



	<u>Exactly the opposite will be the result.</u>
response	Partially accepted. Only the relevant feedback needs to be included in training. This acknowledges that in many cases the feedback received will not impact the training programmes. The following also ensures that the AMC is very proportionate: The smaller the operator, the smaller the input from the management system should be.
comment	639 comment by: <i>Leonardo Helicopters ATO</i> The provision (especially to the benefit of smaller operator) to outsource such training to ATOs (even in case that the said ATO do not have an AOC), shall be clearly stated so that Operators and ATO can share data and ensure the sustainability and standardization of an OCC.
response	Not accepted. Please also refer to the responses to comments #627 and 635.

Explanatory note to ORO.FC.220	p. 48
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comment	527 comment by: <i>Reto Ruesch</i> In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?
response	Noted. Please refer to the response to comment #165.

ORO.FC.230 Recurrent training and checking	p. 48-50
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comment	13 comment by: <i>Aliparma/FOPh</i> point B (1) meaning of "normal crew complement": Small operators in order to guarantee the airplane operations may have problems to schedule FSTD training/checking for two crewmembers together. They usually train/check 1 pilot at a time, paired with pilots of other Operators as managed by the FSTD ATO (eg. FSI or CAE).
response	Not accepted. A normal crew complement is already required by ORO.FC.230. It means single-pilot in single-pilot operations, and multi-pilot (all pilots of the same operator as in normal operations) in multi-pilot operations. The described pairing is not possible in CAT, with or without the changes proposed by the NPA. For NCC operators, it would only work under the conditions defined in the new AMC1 ORO.FC.145.



comment	<p>44 comment by: DGAC FR (Mireille Chabroux)</p> <p>Paragraph e) gives details on CRM. These elements are already in ORO.FC.115. In the same way the "3 year period" is already in AMC 1 ORO.FC.115</p>
response	Accepted.
comment	<p>52 comment by: DGAC FR (Mireille Chabroux)</p> <p>In paragraphs e) and f), the sentence "The period shall be counted from the end of the month when the training was taken." has been added.</p> <p>DGAC believes that it should be deleted. The sentences add confusion and contradict the principle of the 3 months window.</p> <p>(e)(2) Each flight crew member shall undergo specific modular CRM training. All major topics of CRM training shall be covered by distributing modular training sessions as evenly as possible over each three-year 3-year period. The period shall be counted from the end of the month when the training was taken.</p> <p>(f) Each flight crew member shall undergo ground training and flight training in an FSTD or an aircraft, or a combination of FSTD and aircraft training, at least every 12 calendar months. The period shall be counted from the end of the month when the training was taken.</p>
response	<p>Accepted.</p> <p>The 3-month revalidation window is better defined in AMC. It is now defined once in an AMC to ORO.FC.145 for all revalidation periods defined in Subpart ORO-FC.</p>
comment	<p>104 comment by: DRF Luftrettung</p> <p><u>Page 48</u></p> <p>SECTION / NPA- STATEMENT:</p> <p>a) Each flight crew member shall complete recurrent training and checking relevant to the type, variant and equipment of aircraft on which they operate.</p> <p>COMMENT:</p> <p>By changing the former „type or variant“ to „type, variant and equipment“ this gives a complete new meaning.</p> <p>With this expression, training and checking has to be done on each type <u>and</u> variant, which gives an unnecessary burden to the operators and jeopardizes all efforts of harmonizing type and variant definitions.</p> <p>SUGGESTION:</p> <p>We suggest to change the wording to: „Type or variant and associated equipment “</p>
response	Partially accepted.



This point of the regulation defines the training for ONE type OR variant, and its equipment. When flying multiple types OR variants, the requirement to do training and checking on each type AND variant already exists in ORO.FC.140. It remains unchanged.
The suggestion is accepted to clarify the meaning of ORO.FC.130 and ORO.FC. 230.

comment 106 comment by: *KLM Cityhopper*

ORO.FC.230(e)(2)

All CRM items need to be covered in 3 year period. If all items are divided in trainingsprogrammes, candidates could end with a 3 year cycle halfway year 3, so the possibility exist that the candidate will go beyond the 3 years. If in this situation the candidate ends half way year 3 and start in year 4 again with the next 3 years cycle, a possibility exists that he/she wil end cycle 2 at the end of year 6. Thereby it will take the candidate more than 3 years to complete the second 3 years cycle. However, the candidate wil perform all required CRM items in 3 calender years. This wil cause planning issues.

We propose not to change point ORO.FC.230(e)(2).

response Noted.

comment 131 comment by: *Airbus Helicopters*

The text changed is highlighting “variant” which is already in the current text, the added word is “and equipment”.

Furthermore it is proposed to change the "and" after the word variant to an "or" for consistency with ORO.FC.130

response Partially accepted.
'and associated equipment' to be included in both ORO.FC.130 and 230.

comment 140 comment by: *DGAC FR (Mireille Chabroux)*

According to paragraph g), "the validity periods mentioned in b)(3), c) and d) shall be counted from the end of the month when the check was taken.

DGAC FR believes that the validity periods shall also be counted from the end of the month for the reccurent training too.

(Even if this is not part of this NPA, DGAC FR draws the attention of EASA that the same principle should also apply to flights by sole reference to instruments required in SPA.HEMS.130 below

"(d) Recency. All pilots conducting HEMS operations shall have completed a minimum of 30 minutes'

flight by sole reference to instruments in a helicopter or in an FSTD within the last six months")

PROPOSAL:
ORO.FC.230



response	<p>g) the validity periods mentioned in a) of ORO.FC.130 and in b)(3), c) and d) above shall be counted from the end of the month when the check was taken or the training were completed.</p> <p>Partially accepted. Duplications between IR and AMC levels have been eliminated. The validity periods shall also be counted from the end of the month for all validity periods defined in ORO.FC. This rule is introduced once in ORO.FC.145.</p>
comment	<p>180 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
response	<p>Noted. Variants: Whether on complex types or non-complex types, variants are trained in a one-off differences training & familiarisation. Then recurrent ground & flight training and checking takes place based on a 3-year cycle to be defined by the operator. When it comes to variants, training and checking has to be relevant to the types/variants.</p> <ul style="list-style-type: none"> — In most cases when OSD is available, recurrent checking needs to be as per Part-FCL, i.e. a check on one variant is valid on all others. — Recurrent training to be defined based on the needs (at least recurrent ground training should take place). <p>Multi-pilot operations: Please refer to the response to comment #151.</p>
comment	<p>207 comment by: <i>MBH SAMU</i></p> <p>For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified.</p>

	<p>If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
response	<p>Noted. Please refer to the response to comment #180.</p>
comment	<p>234 comment by: SAF</p> <p>For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
response	<p>Noted. Please refer to the response to comment #180.</p>
comment	<p>274 comment by: European Helicopter Association (EHA)</p> <p>For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list. If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
response	<p>Partially accepted. Please refer to the responses to comments #180 and 317.</p>
comment	<p>320 comment by: Company</p>

response	<p>Pilot's experience should be taken into consideration, when defining recurrent training and checking requirements. There shouldn't be additional requirements for non-complex helicopters (single engine would be the more useful boundary).</p> <p>Noted. Single engine helicopter types can be grouped together for the purpose of checking. This results in fewer recurrent checking requirements. Recurrent training and checking is for everyone, regardless of experience or recent experience in normal operations. It ensures recency in the practice of abnormal and emergency procedures.</p>
comment	<p>360 comment by: Helialpin AG</p> <p>For non-complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non-complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopter variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list. If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
response	<p>Partially accepted. Please refer to the responses to comments #180 and #317.</p>
comment	<p>389 comment by: Andrew McKECHNIE</p> <p>ORO.FC.230: 'operator proficiency check'. The proposed amendment to (b)(1) removes the safety objective of the rule ('to demonstrate ...')</p> <p>Proposal Maintain the existing text of ORO.FC.230(b)(1)</p>
response	<p>Noted. The text is not removed. It is transferred to ORO.FC.130. It remains applicable to CAT and is extended to NCC, SPO and CAT A to A.</p>
comment	<p>390 comment by: Andrew McKECHNIE</p> <p>ORO.FC.230: line check</p>

	<p>The proposed amendment to (c)(1) removes the safety objective of the rule ('to demonstrate ...')</p> <p>Proposal Maintain the existing text of ORO.FC.230(c)(1)</p>
response	<p>Noted. The text is not removed. It is transferred to ORO.FC.130. It remains applicable to CAT and is extended to NCC, SPO and CAT A to A.</p>
comment	<p>408 comment by: <i>KMN</i></p> <p>For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.</p>
response	<p>Noted. Please refer to the response to comment #180.</p>
comment	<p>435 comment by: <i>AIR ZERMATT AG</i></p> <p>For non complex helicopters there should be no additional requirements for training and checking of variants. This part is covered by using ODRs, where available. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations. Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.</p>

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response Partially accepted.
Please refer to the responses to comments #180 and #317.

comment 470 comment by: *Kusi*

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response Partially accepted.
Please refer to the responses to comments #180 and #317.

comment 528 comment by: *Reto Ruesch*

It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.

Use of simulators:
Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the are of helicopters.

Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?

What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft ? What cross crediting is possible with regards

to the requirements to check SOP operations? What is the minimum training and checking?

response

Noted.

Simulators: AMC1 ORO.FC.230 is re-drafted to allow operators to alternate the use of simulators and helicopters for both training and operator proficiency checks.

Aerial work: question not understood. The SPO regulations do not differentiate between complex and non-complex aircraft. SP/MP OPS: The proposal requires an operator proficiency check in multi-pilot operations, with a few additional manoeuvres in single-pilot operations, so that it is valid for both. The concept is extended to skill tests in Appendix 9 to Part-FCL.

comment

549

comment by: *DHV e.V.*

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response

Noted.

Please refer to the response to comment #180.

comment

598

comment by: *AIRBUS*

Airbus suggests to modify (a) as follows:

(a) Each flight crew member shall complete recurrent training and checking relevant to the type, variant ~~and or~~ equipment of aircraft on which they operate.

Justification:

Consistency between ORO.FC.130.a and ORO.FC.230.a

response

Partially accepted.

Consistency between ORO.FC.130 and ORO.FC.230 needs to be maintained. However, this is an 'and'.



comment

613

comment by: *Air-Glaciers (pf)*

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified. We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response

Partially accepted.
Please refer to the responses to comments #180 and #317.

Explanatory note to ORO.FC.230

p. 50

comment

153

comment by: *FNAM/SNEH*

For non complex helicopters there should be no additional requirements for training and checking of variants. These aircraft are non complex and therefore do not warrant additional requirements. Guiding principle would be the entry in the license. At the same time, the license proficiency check is covered for the SET group with on check every 12 Months according to FCL.740. The same principles used for this check should be adapted without any further restrictions to checking in CAT and SPO operations.

Please indicate the effect of variant where grouping is not possible. Could this be read as having to perform training and checking on each variant. This could severely limit the use of various helicopters variants in one fleet (e.g. AS365 / EC155, R44 I / II, BK117 / EC145). This needs to be clarified.

If a helicopter is also used in multi-pilot operations, only one of the checks has to be performed in a multi-crew environment. It should be avoided that the pilot has to perform multiple checks on the same type and same group of helicopters.

response

Noted.
Please refer to the response to comment #180.

ORO.FC.235 Pilot qualification to operate in either pilot's seat

p. 50-51



comment	<p>53 comment by: <i>DGAC FR (Mireille Chabroux)</i></p> <p>In paragraph b), "for aeroplanes" could be replaced by "for multi-engined aeroplanes".</p>
response	<p>Accepted. In addition: For helicopters, detailed manoeuvres are moved to AMC. Provisions are included for single-engine aeroplanes.</p>
comment	<p>105 comment by: <i>DRF Luftrettung</i></p> <p><u>Page 50</u></p> <p>SECTION / NPA- STATEMENT: b) For aeroplanes, the additional training and checking shall include at least the following....</p> <p>COMMENT: In the context of ORO.FC.235 it is not necessary, to alter the old text. Chapter a) defines, that Pilots whose duties require them to operate in either pilot seat and carry out the duties of a co-pilot, or commanders required to conduct training or checking duties, shall complete additional training and checking as specified in the operations manual. Chapter b) now defines the additional procedures. Chapter c) gives the statement, that helicopter pilots shall undergo the additional checking in b) or shall complete their proficiency check</p> <p>SUGGESTION: We therefore suggest to stick with the old text: „the additional training and checking shall include at least the following...“</p> <p><u>Page 50</u></p> <p>SECTION / NPA- STATEMENT: ORO.FC.235 c) and e)</p> <p>COMMENT: 1) According to c) helicopter pilots can undergo either the additional checking in reference to b) or complete proficiency checks from either left or right seat. This expression implies, that when additional checking is done, there is no need for the proficiency checks. 2) According to e) every time, when the additional training in b) is performed, the proficiency checks have to be valid. This context only makes sense, when the additional checking and proficiency checks are not performed simultaneously.</p> <p>SUGGESTION: We therefore suggest to simplify ORO.FC.235</p> <p>a) Pilots whose duties require them to operate in either pilot seat and carry out the duties of a co-pilot, or commanders required to conduct training or checking duties, shall complete</p>

additional training and checking as specified in the operations manual. The check may be conducted together with the operator proficiency check prescribed in ORO.FC.230(b).

(b) The additional training and checking shall include at least the following:

- (1) an engine failure during take-off;
- (2) a one-engine-inoperative approach and go-around; and
- (3) a one-engine-inoperative landing.

(c) In the case of helicopters, pilots shall complete their proficiency checks from left- and right-hand seats, on alternate proficiency checks, In the case additional checking is conducted under (b) above, when operating in the co-pilot's seat, the checks required by ORO.FC.230 for operating in the commander's seat shall, in addition, be valid and current.

(d) When engine-out manoeuvres are carried out in an aircraft, the engine failure shall be simulated.

response

Not accepted.

'additional checking' can never be understood as a derogation from the obligation to perform 'normal checking'.

comment

119

comment by: UK CAA

Page No: 50

Paragraph No: ORO.FC.235 Pilot qualification to operate in either pilot's seat, subparagraphs (b) and (c)

Comment: In sub-paragraph (b), the new text restricts this to all "aeroplanes" but the checks include 'one-engine inoperative flights' which is difficult for single engine aeroplanes. Additionally, these requirements were previously necessary for all aircraft and are in fact relevant to helicopters too. It is recommended that the text be changed from "aeroplanes" to 'multi-engine aircraft' as shown below.

In subparagraph (c), the pilots may alternatively complete a "proficiency check" but it is not clear what 'proficiency' this is. It is assumed that this is meant to be the OPC and a suggested text is shown below.

Justification: Clarity and accuracy of interpretation

Proposed Text:

(b) For ~~aeroplanes~~ **multi-engined aircraft**, the additional training and checking shall include at least the following:

(c) In the case of helicopters, pilots shall either undergo the additional checking defined in (b) above, or shall complete their **operator** proficiency checks from left- and right-hand seats, on alternate ~~proficiency~~ checks,

response

Accepted.

Helicopters to be covered separately in ORO.FC.236.



comment	<p>337 comment by: <i>British Helicopter Association</i></p> <p>ORO.FC.235 (c)</p> <p>The word 'shall' is used in line 2 of this paragraph and the whole requirement is unclear.</p> <p>Recommend that the word shall is changed to should and it reads '.....defined in (b) above, and shall complete their proficiency checks from the left and right seats alternately.'</p>
response	<p>Noted.</p> <p>The intent is to require either or. A helicopter-specific implementing rule and AMC are introduced for clarity.</p>
comment	<p>391 comment by: <i>Andrew McKECHNIE</i></p> <p>ORO.FC.235 Operation in either pilots seat</p> <p>The proposed amendment to (a) will mean that co-pilots who relieve the commander during cruise flight will need to comply with the check requirements of (b) (take-offs and landings) even though they may not occupy the commander's seat for take-off and landing.</p> <p>Proposal</p> <p>Replace (a) and (b) with the following</p> <p>(a) Commanders Pilots whose duties require them to operate in either pilot seat and carry out the duties of a co-pilot during take-off or landing, or commanders required to conduct training or checking duties shall complete additional training and checking as specified in the operations manual. The check may be conducted together with the operator proficiency check prescribed in ORO.FC.230(b).</p> <p>(b) For aeroplanes, the additional training and checking shall include at least the following:</p> <ul style="list-style-type: none"> (i) an engine failure during take-off; (ii) a one-engine-inoperative approach and go-around; and (ii) a one-engine-inoperative landing”.
response	<p>Accepted.</p>
comment	<p>423 comment by: <i>IATA</i></p> <p>IATA Comment</p> <p>ORO.FC.235 Pag 50</p> <p>The amendment, replacing 'Commanders' with 'Pilots' aims to cover the helicopters where the pilot can seat either on the right or the left. That is clearly stated in 2.3.10, and in the explanatory note where it says that CAT A Aeroplane operations where the left-hand seat is the commander's seat are not impacted. In reality this does not consider the relief pilot that are seating in the left-hand seat in cruise. If this new provision is applied, relief pilots should be trained in one-engine drills and that is not in the aim of the amendment.</p> <p>New wording proposed:</p>

ORO.FC.235 Pilot qualification to operate in either pilot's seat

(a)

~~Commanders~~ Pilots whose duties require them to operate in either pilot seat, **with the exception of long haul operations relief pilots** ~~and carry out the duties of a co-pilot, or commanders required to conduct training or checking duties,~~ shall complete additional training and checking as specified in the operations manual. The check may be conducted together with the operator proficiency check prescribed in ORO.FC.230(b).

response

Partially accepted.

(b) should not apply to relief pilots because they do not conduct take-offs, approaches and landings from the commander's seat. They may however need training and checking.

ORO.FC.240 Operation on more than one type or variant

p. 51

comment

154

comment by: *FNAM/SNEH*

We suggest to delete the number of variants which can be too restrictive since the are a lot of variants to helicopters like AS 350.

response

Partially accepted.

Please refer to the response to comment #292.

comment

181

comment by: *Oya Vendée Hélicoptères*

We suggest to delete the number of variants which can be too restrictive since the are a lot of variants to helicopters like AS 350.

response

Partially accepted.

Please refer to the response to comment #292.

comment

208

comment by: *MBH SAMU*

We suggest to delete the number of variants which can be too restrictive since the are a lot of variants to helicopters like AS 350.

response

Partially accepted.

Please refer to the response to comment #292.

comment

235

comment by: *SAF*

We suggest to delete the number of variants which can be too restrictive since the are a lot of variants to helicopters like AS 350.

response

Partially accepted.

Please refer to the response to comment #292.

comment

276

comment by: *European Helicopter Association (EHA)*

response	<p>We suggest to allow one complex and one non-complex helicopter to be operated under VFR day conditions. Under VFR only if the philosophy and generation of the avionics are identical (steam gauges vs integrated electronic displays).</p> <p>Noted. Both the current rules and the proposal allow one complex and one non-complex helicopter to be operated under VFR day conditions.</p>
comment	<p>338 comment by: <i>Helialpin AG</i></p> <p>We agree with the limitation to five types in various operations. We urge you to make the following changes: We suggest that the number of multi-engine helicopters be limited to two. VFR day operations do not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation. Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a R44I and a R44II nor between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.</p>
response	<p>Partially accepted. Please refer to the response to comment #292.</p>
comment	<p>436 comment by: <i>AIR ZERMATT AG</i></p> <p>We welcome the transfer of the limitations on more than one type and / or variant to the AMC.</p>
response	<p>Noted. Thank you.</p>
comment	<p>471 comment by: <i>Kusi</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>We suggest to allow one complex and one non-complex helicopter to be operated under VFR day conditions. Under VFR only if the philosophy and generation of the avionics are identical (steam gauges vs integrated electronic displays).</p> </div>
response	<p>Noted. Please refer to the response to comment #276.</p>
comment	<p>530 comment by: <i>Reto Ruesch</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>We agree with the limitation to five types in various operations. We urge you to make the following changes: We suggest that the number of multi-engine helicopters be limited to two. VFR day</p> </div>

operations do not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation.
 Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a B3+ and B3e (H125). Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.

response Partially accepted.
 Please refer to the response to comment #292.

comment 578 comment by: AIRGREEN

We suggest to allow one complex and one non-complex helicopter to be operated under VFR day conditions. Under VFR only if the philosophy and generation of the avionics are identical (steam gauges vs integrated electronic displays).

response Noted.
 Please refer to the response to comment #276.

comment 614 comment by: Air-Glaciers (pf)

We suggest to allow one complex and one non-complex helicopter to be operated under VFR day conditions. Under VFR only if the philosophy and generation of the avionics are identical (steam gauges vs integrated electronic displays).

response Noted.
 Please refer to the response to comment #276.

Explanatory note to ORO.FC.240 p. 51

comment 359 comment by: Helialpin AG

We suggest to allow one complex and one non-complex helicopter to be operated under VFR day conditions. Under VFR only if the philosophy and generation of the avionics are identical (steam gauges vs integrated electronic displays).

response Noted.
 Please refer to the response to comment #276.



ORO.FC.320 Operator conversion training and checking

p. 52

comment

352

comment by: *Helialpin AG*

Please clarify the following points associated with the content of this article:

(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.

(c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.

What would be considered as procedures that is specific to the operator?

Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response

Noted.
Please refer to the response to comment #160.

ORO.FC.326 Equipment and procedure training and checking

p. 52

comment

155

comment by: *FNAM/SNEH*

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?

Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?

What is the difference between a minor change and a difference? What about the interaction with ground crew?

Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.

We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.



response Partially accepted.
 The drafting of ORO.FC.326 has been completely reviewed to reflect the explanatory note. The amended rule ensures that:

- A change in equipment does not require an OPC.
- A minor change in SOPs that require only additional knowledge does not require an OPC.
- A major change in SOPs requiring the acquisition of additional flying skills, such as learning a new specialised operation, requires an OPC.
- A change in types or variants within the framework of the same specialised operations may require an OPC, only if elements of the SOPs that are specific to the type or variant require aircraft/FSTD training .

The SPO operator proficiency check includes more than a licence proficiency check. With regard to the specialised part of the OPC: it is specific to the operator. If the operator is involved in more than one specialised operation, the elements of the OPC dedicated to specialised operations can be spread over a 3-year cycle.
 Pending future work on AMC material, EASA may decide to introduce a 2-year cycle for operators involved in only one specialised operation. This is justified by the level of specialisation obtained by a pilot focusing on a single activity.

comment 182 comment by: *Oya Vendée Hélicoptères*

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?

Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?

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Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.

We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.

response Partially accepted.
 Please refer to the response to comment #155.

comment 209 comment by: *MBH SAMU*

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this

requirement and what would not. How is difference defined? What is not considered a difference?

Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?

What is the difference between a minor change and a difference? What about the interaction with ground crew?

Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.

We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.

response Partially accepted.
Please refer to the response to comment #155.

comment 236

comment by: SAF

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?

Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?

What is the difference between a minor change and a difference? What about the interaction with ground crew?

Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.

We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.

response Partially accepted.
Please refer to the response to comment #155.

comment 277

comment by: European Helicopter Association (EHA)

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?



Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?
 What is the difference between a minor change and a difference? What about the interaction with ground crew?
 Do the task specialist also have to perform OPC in Aerial Work?
 Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.
 We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.
 How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?

response Partially accepted.
 Please refer to the response to comment #155.

comment 321 comment by: *Company*

A check should be able to cover certain operational differences (transport of wood or concrete) within the same kind of operations (sling-load). It's quite impossible to implement specific SPO procedures in a check. Training of emergencies increases the risk to an unacceptable level. Most of dedicated emergency procedures are not allowed, not foreseen, not described by manufactures or authorities, even when useful or the only reasonable maneuver, e.g.: low speed autorotation, release of under loads, alternative vortex techniques.
 Therefore a kind of a "line check" should be required for the SPO specific operations instead an OPC: a designated PIC supervises yearly the SPO operation of another company pilot. The generic part (ops according the AFM) is already covered by the the normal company training and checking.

response Noted.
 Thank you. This is the point in the SPO-related part of the SPO OPC. The NPA considers risky manoeuvres only for training in simulation devices.

comment 353 comment by: *Helialpin AG*

Please clarify the following points associated with the content of this article:
 (a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.
 (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.

What would be considered as procedures that is specific to the operator?
 Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response Noted.
 Please refer to the response to comment #160.

comment 409

comment by: *KMN*

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?
 Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?
 What is the difference between a minor change and a difference? What about the interaction with ground crew?
 Do the task specialist also have to perform OPC in Aerial Work?
 Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.
 We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.
 How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?

response Partially accepted.
 Please refer to the response to comment #155.

comment 437

comment by: *AIR ZERMATT AG*

This article is too vague. Interpretations between operators, NAAs and EASA will divert significantly. What would be a use case where ORO.FC.326 would apply? I could not come up with one. If you use textile cord instead of a metal cable according to ORO.FC.126 we would inform the crew about the differences with a web based training explaining the differences.

response

Nevertheless, an OPC is not required for that. This article adds complexity and a lot of unnecessary discussions. We suggest to delete this article.

Partially accepted.
 The drafting of ORO.FC.326 has been completely reviewed to reflect the explanatory note. The amended rule ensures that:

- A change in equipment does not require an OPC.
- A minor change in SOPs that requires only additional knowledge does not require an OPC.
- A major change in SOPs requiring the acquisition of additional flying skills, such as learning a new specialised operation, requires an OPC.
- A change in types or variants within the framework of the same specialised operations may require an OPC, only if elements of the SOPs that are specific to the type or variant require aircraft/FSTD training.

comment 472 comment by: Kusi

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?

Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?

What is the difference between a minor change and a difference? What about the interaction with ground crew?

Do the task specialist also have to perform OPC in Aerial Work?

Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.

We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.

How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?

response

Partially accepted.
 Please refer to the response to comment #155.

comment 516 comment by: Star Work Sky S.a.s.

Requirement to finish a SOP differences training with an OPC cause an High Cost at operators with several kind of Helicopters and specialized operations.



response Partially accepted.
The drafting of ORO.FC.326 has been completely reviewed to reflect the explanatory note. The amended rule ensures that:

- A change in equipment does not require an OPC.
- A minor change in SOPs that requires only additional knowledge does not require an OPC.
- A major change in SOPs requiring the acquisition of additional flying skills, such as learning a new specialised operation, requires an OPC.
- A change in types or variants within the framework of the same specialised operations may require an OPC, only if elements of the SOPs that are specific to the type or variant require aircraft/FSTD training.

comment 550 comment by: *DHV e.V.*

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?

Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?

What is the difference between a minor change and a difference? What about the interaction with ground crew?

Do the task specialist also have to perform OPC in Aerial Work?

Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.

We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.

How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?

response Partially accepted.
Please refer to the response to comment #155.

comment 579 comment by: *AIRGREEN*

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load? There are so many different variants to an operation it is very difficult to say what would fall under this

requirement and what would not. How is difference defined? What is not considered a difference?
 Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?
 What is the difference between a minor change and a difference? What about the interaction with ground crew?
 Do the task specialist also have to perform OPC in Aerial Work?
 Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.
 We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.
 How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?

response Partially accepted.
 Please refer to the response to comment #155.

comment 615

comment by: *Air-Glaciers (pf)*

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load?
 There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?
 Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?
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 We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.
 How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?

response Partially accepted.



Please refer to the response to comment #155.

Explanatory note to ORO.FC.320 and ORO.FC.326

p. 52

comment

54

comment by: *DGAC FR (Mireille Chabroux)*

In the explanatory note, the sentence “There may also be cases where a pilot needs initial training for a specialised activity that is either closely related to other specialised activities where he or she has experience, or that is not specialised compared to other specialised operations he or she is experienced in. If this is the case, and if the pilot does not change operators, then an initial OPC may not be needed. The new specialised activity may be considered to be covered under the previous OPCs that are relevant to the other equivalent or superior specialised operations for which the pilot is already qualified.” could be clarified.

response

Partially accepted.

The drafting of ORO.FC.326 has been completely reviewed to reflect the explanatory note. The amended rule ensures that:

- A change in equipment does not require an OPC.
- A minor change in SOPs that requires only additional knowledge does not require an OPC.
- A major change in SOPs requiring the acquisition of additional flying skills, such as learning a new specialised operation, requires an OPC.
- A change in types or variants within the framework of the same specialised operations may require an OPC, only if elements of the SOPs that are specific to the type or variant require aircraft/FSTD training.

comment

358

comment by: *Helialpin AG*

Based on our comments and concerns that we raised in ORO.FC.126 we would like to elaborate on the challenges facing an SPO operator. Would it be necessary to perform an OPC if the company buys a textile cord instead of a metal cable to attach a sling load?

There are so many different variants to an operation it is very difficult to say what would fall under this requirement and what would not. How is difference defined? What is not considered a difference?

Would the operator have to perform an OPC if the company flies with an As350B2 and now performs the same operation with a As350B3e (requires difference training according to the OSD)? Would this difference training requirement apply to all operations (SOP) that are being flown with the B2?

What is the difference between a minor change and a difference? What about the interaction with ground crew?



Do the task specialist also have to perform OPC in Aerial Work?
 Why is it necessary to perform an OPC when changing operators? The OPC is equivalent to a license proficiency check and checks the mastery of the aircraft and proper handling of emergency procedures. This is the same for the same type and variant of helicopter from operator A to operator B.
 We suggest that the checking not to be annual but every two years with training required every year. This would follow the principle more training less checking.
 How can we protect the operators against the national authorities regarding different training and checking interpretations of different equipment and ensure that the operator can decide? How can we ensure a level playing field for cross border operations?

response Partially accepted.
 Please refer to the response to comment #155.

ORO.FC.330 Recurrent training and checking—operator proficiency check p. 52-53

comment 50 comment by: DGAC FR (Mireille Chabroux)

To be consistent with ORO.FC.130, DGAC FR proposes to change "recurrent" by "annually"

PROPOSAL

ORO.FC.330 **Recurrent Annual** training and checking

(a) Each flight crew member shall complete **recurrent annually** training and operator proficiency checks to demonstrate his/her competence in carrying out normal, abnormal and emergency procedures. In the case of SPO, the **annual** training and checking shall, covering the relevant aspects associated with the specialised tasks described in the operations manual.

response Noted.
 Consistency does not require duplication. Whenever ORO.FC.330 applies, ORO.FC.130 applies, which means that the training is 'annual'.

comment 74 comment by: KMN

Who has to decide, if an extra OPC for a kind of operation is necessary or not, the operator or the local authority?
 How much difference in the kind of operation makes an additional OPC necessary?
 Some operators perform many different kind of SPO operation. An OPC for every kind of operation in a year or in the 3 years period seems to be too much. It should be clearer how much difference in the kind of operation makes an OPC necessary.



	<p>To keep the effort, time and costs in an operational way, it should be aimed for one more OPC in a year, if the operator has not a very special kind of operation. For example, for HESLO operation one HESLO OPC in the highest HESLO level. Filmflights/Fotoflights/Laserscanning/Observation flights/Control flights/Dropping of sky divers and similar, should be included in the CAT OPC, if the operator also performs CAT operations. More OPCs only if the operator decides that additional OPCs are necessary, because the operator knows about his operation and not the local authority.</p>
response	<p>Noted.</p> <p>In the context of ORO.FC, the relevant aspects are those relevant for training.</p> <p>Recurrent checking:</p> <p>The description of SOPs, the assessment of training and checking needs, and the newly introduced option to create 3-year cycles for training and checking when more than one specialised operation is conducted based on a risk assessment, are all the responsibility of the operator. In all cases, the 3-year checking cycle should review all elements related to the activity the operator is involved in.</p> <p>Pending future work on AMC material, EASA may decide to introduce a 2-year cycle for operators involved in only one specialised operation. This is justified by the level of specialisation obtained by a pilot focusing on a single activity.</p> <p>In any case, the frequency of OPCs and aircraft/FSTD training remains annual, as defined in ORO.FC.130.</p>
comment	<p>156 comment by: <i>FNAM/SNEH</i></p> <p>Please provide clarification on the questions below.</p> <p>What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?</p>
response	<p>Noted.</p> <p>In the context of ORO.FC, the relevant aspects are those relevant for training.</p> <p>Initial checking is required after the pilot has been trained towards additional flying skills.</p> <p>Recurrent checking:</p> <p>The description of SOPs, the assessment of training and checking needs, and the newly introduced option to create 3-year cycles for training and checking when more than one specialised operation is conducted based on a risk assessment, are all the responsibility of the operator. In all cases, the 3-year checking cycle should review all elements related to the activity the operator is involved in.</p> <p>Pending future work on AMC material, EASA may decide to introduce a 2-year cycle for operators involved in only one specialised operation. This is justified by the level of specialisation obtained by a pilot focusing on a single activity.</p> <p>In any case, the frequency of OPCs and aircraft/FSTD training remains annual, as defined in ORO.FC.130.</p>
comment	<p>183 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>Please provide clarification on the questions below.</p>

	<p>What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?</p>
response	<p>Noted. Please refer to the response to comment #156.</p>
comment	<p>210 comment by: MBH SAMU</p>
	<p>Please provide clarification on the questions below. What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?</p>
response	<p>Noted. Please refer to the response to comment #156.</p>
comment	<p>237 comment by: SAF</p>
	<p>Please provide clarification on the questions below. What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?</p>
response	<p>Noted. Please refer to the response to comment #156.</p>
comment	<p>254 comment by: FOCA Switzerland</p>
	<p>Ref. to ORO.FC.330, paragraph a)</p> <p>We believe that If a pilot has a high level of experience due to daily on the job training, there is no need for additional training and the level of safety can be kept high with the yearly performed SPO activities.</p> <p>Until now, no specific training requirements were defined nor needed because of the high amount of SPO activities during the year, which covers the required training.</p>

	<p>So from our perspective, if a pilot can show a certain experience per year defined by the operator, no additional training should be required before commencing the OPC. We further propose, that checking all requested SPO activities should be combined in one single OPC every twelve month.</p>
response	<p>Noted. The current ORO.FC.130 requires annual training. There may be more training and less checking in the future but certainly not less training. One checking per year: The NPA proposes one OPC per year to demonstrate SPO-specific skills. Thank you.</p>
comment	<p>278 comment by: <i>European Helicopter Association (EHA)</i></p> <p>Please provide clarification on the questions below. What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?</p>
response	<p>Noted. Please refer to the response to comment #156.</p>
comment	<p>323 comment by: <i>Company</i></p> <p>Specific Operations should be checked in a different way: "Line Check". It's legally quite impossible to check e.g. emergencies specific to SPO: release of load, low speed autorotation. A designated pilot supervises (in or outside of the helicopter) the SPO pilot for example when he/she performs sling-load operations. The OPC should only cover the standard = content of the AFM and company specific procedures (as today in CAT).</p>
response	<p>Noted. Ideally the SPO training and OPC should include three segments:</p> <ul style="list-style-type: none"> — The type-related segment that can be easily combined with the licence skill test — The checking of normal operations and SOPs in specialised operations — The checking of abnormal or emergency procedures in the context of specialised operations <p>The third is not always possible and is left to the risk assessment of the operator. The proposal invites the operator not to take risks on the aircraft and to take advantage of simulators. Simulators, virtual reality tools, or simply a secure training environment, could all allow to experience the releasing of a load.</p>
comment	<p>340 comment by: <i>Helialpin AG</i></p>

Please provide clarification on the questions below.
 What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?

response Noted.
 Please refer to the response to comment #156.

comment 438

comment by: AIR ZERMATT AG

OPCs for SPOs should not be considered if OPCs in another ops are already in place. Normal and abnormal operations are not significantly different between CAT and SPO. Hence one OPC every 6 months is sufficient for a safe operation as a whole. EASA still too much focuses on the single types of operations instead of looking at an AOC holder as a whole. The main goal is a safe flight ops through well trained and checked flight crews. Hence it should be a top down approach meaning: 2 OPCs, 1 LPC and 1 Line Check per year are sufficient. For all ops conducted underneath that hood, cross crediting must be possible. More training & checking will lead to higher training & checking cost which then put even more pressure on AOC holders. That pressure is then forwarded to flight crews because more flight services must be sold over time. The produced stress leads to a bad corporate culture and a bad corporate culture will decrease the level of safety significantly.

response Not accepted.
 The following assumptions are equivalent to the crediting of every minute of SPO training & checking towards CAT, and the crediting of every minute of non-specialised training & checking towards SPO, which is unrealistic.
 'OPCs for SPOs should not be considered if OPCs in another ops are already in place'
 and
 '2 OPCs (incl. 1 LPC) and at least 1 Line Check. Under that hood all training and checking must be included.'

comment 473

comment by: Kusi

Please provide clarification on the questions below.
 What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?



response Noted.
Please refer to the response to comment #156.

comment 501 comment by: BCAA (OPS - Department SPO)
The BCAA's SPO Department would like an extension of the validity period of OPC to 24 or 36 months for specialised operations with non-complex aircraft (A & H) (in relation to AMC1 ORO.FC.130&330).

response Noted.
The type-related part of the SPO OPC can easily be combined with the licence skill test, which remains annual.
The other elements of the SPO OPC can take place on a 3-year cycle.

comment 518 comment by: Star Work Sky S.a.s.
Requirement to perform recurrent training and checking. Before only OPS was required. Results is in an increase of Training and Check with high cost expected.

response Noted. It is understood that EU regulations have only applied to SPO since 2017. Before 2017, training & checking for SPO was defined under national regulations, which might have been very light in some Member States.
The following measures reduce the costs while maintaining effective training and checking for SPO, compared to the current version of ORO.FC, if the operator risk assessment permits.

- The crediting of SPO training and checking across helicopter types.
- The introduction of 3-year cycles for recurrent training and checking.
- The crediting of CAT training and checking towards SPO requirements, when the specialised operation remains similar to CAT, under the approval of the authority.

comment 531 comment by: Reto Ruesch

Please clarify the following points associated with the content of this article:
What is a similar specialized operation? It should be that operations that use similar procedures to fulfill various tasks be seen as one operation. This could be either (1) to perform the task from the cabin (e.g. fotoflight), (2) to have a sling attached. No further differentiations should be made.
We suggest that as a basic principle, if the SOP and related training and checking can be standardized between different operators, cross crediting of training and checking should be possible.
This will ease mobility of pilots and ground crew based on the basic european principle freedom of movement. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
What would be considered as procedures that is specific to the operator?
Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received



standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response Noted.
Please refer to the response to comment #160.

comment 551

comment by: *DHV e.V.*

How much difference in the kind of operation makes an additional OPC necessary?
Some operators perform many different kind of SPO operation. An OPC for every kind of operation in a year or in the 3 years period seems to be too much. It should be clearer how much difference in the kind of operation makes an OPC necessary.
To keep the effort, time and costs in an operational way, it should be aimed for one more OPC in a year, if the operator has not a very special kind of operation. For example, for HESLO operation one HESLO OPC in the highest HESLO level.
Filmflights/Fotoflights/Laserscanning/Observation flights/Control flights/Dropping of sky divers and similar, should be included in the CAT OPC, if the operator also performs CAT operations. More OPCs only if the operator decides that additional OPCs are necessary, because the operator knows about his operation and not the local authority.

response Noted.
In the context of ORO.FC, the relevant aspects are those relevant for training.
Recurrent checking:
The description of SOPs, the assessment of training and checking needs, and the newly introduced option to create 3-year cycles for training and checking when more than one specialised operation is conducted based on a risk assessment, are all the responsibility of the operator. In all cases, the 3-year checking cycle should review all elements related to the activity the operator is involved in.
Pending future work on AMC material, EASA may decide to introduce a 2-year cycle for operators involved in only one specialised operation. This is justified by the level of specialisation obtained by a pilot focusing on a single activity.
In any case, the frequency of OPCs and aircraft/FSTD training remains annual, as defined in ORO.FC.130.

comment 580

comment by: *AIRGREEN*

Please provide clarification on the questions below.
What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc.,



the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?

response Noted.
Please refer to the response to comment #156.

comment 617 comment by: *Air-Glaciers (pf)*

Please provide clarification on the questions below.
What are the relevant aspects associated with the specialized task? Does this mean different types of loads during a HESLO 2 operation with different aerodynamic properties (e.g. Pile of wood vs. filled concrete bucket)? Would this mean that if there are two SOP defined in the OPS manual (HESLO and HEC) in country A, the company would have to perform two checks. If, however, in country B, the SOP details HESLO 1, HESLO 2, Fire Fighting, Wire stringing, etc., the operator would have to perform a check for all even if in country A in the SOP all sub operations are included?

response Noted.
Please refer to the response to comment #156.

comment 640 comment by: *Leonardo Helicopters ATO*

we recommend to add the following concept;

in recurrent training and checking credits for operations on more than one type or variant that are defined as similar or have an high level of commonality as defined in the OSD, shall be given for the purpose of providing alternate checks between the types and/or the variants.

response Noted.
Under SPO, the type-related part of the OPC can be covered with the LPC and OSD credit can be used. The SPO-related part is often not type-related.

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

p. 53-54

comment 14 comment by: *Aliparma/FOPh*

This is a very important safety topic, specially for Business Aviation whereas new airports are selected by FOPh/OCC and assigned to crew members, day by day at a short notice.

considerations :

point (b) (3) (i) (B)

meaning for "performance limited". Does it means take off and landing at STRUCTURAL MTOM / MLM ?

point (b) (3) (i) (C)

Some National AIPs (eg. Germany) do not publish any circling minima.



Some big airports do not have circling procedures.

most of the airport in Europe (more than 70% are to be considered CAT B due to 1000 circling minima.

point (b) (3) (i) (D)
 meaning of "night operations capability"
 many airports have capability in terms of lighting, but are closed at nighttime.

(ii) Category B
 meaning of "nonstandard approach patterns"

e.g. Circling with Prescribed tracks ?

response

Noted.
 Alleviations are provided in AMC2 ORO.FC.105(b)(2)(c) for non-commercial operations. For commercial operations, no change but the option remains that for category B aerodrome, the pilot-in-command/commander should be briefed, or self-briefed.

comment

79 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

NPA Number: NPA 2019-08
Author: The Swedish Transport Agency (STA)
Section:3.4
Page: 53,54
Relevant Text: AMC1 ORO.FC.105 (b)(2);(c) and new AMC2 ORO.FC.105.(b)(2);(c)
Comment: STA agrees with the proposal. However since EASA propose a division between CAT and NCC/SPO, the heading in AMC 1 and proposed AMC2 needs to be changed to reflect type of operation. Hence, delete Pilot – in command in AMC1 and delete “commander” in the heading in new AMC2. Ref point 96 in Annex I to regulation (EU) 965/2012.
Another option would be to keep the current text (incl. heading) as is, since the text cover both pilot- in command and commander (NCC/SPO and CAT) together with the newer text that refers to national qualification requirements.
Rationale: Clarification
Proposal: According to the above

response

Noted.



The name of the AMC must be the same as that of the implementing rule. Moreover, the dividing line is commercial versus non-commercial, which is different from CAT versus NCC & SPO.

comment

110

comment by: DRF Luftrettung

PAGE 54**SECTION:**

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

GENERAL

The operator should comply with the national qualification requirements published in the Aeronautical Information Publication

COMMENT:

Access to AIP information is sometimes not available on the internet, due to lack of or degradation of the respective countries IT systems and structures (i.e. Africa)

SUGGESTION:

The operator should comply with the national requirements published in the Aeronautical Information Publication, if it is available and current.

response

Not accepted.

The AIP remains applicable under the rules of the air of each national airspace.

comment

157

comment by: FNAME/SNEH

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?

We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response

Noted.

