

Consultation: Conducting paid-for initial pilot training in amateur-built UK National Permit to Fly Microlights

CAP 1839

A large, abstract graphic composed of overlapping blue and purple shapes, resembling a stylized wing or a modern architectural element, occupies the lower half of the page. It features a gradient from light blue to dark blue and purple, with curved edges and a layered effect.

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Enquiries regarding the content of this consultation should be addressed to: GA@caa.co.uk

The latest version of this document is available in electronic format at: www.caa.co.uk

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Chapter 1

Executive Summary

- 1.1 In keeping with our approach to make the regulation of General Aviation (GA) more proportionate, we are launching a consultation to propose extending paid-for initial (Ab initio) pilot training to be conducted using amateur-built microlights which hold a UK national Permit to Fly (PtF). Furthermore, we are proposing that this training can now be undertaken by those pilots who are not owners of the aircraft. Currently, to undertake initial training in amateur-built microlights, the student would need to be an owner or part owner for this to be acceptable.
- 1.2 Student pilots can already pay and undertake flight training on a microlight if it has been granted Type Approval (factory-built). Student pilots cannot pay for flight training if the microlight only holds a Type Acceptance (amateur-built) and they are not an owner.
- 1.3 Within this consultation we explain:
- The current regulations surrounding pilot training
 - The difference between Type Approved (factory-built) and Type Accepted (amateur-built) microlights
 - The potential benefits and risks of this proposal
 - A comparison of occurrence data comparing Type Approved (factory-built) and Type Accepted (amateur-built) microlights. It is recognised that a general conclusion from this data may not be representative due to the small sample size available, And
 - The safety mitigations proposed by the British Microlight Aircraft Association (BMAA) and Light Aircraft Association (LAA) to provide a comparable level of safety.
- 1.4 The CAA believes this consultation represents a comprehensive yet proportionate set of requirements and, by implementing the safety mitigations proposed by the BMAA and the LAA provides a sound basis for maintaining appropriate safety standards of airworthiness as well as ensuring that training and testing for pilots is more accessible. The change could have a positive impact on the flight training sector, including potential cost savings that could encourage greater student up-take.
- 1.5 Input from the GA community has been directly included in this consultation as the working group developing the proposal was comprised of key stakeholders from the sector including: flight training organisations, manufacturers, Aircraft Owners and Pilots Association (AOPA), the BMAA and the LAA.

- 1.6 This proposal is only applicable for Initial (Ab initio) training towards UK national licences.
- 1.7 Your feedback on the proposal is requested and a consolidated list of questions can be found in appendix A. A response to this consultation is requested by **17 February 2020**. The information received will be used to determine how to take this proposal forward.

Chapter 2

Next Steps and how to respond

- 2.1 A full list of the consultation questions can be found in appendix A.
- 2.2 Responses to this consultation which can be submitted electronically via <https://consultations.caa.co.uk/ga/training-uk-national-permit-microlights> by no later than **17 February 2020**.
- 2.3 Any enquiries regarding this consultation should be submitted via email to: ga@caa.co.uk
- 2.4 We will consider all responses and aim to publish a final decision in **April 2020**.
- 2.5 If the proposed change is supported, there will be an implementation period while we make the necessary changes to legislation. We will also need to finalise procedures with the associations on the regulation of these aircraft. It will be our intention to re-form the collaborative working group to progress this endeavour to a conclusion.

Chapter 3

Background

Our approach to GA regulation

- 3.1 In response to the Government's GA Red Tape Challenge (RTC) of 2013, we conducted a fundamental review of our approach to the regulation of GA with a view to making it more proportionate and less burdensome.
- 3.2 This led to the creation of our GA Programme, a portfolio of projects designed to address issues and recommendations from the GA RTC and improve the regulation of UK GA in general. It is managed by our GA unit, and involves drawing on resource and expertise from throughout the organisation.
- 3.3 The CAA has sought to deliver on the top-level principles for better GA regulation. These are:
 - a) Only regulate directly when necessary and do so proportionately
 - b) Deregulate where we can
 - c) Delegate where appropriate
 - d) Do not gold-plate, and quickly and efficiently remove gold-plating that already exists
 - e) Help create a vibrant and dynamic GA sector in the UK
- 3.4 The CAA remains committed to delivering for the GA sector a programme of maximising delegation and deregulating where possible and will continue implementing Performance and Risk Based Oversight.
- 3.5 To achieve this, the CAA is working with the British Microlight Aircraft Association (BMAA) and the Light Aircraft Association (LAA) to ease the burden of regulation that impacts aircraft designers, manufacturers, airworthiness organisations, individuals, aircraft owners, pilots and flying clubs in order to support the growth of UK GA.
- 3.6 As part of that work, in January 2019 the CAA formed a working group and project team to look into the opportunity to extend paid Ab initio flight training on amateur-built microlights with a UK national Permit to Fly (PtF) to pilots who are not owners of the aircraft.
- 3.7 The CAA believes that this should be achieved at an equivalent level of safety to that present in current flight training and this consultation explores how this may be achieved.
- 3.8 This proposal may introduce cost savings for flying schools. It could also provide an increased fleet for people to learn to fly.

