



European Union Aviation Safety Agency

Comment-Response Document (CRD) 2021-12

RELATED NPA: 2021-12 — RELATED OPINION: No 04/2024— RMT.0731 SUBTASK 2

19.6.2024

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1. Summary of the outcome of the consultation

Please refer to Section 3.4 of the related Opinion No 04/2024.



2. Individual comments and responses

In responding to the comments, the following terminology is applied to attest EASA's position:

- (a) **Accepted** — EASA agrees with the comment and any proposed change is incorporated into the text.
- (b) **Partially accepted** — EASA either partially agrees with the comment or agrees with it but the proposed change is partially incorporated into the text.
- (c) **Noted** — EASA acknowledges the comment, but no change to the text is considered necessary.
- (d) **Not accepted** — EASA does not agree with the comment or proposed change.

CRD table of comments and responses

| | |
|--------------------|---|
| (General Comments) | - |
|--------------------|---|

| | |
|----------|---|
| comment | <p>1</p> <p style="text-align: right;">comment by: <i>Peter Keutgens</i></p> <ol style="list-style-type: none"> 1. As a gyroplane pilot the prospect of more capable aircraft under development is very exciting and I can only applaud EASA's efforts to develop its gyroplane flight crew licensing requirements for gyroplanes that fall within the scope of the common European rules in the field of civil aviation. 2. However I would like to point out that the common European rules and national rules in the field of civil aviation do not necessarily need to mutually exclusive; I believe that gyroplane pilots should be able to elect to train towards the Part-FCL even if training on nationally regulated aircraft and that the Part-FCL rules should be downward compatible to fly those nationally regulated aircraft. In particular in countries that currently do not have national rules pilots may benefit from having a Part-FCL fallback position. This should not prevent existing national rules to persist in countries that do have national rules. 3. I also like to point out that nothing should prevent a manufacturer from seeking certification of a gyroplane with a MTOM of less than 600kg and with only 2 seats, e.g. for night flying or commercial applications. These would also fall within the scope of the common European rules in the field of civil aviation. I am thinking for instance of AutoGyro's CavalonPro that is certified under the UK's regulations (https://www.auto-gyro.com/en/Gyroplane/AutoGyro-Models/CavalonPro/) Establishment of an EASA framework for gyroplanes may persuade such manufacturers to seek EASA certification. Currently such framework does not exist. |
| response | <ol style="list-style-type: none"> 1. Noted, we thank you for your appreciation. 2. EASA is not in the position to develop licensing requirements for pilots of gyroplanes certified under national rules. It is however up to a Member State to decide whether |



to apply Part-FCL provisions for the purpose of national gyroplane pilot licensing.

3. Noted. According to Article 2(4) of the Basic Regulation, the design, production and maintenance of aircraft types falling under points (e), (f) (g), (h) or (i) shall also be subject to the Basic Regulation and its delegated and implementing acts. Third-country manufacturers are not subject to EU requirements, unless the aircraft concerned falls under one of the points of Article 2(b) of the Basic Regulation.

comment

20

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

Sweden is positive about the proposals in EASA NPA 2021-12.

response

Noted

The input from the STA is welcome.

comment

25

comment by: *French DGAC*

On Page 13, in the section Questions to NCA, Note

Please be advised that currently, in France, Annex 1 gyroplanes have a maximum of 2 seats, an MTOM up to 500kg for 2 seater plus an extra 25 kg when the aircraft is equipped with an airframe mounted total recovery parachute and an extra 45 kg when the aircraft is intended to be operated on water, and a maximum power up to 105 kW for 2 seater.

Answer to the Questions to NCA on page 13

France thanks EASA for this proposal that demonstrate an interest in accompanying industrial developments.

However, we understand that the gyroplane market will arise slowly. Consequently, a set of rules tailored for a full-speed activity might not be attainable (see our comments along this NPA on hours requirements and on credits offered). Besides, the Authority officers might not have yet a sufficient expertise to create theoretical PPL(G) exams and to oversee the gyroplane activity. Lastly, the IT and staffing cost to implement a new licence and type or class rating seems disproportionate considering the low expected demand. The main difficulty is not regulatory but rather on the practical implementation of such a new licence which is costly both in terms of financial investments and human resources.

1. For these reasons, we wish EASA considered, instead of a new licence, creating a simple rating to be associated to an existing PPL(A) or PPL(H) similar to the VTOL kick-off regulation. This would alleviate the initial burden for authorities.
2. Besides, EASA could further adjust the amendment to take into account the need to accompany the first pilot candidates, and to gradually "prime the pump" to create a pool of instructors and examiners. To this effect, our comments alongside



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| | <p>the NPA point out several flight hours requirements that might be hard to attain in the first few years. The modulation of this hour volume (in terms of number of hours and on a several-year long build-up) might require further study.</p> |
| response | <ol style="list-style-type: none"> 1. Not accepted. The licensing scheme needs to be applicable not only to the pilots having already a pilot licence but also applicants for a pilot licence. 2. Partially accepted. The Agency alleviated the requirements in a proportionate and safe manner compared to the NPA by reviewing the requirements for a conversion report (Cover Regulation Article 4(g)) and the licensing scheme using a Gyroplane Pilot Licence instead of a PPL(G). |

comment

26

comment by: AOPA Sweden

22-01-07

Comments presented by:

AOPA Sweden
Box 3008
122 03 Enskede
Sweden

Medical

Maybe a good thing is to stipulate the rules for medical examination for gyroplane pilots. I suppose they are the same as for PPL but should be stated to avoid uncertainty.

Smaller gyroplanes

Preferably a short summary of the rules for gyroplanes less than 600 kg and less than 2 seats.

NCO.IDE.H.100

Since the word rotocraft is mentioned in the running text and to avoid misunderstanding, the headline should be written NCO.IDE.H.R.100

FCL.060; Rationale

It appears that this paragraph is only applicable for gyroplanes with passengers? Does this mean there are different rules for gyroplanes without passengers?

AOPA Sweden
through Fredrik Brandel
member of the board



response

Medical

Noted. It will be explicit that in order to obtain a licence, a Class 2 medical certificate is required.

Smaller gyroplanes

Not accepted. National rules will apply as explained in NPA 2021-12. See answer to comment #58 on the scope of the rules.

NCO.IDE.H.100

Not accepted

We thank you for the answer to the NPA question, however the majority of answers indicated they disagree with this change. Indeed, although it would provide an advantage on the readability of the numbering, it would increase significantly the operators' and authorities' burden to adapt their related documentation. This could be addressed on the occasion of a recast of the Air OPS Regulation.

FCL.060; Rationale

Noted

Point FCL.060 sets out specific requirements for recent experience for holders of a pilot licence, when flying with passengers. For exercising the privileges of the pilot licence in general, the general recency requirements apply.

comment

30

comment by: *Prof. Filippo Tomasello*

Filippo Tomasello appreciates this NPA and encourages the Agency to continue with development of performance-based, risk-based and proportionate rules for Innovative Air Services

response

Noted. We thank you for your appreciation.

comment

41

comment by: *Fraundorfer Aeronautics AG*

Attachment [#1](#)

As the overall topics are quite complex, we have compiled a summary file of our comments, in addition to the comments made within the document.

response

Noted

We thank you for your summary file, however we think that there are no additional items in that file on top of the individual comments you inserted in the CRT. All these individual comments are answered in this document.



comment

42

comment by: *Austro Control*

In general, it must be noted that regulating the operation with gyroplanes as well as the licensing of gyroplane pilots is in the interest of aviation safety and legal certainty. Although we basically support the development of aviation safety regulations we question the practical benefit of these regulations in light of the existing number of gyroplane operators or licenses as well as other necessary developments deriving from the current pandemic situation. It seems to be a more theoretical approach while projects with more priority and practical need are on hold. Gyroplanes are currently certified and operated in Annex I of Basic Regulation and due to their performance, they are mainly operated locally in sporting flights. So far, no gyroplane is certified within the EU.

Furthermore, the NPA addresses licensing and operation only. Certification and airworthiness provisions are missing. Due to our knowledge, we would propose a certification specification such as CS-LSA, based on the existing and well-known national specifications for gyroplanes.

The aspect that gyroplanes are treated as helicopters is not fully justified. According to our experience with gyroplanes, they are more like an airplane than a helicopter regarding their operation and they are operated mainly non-commercially. Technically, they are a mix between rotorcraft and airplane, but as far as complexity is concerned, they are quite simple. From our point of view a gyroplane will remain mainly in the sporting area (Performance Issue). In the case of possible future commercial operation, a system of declarations seems to be the appropriate way forward. We strongly recommend developing an overall strategy regarding the integration of gyroplanes within the EU regulatory system.

Therefore, we think that a “Rulebook” approach with separate and specific rules for gyroplanes – like for sailplanes - will make more sense than an insertion of these requirements in Reg. 1178/2011 and 965/2012. The approach to amend these regulations might confuse stakeholders and operators as this is a well-established regulatory framework which has been separated from the recreational rulebooks for a reason. A specific gyroplane book is easier to handle for the operators, authorities and stakeholders concerned. In addition, this would be more consistent with the general approach to establish one rule book for each category of (mostly) recreational aircraft. Also, each amendment of these relevant gyroplane rules, like for example the insertion of rules for commercial operation (which would be probably a next step to avoid legal gaps), would be easier.

response

Not accepted

Although this regulatory development does not have the highest priority in the EPAS, a first gyroplane certification project within the scope of the Basic Regulation is under way with EASA. Therefore, gyroplane-related regulatory gaps need to be addressed and the related common European requirements need to be developed. Otherwise, this would be a barrier to EU industry.

As regards the initial airworthiness aspects (certification of gyroplanes), these are



addressed by Part 21 and CS 27. Gyroplanes continuing airworthiness requirements were proposed in NPA 2021-15.

Gyroplane commercial operations will be addressed at a later stage when there is a need.

The gyroplane 'rulebook' approach has not been followed, because creating a dedicated regulation for a very limited number of stakeholders was not considered efficient, compared with the additional burden of maintaining in parallel the same requirements in different regulations. A similar document to a rulebook may be created through the eRules tool once the rules are published in the EU Journal. CAW, FCL and OPS rules for gyroplanes could be in a single document.

comment

53

comment by: Woody

Introduction and background :

I have a substantial longtime professional involvement and experience with gyroplanes, their technology and operational characteristics (>30 years). Due to this I feel I can give some valuable input and support to this NPA.

My first gyroplane flight took place in 1991, after my career in the Belgian Army (Light Aviation and Army Engineering Corps) long before there even was a regulation for gyroplanes in my country and long before EASA. I immediately realised the potential safety benefits and advantages of gyroplanes (aerodynamical, technical as well as operational), as opposed to helicopters for both recreational and commercial applications. In 1993 I obtained my CPL and CFI RG in addition to my CPL A&H, CFI A&RH, and became employed as a fulltime CFI and testpilot by the manufacturer of the only type-certified gyroplane (!!!) in the USA still under manufacture. This was the only place anywhere in the world historically dedicated to gyroplanes which was worldwide recognised as the clear authority on gyroplanes in general, and certified gyroplanes in particular (The official FAA Rotorcraft Handbook FAA-H-8083-21 was written with major input and fruitful collaboration from that same company and is still the reference for the industry today, even outside the USA). My boss was the motor behind the famous FAR exemption 5209, which brought the accident rate for gyroplanes right down by allowing training in the experimental/amateurbuilt category and which has now been permanently incorporated into the FARs, confirming the necessity of proper training for this widely misunderstood type of aircraft.

I was appointed as their Chief Flight Instructor thanks to my specialised teaching degree and have besides my flight instructor duties also demonstrated their certified gyroplanes with vertical take-off capability (!!!)(as well as experimentals) successfully for several years at the biggest airshow(s) in the USA (1994-1997). During my years with that company I gathered invaluable insights and hands-on experience with experimental and certified gyroplanes (especially with the unique vertical take-off aspects and commercial applications such as Skysign, powerline inspection, crop dusting,...) all the way from initial concept and construction right up to the actual testflights. This experience is so unique it could not possibly be acquired anywhere else in the world. I have thus far not met anybody in Europe who could match this longtime experience at this highly specialised technical-



and didactic level in certified as well as experimental gyroplanes. Hence, due to this unique unequalled experience level I was contracted by invitation to the UK CAA as their official gyroplane testpilot on my return to Europe and was involved in their stability research program for gyroplanes (in collaboration with the Glasgow University) which yielded very valuable results aiding their BCAR requirements (section T). The UK AIB also required my assistance/services in several fatal gyroplane accident investigations. I held a UK CAA flight instructor rating for gyroplanes and a technical inspector authorisation for gyroplanes (all engine installations) and was already an approved Technical Counsellor (gyroplanes) and Safety Flight Advisor to the EAA for many years before. I have been a DPE (gyroplane) for the Irish CAA (IAA), and was the only non-French authorised instructor in France for light gyroplanes (Class 4) even before there was an official qualification for it, based on this unique gyroplane knowledge and firsthand experience.

It may also be useful to know that I worked together for several years with the late Wing Commander Wallis who held more than 23 world records in gyroplanes for more than 30 years.

I presently hold an EASA ATPL H and CPL A in addition to my FAA licences and ratings (ATP AMEL, RH) (CFI CFII RH RG ASEL), qualified for an FAA Gold Seal Flight Instructor, and have held national CFI ratings for gyroplanes in several European countries. I have amassed close to 13000 hrs TT to this present day and am actively employed as Captain on multi-engined offshore helicopters in the Atlantic Ocean.

Besides my professional qualifications I have also contributed safety articles on the subject of gyroplanes that have been published in a number of aviation magazines, and have received several awards for safety improvements and building standards of gyroplanes.

Contrary to the European manufacturers of gyroplanes who have vast commercial interests in establishing this NPA for financial gain and who are (openly or otherwise) the driving (and quite possibly effectively controlling) force behind it due to their control of the market segment, I have no commercial interest, but have only one goal instead; improving the overall safety of gyroplanes in general to give it the safety reputation it deserves.

I therefore do sincerely hope my comments on this NPA will be treated with the respect and professional approach they deserve on par with the level of specialised experience and careful approach to safety which form the base of it.

I would really appreciate a personal feedback as a token of your positive approach to my comments on this NPA. **(Please see contact details at the end of my comments).**

response Noted

comment

70

comment by: *Europe Air Sports*

Europe Air Sports (EAS) appreciates the opportunity to place comments on this NPA.

EAS welcomes the potential for new types of aviation enabled by this NPA and subsequent rulemaking.

EAS notes and appreciates that national regulations for gyroplanes below 600 kg remain applicable. These aircraft are quite popular among EAS members.

EAS broadly supports this NPA in general terms. We have some comments which are



| | |
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| response | <p>detailed below.</p> <p>Noted. Thank you for the support.</p> |
| comment | <p>72 comment by: <i>Président swiss microlight</i></p> <p>After many years of “national” developments under “national simplified certification rules” up to 600 kg (EASA BASIC REGULATION Annexe 1), Gyros are now evolving very fast demanding an increased MTOM and probably commercial rules.</p> <p>As first GYROS (Gyroplane) are close to EASA certification Pilot’s licensing is becoming urgent but it should not be rushed. Experiences of microlight Gyros operation including flight training are to be considered for a new licensing regulation and that, not only for the transitional period.</p> <p>Switzerland for example is demanding a LAPL(A) or LAPL(H) before training for a swiss UL(G) Microlight licence. Definitively that is economically and ecologically not suitable as 10-20 hrs training more are necessary to unlearn reflexes of other disciplines.</p> <p>Gyros are not helicopters and not airplanes. The former (A) or (H) experience is an advantage but not for the primary handling</p> <p>Gyros at or below 600kg -EASA or -Microlight certified will coexist</p> <p>1. Creation of a LAPL(G) EASA license in the same way as LAPL(H) or LAPL(A) That would also help to keep costs down for small countries with few licensing activities (like Switzerland LI EE LV IE PL NL LU) as microlight (G) would then be operated with that LAPL(G)</p> |
| response | <p>Partially accepted</p> <p>Taking into consideration on the one hand the need to have a licensing scheme enabling commercial operations in the future, and on the other hand the need to have more proportionate training requirements, a Gyroplane Pilot Licence scheme is now included in the amended regulatory text, following the regulatory approach of the LAPL framework. The GPL system as (BPL/SPL) encompasses the possibility to extend the requirements for future commercial operations.</p> |
| comment | <p>97 comment by: <i>Swiss Aeroclub</i></p> <p>The Aero Club of Switzerland would like to thank EASA for granting the opportunity to comment this NPA.</p> <p>We welcome and support the initiative of EASA to put in place a regulatory framework regarding private pilot licences and non-commercial VFR-operation of gyroplanes.</p> |



response Noted. Thank you for the support.