An alleviation is introduced in ORO.FC.105 (e). It is applicable to helicopters operated under NCC, SPO and to CAT including A to A, provided that the flights remain day VFR. Thank you. SPO with aeroplanes can take place under IFR on longer distances.

comment

184

comment by: Oya Vendée Hélicoptères



Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?
We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response

Noted.
Please refer to the response to comment #157.

comment

211

comment by: *MBH SAMU*

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?
We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response

Noted.
Please refer to the response to comment #157.

comment

238

comment by: *SAF*

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?
We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response

Noted.
Please refer to the response to comment #157.

comment

296

comment by: *European Helicopter Association (EHA)*

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is

	<p>required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking? We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.</p>
response	<p>Noted. Please refer to the response to comment #157.</p>
	<p>392 comment by: Andrew McKECHNIE</p> <p>Attachment #1</p> <p>AMC1 ORO.FC.105(b)(2) Route, Area and Aerodrome Knowledge for COMMERCIAL operations</p> <p>The intention of the proposed amendment is sound, but it does not follow the usual layout of headings and paragraphs and the meaning of the additional text may be unclear, e.g. ‘national qualification requirements’. The phrase ‘aerodrome familiarisation training’ should be used in AMC to align with the text in the IR.</p> <p>The current aerodrome categorisation criteria mean that a very large number of airports fall into category ‘B’. Some of these actually require no additional familiarisation while operation into others may be very complex. There is no requirement in the current AMC for the required briefings to address the ‘extra considerations’ associated with a particular airport.</p> <p>A few airports publish procedures for visual manoeuvring using prescribed tracks that require pilots to be familiar with terrain and visual cues (ICAO doc 8168 7.5.1.1). Under current requirements these airports may be categorised as A or B and pilots could be exposed to these procedures without the required familiarity.</p> <p>The current briefing requirements for category B and C mean that many operators provide only written briefings for category B and avoid categorising airports as C unless training is mandated in the AIP. Some operators have introduced an additional category in between B and C to allow operations to airports that would otherwise be categorised as C (e.g. ‘B+’). For many operators, aerodrome competence training has become a tick-box exercise with no safety benefit.</p> <p>I propose an alternative form of words to better address the safety objective of the rule, rationalise the categorisation criteria, mandate compliance with the AIP and provide the potential for alternative means to deliver category C training if an operator can show that the safety objective can be achieved by using a device other than an FSTD. In order to simplify the text, I propose separate AMC for area/route and aerodrome knowledge.</p> <p>Proposal See attached file "<i>AMC ORO.FC.105 commercial</i>"</p>
response	<p>Partially accepted. ‘qualification’: Amended. ‘experience versus initial familiarisation training’: Not accepted. The implementing rule also refers to experience, and experience is enough to revalidate. EASA further amended the AMC related to Opinion No 02/2021. See ‘Draft AMC & GM (OPS and FCL) amendment 1.</p>
comment	<p>393 comment by: Andrew McKECHNIE</p>

Attachment [#2](#)

AMC1 ORO.FC.105(b)(2)

Route, Area and Aerodrome Knowledge for NON-COMMERCIAL operations

The intention to provide AMC/GM for non-commercial operators is sound but the proposed text does not follow the usual layout of headings and paragraphs and the meaning of the additional text may be unclear, e.g. 'national qualification requirements'. The phrase 'aerodrome familiarisation training' should be used in AMC to align with the text in the IR.

I propose an alternative form of words to better address the safety objective of the rule, rationalise the categorisation criteria and mandate compliance with the AIP. In order to simplify the text, I propose separate AMC for area/route and aerodrome knowledge.

Proposal

See attached file "*AMC ORO.FC.105 non-commercial*"

response

Noted.

'experience versus initial familiarisation training': Not accepted. The implementing rule refers to 'familiarisation training' only for commercial. Experience is included in the IR, and experience is enough to revalidate.

EASA further amended the AMC related to Opinion No 02/2021. See 'Draft AMC & GM (OPS and FCL) amendment 1.

comment

439

comment by: AIR ZERMATT AG

Either EASA defines the rules or then it is totally delegated to NAAs. We welcome the delegation to the NAAs because they are closer to the operations conducted since they audit AOC holders. Hence they should be able to amend their policies to current problems to be solved and time to market can be kept very short with a significant increase in safety.

response

Not accepted.

comment

474

comment by: Kusi

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking? We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response

Noted.

Please refer to the response to comment #157.



comment 552 comment by: *DHV e.V.*

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?
We suggest that this requirement be dropped for local area flights as well as for VFR CAT flights as well as for all SPO flights.

response Noted.
Please refer to the response to comment #157.

comment 581 comment by: *AIRGREEN*

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?
We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response Noted.
Please refer to the response to comment #157.

comment 619 comment by: *Air-Glaciers (pf)*

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?
We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response Noted.
Please refer to the response to comment #157.



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

p. 54-55

comment

120

comment by: UK CAA

Page No: 53**Paragraph No:** AMC1 ORO.FC.105(b)(2);(c)**Comment:** In the opening sentence the word “qualification” has been included but it is not clear what this is referring to and could be misleading. It is recommended the word “qualification” be removed without affecting the intent.**Justification:** Clarity of purpose and prevention of misinterpretation.**Proposed Text:**

“GENERAL

The operator should comply with the national requirements published in the Aeronautical Information Publication.”

response

Partially accepted.

comment

297

comment by: European Helicopter Association (EHA)

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?

We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response

Noted.

Please refer to the response to comment #157.

comment

475

comment by: Kusi

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?

We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.



response Noted.
Please refer to the response to comment #157.

comment 582 comment by: AIRGREEN

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient? This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?
We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response Noted.
Please refer to the response to comment #157.

Explanatory note to AMC2ORO.FC.105(b)(2);(c)

p. 55

comment 357 comment by: Helialpin AG

Aerial Work operations usually are being performed in limited geographical area. Pilot know this area quite well. What is the reason to include additional requirements even if the pilot almost never leaves this area? What indications do you have from past accidents where this lack of knowledge is stated as the contributing factor? How does the pilot fulfill the requirements for a aerodrome knowledge? Would look at a VAC chart be sufficient?
This is required in any case during flight preparation and covered in the duties of the commander. What is the additional value of separate training and checking?
We suggest that this requirement be dropped for local area flights as well as for AtoA CAT flights as well as for all SPO flights.

response Noted.
Please refer to the response to comment #157.

MC1 ORO.FC.105(b)(3) & ORO.FC.120 Designation as pilot-in-command/commander & operator conversion training

p. 56-57

comment 40 comment by: DGAC FR (Mireille Chabroux)

As the title of ORO.FC.105 is "designation as pilot-in-command/commander", the words "and operator conversion training" have to be deleted from the title and subtitle of the AMC.



response Not accepted.
This is also an AMC to ORO.FC.120 Operator conversion training. However, all new AMC and GM will refer to a single implementing rule.

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

p. 57

comment 55 comment by: *DGAC FR (Mireille Chabroux)*
An equivalent paragraph should be added for Aeroplanes.

response Accepted.

comment 158 comment by: *FNAM/SNEH*
We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.

response Noted.
This GM, part of which is upgraded to AMC following other comments, is to be read in the context of ORO.FC.105(e) introducing means to include all route & aerodrome training into area training. The sub-header is amended for greater clarity.

comment 185 comment by: *Oya Vendée Hélicoptères*
We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.

response Noted.
Please refer to the response to comment #158.

comment 212 comment by: *MBH SAMU*
We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.

response Noted.
Please refer to the response to comment #158.

comment 239 comment by: *SAF*
We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.

response Noted.
Please refer to the response to comment #158.

comment 279 comment by: *European Helicopter Association (EHA)*
We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.



response Noted.
Please refer to the response to comment #158.

comment 356 comment by: *Helialpin AG*

We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.

response Noted.
Please refer to the response to comment #158.

comment 410 comment by: *KMN*

We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.

response Noted.
Please refer to the response to comment #158.

comment 440 comment by: *AIR ZERMATT AG*

This GM is not necessary. During a pilot's skill test (PPL & CPL) a pilot is checked for being capable of selecting aerodromes and operating sites from the ground and from the air and establishing a safe flight path for landing and take-off. Additionally in OM-A Chapter 8 a procedure for choosing appropriate aerodrome and landing sites is being described. This is sufficient. Delete this GM.

response Noted.
Please refer to the response to comment #158.

comment 476 comment by: *Kusi*

We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.

response Noted.
Please refer to the response to comment #158.

comment 553 comment by: *DHV e.V.*



	We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.
response	Noted. Please refer to the response to comment #158.
comment	583 comment by: AIRGREEN We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.
response	Noted. Please refer to the response to comment #158.
comment	620 comment by: Air-Glaciers (pf) We do not believe that this GM is necessary. It should be left to the operator to define any trainings required. This should be based on the previous experience of the pilot.
response	Noted. Please refer to the response to comment #158.

AMC1 ORO.FC.115 Crew resource management (CRM) training

p. 57-59

comment	141 comment by: DGAC FR (Mireille Chabroux) Even if AMC 3 ORO.FC.115 is not part of this NPA, DGAC FR would like to suggest to rewrite this AMC: the intent is to clarify this AMC and to change the conditions for the recency and renewal. PROPOSAL <u>AMC3 ORO.FC.115 Crew resource management (CRM) training</u> <u>FLIGHT CREW CRM TRAINER</u> (a) Applicability The provisions described herein: (1) should be fulfilled by flight crew CRM trainers responsible for classroom CRM training; and (2) are not applicable to:
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- (i) instructors, holding a certificate in accordance with Commission Regulation (EU) No 1178/2011, when conducting CRM training in the operational environment; and
 - (ii) trainers or instructors when conducting training other than CRM training, but integrating CRM elements into this training.
- (b) Abilities of a flight crew CRM trainer
- (1) Prerequisites. A flight crew CRM trainer should
 - (i) have adequate knowledge of human performance and limitations (HPL), whilst:
 - (A) having obtained a commercial pilot licence or an airline transport pilot licence in accordance with Commission Regulation (EU) No 1178/2011; or
 - (B) having followed a theoretical HPL course covering the whole syllabus of the HPL examination ;
 - (ii) have completed flight crew initial operator's CRM training ;
 - (iii) have received training in group facilitation skills ;
 - (iv) have skills in the fields of group management, group dynamics and personal awareness ;
 - (v) Instructors holding a certificate in accordance with Commission Regulation (EU) No 1178/2011 shall be considered as complying with the provisions of points (iv) and (v).
 - (2) In order to be considered as suitably qualified, a flight crew CRM trainer should:
 - (i) have and maintain adequate knowledge of the relevant flight operations;
 - (ii) have and maintain adequate knowledge of CRM matter through initial training and recurrent courses
 - (iii) passed initial and recurrent assessment of competence
 - (3) The period of validity should be 3 years. This period of validity may be counted from the end of the month.
- (c) Knowledge of the relevant flight operations
- (1) The operator should assess whether the experience and knowledge of a flight crew member is relevant to their operations. Such cases has to be considered :
 - (i) An experienced CRM trainer with no operational experience as a flight crew member ;
 - (ii) An experienced flight crew member or former flight crew member with no background on the aircraft category or the aircraft generation or type of operations.
 - (2) If need be, the operator should provide training to the flight crew CRM trainer to provide the adequate knowledge.
- (d) Training of flight crew CRM trainer
- (1) An initial and recurrent training for flight crew CRM trainers should be established.
 - (2) The training of flight crew CRM trainers should be conducted by flight crew CRM trainers with a minimum of 3 years' experience.
 - (3) Assistance may be provided by experts in order to address specific areas.
 - (4) Training of flight crew CRM trainers should be both theoretical and practical. Practical elements should include the development of specific trainer skills, particularly the integration of CRM into line operations.
 - (5) The initial training of flight crew CRM trainers should include.
 - (i) Review of CRM training provided by the operator, including characteristics
 - (A) of the different types of CRM trainings (initial, recurrent, etc.);
 - (B) of combined training; and
 - (C) related to the type of aircraft or operation;
 - (ii) the training elements for flight crew as defined by table 1 of AMC1 ORO.FC.115 and its integration into line operations

- (iii) introduction to CRM training and competencies for CRM trainers ;
 - (A) ability to interact with and manage a group
 - (B) ability to pre-plan an objective and timely training session
 - (C) ability to deliver a good balance of “telling”, “selling” and “facilitating”
 - (D) ability to connect realistically poor and sound CRM activity to the operations line
 - (E) ability to assess the performance, the progress and needs of trainee in a meaningful way
- (iv) operator’s management system referred by AMC1 ORO.FC.115 (a)(7)
- (6) The refresher training of flight crew CRM trainers should include new methodologies, procedures and lessons learned.
- (7) Instructors, holding a certificate in accordance with Commission Regulation (EU) No 1178/2011, who are also flight crew CRM trainers, may combine the CRM trainer refresher training with instructor refresher training.
- (e) Assessment of flight crew CRM trainer
 - (1) The operator should ensure that the process for the assessment is included in the operations manual describing methods for observing, recording, interpreting and debriefing the flight crew CRM trainer. All personnel involved in the assessment must be credible and competent in their role.
 - (2) Assessment should aim the FC CRM trainer to demonstrate his knowledges, skills and credibility required to train the CRM training elements in the non-operational environment.
 - (3) A flight crew CRM trainer should be assessed by the operator when conducting the first CRM training course.
 - (4) The assessment of flight crew CRM trainers should be conducted by flight crew CRM trainers with a minimum of 3 years’ experience
- (f) Revalidation of qualification as flight crew CRM trainer
 - (1) The validity of should be extended by 3 years if the following conditions are met within the last 12 months of the 3-year validity period by the operator:
 - (ii) the flight crew CRM trainer complete a CRM trainer refresher training and
 - (iii) the flight crew CRM trainer pass an assessment of competence
 - (2) The next 3-year validity period should start at the end of the previous period.
- (g) Renewal of qualification as flight crew CRM trainer
 - (1) if the validity period has expired, before resuming any training the flight crew CRM trainer should
 - (i) be assessed regarding his/her knowledge of the relevant flight operations;
 - (ii) complete a dedicated CRM trainer refresher training. This training should be inform by the needs of the applicant
 - (iii) pass an assessment of competence

response

Partially accepted
EASA further amended the AMC related to Opinion No 02/2021. See ‘Draft AMC & GM (OPS and FCL) amendment 1.

AMC1 ORO.FC.120 Operator conversion training

p. 59-60

comment

121

comment by: UK CAA

Page No: 59


Paragraph No: AMC1 ORO.FC.120 Operator conversion training

OPERATOR CONVERSION TRAINING FOR NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT (NCC)

Comment: It is suggested that this new AMC could be equally appropriate for non-commercial SPO with complex motor-powered aircraft (CMPA) and therefore not just NCC as appears to be indicated. We recommend review for relevance to all non-commercial operations of CMPA and delete "NCC" from the title.

Justification: Clarity and accuracy of intent

Proposed Text: Delete "NCC" from the title

response Partially accepted.
ESET AND ground training of this AMC are extended to the SPO AMC.
Non-commercial SPO with complex aircraft need to use the SPO AMC since it covers elements specific to specialised operations.

comment 324 comment by: *Company*

Unclear what significant experience means? What is a similar specialized operation? The operations should be differentiated by simple criteria, e.g.: sling-load, without additional installations (from the cabine), spraying, hoist, pulling a cable. When different companies operate similiar activites with same helicopter types, the training/checking should be credited.

response Noted.
Please refer to the response to comment #160.

comment 350 comment by: *Helialpin AG*

Please clarify the following points associated with the content of this article:

(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.

(c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.

What would be considered as procedures that is specific to the operator?
Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response Noted.
Please refer to the response to comment #160.

comment 623

comment by: *Air-Glaciers (pf)*

Please clarify the following points associated with the content of this article:
 (a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.
 (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
 What would be considered as procedures that is specific to the operator?
 Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response Noted.
Please refer to the response to comment #160.

AMC1 ORO.FC.125 Differences training and familiarisation training

p. 61

comment 132

comment by: *Airbus Helicopters*

According to the defined terminology of "variant" Variant requires either difference or familiarization training. So why b(1) is not consistent with a(1) and a(2)?

response Noted.

If a person changes types within a class of aeroplanes, a differences training with aircraft/FSTD training is needed. This case does not exist with helicopters.

comment 280

comment by: *European Helicopter Association (EHA)*

We do see several issues with compliance covering various legal requirements. Please provide guidance on how the issues below can be resolved.

How is the terminology consistent with the OSD requirements? What about equipment that is not listed in the ODR tables? Aerial work often work with STC and material that is certified according to EC regulation.



How is the operator able to identify the relevant changes when the OEM limits the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is always compliant with all relevant regulation if some relevant documents are not officially published?

Also, the issue of OSD as discussed in the R-COM has a significant influence on the proper implementation of this regulation.

With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?

How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?

response

Noted.

The table is aligned with CS FCD.410 and with difference level tables in OEB/OSDs.

The table is to be used when credit is sought. It is likely not going to be the case within the SET group.

The operator table using the ODRs should not be less restrictive than the OSD. It is meant to be compatible with the OSD table, and allow the operator to customise the table to 'variations in aircraft configuration' not covered in OSD, and in this case, justify credit that is not defined by OSD.

comment

354

comment by: *Helialpin AG*

We do see several issues with compliance covering various legal requirements. Please provide guidance on how the issues below can be resolved.

How is the terminology consistent with the OSD requirements? What about equipment that is not listed in the ODR tables? Aerial work often work with STC and material that is certified according to EC regulation.

How is the operator able to identify the relevant changes when the OEM limits the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is always compliant with all relevant regulation if some relevant documents are not officially published?

Also, the issue of OSD as discussed in the R-COM has a significant influence on the proper implementation of this regulation.

With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?

How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?

response

Noted.

Please refer to the response to comment #280.



comment	<p data-bbox="359 237 406 271">441</p> <p data-bbox="1093 237 1468 271" style="text-align: right;">comment by: AIR ZERMATT AG</p> <p data-bbox="359 302 1468 369">We do see several issues with compliance covering various legal requirements. Please provide guidance on how the issues below can be resolved.</p> <p data-bbox="359 369 1468 470">How is the terminology consistent with the OSD requirements? What about equipment that is not listed in the ODR tables? Aerial work often work with STC and material that is certified according to EC regulation.</p> <p data-bbox="359 470 1468 649">How is the operator able to identify the relevant changes when the OEM limits the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is always compliant with all relevant regulation if some relevant documents are not officially published?</p> <p data-bbox="359 649 1468 716">Also, the issue of OSD as discussed in the R-COM has a significant influence on the proper implementation of this regulation.</p> <p data-bbox="359 716 1468 828">With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?</p> <p data-bbox="359 828 1468 940">How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?</p>
response	<p data-bbox="359 963 438 996">Noted.</p> <p data-bbox="359 996 925 1030">Please refer to the response to comment #280.</p>

comment	<p data-bbox="359 1090 406 1124">477</p> <p data-bbox="1244 1090 1468 1124" style="text-align: right;">comment by: Kusi</p> <p data-bbox="359 1153 1468 1220">We do see several issues with compliance covering various legal requirements. Please provide guidance on how the issues below can be resolved.</p> <p data-bbox="359 1220 1468 1332">How is the terminology consistent with the OSD requirements? What about equipment that is not listed in the ODR tables? Aerial work often work with STC and material that is certified according to EC regulation.</p> <p data-bbox="359 1332 1468 1512">How is the operator able to identify the relevant changes when the OEM limits the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is always compliant with all relevant regulation if some relevant documents are not officially published?</p> <p data-bbox="359 1512 1468 1579">Also, the issue of OSD as discussed in the R-COM has a significant influence on the proper implementation of this regulation.</p> <p data-bbox="359 1579 1468 1691">With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?</p> <p data-bbox="359 1691 1468 1803">How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?</p>
response	<p data-bbox="359 1836 438 1870">Noted.</p> <p data-bbox="359 1870 925 1904">Please refer to the response to comment #280.</p>

comment	<p data-bbox="359 235 406 280">493</p> <p data-bbox="933 235 1468 280" style="text-align: right;">comment by: <i>BCAA (OPS - Department SPO)</i></p> <p data-bbox="359 302 1468 369">The current AMC1 ORO.FC.125 refers to a "significant" change of equipment and/or procedures.</p> <p data-bbox="359 369 1468 436">However, the term "significant" is no longer included in the new proposed AMC2 ORO.FC.126. Why and on which basis is this term deleted ?</p> <p data-bbox="359 481 1468 616">question from operators : <i>What is meant by equipment (e.g. different brand of fire extinguisher) ? the point (b) leaves this to the operator. However, different NAA will interpret this differently potentially leading to an uneven playing field</i></p>
response	<p data-bbox="359 672 438 705">Noted.</p> <p data-bbox="359 705 1468 784">The word 'significant' is not needed in the AMC because the rule only requires 'equipment and procedure training' if the change requires additional knowledge.</p>
comment	<p data-bbox="359 840 406 873">584</p> <p data-bbox="1173 840 1468 873" style="text-align: right;">comment by: <i>AIRGREEN</i></p> <p data-bbox="359 907 1468 974">We do see several issues with compliance covering various legal requirements. Please provide guidance on how the issues below can be resolved.</p> <p data-bbox="359 974 1468 1075">How is the terminology consistent with the OSD requirements? What about equipment that is not listed in the ODR tables? Aerial work often work with STC and material that is certified according to EC regulation.</p> <p data-bbox="359 1075 1468 1254">How is the operator able to identify the relevant changes when the OEM limits the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is always compliant with all relevant regulation if some relevant documents are not officially published?</p> <p data-bbox="359 1254 1468 1321">Also, the issue of OSD as discussed in the R-COM has a significant influence on the proper implementation of this regulation.</p> <p data-bbox="359 1321 1468 1433">With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?</p> <p data-bbox="359 1433 1468 1545">How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?</p>
response	<p data-bbox="359 1556 438 1590">Noted.</p> <p data-bbox="359 1590 925 1635">Please refer to the response to comment #280.</p>
comment	<p data-bbox="359 1691 406 1724">621</p> <p data-bbox="1109 1691 1468 1724" style="text-align: right;">comment by: <i>Air-Glaciers (pf)</i></p> <p data-bbox="359 1758 1468 1825">We do see several issues with compliance covering various legal requirements. Please provide guidance on how the issues below can be resolved.</p> <p data-bbox="359 1825 1468 1937">How is the terminology consistent with the OSD requirements? What about equipment that is not listed in the ODR tables? Aerial work often work with STC and material that is certified according to EC regulation.</p> <p data-bbox="359 1937 1468 2049">How is the operator able to identify the relevant changes when the OEM limits the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is</p>

always compliant with all relevant regulation if some relevant documents are not officially published?
 Also, the issue of OSD as discussed in the R-COM has a significant influence on the proper implementation of this regulation.
 With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?
 How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?

response

Noted.
 Please refer to the response to comment #280.

