



1. Introduction

1.1. To operate any two seat and some single seat microlight aeroplanes with a UK Permit to Fly and UK registration markings the aircraft is required to be approved by the UK Civil Aviation Authority (CAA) or a delegated organisation such as the BMAA. This has resulted in a range of aircraft types being available however there are occasions when the “ideal aircraft” isn’t in the UK and eyes turn overseas. This TIL is about the ways in which it is possible for a BMAA member to bring a microlight into the UK for a UK Permit to Fly.

1.2. Although the BMAA exists to help its members, it does not set the rules; that is done by the CAA. This TIL shows the best understanding by the BMAA of what is possible, but the CAA has the final say. The TIL also gives some advice on the best way to go about an importation project, so as hopefully to ensure things happen smoothly, and that the technical and financial risk is minimised.

1.3. Whilst this TIL is mainly about what can be done and how, it is worthwhile listing first some of the things that can’t be done under current UK air law.

1.3.1. It’s not permitted to keep and operate a foreign *registered* microlight here in Britain for long periods of time.

1.3.2. It’s not permitted to pay somebody to build a kit for you, amateur construction rules are intended for the true amateur constructor. There are very few occasions when it is possible to obtain a UK Permit to Fly for an aircraft which doesn’t meet the standards laid down in BCAR Section S, or some equivalent or higher standard.

1.4. It is however usually possible for a foreign resident who is a microlight pilot to obtain a temporary exemption if he or she wants to visit the UK (such as for a holiday). To obtain such permission they should contact the CAA Applications and Approvals department. In some instances, the CAA have issued general exemptions to allow certain aircraft types to fly in UK airspace. Details can be found at the following:

<https://www.caa.co.uk/commercial-industry/aircraft/airworthiness/exemptions/foreign-exemptions/general-exemptions-for-foreign-registered-aircraft/>

1.5. This document is published by the British Microlight Aircraft Association, and only applies to commercially built microlight aeroplanes and amateur built microlight aeroplanes. If you wish to import an aircraft that falls outside of the UK microlight definition then do contact us in the first instance as BMAA are approved for amateur built light aircraft upto 750kg. For aircraft outside this definition, you should contact either the Light Aircraft Association for a heavier aircraft or CAA for gyroplane or the British Gliding Association for a glider.

2. Importing a Commercially Built Foreign Aeroplane

2.1. New Microlight Type

2.1.1. For a Microlight to be considered a 'commercially built' aircraft, it must have been declared as such by a company with specific UK CAA approval. This can be the company that physically manufactures the aircraft, but this isn't a pre-requisite. If a UK based individual/company wishes to import a foreign manufactured Microlight, either the UK importer can obtain UK CAA company approval, or the foreign manufacturer can hold the approval. The aircraft does not require any design or manufacturing approval in its own country. Examples where a UK Company has CAA approval include The Light Aircraft Company Ltd who import the C42 manufactured by Comco Ikarus GmbH in Germany, and Ascent Industries Ltd who import the Eurofox manufactured by Aeropro s.r.o. in Slovakia.

2.1.2. For an aircraft that is manufactured abroad, which is distributed by a UK based importer with CAA company approval the UK company is fully responsible for assuring the quality, from a design as well as a manufacturing perspective, of the aircraft it supplies. The CAA will insist that procedures are put in place by the approved company to guarantee this; from the CAA's perspective the foreign factory is simply a subcontractor to the approved company. The approved company is also responsible for the continued airworthiness of its fleet.