Chapter 4

How microlights fit into the UK National Permit to Fly system

Airworthiness Approval

- 4.1 A focus of this consultation is the difference in airworthiness assurance and standards that can apply to Permit to Fly (PtF) microlights. In this chapter we will discuss the regulatory background to a PtF, compare the Type Approved (factory-built) PtF to the Type Accepted PtF (amateur-built) and describe the airworthiness requirements.
- 4.2 The UK Air Navigation Order 2016 (ANO) states that all aircraft operating in UK airspace shall have a valid Certificate of Airworthiness (CofA). If a British registered aircraft is unable to satisfy the requirements for the issue of a CofA it can, in particular circumstances, be issued with a UK Permit to Fly (PtF) as an alternative.
- 4.3 Guidance on how this works is published in the British Civil Airworthiness Requirements (BCARs) section A, Chapter A3-7. National regulations do not allow microlights to hold a CofA, so all two seat UK microlight aircraft ¹are operated on a UK PtF.
- 4.4 The CAA issued approvals to the Light Aircraft Association (LAA) and the British Microlight Aircraft Association (BMAA), to allow these organisations to fulfil an intermediary role when providing oversight or guidance to operators, constructors and pilots of PtF aircraft.
- 4.5 Amateur-built microlights are constructed to a minimum standard. This process is not intended to demonstrate the same level of assurance regarding the level of product conformity required from a factory-built microlight.
- 4.6 A PtF confirms that an aircraft is fit to fly in regard to its overall design, construction and maintenance and can only be issued after the CAA, or an organisation approved by the CAA to carry out such work, has investigated the aircraft. This investigation will cover those elements necessary to make sure that the aircraft is fit to fly and has no unacceptable operating or handling characteristics. When issued, the permit is non-expiring and will be revalidated by a Certificate of Validity which will be conditional upon the completion of the periodic maintenance, inspections and checks necessary for the aircraft to remain in an airworthy condition.
- 4.7 Not all permit microlights are amateur-built as some may be built by a UK approved manufacturer within controlled conditions. Those PtF microlights that are amateur-built,

¹ Single Seat Microlights are not considered as this consultation is for flight training which is conducted solely in 2 seat aircraft. Two seat Microlights are currently, at the time of writing this consultation, limited to 450kg (or 472.5kg for those with a ballistic parachute recovery system). These are considered to be low-risk low-mass aircraft.

may be designed and built completely from scratch. However, most amateur-built microlights are purchased as kits and built in accordance with the guidance set out in CAP 659, which states that 51% of the construction must be completed by the builder. Most builders will complete their project under the supervision of the CAA, BMAA or LAA. Whether under supervision of the CAA, BMAA or LAA, the builder will still be required to work in accordance with an agreed build process.

Permits

4.8 In the UK microlights can hold one of two permit types:

- a) A **Type Approved** permit is granted to an aircraft that has successfully demonstrated compliance with national airworthiness requirements and has been designed and built by a UK CAA approved manufacturer. These aircraft are referred to generically as “factory-built” aircraft². Type Approved microlights are designed to a specific standard and it is important that replacement parts conform to that standard. Consequently, alterations will not normally be permitted unless they are provided by a suitably approved design organisation. Where the type approval holder no longer exists, the BMAA/LAA must be consulted as it has procedures for overseeing the manufacture and release of replacement parts.
- b) A **Type Accepted** permit is granted to an aircraft whose design has successfully demonstrated an acceptable level of airworthiness but has not been constructed by a UK CAA approved manufacturer. These aircraft are referred to generically as “amateur-built” aircraft.

4.9 Microlights operating under a Type Accepted permit operate under a proportionate level of regulation and oversight. The responsibility for initial airworthiness and continuing airworthiness normally rests directly with the owners, with support from the appropriate associations.

4.10 It is appropriate and proportionate that this oversight is delegated to sporting associations which have the specialist knowledge and experience of key areas. Within the UK, this oversight is provided by UK national organisations delegated by the CAA under BCAR approvals.

Flight Training

4.11 To fly a microlight in the UK the pilot must hold a valid pilot’s licence. Instruction for the grant of a licence can only be given by the holder of a UK issued instructor rating. The current regulations allow a student to be trained in any aircraft providing no remuneration for the training is given. The student cannot pay for initial pilot training if

² In most cases the manufacturer will also provide continued airworthiness data for the aircraft. These may take the form of service instructions or service bulletins.

the microlight is not Type Approved (factory-built), or if they are not the owners of the microlight being used.