1. About this NPA

p. 5

comment 54

comment by: *Woody*

Comments :

General : It is a positive and long overdue initiative that there finally will be a Europeanwide regulation for gyroplanes. I understand and have noted that the gyroplane requires a specialised area of knowledge without which writing such legislation is fraught with problems and unrealistic expectations/goals.

In this NPA I have found such examples which due to the unfamiliarity with gyroplanes by the legislators, coupled to many misconceptions, can create either unworkable, artificial or impractical rules which are induced by a strong strive for safety, yet are not necessarily underpinned by relevant practical knowledge acquired “in the field”, however well-intended to improve safety these rules may be.

It is easy to get into such a situation since there are a number of selfproclaimed “pioneers/experts/specialists”, who upon scrutiny have either little to offer on a professional aviation level (experiencewise nor knowledgewise) or are only interested in getting a “quick buck” for personal gain. Some have a certain level of (relevant but more often than not irrelevant) flying experience, some others have some technical (again relevant but more often than not irrelevant) experience, but very rarely do they seem to have any combination of those two very important essential factors, let alone any professional relevant aviation experience with fully certified or vertical take-off capable gyroplanes, nor with their commercial applications.

Not being driven by commercial gain (rather *un*-like the manufacturers !!), my only goal is to improve aviation safety in general and gyroplane safety in particular based on proven experience and technical knowledge rather than by glossy brochures ,loose unsubstantiated talk or hidden financial gain agendas.

Please find my suggestions and comments below.

I would like to be kept abreast of any developments in this area, and would appreciate a personal feedback on the comments stated below. To that effect I will make myself available at a mutually convenient time and place to discuss and clarify these on a personal basis.

(Please see contact details at the end of my comments)

W. De Saar

response Noted



2.1.2. Subtask 2 - Aircrew and Air Operations Regulations for gyroplanes

p. 7

comment

3

comment by: *Peter Keutgens*

1. Please see my earlier comments that the common European and the national rules should not be mutually exclusive, i.e. gyroplane pilots flying nationally regulated aircraft should be able to elect to train towards the Part-FCL requirements. I would recommend that any flying experience on single- and two-seater gyroplanes with a MTOM not exceeding 600kg should fully count towards training and maintaining proficiency of the Part-FCL requirements.
2. Moreover in the relatively small world of gyroplanes, all experience thus far has been on nationally regulated aircraft and towards national pilot licensing requirements and so I am wondering who will be able to provide flight training in the transition phase towards the Part-FCL rules?

response

1. Partially accepted

The MTOM limit is reduced from 500 kg to 450 kg in the amended regulatory text to enable a wider range of gyroplanes to be used for training purposes. Also, please see the proposed Article 4g (in Regulation (EU) No 1178/2011) on crediting of experience on nationally-registered gyroplanes.

2. The first flight training on a gyroplane > 600kg may take place at the DTO/ATO established by the manufacturer.

2. In summary - why and what

p. 7

comment

27

comment by: *Hans Pålsson*

There is no need for the certification of flight crews to be PPL level. LAPL(G) will be enough. Consider that in the European countries national regulated gyrocopters are flown on microlight regulations and have been so safely for a long time. The requirement of PPL will only hinder development of the class.

response

As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72.

2.1.3. Affected stakeholders

p. 8



comment

4

comment by: *Peter Keutgens*

I applaud EASA working with the IAPGT. Having been trained in two EASA Member States I can confirm that the IAPGT has become the reference even at non-member training facilities. Its influence cannot be understated I believe.

It is also worth mentioning AutoGyro's CavalonPRO at this point, a version of their standard Cavalon certified by the UK CAA to ICAO standards. The CavalonPro is a sub-600kg design and so nationally regulated to ICAO standards in order to allow commercial applications. Indeed the UK CAA has published a full set of ICAO-compliant PPL(G) and CPL(G) requirements in order to support such applications. The design being ICAO-compliant I believe means that it may fly in EASA member states' territory. However a pilot would need to comply with UK requirements and also with currently non-existent EASA-equivalent pilot licensing requirements. So it least it should be good to see such requirements defined, which I believe is a key next step in the growing up of the gyroplane sector.

Having said that, an EASA-certified CavalonPRO would appear better, but I can imagine that traditional European light gyroplane manufacturers may find this route prohibitively expensive. Hopefully these flight crew licensing rules may help to open up more opportunities.

response

Noted. Thank you for your comment.

Please note a regulatory framework for gyroplane certification and pilot licensing cannot be established in compliance with ICAO, since neither ICAO Annex 1 nor ICAO Annex 8 contain Standards for that area.

2.3.1. General approach

p. 9

comment

5

comment by: *Peter Keutgens*

Agreed in principle with the proposed approach of keeping the designation unchanged but replace 'helicopter' with 'rotorcraft' in the text itself. However care should be taken of the fact that a gyroplane is not a helicopter, so some of the requirements may need refinement.

response

Noted. Thank you for the support.

comment

28

comment by: *Hans Pålsson*

The PPL requirement is not necessary, LAPL is a more suitable level of requirement and also makes transition from nationally regulated gyrocopters easier. Crediting of flight hours on microlight class gyrocopters (i.e. Annex I excluded MTOM 600 kg) must be possible



response

Partially accepted

As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72.

As regards the crediting of flight hours on microlight gyroplanes, Article 4g will allow limited crediting of certain nationally-certified gyroplanes during a transitional phase.

Additionally, in point FCL.035(a) an additional point (5) is proposed to be inserted, to allow some crediting on nationally-registered gyroplanes also for complying with GPL recency requirements.

comment

31

comment by: *Irish Aviation Authority*

Re question to stakeholders, if the intention is to update the reference at a future date, then consideration should be given to changing it now.

That said, the rationale for retaining the "H" is sound.

response

Noted. Thank you for your answer and agreement with the retention of 'H'.

comment

43

comment by: *Austro Control***Comment:**

It is intended to propose the PPL-G within the PPL/CPL-ICAO structure although the PPL-G is not fulfilling ICAO ANNEX I requirements. It is in question why EASA did not consider integrating a LAPL-G license rather than a PPL-G-license because a LAPL-G-license would feature all LAPL – related advantages.

Justification:

The PPL-G-approach tries to meet a standard which cannot be achieved presently since the PPL-G is not foreseen by ICAO. On the other hand, EASA has installed a mature European licensing system by use of the LAPL which is extremely convenient for Gyroplane licensing purposes. Also, safety is not adversely affected by this approach.

Proposal:

We propose to integrate a LAPL-G license rather than a PPL-G because a gyroplane is a short-distance aircraft, and the overall usage is centered in the General Aviation leisure community. Most commercial aspects as referred in this NPA can be performed by means of e.g., drones in the near future, because drones can be operated more efficiently and they are more environmentally friendly in regard to their overall food print including noise, CO₂ impact, et cetera.

Question to stakeholders:

Notwithstanding our comment for a specific gyroplane rulebook and although the NPA approach is not consistent, we would agree to not replace "H" by "R", because this would



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| | <p>have a negative impact for helicopter operators which already got used to the existing rules and which should not be obliged to change the references in their documentation. (This would create an inappropriate administrative burden.)</p> |
| response | <p>As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72.</p> <p>Thank you for your answer and agreement with the retention of 'H'.</p> <p>As regards your proposal on a rulebook, please refer to our reply to comment No 42.</p> |

| | | |
|----------|--|--------------------------|
| comment | 55 | comment by: <i>Woody</i> |
| | <p>2.3.1 question to the stakeholders :</p> <p>It would certainly be better to keep the rotorcraft category and divide it into 2 separate classes : Helicopter class and Gyroplane class in the same Rotorcraft category. This will be more in line with other ICAO regulations (FAA for example) and existing national rules, and will create less confusion and less work in the future as the legal framework develops further with technological advances. The designation should in my opinion best be changed to NCO.IDE.R.100 (indicating the rotorcraft category) instead of only altering the text by inserting the word "gyroplanes" since it would require only 1 reference update, it will avoid confusion in anticipation of hybrid gyroplanes with partially-driven rotors (or other possible technological advances), and it will make a clear distinction between helicopters and gyroplanes. There will be no "grey areas" this way. It is also specified in other legislations in this same way.</p> | |
| response | Noted. Thank you for your answer. | |

| | | |
|---------|---|--------------------------------------|
| comment | 74 | comment by: <i>Europe Air Sports</i> |
| | <p>Regarding the proposed use of the word "rotorcraft" to cover both gyropolanes and helicopters:</p> <p>EAS wishes to remind that there is EU regulation under development also for VTOL aircraft of varying unconventional configurations, such as "multicopters" and "powered lift aircraft ". While these VTOL aircraft are in regulation characterised as having more than two rotors/propellers, it comes very easily (and logically) to call these aircraft "rotorcraft" as well, especially the wing-less multicopter configurations.</p> <p>This leads to a potential for confusion if the word "rotorcraft" would be limited to just gelificopters and gyroplanes. EASA is therefore invited to reconsider the use of "rotorcraft". As one suggestion, use "rotorcraft" to mean all categories of aircraft where lift is created by rotors or propellers on vertical axles.</p> | |



response Partially accepted

Thank you pointing out potential inconsistencies between the definition provided in different NPAs.

Alignment with other regulations was performed, see the Explanatory Note to the Opinion.

Rotorcraft means a power-driven, heavier-than-air aircraft that depends principally for its support in flight on the lift generated by up to two rotors;

comment 99 comment by: *French DGAC*

On page 10, in the section Question to stakeholders, EASA would like to know whether there is a need to replace H by R in the designation of the provisions (eg: NCO.IDE.H.100 by NCO.IDE.R.100).

DGAC France agrees with EASA proposal to keep the existing designation, considering that the added value of changing H by R is minimal and may lead to too many changes for helicopter operators.

response Noted. Thank you for your answer and agreement with the retention of ‘H’.

comment 108 comment by: *Civil Aviation Authority the Netherlands*

With respect to the question on the designation of articles in Part-NCO, we can agree with the approach to keep the designation unchanged.

response Noted. Thank you for your answer and agreement with the retention of ‘H’.

comment 149 comment by: *Finnish Transport and Communications Agency*

p. 10 Question to stakeholders

Traficom agrees with the EASA proposal.

response Noted. Thank you for your answer and agreement with the retention of ‘H’.

comment 151 comment by: *Finnish Transport and Communications Agency*

Regarding the general approach.

Gyroplanes are currently certified and operated in Annex I and due to its performance, they are mainly operated locally in sporting flights. From our knowledge about gyroplanes, they are operationally more an airplane than a rotorcraft and mainly in non-commercial



use. From our point of view, a gyroplanes will remain mainly in the sporting use, therefore we think that a separate rules for gyroplanes, as was done for the sailplanes and balloons would be more proportional. Separate rulebook approach would enable a more proportional approach, that would suit the near and mid-term prospects of this activity, thus enabling growth of this segment. If heavier commercial activity would then follow, we could integrate gyroplanes to Part-FCL fairly easily, but to do so now, threatens to burden this activity with too stringent regulations, that would prevent its growth or even its existence.

Trying to fit gyroplanes in to the Part-FCL structure has lead, in our opinion, in this opinion, at times to disproportional requirements, that would lead in to problems within the activity.

response

Partially accepted

As regards your comment on a commercial operations, please refer to our reply to comment No 42.

As regards your FCL comment, please refer to our reply to comment No 72.

As regards your proposal on a rulebook, please refer to our reply to comment No 42.

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

p. 9

comment

71

comment by: *Europe Air Sports*

EAS wishes to raise the question whether it would be appropriate to establish a Light Aircraft Pilot Licence for gyroplanes (LAPL(G)), as is done for fixed wing aircraft and helicopters. Benefits would be a higher degree of modularity in the training.

response

As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72.

comment

98

comment by: *Swiss Aeroclub*

When EASA introduced the Light Aircraft Pilot Licences (LAPL) licencing requirements for pilots limiting their activities on light aircraft were adjusted to a reasonable level, taking into account the needed safety level for the intended activities. Since we cannot find any justification to exclude gyrocopter pilots from these advantages we would appreciate if EASA applies this philosophy also in the field of gyrocopters and creates a LAPL(G).



response

As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72.

2.3.2.1 The Aircrew Regulation

p. 11

comment

6

comment by: *Peter Keutgens*

Fully agreed that the current fleet of nationally regulated two-seater gyroplanes should be used for training towards the Part-FCL gyroplane requirements, because currently there are simply no EASA-certified gyroplanes available. However the minimum MTOM limit of 500kg appears arbitrary and counterproductive for following reasons:

- it appears based on the fact that the PAL-V FlyDrive Academy happen to be flying a Magni Gyro M24C with an MTOM of 500kg; rules should never be for the purpose of a single provider
- see above comments re the CavalonPRO; what if a manufacturer was to decide to bring another sub-600kg gyroplane to market, e.g. for night flying or commercial applications? Moreover, EU pilots of the UK certified CavalonPRO will need to hold the equivalent EASA licence in order to exercise their right in EASA member states
- there is a clear safety benefit of allowing and encouraging more pilots to the Part-FCL requirements, and so arbitrary weight restrictions may work counterproductive towards EASA's safety goal
- it raises questions, e.g. an AutoGyro MTOsport exists in both 450kg and 500kg MTOM versions, based on the strength of the undercarriage bar. The 450kg version may be upgraded to 500kg, so hours flown prior to the upgrade count and post the upgrade not?
- why would the 500kg version be better training towards the 900kg PAL-V than the 450kg version? There is no evidence for that, and fact remains that pilots will always need conversion training to sensibly step up towards a much heavier aircraft.

In practice any modern two-seater light gyroplane's MTOM ends up in the 450-600kg range. I don't believe that it is possible to determine that one is better preparation to fly the 900kg PAL-V or any other heavier future design. Better would be to replace the minimum MTOM requirement with more practical requirements, e.g. the aircraft needing two seats, dual controls, etcetera.

response

Partially accepted

As regards your proposal on a limit for MTOM, please refer to our reply to comment No 3.

comment

32

comment by: *Irish Aviation Authority*

Re keeping the theoretical knowledge outside the scope of the ECQB is a missed opportunity for a standardised approach in exam delivery.

response

Noted.



Please be informed that the GPL theoretical knowledge was decided to be managed outside the ECQB for proportionality reasons and for consistency with the regulatory framework on LAPL and PPL theoretical knowledge examinations.

comment 56

comment by: Woody

Transitional measures of proposed Article 4d

Annex 1 states that **2.3.2.1 Why exclude the <500 kg MTOW class ?** This does not make sense, as those aircraft share the same airspace and aerodynamics and hence the pilots should obey the same rules and possess the same level of knowledge to operate safely in conjunction with other airspace users. This is even more important with the increased level of recreational aviation activity we are seeing these past years. Furthermore there are many countries in Europe which do not have a national ruling for gyroplanes altogether, whether they be <500 kg MTOM or not. It would behoove those countries to include those gyroplanes if there is no legal reference frame for gyroplanes with MTOM<500 kg. It would be an easy job for them and save a multitude of manhours to adopt these rules for gyroplanes in all weight categories.

The proposed ruling also does not take into account and has overlooked the operation of formerly Type-Certified gyroplanes that have a MTOM > 500 kg and which may already be (or need to be added) to the list of orphaned aircraft under Annex 2. Would this mean that they cannot be operated under the permit-to-fly system (except for certification purposes as stated elsewhere in this NPA, effectively killing any amateurbuilt category), unlike their orphaned fixed wing cousins (who do in fact enjoy continued operations under annex 2), and would require a Type Rating or additional type conversion training before qualifying to operate one of these ? This is certainly not desirable for gyroplanes which have historically obtained a full TC and a reliable track record worldwide and hence were already effectively used in commercial operations. Kindly clarify please and make a workable solution including those (e.g. Mc Culloch J2, Air&Space 18A – neither are in the list in Annex 2 yet both were Type Certified and were used legally and successfully for commercial applications). It would be a step backwards to take away these privileges unjustifiedly.

2.3.2.1 Theoretical-exam questions I see no reason why the written exam questions should NOT be part of the EASA question bank. The aim of the proposed amendment is to result in a proper gyroplane licence with standardisation throughout Europe as a consequence. By the same token it must be clear that this should be properly monitored and directed as well, just as is the case for airplanes and helicopters requiring written tests by the authority who controls the question bank.

If certain gyroplanes models are considered to be needing a Type Rating (as mentioned elsewhere in this NPA) then there should be an approved differences course for those gyroplanes that are considered to require a Type Rating (some complex gyroplane designs may well need a type rating). The written questions for the respective type rating(s) can however be monitored and directed by the relevant manufacturer and ATO approved and used for the type rating of those particular make and models.

