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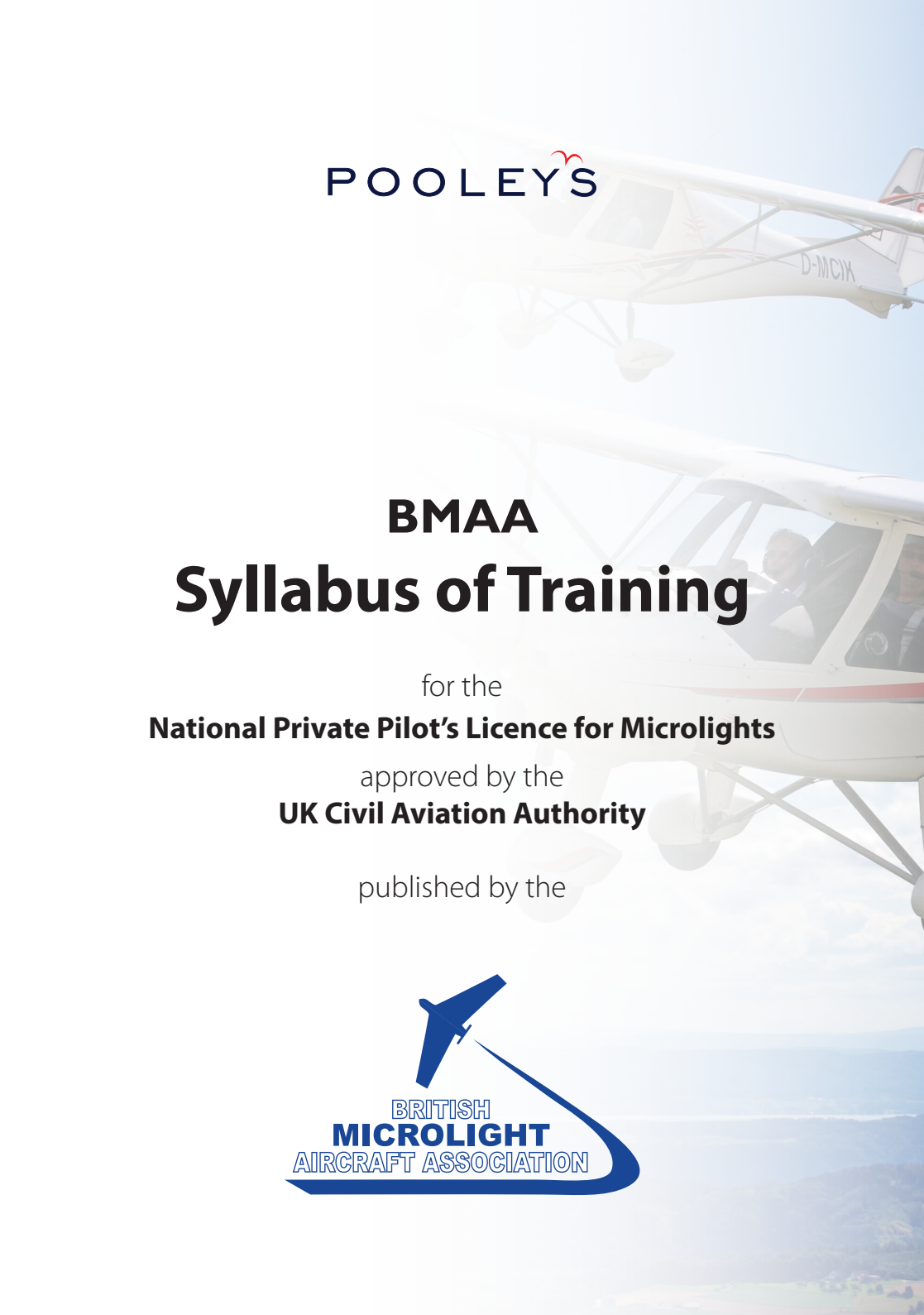

BMAA
Syllabus of Training

for the

National Private Pilot's Licence for Microlights

approved by the

UK Civil Aviation Authority

published by the

BRITISH
MICROLIGHT
AIRCRAFT ASSOCIATION

Nothing in this manual supersedes any EU legislation or European Aviation Safety Agency (EASA) Regulations or procedures; or any operational documents issued by any United Kingdom Government Department, the Civil Aviation Authority, National Aviation Authorities, the manufacturers of aircraft, engines and systems, or by the operators of aircraft throughout the world. As maps and charts are changed regularly, any extracts reproduced in this book must not be used for flight planning purposes.