- 4.12 The majority of Type Accepted (amateur-built) microlights were approved by the CAA, on the basis that they would not be used for commercial flight training. As these microlights have not been utilised within the UK flight training environment, the CAA does not have the same level of history and experience to compare the level of safety to those already on the flight training fleet.

Chapter 5

Current Regulations

Paid for Flight Training

5.1 As Microlights are Annex I aircraft they are excluded from EU Regulation 2018/1139 (the Basic Regulation) and follow national requirements including the ANO.

5.2 Article 42 of the ANO is particularly relevant to Microlights and states the following:

Limitations of National Permit to Fly

42 – (1) *An aircraft flying in accordance with a national Permit to Fly –*

- a) *must not fly for public transport or commercial air transport; and*
- b) *must not fly without the permission of the CAA –*
- i. *for commercial operation other than commercial operation which consists of an aircraft flying for the purpose of a flying display, associated practice for a flying display, test and positioning flights or the exhibition or demonstration of the aircraft;*
- ii. *at night or in accordance with Instrument Flight Rules; or*
- iii. *for hire.*

5.3 Paid-for flight training is considered a commercial operation, which is currently prohibited on PtF apart from in three areas:

- a) Where Type Approved (factory-built) microlights are used;
- b) For post licence issue training. However, the aircraft used must be accepted to do this by the appropriate A8-25 or A8-26 organisation beforehand and are subject to criteria stated within their permission; or
- c) Where owners of PtF microlights undertaking initial flight instruction and examination are using their own aircraft³.

5.4 Initial paid-for flight training is not currently allowed on non-Type Approved PtF microlights (apart from by the owner or part owner of the microlight). This regulation has been in place because it was recognised that students may not have a full understanding of the difference between a factory produced microlight and an amateur-built microlight to the same level that the builder of that microlight would have. However, the regulation does not stop the original builder from selling the microlight on, so any future owner may also not appreciate the associated risk even for normal private flying as they are not the builder of the aircraft.

³ This is allowed as payments made by the owner or part-owner of the aircraft, for example to an instructor, are deemed non-commercial.

- 5.5 Initial flight training has always been treated differently to post licence training because the holder of a licence is judged to already hold a certain level of knowledge and understanding of the assurance differences between factory-built and amateur-built microlights and the implications of maintenance schedules and operational procedures. Thus, a licensed pilot is able to provide a level of informed consent when choosing to train in an amateur-built microlight compared to a student with no prior knowledge.

Chapter 6

Proposal

- 6.1 In line with our GA principles of deregulation, the working group have focussed on generating a proposal to ensure that there is a comparable level of airworthiness assurance between Type Accepted (amateur-built) microlights that will be used for initial paid-for pilot training and factory-built microlights.
- 6.2 We are proposing a relaxation of the ANO to allow initial paid-for pilot training on amateur-built Permit to Fly microlights for non-owners.
- 6.3 To help readers build a picture of the relativity of incidents between certain categories of microlights within the UK, a comparison of technical occurrences between BMAA and LAA microlight fleets can be found in appendix B.
- 6.4 Below are two options put forward:

Option 1. To allow paid-for initial pilot training in amateur-built microlights which hold a British Microlight Aircraft Association (BMAA) or Light Aircraft Association (LAA) administered PtF

Option 2. No change to the existing regulatory framework

Option 1

- 6.5 If, via consultation, paid-for initial pilot training in amateur-built microlights for non-owners is accepted, any microlight aircraft being proposed to be used for initial flight training will need to be evaluated to assess the suitability of the aircraft for use in that role.
- 6.6 The CAA would intend to delegate the acceptance of microlights for Ab initio flight training to the appropriate A8-26 organisations (such as the BMAA and LAA). This acceptance would be based on specific microlights (not generic types) being suitable for such training.
- 6.7 Each delegated organisation will be required to have a process in place to achieve the acceptance mentioned in 6.6 above. In addition, initial proposals on these processes from the BMAA and LAA, along with their proposed safety mitigations can be found in appendix C and D.
- 6.8 Both the BMAA and LAA will be required to:
- Ensure each microlight must undergo a full inspection, irrespective of the time since its last permit renewal inspection

- b) Carry out and document a comprehensive risk assessment to identify any additional risks which may be incurred due to initial flight training use by these microlights and put in place appropriate measures to mitigate those identified issues
- c) Create and maintain records, including a database of microlights accepted, which should also be accessible online by the GA community
- d) Keep all relevant inspectors and engineers up to date with industry standards and regulations by virtue of mandatory continuation training
- e) Instruct all operators of accepted microlights to comply with an Occurrence Reporting regime
- f) Monitor the compliance of microlight operators so that they are operated in accordance with any applicable technical leaflets issued by the LAA or BMAA
- g) Ensure that the continuing airworthiness management and maintenance on microlights are carried out by an organisation or person approved in accordance with the requirements set out in CAP553 (BCAR Section A)

Option 2

- 6.9 If, via consultation, no change to the existing regulatory framework is the preferred option, then this will be discussed with the relevant stakeholders, working group members and CAA representatives to analyse the comments and keep the regulatory framework as it currently stands.