The general gyroplane questions however should be in the free domain for all users to



access and be monitored by EASA in their question bank with the aim of legal standardisation and transparency.

It would be helpful for EASA member states who at present do not have any regulation in place for gyroplanes to adopt this question bank so a standardised theoretical knowledge across Europe will be assured, leading to greater safety in gyroplane operations. After all this is what this NPA aims to achieve, isn't it ?

this NPA does not apply to gyroplanes < 600 kg MTOM. However : most European member states' rulings state that gyroplanes in the ultralight category or under national rules must have a MTOM of <500 kg.

Where does that bring the gyroplane with a MTOM of , say 599 kg?? These will neither qualify as ultralights (>500 kg MTOM) nor as EASA types (>600 kg MTOM). This creates an illogical gap which will open up a grey area with dangerous consequences.

Also ; many existing experimental gyroplanes ("homebuilt / amateurbuilt category") fall under this rule and it will then become illegal to operate those any further ? That would be a nonsensical approach inviting illegal and/or clandestine operations, since none of these gyroplanes are/can be used for commercial purposes but only for personal use (recreation and research). See also below please.

2.3.2.1. Also states that amateurbuilt gyroplanes (experimental category) are specifically excluded from this NPA. This will create a problem, since new models will always have to undergo a series of TestFlights to prove they actually qualify and meet the standards for a TC. This is usually obtained while in the experimental category, and is the reason why this operational category exists in the first place.

Furthermore : years before EASA came into existence there were already type-certified gyroplanes which are still being flown to this day : for instance the Mc Culloch J2 and Air&Space 18A gyroplanes, both with MTOM>600 kg. The TC for the latter one was first issued in 1961 and was still valid in 2012. Can these be put on the Annex list of orphaned aircraft in the absence of recognition of their TC to allow their operation to be continued for recreational purposes ? How can they be operated legally if listed in Annex 2 and now have to operate under a "Permit to fly"? Clearly this will limit them for personal use only (by definition of "permit to fly aircraft"), not for commercial purposes (flight instruction for remuneration) despite their full TC and proven record. If this is possible for airplanes and helicopters who no longer have a TC holder, this should also be made possible for gyroplanes without a TC holder or for which no known manufacturer still exists. Kindly look into this please. It will not suffice to say that these will be processed on an individual basis by the national authority since a number of member states do not even have any provision for gyroplanes in their national regulations : even stronger ; some countries explicitly prohibit the use of **any** gyroplane unjustifiedly. This skewed situation needs to be addressed and rectified within this NPA.

Furthermore : whereas the accident rate of experimental gyroplanes was lamentable initially, the accident rate of gyroplanes has now actually shifted and even skyrocketed with the introduction of certain factory-built(!!!)European "approved"types. Not so for experimental category (homebuilt/amateurbuilt) category gyroplanes, who now enjoy a far better and rather low accident rate than the factory-built gyroplanes, and this not only



| | |
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| response | <p>due to their limited number as opposed to the high number of factory-built models now flying.</p> <p>Partially accepted.</p> <p>Please refer to the reply to comment No 58 regarding the scope of the EASA rules.</p> <p>As regards your proposal on ‘Transitional measures of proposed Article 4d’, please refer to our reply to comment No 3.</p> <p>As regards your proposal on ‘Theoretical-exam questions’:</p> <p>The feedback on the NPA pointed out that although the actual learning objectives were common for both aeroplanes and helicopters, the way they are presented in training material and the exams are different between aeroplanes and helicopters; for instance, the diagrams and terminology are different. It would therefore be appropriate to have gyroplane-specific diagrams in both the training material and the exams. With this in mind it was felt that having separate gyroplane versions would be beneficial and avoid confusion with the student pilots. It would also mean that student pilots would no longer have to learn the additional items specific to aeroplanes or helicopters that were not relevant to gyroplanes.</p> <p>As regards your proposal on ‘amateur-built gyroplanes’, it is not accepted. Test flights (including test pilot privileges) are regulated by Regulation (EU) 748/2012.</p> <p>As regards your comment on already type-certified gyroplanes, this is not accepted for the following reasons:</p> <ol style="list-style-type: none"> 1. Those aircraft types have not been recognised by EASA and are thus not listed in the EASA product list. Those aircraft are supposedly managed by the NAA system under Annex 1 aircraft. 2. For types to be certified by EASA, for the purpose of development and compliance demonstration test flights, EASA issues Flight Condition approvals, complemented by a Permit to Fly by the competent authority. <p>As regards your comment ‘The general gyroplane questions however should be in the free domain for all users to access and be monitored by EASA in their question bank with the aim of legal standardisation and transparency.’, please refer to the reply to comment No 32 on ECQB.</p> <p>As regards your comment on ‘homebuilt / amateurbuilt category’, it is not accepted, as the ‘homebuilt / amateurbuilt’ category falls under national rules.</p> |
| comment | <p>80</p> <p>comment by: <i>LBA</i></p> <p>Consolidated version of DEU federal CAAs published by LBA</p> |



"Theoretical examination:

Doubts, why there are no differences identified, concerning Operational Procedures and Flight Performance and Planning compared to PPL(A) and PPL(H) and why it should not matter, which questionnaire to be used for theoretical examination. For the time being there are already significant differences between PPL(A) and PPL(H) theoretical examination questionnaires."

response

Please refer to the reply to comment No 56 on theoretical examination.

2.3.2. Highlights of the gyroplane specificities in the proposed regulations

p. 11

comment

44

comment by: *Austro Control*

Comment:

The MTOM limit of 500kg as referred will exclude all gyroplanes being presently operated in Austria.

Justification:

Many popular gyroplane models feature a MTOM of 450kg and flying characteristics are comparable with models being 50kg heavier since design concept and technology are equal. In most cases even the models are the same since the 450kg MTOM are a national microlight certification limit.

Proposal:

Reduce the limit to 450kg in order to include popular models having already demonstrated reliability for training purposes and for other operational tasks as well.

response

Accepted

As regards your proposal on a limit for MTOM, please refer to our reply to comment No 3.

2.4. What are the expected benefits and drawbacks of the proposed amendments

p. 12

comment

8

comment by: *Peter Keutgens*

What with sub-600kg gyroplanes for night flying or commercial applications? These already exist in the form of UK-registered gyroplanes for the night flying and the CavalonPRO for commercial applications in night and day VFR conditions. A EU-based pilot flying such aircraft would need to meet currently non-existent EASA-equivalent requirements. The proposed amendments may trigger developments in the sub-600kg class as well.



response

Noted

Gyroplanes under 600 kg are regulated by national requirements.

comment

9

comment by: *Peter Keutgens*

The expected drawback of some national competent authorities (NCAs) not yet having established national gyroplane licensing rules may be countered by the availability of EASA-designed rules, subject of course to these being available to gyroplane pilots flying any class of gyroplanes. The NCAs would then only need to worry about their national gyroplane certification rules, thus reducing the size of the problem.

response

Noted

comment

34

comment by: *Irish Aviation Authority*

Re question to NCAs

What would be the additional costs for competent authorities incurred by the implementation of the draft requirements?

1. Training of staff
2. Additional insurance costs
3. Standardisation of examiners
4. Question preparation / verification
5. Possible update / replacement of software solutions

The sustainability of above depends on a number of factors such as:

- Volume of expected applications
- Timeline from publication of the requirement to applicability

response

Noted. Thank you for your answer.

comment

45

comment by: *Austro Control*

As Austro Control is not the competent licensing authority regarding gyrocopter pilots in Austria, it is hard to estimate the implementation costs especially as we do not have sufficient data regarding how many pilots would take advantage of the transitional measures in regard to obtaining an FCL license.



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| response | Noted |
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| comment | 58 | comment by: Woody |
|---------|----|-------------------|

2.4. What are the expected benefits and drawbacks of the proposed amendments

I see the NPA is relying heavily on a forecast made by a commercially-driven private undertaking (Pal-V). This is nothing more than just that : a forecast, with all the inherent unreliabilities of a prediction based on optimised numbers from the past. I have strong doubts if this prediction will materialise, certainly within the specified and anticipated timeframe.

Furthermore it is of note that there is an important strong conflict of interest here between safety and economic gain.

In the Netherlands (Pal-V country) for instance it is only possible to get gyroplane training from the manufacturer's dealership when one buys a gyroplane from them. This effectively means that

there will be strong desire by the manufacturer to "pass" a potential customer on his/her flight test (whether he/she meets the training standard or not) since it will result in a sale , or vice versa. We have seen this mistake being made in the past with dire consequences.

And :

b) it will divide the market into an oligopoly situation where the competition between the few manufacturers will be economically driven by the shortest training course rather than be safety-driven by the most in-depth course

c) Instructor course graduates are only legally allowed to give flight instruction on the PAL-V and not on any other type of gyroplane, idem ditto for instructor course graduates from the Autogyro gmbh course apparently.

It is for instance also not possible to buy a secondhand gyroplane (factory built or kit built/amateurbuilt) and get training for it since the present owner did not buy the gyroplane from the manufacturer, hence does not qualify for training on type. The owner can also not find another qualified flight instructor since neither PAL-V nor Autogyro gmbh will train anyone to fly their competitor's make and models, whereas a safety-conscious approach would have enabled anyone to train at the ATO/DTO of their choice/convenience regardless of the model they intend to fly, rather than having to buy a brand new gyroplane which subsequently has no resale value by lack of training possibilities available anywhere. This will undoubtedly give rise to an increased number of accidents.

By the same token it is not possible to get a general gyroplane flight instructor qualification (all gyroplanes with exception of gyroplanes requiring a TC) unless one buys a gyroplane from that particular manufacturer (despite proven previous successfully acquired gyroplane flying experience!!!). There is a case of an experienced gyroplane instructor who operated a well-established gyroplane designed explicitly by professionals for training. He could not get training for the issue of a CFI rating based on his previous qualifications and experience since the gyroplane in question was neither an Autogyro gmbh model nor a PAL-V. There is a clear very strong and dangerous conflict here between safety and commercial goals. This bias has to be stopped in the interest of safety. The NPA needs to address this in no uncertain terms and make training available at independent schools/ instructors rather than create brandspecific training facilities who are then given autonomous reign. Where can the owner of an experimental/ homebuilt category gyroplane (e.g. properly built from a kit and registered) get training or get his licence



revalidated/renewed ? There has to be a provision for that, just as in the airplane category where this is possible and has established its value over the years. I don't see this distinction made nor clearly defined in this NPA.

Expected drawbacks

National authorities who have at present no regulation for gyroplanes in place or who explicitly prohibit gyroplanes should receive a strong recommendation from EASA to incept such a regulation that is realistic and policeable. The cost for small countries can be shared or minimised by adopting the rulings of neighbouring member sates which have proven to be workable, or by lack thereof accept gyroplanes registered in those countries to operate in their airspace without further requirements (as is the case for experimentals/amateurbuilt/Annex II aircraft and ultralight category which are allowed operation in other countries' airspace only for a limited time if certain requirements are met and fees are paid. There is no real reason for these limitations to be continued).

It would be even much better for those countries without any legal framework for gyroplanes to also incorporate/adopt practical and workable rulings for small gyroplanes with MTOM<500 kg in this process, for the sake of completeness. Why not minimise the cost involved and adopt this NPA ruling for gyroplanes of all weight categories ?

response

Thank you for your answer to the question. Please see below are our answers.

Regarding your statement that the 'NPA is relying heavily on a forecast made by a commercially-driven private undertaking (Pal-V).'

Noted

One of the Agency's tasks is to propose Regulations which ensure a high level of safety for any sort of air transport, while also facilitating the free movement of goods, persons services and capital in the EU (see Article 1 of the Basic Regulation). There are new aircraft designs developed by Pal-V and other companies, which cannot be operated in the EU if the Regulations are not amended as today there are gaps or barriers. Taking no action would mean that the Commission and the Agency are not working towards the objectives mentioned in this article. Whether the commercial concepts of Pal-V and other companies materialise is in the hand of the aviation industry (manufacturers, operators, etc.). The Agency monitors carefully those developments — especially where aircraft designs are under certification today — and adapts its priorities such that suitable regulations are in place once those new designs are approved and the related aircraft are certified and operational. At this stage, based on all information available, the Agency expects that this may be the case in 2024, meaning that it is the appropriate time to submit this proposal to the European Commission.

Regarding your statements:

1. "c) Instructor course graduates are only legally allowed to give flight instruction on



the PAL-V and not on any other type of gyroplane, idem ditto for instructor course graduates from the Autogyro gmbh course apparently. “

2. “By the same token it is not possible to get a general gyroplane flight instructor qualification (all gyroplanes with exception of gyroplanes requiring a TC) unless one buys a gyroplane from that particular manufacturer”
3. “The NPA needs to address this in no uncertain terms and make training available at independent schools/ instructors rather than create brandspecific training facilities who are then given autonomous reign.”

Not accepted

Please note that:

- as regards 1, according to the proposed requirements for gyroplane instructors, holders of an FI(G) can instruct on any gyroplane class or type for which they possess pilot privileges; and
- as regards 2 and 3, one of the purposes of the FCL rules is to provide a level playing field in terms of training requirements for any ATO/DTO.

Regarding your questions on training for ‘experimental/ homebuilt category gyroplane’:

FCL requirements for experimental/homebuilt gyroplanes fall under the scope of national regulations.

Regarding your question ‘Why not minimise the cost involved and adopt this NPA ruling for gyroplanes of all weight categories?’

Not accepted

Since the Commission, the Member States and the Parliament agreed that gyroplanes below 600 kg MTOW can be more effectively regulated by local regulations in the Member States (and not by uniform European-wide regulations), these gyroplanes are outside the scope of the Basic Regulation. This means that EASA and the Commission have no mandate for gyroplanes below 600 kg MTOW. However, the use of the EU FCL rules is up to the decision of a national competent authority.

comment 81

comment by: LBA

Consolidated version of DEU federal CAAs published by LBA

P.13 What are the expected benefits and drawbacks of the proposed amendments

"The exact costs for additional questions can not be determined, but we do expect the costs to be covered by the individual budget of the federal CAA's."

response

Noted. Thank you for your answer to the question.



| | | |
|----------|--|---|
| comment | 109 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | <p>What would be the additional costs for competent authorities incurred by the implementation of the draft requirements, as proposed in Chapter 3 of the NPA?</p> <p>An estimate of the additional costs is difficult to make at the moment. It is expected that at least two flight schools will need to be authorised and overseen, as well as a limited number of license holders. Inspectors need to be trained on gyroplanes (one or two inspectors).</p> <p>Would these costs trigger a significant impact considered not sustainable by the competent authority resources?</p> <p>The impact is considered to be limited and sustainable. In the Netherlands we have already regulated the RPL(GC), a national gyrocopter license, however inspectorate staff will need to be trained on the new requirements following the Regulation that will be based on this NPA.</p> | |
| response | Noted. Thank you for your answer to the question. | |

| | | |
|----------|---|-------------------------------------|
| comment | 157 | comment by: <i>FOCA Switzerland</i> |
| | <p>Question to NCAs</p> <p>No, the expected additional costs would not trigger a significant impact considered not sustainable by FOCA. While some additional costs are expected for implementation (p.e. training of staff, theoretical knowledge examination paper for two branches, adaption of the IT system etc.), based on the NPA we consider them to be in an acceptable range.</p> | |
| response | Noted. Thank you for your answer to the question. | |

2.3.3. Pending item on the class or type rating

p. 12

| | | |
|----------|--------------------------------------|---|
| comment | 33 | comment by: <i>Irish Aviation Authority</i> |
| | I agree with the position taken here | |
| response | Noted. Thank you for the support. | |

| | | |
|---------|-----|--|
| comment | 150 | comment by: <i>Finnish Transport and Communications Agency</i> |
|---------|-----|--|



p. 13 Questions to NCAs

Drafting of conversion and crediting reports 5000 €

Drafting of theoretical knowledge questions and modifying examinations 5000 €

Implementation of licence format 500 €

Training costs 3000€

All together 13500e

Q: Would these costs trigger a significant impact considered not sustainable by the competent authority resources?

A: No

response Noted. Thank you for your answer to the question.

2.3.2.2 The Air Operations Regulation and non-commercial air operations in VFR Day/Night

p. 12

comment 57

comment by: Woody

2.3.2.2 The Air Operations Regulation and non-commercial air operations in VFR Day/Night

The NPA states that **“when flying a gyroplane at less than 150 m (500 ft) above a congested area that the pilot should brief the occupants in case of a critical engine failure.”**

To fly at such low altitude above congested areas without sufficient space available for an emergency landing in case of critical engine failure is normally prohibited in helicopters, for private operations as well as for commercial operations.