The National Private Pilot's Licence for Microlights, BMAA Syllabus.

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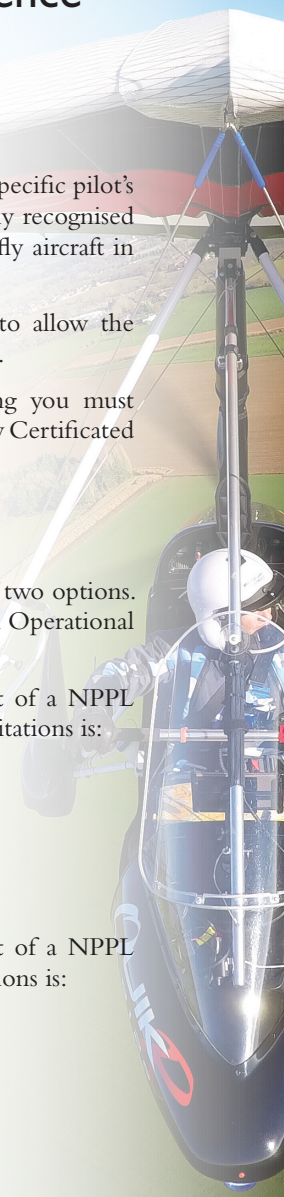
The National Private Pilot's Licence for Microlights



The National Private Pilot's Licence (NPPL) is a UK specific pilot's licence developed in 2002. It is not an internationally recognised licence and does not automatically entitle the holder to fly aircraft in other countries.

The licence must be endorsed with a class rating to allow the holder to fly specific classes of aircraft, such as microlights.

To obtain a NPPL with a Microlight Class Rating you must complete flight training with a UK Civil Aviation Authority Certificated Flight Instructor entitled to instruct on microlights.

Flight Training Requirements

The Microlight Class Rating can be issued with either of two options. The options are Without Operational Limitations or With Operational Limitations.

The minimum flight training required for the grant of a NPPL with a Microlight Class Rating Without Operational Limitations is:

Minimum total flight time under instruction	*25 hours*
Minimum flight time solo	*10 hours*
Minimum total navigation flight time	*5 hours*
Minimum solo navigation flight time	*3 hours*

The minimum flight training required for the grant of a NPPL with a Microlight Class Rating With Operational Limitations is:

Minimum total flight time under instruction	*15 hours*
Minimum flight time solo	*7 hours*

The Operational Limitations at initial issue are:

1. The pilot may not carry any passenger
2. The pilot may not fly with a cloud base less than 1000 feet above ground level or with less than 10 kilometres visibility
3. The pilot may not fly further than 8 nautical miles from take-off.

As part of your flight training you must take and pass a test with an authorised flight examiner to demonstrate your ability to fly a microlight through all the manoeuvres that you will have learned during training. The test is called a General Skills Test (GST). The flight time of the GST can count towards the minimum total flight time required to obtain the NPPL but not towards the solo minimum time.

To ensure that when your licence is issued your skill level and knowledge is current you must have completed the minimum solo flight time and all the navigation flight training within the twenty-four month period immediately prior to applying for your licence. The GST must be taken and passed within the nine-month period immediately prior to applying for your licence.

Ground Training Requirements

The training syllabus lists the subject matter that an applicant for a Microlight Class Rating must understand. There is no minimum requirement for training by an instructor to achieve this knowledge but the applicant must have demonstrated a knowledge of the subject matter by passing examinations.