Chapter 7

Benefits and Risks

- 7.1 The proposal will require a change to the ANO. To ensure we have accurate information to support this potential legislative change, we have included some assumptions in this section and would welcome your views when answering the questions detailed in appendix A.
- 7.2 Although subjective, listed below are the potential key benefits and risks set out by the working group.

Benefits

- 7.3 The potential key benefits of providing remunerated flight training in amateur-built microlights for non-owners could include:
- a) A greater range of microlights become available to training schools and student pilots
 - b) An opportunity to introduce cheaper aircraft for flight training, and therefore cost savings to schools that could be passed on to students to reduce training costs
 - c) Pilots could go on to fly aircraft in the amateur construction range, therefore they could learn to fly on the same type of aircraft that they may buy, which could negate the need for conversion training to type

Risks

- 7.4 Potential risks of providing remunerated flight training in amateur-built microlights for non-owners could include:
- a) If flight schools decide to construct their own aircraft, rather than buy ready built Type Approved (factory-built) microlights, the business operating model of A8-1 microlight manufacturers may be compromised.
 - b) Type Accepted (amateur-built) microlights may now be used in an environment for which some may not have been designed and tested which could result in an increase in aircraft fatigue arising from higher use and thereby a potential increase in occurrences/ accidents.

APPENDIX A

Consultation Questions

- A1 In this appendix we are now seeking feedback from our stakeholders in order to shape the future of paid-for initial pilot training using amateur-built PtF microlights. The overall feedback from these questions will help determine our next steps.
- A2 We welcome the views of stakeholders in answering the questions below via the [online consultation tool](#).

Question 1

Do you support the proposal to allow paid-for initial pilot training in Type Accepted (amateur-built) microlight aircraft for non-owners which are subject to continuing airworthiness management and oversight by the BMAA?

YES NO NO OPINION / DON'T KNOW

Question 2

Do you support the proposal to allow paid-for initial pilot training in Type Accepted (amateur-built) microlight aircraft for non-owners which are subject to continuing airworthiness management and oversight by the LAA?

YES NO NO OPINION / DON'T KNOW

Question 3

Considering all of the information provided in the consultation and appendices are there any additional restrictions you would like to include or exclude?

YES NO NO OPINION / DON'T KNOW

Question 4

Considering all of the information provided in the consultation and appendices are there any additional risks you would like to include or exclude?

YES NO NO OPINION / DON'T KNOW

Question 5

Considering all of the information provided in the consultation and appendices are there any additional benefits you would like to include or exclude?

YES NO NO OPINION / DON'T KNOW

Question 6

Would you prefer the regulations to stay as they are, thereby not allowing paid-for initial pilot training in amateur-built microlights?

YES NO NO OPINION / DON'T KNOW

APPENDIX B

Microlight Technical Occurrences

- B1 The UK Annex I fleet are not mandated to report an occurrence, and all reported occurrences are done so voluntary. This appendix details reported⁴ occurrences that occurred to microlights on the UK register between 2014-2018. We have compared BMAA and LAA PtF microlight occurrences to help inform the reader when answering the questions provided in Appendix A. It is important for the reader to note, that Type Approved (factory-built) microlights have long been used for paid-for initial pilot training.
- B2 High severity occurrences are occurrences that have either resulted in damage to the aircraft or serious/fatal injury to aircraft occupants. The occurrences included in the data analysis were limited to technical faults/issues that occurred during the normal operation of the aircraft.
- B3 Occurrence report data from January 2014 to December 2018 was included in the data summary in Figure 2. During this period a total of 22 high severity technical occurrence reports involving microlights were received and processed by the CAA. Twelve were reported to have involved a microlight operating under a LAA permit to fly (11 Amateur-built and 1 factory built), with 10 reported to have involved microlights operating under a BMAA permit to fly (6 were Type Approved factory-built permits and 4 were Amateur-Built Type Accepted permits).
- B4 The tables and graphs below show technical occurrences with a comparison between amateur-built and factory-built microlights for both the LAA and BMAA microlight fleets. The graphs show fatal and serious injuries resulting from accidents attributed to technical occurrences. The graphs portray data from a five-year period 2014 to mid-2019 where structural or mechanical failures were a possible factor. Figure 1 shows an occurrence rate per 100,000 hours. Our rationale for showing a 100,000-hour rate is based on the data we have which shows the combined BMAA/LAA fleet year on year flies in excess of 100,000 hours, thereby making this a realistic rate comparison.
- B5 For the analysis period the high severity technical occurrence rate⁵ for microlights was found to be higher for LAA permit to fly microlights when compared with BMAA Type Accepted (amateur-built) and BMAA Type Approved (factory-built) microlights with a high severity technical occurrence rate of 15.51, 8.95 and 1.23 respectively. There may be differences in reporting culture between these two fleets, which may affect the occurrence rates presented. The current data may indicate a lower level of safety for microlights that are amateur-built. The safety mitigations that the BMAA and LAA

⁴ (EU) 376/2014 mandates organisations and operators (including pilots) to establish occurrence reporting systems and report occurrences within 72 hours of the incident / accident. Annex I aircraft are not mandated to report an occurrence.

