

MICROLIGHT INSTRUCTOR AND EXAMINER GUIDE



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THE BRITISH MICROLIGHT AIRCRAFT ASSOCIATION

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Section 1.2 INTRODUCTION

The 'Microlight Instructor and Examiner Guide' is a guide for the training, testing and administering of the NPPL (A) Microlight syllabus, Microlight Instructor Ratings and Microlight Examiner Authorities.

It has been compiled to provide as much information as possible to help standardise and improve teaching and training methods for microlight flying. It is also a source of information for the different administrative procedures.

The 'Microlight Instructor and Examiner Guide' is maintained and compiled by members of the Panel of Examiners together with the staff of the BMAA.

The first BMAA Guide to 'Training on Microlight Aircraft' was written in 1981 by Ann Welch O.B.E the then President of the BMAA. At that time the BMAA issued a 'Pilot Certificate of Competence' for flying microlight aircraft after completion of the BMAA Syllabus for the training.

In 1982 the CAA regulated microlight licensing and introduced the Private Pilot's Licence for microlights (the PPL (A) licence with a Group D rating). The CAA delegated the BMAA the task of producing the training syllabus for the PPL microlight licence and also with the task of administering the training.

The 'Microlight Instructor and Examiner Guide' was first issued in 1992 after extensive work by the then Chairman of the Panel of Examiners, Julian Doswell. Since then there have been changes in the Guide to up-date the content with current thinking, procedures and the way Ratings and Authorities are processed and administered.

This Edition of the Guide has also been reorganised for the additional content and structured into new sections to consolidate the content and for ease of reading.

In addition to the Guide, Instructor Bulletins are issued when needed to provide supplementary information to Instructors and Examiners and notice of amendments to the Guide.



Listings for reference to the current Edition of the Guide, any amendments to the Guide and any Instructor Bulletins issued can be found in the 'Information Library' on the BMAA web site.

When Instructor Bulletins are issued they are sent by email to Instructors and Examiners who are on the BMAA LIAC mailing list. All instructors are encouraged to advise the BMAA of their contact detail so they can be added to this list and be kept informed.

The 'Microlight Instructor and Examiner Guide' is a guide, not a training manual.

One of the attractions of microlight flying is that we have many varied types of aircraft within the microlight class of aircraft. The Guide cannot take into account every different type and model of microlight aircraft and instructors and examiners should interpret the information in this Guide in context for the type they are instructing or examining on.

If there is any doubt on how to interpret the contents of the Guide, advice should be sought from the Panel of Examiners or BMAA LIAC.


The Panel of Examiners and the BMAA continue to look for ways to improve training standards without unnecessary or additional legislation. Comments and suggestions are welcome to help achieve this aim and to continue to improve this Guide.


Fiona Luckhurst
Chairman Microlight Panel of Examiners
May 2013

Section 1.3 RECORD OF CHANGES/ AMENDMENTS


Section	Subject	Date	Pages Affected
Section 3.1	Documents to accompany application. Fees.	1 September 2013	Section 3.1 Page 3 of 3
Section 6.1	Change to Examiner Privileges	6 December 2013	Section 6.1 Para 2.5.1 – 2.6.2
Section 7.2	Footer. Page numbering correction	6 December 2013	Section 7.2 Page 1-3
Section 5.3	Partial Pass logbook entry	22 August 2014	Section 5.3 Page 9
Section 6.1	Rating validity extensions	22 August 2014	Various Section 6.1 para 1.2.1.10, 1.2.2.3, 2.3.1, 2.3.2
Section 6.1	Revalidating other Class Ratings	22 August 2014	Section 6.1 para 1.2.3.1
Section 6.1	Correcting para number errors	22 August 2014	Section 6.1 para 1.2.2.5
Section 7.2	Revalidation reminders	22 August 2014	Section 7.2 para 3.1
Section 7.3	Partial Pass logbook entry	22 August 2014	Section 7.3 Page 8
Section 7.3	Rating validity extensions	22 August 2014	Section 7.3 Page 9
Section 7.4	Partial Pass logbook entry	22 August 2014	Section 7.4 Page 3
Section 7.4	Rating validity extensions	22 August 2014	Section 7.4 Page 3
Section 7.6	Rating validity extensions	22 August 2014	Section 7.6 Page 2
Section 8.2	FE/ FICl seminars	22 August 2014	Section 8.2 Page 1
Appendix A	NPPL fee change	1 December 2014	Section Appendix A Page 1 of 1
Appendix A	NPPL and Examiner fee changes from 1 st April 2015	2 February 2015	Section Appendix A Page 1 of 1
Section 3.3	Removal of training restrictions	23 February 2016	Section 3.3 Pages 1.2
Section 3.5	Addition of guidance for logging Ex 18 and 16b	23 February 2016	Section 3.5 Pages 1.2.3
Section 6.1	Amendment to look-up table	23 February 2016	Section 6.1 Page 5
Section 2.2	Change references to AFI to FI(R) & Rating to Certificate	21 December 2016	Section 2.2 Page 1
Section 3.1	Changes to flight training solo and navigation validity periods. Reference to Medical	21 December 2016	Section 3.12 Pages 1, 2

	certification.		
Section 3.3	Changes to regulation regarding training in amateur built microlights. Removed reference to Clubs.	21 December 2016	Section 3.3 Page 1
Section 3.5	Clarification Navigation training. Clarification on removal of operational limitations.	21 December 2016	Section 3.5 Para 3.3 & 4.3.2
Section 5.3	Completing unsuccessful flight tests. Additional test failure form.	21 December 2016	Section 5.3 Pages 1, 9
Section 6.1	NPPL Revalidation by Test - validity period.	21 December 2016	Section 6.1 2.3.1
Section 7.1	Change references to AFI to FI(R) & Rating to Certificate	21 December 2016	Section 7.1 Pages 1, 2
Section 7.2	Addition of Control Type tests.	21 December 2016	Section 7.2 1 & 1.3
Section 7.3	Additional test failure form. Certificate validity period.	21 December 2016	Section 7.3 Page 8, 9
Section 7.4	Additional test failure form. Certificate validity period.	21 December 2016	Section 7.4 Page 2, 3
Section 7.5	Change of applicability.	21 December 2016	Section 7.5 Page 1
Section 7.6	Additional guidance Failed Test. Certificate validity period.	21 December 2016	Section 7.6 Page 2
Section 9.1	Deleted five year restriction on FEs conducting rating renewal test. Responsibility to renew Authority. FE renewal after more than 5 year lapse.	21 December 2016	Section 9.1 Removed previous 3.3 5.3 5.8
Section 1.1	Change to Section 7 titles	21 December 2016	Section 1.1 Section 7
Section 7.2	Alternating control type tests	1 May 2018	Section 7.2 Page 1
All Sections below	Correction of capitalisation, hyphenation and layout.	December 2018	All Sections below
Section 1.2	Updated reference to	December 2018	1.2 Page 1

	BMAA information sources.		
Section 2.1	Update AFI to FI(R)	December 2018	2.1 Page 1
Section 2.3	Updated CAA contact details.	December 2018	2.2 Page 1
Section 3.1	Optional 100 NM Cross Country Proof of ID in colour	December 2018	3.1.2 11.1
Section 3.5	Guidance on completing flight records in a student's logbook. Clarification of logbook entries following differences training.	December 2018	3.1.1 3.1.2 3.1.3 3.2 3.3.3.3.3 3.4 4.5.1 4.5.2
Section 4.2	Entire section revised to reflect new NPPL M Syllabus changes.	December 2018	Section 4.2
Section 4.3	Differences training clarification of recording.	December 2018	1 5
Section 5.1	Equipment allowed for examinations. Examiner not allowed to discuss incorrect answers. Pass mark for written papers from 2019 raised to 75% for new papers.	December 2018 	5.1
Section 5.2	Guidance for examiners to complete documentation after a Ground Oral exam.	December 2018	5.2
Section 6.1	Clarified wording for revalidation periods.	December 2018	1.2.1.8 1.2.1.10 1.2.1.13
Section 7.2	Clarified requirements for additional control type testing.	December 2018	1
Section 7.3	Clarified administration requirements for Partial Pass in an instructor test.	December 2018	7.3 Page 8
Section 7.4	Clarified administration requirements for Partial Pass in an instructor test.	December 2018	7.4 Page 3
Section 7.5	Included hour requirement in eligibility criteria.	December 2018	7.5 Page 1
Section 8.1	Update references to AFI to FI(R)	December 2018	All

Section 8.2	Update references to AFI to FI(R)	December 2018	All
Section 8.3	Revised order of text to reflect actual procedure.	December 2018	8.3 Page 1
Section 8.4	Update references to AFI to FI(R)	December 2018	All
Section 8.5	Added recommendation to test before confirming a course booking. Clarified wording for eligibility.	December 2018	1.3 8.5 Page 1 and 2
Section 8.6	Update references to AFI to FI(R)	December 2018	All
Section 9.1	Complete revision of section to reflect changes in process for examiner application recommendation.	December 2018	Section 9.1
Section 9.2	New content describing FE assessments.	December 2018	Section 9.2
Section 10.1	Updated reference to AFI with FI(R).	December 2018	1.4
Section 10.2	Added potential for CAA to require an instructor to test with a specific FIE. Added Panel member responsibility to consider Microlight Examiner Applications and provide a recommendation.	December 2018 	6 12
Appendix A	Fees updated and new fees for examiner assessments added.	December 2018	Appendix A
Appendix A	Fees updated	September 2019	Appendix A
Appendix A	Fees updated	October 2020	Appendix A
Section 1.1	Addition of section 4.4	August 2021	Page 1
Section 1.1	Update terminology (AFI) references	August 2021	Page 2
Section 2.3	Updated NATS website address	August 2021	
Section 3.5	Corrected limitation reference 2 to 1	August 2021	4.3.1
Section 3.5	Corrected limitation reference 2 to 1 & 3 and 4 to 2 and 3	August 2021	4.3.2
Section 4.2	Text change	August 2021	4.11.10
Section 4.2	New paragraph	August 2021	4.13.2.3

	added		
Section 4.2	Text added	August 2021	4.33.2.2
Section 4.2	Text added	August 2021	4.33.2.5
Section 4.2	Title change	August 2021	4.34
Section 4.2	Text added	August 2021	4.34.1.3
Section 4.2	New paragraph added	August 2021	4.34.1.4
Section 4.2	Updated text and layout	August 2021	4.34.1.6 to 4.34.1.9
Section 4.2	Change of heading	August 2021	4.35
Section 4.2	Text changes and additions	August 2021	4.35.4
Section 4.2	Beat method, text addition	August 2021	4.35.5
Section 4.2	Text change	August 2021	4.35.7
Section 4.2	Title change	August 2021	4.36
Section 4.2	Added A-D	August 2021	4.41
Section 4.3	Revised	August 2021	All
Section 4.4	Added	August 2021	All
Section 5.3	Delete "Recovery from and incipient spin"	August 2021	Page 4
Section 5.3	Change speed tolerance from 2-5 to 5-10	August 2021	Page 4
Section 5.3	Change of text describing attitudes	August 2021	Page 4
Section 5.3	Change of guidance text	August 2021	Page 5
Section 5.3	Title change	August 2021	Page 5
Section 5.3	Text changes to add legal considerations	August 2021	Page 5 Forced landings Para 5
Section 5.3	Change 16 B to 16 A	August 2021	Page 5
Section 5.3	Insert new text	August 2021	Page 5 & 6
Section 6.1	Inserted "Test" for clarification	August 2021	1.2.1.10
Section 6.1	Insert new text	August 2021	1.2.1.13
Section 6.1	Inserted new text for clarification	August 2021	1.2.2.1
Section 8.2	Updated title from Flying to Flight	August 2021	Page 1
Section 8.5	Change of pre-entry pass mark from 70% to 80% as new papers.	August 2021	Page 2
Section 8.6	Update references to Flying Instructor to Flight Instructor	August 2021	All
Section 9.1	Added text "If the	August 2021	5.1.2

	Examiner is unable to successfully answer the questions within three attempts they may not reapply for a period of 6 months"		
Section 9.2	Added text "together with a completed SRG2129 notice of failure"	August 2021	4.4.7
Section 9.2	Added text "together with a completed SRG2129 notice of failure"	August 2021	5.3.8
Section 10.1	Add text "and have completed FI(R) Courses prior to application."	August 2021	2.2
Section 10.1	Added text to new 3.2 and new 3.5	August 2021	3.2 & 3.5
Appendix A	Fees updated	December 2021	Appendix A
Appendix A	Fees updated	April 2021	Appendix A
Appendix A	Fees updated	April 2022	Appendix A
Appendix A	Fees updated	October 2022	Appendix A
Appendix A	Fees updated	February 2023	Appendix A
Appendix A	Fees updated	April 2023	Appendix A
Section 11 App. B	Text related to Child Protection policies added to Code of Good Practice	July 2023 	Page 14 of BMAA Code of Good Practice for Microlight Clubs
Cover page	Updated BMAA address, removed fax number	July 2023	Guide cover page
Section 2.1	Updated BMAA address, removed fax number	July 2023	2.1
Section 2.3	Updated BMAA address, removed fax number	July 2023	2.3
Section 3.1	Amended text for 4.3.2 and 6.1	August 2023	4.3.2 and 6.1
Section 3.1	Added paragraph on SDR training rules	August 2023	13.1
Section 5.3	Amended wording on Precautionary Landings	August 2023	5.3
Section 6.1	Amended wording on revalidating expired PPL Microlight ratings	August 2023	1.2.2.2
Section 7.1	Minor amended text on qualifying Microlight hours	August 2023	1.1
Section 7.2	FRTOL lines added	August 2023	3.2.5 and 3.2.7

Section 7.4	Amended eligibility criteria for qualifying Microlight hours	August 2023	7.4
Section 7.6	Grammatical errors tidied up	August 2023	7.6
Section 8	Amended eligibility criteria for qualifying Microlight hours	August 2023	8.5.2 and 8.5.3
Section 9.1	Amended eligibility criteria for R examiner appointments, change to application hiatus period following fail	August 2023	1.3, 1.4 and 1.5
Section 9.1	Amended text on examiner approvals and change to application hiatus period following fail	August 2023	2.5, 2.6, 3.7, 3.8 and 5.1.2
Section 9.1	Guidance on assessments added for FEs with multiple control types on authority	August 2023	5.2.4
Section 9.2	Line added on document checks for GST candidates	August 2023	5.2.1.2



SECTION 2

GENERAL



Section 2.1 THE BMAA

GENERAL

The British Microlight Aircraft Association (BMAA) is a members' organisation established to enable and promote microlight flying in the UK. The Association is managed by a Board of Directors, the BMAA Council, and employed staff.

The Civil Aviation Authority is responsible for the regulation of aircraft use within the UK.

The CAA has agreed that the BMAA may carry out some administration tasks on its behalf. This includes: Pilot licensing, Instructor administration, Examiner administration, Flying Instructor Course administration. In addition the CAA accepts recommendations from the BMAA for the above Rating issues and Appointments.

These tasks are carried out by The **BMAA Licensing and Instructor Administration Centre (LIAC)** and records are maintained at the BMAA Registered Office. The address is:

BMAA LIAC
Unit 6 Somerville Court
Banbury Business Park
Adderbury, Banbury
Oxfordshire
OX17 3SN Phone: 01869-338888 Email: general@bmaa.org

The records kept are in respect of:

Restricted Flying Instructors
Flying Instructors
Revalidation Examiners
Ground Examiners
Flying Examiners
Flying Instructor Course Instructors
Flying Instructor Examiners
Flying Instructor Course Schools



The **BMAA Training Committee** assists the BMAA in maintaining Pilot Licensing standards and makes recommendations to the BMAA Council on pilot licensing, testing and examination issues. The Training Committee consists of microlight Instructors and a representative from the microlight Panel of Examiners.

WEBSITE

The website of the BMAA (www.bmaa.org) details comprehensive information for microlight flying including information for pilot licensing and for instructors and examiners.

SHOP

Among other study materials the following can be obtained from the BMAA shop:

NPPL M Syllabus
FI(R) M Syllabus
The BMAA Instructor and Examiner Guide.

Section 2.2 DEFINITIONS and ABBREVIATIONS

1. Throughout this document the following Definitions and Abbreviations shall apply:
 - The male gender he/him/himself also implies the female gender she/her/herself for ease of reading (and to save paper).
 - Shall and Must are used for a mandatory requirement.
 - Expect and Should are used for strong obligation.
 - May is used to indicate discretion.
 - Fixed wing: An aircraft that is principally controlled by the use of aerodynamic surfaces.
 - Flexwing: An aircraft that is principally controlled by weight transfer.
 - Hybrid: An aircraft with a combination of control systems combining aerodynamic and weight transfer. Pilots of hybrid aircraft should hold a control type rating for the principle control type used in the aircraft.
 - Powered parachute: An aircraft that has a parachute/paraglider type wing that is principally controlled by altering the shape of the wing.
 - Control Type: either Fixed Wing, Flexwing or Powered Parachute.
 - In this document Flight Examiner (FE), Ground Examiner (GR) and Revalidation (R) Examiner refer to Examiners with Authorities that entitles them to exercise the privileges on Microlight Aircraft.
 - In this document Flying Instructor (FI) and Flying Instructor (Restricted) (FI(R)) refer to those who hold Ratings that entitle them to exercise these privileges on Microlight Aircraft. From the introduction of the ANO 2016 Assistant Flying Instructor (AFI) has been renamed Flight Instructor (Restricted) (FI (R)) and Ratings have become Certificates. Until such time as all documents are updated the terms have the same meaning.
 - BMAA LIAC: British Microlight Aircraft Association Licensing and Instructor Administration Centre.
 - NPPL M: NPPL (A) National Private Pilot's Licence (Aeroplanes) is the Licence; NPPL (A) Microlight is the licence containing the Microlight Class Rating. For brevity it is abbreviated to NPPL M.
 - ANO: CAP 393 'Air Navigation; the Order and the Regulations'.
 - CAP 804: 'Flight Crew Licensing: Mandatory Regulations, Policy & Guidance'.