By the same token this should be prohibited for gyroplanes as well. It shows very poor airmanship to even consider doing so. Making it possible to do so by implementing it through this NPA is asking for trouble and makes no sense whatsoever. The laws of physics still apply for gyroplanes just as well as for helicopters in the case of a critical engine failure in either. After all ; a helicopter with a critical engine failure effectively will be in autorotation to successfully execute the subsequent unavoidable forced landing. Autorotation is the same aerodynamic principle that gets the gyroplane airborne, even when in AOE. A gyroplane with a critical engine failure will have to make an emergency landing just as well, albeit much easier to execute this successfully as opposed to a helicopter.

This notwithstanding and similar to Annex 1 Definitions(82):

“In any case, those parts of a congested area with adequate safe forced landing areas shall be considered non-hostile;”

And : NCO.SPEC.172

” When operating a gyroplane at a height of less than 150 m (500 ft) above a non-congested area, for operations of gyroplanes that are not able to sustain level flight in the event of a critical engine failure, the pilot-in-command shall have:

(a) established operational procedures to minimise the consequences of an engine



failure; and
(b) briefed all crew members and task specialists on board on the procedures to be carried out in the event of a forced landing.”

response

Not accepted

Both NPA Section 2.3.2.2. and point NCO.SPEC.172 refer to non-congested area, contrary to what the commentator read.

Article 4d Transitional measures for gyroplanes

p. 14

comment

7

comment by: *Peter Keutgens*

Same comments as next to 2.3.2.1:

Fully agreed that the current fleet of nationally regulated two-seater gyroplanes should be used for training towards the Part-FCL gyroplane requirements, because currently there are simply no EASA-certified gyroplanes available. However the minimum MTOM limit of 500kg appears arbitrary and counterproductive for following reasons:

- it appears based on the fact that the PAL-V FlyDrive Academy happen to be flying a Magni Gyro M24C with an MTOM of 500kg; rules should never be for the purpose of a single provider
- see above comments re the CavalonPRO; what if a manufacturer was to decide to bring another sub-600kg gyroplane to market, e.g. for night flying or commercial applications? Moreover, EU pilots of the UK certified CavalonPRO will need to hold the equivalent EASA licence in order to exercise their right in EASA member states
- there is a clear safety benefit of allowing and encouraging more pilots to the Part-FCL requirements, and so arbitrary weight restrictions may even work counterproductive towards EASA's safety goal
- it raises questions, e.g. an AutoGyro MTOsport exists in both 450kg and 500kg MTOM versions, based on the strength of the undercarriage bar. The 450kg version may even be upgraded to 500kg, so hours flown prior to the upgrade count and post the upgrade not?
- why would the 500kg version be better training towards the 900kg PAL-V than the 450kg version? There is no evidence for that and fact remains that pilots will always need conversion training to sensibly step up towards a much heavier aircraft.

In practice any modern two-seater light gyroplane's MTOM ends up in the 450-600kg range. I don't believe that it is possible to determine that one is better preparation to fly the 900kg PAL-V or any other heavier future design. Better would be to replace the minimum MTOM requirement with more practical requirements, e.g. the aircraft needing two seats, dual controls, etcetera.

response

Partially accepted



As regards your proposal on a limit for MTOM, please refer to our reply to comment No 3.

| | | |
|----------|---|---|
| comment | 110 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | This will apply to the Netherlands and we will need to draft a conversion report. | |
| response | Noted | |

| | | |
|----------|--|--|
| comment | 145 | comment by: <i>Finnish Transport and Communications Agency</i> |
| | Please cross-check with current article 4 ie. conversion of non-JAR compliant licences and with current article 9 ie. crediting, so that the whole picture is logical. | |
| response | Noted. Thank you for your comment. | |
| | <p>Article 4 in principle is understood to apply for the conversion of national gyroplane licences into Part-FCL GPLs. However, Article 4 will be amended for consistency with the new Article Article 4g, to ensure that credits are only granted when applicants have sufficient experience on gyroplanes having a minimum MTOM of 450 kg.</p> <p>Article 9 specifically addresses the transition of ongoing training, when such training started under JAR-FCL or ICAO requirements. None of this applies to gyroplane training. Instead, Article 4g provides some credits in the context of training in accordance with national gyroplane training requirements, when such training is ongoing at the time the Part-FCL GPL requirements will start to apply.</p> | |

| | | |
|----------|---|--|
| comment | 146 | comment by: <i>Finnish Transport and Communications Agency</i> |
| | Regarding the MTOM limit of 500 kg, please consider allowing more flexibility and use of similar authorisation procedure as there is in current Part-FCL when using Annex I aircrafts in ATO and DTO training (ORA.ATO.135 and DTO.GEN.240). | |
| response | Partially accepted | |
| | <p>As regards your proposal on a limit for MTOM, please refer to our reply to comment No 3.</p> <p>An authorisation process for nationally registered gyroplanes is not proposed to be established, since the general policy is not to promote the use of certain categories of Annex I aircraft for Part-FCL training. In this context, please consider that the existing process set out in points ORA.ATO.135 and DTO.GEN.240 is not applicable for microlight aeroplanes.</p> | |



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3. Proposed amendments

p. 14

comment

19

comment by: *French DGAC*

Comment on Amendment to Commission Delegated Regulation (EU) 2020/723 of 4 March 2020 laying down detailed rules with regard to the acceptance of third-country certification of pilots

Page 70 of NPA

We understand that, under amended article 10, Member states will be able to accept, for pilots holding a PPL(G) Aircrew licence, class or type ratings obtained in third countries. However, a full gyroplane licence obtained in a third country won't be accepted nor converted, since no provision allows it in article 4 or article 9. Can EASA please confirm this reading ?

response

Noted. Thank you for your comment.

Please be informed that, after further review, it was decided not to propose an amendment to Regulation (EU) 2020/723 and not to accept third-country gyroplane privileges, since there are no international standards for gyroplane pilot licensing.

comment

59

comment by: *Woody*

Chapter 3 : The NPA in itself.

Definitions :

'gyroplane' means a heavier-than-air aircraft supported in flight chiefly by one or more non-engine-driven rotors;

This definition is incomplete : it does not encompass e.g. gyroplanes with partially-driven rotors in flight. This technology is available and has proven to enhance the overall performance of gyroplanes. Better wording would be : Supported in flight mainly by one or more rotors that are **primarily driven by aerodynamic forces.**

This clearly describes the process of autorotation as a *primary* means for driving the rotors, but also leaves room for partially-powered gyroplane rotors which obtain their rotation partly (primarily) by autorotation and partly (secondarily) through motorised drive.

response

Not accepted. For the time being, the proposed framework is exclusively addressing gyroplanes with non-engine-driven rotors. The final regulatory proposal in the Opinion will



refer to this definition:

‘Gyroplane. A heavier-than-air aircraft supported in flight by the reactions of the air on one or two rotors which rotate freely on substantially vertical axes.’

3.1. Draft Flight Crew Licensing Regulation

p. 14

comment

73

comment by: *Président swiss microlight*

1. Creation of a LAPL(G) EASA license in the same way as LAPL(H) or LAPL(A)

That would also help to keep costs down for small countries with few licensing activities (like Switzerland LI EE LV IE PL NL LU) as microlight (G) would then be operated with that LAPL(G)

response

Partially accepted

As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72.

comment

82

comment by: *LBA*

Consolidated version of DEU federal CAAs published by LBA P.14

"No crediting for the initial issuing of the PPL(G) FI and FE identified. The regulations should be adapted for FI/FE."

response

Not accepted. Thank you for your comment.

The already existing and newly proposed crediting possibilities are deemed sufficient. To qualify the first instructors, conversions of national gyroplane licences and associated instructor certificates as well as the issuance of special certificates as per point FCL.900(b) are possible options. Additionally, the proposed amendments to point FCL.930.FI, as presented in the NPA, will provide credits for holders of FI(A) and FI(H) certificates, when applying for an FI(G) certificate.



comment

158

comment by: FOCA Switzerland

Reference: Chapter 3.1**Text NPA:** No LAPL(G) foreseen**Proposal FOCA:**

- add FCL.105.G; FCL.110.G; FCL.135.G; FCL.140.G requirements,
- add LAPL to Appendix 1, 1.5

Justification: Consistency with helicopter and aeroplane licences should be maintained.

response

As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72.

FCL.010 Definitions

p. 15

comment

11

comment by: French DGAC

Introducing a new aircraft category creates a very heavy administrative burden for the authority, even so for a technology with no obvious immediate demand in our country.

EASA might want to explore the possibility of creating a simple rating to be associated to an existing PPL(A) or PPL(H). Such a possibility seems to be the current way forward for VTOL, so why not for gyroplanes.

response

Partially accepted

As regards your proposal for another FCL scheme, please refer to our reply to comment No 72.

As regards your reference to draft requirements for VTOL-capable aircraft, please be informed that these proposals constitute a specific transitional provision to enable the start of operation with innovative aircraft and, based on experience gained during this initial phase, to develop a comprehensive regulatory framework for initial VTOL pilot licensing. Such a step-by-step approach is not needed for gyroplane pilot licensing, since it is possible already today to draft an initial gyroplane pilot licensing framework.

In general, the intention was not to mix pilot privileges for non-ICAO-compliant aircraft on the one side (gyroplane pilot privileges) and ICAO-compliant aircraft on the other side (PPL(A) & PPL(H) privileges) into one licence.



| | | |
|----------|--|---|
| comment | 111 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | In GM1 FCL.010 the letter "G" is defined as 'Gravity Forces'. With the introduction of the gyroplane, the letter G will be used in PPL(G) etcetera. It is suggested to define the "G" for gyroplane in combination with the licenses. | |
| response | Noted. Thank you for your comment. Please note that following the change of the pilot licensing scheme towards a GPL instead of a PPL(G), the issue raised in your comment is now not relevant any longer (please refer to our reply to comment No 72). | |

FCL.060 Recent experience

p. 15

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| comment | 35 | comment by: <i>Irish Aviation Authority</i> |
| | The sentence "Aeroplanes, helicopters, powered-lift aircraft, and airships, and gyroplanes, when applicable" is subject to interpretation errors as the "when applicable" might be considered to related to all aircraft. Perhaps the following "Aeroplanes, helicopters, powered-lift aircraft, and airships, and when applicable, gyroplanes" | |
| response | Accepted. Thank you for your comment. The phrase 'when applicable' is deleted from the draft text. | |

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|----------|---|--------------------------------|
| comment | 76 | comment by: <i>French DGAC</i> |
| | For clarity's sake, replace : "Aeroplanes, helicopters, powered-lift aircraft, and airships, and gyroplanes, when applicable" by : " powered-lift aircraft, airships, and gyroplanes , when applicable, gyroplanes " | |
| response | Accepted The phrase 'when applicable' is deleted from the draft text. | |

AMC3 FCL.210.PPL(G) Training course

p. 16

| | | |
|---------|----|--------------------------------|
| comment | 12 | comment by: <i>French DGAC</i> |
|---------|----|--------------------------------|



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|----------|---|
| response | <p>By consistency with "AMC1 FCL.210 PPL(A) Training course" and "AMC2 FCL.210 PPL(H) – Training course", the title of the AMC should be:</p> <p>"AMC3 FCL.210 PPL(G) Training course" (no dot between "210" and "PPL").</p> <p>Noted. Thank you for your comment.</p> <p>In line with the final versions of draft Part-FCL gyroplane requirements, the AMC on the GPL training syllabus will be associated with point FCL.210.G (most possibly, 'AMC1 FCL.210.G').</p> |
| comment | <p>23 comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i></p> <p>Subpart C, page 16-22</p> <p>AMC3 FCL.210.PPL(G) Some highly specific terminology is used, e.g "the Chop and Plop technique" and "the split angle technique". We suggest reviewing this part and either clearly define these expressions or use more generic descriptions.</p> |
| response | <p>Accepted</p> <p>The AMC text will be amended.</p> |
| comment | <p>46 comment by: <i>Austro Control</i></p> <p>Subpart C – Private Pilot Licence (PPL) AMC3 FCL.210.PPL(G) Training course, Flight Instruction for the PPL(G), (c) Syllabus of flight instruction, (3) Syllabus and list of exercises, Exercise 1: Introduction to the gyroplane, (e) essential in-flight etiquette.</p> <p>Comment: It is unclear what is meant by the term "etiquette".</p> <p>Justification: As the term etiquette is not commonly used in aviation, especially not for pilot training, its meaning is unclear.</p> <p>Proposal: As the term airmanship is commonly used in aviation, especially in pilot training, this term should be preferred in this exercise to maintain consistency, see also Exercise 26 (Page 21 in this NPA).</p> |



response

Accepted

The AMC text will be amended.

comment

60

comment by: Woody

AMC3 FCL.210**(b)(1)(x)** : substitute “ aircraft” for “aeroplane”, which must be a typing error.**(c)(3) exercise 1 (a)(5) : key differences between a gyroplane and a delta-wing aircraft**

Add : “and highlight the importance that these two aircraft use opposite flight control inputs to achieve the same result due to the delta-wing aircraft having unconventional flight controls”.

Rationale : **pulling** the gyroplane control stick **aft** results in the same reaction of the aircraft as **pushing** the control bar **forward** in a delta-wing plane!!! It is of utmost importance to make students aware of this and to make them successfully fight previously-learnt reflexes in a delta-wing aircraft (a large proportion of gyroplane students are (or were rather) delta-wing pilots). The wrong reflex could kill nearly instantly.

(c)(3) exercise 4 (d) taxiing with rotors stationary.

It is a well known fact that taxiing a gyroplane over rough or uneven terrain (grass, dirt, potholes,...) with rotors stationary can induce unwanted stresses onto the rotorblades since they are not supported by the centrifugal force as would be the case with rotors turning. Especially the bending forces close to the rotorhead/ rotor hub to which the blades would be subjected to in case of repetitive taxiing over rough terrain with stationary rotors could lead to premature failure, possibly in flight. Please see also : **AMC1 NCO.GEN.115 Taxiing of aeroplanes or gyroplanes** (below).

(c)(3) exercise 13 (b)building rotor speed during early T/O phase

This is a very underestimated skill in modern (often factory-built) gyroplanes due to the use of powerful so-called “prerotator mechanisms” to set the rotor in motion prior to the take-off roll.

The rotorspeed needs to be further built up aerodynamically before the gyroplane effectively can lift off (exception here for vertical take-off capable gyroplanes). This is a very common cause of take-off accidents and incidents in gyroplanes since most students have not grasped/practiced this concept sufficiently enough to safely handle the gyroplane in differing take-off conditions (windconditions, undulating/uneven take-off surface, short runway, etc...)

To that effect I would also add to the syllabus in the emergency section exercises 27/28 : aerodynamic spin-up of the rotor with (partially) failed prerotator mechanism.

Suggested text based on FCL.930.FI. D(m)6:

“advanced rotor handling on the ground to include building up flight rotor speed from a slow rotor speed using airflow, and slowing down a rotor in relatively strong winds without the aid of a rotor brake;



(c)(3) exercise 22(e) recovery from an incipient slow rotation to the right when loss of rudder authority

Change of wording needed : "...from an incipient slow rotation around the yaw axis when loss of rudder authority".

Rationale : the direction of the rotation when encountering loss of rudder authority in this flight condition depends on the direction of rotation of the propeller. For gyroplanes equipped with engine/propeller rotating the other way the gyroplane will rotate in the other direction when losing rudder authority (not necessarily to the right)

(C)(3) exercise 23 (b) turning in relation to a ground reference (with significant wind)

This needs to be expanded more to specify and include the manoeuvres : "turns around a fixed point" and "S-turns with constant radius along a line feature". These need to be added to the text.

Please see and use the same specification stated in **AMC1 FCL.930.FI TRAINING COURSE D PART 2 contents of the flight instruction syllabus (b) Air exercise 23 m :**

(1) high bank turns to the left and to the right;

(2) turning around a ground reference feature with significant wind:

(i) 360-degree turns around the feature;

(ii) changing direction of the turn;

(iii) flying an S shape with constant radius along a line feature(180-degree turns).

response

Please see below our answers.

Ref (b)(1)(x): Accepted. The text will be amended.

Ref (c)(3) exercise 1 (a)(5): Not accepted. This level of detail would require to also list many other differences between aircraft categories which is not an appropriate level of detail for this AMC.

Ref (c)(3) exercise 4 (d): Noted. The combination of exercises 4 and 13 is deemed sufficient to address the topic.

