Comment response document: Conducting paid-for initial pilot training in amateur built UK National Permit to Fly microlights

CAP 1927

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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, and as requested by the BMAA and LAA, we launched a public 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 proposed that this training can 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) if they are not an owner.

1.3 The consultation closed in February 2020 and resulted in 387 unique responses. The majority of responses (97%) agreed with the proposal. This document includes a summary of the responses received to the consultation questions, identifies the approach we plan to take and the next steps.

1.4 After an internal review of this proposal and the conclusion of the analysis of the consultation responses, we, and the collaborative stakeholder working group, were keen to progress. We must satisfy ourselves that the safety mitigations needed for amateur built microlights to be utilised in this way would result in an acceptable level of safety when compared to factory-built microlights which are currently used for training.

1.5 In summary, we are planning to permit paid-for initial pilot training in (serial number specific) amateur built microlights which hold a BMAA or LAA administered PtF.

1.6 We believe by permitting paid-for initial pilot training on serial number-specific amateur built microlights it will enable safety data to be captured. This data can be analysed for the purposes of determining if an acceptable level of safety can be established to allow the activity to continue on such aircraft on an enduring basis.

Chapter 2

Purpose and overall background

Purpose of this document

2.1 In January 2020, the CAA sought views on whether to extend paid-for initial (Ab initio) pilot training to be conducted using amateur built microlights which operate on a UK national Permit to Fly (PtF) by those pilots who are not registered owners of the aircraft.

2.2 This paper explains how we have responded to your feedback to that consultation, and how we intend to progress this project. It is not seeking further views.

Background

2.3 This proposal was originally made by our stakeholders and was developed with a working group[1] comprising of key stakeholders from the sector.

2.4 Many factors were considered by the CAA over the last few months. There were two options considered which were:

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

2.5 Both options and their associated risks and opportunities were considered. The risks included:

- There is a risk that the use of some microlights with undesirable handling characteristics or construction could lead to an increase in accidents
- There is a risk that the proposed safety mitigations are not adequate when compared to the current factory-built fleet.
- There is a risk that the liability of the original amateur builder is not considered in sufficient detail.
- There is risk that student informed consent may not be appropriately considered

[1] A list of these representative organisations is set out in Appendix C

2.6 The opportunities included:

- A potential reduction in flight training costs that may encourage more student pilots, thereby supporting a vibrant GA Sector;
- It would allow a wider choice of training platforms to flying schools
- It could help to develop the market for newer and more affordable flight training platforms.
- It could enhance innovation and offer more STEM opportunities.

Chapter 3

Consultation Responses

3.1 In this chapter we examine the results of the consultation questions, the purpose of which was to seek views on:

i. 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?

ii. 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?

We asked

3.2 Having presented the possible advantages and disadvantages of allowing paid for initial pilot training in amateur-built microlights for non-owners, we posed the question of whether we should proceed. Respondents were given yes/no/don't know choices, and the opportunity to leave qualitative comments. Respondents were also asked to provide their views on any additional benefits or restrictions they would like to include or exclude.