There are written examinations in five subjects. Meteorology, Navigation, Aviation Law, Human Factors and Aircraft Technical subjects. The examinations must have been passed within the twenty-four month period immediately prior to applying for your licence.

There is one further examination to complete, which is a demonstration of your knowledge of the aircraft type that you have used to complete your GST. This examination is an oral examination and must be conducted by a flight examiner entitled to examine on microlight aircraft. It is usual, but not mandated, that the examination is conducted at the same time as the GST by the same examiner. The ground oral examination must have been passed within the nine month period immediately prior to applying for your licence.

Allowances for holders of other Licences and Ratings

Pilots holding licences or ratings for other classes of aircraft, current or expired, may be entitled to allowances against the minimum hours required for the NPPL(M). Student pilots with uncompleted courses may also be eligible.

For further details, see the BMAA website. Search *"Licence credits"*.

Licence Application

Application for the grant of a NPPL with a Microlight Class rating must be made in writing on the NPPL Microlight Licence application form through the BMAA Licence Administration Centre at the BMAA office address.

Removing the Operational Limitations from a NPPL Microlight Class Rating

To remove the passenger carrying Limitation the licence holder must have completed at least 25 hours of total flying in microlights (either under training or as a licensed pilot) and at least 10 hours solo flying in microlights. The holder's experience is certified in their logbook by a flight examiner and the Limitation ceases to apply from that time.

To remove the other Limitations the holder must have completed at least 25 hours of total flying in microlights (either under training or as a licensed pilot) including at least 10 hours solo flying in microlights. Additionally, the holder must have completed the navigation training requirements specified in the syllabus within the twenty-four month period immediately prior to applying to have the limitations removed. Application to have these Limitations removed must be made in writing on the NPPL Microlight Licence application form through the BMAA Licence Administration Centre at the BMAA office address

Medical Requirements

A pilot may only fly microlights as Pilot in Command in the UK if they are considered physically and mentally fit to do so.

For the NPPL there is provision for a pilot to declare themselves as physically fit to fly. The Declaration is made on-line on the Civil Aviation Authority web site.

There are a number of disqualifying medical conditions that mean a pilot is unable to declare themselves as medical fit. If a pilot suffers from or has a history of these conditions or illness, then they must obtain a Medical Certificate from an UK CAA Approved Medical Examiner (AME). Details of disqualifying conditions are published on the CAA website. Search *"Pilot's Medical Declaration"*

Pilots must be aware of their responsibilities if they suffer from a decrease in medical fitness.

The BMAA strongly recommends that student pilots make their medical declaration or obtain a Medical Certificate at the start of their training to ensure that they will be able to meet the required medical standards, and do not wait until just before they are ready to fly solo, by which time they MUST have made a declaration or hold a valid Medical Certificate.

Personal Flying Logbook

If you have purchased the Microlight Student Pilot Starter Pack, the other book in the folder is your personal flying logbook. This is an important document, look after it! You must produce this logbook as evidence of your training when you apply for your licence at the end of your course.

Once qualified, you must continue to record all your flights. Your Pilot Rating needs to be revalidated every two years and your log book contains the evidence of the necessary experience to do so.

Your instructor will give you guidance when making the first line entry. Guidance is also provided on the BMAA website, available as a printable PDF download. Search *"Logbook entry guidance"*.

Using this Syllabus

This syllabus sets out the structure and content of the flying course that you are undertaking, showing the various stages involved.

The exercises are numbered and the content of each one is listed. Boxes are provided so that you can mark your progress. When introduced to a new topic cross the first box next to it. When you have demonstrated a full understanding of the topic ask your instructor to cross the second box. On completion of the exercise to a satisfactory standard, your instructor will add his or her signature to the *"Completion Standard"* box.

When you complete an exercise, your instructor will tell you which one you are going to be doing next. You can then *"pre-read"* the next exercise in the syllabus and look up the technical part in your textbook, in preparation for next time. You should never walk into a lesson *"cold"*, not knowing what is coming.