(All references to ANO and CAP 804 refer to the latest versions and issues unless stated otherwise.)

Section 2.3 SOURCES OF INFORMATION

BRITISH MICROLIGHT AIRCRAFT ASSOCIATION

BMAA (LIAC)
Unit 6 Somerville Court
Banbury Business Park
Adderbury
Banbury
Oxfordshire
OX17 3SN

Phone: 01869 338888
Email: general@bmaa.org

Web site www.bmaa.org

Specific information for Instructors and Examiners can be found on the BMAA website in the menu *Information Library*. This information includes:

- The current Instructor and Examiner Guide edition and Amendment issue number
- Current Instructor and Examiner Bulletin issue number
- Instructor and Examiner application forms and, where applicable, test booking forms
- FIC Instructor and FIE lists and contact details
- Current Fees.

Details of Pilot Licensing including any credits against training and licence allowances available, the NPPL M syllabus, Licence application forms and Medical Forms can also be found in the *Information Library*.

CIVIL AVIATION AUTHORITY

Civil Aviation Authority
Aviation House
Gatwick Airport South
West Sussex RH6 0YR



Phone: 03300221500
Email: fclweb@caa.co.uk

www.caa.co.uk

Users to the CAA web site can subscribe to an email service which alerts the user to new or amended publications.

NATIONALPRIVATEPILOTSLICENCE.CO.UK

This web site provides information on the NPPL (A) including syllabi, applications and licence allowances.

www.nationalprivatepilotslicence.co.uk

NATS Aeronautical Information Service

The National Air Traffic Services is the UK's air navigation service provider. Registration is required to use the site, it is free of charge.

| <https://www.nats.aero>

SECTION 3

NPPL M LICENSING



Section 3.1 NPPL LICENSING and ADMINISTRATION

1 INTRODUCTION

- 1.1 It is a statutory requirement of the Air Navigation Order that prior to the issue or renewal of a flight crew licence the Authority is satisfied that the pilot concerned is fit to hold the licence applied for and that he has completed successfully all the requirements necessary for the grant or renewal of that licence.
- 1.2 The privileges of the licence can only be exercised once it is received and signed by the Holder.
- 1.3 The CAA require the application form (NPPL Form 102M) to be checked by the BMAA LIAC and, where applicable, a recommendation on Form NPPL 103M to be sent to the CAA complete with the current fee. The Pilot's Logbook and current Medical Certificate, if applicable, are returned to the applicant.

2 REFERENCES: ANO (CAP 393), CAP 804, BMAA and NPPL web site.

- 2.1 The requirements for the grant of the NPPL M are set out in the BMAA NPPL Microlight Syllabus.
- 2.2 The ANO lays down the basic licence privileges for the NPPL and the aircraft rating privileges.
- 2.3 The CAA website publishes the medical requirements.

3 LICENCE ISSUED WITHOUT OPERATIONAL LIMITATIONS REQUIREMENTS

- 3.1 Minimum total 25 hours including:
- 3.1.1 At least 10 hours as PIC/Solo including 3 hours solo navigational flying training.
- 3.1.2 At least 5 hours Navigational flying training, dual and solo, to include:
- two solo cross country flights of a minimum 40 NM each over different routes, to different destinations, which are not less than 15 NM from the point of departure, direct track;
- or
- one solo cross country flight of a minimum of 100 NM with two out landing which must be at least 15 NM from each other and the original take-off place measured in a direct line.
- 3.1.3 The balance of 25 hours should be dual training or solo flying.
- 3.2 There is a validity period on the solo and navigational flying training to qualify for the Licence issue. The qualifying solo and navigational flight training hours must have been flown within the 24 months preceding the date the BMAA receives the application.

4 LICENCE ISSUED WITH OPERATIONAL LIMITATIONS REQUIREMENTS

- 4.1 An overall experience of at least 15 hours, this total to include 7 hours PIC/Solo time.
- 4.2 The qualifying solo hours must have been flown within the 24 months preceding the date the BMAA receives the application.
- 4.3 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 and may not fly with less than 10 kilometres visibility
 - 3) The pilot may not fly further than 8 nautical miles from take-off.

5 EXAMINATIONS - Licence Issue With & Without Operational Requirements

- 5.1 The written ground examinations are valid within the 24 months period preceding the date the Licence application is received by the BMAA.
- 5.2 Aeroplanes Part 2 (oral) examination must be passed within 9 months preceding the date the Licence application is received by the BMAA. This exam is normally done at the time of the GST. The Oral examination can only be conducted by the holder of a current Flying Examiner authority valid for Microlight aircraft.

6 GENERAL SKILL TEST - Licence Issue With & Without Operational Requirements

- 6.1 All parts of the GST must be passed within a 28 day period and within the 9 months preceding the date the application is received by the BMAA. The GST is taken after completion of the exercises in the syllabus. The test is conducted by a current Flying Examiner.

7 REMOVAL OF OPERATIONAL LIMITATIONS

- 7.1 To remove Limitation 1 the holder must have completed at least 25 hours of total flying in microlights 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.
- 7.2 To remove Limitations 2 & 3 the holder must have completed at least 25 hours of total flying in microlights and at least 10 hours solo flying in microlights. The holder must have completed the navigation training requirements specified in flight Exercise 18 within the 24 month period immediately prior to applying to have the Limitations removed. Application to have Limitations

2& 3 removed must be made on the NPPL Microlight Application Form 102M and sent to the BMAA LIAC together with the current fee and accompanying documents.

8 NPPL APPLICATION FORM 102 M

- 8.1 Having checked all details as stated the complete application including form NPPL 102M, Medical certificate, Logbook, Proof of Identity and the fee should be sent to the BMAA LIAC.
- 8.2 The responsibility for ensuring the Form 102 M has been completed accurately is the responsibility of the Instructor/ Flying School

9 THE NPPL APPLICATION FORM 102 M CHECK LIST

- 9.1 The checklist is used by the BMAA LIAC to check applications and the Form 102M and details the content required for a successful application for NPPL with and without operational limitations and for removal of operational limitations. The checklist is available from the BMAA and NPPL websites.

10 FEES

- 10.1 The current fee is shown in Appendix 'A' and this is normally revised by 31st March each year.



11 PROOF OF IDENTITY

- 11.1 Copies of proof of identity must be in colour.
- 11.2 Copies of identification for the issue or amendment of a NPPL are to be certified, and signed, by the Flying Instructor 'I certify that this is a true copy of the identification provided'.
- 11.3 Acceptable identification: copy of passport showing photo, copy of birth certificate and copy of photo driving licence showing photo.

12 DOCUMENTS TO ACCOMPANY FORM 102 M

- Personal Flying Logbook
- Proof of Identity
- Medical Certificate (this must be the original document not a copy), or a copy of the Pilot's Medical Declaration application form.
- Fee. As set out in Appendix 'A'.
- NPPL M Licence if the application is for the removal of Operation Limitations.

- 13.1 A Single Seat Deregulated Aeroplane (SSDR) may not be used for commercial purposes. It is illegal for a school to hire an SSDR to its students to use for their supervised solo flying.

In the case of a student with their own SSDR an instructor can supervise the student flying that aircraft for their solo hours where the only payment made to the instructor/school is the normal fee for solo supervision on a student's own aircraft.



Section 3.2 ALLOWANCES AGAINST TRAINING

1 INTRODUCTION

- 1.1 Holders of the NPPL with other Class Ratings (SLMG, SSEA) or other Pilot Licences, current or lapsed, may apply for an NPPL with a Microlight Class Rating and credit may be given for previous flying and flying training experience.
- 1.2 For full details refer to the cross crediting documents on the BMAA and NPPL web sites.
- 1.3 For other licences not listed on these documents contact the BMAA LIAC.



Section 3.3 FLYING TRAINING AND TESTING IN AMATEUR BUILT MICROLIGHT AIRCRAFT

1 INTRODUCTION

- 1.1 There are restrictions on the use of amateur built microlights for remunerated pilot training. Instructors must make themselves familiar with the restrictions before they carry out any training in these aircraft. The restrictions relate to ownership and purposes of the flight.

2 OWNERS

- 2.1 An owner or part owner of an amateur built microlight aircraft may undertake remunerated flying training and testing for the grant of a Microlight Class Rating in his own aircraft; that is they can make payment to the instructor / examiner for their services.
- 2.2 The person undergoing the flying training or testing must be an owner of the aircraft. The minimum requirements for ownership are detailed in the Air Navigation Order (ANO). All aircraft owners must be registered with the CAA in accordance with the current ANO legislation.

3 NON OWNERS

- 3.1 A person who is not an owner may not take remunerated flight training in an amateur built microlight for the grant of a Microlight Class Rating unless they already hold a Pilot's Licence.



Section 3.4 TRAINING OUTSIDE THE UK IN FOREIGN REGISTERED MICROLIGHT AIRCRAFT

1 INTRODUCTION

1.1 An Instructor can train a student in a foreign registered microlight aircraft for the grant of a UK NPPL M rating outside the UK provided that:

1) it is being used legally in the country of registration

and

2) it complies with the UK microlight aircraft definition in force at the time. See ANO for details.



Section 3.5 LOGBOOKS, TRAINING ENTRIES AND CERTIFICATION

1 INTRODUCTION

- 1.1 It is a legal requirement under the Air Navigation Order (ANO) that the pilot of an aircraft registered in the United Kingdom must keep a personal flying logbook and record certain items in it. The legal requirement also applies to any person flying for the purpose of qualifying for the grant or renewal of a licence.

2 PARTICULARS TO BE RECORDED

- 2.1 The name and address of the holder of the logbook
- 2.2 Particulars of the holder's licence (if any) to act as a member of the flight crew of an aircraft
- 2.3 The name and address of his aviation employer (if any).
- 2.4 Particulars of each flight during which the holder of the logbook acted either as a member of the flight crew of an aircraft or for the purpose of qualifying for the grant or renewal of a licence under the Order, as the case may be, shall be recorded in the logbook at the end of each flight or as soon thereafter as is reasonably practicable, including:
- 2.5 The date, the places at which the holder embarked on and disembarked from the aircraft and the time spent during the course of a flight when he was acting in either capacity
- The type and registration marks of the aircraft
 - The capacity in which the holder acted in flight
 - Particulars of any special conditions under which the flight was conducted
 - Particulars of any test / examination undertaken whilst in flight
 - In the case of duplicated entries 'dittos' should be avoided and entries made in full.

3 FLIGHT TRAINING ENTRIES

3.1 STUDENT'S LOGBOOK

- 3.1.1 The student's logbook must include in the remarks column the training exercises taught during each flight. It is considered best practice for the instructor to sign against each logbook entry at the time when the entry is made. Alongside their first signature should be their CAA reference number.
- 3.1.2 The logbook is the property of the student and should be retained by them as it forms their personal training record.
- 3.1.3 At the end of training and prior to applying for a NPPL the Student's logbook must include all the exercises from the NPPL Microlight Syllabus as appropriate for the application.

- 3.2 Although some exercises are not flight exercises they form part of the syllabus and without this detail in the logbook it is not possible to confirm that the course has been completed.
- 3.3 NPPL (A) M Ex 18. For a training flight to be a Navigational flight exercise (Ex 18) and the flying time allowed towards the Navigation requirements in the NPPL Syllabus it must be pre-planned and flown along the pre-determined route.
- 3.3.1 Ex 18 should be entered in the logbook remarks section together with details of the turning points and/or the destinations that were pre planned.
- 3.3.2 In the case of a qualifying cross country (QXC) flight the total distance of the flight should be entered.
- 3.3.3 All out landings must be logged correctly as a separate flight. Therefore it is usual for the QXC to be logged as at least two flights because there is a compulsory out landing, and most training flights will return to the airfield of first departure.
- 3.3.4 The logbook entries for Ex 18 apply to both Dual and Solo navigation training flights.
- 3.4 NPPL (A) M Ex 16c. Ex 16c covers the principle of operating at minimum level and is applicable to training for the NPPL both with and without operational limitations. It should not be logged as navigation flight training. Ex 18c is the practical use of operating at minimum levels during a navigation exercise, Ex 18b, and flight time spent completing Ex 18c should be logged with Ex 18b and included in the total flight time allocated towards the Ex 18 navigation requirements.

3.5 INSTRUCTOR'S LOGBOOK

- 3.5.1 The instructor's logbook should, at the minimum, indicate in the remarks column the name of the student under training. It is beneficial to include the exercises flown with the student, especially when student records are held by a Flying School and not by the instructor himself.

3.6 DUAL TRAINING FLIGHTS

- 3.6.1 Otherwise known as training flights are completed not only for the grant of a licence or rating but may be for Control Type conversion, Differences Training, refresher flying, flight with an instructor for licence revalidation or new area familiarisation.
- 3.6.2 When the dual flight is being flown for the purpose of gaining, or revalidating a licence or rating it must be conducted by a current FI (R) or FI.
- 3.6.3 For all Dual Training Flights the name of the instructor must appear as Captain in the logbook as the pilot in command of the flight. The holder's operating capacity should then be logged as PUT and the flight time entered in the dual column. In the remarks column there should be an indication of content, what exercises were covered on the flight together with cross country turning points if the flight was a cross country flight.

3.7 STUDENT PILOT IN COMMAND FLIGHTS

- 3.7.1 Otherwise known as solo flights i.e. the pilot does not have an instructor with him in the aeroplane or anyone else before licence issue.
- 3.7.2 The pilot should enter his own name or "self" into the captain column. The holder's operating capacity column should read P1 or PIC and the flight time should be entered into the PIC column. The remarks column should indicate the content of the flight.

3.7.3 Before a student completes his first solo flight, the flight must be authorised by a FI who will assess the student's ability. The first solo flight cannot be authorised by a FI (R).

3.7.4 The successful GST flight is logged as PI/S by the student. The captain's name should be that of the examiner. This flight time can be counted towards the minimum requirements for the licence application, but does not constitute PIC experience time for the minimum solo requirements.

4 CERTIFICATION OF LOGBOOKS

4.1 There are certain conditions when an examiner or an instructor may need to certify logbooks.

4.2 NPPL APPLICATION

4.2.1 At the end of a course of training for the licence the Chief Flying Instructor (or his representative) should annotate the logbook with words similar to "Logbook entries from..... to..... certified correct." followed by the signature of the Chief Flying Instructor, the letters CFI, the name of the Flying club and date.

4.3 REMOVING OPERATIONAL LIMITATIONS

4.3.1 Limitation 1 only. Flight Examiner to certify in holder's logbook the qualifying hours to remove the Limitation that restricts passenger carrying.

4.3.2 Limitation 1 (if not already removed), 2 and 3. CFI to certify logbook entries qualifying for removal of Operational Limitations prior to application being sent to the BMAA LIAC. Note: Limitations 2 and 3 are not removed until a new licence document has been issued by the CAA and signed by the holder.

4.4 GENERAL SKILLS TESTS

4.4.1 The candidate's logbook must be completed and entries must include details of the flight, the result of the test and be signed by the flight examiner, including the examiner's authorisation number.

4.5 DIFFERENCES TRAINING

4.5.1 Differences training to be recorded in the holder's personal flying logbook and endorsed and signed by the instructor conducting the training. The instructor must specify the Control Type (e.g. Flexwing to Fixed Wing) or other aspect to which the training relates.

4.5.2 Example logbook entry "Differences Training Flexwing to Fixed Wing completed By A.N.Instructor *A.N.Instructor* CAA No 123456A".

4.6 THE FLIGHT INSTRUCTOR (RESTRICTED) COURSE COMPLETION

4.6.1 At the end of FI (R) course the FIC Instructor should annotate the logbook with words similar to "FIC Logbook entries from..... tocertified correct." followed by the signature of the FIC Instructor, the name of the approved Flight Training Organisation and date.



SECTION 4

NPPL M TRAINING



Section 4.1 TEACHING and TRAINING

THE REQUIREMENTS FOR A SUCCESSFUL COURSE OF FLIGHT AND GROUND INSTRUCTION.

1) REQUIRES A GOOD INSTRUCTOR WITH KNOWLEDGE AND SKILL.

The Instructor requires an understanding of the aim of the course which is to teach a student pilot to be able to fly a microlight aircraft, both in terms of handling and procedure, in a safe and confident manner to a standard which will enable the student to pass a GST.

Passing the GST is not the final goal it is just a measure of the ability of the new pilot.

The Instructor must himself be able to fly the aircraft in such a manner and be skilled in passing on this ability to the student. It is not good enough to just be able to do it, you must be able to teach it.

There is no such thing as a 'Flying Only Instructor', the Instructor must be knowledgeable in all the associated ground subjects and be able to pass on that knowledge to his student as well. The student will then be able to pass the ground examinations, which again are just measure of knowledge level not the final goal.

2) REQUIRES AN UNDERSTANDING OF THE IMPORTANCE OF LESSON PLANNING AND THE TEACHING ENVIRONMENT.

LESSON PLANNING



The Instructor must know at the start of each lesson what it is intended to cover and how it will be structured. There are a few important principles to remember.

THE TEACHING ENVIRONMENT

Our studies in Human Performance and Limitations tell us that it is more difficult for us to absorb new information when our stress levels are high. It is equally difficult to absorb information if our stress levels are too low, for example, in the extreme, if we are asleep.

Stress is not just about worry it is also about our comfort and concentration level. It is not easy to concentrate when you are very cold, when there is a high noise level in the area, when there are other distractions.

For a high level of concentration and understanding it is best to minimise stress and distractions in the teaching environment. For example in the classroom the temperature should be comfortable, the noise level low, the lighting adequate and the Instructor informative. In the aircraft the environment is less easy to control and in the main more stressful with more distractions.