2.1.3. The aircraft design must be approved to CAP482 BCAR Section S (or an equivalent or higher airworthiness code taking into account any differences between the relevant codes). The procedure for this is essentially the same as for importing a new foreign kit: see section 4. As an approved company this can be done through the BMAA, although the CAA may want to oversee the first type from a new manufacturer. Note that commercial rates are charged by the BMAA when working for an approved company (but they are still much cheaper than CAA charges). A copy of CAP482 BCAR Sections S can be downloaded here:

<https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=5575>

Existing Type Certification documentation that relates to a foreign aircraft's existing domestic NAA (National Aviation Authority) Microlight certification can be used to assist with the UK Type-Approval process. In these cases, at the very least, the existing certification documentation must be supplemented with documentation that details the differences between the existing certification and the requirements of BCAR Section S. If the existing foreign certification does not fully meet the requirements of, or even totally omits, parts of BCAR section S, then compliance in these areas will need to be demonstrated during the UK Type-Approval process. This could be as straight-forward as the creation of some paperwork, or as involved as structural load testing or flight testing, depending on what is missing.

2.1.4. The company requires CAA A1 approval as defined in BCAR Section A (CAP 553), sub-section A8, chapter A8-1 or chapter A8-21. CAA company approval must be attained direct from the CAA; contact the CAA Applications and Approvals department for more information. The BMAA can also help with this process. Gaining (and maintaining) CAA approval is neither cheap nor trivial, and therefore this mechanism for importing a foreign type is only feasible if it is approached as a business venture. A copy of CAP553 can be downloaded here:

<https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=220>

2.1.5. It will ultimately come down to the UK importer and the foreign manufacturer to decide which approach they wish to take. Either set-up maybe the better choice on a case-by-case basis, so it is

important the capabilities of all parties involved are evaluated such that the business case remains viable, the certification process is as smooth as possible and that adequate continued airworthiness support is in place for the prospective UK fleet.

2.2. Second-Hand Non-UK Types

- 2.2.1. In the BMAA's experience, importing a second-hand example of an aircraft type that is not currently approved in the UK is for all reasonable purposes impossible.
- 2.2.2. If there is an overwhelming reason why you need to do so, please write to the Chief Technical Officer explaining what you wish to do and why; we will then see what we can do, but the chances of the CAA permitting this are slim.
- 2.2.3. Be aware that a number of UK Types that have the same or similar name as a foreign aircraft are not usually built to the same specification as the UK approved type. You would therefore need to consult with the UK manufacturer (Type Approval Holder) of the type to determine the build standard and if they are able to assist with making the recommendation for the issue of a Permit to Fly.

2.3. Second-Hand UK Types

2.3.1. If the aircraft you want to import has previously had a British registration and has been operated to the same standards as would be required in the UK (in terms of paperwork and maintenance), then this is straightforward and you need to do the following:

1. Contact the BMAA to advise them about the aircraft and also to check that there are no outstanding issues with the aircraft prior to it leaving the UK registry.
2. Provide the BMAA with the history of the aircraft whilst not on the UK register.
3. Place the aircraft back on the UK register.
4. BMAA will then require a BMAA Inspector to inspect to the normal Permit revalidation schedule and also to the requirements of TIL 074, 'Special' Permit Revalidation Inspections, who must confirm that the aircraft and its documentation are all of the standard that would be required had it never left the UK and weigh the aircraft and report back to BMAA.

https://www.bmaa.org/files/til_074_special_permit_revalidation_inspections.pdf

5. The original Permit to Fly will have been revoked by the CAA, therefore a new Permit to Fly will need to be arranged with the BMAA, contact the BMAA Technical Office for the current procedure and payment for this. **The aircraft must not be flown until authorised by the BMAA**

2.4.2 If the aircraft is a UK type approved aircraft, but has never had a Permit to Fly in the UK, you must contact the type approval holder. They must arrange for inspection of the aircraft and recommend issue of a Permit to Fly as if it were a brand new aircraft. If there are any modifications from the UK build standard, these would need to be declared and approved by the Type Approval holder either through the BMAA or CAA before any application for a Permit to Fly can be made. If there is no longer a UK type Approval holder then the type cannot obtain a UK Permit to Fly.