Ref (c)(3) exercise 13 (b): Not Accepted. In the past, this exercise was taught as you suggested but it also ended up with more incidents in training that should be avoided. The teaching now is NOT to try and accelerate from a (very) slow rotor speed and treat the gyroplane as defective.

Ref (c)(3) exercise 22(e): Accepted. The AMC text will be amended in accordance with your comment.

Ref (C)(3) exercise 23 (b): Accepted. The AMC text will be amended in accordance with your comment.

Ref AMC1 FCL 930 FI: Noted. The FI training course mirrors the student course, however the level of detail in the GPL syllabus part is generally lower than the instructor training part.



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|----------|---|-----------------------------------|
| comment | 77 | comment by: <i>Peter Keutgens</i> |
| | Why is there no LAPL(G)? Will this be developed later? It appears inconsistent with the approach for aircraft and helicopters | |
| response | Partially accepted | |
| | As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72. | |

| | | |
|----------|---|------------------------|
| comment | 83 | comment by: <i>LBA</i> |
| | Consolidated version of DEU federal CAAs published by LBA P.21 Low Flying "Explanation needed, why low flying as exercise is needed, as this is contradictory to SERA" | |
| response | Noted | |
| | Exercise 25: The content of the low flying exercise is NOT about flying below the SERA limits as stated in point SERA.5005.VFR(f)(2), 500ft. The exercise has to be performed with respect to the SERA limitation. Social media coverage of gyroplanes flying low is very popular and so addressing this topic directly is important. | |

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| comment | 112 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | It is not clear for us why the following is not included in the flight instruction: "flight by reference solely to instruments, including the completion of a level 180° turn." This is a required exercise for PPL training. Is the omission of this exercise due to the instrumentation on board the gyroplane? For a PPL license it is required that the candidate can return to safe flying conditions when he/she enters bad weather during a VFR flight. | |
| response | Not accepted. | |
| | There is no required instrumentation for gyroplanes and therefore it is not in the syllabus. | |

| | | |
|---------|--|---|
| comment | 113 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | With respect to AMC3 FCL.210.PPL(G) Training course (b) Flight instruction, point (2): add "can operate the required systems and equipment" this would provide for the same requirements as in other PPL training in Part-FCL. | |



response Accepted. The AMC text will be amended.

comment 114 comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 4:

It is not clear to us why the following items are not used, in order to ensure PPL level:

- (A) flight authorisation and gyroplane acceptance;
- (B) serviceability documents;
- (C) equipment required, maps, etc.;
- (D) external checks;
- (E) internal checks;
- (F) harness, seat or rudder panel adjustments;
- (G) starting and warm-up checks;
- (H) power checks;
- (I) running down system checks and switching off the engine;
- (J) parking, security and picketing (for example tie down);
- (K) completion of authorisation sheet and serviceability documents.

response Accepted. The AMC text will be amended.

comment 115 comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 4, point (d):

It is not clear to us why for taxiing not all relevant exercises have been included, as far as relevant for gyroplanes, in order to ensure PPL level:

- (A) pre-taxi checks;
- (B) starting, control of speed and stopping;
- (C) engine handling;
- (D) control of direction and turning;
- (E) turning in confined spaces;
- (F) parking area procedure and precautions;
- (G) effects of wind and use of flying controls;
- (H) effects of ground surface;
- (I) Freedom of rudder movement;
- (J) marshalling signals;
- (K) instrument checks;
- (L) air traffic control procedures.

(ref. PPL(A) exercise 5a)



response Accepted. The AMC text will be amended.

comment 116 comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 15:

It is recommended to include the "maximum performance (short field and obstacle clearance) take-offs"

response Not accepted

The standard take-off that is taught is the technique which is the most applicable for short field take-off and/or obstacle clearance. There is no such thing as an additional specific short-field and obstacle clearance take-off in a gyroplane to be taught.

comment 117 comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 18:

We recommend to include the "short field landings"

response Accepted. The AMC text will be amended.

comment 118 comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 25:

One of the goals to train low flying is dealing with "Navigation problems at lower levels and in reduced visibility". It is not clear to us why to following exercises are not included, in order to ensure PPL level of the candidate:

- (A) actions before descending;
- (B) hazards (for example obstacles and terrain);
- (C) difficulties of map reading;
- (D) effects of wind and turbulence;
- (E) vertical situational awareness (avoidance of controlled flight into terrain);
- (F) avoidance of noise sensitive areas;
- (G) joining the circuit;
- (H) bad weather circuit and landing.



| | |
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| | (ref. PPL(A) exercise 18b) |
| response | Accepted. The AMC text will be amended. |
| comment | <p>119 comment by: <i>Civil Aviation Authority the Netherlands</i></p> <p>With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 27:</p> <p>The following specific emergency drills, as with PPL(A), should be included, such as:</p> <ul style="list-style-type: none"> (A) action if fire on the ground and in the air; (B) engine cabin and electrical system fire; (C) systems failure; (D) escape drills, location and use of emergency equipment and exits. <p>These emergency drills would enable to ensure PPL level of training.</p> <p>(ref. PPL(A) ex 1b). These exercises are also applicable to PPL(G).</p> |
| response | Accepted. The AMC text will be amended. |
| comment | <p>120 comment by: <i>Civil Aviation Authority the Netherlands</i></p> <p>With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 27:</p> <p>It is not clear why for precautionary landings the following exercises are not included, as far as relevant for gyroplanes:</p> <ul style="list-style-type: none"> (A) full procedure away from aerodrome to break-off height; (B) occasions necessitating; (C) in-flight conditions; (D) landing area selection: <ul style="list-style-type: none"> (a) normal aerodrome; (b) disused aerodrome; (c) ordinary field. (E) circuit and approach; (F) actions after landing. <p>This would ensure PPL level. (ref. PPL(A) exercise 17)</p> |
| response | Not Accepted. |



It appears overcomplicated for a gyroplane for which, due to the short field landing capability, the majority of precautionary landings are to a field. This is different from a fixed wing.

comment 121

comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 29:

It is not clear why the following exercises for forced landing are not included, as far as relevant for gyroplanes:

- (A) forced landing procedure;
- (B) choice of landing area, provision for change of plan;
- (C) gliding distance;
- (D) descent plan;
- (E) key positions;
- (F) engine cooling;
- (G) engine failure checks;
- (H) use of radio;
- ...
- (J) final approach;
- (K) landing;
- (L) actions after landing.

This would ensure PPL level of training.

(ref. PPL(A) exercise 16)

response Not accepted

The glide ratio of a gyroplane is significantly less than that of a fixed wing, and the heights that are normally flown are lower than those of a fixed wing therefore there is not enough time to include all these items. The forced landing for a gyroplane is significantly different from that of a fixed wing.

comment 122

comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 32:

It is not clear why the following exercises have not been included in the first solo flight, as far as relevant for a gyroplane:

- (A) instructor's briefing, observation of flight and de-briefing;



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| | <p>Note: during flights immediately following the solo circuit consolidation the following should be revised:</p> <ul style="list-style-type: none"> (B) procedures for leaving and rejoining the circuit; (C) the local area, restrictions, map reading; (D) use of radio aids for homing; (E) urns using magnetic compass, compass errors. <p>This would ensure PPL level of training.</p> <p>(ref. PPL(A) exercise 14)</p> |
| response | Accepted. The AMC text will be amended. |

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| comment | <p>123 comment by: <i>Civil Aviation Authority the Netherlands</i></p> |
| | <p>With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 34:</p> <p>For en-route VFR navigation the following exercises should be included to ensure PPL level of training:</p> <ul style="list-style-type: none"> (A) flight planning: <ul style="list-style-type: none"> (a) weather forecast and actuals; (b) map selection and preparation: <ul style="list-style-type: none"> (1) choice of route; (2) controlled airspace; (3) danger, prohibited and restricted areas; (4) safety altitudes. (c) calculations: <ul style="list-style-type: none"> (1) magnetic heading(s) and time(s) en-route; (2) fuel consumption; (3) mass and balance; (4) mass and performance. (d) flight information: <ul style="list-style-type: none"> (1) NOTAMs etc.; (2) radio frequencies; (3) selection of alternate aerodromes. (e) gyroplane documentation; (f) notification of the flight: <ul style="list-style-type: none"> (1) pre-flight administrative procedures; (2) flight plan form. (B) departure: <ul style="list-style-type: none"> (a) organisation of cockpit workload; (b) departure procedures: <ul style="list-style-type: none"> (1) altimeter settings; (2) ATC liaison in controlled or regulated airspace; (3) setting heading procedure; (4) noting of ETAs. |



(c) maintenance of altitude and heading;
 (d) revisions of ETA and heading;
 (e) log keeping;
 (f) use of radio;
 (g) use of nav aids;
 (h) minimum weather conditions for continuation of flight;
 (i) in-flight decisions;
 (j) transiting controlled or regulated airspace;
 (k) diversion procedures;
 (l) uncertainty of position procedure;
 (m) lost procedure.
 (C) arrival and aerodrome joining procedure:
 (a) ATC liaison in controlled or regulated airspace;
 (b) altimeter setting;
 (c) entering the traffic pattern;
 (d) circuit procedures;
 (e) parking;
 (f) security of gyroplane;
 (g) refuelling;
 (h) closing of flight plan, if appropriate;
 (i) post-flight administrative procedures.

(ref. PPL(A) exercise 18a)

response

Not accepted

Many of these are included in Lesson 4 and Nesson 26 or the lessons on navigation. They are included, but in different exercises in the syllabus.

comment

124

comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 34:

The basic instrument flight should be included, insofar relevant for a gyroplane flight, to ensure PPL level of training. We would suggest at least:

- (A) physiological sensations;
- (B) instrument appreciation; attitude instrument flight;
- (C) instrument limitations;
- (D) basic manoeuvres:
 - (a) straight and level at various ...
 - (b) climbing and descending;
 - (c) standard turns, climbing and descending, onto selected headings;
 - (d) recoveries from climbing and descending turns.

(ref. PPL(A) exercise 19)



response Accepted. The AMC text will be amended.

comment

125

comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC3 FCL.210.PPL(G) Training course (c) Syllabus of flight instruction, point (3), exercise 34:

Radio navigation should be included, as far as applicable to a gyroplane, to ensure PPL level of training. This includes at least the elaboration of the use of GNSS.

(ref. PPL(A) exercise 18c)

response

Accepted. The AMC text will be amended.

AMC4 FCL.210; FCL.215 Training course and theoretical knowledge examination

p. 22

comment

13

comment by: *French DGAC*

Clarification needed for subjects 5 and 7

For subject 6. Operational procedures and subject 7. Flight Performance and Planning, the chart is marked X in both PPL(A) and PPL(H) column.

Besides, in 2.3.2.1, paragraph "Theoretical-exam questions", the NPA indicates that :

"— *Topics with differences between the PPL(A) and the PPL(H); however, these differences do not apply to gyroplanes (i.e. it would, therefore, not matter which exam is taken):*
 — *Operational Procedures,*
 — *Flight Performance and Planning.*"

We are not sure what it means for gyroplane candidates.

Does it mean that the gyroplane candidate needs to opt for either the Aeroplane or the Helicopter subject 6 and subject 7, knowing that he/she will be faced with specifically Aeroplane or specifically Helicopter questions ? These questions will be irrelevant to his/her category and might negatively impact his/her exam result.

Or does it mean, on the contrary, that the authority needs to be able to rule out, within subject 6 and subject 7, all the specific aeroplane/helicopter questions for gyroplane candidate?

This should be clarified.

The clarification might take the form of a specific PPL(G) column in the chart in "AMC1 FCL.210; FCL.215 Training course and theoretical knowledge examination".



response

Please refer to the reply to comment No 56 on theoretical examination.

comment

47

comment by: *Austro Control***Subpart C – Private Pilot Licence (PPL) Paragraph: AMC4****FCL.210; FCL.215 Training course and theoretical knowledge examination, SYLLABUS OF THEORETICAL KNOWLEDGE FOR THE PPL(G)****Comment:**

The table is hard to comprehend, especially with reference to the credits given regarding other aircraft categories.

Justification:

It seems that a student could take a course with PPL(A)- or PPL(H)- content in most of the subjects without making a difference. See also Crediting Appendix 1 (Page 68 in this NPA) and further comment below.

As there are different syllabi available for the PPL(A) and PPL(H), there is the chance that a PPL(G) student will miss some essential items, specifically for the subjects Operational Procedures and Flight Performance and Planning.

For example, following items could be missing:

- Subject Operational Procedures: engine overspeed, Low-G, Strong winds, Mountain environment, Emergencies (Engine Failure, Fire in cabin/cockpit, Engine Fire)
- Subject Flight Performance and Planning: Vx/Vy, effect on performance of atmospheric conditions, power limits, altitudes, T/O & LDG distances
- possibly also missing in the subject 5. PRINCIPLES OF FLIGHT – GYROPLANES:

Height or velocity avoidance graph and dead man's curve. This is trained in the flight instruction part for the PPL(G), but not in theory syllabus, see Exercise 14 (c) understanding the height/velocity avoidance curve (Page 19 in this NPA).

Continuing thought:

Except for Principles of flight and Aircraft general knowledge, which course does a DTO/ATO actually get an approval for, one with PPL(A)- or one with PPL(H) content? Apparently, it doesn't matter, see also credits for holders of a PPL(A) or PPL(H) Appendix 1 (Page 68 in this NPA).

Proposal:

As there are several elements which could be missed in a PPL(G) training course, a syllabus revision should be discussed with the subject matter experts in detail.

response

Please refer to the reply to comment No 56 on theoretical examination.

The comment on 'Height or velocity avoidance graph and dead man's curve' is accepted; it



is added to the theoretical syllabus.

comment

78

comment by: *Peter Keutgens*

8. AIRCRAFT GENERAL KNOWLEDGE - GYROPLANES

8.1. ENVELOPE? AIRFRAME AND SYSTEMS, ELECTRICS, POWERPLANT AND EMERGENCY EQUIPMENT

...

Piston engines

...

Carburettor

Carburettor icing

Do you mean the carburator and carburator icing? Please check spelling

response

Not Accepted

The word carburettor is the correct one to use. .

comment

84

comment by: *LBA*

Consolidated version of DEU federal CAAs published by LBA

P.22

"Syllabus of theoretical knowledge for the PPL(G)

(refer to 2.3.2.1)

The mentioned No.8,P.24 -Aircraft General Knowledge- refers to piston engine only. We recommend to add electric impulsion, too."

P.24 215 Training courses and theoretical knowledge examination 8. Aircraft general knowledge

"Future power units, for example electric impulsion, should be added."

response

Accepted. Thank you for your comment.

In the context of considering also electrically powered gyroplanes in the future (see the proposed point FCL.235.G), training items on electric propulsion and batteries will be included when drafting the final related AMC.

comment

100

comment by: *Fraundorfer Aeronautics AG*

Gyroplanes piloted with PPL(A)/CPL(A)

1.1. Flight Characteristics, Procedures and Pilot workload speaking for a PPL(A) /



CPL(A) flight crew license with a class rating “Gyroplane”

1.1.1. A Gyroplane flies and handles a lot like a fixed wing aircraft with a few exceptions (see next argumentation points) which could be best instructed in a class rating training course.

1.1.2. Procedures differ from a fixed wing aircraft mainly in ground operations like start and taxi and the initial part on the takeoff phase until climb out. The takeoff roll and landing roll distances are greatly reduced. Making it possible to land or takeoff from very short runways. This speaks clearly for a class rating in perspective of safety.

1.1.3. Pilot workload is very much comparable to fixed wing aircraft in a SEP or SET class rating. However, it is impossible to enter a stall or spin with a gyroplane, which speaks for the aircraft itself.

For further details please refer to the main document from Comment 41.

response Noted. Thank you for your comment.

Please refer to the response to comment No 72.

comment 147

comment by: *Finnish Transport and Communications Agency*

AMC4 FCL.210; FCL.215

Please consider rewording '..subjects and examinations are *identical* to PPL(A) or PPL(H)..'. In PPL(A) and PPL(H) theoretical knowledge 'Operational procedures' and 'Flight performance and planning' are not identical, as they are not cross-creditable according to Appendix 1 point 1.2.

response

Please refer to the reply to comment No 56 on theoretical examination.

AMC4 FCL.235 Skill test

p. 25

comment

61

comment by: *Woody*

AMC4 FCL235: skill test flight test tolerance (d)(3)3(ii) +-15 kts.