AMC1 ORO.FC.126 Equipment and procedure training

p. 61

comment

41

comment by: *DGAC FR (Mireille Chabroux)*

DGAC FR suggests to change the AMC into a GM.

response

Accepted.

comment

351

comment by: *Helialpin AG*

Please clarify the following points associated with the content of this article:
 (a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.
 (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
 What would be considered as procedures that is specific to the operator?
 Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response

Noted.
 Please refer to the response to comment #160.



comment	622	comment by: <i>Air-Glaciers (pf)</i>
	<p>This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.</p>	
response	<p>Noted. Thank you. The wording and references have been amended to clarify the following: The AMC is not needed for SEP and SET helicopters operated as a group under ORO.FC.140(b). The AMC is not needed when no credit is sought. The AMC is not needed for equipment where no additional knowledge is needed. When the variations in the fleet are covered by OSD, the OSD can be used.</p>	

Explanatory note to AMC 1 ORO.FC.125 and AMC1 ORO.FC.126

p. 61

comment	325	comment by: <i>Company</i>
	<p>Difficult to understand. Operators should be grouped according their profile (activity, amount of different helicopters).</p>	
response	<p>Noted.</p>	

AMC1 ORO.FC.125 & ORO.FC.126 & ORO.FC.140(a) Differences training and familiarization

p. 62-70

comment	3	comment by: <i>FOCA</i>
	<p>The establishment of "ODR" tables should not be applicable to single-engined other than complex helicopters. The effort regarding the benefit of establishing ODR tables - for single-engined other than complex helicopters - is not proportionate.</p>	
response	<p>Noted. Thank you. Please refer to the response to comment #622.</p>	
comment	9	comment by: <i>KLM</i>
	<p>Page 63, item (c)(2) In order to reflect the flexibility for operator to determine a base aircraft for each difference or familiarization training separately (and therefor allowing for example: base B777 to variant B787 and - within the same operator - base B787 to variant B777), we propose to rephrase the first sentence of (c)(2) as follows: The operator should for each intended difference or familiarization training separately first nominate one aircraft as the base aircraft from which to show differences with the second</p>	



	aircraft type or variant, the 'difference aircraft', in terms of technology (systems), procedures, pilot handling and aircraft management.
response	Partially accepted. GM is introduced to explain that this is possible.
comment	23 comment by: <i>KLM Cityhopper</i> <div style="border: 1px solid #ccc; padding: 10px; background-color: #f0f8ff;"> <p>Page 63, item (c)(2) In order to reflect the flexibility for operator to determine a base aircraft for each difference or familiarization training separately (and therefor allowing for example: base E190 E1 to variant E190 E2 and - within the same operator - base E190 E2 to variant E190 E1), we propose to rephrase the first sentence of (c)(2) as follows: The operator should for each intended difference or familiarization training separately first nominate one aircraft as the base aircraft from which to show differences with the second aircraft type or variant, the 'difference aircraft', in terms of technology (systems), procedures, pilot handling and aircraft management.</p> </div>
response	Partially accepted. Please refer to the response to comment #9.
comment	57 comment by: <i>DGAC FR (Mireille Chabroux)</i> DGAC FR suggests to clarify the term "significant experience".
response	Noted. Significant experience is for the operator to determine in the OPS manual, since the operator is in the best position to do so, based on the similarities and differences between the activity the pilot has experienced before and the specialised operation that the pilot will be trained for.
comment	107 comment by: <i>DRF Luftrettung</i> Attachment #3 <u>PAGE 62</u> SECTION/ NPA STATEMENT: (b) Scope of ODRs (4) (i) All recurrent training, checking and recent experience requirements should be completed independently for each type or variant, unless credits have been established by using ODRs tables.



COMMENT:

We read this, that if no ODR's are established, Checks have to be done on each Type and variant.

This does not consider the specifications in the Operator suitability data from the manufacturers.

Example from OSD EC135/635 from 01.August 2016-->see Attachment

SUGGESTION:

Please change the text to:

....unless credits have been established by using ODRs tables or the manufacturers Operational suitability Data (OSD)

response

Noted.

The sentence is already in ORO.FC.140(a) and needs not be duplicated in the AMC to it.

comment

133

comment by: *Airbus Helicopters*

In the definition for credit in (4) it is proposed to remove word "recurrent" to open the possibility to also give credit between base aircraft and other type of equipment. Also to shorten transition course or reduce skill test.

Consistence with CS-FCD regarding the definition of variants should be checked. The paragraph (d)(2) "Training level A/B require familiarization training and C/D differences training"

should be amended for "equipment and procedure training".

E.g. A VFR aircraft equipped with a new FMS would not necessitate a new variant of type rating (so no diff. or fam. training) even if an OTD (C level) is necessary for this "equipment training".

response

Accepted.

comment

159

comment by: *FNAM/SNEH*

This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.

response

Noted.

Please refer to the response to comment #622.

comment

186

comment by: *Oya Vendée Hélicoptères*

This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For

response	<p>non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.</p> <p>Noted. Please refer to the response to comment #622.</p>
comment	<p>213 comment by: <i>MBH SAMU</i></p> <p>This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.</p>
response	<p>Noted. Please refer to the response to comment #622.</p>
comment	<p>240 comment by: <i>SAF</i></p> <p>This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.</p>
response	<p>Noted. Please refer to the response to comment #622.</p>
comment	<p>281 comment by: <i>European Helicopter Association (EHA)</i></p> <p>This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.</p>
response	<p>Noted. Please refer to the response to comment #622.</p>
comment	<p>355 comment by: <i>Helialpin AG</i></p>

This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.

response Noted.
Please refer to the response to comment #622.

comment 411

comment by: *KMN*

This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.

response Noted. Please refer to the response to comment #622.

comment 442

comment by: *AIR ZERMATT AG*

This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.

response Noted.
Please refer to the response to comment #622.

comment 478

comment by: *Kusi*

This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be

simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.

response Noted.
Please refer to the response to comment #622.

comment 494 comment by: BCAA (OPS - Department SPO)

questions from operators :
How is the terminology consistent with the OSD requirements. What about equipment that is not listed in the ODR tables. Aerial work often work with STC and material that is certified according to EC regulation.
How is the operator able to identify the relevant changes when the OEM limit the distribution of the OSD data? The availability and distribution of OSD poses a significant risk not to remain in compliance. How should a small operator be able to ensure that he is always compliant with all relevant regulation if some relevant documents are not officially published?
Also, the issue of OSD as discussed in the last R-COM has a significant influence on the proper implementation of this regulation.
With regards to the difference levels in the table on page 66. What is this difference table is not identical to the difference table described in the OSD (approved by EASA)? Which table is more relevant (see OSD As-350)?
How is a small operator able to ensure compliance with all difference training and checking requirements during a regular OPC. How would it be possible to make groups of helicopters and cover the requirements of this AMC as well?

response Noted. Thank you.
Please refer to the response to comment #622.

comment 525 comment by: Star Work Sky S.a.s.

Limitations in cross crediting according to ODR tables. Requirement to perform training and checking according to ODR tables. All recurrent training, checking and recent experience requirements should be completed independently for each type or variant, unless credits have been established by using ODRs tables. OSD is baseline, more strict is possible. Very detailed indications how difference training should be prepared and performed. A results Higher Cost are expected.

response Noted.
However, simplicity and avoidance of higher costs are embedded. Please refer to the response to comment #622.

comment 554 comment by: DHV e.V.

response Noted.



comment	566	comment by: Airbus Helicopters
	The table should indicate CURRENCY instead of REC EXP in the last column title.	
response	Partially accepted. The correct terminology is 'Recency' under FCL.050.	
comment	585	comment by: AIRGREEN
	This article should be simplified as much as possible. It could include a section that covers the requirements for small helicopter operators with up to three different types. There is a significant risk for non compliance of this article due to the complexity of the language. For non complex helicopters simplifications and crediting should be allowed as much as possible. This should be based on the type entered into the license. There should be simplification with regards to the different levels for training and checking. This type of complexity leads to significant insecurity for small operators thereby reducing safety.	
response	Noted. Please refer to the responses to comments #622 and #3.	
comment	616	comment by: AIRBUS
	Airbus suggests the following modifications:	
	(a)(4) 'Credit' refers to the recognition of recurrent training, checking or recent experience based on commonalities between aircraft.	
	(b) (1) for the introduction of a change of equipment on a type or variant currently operated. The operator may define credit based on ODRs tables;	
	(b) (4) (i) All recurrent training, checking and recent experience requirements should be completed independently for each type or variant, unless credits have been established by using the OSD or ODRs tables.	
	(c) (2) The operator should first nominate one aircraft as the base aircraft from which to show differences with the second aircraft type or , variant or variation ...	
	(c) (3) REC EXP CURR	
	<u>Justification:</u>	
	(a) and (b) (1) Credit applies also to both initial and recurrent training.	
	(b) (4) (i) The OEMs OSD provides also credits for training, checking and recent experience.	
	(c) (2) ODR tables for equipment are between variation in equipment of the same variant.	
	(c) (3) CURR for Currency is more appropriate than REC EXP for the Recent Experience (as per FCL.060).	
response	Partially accepted.	



(a)(4) is not necessary. Initial training in the context of Part-ORO is the operator conversion course, the familiarisation and differences training, and equipment & procedure training. Neither would require credit.

The (b)(1) proposal is covered under (b)(3). The initial training will be the 'equipment and procedure training'. Credit is needed only for the recurrent. Thank you.

The (b)(4)(i) proposal is covered under (b)(4)(ii). Thank you.

(c)(2) is accepted.

(c)(3) is accepted.

Please also refer to the response to comment #566.

AMC1 ORO.FC.120 & 126 & 320 & 326 Operator conversion training and checking & equipment and procedure training and checking

p. 71-72

comment 56 comment by: DGAC FR (Mireille Chabroux)

The subtitle « specialised operations » is not consistent with those of other AMCs.

response Accepted.

comment 58 comment by: DGAC FR (Mireille Chabroux)

DGAC FR suggests to amend paragraph c) 2) as follows:

PROPOSAL

“The amount of training required **by for** the flight crew member **for-by** the operator’s conversion course”

response Accepted.
The wording has been improved.

comment 160 comment by: FNAME/SNEH

Please clarify the following points associated with the content of this article:

(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.

(c) When looking at (c), would it be possible to define standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.

What would be considered as procedures that is specific to the operator?

Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received



response	<p>standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p> <p>Noted.</p> <p>(a)(3) and (c) are for the operator to determine, since the operator is in the best position to do so. Whatever the operator determines, the pilot then needs success in the initial OPC.</p> <p>Under commercial SPO or CAT: If all conditions are met, the rule does not prevent two operators from having the same SOPs on the same aircraft types, similar equipment, the same training and checking programmes with synchronised 3-year cycles and to nominate the same instructor. If this happens, then this person may be able to train and check a pilot on behalf of both operators at the same time.</p> <p>Under SPO, two operators may have the same SOPs for the same specialised operation. However, business models and combinations of different kinds of specialised operations vary widely from one operator to the other. This means that the conclusions of the operator risk assessments, the training & checking needs, and the resulting training & checking syllabi are likely to be very different.</p> <p>It must be emphasised that environmental conditions (mountains, offshore, etc.) may significantly affect SOPs as well as training and checking programmes of otherwise quasi-identical operators.</p>
comment	<p>187 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>Please clarify the following points associated with the content of this article:</p> <p>(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.</p> <p>(c) When looking at (c), would it be possible to define standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.</p> <p>What would be considered as procedures that is specific to the operator?</p> <p>Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p>
response	<p>Noted.</p> <p>Please refer to the response to comment #160.</p>
comment	<p>214 comment by: <i>MBH SAMU</i></p> <p>Please clarify the following points associated with the content of this article:</p> <p>(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.</p> <p>(c) When looking at (c), would it be possible to define standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies</p>

	<p>exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.</p> <p>What would be considered as procedures that is specific to the operator?</p> <p>Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p>
response	<p>Noted.</p> <p>Please refer to the response to comment #160.</p>

comment	<p>241 comment by: SAF</p> <p>Please clarify the following points associated with the content of this article:</p> <p>(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.</p> <p>(c) When looking at (c), would it be possible to define standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.</p> <p>What would be considered as procedures that is specific to the operator?</p> <p>Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p>
response	<p>Noted.</p> <p>Please refer to the response to comment #160.</p>

comment	<p>282 comment by: European Helicopter Association (EHA)</p> <p>Please clarify the following points associated with the content of this article:</p> <p>(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.</p> <p>(c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.</p> <p>What would be considered as procedures that is specific to the operator?</p> <p>Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p>
response	<p>Noted.</p>

Please refer to the response to comment #160.

comment

412

comment by: *KMN*

Please clarify the following points :
 (a) (3) what does significant experience mean? What is a similar specialized operation?

response

Noted.
 Please refer to the response to comment #160, first paragraph.

comment

443

comment by: *AIR ZERMATT AG*

Please clarify the following points associated with the content of this article:
 (a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.
 (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
 What would be considered as procedures that is specific to the operator?
 Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response

Noted.
 Please refer to the response to comment #160.

comment

479

comment by: *Kusi*

Please clarify the following points associated with the content of this article:
 (a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.
 (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
 What would be considered as procedures that is specific to the operator?
 Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received

standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response Noted.
Please refer to the response to comment #160.

comment 495 comment by: BCAA (OPS - Department SPO)

questions from operators :
point (a)(3) : what does significant experience mean? What is a similar specialized operation? When looking at point (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
What would be considered as procedures that is specific to the operator?
Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response Noted.
Please refer to the response to comment #160.

comment 529 comment by: Star Work Sky S.a.s.

Additional requirements for training and checking in SPO. Introduction of differences and conversion trainings. Flight training required for all SOP unless significant experience by pilot can be shown. Training requirements when changing SPO operators.
As result an increase of Cost and Workload to organisation performing SPO with several type of Helicopter and different SPO.

response Noted.
Initial SPO training and checking (when joining operator or learning a new SPO activity) is very lightly regulated. Flight training is required to learn a new specialised activity, but in the other cases the regulation allows the operator to assess whether flight training is necessary.
With regard to operators involved in different kinds of SPO with different helicopter types, the following should be considered regarding recurrent training and checking:

- The operator can combine OPCs and LPCs with regard to type-related manoeuvres.
- The operator may credit SPO-specific training and checking across the types under a risk assessment, taking into consideration any type-specific issue.
- The operator performing more than one specialised operation can organise the SPO-specific training and checking on a 3-year cycle.

comment 555 comment by: DHV e.V.

Please clarify the following points :
(a) (3) what does significant experience mean? What is a similar specialized operation?



response Noted.
Please refer to the response to comment #160.

comment 586 comment by: AIRGREEN

Please clarify the following points associated with the content of this article:
(a) (3) what does significant experience mean? What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.

(c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.

What would be considered as procedures that is specific to the operator?

Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response Noted.
Please refer to the response to comment #160.

Explanatory note to AMC1 ORO.FC.120 & 126 & 320 & 326

p. 72

comment 332 comment by: Company

What is a similar operation? It should be only a few different. Otherwise pilot exchange could be problematic.

response Noted.
Please refer to the response to comment #160.

AMC1 ORO.FC.130 Recurrent training and checking

p. 72-74

comment 59 comment by: DGAC FR (Mireille Chabroux)

The word « syllabus » should be added after “checking” in the subtitle « recurrent ...(NCC) » for consistency with AMC1 ORO.FC.230.

response Noted.

comment 60 comment by: DGAC FR (Mireille Chabroux)



response	<p>§(b) see comment regarding “periodic check” on ORO.FC.130(b) page 42.</p> <p>Noted. Please refer to the response to comment #32.</p>
comment	<p>122 comment by: UK CAA</p> <p>Page No: 72</p> <p>Paragraph No: AMC1 ORO.FC.130 Recurrent training and checking</p> <p>RECURRENT TRAINING AND CHECKING TO DEMONSTRATE COMPETENCE FOR NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT (NCC)</p> <p>Comment: It is suggested that this new AMC could be equally appropriate for non-commercial SPO with complex motor-powered aircraft (CMPA) and therefore not just NCC as appears to be indicated. We recommend review for relevance to all non-commercial operations of CMPA and delete “NCC” from the title.</p> <p>Justification: Clarity and accuracy of intent.</p> <p>Proposed Text: Delete “NCC” from the title</p>
response	<p>Partially accepted. ESET AND ground training of this AMC are extended to the SPO AMC. Non-commercial SPO with complex aircraft need to use the SPO AMC since it covers elements specific to specialised operations</p>
comment	<p>394 comment by: Andrew McKECHNIE</p> <p>Attachment #4</p> <p>AMC1 ORO.FC.130 Recurrent Training and Checking for non-commercial operations If adopted the NPA would require pilots flying for non-commercial and specialised operators to complete the same training/checking events as pilots flying for CAT operators albeit with differences in the content of training events and validity of the OPC. AMC1 ORO.FC.130 should, therefore, follow the same format at AMC1 ORO.FC.230. The ‘periodic demonstration of competence’ is divided into an operator’s proficiency check (OPC) and a line check (LC). The AMC should refer to operator’s proficiency check (OPC) and a line check (LC) rather than ‘periodic demonstration of competence’ and describe how the line check should be conducted. This should take into account the different risk profile of non-commercial and non-specialised operations, the characteristics of aircraft types involved and the nature of operations. Line checks could be conducted by a suitably qualified pilot from either an operating or observers’ seat. As the qualifications of personnel conducting training and checking and use of FSTD are included in ORO.FC.145 they do not need to be reproduced here.</p> <p>The title of the AMC should also be amended to clarify that the requirements applied to all operations within the scope of the Part, other than commercial air transport (i.e. non-commercial and specialised operations).</p> <p>Proposal</p>

response See attached file "AMC ORO.FC.130 non-commercial"

response Not accepted.
Line checks are only for CAT.
For NCC, the periodic demonstration of competence needs not be an OPC.
For SPO, the aircraft/FSTD training and the OPC need to primarily focus on specialised tasks.

comment 480 comment by: Kusi

We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well. We suggest that training needs to be performed annually. This is along the principle more training less checking.

response Partially accepted.
Please refer to the response to comment #161.

comment 624 comment by: Air-Glaciers (pf)

We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well. We suggest that training needs to be performed annually. This is along the principle more training less checking.

response Partially accepted.
Please refer to the response to comment #161.

Explanatory note to AMC1 ORO.FC.135 p. 75

comment 123 comment by: UK CAA

Page No: 75

Paragraph No: AMC1 ORO.FC.135 Pilot qualification to operate in either pilot’s seat
NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT (NCC)



	<p>Comment: It is suggested that this new AMC could be equally appropriate for non-commercial SPO with complex motor-powered aircraft (CMPA) and therefore not just NCC as appears to be indicated. We recommend review for relevance to all non-commercial operations of CMPA and delete “NCC” from the title.</p> <p>Justification: Clarity and accuracy of intent.</p> <p>Proposed Text: Delete “NCC” from the title</p>
response	Not accepted.

AMC1 ORO.FC.130(a) Recurrent training and checking	p. 75
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comment	<p>18 comment by: <i>ERAC European Regional Aerodromes Community</i></p> <p>The European Regional Aerodromes Community ERAC, as a representative of a group of major German NCC (A) operators thanks the Agency for publishing NPA 2019-08. Our communities will be well served with these new provisions based on safety objectives.</p> <p>Comment: We identified ORO.FC.130 (a) (2) (iii) (C): (iii) Every year the emergency and safety equipment training programme should include the following: (C) actual handling of fire extinguishers of the type used;</p> <p>to be more restrictive than the correlated CAT prescription ORO.FC.230 (a), (2) (ii), that provides a relieve for the Halon environmental issue and for the actual use of the equipment to a less frequent schedule in sub paragraph (iii).</p> <p>(iii) Every 3 years the programme of training should include the following: (C) actual fire-fighting using equipment representative of that carried in the aircraft on an actual or simulated fire except that, with Halon extinguishers, an alternative extinguisher may be used; it is therefore suggested that ORO.FC.130 (a) (2) is amended with a sub-paragraph (iv) with the text of ORO.FC.230 (a) (2) (iii) (C).</p> <p>Justification: To avoid ORO.FC.130 (a) (2) to be more restrictive than ORO.FC.230 (a) (2) and to clarify that handling does exclude the activation of the fire extinguisher and the release of the extinguishing agent.</p>
response	<p>Noted.</p> <p>AMC1 ORO.FC.230 (a)(2)(ii)(C) also requires the ‘actual handling’ of firefighting equipment of the type used (without activating it) on a yearly basis for CAT operations. In CAT, additional training is also required: The release of the extinguishing agent every 3 years is only required in paragraph (a)(2)(iii)(C). The wording used for this is ‘actual firefighting’.</p>
comment	<p>19 comment by: <i>LBA</i></p> <p>comment LBA:</p>



We identified AMC1 ORO.FC.130 (a) (2) (ii) (C)

(iii) Every year the emergency and safety equipment training programme should include the following:

(C) actual handling of fire extinguishers of the type used;

to be more restrictive than the correlated CAT prescription AMC1 ORO.FC.230 (a), (2) (iii), that provides a relieve for the Halon environmental issue and for the actual use of the equipment to a less frequent schedule in sub paragraph (iii).

(iii) Every 3 years the programme of training should include the following:

(C) actual fire-fighting using equipment representative of that carried in the aircraft on an actual or simulated fire except that, with Halon extinguishers, an alternative extinguisher may be used;

it is therefore suggested that AMC1 ORO.FC.130 (a) (2) is amended with a sub-paragraph (iv) with the text of AMC1 ORO.FC.230 (a) (2) (iii) (C).

response

Noted.
Please refer to the response to comment #18.

comment

134

comment by: Airbus Helicopters

The “if applicable” is not self-explanatory and therefore Airbus Helicopters proposes to indicate, based on the explanatory note, the following text:

“~~If applicable~~ Unless credits are used as per ORO.FC.140 (a) (based on OSD) or as per ORO.FC.140 (b), (c) or (d), AMC1 ORO.FC.125 & 126 & 140 (a) should be used to determine the recurrent training and checking...”

response

Partially accepted.
AMC1 ORO.FC.130(a) has been re-structured and its scope restricted to the recurrent ground training of variations in aircraft configuration.

comment

161

comment by: FNAME/SNEH

We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well.

response

Partially accepted.
AMC1 ORO.FC.130(a) has been re-structured and its scope restricted to the recurrent ground training of variations in aircraft configuration.

comment

188

comment by: Oya Vendée Hélicoptères



	<p>We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well.</p>
response	<p>Partially accepted. Please refer to the response to comment #161.</p>
comment	<p>215 comment by: <i>MBH SAMU</i></p> <p>We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well.</p>
response	<p>Partially accepted. Please refer to the response to comment #161.</p>
comment	<p>242 comment by: <i>SAF</i></p> <p>We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well.</p>
response	<p>Partially accepted. Please refer to the response to comment #161.</p>
comment	<p>283 comment by: <i>European Helicopter Association (EHA)</i></p> <p>We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well. We suggest that training needs to be performed annually. This is along the principle more training less checking.</p>
response	<p>Partially accepted. Please refer to the response to comment #161.</p>
comment	<p>349 comment by: <i>Helialpin AG</i></p>

We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well. We suggest that training needs to be performed annually. This is along the principle more training less checking.

response Partially accepted.
Please refer to the response to comment #161.

comment 502 comment by: BCAA (OPS - Department SPO)
questions from operators : *would an operator have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HELSO Operation, Searchlight, etc.)?*

response Partially accepted.
Please refer to the response to comment #161.

comment 556 comment by: DHV e.V.