2.4.3 If the aircraft is a BMAA home-built type, but was built abroad, qualifying for a Permit to Fly is not necessarily impossible, but is highly impractical. The problem is that there is no guarantee that

the aircraft is to the UK approved standard; nor was the aircraft built under the supervision of the BMAA (a prerequisite of the CAA issuing a homebuilt Permit to Fly). Therefore the aircraft must be stripped down and inspected for conformity with the UK approved standard before being rebuilt under BMAA supervision. Confirmation of conformity with the UK approved standard can normally only be satisfactorily provided by the UK importer who may make a significant charge, or possibly refuse to cooperate.

3. Importing a New Foreign Kit

- 3.1. The BMAA is glad to consider overseeing the construction of any kit or plans-build microlight not previously accepted in the UK. The following outlines what is required. Please don't delude yourself into believing that this will be quick and easy as certifying a new aircraft type is invariably a **big** job.
- 3.2. The aircraft must meet the UK definition of a microlight, which can be found in the Air Navigation (Amendment) Order 2021 and BCAR Section S (CAP 482).
<https://www.legislation.gov.uk/ukxi/2021/879/made>
<https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=5575>
 - 3.2.1 Designed to carry not more than two persons.
 - 3.2.2 A maximum weight not exceeding 600 kg for landplane or not exceeding 650kg for an amphibian or floatplane.
 - 3.2.3 A stall speed, or minimum steady flight speed in the landing configuration, at maximum take-off mass, not exceeding 45 knots calibrated airspeed.
 - 3.2.4 BCAR Section S also requires an empty weight that allows each seat to be occupied (110kg for a single seat; 200kg for two seats) and an hour's fuel (at maximum continuous power) to be carried without exceeding the maximum take-off weight. Note that for aircraft less than 472.5kg and 525kg there is a reduced cockpit load requirement.
 - 3.2.5 For obtaining a UK Permit to Fly the aeroplane must not meet the UK ssdr definition, details of which can be found in BMAA TIL 045.
- 3.3. For an amateur built aeroplane the aircraft must meet the UK requirements for amateur construction presented in CAP 659, which is available to download from the CAA website. In essence this means that the amateur effort must be at least 51% of the total construction, and that the project must be conducted from start to finish under supervision of the BMAA or (occasionally) some other UK CAA approved organisation.
- 3.4. The aircraft must comply with, or potentially be made to comply with, the airworthiness requirements in BCAR Section S (or an equivalent or higher airworthiness code such as CS-VLA).
- 3.5. Before committing yourself to any significant expenditure you need to put together three reports and submit them to the BMAA Chief Technical Officer:
 - 3.5.1 A report showing that the aircraft meets the UK definition of a microlight.
 - 3.5.2 A report showing that the aircraft meets the UK requirements for amateur construction. It might not be possible to finalise this report until the first example is constructed and the amateur effort required measured. However the report should at least detail the non-amateur effort used to manufacture the kit.
 - 3.5.3 A preliminary Section S compliance report. It is unlikely that a full compliance report can be generated at this stage but the report should at least explain why you think the aircraft complies (or can be made to comply) with the airworthiness requirements. It should also detail the approach you intend to take to demonstrate full compliance.