Because the stress level is high in the aircraft and the environment less well controlled it is very difficult pass on complex information to the student. New information is more easily understood if visual aids are used for explanation, along with a verbal description, than just by description alone. It is easier to put visual information to the student in the controlled conditions of a classroom than in the aircraft hence the pre-flight briefing.

The pre-flight brief is an invaluable part of each flight exercise. Just as it is not time effective to try to teach advanced skills to a student who has not mastered basic handling, it is a waste

of time in the air trying to introduce new concepts which have not been explained prior to the flight.

A pre-flight brief will usually take between ten and twenty minutes depending on the exercise to be flown. The pre-flight explanations for some exercises, for example forced landing and circuit procedures, are best given prior to the lesson time devoted to the flight as they may take much longer and, as they cannot be shortened and still cover the subject in full, will place an undue load on the student's concentration levels.

Guidance for the conduct and content of a pre-flight brief is given in Section 4.2.

THE LESSON STRUCTURE

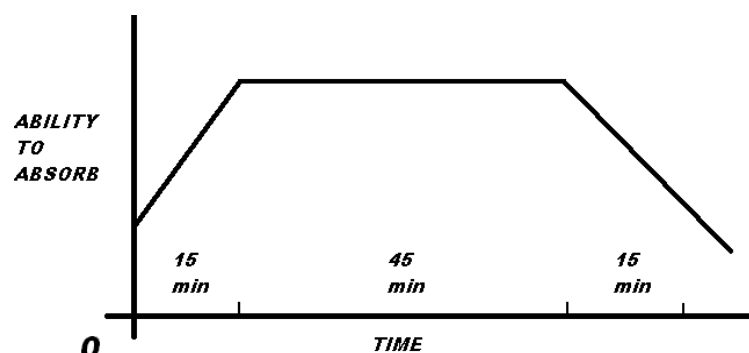
Each lesson during the course of training for the Microlight Pilot's Licence must have a structure. Like a book it has a beginning, middle and an end.

The beginning should be an introduction to the rest of the lesson and tends to use the time when the student's concentration level may not be 100%. It can be looked on as a settling in period. For a classroom session it would be the recap on the past lessons and the introduction of the new topic to be addressed, in a flight exercise it would be the climb away from the field to the training area or a settling down circuit prior to a demonstration of, for example, forced landing after take-off.

The middle of the lesson time is when the detailed information and practice is addressed. The student is now mentally committed to the lesson and in the best state of mind to learn complex detail. The time span of this section varies with the student, and the task, but is usually in the order of 45 minutes.

The end of the lesson should come before the student has reached a point of overload and is therefore unable to retain more information, and even perhaps not retain the detail that a short while before he had managed to grasp. Not only will further detail be wasted but it can have a detrimental effect on the confidence of the student. In flight a return to the airfield with no new information needing to be absorbed helps to relax the student prior to the end of the lesson. In the classroom a recap on the material covered and a pointer to the content of the next lesson will round off the session well.

A graph of the student's ability to learn over a time span may look like this:



3) REQUIRES A SOUND STRUCTURE.

Learning to fly is a complex task. The requirements of the training course have been laid down in the NPPL Microlight Syllabus and have been ordered in a reasonably logical way to use the principle of starting with learning basic skills and then using those basic skills to achieve more complex tasks. A parallel can be found in driving tuition where the learner driver is taught the use of the basic controls, gears, pedals, steering wheel etc. before trying to master the three point turn and emergency stop.

It is like creating a building. Without a sound foundation you cannot expect the walls to stay up and the roof to stay on when the weather gets a bit exciting and the building comes under some stress.

The student pilot needs to be well grounded in the basic handling and procedural skills before he is asked to attempt more demanding tasks. It is sometimes the case that the Instructor seems impatient to press on before the student has really mastered the basic skills and the result can often be totally unproductive time trying to fly complex manoeuvres without the basic skill to achieve it.

Remember that it is always easier to teach the basic skills when the student is not under stress.

For Example:

1. Teaching basic use of each of the controls before expecting the student to combine controls.
2. Teach straight and level flight before expecting it in the circuit
3. Teach climbing and descending before you can expect climb out and approaches.
4. Teach basic turning before expecting to fly circuit patterns.

Section 4.2 GUIDANCE TO INSTRUCTORS ON THE INTERPRETATION AND PRESENTATION OF THE NPPL MICROLIGHT SYLLABUS

1. INTRODUCTION

- 1.1 The 'Panel' of Microlight Flying Instructor Examiners felt it necessary to provide a series of recommendations for flying instructors concerning the interpretation and presentation of the syllabus. To achieve this aim it was decided to review each exercise in the syllabus and provide advice in the areas where it was felt clarification was required.
- 1.2 The 'Panel' has used its collective experience as instructors and examiners to produce a series of guidelines which are primarily directed at instructors giving NPPL M instruction. The guidance given, however, is applicable to the presentation of exercises at any level and in particular provides an indication of what is expected, from an instructor, during an Instructor Test.
- 1.3 The following guidance applies to both Flexwing and Fixed Wing aircraft, in areas where differences exist between the two types a distinction is made and appropriate relevant information is included.

2. GENERAL GUIDANCE FOR INSTRUCTION - NORMAL OPERATING PROCEDURES

- 2.1 The following guidelines are included to assist in the standardisation of the operation of microlight aircraft in the training environment.

2.2 SYLLABUS

- 2.2.1 It is a requirement that all training for the issue of NPPL is conducted in accordance with a syllabus approved by the CAA. The "BMAA Syllabus of Training for the National Private Pilot's Licence for Microlights" is recognised by the CAA. It is recommended that every student is in possession of a personal copy of the syllabus.
- 2.2.2 When components of flying exercises and ground school elements are completed it is beneficial to both the student and instructor to note this on the syllabus using the boxes adjacent to those subjects. This is not an alternative to the student's training records.

2.3 AIRCRAFT FLIGHT MANUALS

- 2.3.1 It is the aim of this guide to promote correct and, where possible, standardised interpretation of the flying exercises included in the syllabus. Although each type of aircraft has differences in the subtleties of its handling characteristics, the principle of teaching standardised handling techniques is of vital importance.
- 2.3.2 The majority of microlight aircraft used in the instructional role are certified to a common airworthiness specification and therefore are required to display conventional handling characteristics.
- 2.3.3 The aircraft flight manual constitutes a part of the aircraft certification and as such the aircraft must be operated in accordance with this document. Instructors should be mindful, however, that the handling sections of flight manuals are not necessarily prepared for the flying training environment. Individual manuals cover aircraft handling in varying degrees of depth and accuracy, in some cases over simplification and inconsistent use of terminology

make them of only limited use.

2.3.4 Instructors should aim, wherever possible, to teach standardised handling techniques and not interpret imprecise or incomplete flight manuals as specifying alternative techniques.

2.3.5 In cases where a manual unequivocally indicates a 'non-standard' handling technique it must, of course, be taught to the student. Instructors must, however, explain the requirement for the use of a 'non-standard' technique in relation to the particular aircraft type. In order to ensure that the student is equipped to fly other types of aircraft, details of the standard handling technique must be provided by the instructor.

2.4 CARRIAGE OF CHARTS

2.4.1 The pilot should ensure that a current aeronautical chart, covering the expected area of operation, is available on every flight. The chart may be an electronic one in a GPS enabled moving map device, in which case a paper back-up copy should also be available.

2.5 TRAINING RECORDS

2.5.1 It is a requirement that training records are maintained in respect of a student's flying and ground training. It should be possible, by examination of the records, to confirm that the syllabus has been satisfactorily completed. Training records are to be kept for two years following completion of training or the date of last entry.

2.5.2 Student's logbooks should be completed as detailed in Section 3.5 subsection 3.1 (STUDENT'S LOGBOOK)

2.6 MAXIMUM FLIGHT TIMES FOR INSTRUCTORS

2.6.1 There is a maximum applied to the number of instructional hours that may be flown in a specified period of time by an instructor. Instructors are limited to 100 hours in 28 days and 900 hours in 12 months. Full details are in the ANO 'Flight times – responsibilities of flight crew'.

2.7 FLYING ORDER BOOK

2.7.1 The Flying Order Book is a valuable means of disseminating operational and administrative information within a Flying Training Organisation (FTO). Guidance on the compilation and content of a Flying Order Book is provided in Appendix B.

2.8 INTEGRATION OF FLIGHT AND GROUND TRAINING

2.8.1 Flight and ground training should be integrated where practical so that one supports the other.

2.9 CHECKS

2.9.1 The use of relevant checks at the appropriate phase of flight is a valuable and necessary aspect of the safe operation of microlight aircraft. Checks can be conducted in accordance with either a written checklist or mnemonic.

2.9.2 Whilst there is a considerable scope for the precise content of individual checks, there is a clear requirement for checks at specific phases during a flight. Checks which should be included are:

- PRE-START
- POST-START
- TAXI
- POWER
- PRE-TAKE-OFF
- DURING AND POST TAKE-OFF
- PRE-STALLING/SPINNING/ADVANCED MANOEUVRING
- ENROUTE
- AIRFIELD APPROACH
- PRE-LANDING
- ENGINE SHUTDOWN
- EMERGENCY SHUTDOWN

2.9.3 Individual aircraft manuals should give guidance on the content of checks appropriate to the specific type. A suggested checklist is provided in Appendix C of the Guide.

2.10 ALTIMETER SETTING PROCEDURES

2.10.1 The altimeter should be set as follows:

- 1) When the aircraft is to be operated within the airfield circuit pattern (or ATZ, if applicable) the altimeter should be set to QFE.
- 2) When the aircraft is leaving the airfield circuit pattern (or ATZ, if applicable) the altimeter should be set to QNH. It is normally desirable to set the altimeter to QNH prior to take-off.
- 3) When the aircraft is approaching the airfield the altimeter will be set to QFE prior to joining the circuit pattern.
- 4) If desired, training organisations may choose to conduct all operations with the altimeter set to QNH.

2.11 RECOMMENDED MINIMUM HEIGHTS FOR STALLING AND ADVANCED MANOEUVRING EXERCISES

2.11.1 The minimum height (vertical distance above surface level) at which it is safe to cover these exercises is primarily dictated by the characteristics of the type of aircraft being flown. The following values are intended to give guidance on the minimum heights at which recovery should be completed and the aircraft established in normal flight:

- 1) 1000ft for manoeuvres in straight or turning flight in types which do not exhibit a significant wing drop during a stall.
- 2) 2000ft for types which exhibit a significant wing drop at the stall.
- 3) 3000ft for incipient or developed spin manoeuvres in aircraft approved for spin manoeuvres.

2.11.2 The instructor may demonstrate a stall below these heights if required.

2.12 NPPL (M) COURSE REQUIREMENTS

- 2.12.1 FTO's providing FI(R) Courses must meet minimum requirements in order to obtain approval. Many of these requirements are also relevant and appropriate for a FTO providing NPPL Courses. In order to provide guidance to all FTOs and instructors the "Minimum Requirements for Approval of FI(R) Courses" document can be found in the Instructor Training Section, Section 8.

3. CONTENT AND PLANNING OF A DETAIL OF FLIGHT INSTRUCTION

3.1 PRE-FLIGHT BRIEFING

3.1.1 GENERAL

- 3.1.1.1 A logical well-structured pre-flight briefing (PFB) invariably results in the flight sequence displaying similar qualities. Conversely, a PFB which fails to address the important aspects of the exercise in sufficient depth and accuracy will produce a flight sequence which is of significantly reduced impact and value to the student. The briefing not only prepares the student for the flight exercises but also the instructor.
- 3.1.1.2 The use of a chalk/white board to present the overall structure of the briefing and the use of diagrams and models, where possible, is of great importance.
- 3.1.1.3 It may be appropriate to present parts of some of the briefings alongside the aircraft.

3.1.2 CONTENT OF THE PFB

- 3.1.2.1 It is important that the correct emphasis is given to particular elements of the briefing in order that the student has a clear impression of the relative importance of the various aspects of the exercise.
- 3.1.2.2 The inclusion of theory in the PFB should be considered with great care. The correct place for the associated principle of flight elements to an exercise should be during ground school. As a general guide the theory element of the PFB should be limited to the minimum required for the student's appreciation of the flying exercise. Ideally the instructor will only need to confirm that the student has the appropriate level of theoretical knowledge to complete the exercise. Above all the PFB is a period of ground instruction essentially concerned with the practicalities of the air sequence about to be flown.
- 3.1.2.3 There is no precise recommended length of time for a PFB although the instructor must consider that if overlong the student may become mentally overloaded before the flight and if too short there may be insufficient time for the required information to be presented.
- 3.1.2.4 The use of notes, by the instructor, during the presentation of the PFB is encouraged.
- 3.1.2.5 The following lesson plan is offered as a general guide to the form which the PFB should take and the elements which should be covered:
- 1) **TITLE.** The name of the exercise should be clearly stated and be referenced to the previous exercise covered.

- 2) **AIM.** The aim of the exercise should be positively stated and fully explained.
- 3) **THEORY.** It should be established that the student's knowledge of the relevant theory is adequate to continue with the exercise.
- 4) **METHOD.** A full description of the air sequence and precise details of aircraft handling techniques and procedures to be employed.
- 5) **AIRMANSHIP.** Any airmanship considerations being introduced for the first time or requiring re-emphasis should be discussed in this section.
- 6) **SUMMARY.** This should include the actual order of events, student participation, aircraft to be used and any unserviceability, operational and weather considerations, common problems that the student may experience and any other details relating to the conduct of the flight.

3.2 THE FLIGHT EXERCISES

3.2.1 CONDUCTING THE FLIGHT EXERCISE

- 3.2.1.1 The instructor should aim to allow the student to fly the aircraft as much as is usefully possible. Whenever the instructor is flying the aircraft the student should be encouraged to 'follow through' on the controls by gently resting his hands and feet on the controls. A formal method of passing control of the aircraft between instructor and student should be used at all times.

- 3.2.1.2 The instructor should ensure that each element within the exercise is covered as follows:

3.2.2 DEMONSTRATION

- 3.2.2.1 The instructor will fly the aircraft whilst describing the control inputs and the effect these have on the aircraft. The instructor should aim to precisely synchronise his 'patter' with the flight sequence.
- 3.2.2.2 The following terms should be used to describe the movement of the primary controls during the giving of flight instruction.
- 3.2.2.3 Flexwing Aircraft

- 1) Pitch control - "bar back" to lower the nose or "bar forward" to raise the nose.
- 2) Roll control - It is very difficult to arrive at a single standard term to describe this control input which is appropriate for all situations. Using the word "right" to describe a control input which results in a roll to the left, e.g. "move the bar to the right" is potentially confusing and is not acceptable. To avoid this problem, more suitable examples of terminology to describe initiating a roll to the left would be "pull the left wing down" or "pull the bar from the left".
- 3) Power control - "increase power" to increase the throttle setting or "reduce power" to decrease the throttle setting.

3.2.2.4 Fixed wing Aircraft

- 1) Pitch control - "stick forward" to lower the nose or "stick back" to raise the nose.
- 2) Roll control - "stick left" to lower the left wing and roll to the left or "stick right" to lower the right wing and roll to the right.
- 3) Yaw control - "Left rudder" to yaw the nose of the aircraft to the left or "right rudder" to yaw the nose to the right.
- 4) Power control - "increase power" to increase the throttle setting or "reduce power" to decrease the throttle setting.

3.2.3 ASSISTED PRACTICE

- 3.2.3.1 The student will take control of the aircraft and will repeat the manoeuvre whilst the instructor provides sufficient verbal guidance for the successful completion of the sequence. The instructor should aim to correct the student by use of verbal inputs rather than by taking control. The instructor should only take control to ensure that either his or the aircraft's limits are not exceeded or that the student's confidence is not undermined.

3.2.4 STUDENT PRACTICE

- 3.2.4.1 The student should repeat the manoeuvre without any (or only minimal) input from the instructor. The instructor should assess the student's performance and thus his understanding of the exercise. Minor errors are best addressed by further student practice. If major faults occur the instructor should take control whilst he provides detailed advice to the student. In the event of significant errors consideration should be given to re-demonstrating the manoeuvre prior to further student practice.

3.2.5 POST FLIGHT DEBRIEFINGS

- 3.2.5.1 It is important for the instructor to complete a detail of flight instruction with a positive review of the student's performance. During the debriefing the student should be encouraged to analyse his own performance. The debriefing should be completed in a positive manner and should target the aspects of the student's performance which require most urgent correction. The debriefing should result in the student being cognisant of his strong and weak areas. In addition the student should be provided with advice on how to improve the weak areas.
- 3.2.5.2 Debriefing should include an indication of the content of the next lesson and advice on preparation.

4. INTERPRETATION OF THE FLIGHT EXERCISES

4.1 AIR EXPERIENCE - EX 1

- 4.1.1 Some aircraft types provide reduced ease of control or limited access to the secondary controls from the seat normally occupied by the instructor. When operating such types it is reasonable for the student to be seated in the instructor's position for this exercise. All other exercises in the syllabus, however, should be flown with the student occupying the 'first pilot's seat'.

4.2 AIRCRAFT FAMILIARISATION & PREPARATION FOR FLIGHT- EX 2 and 3

4.2.1 These exercises include a considerable number of elements, many of which are not essential to a student at the very start of his flying training. The depth to which the instructor elects to cover these exercises during the first session will depend primarily upon the student's previous flying experience.

4.2.2 It is necessary, however, to cover all the elements within the early sessions. The instructor must ensure, in all cases, that before the first flight the following items are covered:

- 1) explanation of the aircraft
- 2) operation of the flying and engine controls
- 3) emergency drills and safety procedures
- 4) student comfort

4.3 EFFECTS OF CONTROLS - EX 4

4.3.1 Although the stated aim of this exercise is for the student to understand how each control affects the aircraft in flight, instructors are reminded that this exercise should be flown to the standard pattern, with demonstration, assisted practice and student practice of each element.