We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. R-44 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well.

response Partially accepted.
Please refer to the response to comment #161.

comment 587 comment by: AIRGREEN

We assume that an operator will not have to perform training and checking for each aircraft configuration (e.g. AS350B3 with external Camera, with open doors, HESLO Operation, Searchlight, etc.)? We suggest that an alleviation based on experience is introduced. An experienced pilot with more than 1'000 hrs. total time and more than 100 hrs. in a specific operation will only have to perform checking every three years. This should be extended to HESLO and HEC operations as well. We suggest that training needs to be performed annually. This is along the principle more training less checking.

response Partially accepted.
Please refer to the response to comment #161.



GM1 ORO.FC.140 Operation on more than one type or variant

p. 76

comment	503 comment by: <i>BCAA (OPS - Department SPO)</i> question from operators : <i>Would you accept that a 10'000 hr pilot in a single engine aircraft would only have to perform 1 OPC if he has more than 1000 hrs in each operation and at least 100hrs each year in each operation?</i>
response	Noted. Answer to the question: Experience and experience on a type are one element. Recency and recent experience of major failures are also important. The issues are: Does training take place on both types? How relevant is a checking session on one type? And can it be credited to another type? This NPA proposes that training takes place on all types and an OPC on a single-engine helicopter type can be credited to a group of single-engine helicopter types, if restricted to day VFR.

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

p. 76

comment	284 comment by: <i>European Helicopter Association (EHA)</i> We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.
response	Partially accepted. Please refer to the response to comment #317.
comment	348 comment by: <i>Helialpin AG</i> We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.
response	Partially accepted. Please refer to the response to comment #317.
comment	444 comment by: <i>AIR ZERMATT AG</i> We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

response Partially accepted.
Please refer to the response to comment #317.

comment 481 comment by: *Kusi*

We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

response Partially accepted.
Please refer to the response to comment #317.

comment 625 comment by: *Air-Glaciers (pf)*

We would strongly suggest that the R-44 is included in the list of single engine piston helicopters of AMC1 FCL.740.H(a)(3) Revalidation of type ratings – helicopters. This is due to the fact that R-44 is the most widely used piston helicopter in Europe and there is no reason not to include this type in the above mentioned list.

response Partially accepted.
Please refer to the response to comment #317.

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

p. 76-77

comment 42 comment by: *DGAC FR (Mireille Chabroux)*

DGAC proposes to add in the title "Elements of OPC relevant to the specific activity"
The term "LINE CHECK" should be replaced (see comment xxx)

Paragraph a) should be a GM. Moreover, DGAC FR wonders why the item "activity" is not listed. Indeed, the type of activity should be taken into account in order to use a "line check" on one type to revalidate another type.

response Partially accepted.
Line checks are required only under CAT (See ORO.FC.230).
Line checks are useful to be defined earlier than in ORO.FC.230. The definition is moved from ORO.FC.130 to 'definitions' for clarification and for use in ORO.FC.140.
Line checks are optional for NCC and SPO and CAT A to A (ORO.FC.130(b)).
They may be used to meet the requirement regarding the designation of the commander under NCC.



Even though they are checks, line checks are not conducted by an examiner and can be cross-credited across types and variants without OSD. These alleviations are better introduced in ORO.FC.140.

Also: Line check cross-crediting across the types is based on 'kinds of operations' which encompasses 'activity'.

comment

108

comment by: DRF Luftrettung

SECTION/ NPA STATEMENT:

AMC1 ORO.FC.140(d)

(c) For IFR operations of complex helicopters, a line check on one type or variant should revalidate the line check for the other type or variant only if such credits are defined in operational suitability data established in accordance with Commission Regulation (EU) No 748/2012

(a) Prior to using a line check on one helicopter type or variant to revalidate the line check on other helicopter types or variants, the operator should consider whether the kind of operations are sufficiently similar in terms of:

- (1) use of aerodromes or operating sites;
- (2) day VFR, night VFR or IFR operations;
- (3) use of operational approvals and specific approvals;
- (4) normal procedures, including take-off and landing procedures;
- (5) use of automation; and
- (6) for IFR flights, flight instrument displays and human-machine interface.

COMMENT:

With the exception of 6) the conditions are not type relevant. Even 6) we do not consider as type relevant, because an IFR rated pilot should be able to evaluate old fashioned instruments as well as modern flight display systems.

Further on OSD are only valid with helicopters of the same manufacturer, so an OSD never give credits between two types of helicopters.

SUGGESTION:

We therefore suggest to change the proposed text to:

For IFR operations of complex helicopters, a line check on one type or variant should revalidate the line check for the other type or variant only if ODR's are established in the operation manual.

response

Not accepted.

For IFR, only the OSD can give credit for the line check. The kinds of operations should also be taken into account.

comment

162

comment by: FNAM/SNEH

We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.



response Partially accepted.
Please refer to the response to comment #42.

comment 189 comment by: *Oya Vendée Hélicoptères*
We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.

response Partially accepted.
Please refer to the response to comment #162.

comment 216 comment by: *MBH SAMU*
We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.

response Partially accepted.
Please refer to the response to comment #162.

comment 243 comment by: *SAF*
We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.

response Partially accepted.
Please refer to the response to comment #162.

comment 285 comment by: *European Helicopter Association (EHA)*
We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.

response Partially accepted.
Please refer to the response to comment #162.



comment	347	comment by: <i>Helialpin AG</i>
<p>We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.</p>		
response	<p>Partially accepted. Please refer to the response to comment #162.</p>	
comment	413	comment by: <i>KMN</i>
<p>We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.</p>		
response	<p>Partially accepted. Please refer to the response to comment #162.</p>	
comment	445	comment by: <i>AIR ZERMATT AG</i>
<p>We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.</p>		
response	<p>Partially accepted. Please refer to the response to comment #162.</p>	
comment	482	comment by: <i>Kusi</i>
<p>We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.</p>		

response Partially accepted.
Please refer to the response to comment #162.

comment 504 comment by: BCAA (OPS - Department SPO)
according to explanatory note, the only affected domain is CAT H. However, it is not specified in the text (see also question below).

question from SPO operator: *What would a line check for a HESLO Operation look like?*

response Partially accepted.
Please refer to the response to comment #162.

comment 557 comment by: DHV e.V.

response Noted.

comment 588 comment by: AIRGREEN

We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.

response Partially accepted.
Please refer to the response to comment #162.

comment 626 comment by: Air-Glaciers (pf)

We suggest that no line checks are necessary in aerial work operations. The training and checking should cover only the relevant flying elements. Line checks in SPO are not required. There is no definition for line flying in aerial work. Competence for handling the helicopter in specific configurations during aerial work operations (e.g. open door for Photo flights) should be checked during the OPC. These checks should then be cross-credited to other types of helicopters. A specific line check as defined is not necessary.

response Partially accepted.
Please refer to the response to comment #162.

comment	<p>61 comment by: DGAC FR (Mireille Chabroux)</p> <p>To clarify, DGAC FR suggest to add "previous " in paragraphs b)1, b)2 and b)3)</p>
response	Accepted.
comment	<p>64 comment by: DGAC FR (Mireille Chabroux)</p> <p>Editorial comments:</p> <p>PROPOSAL</p> <p>(2) Training and checking covering the relevant aspects associated with HEC and HESLO should be conducted by a HEC or HESLO instructor as defined in AMC1 SPO.SPEC.HEC.100 and AMC1 SPO.SPEC.HEC HESLO.100.</p> <p>(3) Training and checking covering the relevant aspects associated with a specialised operation other than HEC and HESLO should be conducted by a nominated PIC with the following flight experience:</p> <p>(i) more than at least 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant;</p> <p>(ii) for specialised operations other than HEC and HESLO, either:</p> <p>(A) the nominated PIC experience in the applicable specialised operation should be at least 500 hours experience in the applicable specialised operation, or</p> <p>(B) the nominated PIC experience should be 1 000 hours in specialised operations and the number of hours in the applicable specialised operation as defined by the operator, based on a risk assessment, taking into account the complexity of the relevant aspects associated with the applicable specialised operation.</p>
response	Accepted.
comment	<p>124 comment by: UK CAA</p> <p>Page No: 77/78</p> <p>Paragraph No: AMC1 ORO.FC.145 and GM1 ORO.FC.145 Provision of training and conduct of checking</p> <p>ACCEPTANCE OF PREVIOUS TRAINING FOR NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT (NCC) and POLICY FOR ACCEPTANCE OF PREVIOUS TRAINING AND CHECKING FOR OTHER THAN COMMERCIAL TRANSPORT OPERATIONS (NCC)</p> <p>Comment: It is suggested that this new AMC could be equally appropriate for non-commercial SPO with complex motor-powered aircraft (CMPA) and therefore not just NCC as appears to be indicated. We recommend review for relevance to all non-commercial operations of CMPA and delete "NCC" from the titles.</p>

	<p>Justification: Clarity and accuracy of intent</p> <p>Proposed Text: Delete “NCC” from the titles</p>
response	Accepted.
comment	<p>346 comment by: <i>Helialpin AG</i></p> <p>What is meant by audit pooling in non complex aerial work operations?</p>
response	<p>Noted.</p> <p>‘audit pooling’ is re-formulated for clarification purposes.</p> <p>Answer to question: Aerial work takes place either under SPO (commercial or non-commercial with complex) or under NCO-SPEC, but never under NCC. This GM currently applies to NCC.</p>
comment	<p>629 comment by: <i>Air-Glaciers (pf)</i></p> <p>Please provide clarification to the following questions. Would it be necessary to describe in detail the difference training for aerial work operations? What type of operations could be combined into one? How detailed do you expect lesson plans to be? We suggest that the training program for training and checking needs to be approved for all aerial work operations if cross crediting between different operations and types of helicopters is requested and used by an SPO operator.</p>
response	<p>Noted.</p> <p>Differences training is aligned with FCL and is not specific to SPO.</p> <p>With regard to equipment and procedure training for different specialised operations, the AMC defines the expectations.</p> <p>The proposal does not include new approvals for SPO, which activity is subject to a declaration.</p>

GM1 ORO.FC.145 Provision of training and conduct of checking	p. 78
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comment	<p>62 comment by: <i>DGAC FR (Mireille Chabroux)</i></p> <p>DGAC FR doesn't see the reason for having this GM linked to ORO.FC</p>
response	Noted. It is here as a reminder of ORO.GEN requirements.
comment	<p>124 ❖ comment by: <i>UK CAA</i></p>



	<p>Page No: 77/78</p> <p>Paragraph No: AMC1 ORO.FC.145 and GM1 ORO.FC.145 Provision of training and conduct of checking</p> <p>ACCEPTANCE OF PREVIOUS TRAINING FOR NON-COMMERCIAL OPERATIONS WITH COMPLEX MOTOR-POWERED AIRCRAFT (NCC) and POLICY FOR ACCEPTANCE OF PREVIOUS TRAINING AND CHECKING FOR OTHER THAN COMMERCIAL TRANSPORT OPERATIONS (NCC)</p> <p>Comment: It is suggested that this new AMC could be equally appropriate for non-commercial SPO with complex motor-powered aircraft (CMPA) and therefore not just NCC as appears to be indicated. We recommend review for relevance to all non-commercial operations of CMPA and delete "NCC" from the titles.</p> <p>Justification: Clarity and accuracy of intent</p> <p>Proposed Text: Delete "NCC" from the titles</p>
response	Accepted.
comment	163 comment by: <i>FNAM/SNEH</i>
	What is meant by audit pooling in non complex aerial work operations?
response	Noted. Please refer to the response to comment #346.
comment	190 comment by: <i>Oya Vendée Hélicoptères</i>
	What is meant by audit pooling in non complex aerial work operations?
response	Noted. Please refer to the response to comment #346.
comment	217 comment by: <i>MBH SAMU</i>
	What is meant by audit pooling in non complex aerial work operations?
response	Noted. Please refer to the response to comment #346.
comment	244 comment by: <i>SAF</i>
	What is meant by audit pooling in non complex aerial work operations?
response	Noted. Please refer to the response to comment #346.
comment	286 comment by: <i>European Helicopter Association (EHA)</i>
	What is meant by audit pooling in non complex aerial work operations?



response	Noted. Please refer to the response to comment #346.	
comment	446	comment by: AIR ZERMATT AG
	This GM is not necessary. Training and checking which can be cross credited from other operators (operator transition and/or crew lending) shall be credited upon approval by the Nominated Person Flight Operations. He/she is responsible in order to be compliant, hence must have the degree of freedom to do so.	
response	Not accepted. ORO.FC defines operator requirements for crew training and checking requirements. This is an alleviation that cannot be introduced without criteria.	
comment	483	comment by: Kusi
	What is meant by audit pooling in non complex aerial work operations?	
response	Noted. Please refer to the response to comment #346.	
comment	505	comment by: BCAA (OPS - Department SPO)
	question from operators : What is an audit pooling in non complex aerial work operations?	
response	Noted. Please refer to the response to comment #346.	
comment	589	comment by: AIRGREEN
	What is meant by audit pooling in non complex aerial work operations?	
response	Noted. Please refer to the response to comment #346.	
comment	628	comment by: Air-Glaciers (pf)
	What is meant by audit pooling in non complex aerial work operations?	
response	Noted. Please refer to the response to comment #346.	



comment	82	comment by: <i>DGAC FR (Mireille Chabroux)</i>
	<p>DGAC FR considers that the experience set for nominated PIC/commander in AMC 1 ORO.FC.145 a)2) i et ii) is too demanding (750 hours total flight).</p> <p>This comment has to be considered having in mind that DGAC FR does not agree with the proposal of having training and checking for abnormal or emergency procedures conducted by a pilot who is not instructor (or examiner).</p> <p>Requiring 750 hours total flight for a pilot whose task is to conduct checks of normal procedures seems to be excessive.</p>	
response	<p>Noted.</p> <p>Provisions already exist under the current version of ORO.FC.230, for the OPC and line checker not to be an instructor/examiner. 750h applies if the person is not an instructor/examiner. If the trainer is an instructor, or if the checker is an examiner, ORO.FC.146 (b) applies, and ORO.FC.146 (e), (f) and (g) are not needed, and the AMC to this paragraph of the rule does not apply.</p>	
comment	287	comment by: <i>European Helicopter Association (EHA)</i>
	<p>Please provide clarification to the following questions. Would it be necessary to describe in detail the difference training for aerial work operations? What type of operations could be combined into one? How detailed do you expect lesson plans to be?</p> <p>We suggest that the training program for training and checking needs to be approved for all aerial work operations if cross crediting between different operations and types of helicopters is requested and used by an SPO operator.</p>	
response	<p>Noted.</p> <p>Differences training is aligned with FCL and is not specific to SPO.</p> <p>With regard to equipment and procedure training for different specialised operations, the AMC defines the expectations.</p> <p>The proposal does not include new approvals for SPO, which activity is subject to a declaration.</p>	
comment	326	comment by: <i>Company</i>
	<p>More explanation is necessary: How detailed a training has to be described in the manual? Cross crediting of training and checking should be possible.</p>	
response	<p>Noted.</p> <p>With regard to equipment and procedure training for different specialised operations, the AMC defines the expectations.</p>	
comment	447	comment by: <i>AIR ZERMATT AG</i>
	<p>The duration of training always depends on the experience and role (only pilot or also FI) of the trainee. The same thing applies to checking. One size fits all doesn't work. Therefore we suggest to delete this part in order to allow the operator to run a more performance-based approach and plan a training tailor-made to the trainee / checkee.</p>	
response	<p>Noted.</p>	

This AMC, together with ORO.FC.120 and 220, are performance-based. Several OCC programmes can be defined, based on the role and previous experience of the trainee.
Thank you for supporting the proposal.

comment 484

comment by: *Kusi*

Please provide clarification to the following questions. Would it be necessary to describe in detail the difference training for aerial work operations? What type of operations could be combined into one? How detailed do you expect lesson plans to be?
We suggest that the training program for training and checking needs to be approved for all aerial work operations if cross crediting between different operations and types of helicopters is requested and used by an SPO operator.

response

Noted.
Please refer to the response to comment #287.

comment 506

comment by: *BCAA (OPS - Department SPO)*

the BCAA's SPO Department fully supports this AMC1.

response

Noted.
Thank you.

comment 590

comment by: *AIRGREEN*

Please provide clarification to the following questions. Would it be necessary to describe in detail the difference training for aerial work operations? What type of operations could be combined into one? How detailed do you expect lesson plans to be?
We suggest that the training program for training and checking needs to be approved for all aerial work operations if cross crediting between different operations and types of helicopters is requested and used by an SPO operator.

response

Noted.
Please refer to the response to comment #287.

Explanatory note to AMC1 ORO.FC.145(a)(1)

p. 79

comment 345

comment by: *Helialpin AG*

Please provide clarification to the following questions. Would it be necessary to describe in detail the difference training for aerial work operations? What type of operations could be combined into one? How detailed do you expect lesson plans to be?
We suggest that the training program for training and checking needs to be approved for all aerial work operations if cross crediting between different operations and types of helicopters is requested and used by an SPO operator.



response Noted.
Please refer to the response to comment #287.

AMC1 ORO.FC.145(a)(2) Provision of training and conduct of checking

p. 80

comment 288 comment by: *European Helicopter Association (EHA)*

We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the aircraft variant".
Currently it is possible to perform the required CRM training by means of a WBT solution. Adding classroom elements increases complexity and coordination efforts for small operators. What indications do you have from past accidents where this lack of classroom training is stated as the contributing factor?

response Not accepted.
Part 1: AMC1 ORO.FC.145(a)(2) of the NPA, now split into several AMC to ORO.FC.146 is applicable to SPO and CAT.
The SPO-part of the OPC will focus on specialised operations. The CAT OPC will rehearse emergency manoeuvres of the LPC that require an instructor.
Part 2: CRM remains a major contributor to accidents, including in the single-pilot role. Elements listed in AMC2 ORO.FC.115 play a key role in the safety of single-pilot operations and CBT is not an optimal teaching method for such topics. It should only be allowed to replace classroom training if scenario-based CRM training is integrated into FSTD training and flight crew training.

comment 344 comment by: *Helialpin AG*

We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the aircraft variant".
Currently it is possible to perform the required CRM training by means of a WBT solution. Adding classroom elements increases complexity and coordination efforts for small operators. What indications do you have from past accidents where this lack of classroom training is stated as the contributing factor?

response Not accepted.
Please refer to the response to comment #288.



comment	448 comment by: AIR ZERMATT AG
	Currently it is possible to perform the required CRM training by means of a WBT solution. Adding classroom elements increases complexity and coordination efforts for small operators. What indications do you have from past accidents where this lack of classroom training is stated as the contributing factor?
response	Not accepted. Please refer to the response to comment #288, part 2.
comment	486 comment by: Kusi
	<p>We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the aircraft variant".</p> <p>Currently it is possible to perform the required CRM training by means of a WBT solution. Adding classroom elements increases complexity and coordination efforts for small operators. What indications do you have from past accidents where this lack of classroom training is stated as the contributing factor?</p>
response	Not accepted. Please refer to the response to comment #288.
comment	591 comment by: AIRGREEN
	<p>We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the aircraft variant".</p> <p>Currently it is possible to perform the required CRM training by means of a WBT solution. Adding classroom elements increases complexity and coordination efforts for small operators. What indications do you have from past accidents where this lack of classroom training is stated as the contributing factor?</p>
response	Not accepted. Please refer to the response to comment #288.
comment	630 comment by: Air-Glaciers (pf)
	<p>We agree that a commander that is performing the checks needs to have sufficient experience in the aircraft. We suggest therefore to extend the requirements as proposed by you in SPO to CAT for non-complex helicopters as well. There is no difference in performing the check nor in the type or number of maneuvers to be checked. The check "should be conducted by a nominated PIC with the aircraft variant".</p>

Currently it is possible to perform the required CRM training by means of a WBT solution. Adding classroom elements increases complexity and coordination efforts for small operators. What indications do you have from past accidents where this lack of classroom training is stated as the contributing factor?

response Not accepted.
Please refer to the response to comment #288.

AMC1 ORO.FC.145(a)(2)(i) Provision of training and conduct of checking

p. 80

comment 4 comment by: FOCA
(b) requires a type rating examiner (TRE), class rating instructor (CRE) or (...). This requirement is in contradiction to ORO.FC.145 (a)(2)(ii), whereas the OPC may be conducted by a suitably qualified pilot-in-command/commander and in contradiction to (a)(2)(v) whereas the OPC shall be conducted by an flight instructor.

response Noted.
There is no contradiction. This is an AMC to (a)(2)(i), not (a)(2)(ii) or (a)(2)(v). All AMC are re-numbered and now refer to the new point ORO.FC.146.

comment 83 comment by: DGAC FR (Mireille Chabroux)

In accordance with DGAC FR Altmoc 2018-00018, DGAC proposes the following changes :

PROPOSAL

(b) Operator proficiency check by a type rating examiner (TRE), class rating examiner (CRE) or, if the check is conducted in an FSTD, a TRE, CRE or a synthetic flight examiner (SFE), trained in CRM concepts and the assessment of CRM skills. In the case single-pilot helicopter operation under visual flight rules (VFR), a flight examiner(FE), trained in CRM concepts and the assessment of CRM skills, may conduct the checking provided that the FE has completed 2 000 hours of flight time as pilot on helicopters, including at least 250 hours offflight instruction, and holds a CPL(H) or ATPL(H).