- 3.6 Once the BMAA is satisfied with the preliminary reports it is time to bite the bullet and demonstrate full compliance with the engineering requirements in Section S. The output of this phase is a complete Section S compliance report showing that the aircraft complies with all of the engineering requirements in Section S. This requires a significant amount of engineering expertise. If you do not have this expertise yourself, the BMAA maintains a list of members (the “technical team”) who can help for a fee. Contact details for the technical team can be found in BMAA TIL 024; advice on writing a successful Section S compliance report can be found in TIL 048. It is accepted that most of the handling and performance information cannot be assessed until the flight test phase, although any existing flight test reports are always useful.
- 3.6.1 The usual way to demonstrate compliance with the structural requirements is by load testing an airframe. Load testing will most likely cause some damage to the test pieces. This is because whereas the airframe must be able to support ultimate loads without failure, permanent deformation is acceptable and normal. Therefore some or all of the test airframe will not be able to be used in the first flying example. The proportion of the test airframe that has to be discarded will depend on its construction as well as how much damage is sustained during ultimate load tests. For example an aluminium tube airframe may be flown following load testing as long as it is carefully inspected and any damaged parts are replaced, but an airframe with composite primary structure must be discarded because of the impossibility of satisfactorily inspecting for damage.
- 3.6.2 To avoid the expense involved in damaging an airframe there is often a desire to use analysis as an alternative to load testing: for example Finite Element Analysis (FEA). This is generally a false economy as, in the BMAA’s experience, the cost of the effort involved in satisfactorily analysing an entire airframe soon outstrips the cost of any donor airframes. The only circumstances under which analysis is preferable to load testing is if multiple airframes are not readily available (such as for one-off projects) and if you have the necessary expertise yourself (and are willing to donate your time for free). Even then it is unlikely that it will be possible to forgo all testing, as the BMAA will require tests to validate the analyses and prove the strength of any areas that cannot be analysed satisfactorily or where the results of the analysis are marginal. If you wish to make use of analysis in lieu of load testing, discuss this with the Chief Technical Officer first.
- 3.6.3 If reports are available from overseas then the BMAA will accept these if possible, but they are not always to an acceptable standard and additional compliance work is often required. The reports also need to be in English or if translated using an automatic translating program a copy of the original language report is also required.
- 3.7 The BMAA will go through the Section S compliance report and get back to you for any further information that may be required. The BMAA Technical Office has limited resources and attends to all submissions, large or small, in the order in which they arrive. There may, therefore, be some delay in processing the compliance report dependent on overall workload.
- 3.8 Once the BMAA is satisfied that the aircraft can be a safe, UK legal microlight, you will be invited to register the project using a form BMAA/AW/022. This is the point when you need to find yourself an inspector. Fees for inspectors are not set by the BMAA and you must reach a private agreement; BGA and LAA inspectors cannot be used, although they will be looked upon favourably if they wish to apply to become BMAA inspectors.
- 3.9 Between you, the BMAA and your inspector, a build plan and a set of stage inspections must be agreed. Once this is done you can get on with building the aircraft; if there are any tests or measurements needed on parts of the aircraft, these would normally be done as part of the stage inspections.
- 3.10 Once the aircraft is built there must be a final inspection (usually by both the Inspector and a second person, often the Chief Technical Officer), and the aircraft must be weighed. It is almost inevitable that at, or by, this point some changes to the aircraft will have had to be made to meet UK

standards.

- 3.11 By this point the aircraft must have obtained a registration from the CAA Aircraft Registration Section.
- 3.12 Once all engineering issues have been resolved the aircraft is then ready for flight testing, which should normally be led by a BMAA Test Pilot (a list of Test Pilots is available in BMAA TIL 023) although active participation by the importer is normal and encouraged. The Test Pilot is responsible for proposing a test flight schedule (to show compliance with Section S) to be agreed with the Chief Technical Officer. A typical test programme for a new aircraft is likely to be in the range of 10-20 hours but could be considerably longer if issues are found. A draft operator's manual is also required before test flying commences.
- 3.13 If there are aspects of the project that make it impossible to use a BMAA Test Pilot for the project, the Chief Technical Officer should be contacted for advice.
- 3.14 Once full compliance with Section S has been demonstrated (flying and engineering), all issues have been resolved, at least 25 trouble-free hours have been demonstrated in the final powerplant configuration, it is possible to apply for the first Permit to Fly. The aircraft is then subject to the same rules and regulations as any other *Homebuilt* microlight aeroplane. It will be necessary to have an acceptable operators manual (BMAA may be able to provide a template for this) by this point, usually it may consist of the foreign manual (in English), plus the engine manual, plus any changes required to meet Section S and any recommendations from the flight test programme.
- 3.15 If you then wish to sell kits or plans of the aircraft, then you can do so without much further aircraft approval, see section 4 below. You will however need to complete a comprehensive build manual for the aircraft and this will need to be agreed with the BMAA Technical Office before any kits are sold. The individual builders should register their projects using forms BMAA/AW/022. So long as the new aircraft are of the same standard, building to the agreed stage inspections and build plan, followed by a short test programme (around 2-3 flying hours plus the remainder of 5 hours endurance testing for an already approved configuration, or of 25 hours for a new powerplant configuration) is all that should be required. Any changes to the state need to be submitted for each individual aircraft and will be assessed by the BMAA as if they were modifications to an existing aircraft.