In my opinion it must be easily possible for a PPLG applicant to maintain airspeed in most level flight conditions within +-10 kts, which is more than a sufficiently wide margin to operate safely in, and which can easily be achieved within the training syllabus for properly designed gyroplanes (approved and hence meeting the stability requirements) due to their better stability than



helicopters. This is also more in line with the PPL H and PPL A standards (in level flight).

Contents of the skill test:

(e)(3) anti-icing procedures

Is this actually relevant in an aircraft that is not cleared to fly in icing conditions ???? If icing conditions are present on the ground before flight ; what will happen to the rotors in flight ?? In ultralight and standard category airplanes this has in the past caused a number of fatal accidents.

(f) section 2 : e Precision landing 0 + 100 m (simulated 1-m fence at each side)

In a gyroplane it must be possible for a PPL applicant to land within 0-50 m from a predetermined point in a powered approach to land, due to the steeper approach angle of a gyroplane as opposed to an aeroplane making it easier to pinpoint the touchdown point, and furthermore it is easier to stop than a helicopter as well. I suggest changing this standard to 0+50m, which will show a sufficient minimum skill level for PPL RG

(f) section 2 : e Glide approach : 0+200 m

Idem as above : a PPL RG applicant must be able to glide to a landing within 0-100 m of a predetermined point. One of the flying characteristics of a gyroplane is its short landing capability and the ease of which this can be executed by the gyroplane's favourable aerodynamic advantages (no stall, no spin, no loss of rotor RPM). By using 0-200 m the PPL applicant may not have sufficiently mastered this critical lifesaving capability of the gyroplane. I suggest changing this to 0-100 m within a predetermined point, which is easily achievable within the PPL RG training syllabus.

response

Please see below our answers:

ref **(d)(3)3(ii) +-15 kts**: Not accepted. It is the same as for PPL(A).

ref **(e)(3) anti-icing procedures**: Accepted. The AMC text will be amended.

ref **(f) section 2 : e Precision landing 0 + 100 m (simulated 1-m fence at each side)**: Not accepted. The landing distance in the specification has to account for no-wind conditions and provide a tolerance suitable for a relatively inexperienced pilot. It also suggests to the pilot the minimum field size that should be selected in the event of a precautionary field landing.

ref **(f) section 2 : e Glide approach : 0+200 m**: Not accepted. The landing distance in the specification has to account for no-wind conditions and provide a tolerance suitable for a relatively inexperienced pilot. It also suggests to the pilot the minimum field size that should be selected in the event of an engine failure.

comment 126

comment by: *Civil Aviation Authority the Netherlands*

With respect to AMC4 FCL.235 Skill test, Content of the Skill test, point (f) Section 2- Take



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| | <p>off and Landing:</p> <p>We would suggest to include the following components of the skill test for take off and landing:</p> <p>Pre- and after take-off procedures Aerodrome departure procedures Aerodrome arrival procedures</p> |
| response | Accepted. The AMC text will be amended. |

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| comment | <p>127 comment by: <i>Civil Aviation Authority the Netherlands</i></p> <p>With respect to AMC4 FCL.235 Skill test, Content of the Skill test, point (f) Section 4 - Emergency Landing:</p> <p>We suggest to include the simulated engine failure en-route (the simulated forced landing) and after take-off (in the circuit) landing procedures</p> |
| response | <p>Not accepted</p> <p>In a gyroplane, an engine failure in the circuit is the same as an engine failure en-route as the glide ratio is so low that in the majority of instances a gyroplane cannot glide from the downwind position to the runway. Hence, adding a separate exercise on engine failure in the circuit is not deemed necessary.</p> |

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| comment | <p>128 comment by: <i>Civil Aviation Authority the Netherlands</i></p> <p>With respect to AMC4 FCL.235 Skill test, Content of the Skill test, point (f):</p> <p>In our opinion a section on "en-route procedures" is missing and should be included, as it is for other PPL skill tests. This section should contain the following items:</p> <ul style="list-style-type: none"> a Flight plan, dead reckoning and map reading b Maintenance of altitude, heading and speed c Orientation, timing and revision of ETAs and log keeping d Diversion to alternate aerodrome (planning and implementation) e Use of radio navigation aids f Basic instrument flying check (180° turn in simulated IMC) g Flight management (checks, fuel systems and carburettor icing, etc.) |
| response | Accepted. The AMC text will be amended in line with the skill test for the LAPL. |



FCL.205.G PPL(G) Privileges

p. 28

comment

14

comment by: *French DGAC***Passenger carrying privilege**

We note that, whereas passengers carrying privileges are de facto included in a PPL(A) or PPL(H) licence, the NPA requires 10 hours of flight time as PIC on gyroplanes after the issuance of the licence in order to grant the same privilege.

On another hand, an SPL holder needs to complete 10 hours of flight time or 30 launches or take-offs and landings as PIC on sailplanes and, additionally, one training flight during which holders shall demonstrate to an FI(S) the competence required for the carriage of passengers; or hold an FI(S) certificate, in order to obtain the same privilege.

What is the reasoning and impact assessment that lead EASA to require this 10-hour step to grant the passengers carrying privilege, and how did EASA assess that 10 hours of flight are the proportionate requirement ?

response

Noted. Thank you for your comment. The requirement for the completion of 10 hours of PIC flight time before carrying passengers is proposed to ensure that pilots, after initial licence issue, have a certain minimum of experience (as PIC

), in the interest of passenger safety. The proposal is made in consistency with similar requirements that today already exist for LAPL(A) or SPL holders.

comment

48

comment by: *Austro Control*

**SPECIFIC REQUIREMENTS FOR THE PRIVATE PILOT LICENSE FOR GYROPLANES (PPL)
Paragraph: FCL.205.G PPL(G) Privileges (b) Notwithstanding (a) above, the PPL(G) holder that has instructor or examiner privileges may receive remuneration for: ...**

Comment:

In this paragraph, privileges for instructors and examiners are merged.

Justification:

Since the privileges of instructors and examiners are mixed, this could be misinterpreted, e.g., that instructors are also allowed to do skill tests.

Proposal:

An additional point should be included, thus separate the privileges for instructors and examiners, as well to be consistent with other paragraphs in Regulation (EU) No 1178/2011.



response

Not accepted

This is the same text as for other licences.

comment

62

comment by: *Woody***FCL.205.G PPL privileges**

(a)(2) including the carriage of passengers only when they have completed 10 hours of flight

time as PIC on gyroplanes after the issuance of the licence.

Whereas I agree this is a sensible and safe stipulation (borne out by the accident statistics) which is also observed in other countries, the question remains how this will or can be policed ? Is there a watertight way to guarantee this ? Is there any laid down penalty for violation of this ? The UK previously tried introducing a similar rule, only to find that it is impossible to police this.

response

Noted.

As regards your proposal, please refer to our reply to comment No 14.

comment

101

comment by: *Fraundorfer Aeronautics AG*

The reasoning behind this instead of implementing a PPL(G) is the following:

1. Gyroplanes piloted with PPL(A)/CPL(A)

1.1. Flight Characteristics, Procedures and Pilot workload speaking for a PPL(A) / CPL(A) flight crew license with a class rating "Gyroplane"

1.1.1. A Gyroplane flies and handles a lot like a fixed wing aircraft with a few exceptions (see next argumentation points) which could be best instructed in a class rating training course.

1.1.2. Procedures differ from a fixed wing aircraft mainly in ground operations like start and taxi and the initial part on the takeoff phase until climb out. The takeoff roll and landing roll distances are greatly reduced. Making it possible to land or takeoff from very short runways. This speaks clearly for a class rating in perspective of safety.

1.1.3. Pilot workload is very much comparable to fixed wing aircraft in a SEP or SET class rating. However, it is impossible to enter a stall or spin with a gyroplane, which speaks for the aircraft itself.

1.2. Safety

1.2.1. In case of experienced pilots the class rating "gyroplane" is taught in an ATO environment to the desired skill level.

1.2.2. In case of a new student pilot the scope and detail of a PPL(A) training already exists and can be used to train student pilots in the gyroplane class.

1.2.3. Instructors and evaluators would be generated from a much more experienced background and thus ensuring a much safer environment.

1.2.4. Future gyroplanes could be different from the existing ones. Therefore, the safe



operation and qualification of pilots could be controlled via a class rating where each gyroplane has to be listed in the class rating list and specific training has to be accomplished (like the SET class rating).

1.2.5. Based on the experience in Germany in the ultralight gyroplane segment with a Sports Pilot License, it requires about 5 hours of training for an experienced fixed Wing Pilot (PPL(A)/CPL(A)) to acquire the gyroplane rating.

1.3. Regulation

1.3.1. The regulations for PPL(A) and CPL(A) training already exist.

1.3.2. For future upcoming variants of gyroplanes it would be easy to amend the class rating list and making sure EASA stays frontline competitive on the aviation market raising the value and economy of the EU.

1.3.3. Regulation maintenance is simplified.

1.3.4. The FAA and the German Sport Pilot License is using the practice of an additional class Rating "Gyroplane" already.

2. Gyroplanes piloted with PPL(H)/CPL(H)

2.1. Pilot requirements

2.1.1. Helicopter pilots are already very familiar with the principles of flight with a rotary wing. However, a gyroplane uses only a part of the helicopter aerodynamics – the autorotation phase of flight. The autorotation flight of gyrocopters is, compared to helicopters autorotation flight, much easier to handle.

2.1.2. A helicopter pilot would be the most competed flight crew to operate a gyroplane regarding aerodynamics and related topics.

2.1.3. Application of controls are even simplified in a gyroplane and could be easily instructed in a class rating training course.

For further details please refer to the main document from Comment 41.

response As regards your proposal, please refer to our reply to comment No 72.

comment 129 comment by: *Civil Aviation Authority the Netherlands*

It is unclear why condition (a)(2) was added. This is a condition for holders of a LAPL; not for holders of a PPL. The latter have received more extensive training and are therefore exempt from this requirement. Suggest to remove (a)(2).

response Noted.

As regards your proposal, please refer to our reply to comment No 14.

comment 130 comment by: *Civil Aviation Authority the Netherlands*

With respect to point (c):

It is not clear why the term "recency requirements" is used. This applies to holders of a



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| | LAPL. The requirements here concern a PPL with a class or type rating. Therefore, expiration dates apply instead of recency requirements. |
| response | Noted. As regards your proposal, please refer to our reply to comment No 14. |

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| comment | 148 comment by: <i>Finnish Transport and Communications Agency</i> FCL.205.G point (a)(2) Please reconsider whether requirement is needed/proportional, as similar 10 h requirement does not exist for PPL(A) or PPL(H) holders. |
| response | Noted. As regards your proposal, please refer to our reply to comment No 14. |

FCL.210.G PPL(G) - Experience requirements and crediting

p. 28

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| comment | 29 comment by: <i>Hans Pålsson</i> The amount of flight hours required for PPL(G) at 45 hours only hinders the development of the class. LAPL(G) is more suitable both in required flight hours and on medical class. Consider that the scope of this regulation is in part for aircraft that also shall serve as cars. It will be very difficult to get interested pilots if the requirements are set too high, car drivers want to be able to fly their car, not be able to pilot large aircraft. |
| response | Noted. As regards your proposal to introduce an LAPL for gyroplanes, please refer to our reply to comment No 72. |

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| comment | 63 comment by: <i>Woody</i> FCL.210.PPL(G) EXPERIENCE REQUIREMENTS AND CREDITING (a) An applicant for a PPL(G) shall have completed at least 45 hours of flight instruction in gyroplanes, 5 of which may have been completed in an FSTD, including at least: (1) 25 hours of dual flight instruction; and (2) 10 hours of supervised solo flight time, including at least 5 hours of solo cross-country flight time with at least 1 cross-country flight of at least 185 km (100 NM), during which |
|---------|--|



full-stop landings at 2 aerodromes different from the aerodrome of departure shall be made.

(b) Crediting. An applicant that holds a pilot licence for another category of aircraft, with the exception of balloons, shall be credited with 10 % of their total flight time as PIC on such aircraft up to a maximum of 20 hours. The amount of credit given shall in any case not include the requirements of point (a)(2).

In principle I would agree on this for PPL(A) holders. It is however quite different for PPL(H) holders.

In my opinion PPL(H) holders should get more credit than this since they have already mastered control of the rotor disc to a higher level of skill in the helicopter as opposed to on a gyroplane, due to the absence of an inflight collective pitch control on gyroplanes. In other countries the hourly training requirement for the addition of a gyroplane class to an existing helicopter class licence is on an "as required to meet the standards"- basis since it is only a class add-on within the same rotorcraft category. As written here a PPL H will have to fly at least 25 hrs dual as well as 10 hrs of supervised solo time including 5 hrs of crosscountry time ??? This is clearly way over the top and does not guarantee a higher level of safety. I would agree to a minimum of 15 hrs dual, and supervised solo and crosscountry at the discretion of the relevant ATO or DTO/CFI. Any PPL H would be able to achieve the required PPL (RG) standards within that timeframe, and certainly CPL(H) or ATPL(H) when applying for a PPL(RG), since these latter ones already possess a higher airmanship- and skill level than is required for a PPL. This approach is furthermore supported by the well-established requirements in other countries where the addition of a class rating in the same category does not specify a minimum hourly training requirement, but rather "as required to meet the standards".

It is simply an insult for a CPL(H) or ATPL(H) to have to undergo this much unjustified training and supervised solo time to add a gyroplane class rating to his/her existing helicopter rating.

I fear this may be an economically-driven requirement by the gyroplanes ATO to fill their accounts. This is a waste of time and money and does nothing to improve safety in my opinion and experience.

Note : my comments here are only applicable to holders of a previous **rotorcraft** category licence ; NOT FOR HOLDERS OF AN AEROPLANE LICENCE, WHICH WILL HAVE TO ADHERE TO THE ABOVE MINIMUM REQUIREMENTS DUE TO THE SIGNIFICANT DIFFERENCE OF ROTARY WING CHARACTERISTICS AS OPPOSED TO AEROPLANES (rotary aerodynamics, no stall, no spin, rotor as opposed to wing aerodynamics with its inherent stall and spin risks etc).

(c) An applicant with prior experience as PIC on gyroplanes may receive credit towards the requirements of point (a). The amount of credit shall be decided by the DTO or the ATO where the pilot undergoes the training course, on the basis of pre-entry flight assessment, but shall in any case not exceed any of the following:

- (1) the total flight time as PIC;**
- (2) 50 % of the hours required in point (a).**



In any case, the credit shall not be given for the requirements of point (a)(2).

Idem here : I would keep (1) but would simply eliminate (2) altogether. There is no extra safety to be gained by forcing so much dual as well as solo training on existing holders of a FOREIGN gyroplane licence with previous experience. Let the ATO/DTO assess IN AN ASSESSMENT FLIGHT, and based upon the outcome of the assessment flight, decide how much training will be required including the possible need for solotime (may or may not be required as the case may be).

I therefore suggest this text (as in FCL.740.(b)) :

For the issuance of an EASA gyroplane class or type rating, applicants shall comply with all of the following:

(1) in order to determine whether training is necessary for the applicant to reach the level of proficiency to safely operate the aircraft, they shall undergo an assessment at one of the following:

[...]

(ii) at a DTO or at an ATO, if the rating concerns a high-performance gyroplane class or type rating.

(iii) at a DTO, at an ATO or with an instructor, if the rating concerns a non-high-performance gyroplane class or type rating.

response Not accepted

There are no evidence that helicopter pilots are better than fixed wing pilots.

AMC1 FCL.725(a) Requirements for the issue of class and type ratings

p. 29

comment

22

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

Subpart C, page 29-34

AMC1 FCL.725(a)

It seems like that the section is a copy from the aeroplane AMC and all items seems not applicable for gyroplanes.

Example: page 32 (a)(11) "*emergency equipment operation and correct application of the following emergency equipment in the **aeroplane:***" , page 33 (c)(1) "*performance calculation about speeds, gradients, masses in all conditions for take-off, en-route, approach and landing according to the documentation available (for example, for take-off **v1, vmbe, vr, vlof, v2**, take-off distance, maximum take-off mass and the required stop distance) on the following factors:*", page 33 "***drift-down***"

response Noted.



Please be informed that the final proposal does not include class or type ratings for gyroplane pilot licence holders. Instead, there will be privileges for gyroplane classes and types (similarly to LAPL). Hence, Part-FCL Subpart H will not be applicable, and AMC1 FCL.725(a) will not be amended.

comment 104

comment by: *Fraundorfer Aeronautics AG***Downsides of implementing a PPL(G)**

- 3.1. Most pilots would be transferred from the ultra-light pilots with a lower standard of knowledge and skill in the introduction phase of the rule making.
- 3.2. It is very complicated to get experienced pilots, instructors and evaluators over into the PPL(G) License.
- 3.3. Loosing EU value due to being restricted to private pilot privileges in the beginning.
- 3.4. Fraundorfer Aeronautics AG's customers are already waiting to use our gyroplane for commercial purposes.
- 3.5. We fear that the broad implementation on a PPL(G) does not cover the possible variety of gyroplanes in the future. In the interest of safety this issue would be much better addressed/covered by a class rating in the airplane category or type rating in the helicopter category, which puts the focus on specific needs and safety aspects.