(c) For aircraft/FSTD training, line flying under supervision, operator proficiency checks and line checks taking place under multi-pilot operations of helicopters, by personnel holding 350 hours flying experience in multi-pilot operations.

response Noted.
If the person is a FE instead of a TRE, then ORO.FC.146(b) does not apply and this AMC does not apply. AMC1 ORO.FC.146(e)(f)(g) applies instead. The FE is a suitably qualified



PIC/commander nominated by the operator and therefore holds a CPL(H) or ATPL(H). This AMC proposes a simplified version of the DGAC FR AltMoC with a minimum experience of 750 h instead of 2 000.

comment

395

comment by: *Andrew McKECHNIE***AMC1 ORO.FC.145(a)(2)(i): personnel conducting line checks for aeroplanes**

The objective to include the qualifications of personnel conducting training and checking in ORO.FC.145 is sound. The proposed text includes qualification of personnel conducting line checks on helicopters whereas for aeroplanes this information is missing.

The current requirement (in AMC1 ORO.FC.230(b)(3)(v)) is that the line check should be conducted by a 'commander nominated by the operator'. EASA should consider clarifying the requirement to ensure that line checks are conducted by personnel with sufficient understanding of the aircraft type and the procedures in the operations manual. If necessary GM could be developed to describe specific training or qualification requirements.

Proposal

Add new paragraph (c) to AMC1 ORO.FC.145(a)(2)(i) as follows:

(c) Lines checks should be conducted by suitably qualified pilots, nominated by the operator who have demonstrated the required knowledge of the aircraft type and the operator's specific operational procedures.

Renumber proposed paragraph (c) as (d).

response

Partially accepted.

The AMC is clarified to ensure that the line checker is type-rated.

Sufficient knowledge of the operator's SOPs is ensured by the requirement for a 'suitably qualified commander nominated by the operator'.

comment

449

comment by: *AIR ZERMATT AG*

If an OPC is combined with an LPC, the OPC needs to be conducted by a TRE. But for an OPC itself a Flight Instructor is sufficient. By enabling an FI to conduct the OPC the number of checking personnel increases, hence checks are conducted by numerous personnel which increases the quality of checking since numerous people assess someone's flying skills. Additionally, for TRE the requirements are higher, hence only more experienced people are TREs, but in a nowadays very dynamic environment having diversified teams, views and ideas when it comes to checking are an important part of a high quality checking with a high flight safety.

response

Noted.

Thank you.

AMC1 ORO.FC.145(a)(2)(ii)&(a)(2)(iii) Provision of training and conduct of checking

p. 81-82

comment

6

comment by: *FOCA*

GENERAL

According (c) the nominated PIC/commander/instructor conducting training and checking should have **350 hours flying experience in multi-pilot operations**.

Proposal:

c) The nominated PIC/commander/instructor in charge of conducting aircraft/FSTD training, line flying under supervision, operator proficiency checks or line checks taking place under multi-pilot operations of **multi-pilot** helicopters should have 350 hours flying experience in multi-pilot operations.

Justification:

- Only for helicopters certified with a minimum crew of one pilot for VFR
- PIC/commander/instructor having this amount of experience are not available

response

Partially accepted.

Provisions are introduced for approvals by the national authorities on an individual basis, in the case where PICs/commanders/instructors having this amount of experience are not YET available, in order to be able to reduce the 350 hours flying experience.

comment

63

comment by: DGAC FR (Mireille Chabroux)

In accordance with DGAC FR comment on ORO.FC.145 (a)(2)(ii), DGAC proposes the following changes:

PROPOSAL**GENERAL (a)**

The nominated PIC/commander in charge of conducting training should receive training which should cover at least: (1) techniques of briefing and debriefing;

(2) CRM concepts;

~~(3) for SPO, which manoeuvres the nominated PIC/commander should not train or check unless qualified as an instructor.~~

~~(b) In addition, the nominated PIC/commander/instructor in charge of conducting operator proficiency checks should receive additional training which should cover at least:~~

~~(1) how to perform a check;~~

~~(2) flight techniques applicable to checks performed in flight;~~

~~(3) the assessment of CRM skills.~~

(c) The nominated PIC/commander/instructor in charge of conducting **aircraft/FSTD training**, line flying under supervision, **operator proficiency checks** or line checks taking place under multi-pilot operations of helicopters should have 350 hours flying experience in multi-pilot operations.

(d) ~~The nominated PICs/commanders,~~ or the criteria for nominating PICs/commanders, should be included in the operations manual



CAT — SUITABLY QUALIFIED COMMANDER OR INSTRUCTOR NOMINATED BY THE OPERATOR
 (a) For commercial air transport operations under visual flight rules (VFR) by day, the minimum experience of the nominated commander should be **more than at least** 750 hours total flight time with at least 50 hours on the type, class or the aircraft variant.

(b) For commercial air transport operations of performance class B aeroplanes under night VFR or under instrument flight rules (IFR), the minimum experience of the nominated commander should be **more than at least** 1 000 hours total flight time with at least 100 hours on the type, class or the aircraft variant.

response

Not accepted.

The SPO aircraft/FSTD training and OPC are structured in such way that they include:

a) The training and checking of abnormal and emergency procedures, not necessarily in the context of SPO.

b) The training and checking of normal specialised operations.

c) Under a risk assessment of the operator, the training and checking of abnormal or emergency procedures in the context of specialised operations.

The following applies to each part of the SPO OPC.

a) is likely to be conducted by an examiner in combination with the licence proficiency check. If the operator decides otherwise, the existing alleviations available for CAT should be available for SPO as well.

b) requires an experienced PIC, ideally with teaching skills. An instructor/examiner with the relevant experience may not be available.

c) would ideally require an experienced PIC with an instructor/examiner rating. In practice, the person with all the necessary qualifications may not exist. This is why flexibility is needed for both the training and checking syllabi and for the experience of the person in charge of conducting c).

comment

65

comment by: DGAC FR (Mireille Chabroux)

See DGAC FR comment on ORO.FC.145 a)2)ii)

DGAC FR is not in favour of having other than an instructor or examiner conducting abnormal procedures. DGAC proposes to delete a) 4).

In addition, DGAC FR suggests to delete paragraph b) which is not useful.

PROPOSAL

SPO — SUITABLY QUALIFIED PIC OR INSTRUCTOR NOMINATED BY THE OPERATOR

a)(4) In addition to (2) and (3) above, flight training and checking of sensitive type related manoeuvres in combination with the training and checking of the relevant aspects associated with a specialised task, should be conducted by a qualified instructor.



response

(b) In addition to (a) above, if the SPO operator combines the operator proficiency check with a licence proficiency check, the person conducting the check should meet the requirements for licence proficiency checks.

Not accepted.

The SPO aircraft/FSTD and OPC are structured in such a way that they include:

a) The training and checking of abnormal and emergency procedures, not necessarily in the context of SPO.

b) The training and checking of normal specialised operations.

c) Under a risk assessment of the operator, the training and checking of abnormal or emergency procedures in the context of specialised operations.

The following applies to each part of the SPO OPC.

a) is likely to be conducted by an examiner in combination with the licence proficiency check. If the operator decides otherwise, the existing alleviations available for CAT should be available for SPO as well.

b) requires an experienced PIC, ideally with teaching skills. An instructor/examiner with the relevant experience may not be available.

c) would ideally require an experienced PIC with an instructor/examiner rating. In practice, the person with all the necessary qualifications may not exist. This is why flexibility is needed for both the training and checking syllabi and for the experience of the person in charge of conducting c).

comment

125

comment by: UK CAA

Page No: 81

Paragraph No: AMC1 ORO.FC.145(a)(2)(ii) & (a)(2)(iii) Provision of training and conduct of checking, subparagraphs (a), (b), and (c)

Comment: In these 3 sub-paragraphs, the term “nominated PIC/commander in charge of conducting training” has been used. Whilst it is believed to be intended to mean the actual person conducting any training or checking it could also be interpreted as the person with overall responsibility for such activities such as the Head of Training. It is recommended that, here and anywhere else in the NPA where it occurs, that the text be amended to ensure the proper meaning is achieved and interpreted. Suggested text for two examples provided below.

Justification: Clarity of intent and purpose of text.

(a) The nominated PIC/commander ~~in charge of~~ conducting training should receive training which should cover at least:

(b) In addition, the nominated PIC/commander/instructor ~~in charge of~~ conducting operator proficiency checks should receive additional training which should cover at least:

(c) The nominated PIC/commander/instructor ~~in charge of~~ conducting aircraft/FSTD training, ...



response	Accepted.
comment	<p>164 comment by: <i>FNAM/SNEH</i></p> <p>We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements.</p>
response	<p>Partially accepted.</p> <p>CRM elements are better observed in a scenario-based environment in a simulator. The amended AMC requests CRM assessments to take place in a line-oriented evaluation every time an FSTD is used during the OPC. And it increases the cases where an FSTD has to be used. However, a CRM assessment also takes place in the helicopter and the person conducting the check should be trained for it.</p>
comment	<p>191 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements.</p>
response	<p>Partially accepted.</p> <p>Please refer to the response to comment #164.</p>
comment	<p>218 comment by: <i>MBH SAMU</i></p> <p>We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements.</p>
response	<p>Partially accepted.</p> <p>Please refer to the response to comment #164.</p>
comment	<p>245 comment by: <i>SAF</i></p> <p>We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements.</p>
response	<p>Partially accepted.</p> <p>Please refer to the response to comment #164.</p>
comment	<p>289 comment by: <i>European Helicopter Association (EHA)</i></p> <p>We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on</p>

	the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.
response	Partially accepted. Please refer to the response to comment #164.
comment	327 comment by: <i>Company</i> It should be analysed if SPO requirements could also be applied to CAT with non-complex helicopters. CBT should be possible.
response	Noted. With regard to the re-numbered AMC to ORO.FC.146: Experience requirements for the person conducting the checks are already aligned. Other requirements applicable to the SPO trainer/checker are SPO-specific and do not seem to be easily applied to CAT.
comment	328 comment by: <i>Company</i> OPC: CRM should focus on some elements, e.g. decision making. Too many CRM items to assess may increase instructor's workload and couldn't be covered by one flight.
response	Partially accepted. Please refer to the response to comment #164.
comment	343 comment by: <i>Helialpin AG</i> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.</div>
response	Partially accepted. Please refer to the response to comment #164.
comment	414 comment by: <i>KMN</i> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.</div>

response Partially accepted.
Please refer to the response to comment #164.

comment 450 comment by: AIR ZERMATT AG
The requirements in this article are completely arbitrary. Have you ever thought about how much personnel will be required and if the free market can actually even produce that high of a demand?

response Noted.
The re-numbered AMC to ORO.FC.146 provide an alternative to:
— the use of instructors for training;
— the use of examiners for OPCs and line checks.
They increase the number of available personnel if only marginally. It would be useful to know more precisely which elements of the AMC are unnecessarily limiting the number of newly eligible persons.

comment 487 comment by: Kusi
We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.

response Partially accepted.
Please refer to the response to comment #164.

comment 558 comment by: DHV e.V.
We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.

response Partially accepted.
Please refer to the response to comment #164.

comment 592 comment by: AIRGREEN



	<p>We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.</p>
response	<p>Partially accepted. Please refer to the response to comment #164.</p>
comment	<p>631 comment by: <i>Air-Glaciers (pf)</i></p>
	<p>We suggest that during an OPC for non-complex helicopters, the number of CRM items to be checked be limited. During an OPC in the helicopter, the checker needs to be able to focus on the task at hand and the correct handling of the emergency. He should not be distracted by observing CRM elements. The focus of CRM checking should be during the Line Check in CAT operations.</p>
response	<p>Partially accepted. Please refer to the response to comment #164.</p>

AMC1 ORO.FC.205 Command course

p. 83-84

comment	<p>84 comment by: <i>DGAC FR (Mireille Chabroux)</i></p> <p>DGAC believes that "(b) "For a pilot transitioning onto a new type of helicopter" doesn't need to be specified as the paragraph is applicable to changing type only.</p>
response	<p>Noted. 'For a pilot transitioning onto a new type of helicopter' is a duplication that explains what the additional sectors are needed for.</p>

AMC1 ORO.FC.220 Operator conversion training and checking

p. 84-87

comment	<p>15 comment by: <i>Aliparma/FOPh</i></p> <p>point (2)"and on subsequent conversion courses" :</p> <p>within same operator, it means a conversion courses for a new type. In this case a credit for (i), (iii) and (iv) and (vii) may be considered as done under recurrent for the previous type.</p>
response	<p>Noted. The full quote is 'and on subsequent conversion courses as applicable'. As applicable depends on whether the equipment, procedures and operational needs (e.g. operations over water) are different on the other type. (i) and (vii) specifically mention that they are only for the initial conversion course.</p>



(iii) and (iv) are indeed part of the recurrent training under a 3-yearly cycle and can be adapted based on the implementing rule ORO.FC.220(c) 'The amount of training required by the flight crew member for the operator's conversion course shall be determined in accordance with the standards of qualification and experience specified in the operations manual, taking into account his/her previous training and experience.'

comment

109

comment by: DRF Luftrettung

[Page 86](#)**SECTION/ NPA STATEMENT:**

(ii) For helicopter pilots required to engage in IFR operations, the proficiency check includes the following additional abnormal/emergency procedures:

COMMENT:

Not only abnormal/ emergency procedures are listed in (ii), but many normal procedures, which have to be covered during an IFR proficiency check

SUGGESTION:

Change text to read:

For helicopter pilots required to engage in IFR operations, the proficiency check includes the following additional normal/ abnormal / emergency procedures:

response

Accepted.

AMC3 ORO.FC.220 & 230 Operator conversion training and checking & recurrent training and checking

p. 88

comment

10

comment by: KLM

Feedback is not always available or relevant.

For clarity we propose to add "if given and relevant" to this AMC3. (text see below)

TRAINING PROGRAMMES

The operator should ensure that training programmes include de-identified feedback from the management system (if given and relevant), including occurrence reporting and flight data monitoring programmes.

response

Accepted.

comment

24

comment by: KLM Cityhopper

Feedback is not always available or relevant.

For clarity we propose to add "if given and relevant" to this AMC3. (text see below)

TRAINING PROGRAMMES

The operator should ensure that training programmes include de-identified feedback from the management system (if given and relevant), including occurrence reporting and flight data monitoring programmes.



response	Accepted. Please refer to the response to comment #10.
comment	165 comment by: <i>FNAM/SNEH</i> In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?
response	Noted. The word ‘anonymise’ is not used. ‘de-identification’ is used. It is understood that ‘de-identification’ will not be very useful with the smaller operators where nothing is anonymous. The proposal is proportionate for small operators because there will be very few documents/little data to de-identify for the purpose in small operators.
comment	192 comment by: <i>Oya Vendée Hélicoptères</i> In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?
response	Noted. Please refer to the response to comment #165.
comment	219 comment by: <i>MBH SAMU</i> In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?
response	Noted. Please refer to the response to comment #165.
comment	246 comment by: <i>SAF</i> In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?
response	Noted. Please refer to the response to comment #165.
comment	290 comment by: <i>European Helicopter Association (EHA)</i> In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?
response	Noted. Please refer to the response to comment #165.
comment	329 comment by: <i>Company</i> 99% of the companies are too small to anomyze feedbacks.
response	Noted.

Please refer to the response to comment #165.

comment

342

comment by: *Helialpin AG*

In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?

response

Noted.
Please refer to the response to comment #165.

comment

415

comment by: *KMN*

In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?

response

Noted.
Please refer to the response to comment #165.

comment

454

comment by: *AIR ZERMATT AG*

In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?

response

Noted.
Please refer to the response to comment #165.

comment

488

comment by: *Kusi*

In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?

response

Noted.
Please refer to the response to comment #165.

comment

559

comment by: *DHV e.V.*



In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?

response Noted.
Please refer to the response to comment #165.

comment 593 comment by: AIRGREEN

In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?

response Noted.
Please refer to the response to comment #165.

comment 632 comment by: Air-Glacières (pf)

In small companies it is very difficult to anonymize feed-back. Would it be better to work on non-punitive, just culture so every feed-back can be done in person?

response Noted.
Please refer to the response to comment #165.

AMC1 ORO.FC.230 Recurrent training and checking

p. 88-96

comment 45 comment by: DGAC FR (Mireille Chabroux)

Paragraph a)2)iii)A) states that the training should include actual operations of all type of exits. Frequent door handling can lead to damage to the doors. DFAC FR suggests to add the possibility to be trained during ground training with briefings and videos, with the actual doors in front of the pilot for example

PROPOSAL

(iii) Every 3 years the programme of training should include the following:
(A) ~~actual~~ operation of all types of exits (actual operation or training on the basis of videos);

response Noted.
In the case of helicopter offshore operations:



Pop-out windows are ‘openings’ and not certified as ‘exits’ and are not covered by this point. They are covered under point (a) (2) (iii) (F) The underwater use of exits and pop-out windows is covered with HUET (helicopter underwater emergency training). In addition, other training tools can be used under ORO.FC.145(d).

comment 47 comment by: DGAC FR (Mireille Chabroux)

DGAC dissents with the statement in b)1)iii) :

(iii) ~~Once every 12 months the~~ The checks prescribed in (b)(1) (ii)(A) may be combined with the skill test or proficiency check required for the issue, the revalidation or renewal of the ATPL and the aircraft type rating.

DGAC FR considers that the OPC may be combined with the skill test or ^proficiency check required for the issue, revalidation or renewal of the aircraft type rating but not for the ATPL.

PROPOSAL

(iii) ~~Once every 12 months the~~ The checks prescribed in (b)(1) (ii)(A) may be combined with the skill test or proficiency check required for the issue, the revalidation or renewal **of the ATPL** and the aircraft type rating.

response Partially accepted.
The ATPL can only be issued but the skill test for the issue of the ATPL can be combined with an OPC.

comment 48 comment by: DGAC FR (Mireille Chabroux)

DGAC FR believes that paragraphs d)4) and 5) are too difficult to understand and implement.

Moreover the term “suitable” is not defined.

response Noted.



The definitions in (d)(4) and (d)(5) have been reviewed and considered satisfactory. 'Suitable' has a different meaning for each paragraph since it means 'suitable for the training & checking needs', which needs vary with the topic covered.

comment

85

comment by: *DGAC FR (Mireille Chabroux)*

The wording of a)4)ii)A) seems to required a risk assessment only if a suitable FSTD is available but not used by the operator. The wording should be closer to GM1 ORO.FC.130.

PROPOSAL

Where a suitable FSTD is available, it should be used for the aircraft/FSTD training programme. If the aircraft is used, the operator should determine safety limits to the aircraft training programme on the basis of a compliance and risk assessment. If one of more of the major failures cannot be practised in the aircraft because of their associated risks or because of environmental considerations. In this case, the failure(s) may be partially replicated for crew training purposes using pre-briefed, risk-assessed measures that avoid degrading the aircraft's performance below a predetermined level, and which permit immediate reversion to normal operating conditions.

response

Accepted.

If a suitable FSTD is available, it should be used. Alternating between aircraft and FSTD is proposed under the amended (a)(4)(ii)(A) in the cases where both means complement each other. (a)(4)(ii)(A) applies only for training. The amended text is also duplicated in the 'checking' section.

comment

99

comment by: *BAW*

AMC1 ORO.FC.230 (a)(4)(i)(C) appears to preclude recurrent training of OPC items after an OPC at the same training event. This would seem prevent operators from conducting manoeuvres training (e.g. EFATO) immediately following an OPC. Whilst the principle of not training BEFORE checking at the same event is sound, conducting recurrent training after a manoeuvre has been completed in an OPC does not have an adverse impact and should be permitted. Suggest that the AMC is reworded to allow recurrent training to take place immediately AFTER an OPC has been completed.

response

Noted.

Training and checking of a given manoeuvre cannot take place at the same time. They can take place one after another during the same simulator session. The improved wording will hopefully clarify.

comment

101

comment by: *BAW*

AMC1 ORO.FC.0230 Recurrent training and checking (b)(3)(vi); the existing withdrawal of the ability to check on a single flight sector meets the requirement for checking of both flying and monitoring duties. Regardless of the promotion of task sharing principles elsewhere, this measure remains beneficial for operators who employ monitored approach and integrated operations. Withdrawing the option to check on a single flight would have no beneficial effect



response	<p>on the quality of such operations but would weaken the principles applied under JAA and impose an unnecessary additional burden in duplicating the checking of flying and monitoring competencies. As such it is contrary to the principles of competency based training and assessment and thus a retrograde change.</p> <p>Not accepted. The level playing field needs to be maintained.</p>
comment	<p>111 comment by: DRF Luftrettung</p> <p><u>PAGE 94</u></p> <p>SECTION: (3)(v)(B) When an observer’s seat is not installed but a forward-facing passenger seat allows a good view and sound of the cockpit and the crew, this seat should be used as an observer’s seat.</p> <p>COMMENT: A forward facing seat might be available, but blocked by personnel required to be in that seat (i.e. medical personnel during an ambulance flight). This would mean, there could be no medical flight carried out during a Line Check, if the observer has to be in that seat.</p> <p>SUGGESTION: Change Text: (3)(v)(B) <i>When an observer’s seat is not installed but a forward-facing passenger seat allows a good view and sound of the cockpit and the crew, this seat should be used as an observer’s seat <u>if this seat is not required by other personnel (i.e. medical personnel during ambulance flights).</u></i></p> <p>When an observer’s seat is not available, <u>not adequate</u> and cannot be installed, the commander nominated by the operator should occupy a pilot seat to conduct the line check.</p>
response	<p>Noted. Medical crew seats are rarely forward-facing for medical convenience. This rationale, together with any CRM-relevant interaction between medical teams and flight crew should be developed to define the applicability of (3)(v)(B). If not applicable, then (3)(v)(C) applies instead.</p>
comment	<p>126 comment by: UK CAA</p> <p>Page No: 90</p> <p>Paragraph No: AMC1 ORO.FC.230 Recurrent training and checking, subparagraph (a)(4)(C)</p> <p>Comment: On page 24 of the NPA paragraph 2.3.6, explanatory text describes “Regarding the combination of OPCs with aircraft/FSTD training, it has happened that some</p>



operators have misunderstood the word ‘combined’. While there is value to allow 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 proposed revised text at (C) tries to capture this but is considered still rather unclear. A form of words, using the explanatory text, is recommended for a clearer statement.

Justification: Clarity and ensuring intent of purpose

Proposed Text:

(C) The recurrent aircraft/FSTD ~~and operator proficiency check of an item~~ **of a single task or manoeuvre should be separate from, and** not take place at the same time, **as an operator proficiency check of the item.**

response Accepted.

comment 166

comment by: *FNAM/SNEH*

It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.

Use of simulators:

Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the area of helicopters.

Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?

What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?

response Noted.

Conducting an OPC immediately after a training flight: Noted. Thank you.