4. Responsibilities of a Commercial Kit Importer

- 4.1. The kit importer is responsible (under consumer legislation) for ensuring that kits and replacement parts are fit for purpose and identical to the standard originally approved. The BMAA will normally require the importer to provide a "Certificate of Conformity" with each new kit certifying that it conforms to the approved standard. This is not just a paperwork exercise: it is imperative that the importer puts adequate quality control procedures in place, and then follows them, to ensure that the certificate means what it says.
- 4.2. Although the kit importer is responsible for the quality of the supplied parts, the BMAA has final airworthiness responsibility for the type. This means that the BMAA must approve *any* changes or additions to the design (including the contents of the build manual and operator's handbook) and will make the final decision regarding the issue of service bulletins (or any other airworthiness actions).
- 4.3. It is the kit importer's responsibility to inform the BMAA of any potential airworthiness issues reported by builders and operators. If remedial action is required it is the kit importer's responsibility to propose a solution for the BMAA to assess. It is therefore important that a kit importer has access to engineering expertise on an ongoing basis, not just for initial approval.
- 4.4. If significant numbers (normally more than 6) of an aircraft design are expected to be built, the BMAA will require as a condition of its assistance in a project that the importer co-operates in the

running of instructional seminars on the type for BMAA inspectors who will be responsible for overseeing construction and inspection of new aircraft.

5. Importing a Foreign Registered Kit with existing UK Approval

- 5.1. If the type has previously been built as a BMAA homebuilt, and the kit is purchased from the UK importer, then this classifies as a normal, home-build project. The process in this case is described in detail in BMAA TIL 039.
- 5.2. If the type has previously been built as a BMAA homebuilt, but the kit is imported privately (not supplied by the UK importer), then the BMAA will require confirmation that the kit is to the same standard as the UK approved version. This confirmation can normally only be satisfactorily provided by the UK importer who may make a significant charge, or possibly refuse to cooperate. If the UK importer is no longer trading then it may be difficult to obtain satisfactory confirmation of the standard of the kit and some or all of the procedures in section 4 (importing a new foreign kit) will have to be followed.
- 5.3. If the aircraft type has previously been built as a LAA homebuilt and is not dealt with in any form by the BMAA, then normally the BMAA cannot deal with the design (and vice versa). In this instance you should contact the Light Aircraft Association. If the aircraft is a significantly different variation upon a type already dealt with by the LAA, then it may be possible for the BMAA to deal with it, but all of the procedures in section 4 (importing a new foreign kit) below must be followed.
- 5.4. If the type is “type approved” in the UK, but you wish to home-build an example, then this may be possible. The procedures in section 4 (importing a new foreign kit) will need to be followed, except that the showing of compliance with Section S may be significantly eased by the type already being approved. Confirmation from the type approval holder that the kit is to the same standard as the UK approved version will be required. However the type approval holder may make a significant charge for this, or possibly refuse to cooperate.