⁵ Rates are used in the calculations to represent the data on the same scale and account for the differences in the number of flying hours flown by the respective fleets.

propose in Appendices C & D, should ensure a comparable level of safety to the factory built microlight fleet.

- B6 Figure 2 shows high severity technical occurrence rates. Factory-built microlights were found to be markedly lower than that observed for amateur-built microlights at 0.87 and 9.33 occurrences per 100,000 hours respectively. Similar to the split observed for high severity technical occurrences on microlights; LAA microlights recorded a higher occurrence rate than the BMAA microlights.
- B7 In terms of causal factor, engine failure events were found to be the most frequently observed high severity technical occurrence report for BMAA Type Accepted, BMAA Type Approved and LAA microlights with a high severity occurrence rate of 6.7, 1.0 and 58.1 occurrences per 100,000 hours respectively.

Figure 1

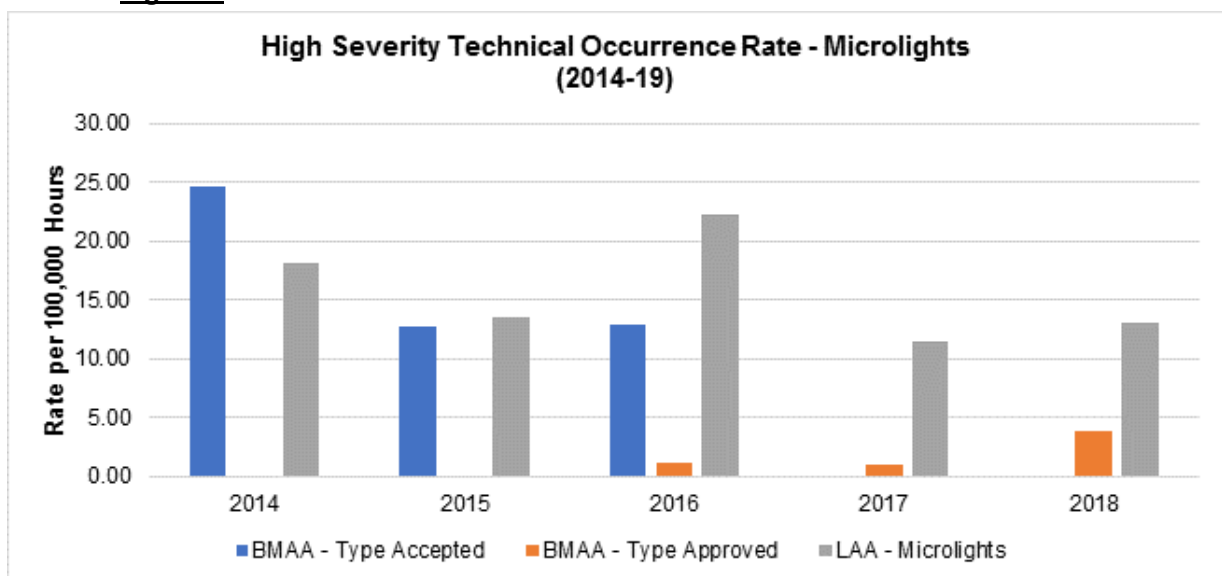
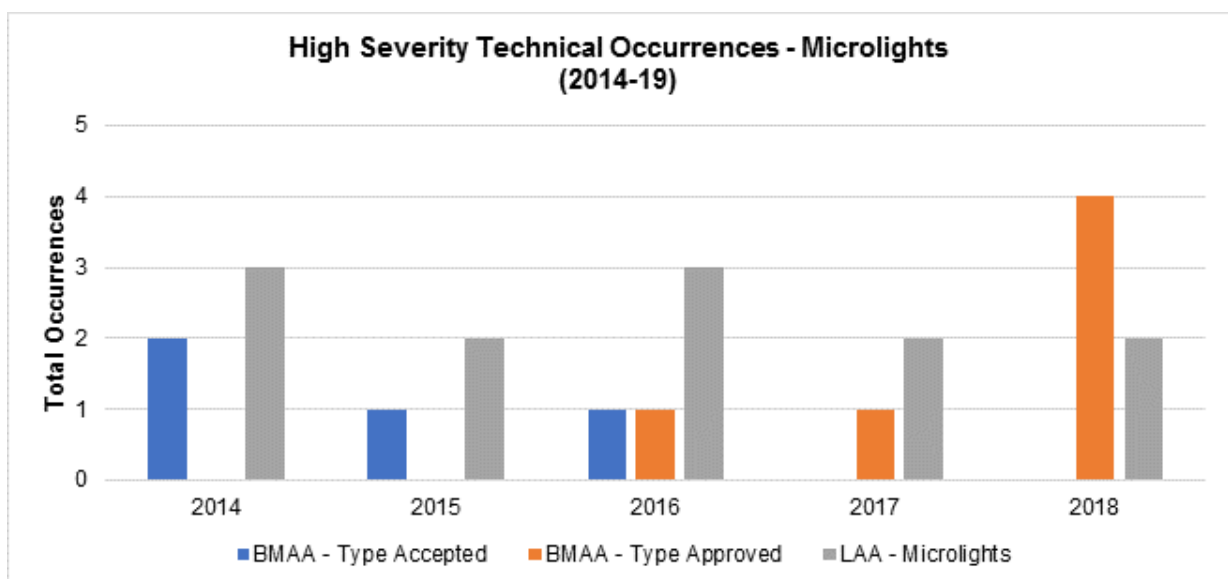