4.3.2 On more complex aircraft consideration should be given to covering this exercise in more than one session.

4.3.3 The following aspects of this exercise should be stressed:

- 1) Both the primary and secondary effects of each control should be clearly demonstrated.
- 2) The tendency for the aircraft to continue to roll whilst the control is displaced from its central position should be highlighted.
- 3) The long term effect of a movement of the pitch control is a change in airspeed, whilst the first effect will be a change in attitude affecting height or rate of climb or descent.
- 4) The long term effect of a change in power is a change in height, whilst the first effect will be a change in airspeed.
- 5) The use of the horizon to assess aircraft attitude should be emphasised and over reliance on instruments should be discouraged, although they should be included in the student's visual scan.

4.4 TAXIING - EX 5

4.4.1 When describing the use of the nose wheel steering control of Flexwing aircraft instructors should ensure that the terminology used is clear and not open to misunderstanding. If the student is being instructed to turn the aircraft to the right the words used should not direct the student to "push the left foot forward", as the instruction includes the word left yet the aircraft turns to the right. An alternative would be "turn the wheel to the right to turn right".

4.4.2 The elements included in taxiing will normally be covered throughout the first phase of the syllabus at appropriate times. The correct placement of flying controls when taxiing with different wind conditions should be emphasised.

4.4.3 The exercise is not usually completed in a dedicated session of training and cannot be logged as the sole flight exercise.

4.5 STRAIGHT AND LEVEL FLIGHT - EX 6

4.5.1 This exercise appears to be relatively simple with the result that some instructors do not fully explore all aspects of it. In common with many of the early 'general handling' exercises in the syllabus it is fairly demanding to teach well.

4.5.2 This exercise should include attaining and maintaining straight (i.e. constant heading) and level (i.e. constant altitude) flight at various airspeeds and at selected power settings. Straight flight should include flight with and without drift by reference to ground features and compass. Level flight should include flight at speeds above and below any fixed trim speed. Flight at speeds below fixed trim (hands off trim) should not be confused with flight at Critically Slow Airspeed Ex 10a. Where an aircraft is fitted with an in-flight trim control it should be used. This exercise also provides the opportunity to practice using the hand throttle where fitted to Flexwing aircraft.

4.5.3 Difference between Fixed Wing aircraft and Flexwing aircraft

4.5.3.1 Pitch inputs change attitude on both Fixed Wing aircraft and Flexwing aircraft, but with Flexwing aircraft the nose attitude in relation to the horizon remains nearly constant with different airspeeds, in a Fixed Wing aircraft the nose attitude in relation to the horizon changes with different airspeed.

4.5.4 In order to achieve the aim it is ultimately necessary for the student to have complete control of the aircraft. During the effects of controls exercise and to a limited extent during the first part of this exercise, the instructor will take charge of one or more of the aircraft controls in order to allow the student to concentrate on one aspect at a time. Instructors should not find it necessary, however, to use this technique in subsequent exercises. The student should have complete control of the aircraft at any time he is flying the aircraft, this ensures the maximum possible practice in co-ordinating the use of all the aircraft controls simultaneously.

4.5.5 A valuable technique to ensure that the student has fully understood this exercise is for the instructor to 'disturb' the aircraft and for the student to 'return' the aircraft to the required condition.

4.6 BASIC CLIMBING AND DESCENDING - EX 7

4.6.1 These exercises are usually combined in order to maximise the value of the time spent in the air. Many of the principles are common to both exercises.

4.6.2 The correct emphasis should be placed on power and attitude combining to produce the required aircraft performance. It must be appreciated that the term 'attitude' does not relate directly to stick or bar position or pressure but to the attitude of the aircraft in relation to the natural horizon.

- 4.6.3 When operating aircraft which are not equipped with in-flight adjustable pitch trim devices, the 'T' for trim in the acronym 'PAT' or 'APT' should be interpreted as meaning adjust.
- 4.6.4 During the descending exercise it is suggested that the transition from a glide to a full power climb is covered in preparation for the missed approach procedure. The transition from a climb to a descent should also be covered.

4.7 PERFORMANCE CLIMBING AND DESCENDING - EX 8

- 4.7.1 The principles concerning operating the aircraft at maximum angle of climb speed and maximum rate of climb speed must be fully understood. It should be appreciated that many microlight aircraft have only a small difference between the two speeds and that there are dangers associated with operating the aircraft at the maximum angle of climb speed near to the ground.
- 4.7.2 This exercise provides the opportunity to practice using flaps where fitted to Fixed Wing aircraft. Not all microlight aircraft are equipped with aerodynamic devices (e.g. flaps or airbrakes) to control the rate and/or angle of descent of the aircraft. A useful technique to degrade the glide angle during a power off descent, however, is to significantly lower the nose of the aircraft for a limited period. Many Flexwing aircraft and some Fixed Wing aircraft will allow a considerable degradation of the glide angle for only a small increase of airspeed. This technique can be invaluable during the latter stages of a landing approach, without power, in order to achieve an accurate touch down point.
- 4.7.3 During the descending exercise it is suggested that the transition from a glide to a full power climb is covered in preparation for the missed approach procedure. The transition from a climb to a descent should also be covered. The transition from a descent using flaps to full power climb should be practised in the case of Fixed Wing aircraft fitted with flaps.

4.8 LEVEL TURNS UP TO 30° OF BANK - EX 9A

- 4.8.1 This exercise consists of two primary aspects:
- Handling skills required to co-ordinate the aircraft controls.
 - Judgement and anticipation to achieve the heading change.
- 4.8.2 Instructors may find it useful to allow students to initially practice continuous turns (subject to wake turbulence considerations). This technique allows the student to fully appreciate the co-ordination required between all controls to maintain a constant turn and highlights any mistakes.
- 4.8.3 The concept of turning on to predetermined headings using ground features and the compass can be introduced once the handling aspects have been covered.
- 4.8.4 During a co-ordinated level turn the requirement to increase the angle of attack will be accompanied by an increase in drag and consequent reduction in airspeed. In turns at moderate angles of bank (up to 30°) the speed loss may be acceptably small and there may be no practical requirement to increase power - this is dependent on type.
- 4.8.5 The pitch co-ordination required during medium turns on some microlight aircraft is not significant. In order to clearly demonstrate the need for the pitch co-ordination during the

turn the instructor may demonstrate a turn at greater angles of bank.

- 4.8.6 The changing perception of the horizon on types with 'side by side' seating, during left and right turns, should be demonstrated.
- 4.8.7 The concept of using a variable angle of bank to produce the required radius of turn in order to achieve alignment with a ground feature should be introduced. These manoeuvres will prepare the student for turns within the circuit.

4.9 CLIMBING AND DESCENDING TURNS UP TO 30° OF BANK - EX 9B

- 4.9.1 It is important that the instructor demonstrates the tendency of the aircraft to overbank in a climbing turn and under-bank in a descending turn and the consequent need to "hold off" or "hold on" the bank angle.
- 4.9.2 The requirement to limit the bank angle to achieve best performance during climbing turns should be stressed. The need to maintain a suitable airspeed during climbing and descending turns should be highlighted.

4.9.3 Sideslipping turns

- 4.9.3.1 The true sideslipping turn can only be flown on Fixed Wing types. The manoeuvre allows the aircraft to lose height more rapidly during a turn without an increase in airspeed. The side-slipping turn is accomplished by applying rudder in the opposite direction to the turn whilst aileron is used to maintain the angle of bank. During the turn there will be a tendency for the nose of the aircraft to pitch down which should be countered with back pressure on the stick to prevent an undesired increase in airspeed. As the aircraft is out of balance it is important that a safe airspeed is maintained throughout the manoeuvre.

4.10 FLIGHT AT CRITICALLY SLOW AIRSPEED - EX 10A

- 4.10.1 This exercise is frequently not developed to its full potential. The critically slow airspeed exercise gives the student the opportunity to fly the aircraft at speeds just above the stalling speed for a prolonged period. During the stalling exercise the time spent in this regime of flight is necessarily brief and transitory. In effect the aircraft is approaching the incipient stage of the stall throughout the critically slow airspeed exercise.
- 4.10.2 During the critically slow airspeed exercise the handling characteristics of the aircraft should be explored at the appropriate speeds through a variety of level, climbing, descending, straight and turning manoeuvres. The use of power and the appropriate co-ordination with pitch control and where applicable, the maintenance of balanced flight, are important aspects of this exercise.
- 4.10.3 Aircraft which are fitted with variable trim devices to relieve pitch control forces, in flight, should not be trimmed to the selected critically slow airspeed speed. This is likely to create an unrealistic configuration which is unlikely to occur during the 'normal' operation of the aircraft.
- 4.10.4 Throughout the critically slow airspeed exercise the instructor should point out all the indications present during this regime of flight. These indications may include:
 - Angle of Attack. Fixed Wing: High nose attitude for mode of flight
 - Position and pressure of the bar/ stick in pitch

- Feel and responsiveness of the flight controls
 - Difficulty in maintaining wings level
 - Reduction of inherent stability of aircraft
 - Feel and sound of the airflow
 - Low indicated airspeed
- 4.10.5 The instructor must stress, that it is not necessary for all of the indications to be experienced when the aircraft is operating in the critically slow airspeed regime. The aircraft can, for example, be flying close to the stall at any attitude with the pitch control in any position.
- 4.10.6 This exercise should equip the student with the ability to instinctively recognise that the aircraft has entered the critically slow airspeed regime of flight, control the aircraft through the situation and recover without reaching the incipient stall or developed stall with minimum height loss.
- 4.10.7 The incipient stall is the regime of flight immediately preceding the developed stall. This can be defined, for the purposes of flying instruction, as the occurrence of the first incipient stall symptom and prior to the downward rotation of the nose of the aircraft, due to the stability of the aircraft.
- 4.10.8 The incipient stall indications will be preceded by the slow flight indications. The indications of the incipient stall are:
- Stall warning (from devices).
 - Aerodynamic buffet
 - + 2 knots above the stall in the event of no buffet or stall warning
- 4.10.9 The first recoveries from the incipient stall should normally be accomplished by the use of pitch control only in order to establish the basic principle of the recovery action.
- 4.11 STALLING - EX 10B**
- 4.11.1 The purpose of this exercise is to teach the student to recognise the indications of an approaching stall and to recover (i.e. regain full control) from the incipient or developed stall with minimum height loss.
- 4.11.2 The student must be left in no doubt that the reason an aircraft stalls is due to the actual angle of attack exceeding the critical angle at which the wing stalls. Due to the absence of any method of directly measuring angle of attack it is necessary to rely upon the indications accompanying an incipient or developed stall to recognise the condition.
- 4.11.3 The indications of the developed stall will be preceded by the slow flight and incipient stall indications. The indications of the developed stall can include:
- Height loss
 - Downward rotation of the nose of the aircraft
 - Wing drop
 - Pitch control at the aft limit (Fixed Wing) or forward limit (Flexwing)
- 4.11.4 The student must appreciate that the recovery from the stall is achieved by reducing the angle of attack of that stalled wing.

4.11.5 The first recoveries from the developed stall should normally be accomplished by the use of pitch control only in order to establish the basic principle of the recovery action. Some types may have benign characteristics such as to not exhibit nose or wing drop when the pitch control reaches its full extent with a standard 1kt/sec rate of speed decay entry to the stall. In such a case the pitch control reaching the stop should be taken as indication of the point of stall, and where recovery actions should be applied. Attempts to manufacture a nose drop by accelerating the approach to the stall with rapid speed loss, or sharp reduction of power near the stall point should not be made.

4.11.6 Recovery action should be:

FLEXWING AIRCRAFT

- BAR BACK
- As soon as a safe airspeed is achieved level the wings if required and raise the nose to minimise height loss.

FIXED WING AIRCRAFT

- STICK FORWARD
- As soon as a safe airspeed is achieved level the wings if required and raise the nose to minimise height loss.

4.11.7 In addition, this approach will allow the student to develop the correct technique of accurate pitch control to 'un-stall' the wing without allowing excess speed and unnecessary height loss to develop, without the need to co-ordinate the use of power.

4.11.8 During the recovery from all types of stall there must be no attempt to correct a dropping or dropped wing with roll control until the recovery action has been taken and a safe airspeed has been attained. In the case of Fixed Wing aircraft rudder should be applied to prevent further yaw occurring during the recovery. This does not mean pick up the dropping wing using rudder.

4.11.9 Following the recovery technique using pitch control only, power should be introduced as a part of the recovery technique to effect minimum height loss. This should be considered as the 'standard stall recovery' (SSR) technique and should be used in all subsequent recoveries whenever power is available.

4.11.10 The SSR is described below. It should be used for all types of stall entries and will always achieve a safe recovery with minimum height loss. Except where characteristics of a specific type dictate otherwise, the application of power in the SSR should be taken to mean full power.

SSR - FLEXWING AIRCRAFT

- SIMULTANEOUSLY: BAR BACK / APPLY FULL POWER
- As soon as a safe airspeed is achieved level the wings if required, and raise the nose to minimise height loss and adopt a shallow climb attitude.

SSR - FIXED WING AIRCRAFT

- SIMULTANEOUSLY: STICK FORWARD / APPLY FULL POWER

- As soon as a safe airspeed is achieved level the wings if required, and raise the nose to minimise height loss and adopt a shallow climb attitude.
- 4.11.11 The exact form of words used to describe the SSR must leave the student in no doubt that it is the reduction in the angle of attack (primarily caused by the use of pitch control) which recovers the aircraft from the stall. Increasing the power helps achieve minimum height loss.
- 4.11.12 To ensure the correct priority is established in the mind of the student greater emphasis should be given to the control input which primarily achieves the reduction in the angle of attack.
- 4.11.13 An important factor minimising the height loss resulting from a stall recovery is the rate and the amount the bar/stick is moved to achieve the required attitude. The term 'bar back' or 'stick forward' does not imply that the control should be moved to or past the neutral position. The rate and amount that the control should be moved is dependent upon a variety of factors (e.g. the attitude of the aircraft at the moment the recovery is initiated, the proximity of the ground, the pitch stability characteristics of the aircraft type etc.). The control should be moved sufficiently to ensure that the wing is positively 'unstalled', that the required attitude is achieved and that airspeed is starting to increase whilst achieving a minimum height loss.
- 4.11.14 The nose of the aircraft should be raised as soon as a minimum safe airspeed is achieved. It is usually possible to raise the nose of the aircraft almost immediately after the SSR has been accomplished.
- 4.11.15 Once the nose of the aircraft has been raised the climbing attitude should be adopted and the climb established. It is most appropriate to recover into the climb as power is already applied and there may be a requirement to regain lost altitude. If power was not available for the recovery the normal gliding attitude should be adopted.
- 4.11.16 The adoption of a standard stall recovery applied to all types of flight at critically slow airspeed, incipient stall or developed stall conditions ensures that the student will respond to the recognition of any of the slow flight or stall indications with a positive action. The recovery action will ensure that the student promptly corrects the situation (including inappropriate pilot control inputs) and regains control of the aircraft whilst minimising the loss of height.

4.12 SPIN AVOIDANCE - EX 10B

- 4.12.1 It is not possible to provide flying training for recovery at the incipient stage of the spin in the current generation of microlight aircraft, as none are cleared for spinning. Any attempt to enter the incipient stage of the spin can, by definition, result in the developed stage of the spin being entered inadvertently. Instructors should cover the spin awareness exercise as a discussion item. Individual aircraft may have different recovery procedures; always refer to the Pilot Operator's Manual.
- 4.12.2 It is generally accepted that Flexwing aircraft do not exhibit the characteristic of spinning in the conventional sense. This exercise, therefore, is only relevant to Fixed Wing aircraft.
- 4.12.3 The incipient stage of the spin can best be defined, for training purposes, as an undemanded wing drop. This may be similar to a positive wing drop at the stall. A developed

spin is characterised by the aircraft progressing from the incipient to the autorotative stage of the spin.

4.12.4 It should be appreciated that in any unplanned spin entry situation the element of surprise is likely to limit the ability of the student to respond promptly and correctly. The time available to effect a recovery at the incipient stage of the spin is limited.

4.12.5 If any doubt exists that the aircraft has progressed from the incipient stage to the developed stage of the spin then the standard developed spin recovery should be applied.

4.12.6 It should be noted that many aircraft will increase their spin rotation rate if the incipient recovery is used whilst the aircraft is in a fully developed spin.

4.12.7 RECOVERY AT THE INCIPIENT STAGE OF THE SPIN

- STICK FORWARD
- POWER AS REQUIRED
- (power should not be increased initially if the nose has dropped significantly below the horizon)
- RUDDER TO PREVENT FURTHER YAW
- LEVEL WINGS AND REGAIN BALANCED FLIGHT

4.12.8 RECOVERY AT THE DEVELOPED STAGE OF THE SPIN

- CLOSE THROTTLE
- AILERONS NEUTRAL
- FULL OPPOSITE RUDDER (to direction of rotation)
- PAUSE
- STICK FORWARD UNTIL SPIN STOPS
- CENTRALISE RUDDER
- LEVEL WINGS AND EASE OUT OF DIVE

4.13 TAKE-OFF, LANDING AND CIRCUIT TRAINING - EX 12

4.13.1 GENERAL

4.13.1.1 These exercises are usually combined and the various elements are covered over several sessions. Typically the first session will be concerned with the circuit pattern and normal take-offs and landings. Subsequent sessions will cover the various types of take-off, approach and landing techniques together with non-normal procedures.