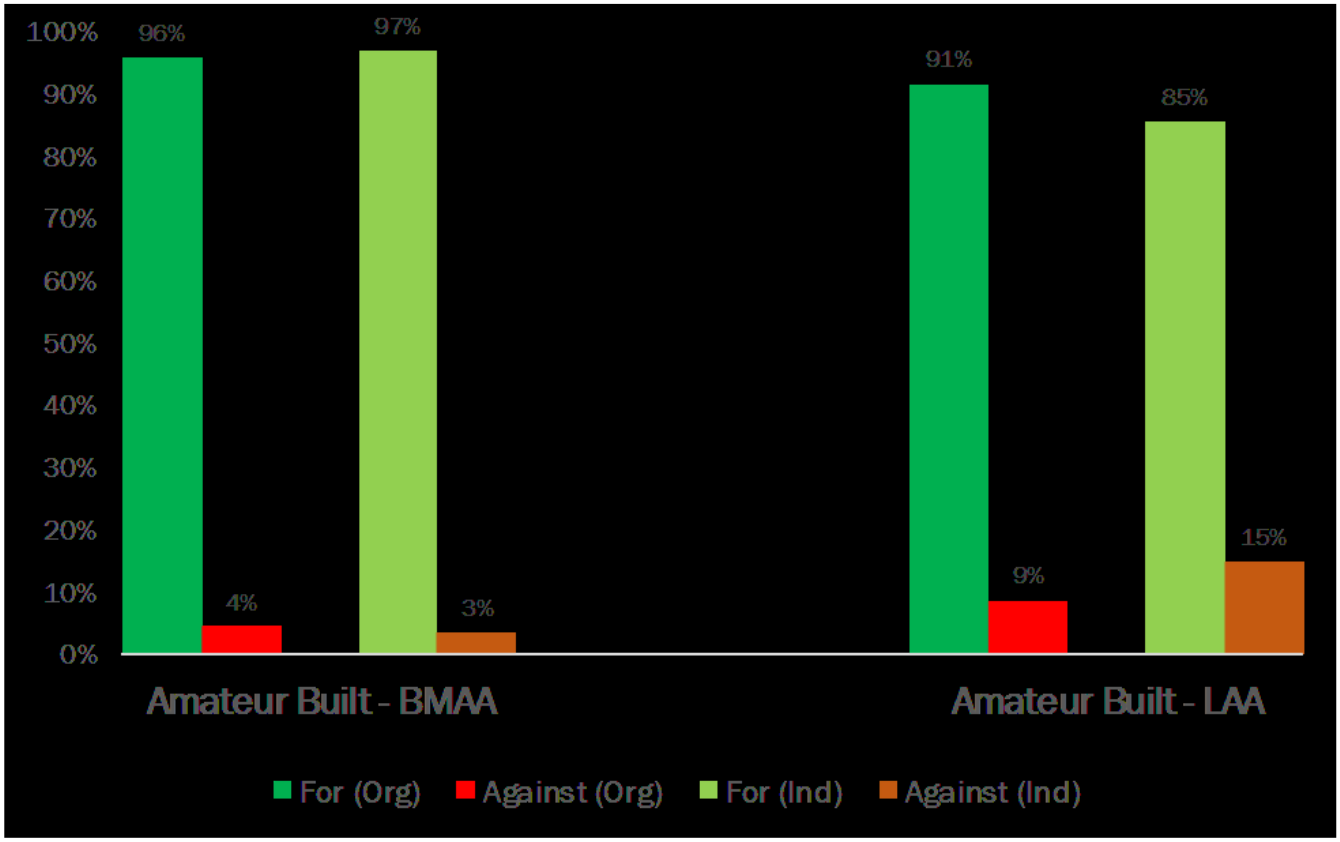
You said

3.3 In total 387 unique responses were received. These consisted of 47 responses from organisations such as pilot training organisations, aircraft maintenance organisations and GA associations including flying clubs and 340 individual responses, some of which were from pilots/owners of microlights.

3.4 Nearly 50% of all responses from organisations were from a pilot training body, with the second most common being GA associations including flying clubs. Together representing almost 90% of the responses. With the individual responses it was not possible to ascertain the backgrounds of most of the respondents. Pilot/owners of microlights made up the majority of the remaining 5%.

3.5 Respondents were in favour of the proposal as can be seen in Figure 1. Collectively, it was a near complete positive response for the use of BMAA amateur built microlights for ab-initio paid-for training. There was a slightly less favourable result for the use of LAA amateur built microlights however the overwhelming majority believed that this would be a positive step for the sector.

Figure 1: Bar Graph Displaying Totality of Responses in Support of or Against Proposals



3.6 We read all the comments and categorised them into themes. The main reasons respondents gave in support of the proposal were as follows:

- It may reduce costs to pilots/flying schools
- Some amateur built microlights have similar build standards as a factory-built microlight
- It would increase choice of aircraft available
- It would provide growth to the training sector

3.7 The most commonly cited benefit of using amateur built microlights for ab-initio training by both organisations and individuals was the potential for reductions in costs for both pilots and flight schools. Whether this may result in reduced costs for the student, or increased margins for flying schools is unknown. The potential increase in aircraft types being used was also cited as a strong benefit of the proposal.

3.8 In conclusion, both organisations and individual respondents were in favour of using amateur built microlights for paid for initial flight training. However, there were some key concerns which were noted from the overall comments which we address in further detail below.

Key concerns and our response

3.9 We have summarised some of the key concerns received and have categorised them into themes below along with our responses on how they may be mitigated.

Summary of concerns	CAA response
Robustness and suitability of amateur built microlights	The BMAA/LAA and flying schools would be required to put in place a condition monitoring process to track in-service reliability. This process will be a requirement in the mitigating procedure suite so that we can gather the appropriate occurrence and reliability data to assess the robustness and ongoing suitability. Annex 1 aircraft occurrence reporting is currently not mandatory; however, this would now be required. In addition, enhanced surveillance would need to be carried out on the BMAA/LAA initial fleet to ensure compliance with required standards.
Student informed consent and understanding	Consent of the student pilot was an important factor considered, and the BMAA, LAA and flying schools would be required to ensure the student is fully informed of the airworthiness differences between factory-built microlights and amateur built microlights. The BMAA/LAA have agreed to create and maintain records of any PtF aircraft approved for training, including a database of microlights accepted.
Liability of builder	The BMAA/LAA would need to seek the written agreement of the original builder to ensure they have permission to assess the microlight for this new use. If the original builder declines the request, or they or their succeeding estate are unreachable, the aircraft would not be able to be used for this purpose.
Microlight occurrence data	As mentioned above in '*Robustness and suitability of amateur built microlights',* Annex 1 aircraft occurrence reporting is not currently mandatory; however, this would need to be amended in order to ensure the generatation of the in-service data required to assess the potential for enduring use of an aircraft. It is anticipated this would also help address the concerns expressed surrounding the current safety data.

Inspector standardisation	The CAA must be assured that all A8-26 Organisation inspectors involved in activities directly dealing (hands-on) with these microlights shall be assessed as being appropriately competent in terms of their knowledge, experience, skills, initial training and continuation training to perform their allocated tasks. The BMAA/LAA shall ensure that all inspectors directly dealing (hands-on) with these accepted aeroplanes receive sufficient formal mandatory continuation training in each two-year period to ensure that such staff have up-to-date knowledge of relevant technology, organisational procedures and human factor issues.