Figure 2



APPENDIX C

BMAA microlights

- C1 All microlight designs submitted to the BMAA for approval, whether by an approved manufacturer or amateur builder, are treated identically.
- C2 The BMAA check to make sure the aircraft complies with the design code approved by the UK CAA for UK microlights. This includes strength calculations, physical testing of component parts and flight testing. If the design meets the requirements the type is approved, and further individual aircraft can be constructed.
- C3 Aircraft constructed by an amateur builder are subject to independent stage inspections throughout the build by an inspector appointed by the BMAA. On completion the aircraft has a final inspection and is test flown by an independent test pilot appointed by the BMAA.
- C4 Once in service both factory-built and amateur-built aircraft are treated identically for the purpose of ongoing airworthiness oversight.
- C5 The BMAA opinion is that there is no reason to believe that amateur-built microlights that are subject to the BMAA airworthiness process are less safe than factory-built aircraft that are subject to an identical process.
- C6 The BMAA microlight fleet in 2019 consisted of 1,721 aircraft. Of these 78% were factory-built and 22% amateur-built.

BMAA proposed safety mitigations

- C7 Although the BMAA is confident that there is no fundamental difference between the airworthiness of amateur-built and factory-built aircraft which are subject to BMAA airworthiness oversight, the BMAA, at the request of the CAA, proposes to put in place certain conditions for the use of individual aircraft that would be used for initial flight training.
- C8 These additional conditions are:
- a) Implement a mechanism to provide protection to the original builder of a PtF home-built aircraft which maybe used for ab initio training. One such approach could be: Before a microlight can be used for flight training the original builder must be made aware that it is to be used for this purpose and invited to agree in writing to the use, in consideration for an indemnity. This is to ensure that the builder can make an informed decision to accept the possibility that, in the case of an accident during flight training they might be held in some way liable for the initial airworthiness of the aircraft. The CAA will consider alternative approaches as part of the consultation feedback.

- b) The initial airworthiness of the aircraft type must have been approved against a recognised design code by the BMAA
- c) The aircraft must be of a type that has been considered suitable for flight training by the BMAA
- d) The individual aircraft must hold a valid PtF and Certificate of Validity;
- e) The aircraft must have been individually approved as suitable for flight training by the BMAA as far as its:
 - i. instrumentation
 - ii. control layout
 - iii. communications
- f) Changes to the aircraft equipment must be notified to and approved by the BMAA
- g) The aircraft must be maintained in accordance with the type certificate holder's published requirements or an alternative programme approved by the BMAA
- h) Suitable Pilot's Operating Handbook must be available for the aircraft
- i) Details of the microlight's flight training use must be given to the BMAA when the permit is revalidated. This will assist in gathering safety data used to monitor risk trends

APPENDIX D

LAA microlights

- D1 LAA aircraft designs can be approved using a number of different methods, including complying with an appropriate design code, a substantial history of satisfactory in-service experience, or a combination of these elements sufficient to demonstrate an appropriate level of airworthiness for the intended role of the aircraft.
- D2 When the microlight category was introduced in the UK, and subsequently the microlight limits were expanded to a 450kg max gross weight, a number of existing LAA types fell into the definition of the microlight category and had to be re-categorised as microlights although they do not comply with BCAR Section S.
- D3 Other existing LAA types have been modified to bring them into the microlight definition while still using their original basis for airworthiness acceptance. All new microlight designs submitted to the LAA for approval must meet BCAR Section S as the basic design code. However, in many cases equivalent sections of the design code CS-VLA are used for higher speed microlights.
- D4 Each design is scrutinised by the LAA to make sure it complies with the approval requirements. This includes strength calculations, physical testing of component parts and flight testing. Once an aircraft type is approved further individual aircraft can be constructed.
- D5 Subsequent aircraft constructed by an amateur builder of a type that has been accepted by the LAA are subject to independent stage inspections by an LAA inspector throughout the build. On completion the aircraft has a final inspection and is test flown by a suitably experienced check pilot accepted by the LAA.
- D6 The LAA states that amateur-built microlights that are subject to the LAA airworthiness process meet the same safety levels as factory-built microlights.
- D7 The LAA oversees only one factory-built Type Approved microlight, that is a factory-built derivative of a type already covered by the LAA in homebuilt microlight form.
- D8 The LAA has relatively little experience of LAA Type Accepted microlights being used for training purposes. However, many LAA microlights are of a very similar format and design to equivalent Type Approved microlights and no reduction in safety performance is therefore expected in transitioning suitable LAA Type Accepted microlights into a training role for non-owners.