6. Most Common Mistakes

- 6.1. This section lists some of the mistakes that have caused problems in the past with the import of foreign aircraft. They are listed here in the hope that this may prevent similar occurrences.
 - 6.1.1. Buying a kit or an aircraft without first confirming it can become UK legal can be an expensive mistake.
 - 6.1.2. Starting to build without having the build standard agreed, and an inspector available, can mean the whole aircraft needs to be disassembled for inspection.
 - 6.1.3. Presenting the BMAA with a completed or part-built aircraft of which it had no prior knowledge doesn't go down well, and it may be impossible for the BMAA to deal with it at-all.
 - 6.1.4. Don't assume that because an aircraft is flying in another country there will be lots of technical information available. Some countries (such as the USA or France) have extremely relaxed airworthiness systems for microlights and homebuilts and it could well be necessary for you to produce virtually everything yourself.
 - 6.1.5. If an aircraft claims a certain flight envelope, it must be confirmed that this includes all of the engineering safety factors required by the UK, and has been properly proven. Some foreign manufacturers do not build significant safety factors into their designs.
 - 6.1.6. If an empty weight or stall speed is quoted, try and find out how realistic these figures are. It is not unknown for such values to be quoted for convenience or legal reasons, rather than because

they are true (how many European microlights quote a stall speed of exactly 65 kph / 35 knots for example?).

- 6.1.7. Oddball aircraft can be difficult to obtain a Permit for (one example which caused a headache was a Mainair Gemini Trike with a Raven wing – both UK type-approved but not approved together – that had been operating in Spain). In such a case give full details to the BMAA Technical Office and ask for advice before parting with money.