Availability of simulators: The aim is to increase the offer of simulators. A criterion based on distance would only help create or maintain local quasi-monopolies, whereas purely economic criteria are outside the scope of this task.

MP/SP checking requirements: Defined in AMC1 ORO.FC.230, point (b)(1)(ii)(E). The concept is extended to licence skill tests under the amended Appendix 9 to Part-FCL.

comment 193

comment by: *Oya Vendée Hélicoptères*

It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.

Use of simulators:



	<p>Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the area of helicopters.</p> <p>Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?</p> <p>What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?</p>
response	<p>Noted. Please refer to the response to comment #166.</p>
comment	<p>220 comment by: <i>MBH SAMU</i></p> <p>It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.</p> <p>Use of simulators: Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the area of helicopters.</p> <p>Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?</p> <p>What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?</p>
response	<p>Noted. Please refer to the response to comment #166.</p>
comment	<p>247 comment by: <i>SAF</i></p> <p>It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.</p> <p>Use of simulators: Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the area of helicopters.</p> <p>Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?</p>

response	<p>What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?</p> <p>Noted. Please refer to the response to comment #166.</p>
comment	<p>255 comment by: FOCA Switzerland</p> <p>Ref. to AMC1 ORO.FC.230; section d), paragraph 4 & 5</p> <p>In our view paragraph 5) ii) could be interpreted in contradiction with paragraph 4), which would allow some operators to no longer use simulators if the simulator could not be manipulated by themselves. We are sure this was not the intension.</p> <p>In order to avoid any misinterpretations we recommend to precise the definition of accessibility in relation to paragraph 4).</p>
response	<p>Noted.</p> <p>Definition (5)(ii), now moved to AMC2 ORO.FC.145(d), requires the nominated person to be part of the simulator session, to ensure that the training syllabi of the operator are followed, and to conduct the assessment. There is no requirement for this person to manipulate the simulator switches.</p>
comment	<p>291 comment by: European Helicopter Association (EHA)</p> <p>It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.</p> <p>Use of simulators: Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the are of helicopters.</p> <p>Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?</p> <p>What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?</p>
response	<p>Noted. Please refer to the response to comment #166.</p>
comment	<p>331 comment by: Company</p> <p>it's not opportun to force pilots to journey to other countries for a check on helicopters. It's in contradiction to climat discussion!</p>

response	<p>Not accepted. A criterion based on distance would only help create or maintain local quasi-monopolies.</p>
comment	<p>382 comment by: <i>Art Aviation</i></p> <p>Conduct of line checks In an operation like Art Aviation (CAT business jet operation) it is important that the NP for flight operations and crew training have the discretion to appoint a 'suitably qualified commander' to conduct line checks. The line check is intended to verify that crewmembers are competent at all aspects of normal operation. This includes many items that are not aircraft type-specific for example security procedures, aircraft loading and load-sheet preparation, performance calculation, de-icing, cabin safety procedures compliance with stabilised approach criteria etc. For some line checks it is important to nominate a commander who has a complete understanding of the specific operation and company-specific procedures even if that person is not type-rated on the aircraft type involved. If the regulation demanded that the person conducting the line check was type-rated then this would require the use of an external, contracted Line-Check Captain who would not be qualified to check compliance with these important company-specific requirements.</p> <p>Proposal We propose that there should be no change to the requirement for line checks to be conducted by commanders nominated by the operator.</p>
response	<p>Noted. The rules are moved from ORO.FC.230 to ORO.FC.145 without changes. Thank you.</p>
comment	<p>383 comment by: <i>Art Aviation</i></p> <p>Use of observer's seat for line checks The current requirement that line checks should be conducted from an observer's seat makes it impractical for business-jet operators to conduct line checks on normal, passenger-carrying flights. The ad-hoc nature of business-jet operations makes it difficult to schedule line-checks with an additional crewmember. Most business jets do not have dedicated cabin crew seats. If the operator chooses to use cabin crew on these aircraft types then the flight deck observer's seat will often be used by the cabin crewmember, especially if all passenger seats are occupied. Even when there are spare seats in the cabin many clients have a (reasonable) expectation of privacy on the aircraft and prefer flights to be operated with only two pilots. The unintended result of the current rule is that the majority of line checks for business jet operators are conducted on ferry or positioning flights. While this satisfies the letter of the regulation it does not meet the safety objective to '<i>to demonstrate competence in carrying out <u>normal</u> line operations</i>'. Many important elements of 'normal operations' are missing if no passengers are carried (e.g. operational pressure). This is especially the case for operations without cabin crew in which the flight crew are responsible for all aspects of security, cabin safety, passenger briefing etc. The proposal to mandate use of a forward-facing passenger seat would exacerbate this problem. The current requirements have also given rise to a variety of interpretations in relation to initial line checks, conducted at the end of an operator's conversion course. In this case the pilot being checked is not qualified to operate as part of a 'normal' flight crew. We acknowledge that observation from an observer's seat allows a different perspective on the assessment of CRM. While CRM assessment is an important aspect of the line check it is</p>

not the sole reason for the line check. We propose that operators should be select the most appropriate means to conduct a line check based on the nature of the operation and the identified risks. The means would be described in the operations manual so, for CAT operators, the Competent Authority would have visibility of the operator's specific procedures and would ensure that these achieved the objective of the rule and were based on a sound safety case.

Proposal

We propose that AMC1 ORO.FC.230(b)(3)(v) is amended as follows:

(3) Line checks

(i) Line checks should establish the ability to perform satisfactorily a complete line operation, including pre-flight and post-flight procedures and use of the equipment provided, as specified in the operations manual. The route chosen should be such as to give adequate representation of the scope of a pilot's normal operations. When weather conditions preclude a manual landing, an automatic landing is acceptable. The commander, or any pilot who may be required to relieve the commander, should also demonstrate his/her ability to 'manage' the operation and take appropriate command decisions.

(ii) The operations manual should describe procedures for conduct of line checks including:

(A) The qualification requirements for commanders nominated to conduct line check;

(B) The method to be used to assess the crew's CRM skills;

(C) Procedures to ensure that, if pilots are assigned duties as pilot flying and pilot monitoring, they are checked in both functions;

(D) Whether the person conducting the line check should be one of the operating crewmembers or occupy an observer's seat;

(E) In the case of an 'initial line check' conducted as part of an operator's conversion course, the qualification requirements for each member of the flight crew;

(F) In the case of augmented crew operations the circumstances in which the person conducting the line check may relieve another flight crew member of his/her duties and

(G) The chain of command;

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

~~_____ (iii) CRM assessment should not be used as a reason for a failure of the line check, unless the observed behaviour could lead to an unacceptable reduction in safety margin.~~

~~_____ (iv) When pilots are assigned duties as pilot flying and pilot monitoring, they should be checked in both functions.~~

~~_____ (v) Line checks should be conducted by a commander nominated by the operator. The operator should inform the competent authority about the persons nominated. The person conducting the line check should occupy an observer's seat where installed. His/her CRM assessments should solely be based on observations made during the initial briefing, cabin briefing, flight crew compartment briefing and those phases where he/she occupies the observer's seat.~~

~~_____ (A) For aeroplanes, in the case of long haul operations where additional operating flight crew are carried, the person may fulfil the function of a cruise relief pilot and should not occupy either pilot's seat during take-off, departure, initial cruise, descent, approach and landing.~~

~~_____ (vi) Where a pilot is required to operate as pilot flying and pilot monitoring, he/she should be checked on one flight sector as pilot flying and on another flight sector as pilot monitoring. However, where the operator's procedures require integrated flight~~



~~preparation, integrated cockpit initialisation and that each pilot performs both flying and monitoring duties on the same sector, then the line check may be performed on a single flight sector.~~

If necessary, GM could be added to emphasise the need for procedures to meet the safety objective of the rule and to be based on a sound safety-case.

response

Noted.

It is understood that in some cases, no observer's seat can be installed and a forward-facing passenger seat cannot be used. In such cases, point (C) applies instead of (B).

If applicable, point (C) allows the line checker to be seated in a pilot seat, and tasked to be a pilot or copilot in multi-pilot operations in addition to conducting a check. This shall remain a last-resort solution for the line check since it is:

- slightly different from the normal operations that are expected to be assessed in a line check;
- far from the best environment for a CRM assessment.

comment

416

comment by: *KMN*

It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.

Use of simulators:

Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the are of helicopters.

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What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?

response

Noted.

Please refer to the response to comment #166.

comment

489

comment by: *Kusi*

It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.



Use of simulators:

Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the are of helicopters.

Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?

What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?

response

Noted.
Please refer to the response to comment #166.

comment

633

comment by: *Air-Glaciers (pf)*

It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.

Use of simulators:

Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the are of helicopters.

Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?

What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?

response

Noted.
Please refer to the response to comment #166.

AMC1 ORO.FC.230(a) Recurrent training and checking

p. 99

comment 46

comment by: *DGAC FR (Mireille Chabroux)*



AMC1 ORO.FC.230 b) ii)
Paragraph b) ii) states that

"The operator should define which failures are major for the purpose of the operator proficiency check based on a risk assessment, taking the following into account:"
DGAC FR suggests to clarify when a risk assessment has to be conducted. GM 1 ORO.FC.130 seems to be a good basis.

response Noted.
What exactly is missing?

comment 560 comment by: *DHV e.V.*

response Noted.

comment 561 comment by: *DHV e.V.*

It should be possible to perform recurrent training and checking (OPC) in a sequence of flights. Flight 1 to off-airport landing considered as training, Flight 2 from off-airport landing back to base as check. This is possible in HEMS operations and it should apply to non-complex helicopter operations as well.

Use of simulators:
Would an operator have to fly each pilot that flies an B-505 to the Bell training grounds in Texas if a simulator is available there? What are acceptable economic burdens? Why did you not include any economic limitations in these definitions? Given the current market situation, the use of simulators is a quasi monopoly and therefore does not reflect market prices in the are of helicopters.

Is it possible to extend the use of a risk analysis to complex aircraft in aerial work operations?

What exactly are the requirements for checking of a pilot who flies both single and multi-pilot operations on the same type of aircraft (e.g. R-44)? What cross crediting is possible with regards to the requirements to check SOP operations? What is the minimum training and checking?

response Noted.
Please refer to the response to comment #166.

AMC1 ORO.FC.240 Operation on more than one type or variant	p. 100-102
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comment 25 comment by: *Daniel Aufdenblatten*

Restriction to operate one airplane and one helicopter only

Dear all



I want to give you a brief idea about what this AMC means in my particular case (**and many other dual rated pilots** in a similar situation):

I am currently flying a Falcon 900 aircraft (Part NCC) and a Agusta 109 helicopter (part NCO) for a private operator.

Most NCO operators do not fly a lot. Therefore, I fly two other types of helicopter for a different company under CAT rules, they need the flexibility to change between the types! Without this additional flight time I will

- Not be able to stay current, as for one operator I **only fly about 4 hours per month!** Flying for two operators keeps me current! What do you consider safer, flying only 4 hours per month or flying regularly on three types of helicopters in combination with one airplane?? For the above mentioned CAT operator I have been flying for the past 15 years. All this experience will be gone because of a rather randomly regulation with no scientific or provable background?
- -Lose one third of my income. Not only did I spend a lot of money for training to fly airplanes and helicopters, this is my living and I support my family with that. **Based on what data** do you restrict dual rated pilots to one helicopter and one airplane?

It is stated in the executive summary of this NPA that the objective is to improve safety. In this case it would mean that it is safer to fly only 40 hours a year, than flying regularly on two different light helicopters which are handled 95% the same.

How can this be in the interest of safety?

For a more performance based approach as stated in the introduction of this AMC I propose the following to respect any safety concerns and to keep the system more flexible:

- **Simply limit it to the same day:** e.g. Pilots shall not act as a PIC of airplanes and helicopters in the same day.

or

- Apply these restrictions to **CAT operations only** instead of applying it to CAT **and** NCC/NCO, since generally CAT pilots will not have a problem with a lack of flight time.

or



- Restrict flying airplanes and helicopters to **large helicopters only**, since small helicopters are handled 95% the same.

This AMC is too restrictive for NCC operations. I ask you to consider for NCC/NCO:

You will not improve safety if you keep the pilots from flying.

P.S.

- At Air Sarina we handle this issue very pragmatic: If one pilot changes from a helicopter to the airplane, he will be pilots assisting, not pilot flying. There is really no need to impose a restriction when flying airplanes.
- A lot of NCO operators will have the same problem, as they are not flying a lot, and most owners require 2 pilots also for light twin helicopters.
- Almost all NCC aircraft are flown in a multi crew environment. With this additional safety it does not make any sense to restrict flying aircraft and helicopters for NCC/NCO.

If you have any questions, please contact me at daniel.aufdenblatten@air-sarina.ch

Thank you for considering this input.

Best regards

Daniel Aufdenblatten

response

Partially accepted.

If a pilot does not fly CAT, ORO.FC.240 does not apply.

If a pilot flies CAT, there are restrictions to the number of types, which do not apply to the types flown only under NCO.

If the pilot flies CAT, the aim is to restrict only the types flown under CAT, NCC and SPO.

This concept needs to be extended to the combination of helicopters and aeroplanes.

In addition, the concept of 'group of helicopter types' is extended to pilots flying both aeroplanes and helicopters, providing some additional flexibility.

comment

49

comment by: DGAC FR (Mireille Chabroux)

DGAC does not agree with the limitations of the number of types and variants of paragraph vi) These limitations would prevent any CAT/SPO pilot from operating more than 3 types or variants of helicopter . We agree on the fact that the number of types operated in CAT should be limited. However, DGAC believes that it is too restrictive to count a variant as a type.

In addition, taking into account the variants in vi), we could end with a general rule (v) less restrictive than the "alleviation" (vi): (ex: a pilot on AS 350 B1, B2, B3, EC 130, AS 355, Bell 206



has only 3 types and can operate these types in accordance with paragraph v) but not with paragraph vi)).

In addition, as written, paragraph vi) does not exclude helicopters with a maximum certified take-off mass (MCTOM) of more than 5 700 kg, or with a maximum operational passenger seating configuration (MOPSC) of more than 19 which are dealt with in iv) .

DGAC FR believes that this requirement should be deeply reviewed.

PROPOSAL

v) In the case of all other helicopters, the flight crew member should not operate more than three helicopter types in CAT, NCC and SPO or significantly different variants, unless credits related to the training, checking and recent experience requirements are defined in operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 for the relevant types or variants.

(vi) The flight crew member may operate up to five helicopter types in CAT, NCC and SPO if the following conditions are met:

(A) The flight crew member operates in day VFR only;

(B) The flight crew member operates no more than one twin-engine helicopter type;

~~and (C) The flight crew member does not operate variants within a helicopter type, or each variant should be counted as a type for the purpose of this point.~~

response

Partially accepted.

It is understood that there should be no limit to the number of variants used, and that operating up to five types is not an issue. The following measures which have been well received place economic limits on the number of types flown and make it very unlikely that a pilot will fly more than five types.

According to ORO.FC.230 (and the associated AMC1) the crew should undergo two OPCs per type, per 3-year cycle, and one aircraft/FSTD training per type per year, covering all major failures during training and checking for every type.

According to ORO.FC.240 (and the associated AMC1), recency criteria should be met on every type.

For the sake of simplicity, 'groups of types' are created and the limit to three types becomes a limit to three types or groups of types. A group of types can include single-engine piston helicopters or it can include single-engine turbine helicopters.

Comment

75

comment by: *KMN*

Why it is limited to five types? Is it not allowed for the pilot to have more type ratings or is it not allowed to use not more of 5 type ratings commercial? If it is the case of using only max. 5 types or variants, how would the time factor be handled, a freelancer could work in six companies with six different types, but only 5 types are "active". If he want to fly the sixed typ, he can put another type on hold? Please clarify



	<p>We urge you to make the following changes: We suggest that the number of multi-engine helicopters be limited to two. The complexity of the helicopter type should be considered. For example the difference of the complexity between an AS 355 and an AS350 is not very big. VFR day operations do not pose any problem. IFR operations should also not be limited. The goal should be to give more pilots the chance to be trained in IFR and are able to fly IFR. If a limit is absolut necessary it should be limited to 2 IFR types in combination with 3 VFR types (total of 5 Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a R44I and a R44II nor between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation..</p>
Response	<p>Partially accepted. The AMC applies only if the pilot flies CAT. The types flown only under NCO are not included. If a type is 'put on hold' so that another type can be re-activated, this would require an operator conversion course. Please also refer to the response to comment #49.</p>
comment	<p>167 comment by: <i>FNAM/SNEH</i></p> <p>Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.</p>
response	<p>Partially accepted. Please refer to the response to comment #292.</p>
comment	<p>194 comment by: <i>Oya Vendée Hélicoptères</i></p> <p>Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.</p>
response	<p>Partially accepted. Please refer to the response to comment #292.</p>
comment	<p>221 comment by: <i>MBH SAMU</i></p> <p>Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.</p>
response	<p>Partially accepted. Please refer to the response to comment #292.</p>
comment	<p>248 comment by: <i>SAF</i></p>

	<p>Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.</p>
response	<p>Partially accepted. Please refer to the response to comment #292.</p>
comment	<p>256 comment by: FOCA Switzerland</p> <p>Ref. to AMC1 ORO.FC.240; section b); paragraph vi) & vii)</p> <p>In our view, since there are many pilots flying more than five different helicopters for more than one helicopter operator (CAT, NCC as well as SPO), they will fly less missions under the proposed rules. As a result, pilots will need more time to achieve a certain amount of experience and knowledge, which means that they will operate at a lower level of safety</p> <p>The handling of all non-complex single-engine helicopters is quite similar and therefore does not impact the level of safety. If only one multi-engine helicopter is allowed, pilots will not be able to achieve a certain amount of training.</p> <p>We therefore propose to delete the restrictions of five helicopter types in CAT, NCC and SPO. An unlimited amount of non-complex single engine helicopters including different variants should be accepted in connection with a maximum of two additional multi-engine helicopter for day and night VFR operation.</p>
response	<p>Partially accepted. Please refer to the response to comment #292.</p>
comment	<p>257 comment by: FOCA Switzerland</p> <p>Ref. to AMC1 ORO.FC.240; section c); paragraph 1) & 2)</p> <p>Normally pilots on helicopters for CAT, SPO and NCC operators also fly on aeroplanes for CAT operators. As these pilots very often fly more than 2 types or variants, SPO and NCC helicopter operators will most certainly no longer be able to find experienced pilots to operate their fleet.</p> <p>Especially in the area of helicopter IFR and Night-VFR operation, it is essential that pilots can bring in their IFR and Night-VFR experience collected on aeroplanes. The history shows that the actual regulation, allowing flying three types or variants under CAT, does not have any impact to the level of safety.</p> <p>We therefore propose to delete the restrictions to only one type or class of aeroplane and on type of helicopter.</p>
response	<p>Partially accepted. The AMC is redrafted in order to enable one type of helicopters to be replaced by one group of types. However:</p>

- The NPA proposal moved the current implementing rules to AMC material without changes.
- The current aeroplane regulations usually restrict operations to up to two aeroplane types, except for the lighter aeroplanes.
- The request to allow three aircraft types or aeroplane classes cannot be justified by the current level of safety of the current regulations.
- The amended AMC ensures that a pilot flying CAT and flying both aeroplanes and helicopters, flies no more than two complex types.

comment	292	comment by: <i>European Helicopter Association (EHA)</i>
	<p>We agree with the limitation to five types in various operations. We urge you to make the following changes:</p> <p>We suggest that the number of multi-engine helicopters be limited to two. VFR day operations do not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation.</p> <p>Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a R44I and a R44II nor between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.</p>	
Response	<p>Partially accepted. Please refer to the response to comment #292.</p>	

Comment	384	comment by: <i>Art Aviation</i>
	<p>AMC1 ORO.FC.240 Operation on more than one type or variant.</p> <p>The current requirements for operation on more than one type or variant present difficulties for business-jet operators without any apparent safety benefit. The ‘hours-based’ requirements of AMC1 ORO.FC.240(a)(4) do not provide for any assessment of a crewmember’s competence or suitability to operate more than one type.</p> <p>There is no restriction, in the current regulations, on non-commercial operations on more than one type or variant (other than to satisfy the training and checking requirements for each type or variant). Neither is there any restriction on operating one type for CAT as well as multiple types non-commercially although the risks associated with this would be the same as for operating multiple types in CAT.</p> <p>In a typical airline operation a pilot may fly up to 900 hours per year. The annual hours achieved by business jet pilots are typically a fraction of this amount. In an airline a pilot may meet the requirement for ‘500 hours in the relevant crew position in CAT operations with the same operator’ in less than one year. In a business jet operation this might take several years. The current requirements therefore discriminate against business-jet operators, many of which are small or medium enterprises.</p> <p>Proposal</p> <p>We propose that AMC1 ORO.FC.240(a)(4) is amended as follows:</p> <p>(4) When a flight crew member operates more than one aeroplane type or variant as determined by the operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 for type multi-pilot, but not within a single licence endorsement, or combinations of aeroplane types or variants as determined by the</p>	



operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 for class single-pilot and type multi-pilot, the operator should comply with the following:

(i) point (a)(2);

(ii) before exercising the privileges of more than one licence endorsement:

~~_____ (A) flight crew members should have completed two consecutive operator proficiency checks and should have:~~

~~_____ — 500 hours in the relevant crew position in CAT operations with the same operator; or~~

~~_____ — for IFR and VFR night operations with performance class B aeroplanes, 100 hours or flight sectors in the relevant crew position in CAT operations with the same operator, if at least one licence endorsement is related to a class. A check flight should be completed before the pilot is released for duties as commander;~~

(B) in the case of a pilot having experience with an operator and exercising the privileges of more than one licence endorsement, and then being promoted to command with the same operator on one of those types, the required minimum experience as commander is 6 months ~~and 300 hours~~, and the pilot should have completed two consecutive operator proficiency checks before again being eligible to exercise more than one licence endorsement;

(iii) before commencing training for and operation of another type or variant, flight crew members should have completed 3 months ~~and 150 hours~~ flying on the base aeroplane, which should include at least one proficiency check, unless credits related to the training, checking and recent experience requirements are defined in operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 for the relevant types or variants;

(iv) after completion of the initial line check on the new type, 50 hours flying or 20 sectors should be achieved solely on aeroplanes of the new type rating, unless credits related to the training, checking and recent experience requirements are defined in operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 for the relevant types or variants;

(v) recent experience requirements established in Commission Regulation (EU) No 1178/2011 for each type operated;

(vi) the period within which line flying experience is required on each type should be specified in the operations manual;

(vii) when credits are defined in operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 for the relevant type or variant, this should be reflected in the training required in ORO.FC.230 and:

(A) ORO.FC.230 (b) requires two operator proficiency checks every year. When credits are defined in operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 for operator proficiency checks to alternate between the types, each operator proficiency check should revalidate the operator proficiency check for the other type(s). The operator proficiency check may be combined with the proficiency checks for revalidation or renewal of the aeroplane type rating or the instrument rating in accordance with Commission Regulation (EU) No 1178/2011.