We are proposing to add a new category of aircraft / class rating:

Proposed additional Category General Overview:

| | |
|------------------------|---------------------------|
| Manufacturer: | all |
| Aircraft Model / Name: | Gyroplane – Single Engine |
| License Endorsement: | Gyroplane |
| Variants: | x |
| Complex: | - (no) |
| SP / SP HPA / MP: | SP |
| Remarks: | Class rating: Gyroplane |

Proposed categorization of Fraundorfer Aeronautics AG Product:

| | |
|------------------------|----------------------------|
| Manufacturer: | Fraundorfer Aeronautics AG |
| Aircraft Model / Name: | TENSOR 600x |
| License Endorsement: | T600X |
| Variants: | x |
| Complex: | - (no) |
| SP / SP HPA / MP: | SP |
| Remarks: | Class rating: Gyroplane |

Summary

Fraundorfer Aeronautics AG would rather support the implementation of a Gyroplane Class



rating in the interest of flight safety in European & international skies. Furthermore, to keep the European aviation products competitive on the international level and boost the EU economy.

For any further details and discussions, the Fraundorfer Aeronautics AG Team is open to discuss at any level with the responsible departments to pave the ground for a new way of mobility and business in aviation. Our technology implemented in the TENSOR is only the start for all kinds of applications in the hopefully upcoming new categories of gyroplanes. With our technology gyroplanes can go far beyond the 600kg MTOW restrictions, which are currently set-up for gyroplanes. Although the Special Conditions (SC-Gyro-1) are the first step into the new categories.

For further details please refer to the main document from Comment 41.

response Noted. Thank you for your comment.

Please be informed that the final draft text will propose the introduction of a gyroplane pilot licence (GPL) instead of a PPL(G), with associated 'privileges' (as is today the case for LAPL holders) instead of class and type 'ratings' in terms of Part-FCL Subpart H. See the proposed point FCL.235.G and the related rationale for details.

FCL.725 Requirements for the issue of class and type ratings

p. 29

comment 24

comment by: *French DGAC*

The decision for a type or class rating will be taken later, depending on the certification process for the PAL-V. How and when will EASA consult Member States on the final version ?

The IT developments necessary for the implementation are conditioned by this information, and a late answer might create delays in the IT developments.

response Noted.

As regards your proposal, please refer to our reply to comment No 22.

As regards the IT development, with the new GPL including privileges NCAs could use the systems that they have already in place for the LAPL, SPL and BPL, with adjustments for GPL.

comment 85

comment by: *LBA*

Consolidated version of DEU federal CAAs published by LBA

P.33/34 AMC1 FCL.725(a), IV.(c)(1) and IV.(e)(1)

"Revision of nomenclature (V1, Vmbe, V2, accelerate or stop distance, ZFM, minimum



climb gradient after engine failure) recommended, as these are used for multiengine and large airplanes."

response Noted.

As regards your proposal, please refer to our reply to comment No 22.

GM1 FCL.700 Circumstances in which class or type ratings are required

p. 29

comment 102

comment by: *Fraundorfer Aeronautics AG*

EASA Certification Specification 27

2.2.1. For building and certification of a rotary wing, the EASA CS-27 is applicable for helicopters and already applicable to gyroplanes. In this respect, the gyroplane should also be in the same category as a helicopter for the flight crew licensing.

For further details please refer to the main document from Comment 41.

response Not accepted. Thank you for your comment.

Helicopters and gyroplanes constitute aircraft with significant differences, related to the aerodynamic concept and related pilot skills.

comment 103

comment by: *Fraundorfer Aeronautics AG*

Regulations

2.5.1. Also, a set of regulations for PPL(H)/CPL(H) already exists and could be executed as is. Except the Type Rating List.

2.5.2. The Type Rating List would need to be amended for a gyroplane class rating. It would also be acceptable to add a Type Rating for the helicopter category since the helicopter category does not have class ratings.

2.5.3. Regulation maintenance is again simplified.

2.5.4. The FAA already has helicopters and gyroplanes in the rotorcraft category and makes then a difference between helicopters and gyroplanes. The EASA could get the same result by adding a class rating to the helicopter category.

2.5.5. A more complex approach would be to a change helicopter category into a rotorcraft category and then differ between helicopters and gyroplanes. However, we do not think this would be beneficial to the existing rulemaking.



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| | For further details please refer to the main document from Comment 41. |
| response | Noted. Please refer to the reply to comment No 104. |

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| FCL.740 Validity and renewal of class and type ratings | p. 35 |
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| comment | 131 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | This reference seems incorrect. With the mention "(1)" the obligation to do a prof check seems to have been removed. This cannot be the intention. | |
| response | Noted. Please refer to the reply to comment No 22. | |

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| FCL.810 Night rating | p. 36 |
|-----------------------------|-------|

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| comment | 86 | comment by: <i>LBA</i> |
| | <p>Consolidated version of DEU federal CAAs published by LBA "Basic instrument training requirements missing. Compare to original license requirements." .</p> | |
| response | Not accepted There are no IFR-certified gyroplanes available yet. | |

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| comment | 132 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | It is not clear why it has not been determined that at least part of these hours must have been flown as PIC, as is also the case with Helicopters. As it is now described, all hours could also have been dual flown; that is not desirable. A requirement for a certain number of hours flown as PIC should be added aspart of the total of at least 50 hours of flight time. | |
| response | Accepted | |



The draft rule text will be amended to include a 20-hour PIC requirement.

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| comment | 133 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | With respect to point (c)(3): an IR in a TMG seems very improbable. | |
| response | Accepted. The reference to TMG will be removed. | |

AMC1 FCL.810(c) Night rating

p. 37

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| comment | 36 | comment by: <i>Irish Aviation Authority</i> |
| | Is there an option for crediting of any portions of a night rating held on a PPL(A) or (H) | |
| response | Accepted. A full credit for PPL(A) or (H) holders will be included in the draft rule text for the theoretical training. | |

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| comment | 134 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | With respect to point (d)(2)(i): It is unclear why in this section "explain and demonstrate transition from visual flight to instrument flight" is not covered. (ref. training Night (A/H), AMC1 FCL.810(a/b)). Suggestion to add this. | |
| response | Accepted. The AMC text will be amended. Please refer to our reply to comment 136. | |

| | | |
|---------|---|---|
| comment | 135 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | With respect to point (d)(2)(i)(B) unusual attitude: We suggest to add "with reference to instruments". For us it is unclear why this is not included. | |



response Accepted. The AMC text will be amended.

comment 136

comment by: *Civil Aviation Authority the Netherlands*

With respect to point (d)(2)(ii) flying by night:

The following components are missing(ref. opleiding Night A/H in AMC1 FCL.810(a/b)): * explain and demonstrate the use of radio navigation aids when flying by sole reference to instruments, to include position finding and tracking * explain and demonstrate the use of radar assistance * explain and demonstrate night take-off techniques; * explain and demonstrate night circuit techniques; * explain and demonstrate night approaches with or without visual approach aids; and * practise take-offs, circuits, as well as approaches and landings; * internal and external lighting failure; and * other malfunctions and emergency procedures, as required by the AFM; * explain and demonstrate night cross-country techniques; and * practise night cross-country dual flight and optionally supervised solo to a satisfactory standard.

It is not clear for us why these elements have not been included. Suggestion to add these components.

response Accepted. The AMC text will be amended.

AMC5 FCL.935 Assessment of competence

p. 39

comment 94

comment by: *LBA*

Consolidated version of DEU federal CAAs published by LBA

P.40

"Revision recommended, as flight time as PIC SEP or TMG, instrument flight instruction an X/C-hours, mentioned for PPL(G) make no sense. It seems, that it might be a "copy/paste" mistake."

response

Accepted. The AMC text will be amended.

That part of the form for FI assessments of competence will be revised and aligned with the gyroplane terminology, as appropriate.



FCL.910.FI FI - Restricted privileges

p. 41

comment 15

comment by: *French DGAC*

The requirement of completing 100 hours of flight instruction in gyroplanes and supervising 25 hours of solo flights before removing the instructor limitations is consistent with other aircraft categories.

However, in the context of an activity that might develop slowly at first, has EASA assessed whether this requirement is sustainable?

If it proves unattainable, might not the outcome be a shortage of flight instructors ?

It might be advisable, at least at first, to consider extending PPL(G) training privileges to FI(A) or FI(H) holding either an FCL Gyroplane licence, or a national gyroplane licence, or even to pilots holding the privilege to instruct to a national gyroplane licence.

response Noted. Thank you for your comment.

The proposed provision of Article 4g(a) (for Regulation (EU) No 1178/2011) as well as the application of the existing point FCL.900(b) of Part-FCL is expected to sufficiently enable the licensing of the 'first generation' of Part-FCL gyroplane instructors.

FCL.915.FI FI - Prerequisites

p. 41

comment 137

comment by: *Civil Aviation Authority the Netherlands*

It is not clear why FCL.915.FI (a) is not made applicable to the FI(G). This experience should also be required for the FI(G) in order to act as an instructor for PPL(G).

FCL.915.FI (a) should read:
in the case of the FI(A), ~~and~~FI(H) and FI(G):

response Accepted. Point FCL.915.FI(a) will be updated as proposed.

AMC1 FCL.930.FI FI - Training course

p. 42

comment 64

comment by: *Woody*

**AMC1 FCL.930.FI D. Gyroplanes Part 2 Exercises
Exercise 13 (5) stepping rotor**

Typo. Use "**Stopping**" instead.

response Accepted. The AMC text will be amended.

comment 138 comment by: *Civil Aviation Authority the Netherlands*

See the remarks made at AMC3 FCL.210.PPL(G).

It is important to include the missing components that are mentioned under our remarks on AMC3 FCL.210.PPL(G) will be equally added to the FI(G) training course.

response Noted. Thank you for your comment.

The comments that were accepted for the draft AMC related to the GPL training course will also be accepted and appropriately reflected in the draft AMC related to the FI(G) training course.

FCL.940.FI FI - Revalidation and renewal

p. 65

comment 16 comment by: *French DGAC*

1) credits for IRI, MI, instructor BIR or IR...

It seems confusing that the hours of flight instructions to be credited for an FI(G) include hours as IRI, MI, or as instructions for a BIR or IR, when they are not relevant for the gyroplane licence.

2) Hours requirements

As mentioned in previous comments, in a context where the activity might start on a slow pace, is the revalidation requirement of 50 hours of flight instruction sustainable in the next years, before the activity is up to speed ?

response Point 1) is accepted.

We agree that the simple inclusion of the FI(G) in point FCL.940.FI(a)(1)(i)(A) does not fit with the text of that point, given the entire content of that point. This requirement for the FI(G) will be moved to a separate point.

Point 2) is not accepted

The 50-hour requirement, consistent with the requirement for the FI(A) and FI(H) certificate revalidation, is not expected to be an issue, since, due to the '2 out of 3



principle" of point FCL.940.FI(a)(1), it is possible to revalidate an FI certificate even when not fulfilling this requirement.

| | | |
|----------|---|---|
| comment | 139 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | In the FI Certificate: Revalidation and renewal form | |
| | Under point 2, the Attendee's personal particulars, in the cell for the "Expiration date of FI(As) certificate" the text should be "Expiration date of FI(G) certificate" | |
| response | Accepted | |
| | The text will be amended. | |

AMC1 FCL.940.FI; FCL.940.IRI - Revalidation and renewal

p. 66

| | | |
|----------|---|------------------------|
| comment | 88 | comment by: <i>LBA</i> |
| | <p>Consolidated version of DEU federal CAAs published by LBA</p> <p>P.66</p> <p>"The mentioned instructional hours within the past 12 months (copy/paste error) not relevant for PPL(G) and should be deleted.</p> <p>The same for the proficiency check flights at the end of the format.</p> <p>The entire format should be revised for PPL(G)."</p> | |
| response | Accepted. The AMC text will be amended when the final AMC is issued. | |
| | The FI(G) revalidation and renewal form will be comprehensively reviewed and revised, where necessary. | |

FCL.1005.FE FE - Privileges and conditions

p. 67

| | | |
|---------|--|--------------------------------|
| comment | 17 | comment by: <i>French DGAC</i> |
| | <p><u>2) Hours requirements</u></p> <p>As mentioned in previous comments, in a context where the activity might start on a slow pace, is the prerequisite of 1000 hours of flight on a gyroplane, including 2050 hours of flight instruction (of which up to 100 hours may be flight instruction as FI(A) or FI(H)) sustainable in the next years, before the activity is up to speed ?</p> | |



response Noted. Thank you for your comment.

For the final proposal for amending point FCL.1005.FI, the figures (hours required) have been reduced. Additionally, please note that the proposed Article 4g will allow conversion reports to include instructor and examiner certificates.

comment 107 comment by: *Estonian Transport Administration*

FCL.1005.FE – Since the class or type ratings are foreseen in Subpart H (depending on the outcome of the certification process), it is advisable to add these into FCL.1005.FE as well. The wording of paragraph (d) could be similar to paragraph (c). as in FCL.1005.FIE(c)

response Accepted. Thank you for your comment.

References to class and type privileges have been added to the proposed text amending point FCL.1005.FE.

comment 140 comment by: *Civil Aviation Authority the Netherlands*

In this text "and associated single-pilot class and type ratings" seems to be missing. Not clear for us why this would be omitted. Suggestion to add this text.

response Noted. As regards your proposal, please refer to the reply to comment No 107.

comment 152 comment by: *Finnish Transport and Communications Agency*

FCL.1005.FE point (d)

Please reconsider the experience requirements.

The most experienced gyroplane examiner in Finland has less than 700 hours of total gyroplane flight time and second most experienced has little over 216 hours. This requirement would cause severe problems within this activity in Finland.

response Noted. Please refer to the response to comment No 17.



| | | |
|----------|--|--------------------------------|
| comment | 18 | comment by: <i>French DGAC</i> |
| | <p>2) Hours requirements</p> <p>As mentioned in previous comments, in a context where the activity might start on a slow pace, is the 2000 hours of flight time on gyroplanes and 100 hours of flight time instructing applicant for an FI(G) certificate sustainable in the next years, before the activity is up to speed ?</p> | |
| response | <p>As regards your proposal, please refer to the reply to comment No 17.</p> <p>Partially accepted. The required number of hours will be amended.</p> | |

| | | |
|----------|---|--|
| comment | 153 | comment by: <i>Finnish Transport and Communications Agency</i> |
| | <p>FCL.1010.FIE point (d)</p> <p>Please reconsider the experience requirements. Finland has total of four autogyro flight instructors. There haven't been instructor courses even in once a decade. This requirement would cause severe problems within this activity in Finland.</p> <p>Similar requirement is already a problem in the FIE(A) and other categories, and the matter will be re-examined in the RMT.0194.</p> | |
| response | <p>Noted. As regards your proposal, please refer to the reply to comment No 18.</p> | |

FCL.1005.FIE FIE - Privileges and conditions

p. 67

| | | |
|----------|---|------------------------|
| comment | 89 | comment by: <i>LBA</i> |
| | <p>Consolidated version of DEU federal CAAs published by LBA</p> <p>(c)</p> <p>"The conclusion related to FIE(As) should be changed as a conclusion related to FIE(A), or even better to FIE(H)."</p> | |
| response | <p>Noted.</p> <p>We do not fully understand your comment. In any case, please note that requirements related to airship pilot licensing are outside the scope of this Subtask of this RMT.</p> | |

Appendix 1 - Crediting of theoretical knowledge

p. 68



comment

49

comment by: *Austro Control***LAPL and PPL**

[...]

1.5. By way of derogation from point 1.2, for the issue of a PPL(G), the holder of a PPL(A) or a PPL(H) shall be credited in full towards the theoretical knowledge instruction and examination requirements in the following subjects:

(e) Operational Procedures

(f) Flight Performance and Planning

Comment:

Syllabus items could be missed, if doing a bridge instruction from PPL(A) or PPL(H) to PPL(G).

Justification:

If doing a bridge instruction at an ATO/DTO there could be missing syllabus items from PPL(A) or PPL(H) to PPL(G), specifically for the subjects Operational Procedures and Flight Performance and Planning.