7. Advice on Project Planning and Management

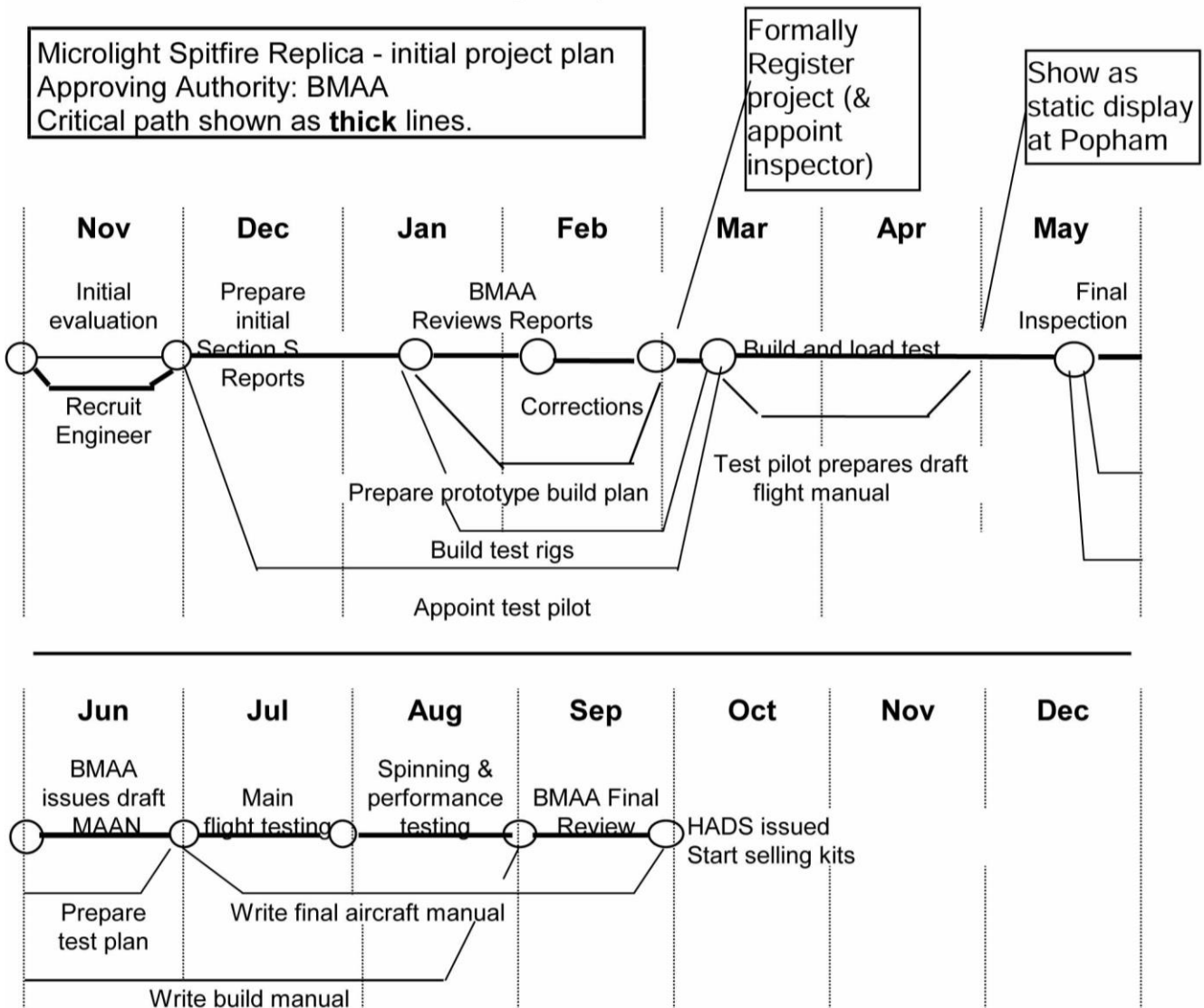
- 7.1. This section is provided to give the commercial importer some hints as to how to minimise their technical and financial risk, and reducing the certification time and cost to a minimum.
- 7.2. It is extremely tempting when you have seen a wonderful foreign aeroplane to immediately sign up for an agency, and write out a cheque for your first kit. However, by doing so you are exposing yourself to an enormous financial risk since at this stage you don't know whether the aircraft will comply with BCAR Section S or not - if the answer is "not" you may be buying a staggeringly expensive garden ornament. It should be very clear that you should put together your initial Section S compliance reports before parting with money. You should be able to put together most of these reports from drawings and manuals - if good enough drawings and manuals aren't available then something is probably wrong!
- 7.3. Another area where foreign aircraft (particularly from North America) can often present problems is in handling - the BMAA is very aware that it is approving aircraft to be flown by 25 hour pilots, not 2500 hour pilots; it will not approve aircraft with badly deficient handling qualities. Before committing yourself to anything, it would be very sensible to have a qualified test pilot fly an example of the aircraft and evaluate it against the handling requirements of BCAR Section S. The BMAA publishes both a list of qualified test pilots (TIL 023) and a series of test schedules, which are specifically written against Section S. A quick 30 minutes flight at Blois or Oshkosh by an enthusiastic pilot without test-flying training is unlikely to identify every possible problem! Outside the UK it is also not normal to spin-test 3-axis microlights; find out what information is available and get an expert opinion on the likely spinning characteristics of the design.
- 7.4. It is important to plan your project, and to be realistic in your expectations and timescales. There have been occasions where an aircraft has been advertised for sale at an airshow with potential customers being told that certification is due within a few months. When these potential customers ask the BMAA's advice and are told that certification is at least 9 months away, the salesman's credibility is at best dented and at worst blown apart. Annex A to this TIL shows a realistic project plan using PERT, which is popular throughout industry for planning technology projects. If you are particularly fond of detailed planning there are various software packages available to assist you, but in practice a spare blackboard can usually do the job quite well enough.
- 7.5. Finally, be open with the BMAA technical office and your inspector, particularly about both your plans and concerns. They are there to help you, and if aware of your plan (and comfortable that your plans are realistic) will always do its best both to help you meet your objectives, and to warn you if they seem to be slipping.

Further Information and Contact Details

- 7.6. A great deal of the information and forms referred to are available from the BMAA website - www.bmaa.org - under "Aircraft Technical Information".

<https://www.bmaa.org/information-library/aircraft-technical-information>

Sample Project Plan



Key People

Engineer i/c Section S reports: Reginald Mitchell, tel. 02380 1234567
 Project Test Pilot: Geoffrey Quill, tel. 02380 5667788
 "Spare" Pilot: Douglas Bader, tel. 01234-5678910
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