We did

3.10 We analysed the responses and explored in detail the practical implications for allowing paid-for initial pilot training on amateur built microlights. The detail of this is provided in Chapter 4 below.

Chapter 4

Conclusion and Next Steps

4.1 We are planning to permit (serial number specific) amateur built microlights to be used for paid-for ab-initio pilot training for non-owners of the aircraft.

4.2 Any microlight proposed for initial flight training will need to be evaluated to assess the suitability of the aircraft for its use in that role. The CAA intends to delegate this activity to the BMAA/LAA. This acceptance would be based on specific microlight approvals and not generic type approvals.

4.3 The BMAA/LAA will be required to have a process in place to perform the assessment of suitability and acceptance. Initial proposals for the process from the BMAA/LAA, along with their proposed safety mitigations[2] were detailed in the consultation and any changes or evolutions will be finalised between the CAA, BMAA and LAA during the next phase.

4.4 Aircraft assessed as acceptable would be required to be maintained utilising an Approved Maintenance Programme. A Pilots' Operating Handbook (POH) must also be available to assist in the operation of the aircraft.

4.5 Once an aircraft has been approved by the BMAA/LAA and accepted for ab-initio training, an initial training suitability assessment would then need to be conducted by the Chief Flying Instructor at the flying school.

4.6 Similar to the process for the current training fleet who receive ongoing support from the manufacturer, these accepted aircraft will need to be provided with ongoing support from the BMAA/LAA in accordance with their privileges within BCAR A8-26, Paragraph 2.3, regarding construction oversight and continuing airworthiness.

4.7 The BMAA/LAA would need to seek the written agreement of the original builder to ensure they have permission to assess the microlight for this new use. If the original builder declines the request, or they or their succeeding estate are unreachable, the aircraft would not be able to be used for this purpose.

Next steps

4.8 Our next steps are:

- The BMAA/LAA will liaise with the CAA to establish and agree the procedures in order to allow them to make the relevant assessments of aircraft in their fleet which could be suitable for training

[2] A list of the proposed safety mitigations detailed in the consultation (CAP 1839) can be found in Appendix A.

- The CAA will work with the BMAA/LAA to develop an Occurrence Reporting System to ensure we are able to set up the condition monitoring processes to obtain the required in-service safety and reliability data.
- The CAA and BMAA/LAA will need to finalise all mitigations, including those mentioned in the consultation and any that are identified going forward.
- The BMAA/LAA will put in place their own internal procedures to ensure that their inspectors and engineers are current and competent for the additional tasks.
- The CAA will publish an ORS4 General Permission to allow paid-for initial pilot training in amateur built UK National Permit-to-Fly microlights. The General Permission will only apply to those microlights that have been assessed and accepted under this activity.
- During the joint implementation phase, the project will be continuously reviewed to decide on the suitability of the approved aircraft to continue on an enduring basis.
- The BMAA and LAA will establish their own registers of Permit-to-Fly aircraft approved for use in ab-initio training by non-owners which will be accessible/available-on-request to the CAA.

APPENDIX A: Proposed safety mitigations detailed in consultation

A1. The BMAA/LAA are required to put in place certain conditions for the use of individual aircraft which are to be used in the proposed role. These additional conditions were detailed in the consultation. This list is non-exhaustive and will continue to evolve during the implementation phase of the project:

a) Implement a mechanism to provide protection to the original builder of a PtF home-built aircraft which is proposed to be 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.

b) The initial airworthiness of the aircraft type must have been approved against a recognised design code by the BMAA/LAA.

c) The initial airworthiness of the aircraft type must have been approved by the BMAA/LAA using a recognised design code as a basis, usually BCAR Section S, and using suitable additions or alternative means of compliance as deemed appropriate by the BMAA/LAA.

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/LAA as far as its:

i. instrumentation
ii. control layout
iii. communications
iv. Handling Characteristics

f) Changes to the aircraft equipment must be notified to and approved by the BMAA/LAA

g) The aircraft must be maintained in accordance with a specified and agreed maintenance schedule. As agreed between the BMAA/LAA and CAA

h) A suitable Pilots' Operating Handbook must be available for the aircraft

i) Details of the microlight's flight training use must be given to the BMAA/LAA when the permit is revalidated. This will assist in gathering safety data used to monitor risk trends.

j) The engine must not be allowed to run beyond the manufacturer's recommended overhaul period or must satisfy an agreed alternative means of compliance.

k) Owners are required to keep records within the aircraft technical logbook of all maintenance carried out.

APPENDIX B: Abbreviations

Abbreviations	
EASA	European Aviation Safety Agency
LAA	Light Aircraft Association
BMAA	British Microlight Aircraft Association
PtF	Permit to Fly

APPENDIX C: Working group stakeholder organisations

Aircraft Owners & Pilots Association

Flight Training Organisations

British Microlight Aircraft Association

Light Aircraft Association

Aircraft Manufacturing Organisations