LAA proposed safety mitigations

- D9 Although the LAA is confident that there is no fundamental difference between the airworthiness of suitable amateur-built microlights which are subject to LAA airworthiness oversight and factory-built type approved microlights, it proposes to put in place certain conditions for the use of individual aircraft which are to be used for initial flight training.
- D10 These additional conditions are:
- a) Implement a mechanism to provide protection to the original builder of a PtF home-built aircraft which maybe used for ab initio training. One such approach could be: Before a microlight can be used for flight training the original builder must be made aware that it is to be used for this purpose and invited to agree in writing to the use, in consideration for an indemnity. This is to ensure that the builder can make an informed decision to accept the possibility that, in the case of an accident during flight training they might be held in some way liable for the initial airworthiness of the aircraft. The CAA will consider alternative approaches as part of the consultation feedback.
 - b) The initial airworthiness of the aircraft type must have been approved by the LAA using a recognised design code as a basis, usually BCAR Section S, using suitable additions or alternative means of compliance as deemed appropriate by the LAA.
 - c) The aircraft must be of a type that has been considered suitable for flight training by the LAA.
 - d) The individual aircraft must hold a valid permit and Certificate of Validity.
 - e) The aircraft must have been individually approved as suitable for flight training by the LAA as far as its:
 - i. Instrumentation
 - ii. Control layout
 - iii. Communications
 - f) Changes to the aircraft equipment must be notified to, and approved by, the LAA.
 - g) The aircraft must be maintained in accordance with a specified and agreed maintenance schedule.
 - h) A suitable Pilot's Operating Handbook must be available for the aircraft.
 - i) Details of the microlight's flight training use must be given to the LAA when the permit is revalidated. This will assist in gathering safety data used to monitor risk trends.

APPENDIX E

Glossary of Terms

Term	Definition
A8-26 organisation Approval (LAA/BMAA)	<p><i>An organisation supporting recreational aviation and is a representative body that encompasses a specific sector of the industry involved in sport, recreational and/or leisure flying and performs operational and airworthiness related functions. The A8-26 approval standards were developed to meet the needs of sporting organisations without imposing restrictions and working practices designed for commercial air transport. Instead they provide regulation that is proportionate to the activity and risk.</i></p>
Certificate of Airworthiness (CofA)	<p><i>Although not applicable to microlights - an aircraft will normally be issued with a Certificate of Airworthiness by its 'State of Registry', and this document attests to that National Aviation Authority being satisfied with the design and workmanship and the materials used in the construction of the aircraft. After a 'State of Design' has investigated all aspects of an aircraft's design, construction and flight characteristics, it will issue a 'type certificate'. It is compliance with this Type Certificate that forms the basis on which an individual CofA will be issued.</i></p> <p><i>In the case of aircraft that are British registered, but which have been designed and manufactured in another country, the CAA will normally carry out a review of the certification process undertaken by the State of Design, and then survey the individual aircraft in order to ensure that the conditions required for the UK to issue a CofA have been satisfied.</i></p>
Permit to Fly (PtF)	<p><i>Notwithstanding the international requirement for an aircraft to have a Certificate of Airworthiness, all microlights are not able to qualify for the issue of a Certificate of Airworthiness. In this case, the CAA may issue a National Permit to Fly which allows aircraft to fly within United Kingdom airspace.</i></p> <p><i>This confirms that an aircraft is fit to fly having regard to its overall design, construction and maintenance. Due to the reduced airworthiness level of assurance, to ensure that an adequate level of safety is maintained, additional limitations and conditions are placed upon the operation of these aircraft.</i></p>
Microlight	<p><i>An aeroplane which is defined in the Air Navigation Order 2016 as:</i> <i>"Microlight aeroplane" means an aeroplane designed to carry not more than two persons which has—</i></p> <ul style="list-style-type: none"> <i>(a) a maximum take-off mass not exceeding—</i> <ul style="list-style-type: none"> <i>(i) 300kg for a single seat landplane, (or 390kg for a single seat landplane of which at least 51% was built by an amateur or non-profit making association of amateurs, for their own purposes and without any commercial objective, in respect of which a permit to fly issued by the CAA was in force prior to 1st January 2003);</i> <i>(ii) 450kg for a two-seat landplane; or</i> <i>(iii) 330kg for a single seat amphibian or floatplane; or</i> <i>(iv) 495kg for a two-seat amphibian or floatplane; or</i> <i>(v) 315kg for a single seat landplane equipped with an airframe mounted total recovery parachute system; or</i> <i>(vi) 472.5kg for a two-seat landplane equipped with an airframe mounted total recovery parachute system; and</i>