4.13.2 NORMAL TAKE-OFFS, LANDINGS, AND THE CIRCUIT

4.13.2.1 The adoption of the appropriate aircraft attitude during the take-off roll is necessary in order to achieve a balance between control, acceleration, undercarriage loads and lift-off speed. In order to reduce the aerodynamic drag of the aircraft the initial attitude should be close to the level flight attitude, which will result in good initial acceleration. As the lift-off speed is approached the appropriate attitude should be progressively adopted to achieve lift-off at the desired airspeed. The attitude during the take-off roll is assessed in the normal way on Fixed Wing aircraft. The attitude of Flexwing types during the ground roll is a function of bar position only; nose attitude will only become a factor after lift-off.

- 4.13.2.2 The initial climb out is probably the most critical phase flight on the majority of types of microlight aircraft. The combination of low speed and high power to weight ratio results in the possibility of a very high nose attitude being achieved during the climb. The additional factor of a relatively high drag value, resulting in rapid deceleration, and a low nose attitude required to maintain airspeed during the glide can result in a potentially dangerous condition developing following a sudden power loss during the initial climb out. It is imperative that the relationship between airspeed and nose attitude is managed during the initial climb out such that a complete power loss can be safely accommodated. The initial safe airspeed for the climb should be achieved as soon as possible after lift-off. This speed is likely to be greater than both the best angle and best rate speeds, which should only be used above a safe height (i.e. in the region of 200 feet).
- 4.13.2.3 For aircraft fitted with an in-flight adjustable trim, incorrectly set trim at take-off should be practiced. When set at extremes, some trim systems will cause large control inputs to be required in order to maintain the correct attitude during take-off and initial climb. The student should be allowed to experience these conditions in a carefully controlled simulation. During the initial demonstration by the instructor, the student should be allowed to feel the required control pressure so that they are prepared for it when conducting the subsequent student assisted practice. The student must be able to demonstrate the ability to maintain the correct attitude and airspeed during take-off and climb, regardless of control pressure, whilst correcting the trim.
- 4.13.2.4 The shape, size and position of legs of the circuit pattern can be defined with reference to either ground features or the 'angular' relationship between the aircraft and the runway. During the early stages of the exercise the circuit pattern is most simply defined with reference to ground features. It is important, however, that the concept of using the 'angular' relationship between the aircraft and the runway is introduced to students. This will prepare students for planning circuit patterns at unfamiliar airfields.
- 4.13.2.5 When considering the type of approach technique to use during the early stages of this exercise, the instructor should consider the following aspects:
- 1) The benefits of a relatively long final approach path in order to allow sufficient time for the student to accurately line up with the runway.
 - 2) The glide approach may be most appropriate if the runway is considerably longer than the minimum required and an accurate touch down point is not necessary. The elimination of the need to co-ordinate power control will reduce the student work load during the latter stages of the approach. On runways requiring an accurate touch down point the use of a powered approach will result in the student being more consistently positioned for a landing attempt.
 - 3) The powered approach may aid the student during the landing phase on types which exhibit a steep power off glide angle and consequently a rapid deceleration during the round out and hold off period. Conversely, types exhibiting a shallow glide angle will require an excessively flat approach path with power applied.
- 4.13.2.6 The glide approach should be flown as follows:
- 1) Circuit height should be maintained until the decision is made to reduce power to idle and glide to the aiming point on the runway.

- 2) If during the approach it is apparent that the aircraft is low, power should be applied, the nose raised and the aircraft flown level or almost level until the correct glide path is intercepted, at which point the nose should be lowered before once again reducing power
- 3) If the aircraft is high the track can be modified, speed increased or the aircraft side slipped to correct the situation. If available, flaps and/or airbrakes can be used. If the situation cannot be corrected a missed approach should be initiated.

4.13.2.7 The powered approach should be flown as follows:

- 1) The downwind leg may be extended to allow for a longer and flatter approach descent path.
- 2) Power should be used to achieve an accurate touch down point. During the approach airspeed is controlled by attitude and height control effected by power. It must be stressed, however, that any correction to the profile requires the co-ordinated use of both pitch and power and in particular the immediate effect of power and pitch control must be highlighted. It is whilst correcting an approach at low altitude that the importance of modifying the profile by the use of pitch as well as power is of prime importance. The use of power alone will initially accelerate the aircraft along its descending 'inertial track' resulting in a worsening undershoot condition.
- 3) Power should be smoothly reduced towards idle once the aircraft is over the aiming point on the runway and the initial round out has commenced.

4.14 MISSED APPROACH AND GO-AROUND

- 4.14.1 This procedure should be covered during one of the sessions. Once the decision to go-around is made the aircraft should be positively placed in a climb at a safe airspeed and attitude by the co-ordinated use of power and pitch control. It is important to stress that the 'conventional' procedure of turning towards the 'dead-side' of the circuit is frequently modified by procedures applicable to individual airfields. The student should be encouraged to consider each situation as a separate case and apply judgement in deciding the most appropriate course of action in attempting to avoid any potential conflicts with other traffic.

4.15 MISSED LANDING AND GO-AROUND

- 4.15.1 The 'balloon' and 'bounce' recovery procedures should be practised during one of the sessions.
- 4.15.2 A minor 'balloon' is likely to occur as part of the student's normal progression. It can be corrected by the appropriate use of pitch control and, if required, an increase of power. A significant nose down attitude should not be allowed to develop.
- 4.15.3 A severe 'balloon' and/or 'bounce' should be covered as a distinct element. The aircraft is effectively in a critically slow airspeed flight condition approaching the incipient stall. The recovery should consist, therefore, of the Standard Stall Recovery. The recovery should primarily avoid ground contact and should result in a gradual increase of airspeed without loss of height. The recovery should be continued into the go-around procedure.

4.16 CIRCUIT JOINING AND LEAVING PROCEDURES

- 4.16.1 The various types of circuit joining and leaving procedures should be covered.
- 4.16.2 The importance of not descending 'into' the circuit pattern should be stressed. The aircraft must join the selected leg of the circuit established at the appropriate circuit height.
- 4.16.3 It is acceptable for aircraft leaving the circuit to climb continuously in the selected direction but consideration should be given to existing and joining circuit traffic.

4.17 EMERGENCY PROCEDURES

4.17.1 GENERAL

- 4.17.1.1 It is of great importance that during the training of students in circuit emergency procedures the Instructor does not allow the normal standards of safety to be compromised. This principle should be considered at all times, particularly during the engine failure after take-off procedure.

4.17.2 ABANDONED TAKE-OFF

- 4.17.2.1 Every take-off should be planned with regard to the possibility of abandoning the take-off and stopping the aircraft. It is important that every take-off has a specified 'abort' point. The abort point should be a defined point along the take-off run which would allow the aircraft to be brought to a stop in the remaining distance, in the event that the take-off is abandoned. The take-off run available should normally allow for lift-off speed to be achieved before or at the abort point. In all cases the speed and acceleration achieved by the abort point should be sufficient to indicate that lift-off speed will be safely reached within the distance remaining. The abort point should be defined prior to each take-off, taking into account all the factors affecting the take-off. Once the decision to stop the aircraft is made every available means must be used to stop the aircraft in the distance available.

4.17.3 ENGINE FAILURE AFTER TAKE-OFF

- 4.17.3.1 The engine failure after take-off (EFATO) can be divided into two types of procedure. The failure can occur immediately after lift-off at a very low height (up to approximately 100ft) or at a later point during the climb out (up to approximately 300ft). EFATOs are not considered 'normal aviation practise' by the CAA therefore the Instructor must ensure that whilst making every effort to provide realistic and effective flight training the legal requirements of Rule 5 (low flying) of 'The Rules of the Air' are observed. In particular the requirement to fly not closer than 500ft to any person, vessel, vehicle or structure which may be a factor during this exercise.

- 4.17.3.2 The following types of EFATO should be covered:

- 1) EFATO at 50ft requires a smooth lowering of attitude towards the glide attitude. It is imperative that an excessive nose down attitude is not allowed to develop and that the round out is commenced regardless of the airspeed achieved. To ensure that an undemanded restoration of power is not experienced the throttle should be promptly closed. There will be little opportunity to turn the aircraft and the landing will normally be made ahead on to the runway or an alternative open area.

- 2) EFATO at 200ft requires the positive adoption of the gliding attitude and the selection of a suitable landing area as close as possible to the take-off path. The requirement to reach a suitable landing area may require the aircraft to be positioned to the left or right of the take-off path. The area selected should normally be within a maximum of 30° either side of the take-off path. Under no circumstances should an attempt be made to turn back to the departing runway. According to the time available the appropriate emergency shutdown checks should be completed and in all cases the throttle should be closed.
- 3) ENGINE FAILURE IN THE CIRCUIT - the procedure appropriate to any particular situation is primarily dependent upon the stage of the circuit at which the failure occurs. A failure occurring on the crosswind leg while the aircraft is in the climb will be similar to an EFATO at 200ft. If the failure occurs at the late downwind position the situation will be similar to a normal glide approach.

4.17.3.3 While a return to the airfield environment may frequently be the preferred option it should not be allowed to become the automatic reaction. It is imperative that all factors (e.g. position of other traffic, distance from runway, suitability of 'off' airfield areas etc.) are considered prior to a return to the airfield being initiated. Shut down checks should be completed according to the time available, in all cases the throttle should be closed.

4.18 ADVANCED TAKE-OFF AND LANDING TECHNIQUES – EX 13

4.18.1 GENERAL

4.18.1.1 These elements should be presented to the student with caution. These terms should not be misinterpreted as suggesting that by the use of specific techniques it is possible to operate from unsuitable sites. These procedures would be better described as 'performance' techniques and are intended to be used to obtain the best performance from the aircraft in specific circumstances. For example, in the case of a short field approach and landing the terms lowest safe approach speed and lowest possible safe height are used; the most important word in these terms is safe. An alternative description could include the terms without excessive airspeed or height. The use of any of these performance techniques is predicated on the assumption that safety is the prime consideration.

4.18.1.2 In all cases the runway providing the most advantageous combination of length, surface, slope, headwind component and obstructions should be selected in order to provide the greatest possible margins of safety.

4.18.2 SHORT FIELD TAKE-OFF

4.18.2.1 The use of flaps, if available, is likely to be beneficial. The aircraft should be positioned in order to use all of the available runway length. If possible power should be applied with the brakes applied to ensure that full power is available and to a limited extent to achieve the best initial acceleration. If the aircraft starts to move forward with the brakes applied the brakes should be released and the take-off commenced. Alternatively a rolling start may be used and the maximum safe taxi speed maintained throughout the turn to line up with the runway.

4.18.2.2 The aircraft attitude should ensure maximum rate of acceleration throughout the take-off roll. The lift-off should occur at the minimum safe speed and without any tendency to 'hold' the aircraft on the ground longer than necessary. The aircraft should then be accelerated to the

minimum safe climbing speed (this may be more than the maximum angle of climb speed).

4.19 SOFT FIELD TAKE-OFF

- 4.19.1 If available flap should be used. The aircraft should not be brought to a stop at the start of the take-off run, taxiing speed should be maintained throughout the turn to line up with the runway. The pitch control should be used to achieve the optimum attitude which produces the maximum amount of lift throughout the take-off roll transferring weight from the wheels to the wing of the aircraft. Lift-off should occur at the minimum safe speed. Immediately after the wheels leave the ground the airspeed should be allowed to increase to a safe speed before adopting a climb attitude.

4.20 UNDULATING FIELD TAKE-OFF

- 4.20.1 The technique is similar to that for a soft field take-off. The principle problem concerns the aircraft coming prematurely airborne. The aircraft should be placed in the optimum take-off attitude. The effects of the undulating field should be reduced by the use of the pitch control to hold the required attitude. If the aircraft becomes airborne at too low an airspeed it must be allowed to settle back on to the ground, at the optimum attitude, and allowed to accelerate.

4.21 SHORT FIELD APPROACH AND LANDING

- 4.21.1 The powered approach will ensure that accurate control of the touch down point is available. Once established on final approach airspeed should be progressively reduced in order to arrive at the aiming point on the field at the slowest safe approach speed. Flap, if available, should be used. An excessively long, low, flat approach will not achieve the best ability to clear obstructions. The aircraft should cross the boundary of the field at the lowest possible safe height and arrive over the aiming point of the runway at, or close to, hold off height. Power should be added if it is necessary to arrest a high rate of descent. The aircraft should be placed on the ground as soon as possible even if slightly fast, it is not appropriate to allow a protracted hold off phase to be entered. If available and required braking should be used (considerable initial retardation is available on Flexwing aircraft by pulling the bar fully back).

4.22 SOFT FIELD APPROACH AND LANDING

- 4.22.1 The touch down should be achieved at the lowest possible groundspeed. Flaps, if available, should be used. The lowest possible touch down speed may, according to type, be achieved with a small amount of power being applied until the main wheels have touched down.

4.23 CROSSWIND TAKE-OFFS AND LANDINGS

- 4.23.1 Accurate and practical assessment of any crosswind component is an important aspect of this exercise.
- 4.23.2 Crosswind operation with Flexwing aircraft should take into consideration the forces that are transmitted between the 'trike' unit and the wing of the aircraft. These forces should not be transmitted solely through the aircraft structure. The pilot should maintain the correct geometry, in yaw, between wing and 'trike' unit by use of the bar.

4.24 CROSSWIND TAKE-OFF

- 4.24.1 The take-off run should be accomplished with an appropriate amount of roll control applied into the crosswind. In the case of Fixed Wing aircraft the amount of aileron control required at the start of the take-off roll should be overestimated rather than underestimated. In the case of crosswinds approaching the aircraft's limit the take-off roll should commence with almost full aileron deflection. During the take-off roll the ailerons should be used as required to keep the wings level. Rudder should be used to maintain direction throughout the take-off roll. The aircraft should be lifted cleanly off the ground with the wings level. To ensure a clean lift-off with no possibility of the aircraft touching down again the lift-off speed should be slightly higher than normal. Once airborne the aircraft should be positioned, by use of a balanced turn, onto a heading which compensates for any drift. The climb out should be continued with the aircraft in normal balanced flight.
- 4.24.2 Similar considerations apply to crosswind take-offs in Flexwing aircraft. The wings should be level or very close to level throughout the take-off roll. At the start of the take-off it is possible to establish a 'neutral' point by lowering the into wind wing very slightly. The take-off should be accomplished with the wing being progressively returned to the level position. In order to maintain the wing in the level position the pilot must apply a positive force to the bar to prevent the wing from lifting.

4.25 CROSSWIND LANDING

- 4.25.1 The aircraft should be positioned on the extended centre line of the runway at an early stage of the final approach. The aircraft should adopt a heading accounting for any drift. According to type, the use of a powered approach may be beneficial by providing more accurate control during the touch down.
- 4.25.2 Fixed Wing aircraft can accomplish a crosswind approach and landing by the use of one or a combination of two types of technique:
- 1) The 'crab' technique involves the aircraft being positioned on the final approach path with the nose of the aircraft heading sufficiently into the wind to compensate for any drift. The aircraft is in balanced flight and maintaining an accurate track towards the runway. Prior to the touch down the aircraft axis should be aligned with the runway using rudder whilst opposite aileron is simultaneously applied to prevent roll.
 - 2) The 'wing-down' technique involves the alignment of the aircraft axis with the runway during the latter stage of the final approach. Rudder is applied to align the aircraft axis with runway whilst opposite aileron is applied to maintain the centre line of the runway. The aircraft is out of balance with the into wind wing low. The aircraft is held in this condition throughout the landing with one main wheel touching down first.
- 4.25.3 The choice of which technique to use is primarily a matter of personal preference. It is recommended, however, that both techniques are included in the student's training. In crosswinds approaching the aircraft's limits a combination of the two techniques is likely to be most suitable. In addition, in circumstances when the 'crab' method alignment manoeuvre is miss-timed and drift develops the situation will be corrected by the use of the 'wing-down' technique.
- 4.25.4 Flexwing aircraft can only accomplish the 'crab' method of crosswind approach.

- 4.25.5 If the axis of the aircraft cannot be aligned with the runway the aircraft must touch down in the 'crabbed' condition. The heading of the aircraft must ensure that the aircraft is tracking along the centre line of the intended landing path. It is important that the main wheels touch down well in advance of the nose wheel. It is the action of the main wheels touching down which causes the 'trike' unit to be aligned with the direction of movement of the aircraft, only then should nose wheel touch down occur.
- 4.25.6 The aircraft can be turned into line with the runway and travel direction during the round-out phase. The rear wheels will then be aligned with the direction of travel at touch down. The timing is critical to prevent the aircraft touching down with drift still on or downwind drift developing during the round-out. When the trailing wheels are rolling the nose wheel is lowered.
- 4.25.7 The landing roll should be completed with roll control being applied to prevent the into wind wing lifting whilst directional control is maintained by the appropriate control.

4.26 TURBULENT CONDITIONS

- 4.26.1 **TAKE-OFF.** When taking off in turbulent conditions a higher lift-off speed will ensure a clean lift-off with sufficient energy and control authority to cope with turbulence or sudden sink encountered near the ground. In aircraft with flaps, depending on type, the use of zero flap can assist in achieving a higher lift-off speed, quicker acceleration once airborne and will avoid the possibility in gusty conditions with a strong wind gradient of inadvertently exceeding V_{fe} during the climb-out.
- 4.26.2 **LANDING.** A powered approach at a higher airspeed will minimise the effects of a strong wind gradient and ensure sufficient energy and control authority to cope with turbulence or sudden sink encountered near the ground. The approach angle should be adjusted to ensure that power can continue to be used right through the important last 100' or so where the effects of wind gradient are felt most strongly. Power should only be reduced to idle just before touch down and the aircraft should be placed on the ground avoiding a prolonged hold off. Use of large amounts of flap should be avoided and depending on type use of less flap can be helpful in enabling the aircraft to be placed on the ground at a higher speed without touching down nose wheel first.