Blank pages are provided at the end of each phase in the syllabus to make notes.

Elements pertinent to both weightshift and 3-axis types of aircraft are included in the syllabus. Where an aspect is not relevant to a type it should be ignored. For example, in exercise 6, *"Use of yaw control to maintain balanced flight"*, is not pertinent to a weightshift aircraft, as no primary control for yaw is provided in current designs.

Structure of a Flying Lesson

Each flying lesson consists of three parts;

- A pre-flight briefing during which the instructor will explain the aim of the lesson, check you understand the technical aspects and explain how the controls of the aircraft are used to achieve the manoeuvre. Also, any new Threat and Error Management (TEM)/Airmanship issues or new checklists. This takes around 20 mins.
- The Flight. This also normally has three parts. A demonstration by the instructor with you following through on the controls. This allows you to feel how the controls are co-ordinated and the associated movements and pressures. Second, a period of *"assisted practice"* during which you take control and repeat the manoeuvre with only verbal guidance from the instructor. Finally, a longer period of *"student practice"* during which you practice on your own until confident, with only guidance on errors from the instructor. The flight part of the lesson usually takes around an hour.
- A post-flight debrief during which the instructor will discuss with you *"how it went"*, maybe over a cup of tea. The instructor will give critique on the exercise flown and guidance for what will happen on the next flight. About 10 mins for this bit.

The Progress of the Flying Course

The flight exercises as listed reflect a progression through the basic handling skills to more complex manoeuvring and procedural flying. It is not however mandatory for a student to complete the exercises in strict number order if an instructor feels that the student would benefit from an earlier introduction to a later exercise, for example First Solo (Ex 17a) immediately after satisfactory completion of Exercise 12. Weather conditions may also play a part, for example if cloud base precludes Ex 7 and 8 after 6, then Ex 9a may be substituted.

Exercises 1 – 5

You will begin by learning about the important component parts and systems on the aircraft. You don't need to be an engineer but you do need to know how things work and how to operate the systems safely. You will learn how to safely start the engine and taxi the aircraft to the take-off point. In the air, you will be shown what each control does independently, before combining them together to control the aircraft.

Exercises 6 – 9

In the basic flight manoeuvres, you will start by learning to fly in a straight line (not so easy as it sounds when it's windy!) then how to climb and descend and turn onto new headings.

Exercise 10

When you've grasped the basics of controlling the aircraft around the sky, you will be shown how to make sure you never inadvertently *"stall"* the aircraft. (Fly too slowly)

Exercises 12 & 13

Then it's on to taking off and landing, sometimes called *"Circuits and bumps"!*

This stage of the training involves many facets and can take a while to fully grasp. It's at this stage that students will often feel their progress seems to slow or get bogged down, especially if there are breaks caused by things like bad weather.

Instructors are trained to recognise this and help you with it.

Exercise 14 – 16

These exercises are more advanced manoeuvres which might be threaded in between circuit sessions to give you a break from routine.

Exercise 17a

Then one day you will find yourself sitting on your own in the aircraft at the end of the runway. It's your first solo flight!! You will never forget this moment, it's the most exciting thing you will ever do.

Exercise 17b

Next comes the *"solo consolidation"* phase. Here, you will be flying the aircraft solo and practice all the manoeuvres you have previously learnt dual. You need to be very competent and confident at handling the aircraft before we add on the additional workload of navigating. About 7 hours total time is normal here. Dual checks will be required from time to time.

Exercise 18

The final stage of training is Navigation. Here you will learn pre-flight planning including plotting a route, checking weather forecasts, calculating headings and times, fuel reserves and diversions. In the air you will fly initially with your instructor. You will learn to recognise features and topography to fly the aircraft safely along the planned route. You will land at another airfield, hopefully with a cafe, have a well-earned cup of tea and fly back again. You will learn what to do if you get lost or the weather turns bad so you can't continue. (it does happen!)