(B) ORO.FC.230 (c) requires one line check every year. When credits are defined in operational suitability data established in accordance with Commission Regulation (EU) No 748/2012 for line checks to alternate between types or variants, each line check should revalidate the line check for the other type or variant.

(C) Annual emergency and safety equipment training and checking should cover all requirements for each type.



response Not accepted.
Two options are available: either OSD credit or alternative means of compliance.

comment 451 comment by: AIR ZERMATT AG

AMC1 ORO.FC.240(b)(iv):
We agree with the limitation to five types in various operations. We urge you to make the following changes also in order to reduce complexity:
We suggest that the number of multi-engine complex helicopter types are limited to two. VFR operations do not pose any problem, even night VFR, hence for non-complex multi-engine aircraft there shall be no limitation. IFR operations should also not be limited for non-complex helicopters and if the types cover the same generation and philosophy of instrumentation. Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between an R44I and a R44II or between an AS350 B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.

AMC1 ORO.FC.240(c) Combination of helicopter and aeroplane:
(i) operations on only one type or class of aeroplane and in case of an IFR ops on complex helicopters, only one type of helicopter (for a VFR ops no other restriction than AMC1 ORO.FC.240(b) shall apply)

response Partially accepted.
Please refer to the responses to comments #292 and 257.

comment 490 comment by: Kusi

We agree with the limitation to five types in various operations. We urge you to make the following changes:
We suggest that the number of multi-engine helicopters be limited to two. VFR day operations do not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation. Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a R44I and a R44II nor between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.

response Partially accepted.
Please refer to the response to comment #292.

comment 562 comment by: DHV e.V.

Why it is limited to five types? Is it not allowed for the pilot to have more type ratings or is it not allowed to use not more of 5 type ratings commercial? If it is the case of using only



max. 5 types or variants, how would the time factor be handled, a freelancer could work in six companies with six different types, but only 5 types are "active". If he want to fly the sixed typ, he can put another type on hold? We urge you to make the following changes: We suggest that the number of multi-engine helicopters be limited to two. The complexity of the helicopter type should be considered. For example the difference of the complexity between an AS 355 and an AS350 is not very big. VFR day operations do not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation. The goal should be to give more pilots the chance to be trained in IFR and are able to fly IFR. If a limit is absolut necessary it should be limited to 2 IFR types in combination with 3 VFR types (total of 5)

Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a R44I and a R44II nor between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation..

response Partially accepted.
Please refer to the response to comment #75.

comment 595 comment by: AIRGREEN

We agree with the limitation to five types in various operations. We urge you to make the following changes:
We suggest that the number of multi-engine helicopters be limited to two. VFR day operations do not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation.
Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.

response Partially accepted.
Please refer to the response to comment #292.

comment 634 comment by: Air-Glaciers (pf)

We agree with the limitation to five types in various operations. We urge you to make the following changes:
We suggest that the number of multi-engine helicopters be limited to two. VFR day operations do not pose any problem. IFR operations should also not be limited if the types cover the same generation and philosophy of instrumentation.
Letter C), however, poses a severe limitation. We urge you to delete this limitation for non-complex helicopters. There is only very little difference between a R44I and a R44II nor between a B3+ and B3e. Smaller operators often operate a number of different variants of the same type. The biggest issue is with the AS350 where a large number of variants exist with only small differences in handling and operation.



response Partially accepted.
Please refer to the response to comment #292.

Explanatory note to AMC1 ORO.FC.240

p. 102

comment 309 comment by: *British International Helicopter Services Ltd*
The clarification of (b)1(v) (C) is welcomed to reflect 28 flying days or 50 hours experience.

response Noted.
Thank you.

AMC1 ORO.FC.130 & 330 Recurrent training and checking—operator proficiency check

p. 102-103

comment 51 comment by: *DGAC FR (Mireille Chabroux)*
DGAC FR believes that paragraphs h) i) and j) should be transferred in a GM.

response Partially accepted.
(h) is moved to GM.
(j) and (i) are re-worded and aligned with the equivalent text in the CAT AMC.

comment 66 comment by: *DGAC FR (Mireille Chabroux)*
Paragraph d) refers to AMC 1 ORO.FC.115 which deals with crew resource management for multi pilot operations. It should also refer to AMC 2 ORO.FC.115 which deals with single pilot operations.

PROPOSAL

(d) The flight crew should be assessed on their CRM skills in accordance with the methodology described in AMC1 ORO.FC.115 **or AMC2 ORO.FC.115** and as specified in the operations manual. CRM assessment should not be used as a reason for a failure of the operator proficiency check, unless the observed behaviour could lead to an unacceptable reduction in safety margin.

response Accepted.

comment 67 comment by: *DGAC FR (Mireille Chabroux)*
Paragraph h) is written as follows:



	<p>(h) The procedures to be trained in the aircraft/FSTD may be different to procedures to be checked if both complement each other, considering the following: (1) It may happen that several training elements are covered by a single check; and (2) Certain complex procedures are best explored under recurrent training, where the trainee will derive more benefit and training to proficiency is also employed</p> <p>DGAC FR would like paragraph 2) to be clarified.</p>
response	<p>Accepted. Wording ‘training to proficiency’ is already defined in Annex I (Definitions) and previously used for evidence-based training. The word ‘approved’ is deleted from this definition in order to extend the concept to SPO under a declaration. An approval remains required to implement training to proficiency under CAT, in the context of EBT or not.</p>
comment	<p>68 comment by: DGAC FR (Mireille Chabroux)</p> <p>DGAC FR suggest to amend paragraph i) as follows:</p> <p>(i) Whenever an item requires both training and checking, the recurrent aircraft/FSTD training and operator proficiency check of an this item should not take place at the same time.</p>
response	<p>Accepted. Other wording improvements are introduced and alignment with CAT is maintained.</p>
comment	<p>168 comment by: FNAM/SNEH</p> <p>Please clarify the following points associated with the content of this article: What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made. (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations. What would be considered as procedures that is specific to the operator? Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p>
response	<p>Noted. Please refer to the response to comment #160.</p>
comment	<p>195 comment by: Oya Vendée Hélicoptères</p> <p>Please clarify the following points associated with the content of this article: What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached</p>

leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.
 (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
 What would be considered as procedures that is specific to the operator?
 Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response

Noted.
 Please refer to the response to comment #160.

comment

222 comment by: MBH SAMU

Please clarify the following points associated with the content of this article:
 What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.
 (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
 What would be considered as procedures that is specific to the operator?
 Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response

Noted.
 Please refer to the response to comment #160.

comment

249 comment by: SAF

Please clarify the following points associated with the content of this article:
 What is a similar specialized operation? We suggest that it includes all operations that either (1) perform the task from the cabin, (2) have a sling attached, (3) some equipment attached leading to a significant change in aerodynamic qualities (e.g. boom) or (4) pulling a load in contact with the ground or water. No further differentiation should be made.
 (c) When looking at (c), would it be possible to defined standardized operating procedures across operators to ease mobility of pilots and ground crew. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.
 What would be considered as procedures that is specific to the operator?
 Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response

Noted.
Please refer to the response to comment #160.

comment

259

comment by: *DGAC FR (Mireille Chabroux)*

Paragraph c) j) specifies that: " (...) the operator (...) should make best use of simulation devices to train for such situation"

It is suggested to clarify "should make best use", the aim being to take advantage of the simulation devices if possible and not to require systematically the simulation device for the high risk activities.

response

Accepted.
'make best use' changed for 'take advantage of'.

comment

293

comment by: *European Helicopter Association (EHA)*

Please clarify the following points associated with the content of this article:

What is a similar specialized operation? It should be that operations that use similar procedures to fulfill various tasks be seen as one operation. This could be either (1) to perform the task from the cabin (e.g. fotoflight), (2) to have a sling attached, (3) to have some equipment attached to helicopter leading to a significant change in aerodynamic qualities (e.g. boom) or (4) to pull a load in contact with the ground or water. No further differentiations should be made.

We suggest that as a basic principle, if the SOP and related training and checking can be standardized between different operators, cross crediting of training and checking should be possible.

This will ease mobility of pilots and ground crew based on the basic european principle freedom of movement. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.

What would be considered as procedures that is specific to the operator?

Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response

Noted.
Please refer to the response to comment #160.

comment

452

comment by: *AIR ZERMATT AG*

It must be considered that an operator conductes CAT, SPO and within SPO numerous operations. Pilots must be trained and checked there is no question about that. Nevertheless it must be reasonable. Not only cross crediting of SPOs must be able, but also together with CAT. We suggest to change the point of view of EASA's rulemaking to the following perspective: Per year a pilot must complete recurrent training, 2 OPCs (incl. 1 LPC) and at least 1 Line Check. Under that hood all training and checking must be included. There is no evidence that in the past 40 years where no recurrent training and checking was required, we had an unsafe operation. Recurrent training and checking was conducted upon pilot's requests. That possibility was used frequently, never questioned by the management and

	<p>supported a great corporate culture (the best safety supporter). SPOs can be clustered into three groups:</p> <ol style="list-style-type: none"> 1. SPO in the cabin 2. HESLO 3. HEC <p>We propose that in a 3-year cycle all groups need to be covered, specifically the one which was the least conducted ops shall be trained and checked. Everything else is not practicable and will increase training and checking costs significantly. This will put a lot of pressure on the operations (currently profit margin 5%). That pressure from the management will be passed on to the crews which then will have a negative impact on flight safety.</p>
response	<p>Noted.</p> <p>The following assumptions are equivalent to the crediting of every minute of SPO training & checking towards CAT, and the crediting of every minute of non-specialised training & checking towards SPO, which is unrealistic.</p> <p>‘OPCs for SPOs should not be considered if OPCs in another ops are already in place’ and ‘2 OPCs (incl. 1 LPC) and at least 1 Line Check. Under that hood all training and checking must be included.’</p> <p>The clustering of SPO activities into groups, to be trained and checked on a 3-year cycle, is what is proposed. The cross-crediting of CAT and SPO training and checking is also possible when relevant, under the approval of the authority. Thank you.</p>
comment	<p>491 comment by: <i>Kusi</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Please clarify the following points associated with the content of this article: What is a similar specialized operation? It should be that operations that use similar procedures to fulfill various tasks be seen as one operation. This could be either (1) to perform the task from the cabin (e.g. fotoflight), (2) to have a sling attached, (3) to have some equipment attached to helicopter leading to a significant change in aerodynamic qualities (e.g. boom) or (4) to pull a load in contact with the ground or water. No further differentiations should be made.</p> <p>We suggest that as a basic principle, if the SOP and related training and checking can be standardized between different operators, cross crediting of training and checking should be possible.</p> <p>This will ease mobility of pilots and ground crew based on the basic european principle freedom of movement. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations.</p> <p>What would be considered as procedures that is specific to the operator? Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p> </div>
response	<p>Noted.</p> <p>Please refer to the response to comment #160.</p>
comment	<p>499 comment by: <i>BCAA (OPS - Department SPO)</i></p>

	<p>point (g) : 3-year cycle for SPO operators engaged in more than one specialised operation. However, what about the other SPO operators engaged in only one specialised operation ? Why no specific requirements for SPO operators engaged in high risk operations ?</p>
response	<p>Partially accepted. A 2-year cycle is introduced for operators with only one specialised activity.</p>
comment	<p>596 comment by: AIRGREEN</p> <p>Please clarify the following points associated with the content of this article: What is a similar specialized operation? It should be that operations that use similar procedures to fulfill various tasks be seen as one operation. This could be either (1) to perform the task from the cabin (e.g. fotoflight), (2) to have a sling attached, (3) to have some equipment attached to helicopter leading to a significant change in aerodynamic qualities (e.g. boom) or (4) to pull a load in contact with the ground or water. No further differentiations should be made. We suggest that as a basic principle, if the SOP and related training and checking can be standardized between different operators, cross crediting of training and checking should be possible. This will ease mobility of pilots and ground crew based on the basic european principle freedom of movement. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations. What would be considered as procedures that is specific to the operator? Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?</p>
response	<p>Noted. Please refer to the response to comment #160.</p>
comment	<p>636 comment by: Air-Glaciers (pf)</p> <p>Please clarify the following points associated with the content of this article: What is a similar specialized operation? It should be that operations that use similar procedures to fulfill various tasks be seen as one operation. This could be either (1) to perform the task from the cabin (e.g. fotoflight), (2) to have a sling attached, (3) to have some equipment attached to helicopter leading to a significant change in aerodynamic qualities (e.g. boom) or (4) to pull a load in contact with the ground or water. No further differentiations should be made. We suggest that as a basic principle, if the SOP and related training and checking can be standardized between different operators, cross crediting of training and checking should be possible. This will ease mobility of pilots and ground crew based on the basic european principle freedom of movement. Currently, many companies exchange pilots in aerial work operations to address peak demand and cover for seasonal variations. What would be considered as procedures that is specific to the operator? Would it be possible to accept an OPC in company A if the checker is listed with company A as accepted checker and if he has knowledge of the operation and has received</p>

standardization training from company A, if that checker is actually employed by company B that has identical procedures and the OPC is performed in company B?

response Noted.
Please refer to the response to comment #160.

4. Impact assessment (IA)

p. 106-111

comment 294 comment by: *European Helicopter Association (EHA)*

response Noted.

comment 295 comment by: *European Helicopter Association (EHA)*

We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated? Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator. We take the following assumptions as baseline:

Crew: 4 Pilots, 6 Task Specialists

Two helicopters (same type) flying 600 hrs. each, total 1200 hrs.

CAT Operations 100 hrs., 1100hrs SPO with 16 different types of operation

Total Revenue at 20€/min: 1.44 Mio €

Profit Margin 5%, -> 72'000€ for reinvestments, etc.

Current training requirements:

2 OPC, 1 line check, two training sessions per pilot per year

Total costs:

Each OPC 40 Min, Line Check 20 Min, training 1 hr., total 3 hrs. per pilot per year, 12 hrs. total.

At 1000€ per hour this comes to 12'000€ per year for four pilots (this is 17% of the current profit margin)

New training requirements:

2 OPS, 1 Line Check

Each OPC 40 Min, Line Check 20 Min, training 1 hr., total 3 hrs. per pilot per year, 12 hrs. total

Training and checking for SPO (12 different types of operation minus possible combinations) at 25 min training and 20 min checking (total 9 hrs.)

New total 12 hrs. training and checking per pilot per year, new total 48 hrs. for all operations

At 1000€ per this comes to 48'000€ per year for all four pilots (this is 67% of the profit margin)

This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

Same company with chargeable minute price of 30€

Revenue: 2.16 Mio €

Profit Margin: 108'000€ at 5%



	<p>Percentage of costs with current requirements: 11.1% of profit Percentage of costs with proposed requirements: 44.4% of profit This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.</p>
<p>response</p>	<p>Not accepted. The proposed analysis is based on mistaken assumptions. Mistaken assumption 1: An operator with two helicopters operates CAT and 16 different specialised operations under SPO and currently does no training or checking for SPO. The current regulations require the whole of ORO.FC to be applicable for each type or variant, including the requirement to train and check normal, abnormal and emergency procedures for each individual SPO every year. It is understood that the current regulations are not widely implemented in several Member States. However, no training or checking for SPO cannot be the baseline 'no change' scenario for an impact assessment. Authority oversight and EASA standardisation will eventually ensure that training and checking are put in place. Also, with 16 different specialised operations, a pilot needs recurrent training and checking, since some of the 16 are bound to require specific skills and not many of the 16 will be flown on a regular basis. Mistaken assumption 2: The NPA proposal will require 12 additional flight hours per pilot per year for SPO training and checking. The NPA splits the SPO training and checking into the type-specific checking, which is already covered under the LPC, and the SPO-specific training and checking for which a 3-year cycle can be introduced with an operator risk assessment. With this NPA, the number of hours for this training and checking is likely to be much lower than 12 hours and much lower than in case of no change.</p>
<p>comment</p>	<p>333 comment by: <i>Company</i></p> <p>For us it could mean a relevant economic impact! With restrictive cross-credit requirements, we'll have to perform a lot more training and checking! More training/checks have also ecological impacts: the society won't accept more flights.</p>
<p>response</p>	<p>Not accepted. It is understood that the current regulations are not widely implemented in several Member States. However, no training or checking for SPO cannot be the baseline 'no change' scenario for an impact assessment. The NPA proposes several measures to reduce the economic impact of SPO training and checking, based on the current regulations.</p>
<p>comment</p>	<p>341 comment by: <i>Helialpin AG</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated? Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator. We take the following assumptions as baseline: Crew: 4 Pilots, 6 Task Specialists Two helicopters (same type) flying 600 hrs. each, total 1200 hrs. CAT Operations 100 hrs., 1100hrs SPO with 16 different types of operation</p> </div>

Total Revenue at 20€/min: 1.44 Mio €
 Profit Margin 5%, -> 72'000€ for reinvestments, etc.
 Current training requirements:
 2 OPC, 1 line check, two training sessions per pilot per year
 Total costs:
 Each OPC 40 Min, Line Check 20 Min, training 1 hr., total 3 hrs. per pilot per year, 12 hrs. total. At 1000€ per hour this comes to 12'000€ per year for four pilots (this is 17% of the current profit margin)

New training requirements:
 2 OPS, 1 Line Check
 Each OPC 40 Min, Line Check 20 Min, training 1 hr., total 3 hrs. per pilot per year, 12 hrs. total
 Training and checking for SPO (12 different types of operation minus possible combinations) at 25 min training and 20 min checking (total 9 hrs.)
 New total 12 hrs. training and checking per pilot per year, new total 48 hrs. for all operations
 At 1000€ per this comes to 48'000€ per year for all four pilots (this is 67% of the profit margin)
 This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

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 Percentage of costs with proposed requirements: 44.4% of profit
 This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

response Not accepted.
 Please refer to the response to comment #295.

comment 417

comment by: KMN

We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated?

Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator. We take the following assumptions as baseline:

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 Two helicopters (same type) flying 600 hrs. each, total 1200 hrs.
 CAT Operations 100 hrs., 1100hrs SPO with 16 different types of operation
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 Profit Margin 5%, -> 72'000€ for reinvestments, etc.



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New total 12 hrs. training and checking per pilot per year, new total 48 hrs. for all operations

At 1000€ per this comes to 48'000€ per year for all four pilots (this is 67% of the profit margin)

This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

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Percentage of costs with proposed requirements: 44.4% of profit

This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

response

Not accepted.
Please refer to the response to comment #295.

comment

453

comment by: AIR ZERMATT AG

We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated?

Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator. We take the following assumptions as baseline:

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2 OPC, 1 line check, two training sessions per pilot per year

Total costs:



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Percentage of costs with proposed requirements: 44.4% of profit

This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

response

Not accepted.

Please refer to the response to comment #295.

comment

492

comment by: Kusi

We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated?

Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator.

We take the following assumptions as baseline:

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 This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

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 Percentage of costs with current requirements: 11.1% of profit
 Percentage of costs with proposed requirements: 44.4% of profit
 This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

response Not accepted.
 Please refer to the response to comment #295.

comment 563

comment by: *DHV e.V.*

We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated?

Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator. We take the following assumptions as baseline:

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 Percentage of costs with current requirements: 11.1% of profit
 Percentage of costs with proposed requirements: 44.4% of profit
 This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

response Not accepted.
 Please refer to the response to comment #295.

comment 637

comment by: *Air-Glaciers (pf)*

We do not agree with the economic impact assessment provided. Especially for smaller operators we expect the NPA to have a significant impact. Could you please provide us with the underlying assumptions what the economic impact is and how this impact is calculated?

Based on the worst case with very tight NAA interpretation of the rules and only limited cross-crediting possible, we expect the additional impact as follows for a small operator.

We take the following assumptions as baseline:

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Percentage of costs with proposed requirements: 44.4% of profit

This calculation does not take into account any multi-crew operations. Training and checking requirements would have to be added.

response

Not accepted.

Please refer to the response to comment #295.



3. Attachments

Attachment #1 to comment #392:



AMC ORO.FC.105
commercial.pdf

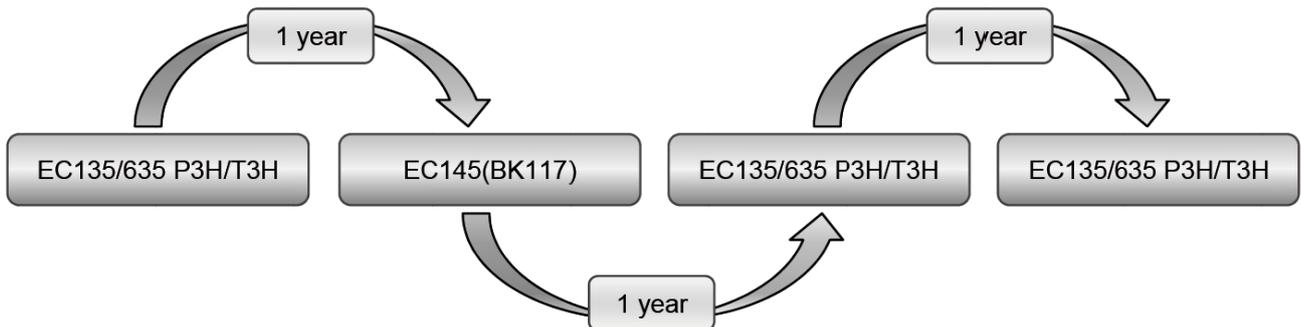
Attachment #2 to comment #393:



AMC ORO.FC.105
non-commercial .pdf

Attachment #3 to comment #107

[AMC] Pilots operating only the EC135/635 variant P3H/T3H and EC145 (BK117) variant BK117 D-2 may be checked as follows:



Note:

When a proficiency check under IR is performed, full credits for MP ops shall be granted.

Attachment #4 to comment #394



AMC ORO.FC.130
non-commercial.pdf