4.27 TAILWHEEL CONSIDERATIONS

- 4.27.1 The procedures used for the various types of take-off, approach and landing remain substantially similar for both nose wheel and tailwheel types.
- 4.27.2 The need to raise the tail during the take-off roll is the only significant difference in the take-off technique between the two types of undercarriage configuration. The take-off roll should be commenced with the stick held fully back as full power is progressively applied. Once full power has been achieved the tail of the aircraft should be positively raised and the appropriate attitude established.
- 4.27.3 The two types of landing technique applicable to a tailwheel aircraft should be covered during the student's training. The precise technique to be used under particular circumstances is a matter of judgement and knowledge of the characteristics of the particular aircraft type. The following outlines the basic techniques and their applications:

- 1) The '3-point' landing is best suited to 'normal' and 'performance' landings in conditions of insignificant crosswind component and the absence of strong or gusty winds. The hold off procedure is continued for a longer period than on nose wheel types with the result that the aircraft touches down in the 3-point attitude following the loss of all flying speed. Ideally, the mainwheels and tailwheel touch down simultaneously.
- 2) The 'wheel landing' is most suited for use in strong gusty wind conditions and/or large crosswind components. The aircraft is landed at a relatively level attitude and consequently at a higher airspeed. Once mainwheel touch down has occurred a small forward movement of the stick is usually required to prevent the aircraft becoming airborne again. The stick should be brought back as airspeed decreases during the landing roll.

4.28 ASSESSMENT AND USE OF 'UNIMPROVED' SITES

- 4.28.1 A large number of microlight aircraft operate from unimproved sites. The syllabus covers all the individual aspects to be considered when operating from unimproved sites. There is not, however, a separate exercise or element in the syllabus which addresses this area as a distinct subject.
- 4.28.2 There continues to be an unacceptably large number of accidents and incidents occurring at unimproved sites. These occurrences are either due to pilots attempting to operate from unsuitable sites or using inappropriate techniques at sites offering only small margins for error.
- 4.28.3 Instructors should stress the following areas to students when covering the relevant exercises and elements, in the context of operation from unimproved sites.
- 4.28.4 Students should be familiar with the BMAA 'minimum site criteria' document, this can be found in the BMAA Code of Good Practice for Microlight Clubs in Appendix B. Relevant information contained in CAA Safety Sense Leaflets and Pink Aeronautical Information Circulars can be found on the CAA web site. These sources of information provide useful guidance to pilots operating from unimproved sites.
- 4.28.5 If a new site is being considered it should be inspected from the ground before any attempt is made use it.
- 4.28.6 Inexperienced pilots should be advised to obtain the opinion of an Instructor prior to the use of an unimproved site.
- 4.28.7 It should be stressed that any 'factoring' of take-off run and distance required is cumulative and that a combination of unfavourable factors can result in considerable increases.
- 4.28.8 The relevance of short field operation and precautionary landing procedures should be indicated.
- 4.28.9 It should be understood that any site which does not allow for normal safety margins is not suitable and should not be used. It must always be possible to:
 - 1) Identify an abort point
 - 2) Safely clear obstacles at the safe climb speed

- 3) Land in a suitable area following an engine failure during any stage of the circuit pattern
 - 4) Approach at a safe airspeed and execute a safe go-around at any stage of the approach up to the point of touch down.
- 4.28.10 Weather and site surface conditions are an important factor when considering the suitability of a site. These factors are likely to change constantly and a site may only be suitable subject to a very limited range of conditions existing.
- 4.28.11 The continued freedom of microlight aircraft to operate from unimproved sites is almost certainly dependent upon the demonstrable ability of pilots to make safe decisions concerning the sites they utilise. It is only by appropriate training that pilots can be expected to make safe decisions.

4.29 ADVANCED TURNING (UP TO 60° BANK ANGLES) - EX 14

4.29.1 GENERAL

- 4.29.1.1 The advanced turning exercise is intended to improve the student's co-ordination and ability to handle an aircraft at steeper angles of bank. In addition the exercise enhances the student's confidence as well as preparing for a situation requiring sudden evasive action.
- 4.29.1.2 In order to ensure that the student can safely operate the aircraft at steeper angles of bank it is imperative that he is cognisant with the limits of the aircraft and pilot. In particular the student must appreciate the implications of the following elements:
- Maximum certified angle of bank permitted
 - Increased load factor
 - Increased stalling speed
 - Wake turbulence considerations
- 4.29.1.3 The importance of lookout prior to and during an advanced turn cannot be over stressed. Whilst manoeuvring at steep angles of bank the ability to maintain an adequate lookout is significantly reduced. It follows, therefore, that the lookout procedure adopted prior to the turn should be particularly thorough and ensure that an area of airspace will remain clear of traffic throughout the manoeuvre.
- 4.29.1.4 Whilst manoeuvring at high angles of bank it is important that the student maintains orientation and knowledge of geographical position.
- 4.29.1.5 The potential problems of a wake turbulence encounter at steep angle of bank should be fully understood by the student. During an advanced turn the aircraft is flown at a relatively high angle of attack and will be in a condition to produce significant wake turbulence. It follows that if the aircraft completes an almost level 360° turn, it will encounter its own wake turbulence. Once the wake vortex has been produced it will slowly descend. The relatively slow speed of microlight aircraft results in a high rate and small radius of turn. The wake vortex, therefore, will not descend or decay appreciably in the time taken for the aircraft to complete a 360° turn. In order to avoid a possible wake turbulence encounter it is necessary to complete the turn in less than 360° or in a slight climb or in descent.

- 4.29.1.6 The student must be made aware that if the aircraft is flown through its own wake at its bank limit there is a high possibility that the vortex will induce a roll in the direction of the bank leading to the aircraft limits being exceeded. The rate of roll can be very high and the increased bank leads to a dangerous condition. The problem caused by wake vortex encounter in high banked turns is most significant for Flexwing aircraft. Therefore to avoid the possibility of wake encounter in a Flexwing, at or close to the limits of bank angle, level turns at angles of bank greater than 45° must be limited to a maximum heading change of 270° .
- 4.29.1.7 Level turns through 360° heading changes, or more, at bank angles not in excess of 45° can be considered normal practice and not restricted.
- 4.29.1.8 It is important that instructors fully appreciate and communicate to their students the safety considerations applicable to this exercise and yet fully cover the individual elements of the syllabus. It is necessary for the elements of this exercise to be flown at the angles of bank indicated in the syllabus. The syllabus uses the terms up to 45° and 60° of bank. The term "up to" indicates that target angles of bank may be used which allow a degree of over bank before certified roll limits are reached. The target angles of bank used should be within 5° at 45° of bank and 10° at 60° of bank.
- 4.29.1.9 The impact of the exercise and the principals involved will be severely eroded if considerably reduced angles of bank are used either intentionally or due to over estimation. In the case of aircraft types restricted to a certified maximum bank angle of 45° it is not possible to complete all the elements of this exercise. Consideration should be given to completing the relevant elements on a type allowing all manoeuvres to be completed.
- 4.29.1.10 Whilst the exercise covers level, climbing and descending turns the level turn will provide the best opportunity for practising advanced co-ordination. It follows, therefore, that the level turn will form the basis of the exercise.

4.30 STEEP LEVEL TURN

- 4.30.1 A correctly co-ordinated steep turn should be completed at a constant airspeed. Many types of microlight aircraft can safely complete an advanced turn at the normal cruise speed. If it is necessary to fly the manoeuvre at an increased speed the selected speed should be established prior to the entry to the turn and maintained throughout the manoeuvre. In the case of Fixed Wing types the aircraft should, of course, be in balance throughout the turn.
- 4.30.2 The steep turn should be entered in a similar way to a medium turn. As the angle of bank increases the pitch control should be further used to maintain height whilst power is applied to maintain airspeed. Once the required angle of bank has been attained there may be a significant tendency for the angle of bank to increase; it will, therefore, be necessary for the angle of bank to be 'held off' by the use of the roll control.
- 4.30.3 During the turn the angle of bank continues to be controlled by the roll control whilst attitude is controlled by the pitch control. Power will be used to maintain the selected airspeed without a gain or loss of height. If a significant deviation from the desired manoeuvre occurs it should be appreciated that it will be necessary to co-ordinate the use of all controls to correct the situation.

- 4.30.4 To exit the turn, as the wings are rolled level, pitch control and power reduction are co-ordinated to maintain the correct attitude and airspeed.
- 4.30.5 In the case of aircraft types equipped with side by side seating the turn should be demonstrated in each direction prior to student practice. This allows the student to appreciate the significant difference in the perception of the horizon in left and right steep turns.

4.31 CLIMBING AND DESCENDING STEEP TURNS

- 4.31.1 Climbing and descending steep turns up to 45° angle of bank should be covered. The normal speeds used for the climb and descent are unlikely to provide a sufficient margin above the stall during a steep turn. It will be necessary to establish and maintain a similar airspeed as used for the steep level turn for these manoeuvres.
- 4.31.2 The steep climbing turn is of less practical use to the student but serves to illustrate some important principles. The steep climbing turn will usually be commenced from the straight climb at the selected airspeed. It is important that the target airspeed is maintained during the turn and that the consequential reduction in climb rate is accepted. There will usually be a strong tendency for the angle of bank to increase requiring a positive control input to 'hold off' roll. Any relaxation on the controls will allow airspeed and the angle of bank to rapidly increase with the possibility of a spiral dive developing.
- 4.31.3 The steep descending turn requires careful attention to attitude and speed control throughout the manoeuvre. It is important that the target airspeed is maintained during the turn and the consequential increase in descent rate is accepted. If the nose of the aircraft has been allowed to lower significantly any attempt to recover the manoeuvre by the use of pitch control alone is likely to result in a spiral dive.
- 4.31.4 A steep descending turn can be a useful manoeuvre for rapid height loss, particularly with high drag types. Steep gliding turns at high airspeed should be practiced as part of this exercise taking care to ensure accurate coordination of airspeed, height loss and attitude control without any tendency to progress to a spiral dive.

4.32 SPIRAL DIVE

- 4.32.1 The spiral dive is characterised by the aircraft being in a descending turn with a rapidly increasing airspeed and angle of bank. The use of pitch control alone to recover the condition will only serve to tighten the spiral with the possibility of exceeding the aircrafts maximum pitch, roll or structural limits.
- 4.32.2 The spiral dive will develop most rapidly if power is applied during the entry. A steep level turn in which the nose of the aircraft is allowed to lower is the most likely cause for entering a spiral dive. The Instructor should include a demonstration of the incorrect recovery technique as a part of the exercise. The spiral dive recovery is as follows:
- REDUCE POWER TO IDLE
 - LEVEL WINGS
 - EASE OUT OF DIVE
- 4.32.3 The pitch stability characteristics of weight-shift aircraft may produce a very powerful nose up pitching moment immediately the angle of bank is reduced. It is imperative that the aircraft is eased out of the dive smoothly and that an excessively nose up attitude is not allowed to

develop following the initial recovery. Many types will require a significant bar back input to counter the inherent tendency to pitch nose up.

4.33 UNUSUAL ATTITUDES - EX 15

4.33.1 GENERAL

4.33.1.1 This exercise should be considered as consisting of two distinct components.

- Unusual attitudes
- Dangerous conditions

4.33.1.2 The instructor will present the unusual attitude part of the exercise as a conventional sequence of flying instruction. The dangerous conditions element of the exercise can be considered as the consequences of mishandling the controls in a recovery from an unusual attitude. By definition it is unsafe to consider dangerous conditions in the context of flying instruction. Dangerous conditions will be addressed, by the instructor, as discussion items only.

4.33.1.3 It is imperative that aircraft limitations are strictly observed whilst covering the elements of this exercise.

4.33.1.4 The presentation of this exercise needs to be considered with great care by the instructor. Whilst it is important that the student is able to recognise and recover from the manoeuvres covered in this exercise, the instructor must ensure that normal levels of safety are not compromised. In addition the student must appreciate that this exercise is designed to cover handling techniques which will allow the aircraft to be recovered to normal flight following inadvertent manoeuvres. This exercise should not lead the student to consider such manoeuvres as normal or attempt to deliberately fly the aircraft in this regime of flight.

4.33.1.5 The following examples illustrate possible situations which could result in the aircraft being placed in an unusual attitude or, in extreme cases, a dangerous condition:

- Deliberately attempting manoeuvres outside the limits of the aircraft and/or the pilot.
- Application of the incorrect recovery technique during a stall at a high nose attitude.
- Severe wake turbulence encounter.
- Severe meteorological turbulence encounter.
- Incorrectly executed turn at high angles of bank.
- Disorientation

4.33.2 UNUSUAL ATTITUDES

4.33.2.1 Throughout this exercise the student should be made aware of the importance of maintaining orientation between the attitude of the aircraft and the natural horizon. Conversely the potential dangers of disorientation should be explained.

4.33.2.2 The instructor should monitor the student for any signs of disorientation and if necessary, modify the student's progress through the exercise accordingly. The flight instruments should be used with caution and with the full knowledge of the instrument errors likely to be present during flight at unusual attitudes. It is the recognition of aircraft attitude and performance which will indicate the required recovery action. The instructor must ensure

that the student is not simply reacting to a recognised entry manoeuvre. Once the different recoveries have been practised to a satisfactory standard, the instructor should test for recognition of the aircraft's attitude and application of the correct recovery technique by manoeuvring the aircraft through several different attitudes before placing the aircraft in the chosen attitude and asking the student to recover.

- 4.33.2.3 Unusual attitudes at high and low nose attitudes, with rapidly changing airspeed, should be covered in straight and turning flight.
- 4.33.2.4 The student should learn to recognise and consider the airspeed, energy state, attitude in relation to the horizon and height when planning and performing the correct recovery procedure.
- 4.33.2.5 Throughout this exercise the instructor should place the aircraft in the unusual attitude, with the student following through with hands and feet on the controls, allowing the student to complete the recovery action.
- 4.33.2.6 The following attitudes should be addressed:

NOSE ATTITUDE HIGH AND WINGS LEVEL

Recovery:

SIMULTANEOUSLY APPLY FULL POWER AND LOWER THE NOSE

NOSE ATTITUDE HIGH AND WINGS BANKED

Recovery:

SIMULTANEOUSLY APPLY FULL POWER AND LOWER THE NOSE
LEVEL WINGS

NOSE ATTITUDE LOW AND WINGS LEVEL

Recovery:

REDUCE POWER TO IDLE
EASE OUT OF DIVE

NOSE ATTITUDE LOW AND WINGS BANKED

Recovery:

REDUCE POWER TO IDLE
LEVEL WINGS
EASE OUT OF DIVE

- 4.33.2.7 In recovering from unusual attitudes it is important that the student appreciates that the aircraft may be operating very close to its certified limits. It is important that the controls are handled smoothly as well as positively. Any manoeuvring at high airspeeds must be accomplished with great care and consideration for the loads which can be applied to the structure of the aircraft.
- 4.33.2.8 Flexwing and Fixed Wing aircraft display very different characteristics in terms of stability.
- 4.33.2.9 Flexwing types inherently display very positive pitch stability qualities during normal manoeuvres. Whilst it requires a considerable degree of mishandling to exceed the Vne, the strong positive pitching moment can result in excessive nose up attitudes being

achieved following a high speed manoeuvre. The need to anticipate the powerful nose up tendency and subsequently control the attitude of the aircraft is an important aspect of this exercise. Some types of Flexwing aircraft exhibit a significant degree of roll inertia at high airspeeds, producing the potential for the desired angle of bank being rapidly and significantly exceeded. The recovery from any high speed banked manoeuvre must ensure that high rates of roll are not allowed to develop.

- 4.33.2.10 Fixed Wing aircraft typically do not exhibit the same powerful tendency to pitch nose up from high speed manoeuvres as Flexwing aircraft. It is possible for excessively high airspeeds to develop rapidly. During any recovery it is imperative that the speed is contained below V_{ne} and at speeds above V_a all control inputs are smooth and progressive in order not to produce excessive aircraft loading.
- 4.33.2.11 Due to the throttle arrangement in a Flexwing aircraft, care needs to be taken to ensure that there is a clear procedure for handover of control when the student is to carry out the recovery.
- 4.33.2.12 A suitable method is for the student initially to maintain a medium power setting on the foot throttle whilst the Instructor places the aircraft in the required attitude. On the command to recover the student has full control and is in a position to increase or reduce the power as required. It is also advisable, however, to cover subsequently recoveries from unusual attitudes entered with a cruise power setting on the hand throttle.

4.33.3 DANGEROUS CONDITIONS

- 4.33.3.1 The instructor should stress to the student that the aircraft should never be placed into any attitude that would constitute a dangerous condition. It is only by not exercising good judgement and airmanship that a pilot should ever need to apply any element of this part of the exercise.
- 4.33.3.2 Whilst considering recovery from any dangerous condition the prime objective is to maintain the integrity of the aircraft whilst returning to a recognisable attitude from which it is possible to make a safe recovery. It is unlikely that it will be possible to maximise aircraft performance (e.g. minimise height loss) whilst attempting to recover the condition.
- 4.33.3.3 The following aspects should be discussed with the student:
 - 1) If the pilot is able to recognise the attitude of the aircraft then the appropriate unusual attitude recovery technique should be applied, even if the condition of the aircraft is outside anything previously experienced. If the pilot is unable to assess the attitude of the aircraft then the controls should be firmly held in a neutral position until a recognisable condition is established from which the appropriate recovery can be made.
 - 2) In case of Flexwing aircraft it is imperative that all negative aircraft loading is avoided. If any condition of significantly reduced positive loading is encountered it is imperative that every effort is made to maintain the normal geometry between the 'trike' unit and the wing. The only option during such an encounter and the transition back to normal flight is to ensure that a firm grip is maintained on the control bar.
 - 3) It is possible for Flexwing aircraft to achieve an extremely high nose attitude, recovery from which can result in a correspondingly excessively low nose attitude. Recovery by the use of pitch control alone can result in the possibility of the aircraft tucking and being

subjected to negative loads. It is possible to recover from an excessively high nose attitude condition by using roll control to place the aircraft into a highly banked 'wing over' manoeuvre from which a safe recovery is possible. Whilst instructors may wish to discuss this potential recovery technique with their students, it is unlikely that an inexperienced pilot will be able to successfully apply this technique.