Once your instructor is happy that you can competently navigate, you will be set off on your Qualifying Cross-Country flight(s). To fly solo to another airfield, land and fly back again is a hugely rewarding and satisfying thing to do. You are using all the skills you have learned and all the hard work comes to fruition.

Exercise 19 and GST

Then it's the last hurdle! There will now be a thorough dual check flight to make sure you have all the requisite skills to pass your flight test. The General Skills Test (GST) will last about an hour after which you will feel a huge relief pass over you.

Integration of Ground Training

There is no laid down format for the ground subjects training, but it should be closely aligned to the knowledge required for the flight training exercises in order to produce an integrated course of training.

Student Records

Every school is required to keep an up to date progress report for each student pilot on a student record sheet. Student records must be kept for at least two years after the last entry and should be available to the student to view. If for any reason a student transfers to a new school, a copy of the record should be made available to allow a smooth transfer.

Note to Instructors

This Syllabus should always be used in conjunction with the BMAA Instructor and Examiner Guide.

Advice for New Student Pilots

Fitness to fly

Just because you have a current Pilot's Medical Declaration or Medical Certificate doesn't mean that you are always fit to fly.

Flying well and safely needs huge amounts of concentration. You will feel drained at the end of your lesson so it's obvious you must be fit enough at the beginning.

Read up on Human Factors at an early stage (See the first section of the Ground subjects later in this syllabus) and run yourself through the IMSAFE acronym before your lesson. (Illness, Medication, Stress, Alcohol, Fatigue, Eating)

Airsickness

If you are prone to motion sickness in a car or boat, it is likely that you will experience airsickness at first. Don't worry, as it is fairly common, can be controlled, and will normally reduce as you gain experience. Any medication you take must not cause drowsiness. Speak to a Pharmacist to obtain the right product and inform your instructor of your condition.

Preparation for a Lesson

To get the most out of your training, you must be well prepared for your lesson, ground and flight and when you take your exams or GST.

For flying lessons, you cannot just walk onto the airfield and "switch on" your flying head. All good pilots start their preparation well before that. You will learn to read the weather, starting days in advance, to judge if it will be suitable, and how to check if any airspace restrictions apply. As a student, you will need to read up on the exercise to be flown including any supporting technical information so that you are prepared for the briefing by the instructor. You will save time and money by rehearsing checklists and drills before you get into the aircraft.

Studying for the Ground Subjects

Some schools offer group evening classes to cover the ground subjects, others may offer one-to-one tuition. When a flying lesson is cancelled due to weather, consider using the time to study the ground subjects, either self-study or if possible with your instructor.

Realistic Expectations

Learning to fly should be exciting, richly rewarding and fun.

If you set yourself realistic expectations, you will enjoy your flying training. If they are unrealistic, you will end up unnecessarily disappointed. For example, if you set yourself the target of obtaining your licence in three weeks in winter. That just cannot be done.

Gaps in training are inevitable and may be caused by weather or personal circumstances. Sometimes life just gets in the way. But for whatever reason, when you fly again you might find you have forgotten things and it takes time to regain your previous position, so you must be patient.

Another area where you need to be realistic is in how many hours it might take you to obtain your licence. The 25 hours (or 15 with Operational Limitations) are minimums. The licence is rarely obtained in the minimum hours, so you should not base your budget on these minimums.

People vary hugely in their capacity to absorb information and learn new skills. Younger people tend to learn faster, so if you are a more mature student, you may need to be more patient. You have to reach a standard to pass the final flight test (The General Skills Test or GST). It's not a race and the more time you spend with an instructor, the better the pilot you will be.

Getting on with your Instructors

It's really important that you get on well with your instructor. You will be spending a lot of time together and it's not as if you can just get out of the aeroplane at altitude if you, well – fall out!

Your instructor should always be helpful, supportive and positive. Instructors are trained to take things at your pace, so you should never feel under pressure to achieve.

If at any time you are not happy with anything, such as your progress, you should discuss it first with your instructor. If you can't resolve the issue, approach the Chief Flying Instructor or Head of Training at the school.

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PHASE 8: VFR Navigation

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