Proposal:

This is along the same lines as mentioned in our comment above regarding AMC4 FCL.210; FCL.215, there are items which could be missed in a bridge course. A revision of the credits should be discussed with the expert field in detail.

response

Noted. As regards your proposal, please refer to the reply to comment No 56 on theoretical examination.

comment

90

comment by: *LBA***Consolidated version of DEU federal CAAs published by LBA****P.68**

"Not usable for Operational Procedures and Flight Performance and Planning.
(See explanation for 2.3.2.1.)"

response

As regards your proposal, please refer to the reply to comment No 56 on theoretical examination.

Appendix 9 - Training, skill test and proficiency check for the MPL, the ATPL, the type and class ratings, and the proficiency check for the BIR and the IR s

p. 68

comment

50

comment by: *Austro Control*

AMENDMENTS TO THE APPENDICES TO ANNEX I (PART-FCL) Appendix 9 — Training, skill test and proficiency check for the MPL, the ATPL, the type and class ratings, and the proficiency check for the BIR and the IR.

[...]

F. Specific requirements for the gyroplane category

1. In the case of skill tests or proficiency checks for a gyroplane class or type rating, the test is defined:

(b) for the FI, as per FCL.235.

Comment:

It is unclear why there is a skill test defined for the FI as per FCL.235.

Justification:

As per FCL.935 an applicant for an instructor certificate shall pass an assessment of competence in the appropriate aircraft category.

Proposal:

Change the rule as follows: "(b) for the FI, as per FCL.935."

response Not accepted. Thank you for your comment.

Please be informed that the final draft amendments to Part-FCL do not any longer include amendments to Appendix 9, since no class or type **ratings in terms of Subpart H** will be established for gyroplanes. The text referred to in your comment is therefore removed completely.

comment 91

comment by: *LBA*

Consolidated version of DEU federal CAAs published by LBA

P.68

"No. (a) and (b) refer to FCL.235, which seems to be wrong. To be checked!"

response As regards your proposal, please refer to the reply to comment No 50.

comment 141

comment by: *Civil Aviation Authority the Netherlands*

with respect to point (a): not clear why "and associated single-pilot class and type ratings" is not included.

response As regards your proposal, please refer to the reply to comment No 50.



| | | |
|----------|---|---|
| comment | 142 | comment by: <i>Civil Aviation Authority the Netherlands</i> |
| | With respect to point (b): not clear what is meant with this point? | |
| response | As regards your proposal, please refer to the reply to comment No 50. | |

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| Appendix I to ANNEX VI (PART-ARA) - Flight crew licence |
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| p. 69 |
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|----------|---|-----------------------------------|
| comment | 79 | comment by: <i>Peter Keutgens</i> |
| | "This licence complies with ICAO standards, except for LAPL, PPL(G) and BIR privileges or when accompanied by a LAPL medical certificate." | |
| | Why would the PPL(G) not comply with ICAO standards? Agreed that ICAO does not contain specific gyroplane standards, in which case any generic standards would need to be complied with and ICAO member states may use their own standards to fill the gap left by non-existent specific ICAO standards. If my understanding is correct then there should be no need to state that the PPL(G) does not comply with ICAO standards. Please investigate.. | |
| | Also a typo: it should be " <u>a</u> LAPL medical certificate" | |
| response | Noted. Thank you for your comment. | |
| | As regards your comment on ICAO standards, please refer to our reply to comment No 4. | |
| | As regards your comment on the reference to the LAPL medical certificate, please note that, for consistency with the reading of other acronyms (PPL, CPL, ATPL), we pronounce each letter of the acronym 'LAPL', therefore 'an' should be used. | |

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| Article 1 Subject matter and scope |
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| p. 71 |
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|---------|---|-----------------------------------|
| comment | 51 | comment by: <i>Austro Control</i> |
| | Comment: Commercial operations with gyroplanes are not part of the NPA. | |
| | Justification: Therefore, it is supposed that this kind of operation is actually not allowed and will only be regulated later on. | |
| | Proposal: | |



| | |
|----------|--|
| | As already described, commercial operations with this kind of aircraft shall follow the system of balloons and sailplanes, means declaration and a specific rulebook. |
| response | <p>Noted.</p> <p>Please note this rulemaking activity refers only to NCO for the time being. Rulemaking for commercial operations will be dealt with at a later stage.</p> <p>As regards your proposal for a rulebook, please refer to the reply to comment No 42.</p> |

3.2. Draft Air Operations Regulation

p. 71

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|----------|---|
| comment | <p>105</p> <p>comment by: <i>Fraundorfer Aeronautics AG</i></p> <p><u>Introduction of Gyroplane</u></p> <p>Strengths and commercial areas of deployment:</p> <p>From a quick response task at natural disaster sites, control of energy infrastructure and geological surveys to commercial cargo and passenger transport – the number of tasks, which can be accomplished more effectively in the air rather than on the ground, are rising constantly. However, only a small part of those applications can be accomplished by existing aircraft like fixed wing aircraft and helicopters. Reasons are on the one side the required lengthy takeoff and landing distances, as well as very limited slow flight capabilities of fixed wing aircraft, high complexity and high cost of helicopters on the other side.</p> <p>It is already proven by numerous concepts and considerable investments in various drone and e-VTOL companies that there will be new and high demand. So far, there is not a single aircraft which can support all the requirements of the commercial market. Commercially used gyroplanes will not only provide a realistic technical solution, but will foremost be safe, affordable and environmentally friendly. This kind of category of gyroplanes will fulfil the current and future requirements under commercial exploitation. It should be of the interest of the European economy to support customers as well as manufacturers with a useful and viable framework of regulations for the third largest category of aircraft, next to fixed wing aircraft and helicopters – to lead the way in Europe.</p> <p>Fraundorfer Aeronautics AG would like to amend the Class- and Type Rating List for “GYROPLANE“ in the Airplane Category (see attachment) as well as creating a class rating in the Helicopter Type rating list. As a result, the Gyroplane could be flown with an airplane(A) or helicopter(H) license. This is not a new principle, since the TMG class can already be flown with an airplane(A) or glider(SPL) license.</p> <p>For further details please refer to the main document from Comment 41.</p> |
| response | Please refer to the reply to comment No 104. |



| | | |
|----------|---|--|
| comment | 154 | comment by: <i>Finnish Transport and Communications Agency</i> |
| | Finland supports the proposed NCO with some comments. | |
| response | Noted. Thank you for the support. | |

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|------------------------------|-------|
| Article 6 Derogations | p. 72 |
|------------------------------|-------|

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|----------|--|-----------------------------------|
| comment | 52 | comment by: <i>Austro Control</i> |
| | <p>Comment: Reg. 965/2012 Art 6 para 4a treats different cases of derogations of CAT and commercial SPO operations. This means that in order to apply this requirement the type of operation has to be commercial. As Art 1 already regulates that regarding gyroplanes, commercial operations do not fall under the scope of Reg. 965/2012 the insertion of “as well as the following operations with gyroplanes” is not comprehensible. Commercial operations with gyroplanes are not covered by Reg. 965/2012 and non-commercial operations with gyroplanes fall under the applicability of its Part-NCO (Annex VII).</p> <p>Justification: Legally unnecessary provisions should be avoided. It is clear that non-commercial operations with gyroplanes fall under Annex VII; commercial operations are not within the scope of Reg. 965/2012, why a specific derogation provision is obsolete.</p> <p>Proposal: Delete the provided insertion of “as well as the following operations with gyroplanes” in the first sentence of Para 4a.</p> | |
| response | <p>Not accepted.</p> <p>In order to allow that type of operation, it is proposed to amend Article 1 as follows: ‘8) This Regulation shall not apply to commercial operations with gyroplanes, <i>except for operations specified in Article 6(4)(a)</i>, or to operations conducted under instrument flight rules with gyroplanes’</p> <p>The philosophy of this part of the new rule is to allow gyroplane operations described in Article 6(4a).</p> <p>Please refer to the reply to comment No 96.</p> | |



comment 65

comment by: Woody

Article 6 : Derogations , Annex 1: definitions used in annex II to VIII**(30) : critical phases of flight : add :” (simulated) emergency landing. “**

This is the most critical phase of all, so should be mentioned and be included in this definition.

response Not accepted.

‘Critical phases of flight’ in the case of helicopters means taxiing, hovering, take-off, final approach, missed approach, the landing and any other phases of flight as determined by the pilot-in-command or commander;

The comment is not related to rotorcrafts/gyroplanes in both definitions (30) and (31). Emergency landing is not a ‘phase of flight’.

comment 96

comment by: French DGAC

Paragraph 4 a states that :
“4a. By way of derogation from Article 5(1) and (6), the following operations with other-than-complex motor-powered aeroplanes and helicopters, as well as the following operations with gyroplanes, may be conducted in accordance with Annex VII:”

As commercial operations with gyroplanes are not in the scope of AIR OPS, the derogation to operate in accordance with provisions for non commercial when the operations are commercial (cost-shared flights, competition flights, introductory flight) is not consistent with art 1.

It is proposed to change art 1 as follow:

“8) This Regulation shall not apply to commercial operations with gyroplanes, except for commercial operations specified in article 6 §4a, or to operations conducted under instrument flight rules with gyroplanes”

response Not accepted



comment

66

comment by: Woody

AMC1 NCO.GEN.115 Taxiing of aeroplanes or gyroplanes**GYROPLANES — SAFETY-CRITICAL ACTIVITY**

When a person is designated by the operator to taxi a gyroplane on the movement area of an

aerodrome, and that person is not an appropriately qualified pilot, the rotor of the gyroplane should be secured in its parking position.

Comment : pilots should only be allowed to taxi a gyroplane when their training has progressed beyond the solo stage, rotors in motion or not.

Due to the characteristics of a gyroplane the rotors (when in motion) can be used to balance the thrust generated by the propulsion unit. Taxiing a gyroplane without rotors in motion offers nothing to balance the thrust of the propulsion unit. A gyroplane without rotors fitted or with rotors in motion (higher apparent power to weight ratio) can get easily out of hand even at reduced power settings due to its rapid acceleration since the absence of drag produced by the rotors cannot balance the thrust generated, which may become excessive very rapidly. It is therefore more dangerous to taxi a gyroplane with stationary rotors than with rotors in motion at speed (apart from the technical implications- see further and above). This is even more so in case of a wheel brake failure.

In my opinion this should only be allowed for student pilots beyond the solo stage.

Please see also my comments above from a technical view about taxiing a gyroplane with stationary rotors (see **(c)(3) exercise 4 (d) taxiing with rotors stationary.**)

By analogy : a helicopter can not be taxied without rotors in motion either. The pilots need to have achieved a certain safe level of skill before this can be attempted.

See also (b) below :

GM1 NCO.GEN.115 Taxiing of aeroplanes or gyroplanes**SAFETY-CRITICAL ACTIVITY**

(a) Taxiing should be treated as a safety-critical activity due to the risks related to the movement of the aeroplane or the gyroplane and the potential for a catastrophic event on the ground.

(b) Taxiing is a high-workload phase of flight that requires the full attention of the pilot-incommand.

See also :

GM1 NCO.GEN.115(b)(4) Taxiing of aeroplanes or gyroplanes

The stipulations stated in this text clearly indicate and implies that this is not for students below solo training stage level.

So I would suggest to allow taxying a gyroplane only for student pilots at or beyond solo stage.

response

Not accepted,

These are the rules for operations for licenced pilots and for student pilots. In the last case it is up to the instructor to let the student pilot taxi or not.



AMC1 NCO.GEN.115 Taxiing of aeroplanes or gyroplanes

p. 75

comment 156 comment by: *Finnish Transport and Communications Agency*

AMC1 NCO.GEN.115

Please consider adding the requirement to the rule level, as the matter has big safety affects.

response Not Accepted

This will remain at AMC level as it illustrates the means to establish compliance with NCO.GEN.115(b).

AMC1 NCO.OP.160 Meteorological conditions

p. 78

comment 106 comment by: *Fraundorfer Aeronautics AG*

ICAO Flight Minimums

2.3.1. Weather minimums for conducting VFR flights are also referenced to rotary wing aircraft. That puts the helicopter aircraft and gyroplane aircraft into the same weather requirement category.

For further details please refer to the main document from Comment 41.

response Noted

NCO.IDE.H.125 Operations under IFR - flight and navigational instruments and associated equipment

p. 83

comment 92 comment by: *LBA*

Consolidated version of DEU federal CAAs published by LBA

"As operation of gyroplanes is foreseen under VFR conditions, the regulations should not be mentioned under this topic, as this might be misleading."



response Accepted
The text will be amended.

comment 143 comment by: *Civil Aviation Authority the Netherlands*

In the original proposal to EASA it was suggested to keep "Helicopters" in this article. By changing this to "Rotorcraft" the requirement would also be applicable to Gyroplanes. Since this article deals with IFR/IMC and the NPA concerns Non-commercial and VFR (+night) only, the extension of the scope of this article would be too wide.

response As regards your proposal, please refer to the reply to comment No 92.

NCO.IDE.H.175 Flight over water

p. 88

comment 155 comment by: *Finnish Transport and Communications Agency*

NCO.IDE.H.175 point (a)(2)

Please consider rewording 'gliding distance' to take into account those gyroplanes which are not able to glide.

response Not accepted,
All gyroplanes do glide, although their glide angle may differ.

AMC1 NCO.IDE. H .200 Transponder

p. 91

comment 67 comment by: *Woody*

Attention ; this is a scope and as such not listed in this index of the comment pages yet.

GM1 NCO.SPEC.100 Scope
LIST OF SPECIALISED OPERATIONS
(a) Specialised operations include the following activities:
(1) helicopter external loads operations;
(2) helicopters

Rotorcraft survey operations;



I suggest to insert the following text to name some applications which do exist and have been proven to be successful :

- parachute dropping
- crop dusting
- glider towing
- aerial advertising
- other activities to be named....

All duly requiring an appropriate approved operation manual for the relevant type of operation.

response Noted. These are already included.

AMC1 NCO.IDE.H.195 Navigation equipment

p. 91

comment 144

comment by: *Civil Aviation Authority the Netherlands*

With respect to NCO.IDE.H.195(c):

In the original proposal to EASA it was suggested to keep "Helicopters" in this point. By changing this to "Rotorcraft" the requirement would also be applicable to Gyroplanes. Since this point deals with IFR/IMC and the NPA concerns Non-commercial and VFR (+night) only, the extension of the scope of this article would be too wide.

response Accepted. The AMC text will be amended.

NCO.SPEC.172 Performance and operating criteria - gyroplanes

p. 92

comment 68

comment by: *Woody*

NCO.SPEC.172 Performance and operating criteria — gyroplanes

When operating a gyroplane at a height of less than 150 m (500 ft) above a non-congested area, for operations of gyroplanes that are not able to sustain level flight in the event of a critical engine failure, the pilot-in-command shall have:

- (a) established operational procedures to minimise the consequences of an engine failure; and**
- (b) briefed all crew members and task specialists on board on the procedures to be carried out in the event of a forced landing.**

Again, as stated above : subject to approval in the relevant approved special operations



manual for the particular model of gyroplane flown.
Please see in this respect also my comments above on : **2.3.2.2 The Air Operations Regulation and non-commercial air operations in VFR Day/Night**

response

Not accepted

Please refer to the reply to comment No 57.

5. Proposed actions to support implementation

p. 94

comment

69

comment by: *Woody*

Please read all my comments regarding NPA.
There is no prepared space to put the comment below, so I will put it here under proposed actions. Please provide follow-up on this comment posted below:

In conclusion :

I hope these comments will be considered, discussed and used (or even improved upon further) to form a workable, legal framework that will make gyroplanes safer. Due to the absence of the possibility to stall, spin (unlike airplanes), nor to lose the rotor regime in flight in case of critical engine failure, nor suffering from tail rotor malfunctions (unlike a helicopter), they make for potentially a much safer flying machine (when handled correctly) than either an airplane or a helicopter). However this is not borne out by the accident statistics at this moment and as a result they suffer a bad safety reputation which is undeserved.

I sincerely hope this NPA will improve things perhaps wholly or in part by the thoughts, suggestions and comments stated above.

I will be happy to discuss/clarify/expand on this subject further in a personal meeting at a mutually convenient time and place, which may probably prove necessary if the gist and value as well as the underlying safety intentions of these comments are to be recognised and understood to their full importance.

Looking forward to receiving your reply.

Most sincerely,

W De Saar
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Bart.desaar@heliconia-aero.com

response

Noted. We thank you for all your comments.



3. Appendix A — Attachments

 [Description-EASA-FCL DE-T6x-00FCL-0_TD_2022-01-11a.pdf](#)

Attachment #1 to comment [#41](#)