4.34 FORCED LANDINGS EX 16A

4.34.1 GENERAL

- 4.34.1.1 The importance of this exercise cannot be over stressed. It is possible that a microlight pilot will have to manage a genuine forced landing during his flying career, possibly whilst still a student completing a solo exercise.
- 4.34.1.2 The instructor must ensure that whilst making every effort to provide realistic and effective flying training the legal requirements of "The Rules of the Air" are observed. In particular it will be the requirement to fly not closer than 500ft to any person, vessel, vehicle or structure which will be a factor during this exercise.
- 4.34.1.3 In addition to the legal requirements instructors should also be mindful of the environmental considerations, the potential confliction with military low level operations, model aircraft and drones, and the consequences of a genuine power failure when operating below 500ft agl.
- 4.34.1.4 To ensure the effectiveness of this exercise it is clearly often necessary to continue the forced landing procedure to levels significantly below 500ft agl in order to be absolutely certain that the outcome would be a safe approach into the chosen landing area. To do this safely the instructor must employ a high level of planning and awareness in flight and a thorough pre-flight briefing where the process can be clearly explained to the student and the appropriate commands introduced. It is largely a matter of geographical location that will dictate which factor or factors (legalities, safety, nuisance, endangerment of livestock or wildlife, other aircraft etc.) are most significant. The instructor should plan to use areas which minimise these factors. In addition, the exercise must be conducted with provision for a safe go around. At no point should the safety of the aircraft and crew be compromised in the event of an actual engine failure.
- 4.34.1.5 A useful instructional technique which can be applied to this exercise allows the Instructor to divide the procedure into two distinct aspects. This method allows a progressive approach to a fairly demanding procedure. In addition, it reduces the flying time required below 500ft agl away from a 'selected' site and therefore minimises exposure to the associated problems.
- 4.34.1.6 The ability to complete the basic flight procedure whilst applying judgement and flying the aircraft sufficiently accurately to a position from where a safe landing can be assured. This part of the exercise can be covered over a 'suitable' site, selected by the Instructor. A 'suitable' site could be the base airfield, a disused airfield or any area assessed as providing freedom from legal, environmental or operational constraints.
- 4.34.1.7 The ability to assess aircraft position, aircraft height and wind velocity, select a potential forced landing site and subsequently apply the appropriate procedure. These aspects can be covered once the student has achieved a satisfactory standard in the first part of the exercise. This part of the exercise should be completed in a variety of locations, providing the opportunity to practise all aspects of the forced landing procedures with a high degree of realism.

4.34.1.8 Whilst practising forced landing procedures the Instructor will be assessing the suitability of a site in relation to legal, environmental and operational considerations. The student should, also, be aware of the various factors affecting the suitability of a chosen site for a simulated forced landing. It is imperative for the student to appreciate, however, that all such considerations apply only during practice procedures.

4.34.1.9 Instructors should be mindful that the primary aim of the exercise is to prepare the student to complete a safe procedure in the event of a genuine requirement for a forced landing.

4.35 FORCED LANDINGS EX 16A METHOD

4.35.1 A microlight pilot should be prepared, at all times, for the possibility of a power failure and must operate the aircraft accordingly.

4.35.2 Whilst there are different types of pattern which can be flown in order to achieve a forced landing without power, it is important that a formal method is adopted.

4.35.3 Height assessment is to be made by visual judgement and not by use of the altimeter.

4.35.4 A forced landing without power procedure should be based on the following guidelines:

FOLLOWING POWER FAILURE:

- Adopt appropriate attitude for desired gliding speed and trim
- Assess wind velocity
- Select a suitable landing area
- Make a descent plan



ACTIVATE PLAN

RADIO CALL IF APPROPRIATE

IF TIME AVAILABLE:

- Investigate reason for failure
- If required, attempt restart

MONITOR PLAN:

- If required, be flexible and modify plan

COMPLETE PLAN:

- Complete shutdown procedure e.g. T.I.F.S
- Establish aircraft on final approach

4.35.5 There are three distinct types of forced landing pattern which can be applied in the case of engine failure:

BASE LEG METHOD

The aircraft is positioned on a base leg at a height greater than that normally used in the circuit over a pre-determined point from which a conventional base leg and final approach can be flown towards the initial aiming point.

BEAT METHOD

The aircraft is positioned in the area immediately downwind of the chosen landing area. The aircraft should be flown backwards and forwards along a beat line, with all turns towards the field resulting in an extended figure of eight pattern, until sufficient height is lost and a final approach can be established towards the initial aiming point.

CONSTANT ASPECT METHOD

The aircraft is placed into a downwind position from which the initial aiming point is maintained at a constant aspect (or constant sightline angle), by the means of a curved pattern until the aircraft is on final approach.

4.35.6 It is possible for a procedure to combine a number of aspects from the above patterns. The adoption of a particular method is primarily a matter of personal preference considered in the context of the performance of differing aircraft types.

4.35.7 The following notes are applicable to all forced landing patterns without power:

- The initial aiming point should be positioned between approximately one half and one third of the way into the chosen landing site.
- The initial aiming point should be kept in view throughout the procedure.
- The angle of bank should not normally exceed 30° in any manoeuvres completed during the procedure.
- The aircraft should normally be established wings level on final approach at a height which avoids the need to make turns at low level
- Once established on the final approach and the initial aiming point is assured the actual touch down point should be brought towards the threshold by the appropriate technique.

4.35.8 Forced landings without power should be practised from a variety of heights. Whilst the majority of procedures are most likely to be instigated in the 1500 to 2000ft agl height band, students should also experience simulated failures at higher and lower heights. Failures at greater heights require that use is made of the additional time available to select the most suitable site and that the descent plan allows for the procedure to be entered at the correct position and height. Failures at lower heights provide less time for decision making and require that the procedure is entered at the position appropriate to the height.

4.35.9 During all simulated forced landings without power the engine should be warmed at intervals throughout the descent. Power should be smoothly increased to a 'mid' power setting, held for a short period of time and reduced smoothly back to idle.

4.36 PRECAUTIONARY LANDINGS Ex 16B

4.36.1 This exercise is of great value to a microlight pilot. The considerations and procedures covered in this exercise not only apply to an unplanned forced landing with power (or

precautionary landing) but also to any operation into an unfamiliar 'unimproved' site.

4.36.2 The precautionary landing procedure should be applied at any time when the pilot encounters circumstances during flight which require a timely landing.

4.36.3 The following factors are typical examples:

- Deteriorating weather
- Low fuel state
- Approaching onset of night
- Lack of knowledge of position
- Passenger or Pilot safety or sickness

4.36.4 It should be stressed to students that normally the pilot can avoid a precautionary landing through planning and the application of good airmanship. Should circumstances dictate, however, the early decision to make a precautionary landing should be presented to students as a practical and safe option.

4.36.5 The precautionary landing should not be considered as an emergency procedure. The decision to complete a precautionary landing should be taken as soon as is possible. Delaying a precautionary landing due to, for example, a lowering fuel state can result in a situation developing from one of urgency to emergency.

4.36.6 The precautionary landing procedure should allow for the progressive assessment of a potential landing site as follows:

- Selection of a suitable landing site
- Assessment of suitability of surrounding area for completing inspection circuits
- Assessment of approach and missed approach path
- Assessment of landing site surface, size, shape, slope etc.

4.36.7 A series of inspection circuits should be flown to assess the above factors. It must be stressed that whilst assessing the potential landing site normal safety margins must be observed. In particular the ability to land safely following a power failure during any stage of the inspection procedure must be assured.

4.36.8 Following the selection of a potentially suitable landing site, the precautionary landing procedure should consist of a series of inspection circuits. It may be necessary to modify the following sample procedure according to the factors affecting a particular situation. Whilst assessing the height of the aircraft the altimeter should be used with caution. The pilot should use a combination of visual perception, aircraft altitude and the elevation of surrounding terrain and obstructions.

4.36.9 During the first inspection circuit the aircraft should be positioned at a safe height, not less than normal circuit height judged visually, on one side of the intended landing path. This will allow a clear view of the surface of the site. The aircraft should then complete a circuit pattern during which suitable turn points are established. From the downwind position the final approach and missed approach paths should be assessed for obstructions and the optimum approach and landing paths can be selected.

4.36.10 On the next inspection circuit the aircraft should carry out a practise approach to confirm all aspects of the approach path and landing run suitability at a height of approximately 100ft. In

particular the site surface should be assessed during this pass. A missed approach should be initiated once the landing area has been overflown or when safety margins in the missed approach area become a factor. A climb back to circuit height should be established.

- 4.36.11 The aircraft should be positioned for the appropriate type of approach and landing (i.e. short or soft field) in the area selected during the inspection circuits. The pilot should be prepared to initiate a missed approach in the event of a factor becoming apparent at this late stage of the procedure. Once the aircraft has stopped the engine should be shut-down and the aircraft secured. No attempt should be made to taxi the aircraft without first inspecting the surface.
- 4.36.12 The precautionary landing procedure should only be applied during situations where the engine is operating normally. In any situation when the engine is operating at reduced efficiency or its ability to continue running is in doubt, the forced landing without power procedure should be adopted. Whilst the engine may be used to position the aircraft in a suitable location to complete a forced landing procedure, it should be assumed that a complete power failure is imminent. Once the forced landing procedure is commenced the engine will not normally be shut down, but left at idle. The engine should be considered as being unavailable and only used in an otherwise irrecoverable situation.
- 4.36.13 During this exercise the Instructor must ensure that the legal requirements of 'The Rules of the Air' are observed.

4.37 OPERATION AT MINIMUM LEVEL - EX 16C

- 4.37.1 This exercise is designed to prepare the student for situations where, due to deteriorating weather or the constraints of regulated airspace, he is required to fly at lower altitudes than normal.
- 4.37.2 For practical training purposes operational at minimum level can be considered to relate to flights operating between 500 and 1000ft agl. This exercise should not be misinterpreted as attempting to equip students with the ability to continue flights in unsuitable conditions. It should prepare them to make considered airmanship decisions in the event of a requirement to descend to low altitude and subsequently operate the aircraft safely.
- 4.37.3 Whilst considering the effect of deteriorating weather both lowering cloud base and reduced visibility are factors which can occur either in isolation or in combination.
- 4.37.4 It is beneficial to fly at a slow safe cruising speed when visibility is poor. Where fitted, the use of 'take off' flap setting will increase the forward visibility in most aircraft for a given speed.
- 4.37.5 In the case of flights operating at low level due to the constraints of regulated airspace the planning should take into account all legal requirements. In particular conditions applying to an aircraft flown in accordance with a Permit to Fly must be considered.
- 4.37.6 Prior to descending to a lower altitude the pilot must assess the elevation of terrain and obstacles, which are likely to be a factor and accordingly establish a minimum altitude at which it is safe to fly.
- 4.37.7 The following aspects of operation at minimum level should be covered during exercise:
- At lower altitudes the altimeter should be used with caution. The height of the aircraft agl should be assessed by a combination of visual perception, aircraft altitude and the

elevation of surrounding terrain and obstructions.

- At lower heights the reduced distance to the visual horizon and the more oblique view of ground features results in map reading becoming more difficult, even in conditions of good visibility.
- The legal requirements of 'Rules of the Air' and the conditions of the Permit to Fly must be observed.
- The single most important consideration whilst operating at minimum level is the ability to safely complete a forced landing in the event of a power failure. The time available to manage such a failure at low heights requires that a suitable landing site is within gliding range at all times. In effect the aircraft should be flown from one suitable landing site to the next, even if this requires significant deviation from a straight line track.
- The effect of wind on the track of the aircraft is particularly noticeable at lower heights. The erroneous impressions of the aircraft being out of balance, apparently skidding or slipping during turns and the instinctive confusion of groundspeed with airspeed are all aspects of this exercise. The instructor should aim to demonstrate these effects and stress the need to monitor the aircraft instruments to avoid inappropriate control inputs.
- At low altitudes mechanical turbulence and wind shear effects are more marked.
- The procedures for approaching an airfield at low altitude, joining the circuit and completing a bad weather circuit together with the importance of maintain a good lookout, integrating with existing traffic and the need to keep the airfield in view whilst completing the circuit pattern should be stressed.
- The importance of making a decision not to continue in adverse conditions must be stressed. The option of diverting towards better conditions or completing a forced landing with power procedure should always be available and considered.

4.38 SYSTEMS FAILURES – EX 16E

- 4.38.1 Systems failures are very distracting and can cause infringements or in extreme cases, loss of control. The emphasis should always be on flying the aircraft and maintaining situational awareness whilst sorting out the problem.
- 4.38.2 For aircraft fitted with an in-flight adjustable trim, simulated trim 'runaways' should be practiced. When set at extremes, some trim systems will cause large control inputs to be required in order to maintain the correct attitude. The student should be allowed to experience these conditions in a carefully controlled simulation. During the initial demonstration by the instructor, the student should be allowed to feel the required control pressure so that they are prepared for it when conducting the subsequent student assisted practice. The student must be able to demonstrate the ability to maintain the correct attitude and airspeed during all phases of flight, regardless of control pressure.

4.39 FIRST SOLO - EX 17A

- 4.39.1 The first solo is a significant point in the student's training. The successful completion of the first solo gives the student confidence which is frequently reflected in a subsequent improvement in his performance.
- 4.39.2 The recognition of the appropriate moment to send a student on his first solo flight is probably the most demanding decision encountered during flying instruction. If the student is sent solo before he is fit this will result in the student's confidence being undermined as well as the possibility of an accident occurring. If the first solo is postponed the student will tend to become frustrated and his performance will be adversely affected.
- 4.39.3 The instructor should assess the performance of the student in terms of the following factors:
- The prime consideration is not the student's finesse in flying but overall competence and safety. In particular the ability to recognise and correct errors must be demonstrated.
 - The student should have satisfactorily completed all preceding exercises to an acceptable standard. The ability to deal with any relevant emergency procedures must be assured.
 - All aspects of aircraft handling must be sound. Whilst there is not a need for the student to be precisely accurate in all respects he must be able to identify and correct any significant departures from the ideal.
 - All airmanship consideration must be completed to a high standard consistent with the student's limited experience. In particular a good lookout must be maintained and checks must be faultless without any input from the Instructor.
- 4.39.4 Once the instructor assesses that the student has achieved the required standard for the first solo flight, the following considerations should be applied prior to authorising the flight:
- 4.39.5 The instructor must ensure that the student is in possession of a valid medical certificate without any conditions restricting solo flying.
- 4.39.6 The instructor should ensure that the student is not fatigued due to the preceding detail and that he is not excessively concerned by the prospect of flight.
- 4.39.7 The actual and forecast weather conditions should be assessed in the context of the student's performance and experience. There should be sufficient day light available for the student to complete the exercise with a contingency for unexpected factors. The student should not need to be concerned with the possible onset of darkness whilst completing the exercise.
- 4.39.8 The aircraft should be fully serviceable with sufficient fuel for the exercise and contingency for missed approaches and air holding.
- 4.39.9 Any actual or expected activity on the airfield should be considered. Prior to the student becoming airborne consideration should be given to informing other airfield users of the flight.
- 4.39.10 The student should be briefed for the exercise immediately before the flight. The briefing should be short and concise. It should prepare the student for the differences in aircraft performance and handling when flown solo, as well as precisely defining what is expected

from him.

4.39.11 If required the fitting of approved ballast may be completed.

4.39.12 The first solo flight may consist of up to three take-offs and landings. The student should be briefed to go-around at any stage he feels it is advisable to do so.

4.39.13 It is both normal and desirable for the first solo flight to be completed on the two place aircraft type previously flown for the dual part of the syllabus. If it is necessary for the flight to be completed on a single place aircraft the student must be briefed accordingly. To assist in familiarising the student with the new type, he should spend some time taxiing the aircraft in advance of completing the dual session preceding the first solo flight. Even in cases where the first solo is to be completed in the two place aircraft used during dual training, the opportunity of solo taxiing practice can assist in preparing the student for the flight.

4.40 SOLO CIRCUIT, LOCAL AREA & GENERAL FLYING CONSOLIDATION - EX 17B

4.40.1 This period of flying training should be actively briefed, monitored, assessed and debriefed by the instructor. Every flight should have a specific aim and be authorised by the supervising instructor. The student should be progressively encouraged to accept more responsibility for all aspects of flight planning and aircraft operation.

4.40.2 It is desirable to intersperse this solo exercise with dual flights to introduce new elements and to ensure that the student is maintaining the appropriate standard.

4.40.3 The following elements should be covered during this period of solo flying:

- Review the practice of all types of take-off, circuit, approach and landing.
- Airfield departure and circuit joining procedures.
- Local area familiarisation, use of map and identification of features.
- The use of the magnetic compass as the prime method of heading assessment and maintenance together with the associated errors.
- Review and practice of all general handling skills.
- Review and practice of forced landing procedures at locations selected by the instructor (i.e. the base airfield or other suitable site).

4.40.4 Some stall configurations, spin awareness, unusual attitudes, spiral dive and circuit emergency exercises, simulated engine failures at low level, should not normally be practised solo.