	<i>(b) a stalling speed or minimum steady flight speed in the landing configuration, at the maximum take-off mass not exceeding 35 knots calibrated airspeed.</i>
Amateur-built Aircraft	<i>Aircraft, including those supplied in kit form, where at least 51% of the fabrication and assembly tasks are performed by the builder, for their own purposes and without any commercial objective</i>
A8-1 Approval	<i>The UK has approved light aircraft manufacturers (A8-1 approval), which produce aircraft which are type approved. These aircraft, although on a National Permit to Fly, leave the factory with this approval status and a current permission which allows them to be used for flight training. A8-1 organisations demonstrate compliance with design and production to CAA British Civil Airworthiness Requirements (BCARs).</i>
BCAR Section S	<i>Single seat aeroplanes exceeding 300 kg Maximum Take-off Weight Allowed (MTWA); and two seat aeroplanes (including the pilot's seat) and not exceeding 450 kg MTWA. Wing loading less than 25 kg/sq metre or, for higher wing loadings a stall speed not exceeding 35 knots.</i>
Kit Built Aircraft	<i>An aircraft that is constructed from a manufactured kit that may include some major sub-assemblies and/or pre-assembled components.</i>
51% Rule	<i>A rule applied from Annex I to Basic Regulation (EU) 2018/1139, which requires that more than half of the assembly and fabrication tasks involved in building an aircraft are undertaken by an amateur builder and on a not-for-profit basis</i>
Type approved microlight	<i>Type Approved microlight is a microlight which has been manufactured within an organisation approved by the CAA for the purpose (A8-1) supported by a CAA approved design organisation and subject to rigorous control over the initial design, design of modifications, quality and conformity of parts to ensure that the design fully meets the requirements of an appropriate design code, usually BCAR Section S.</i>
Ab initio	<i>Ab initio is a Latin term meaning "from the beginning". When used within this document it has the meaning of training where the trainee does not already hold a licence in the same aircraft category.</i> <i>Within this consultation the terms Ab initio and Initial are interchanged throughout with the same meaning.</i>
ANO Article 7 'Commercial Operation'	Meaning of "commercial operation" 7 - For the purposes of this Order, "commercial operation" means any flight by a small unmanned aircraft (SUA) except a flight for public transport, or any operation of any other aircraft except an operation for public transport— a) <i>which is available to the public; or</i> b) <i>which, when not made available to the public,</i> i. <i>in the case of a flight by a small unmanned aircraft, is performed under a contract between the SUA operator and a customer, where the latter has no control over the remote pilot; or</i> ii. <i>in any other case, is performed under a contract between an operator and a customer, where the latter has no control over the operator,</i> <i>in return for remuneration or other valuable consideration.</i>
Remuneration ANO Paragraph 4 of Part 1 of Schedule 8	Remuneration condition 1) <i>In this Part, a reference to the "remuneration condition" in the privileges for aeroplane, helicopter, gyroplane and balloon and airship private pilot licences is to the condition set out in this paragraph.</i>

	<p>2) <i>The condition is that</i></p> <p>a) <i>in the case of—</i></p> <p style="padding-left: 40px;">i. <i>instruction, the holder's licence includes an appropriate instructor certificate;</i></p> <p style="padding-left: 40px;">ii. <i>flying examinations, the holder is authorised to conduct such examinations by the CAA; and</i></p> <p>b) <i>remuneration or other valuable consideration is received for—</i></p> <p style="padding-left: 40px;">i. <i>the provision of flight instruction for the same type of licence;</i></p> <p style="padding-left: 40px;">ii. <i>the conduct of skill tests and proficiency checks for such a licence;</i></p> <p><i>the training, testing and checking for the ratings or certificates attached to such a licence.</i></p>
Valuable consideration ANO Schedule 1	<i>Means any right, interest, profit or benefit, forbearance, detriment, loss or responsibility accruing, given, suffered or undertaken under an agreement, which is of more than a nominal nature.</i>
Annex I Aircraft	<p><i>The European Regulation (EU) 2018/1139 known as the Basic Regulation contains the scope, common rules and essential requirements for civil aviation and establishes a framework for aircraft certification, operation, aircrew training, testing and licensing for EASA aircraft.</i></p> <p><i>Annex I within the Basic Regulation lists the various aircraft to which the European Basic Regulation does not apply to and is left to each individual National Aviation Authority (NAA) to regulate accordingly. These are referred to as Annex I or Non-EASA aircraft. All aircraft in this consultation are Annex I aircraft.</i></p>