4.41 PILOT NAVIGATION - EX 18 A - D

4.41.1 This exercise should consist of a series of flights integrating both dual and solo details. Every flight should be fully planned and prepared in accordance with the elements presented in the syllabus for this exercise. In particular the following aspects should be stressed:

- 4.41.2 Pre-flight planning should include obtaining and assessing weather and aeronautical information.
- 4.41.3 Prior to departure a formal procedure should be completed to calculate heading, ground speed and expected elapsed time.
- 4.41.4 A fuel requirement should be established including a suitable contingency and reserve allowance.
- 4.41.5 The factors of weight, balance and performance should be considered.
- 4.41.6 A method of assessing the progress of the flight and a means of correcting any deviations should be prepared.
- 4.41.7 The solo cross country flights should follow dual details covering the appropriate elements. The first solo cross country should be completed in an area within which the student has previously flown dual. The first solo cross country with an away landing should normally be to an airfield previously visited with an instructor.
- 4.41.8 Instructors should take care in assessing the suitability of solo cross country routes, weather conditions and the availability of remaining daylight. Prior to authorising the flight the instructor must ensure that the student is fully briefed for all reasonable eventualities. The flight should be authorised by means of the 'NPPL (M) Qualifying Cross Country Certificates' a copy of which is included in Appendix C of this Guide.

4.42 DUAL REVISION FOR GST - EX 19A

- 4.42.1 This exercise should ensure that all the preceding elements of the syllabus have been adequately covered and that the student has attained and maintained the appropriate standard. If any areas of the student's performance fail to reach an acceptable standard the instructor should complete further training prior to presenting the student for the GST.
- 4.42.2 The final detail in this exercise can usefully be structured as a 'mock' GST. This will afford the student the opportunity of experiencing the format of the GST, whilst the instructor can make a final assessment of the student's readiness for the Test.

Section 4.3 DIFFERENCES TRAINING

1. DIFFERENCES TRAINING

- 1.1. Differences training is given to pilots to prepare them for flying aircraft which have differences to those aircraft that they are used to.
- 1.2. Some differences training is mandated by regulation and must be taken; some is not mandated but is sensible to consider taking anyway.
- 1.3. The mandated differences training must be given by a flight instructor entitled to instruct on the aeroplane on which the training is being given, recorded in the holder's personal flying logbook and endorsed and signed by the instructor conducting the training. Even if not mandated it is wise to only undertake differences training with an instructor.
- 1.4. When differences training has been completed both the instructor and the pilot should feel confident that the pilot fully understands the difference and is practised in managing it.

2. INSTRUCTOR'S DUTY OF CARE

- 2.1. It should be understood that simply having 'difference training' entered and signed off in the pilot's log book is no absolute guarantee of safety.
- 2.2. Part of an instructor's duty of care to a pilot who has just undergone differences training is to ensure that they understand that there are factors that can dilute the effectiveness of the differences training. These factors include:
 - 2.2.1. Significant time lapse between the differences training and the pilot flying PIC on the new control type or in a new or different aircraft type.
 - 2.2.2. The pilot flying as PIC from a different airfield to the one where the differences training was conducted, especially if that airfield is a more demanding one, for example, significantly smaller.
 - 2.2.3. That if the differences training did not include a solo supervised flight then the pilot is strongly advised to undertake this with supervision by an instructor.
- 2.3. DT is a minimum requirement to convert from one control type to another or in a new or different aircraft type. It is not a complete training course and as such reliance is placed on the pilot's aviation experience which is presumed to have been gained beforehand. Consequently the pilot should be advised to build slowly and carefully on the differences training experience, for example flying in undemanding air conditions, in the early stages.

3. MICROLIGHT DIFFERENCES TRAINING

- 3.1. The Air Navigation Order requires microlight difference training to be completed when the aeroplane—
 - a) has three axis controls and the holder's previous training and experience has only been in an aeroplane with flexwing or weightshift controls;
 - b) has flexwing or weightshift controls and the holder's previous training and experience has only been in an aeroplane with three axis controls;
or
 - c) has a maximum take-off mass over 450kg (475kg if equipped with a Ballistic Parachute Recovery System or 495kg if it is a two-seat amphibian or floatplane) and the holder's previous training and

- experience has only been in a microlight aeroplane with a maximum take-off mass under that amount;
- d) has a maximum take-off mass under 450kg (475kg if equipped with a Ballistic Parachute Recovery System or 495kg if it is a two-seat amphibian or floatplane) and the holder's previous training and experience has only been in aeroplanes with a maximum take-off mass over that amount;
- e) is fitted with-
 - i. a tricycle undercarriage;
 - ii. a tailwheel;
 - iii. a supercharger or turbo-charger
 - iv. a variable pitch propeller;
 - v. Electronic Flight Information Systems
 - vi. an autopilot system
 - vii. more than one engine; or
 - viii. an electric engine

or retractable undercarriage, and the holder does not have experience in aeroplanes with those features, before exercising the privileges of the rating the holder must complete appropriate differences training.

- 3.2. The differences training mentioned in paragraph 3.1 must be given by a flight instructor entitled to instruct on the aeroplane on which the training is being given, recorded in the holder's personal flying logbook and endorsed and signed by the instructor conducting the training.
- 4. Where the aeroplane is to be operated from water during take-off and landing, before exercising the privileges of the rating the holder must
 - a) complete appropriate differences training; and
 - b) attain a pass in the Private or Professional Seamanship examination.

5. 600KG

- 5.1. To ensure that pilots moving from traditional microlights onto possibly more advanced designs, which can have significantly different handling characteristics, following the definition change to 600kg it has been agreed that some areas of flight and ground training should be emphasised by differences training before a pilot flies the heavier aircraft.
- 5.2. Of course some microlight pilots will have experience of flying aircraft heavier than microlights and this has been recognised in the requirements.
- 5.3. Holders of a licence with a Microlight Class Rating issued in accordance with the microlight syllabus prior to revision on 01/01/2019 to fly a two seat Microlight Landplane with a MTOM in excess of 472.5kg, or a single seat Microlight Landplane with a MTOM exceeding 315kg, shall undertake differences training with an instructor qualified to conduct flight instruction in such an aircraft, unless the pilot has gained the experience previously by holding a qualification to fly heavier aircraft, such as a PPL(A)SEP or a NPPL(A)SSEA or an EASA PPL or LAPL.
- 5.4. Holders of a licence with a Microlight Class Rating issued in accordance with the microlight syllabus prior to revision on 01/01/2019 to fly a two seat Microlight Seaplane with a MTOM in excess of 495kg, or a single seat Microlight Seaplane with a MTOM exceeding 330kg, shall undertake differences training with an instructor qualified to conduct flight instruction in such an aircraft, unless the

pilot has gained the experience previously by holding a qualification to fly heavier aircraft, such as a PPL(A)SEP or a NPPL(A)SSEA or an EASA PPL or LAPL.

- 5.5. Differences training to be at the discretion of the instructor and may comprise of a ground briefing without flight training, or a ground briefing with flight training. The differences training to be recorded as completed in the pilot's logbook.
- 5.6. Differences training to include as well as any applicable element listed in paragraph 2.1 and 2.2 an appreciation of performance differences and calculation of aircraft balance.

6. PPL SEP HOLDERS

- 6.1. A Part-FCL licence with single-engine piston aeroplane privileges is not deemed to be rendered valid for a microlight aeroplane unless the holder of the licence has undergone differences training in accordance with Chapter 2 of Part 2 of Schedule 8, appropriate for a microlight aeroplane class rating.

7 ADMINISTRATION

- 7.1 Each lesson forming part of the differences training must be recorded in the holder's personal flying logbook. It is considered best practice for the instructor to sign against each entry and to write their CAA reference number alongside their first signature.
- 7.2 Upon completion of the differences training the instructor must write in the holder's logbook that differences training has been completed and sign against it with their CAA reference number. The control type to which the differences training relates must be specified.
- 7.3 Example logbook entry "Differences Training Flexwing to Fixed Wing completed By A.N.Instructor A.N.Instructor CAA No 123456A".
- 7.4 Also see Section 3.5 paras 4.5.1 and 4.5.2.

Section 4.4 DIFFERENCES TRAINING - SEP FI TO MICROLIGHT

1. SEP FI to Microlight – Differences Guidance

1.1. The holder of an Instructor Certificate entitling them to instruct in an SEP type may also instruct in a microlight aircraft subject to:

- Completing differences training in a microlight aircraft (ANO)
- Following the NPPL (A) Microlight training syllabus

2. Points for consideration when converting from usual SEP types used for instruction, e.g. PA28, Cessna 152.

2.1. Flight characteristics

2.1.1. Low inertia. Microlights are by definition “light” and as such tend to have low inertia. This means that energy conservation, particularly during the landing phase, can be critical. This is further compounded in some types which have greater drag and therefore may not respond as readily to power or pitch inputs. A common early comment from pilots converting to flying microlights is how airspeed decays rapidly and how much more subject to gusts and turbulence the aircraft can be.

2.1.2. Weight limits. Although the 600kg microlights will hopefully have a greater payload capacity than some of the current, particularly three axis, microlights, most aircraft have limited payload capacity and it is important that the aircraft are flown within placarded limits. In some cases this means that certain individual instructor/student combinations cannot fly together with anything less than limited fuel. Some 600kg aircraft may also be more critical in terms of centre of gravity limitations. It is important that a full understanding of weight and balance limitations is demonstrated by both the student and the instructor.

2.1.3. Cockpit weight. Many microlights have limited capacity for loading within the cockpit itself. Several current three axis microlights have a maximum load per seat of 86kg and a maximum cockpit weight of 172kg. These are usually structural limits to enable the seat to withstand loading during an accident, so cannot be ignored. Seat limits limit the combination of individuals that can use the aircraft irrespective of all up weight when considering baggage and fuel. The seat limits must be considered when making weight and balance calculations.

2.1.4. Flight limitations. As with any type, microlights have a Pilot Operating Handbook (POH) which will specify any flight limitations. Particularly important with lightweight aircraft are maximum wind and maximum crosswind limitations. These should be observed at all times.

3. Syllabus

3.1. The NPPL (A) Microlight syllabus has been written by the CAA Microlight Examiner Panel. It is not the same as the PPL Syllabus because it has been written to emphasise the characteristics of microlights and the way that they are flown.

3.1.1. Structure. The structure of the syllabus has been recently reviewed and revised in the light of over 30 years of use. Changes to the order and detailed content of flight exercises are the result of practical experience and are now accepted as being the most suitable sequence to follow.

3.1.2. Performance. Most microlights are by their nature able to take-off and land within a short distance, although the heavier faster aircraft such as those in the new 600kg category will need more room than the historic slower aircraft.

- 3.1.3. The ability to use relatively short spaces to land is recognised in the syllabus as an advantage when a pilot may have reason to prefer a precautionary landing to continuing in flight. The syllabus emphasises the importance of carrying out a precautionary landing correctly following accidents when pilots have not done so.

4. Examinations

- 4.1. There are specific ground examinations for the NPPL (A) Microlight licence. These reflect the syllabus content and contain questions on the specifics of the licence and limitations and the aircraft's airworthiness regime which is vital licence holders understand with the high level of ownership among microlight pilots.
- 4.2. The Technical Oral examination, which can be conducted by suitably qualified Flight Examiners, also requires complete knowledge of the syllabus content and so must be covered during flight instruction.

5. Further Guidance

- 5.1. As part of its delegated oversight of microlight pilot training, the British Microlight Aircraft Association (BMAA) publishes a Guide for microlight instructors and examiners. In it, the expected conduct of all flight exercises is detailed as well as much more information for the conduct of training and examination for the NPPL (A) Microlight licence. All instructors are advised to obtain a copy and use its contents to standardise instruction on microlights.




SECTION 5

NPPL M EXAMS AND TESTS



Section 5.1 NPPL M WRITTEN EXAMS

Eligibility of candidate	No candidate should be allowed to sit the same paper twice. If a candidate does not succeed in passing in three attempts guidance should be sought from BMAA LIAC.
Examiner qualifications	GR
Guidance for conduct of test	<p>GENERAL</p> <p>Examiners are reminded that they must take adequate precautions to ensure that candidates are not able to obtain prior knowledge of the contents of the exam papers. Exam papers should be stored in a secure place to which only the authorised examiner has access.</p> <p>Any wall maps or notice boards containing extracts from publications relevant to the exam and which might assist the candidate should be removed from the exam room.</p> <p>The written exam sets must be current at the time of taking the exams.</p> <p>The set number should be marked clearly on the candidate's answer paper. The time limit printed at the head of each question paper should be strictly observed.</p> <p>Examiners should be mindful of the candidate's right to appeal against the conduct of the exam.</p> <p></p> <p>BRIEFING</p> <p>Candidates are not permitted to bring any reference books or papers into the exam room.</p> <p>Candidates are required to provide themselves with all necessary writing, drawing and calculating instruments; e.g. dividers, protractors and navigation computers (CRP1 etc.). The use of electronic navigational calculators is permitted.</p> <p>Candidates should be warned that any infringement of the exam rules might result in disqualification.</p> <p>Candidates should be in attendance at least ten minutes before the scheduled time for the commencement of each paper.</p> <p>INVIGILATION</p> <p>The exam should be invigilated throughout either by the authorised examiner or by a responsible person on the staff of the club or school appointed for the purpose by the examiner. Exam papers may only be marked by the examiner and, if invigilation has been delegated, papers should be returned to the examiner immediately after the end of the exam. Answer papers should bear the name in block capitals of both the invigilator and the examiner who marked the paper and also the date of the exam.</p> <p>Strict discipline and silence should be maintained during the exam. The invigilator should not enter into any discussion with the candidate concerning any part of the exam paper or the interpretation of a question.</p>

	<p>COMPLETION OF TEST</p> <p>If a candidate does not answer all the questions correctly the examiner should indicate where weak areas lie but must not discuss the answers to specific questions irrespective of the candidate having passed or failed the examination.</p>
Content of test	NPPL M ground syllabus.
Standards required	The candidate must achieve a mark of at least 75% in order to pass the exam.
Results	Pass or Fail.
Admin	<p>An example of a Ground Exam answer sheet is included in Appendix C of this Guide.</p> <p>The completed answer sheets must not be given to the student to keep or post.</p> <p>PASS In the event of a pass the examiner should complete the relevant certificate in Section 5 of the Licence Application Form 102M and give that form to the candidate, and keep the answer paper for a minimum of three years with the student's records. If the candidate is not one of your own students you may send the answer sheets to the BMAA where they will be stored.</p> <p>FAIL In the event of a failure the examiner must complete a Notice of Failure Form SRG 2129. One copy of the Form must be handed to the candidate, one sent to the BMAA LIAC together with the answer paper and the other retained by the examiner for information.</p>
Validity period	Within 24 months preceding the date the licence application is received by the BMAA LIAC.

Section 5.2 NPPL M ORAL EXAM – Aeroplane Technical Part 2 Type Specific

Eligibility of candidate	Normally done at the time of the GST
Examiner qualifications	FE
Guidance for conduct of test	<p>Candidates for the oral type exam (i.e. Aeroplane Technical Part 2) are required to demonstrate a satisfactory level of knowledge of the specific microlight aircraft on which the NPPL (M) General Skill Test is taken.</p> <p>A sample assessment sheet is provided in Appendix C of the Guide, it should be completed by the examiner with reference to the guidance in this section.</p> <p>The Aircraft Manual, Permit to Fly, Aircraft and Engine logbook as well as the Aircraft itself should be available during the exam.</p> <p>The duration of the test is not likely to be less than 30 minutes.</p>
Content of test	<p>The purpose of this section is to provide suitable material on which the examiner should ask questions as a means of assessing the candidate's knowledge.</p> <p>The exam will cover the following areas, where they are applicable to the specific microlight aircraft.</p> <p>RIGGING AND DE-RIGGING PROCEDURES (assembly & disassembly)</p> <p>It is not necessary for the candidate to demonstrate the complete rigging and derigging procedure to the examiner. The examiner must, however, ensure that the candidate has sufficient knowledge to competently rig and de-rig the aircraft to a 'road transportable' state (providing that the aircraft is designed to be dismantled as a part of its normal operation).</p> <p>It should be possible for the examiner to ensure adequate candidate knowledge and understanding in this area by questioning the candidate alongside the aircraft. The examiner has the option to require a demonstration of the procedure if he feels that it is essential.</p> <p>The following areas should be covered:</p> <ol style="list-style-type: none"> 1. Positioning of aircraft in relation to an appropriate space, surface and any wind. 2. Provision of any tools and/or assistance that may be required. 3. Correct handling and stowage of component parts of the aircraft. 4. Discussion of areas requiring close scrutiny following rigging of the aircraft. In particular any parts of the primary structure and control systems which have been disturbed during the process. <p>PILOT MAINTENANCE</p> <p>The following areas should be covered:</p> <p>Maintenance of aircraft airworthiness documents and required servicing schedules.</p>

Maintenance of records in aircraft and engine logbooks.
Servicing and repair procedures permitted by pilot and subsequent inspection procedure.

AIRCRAFT LIMITATIONS

(Including weight, balance, performance, endurance and range).

The candidate must demonstrate knowledge of:

Loading

- Maximum take-off weight
- Empty weight
- Maximum cockpit loading with full fuel load
- Minimum cockpit loading
- Provision for fitting of ballast
- Provision for carrying of baggage
- Centre of gravity limitations

Operation speeds as applicable to type

- V^{ne}
- V^{no}
- V^{ra}
- V^{fe}
- V^s (with and without flap)
- V^s (wings level and wings banked)
- Limitations of aerodynamic loading
- Handling limitations with maximum fuel and payload

Maximum limits of angles of aircraft in relation to horizon in:

- Pitch
- Roll



Flight conditions for which the aeroplane is certified:

- Day/Night
- VFR/IFR
- Icing

Weight and Performance - knowledge of take-off distance and landing distance (given specific conditions of weight, temperature and altitude and the Flight Manual or equivalent document).

Knowledge of range and endurance of aircraft.

FLYING CONTROLS

Understanding of type and operation of the following systems as applicable:

- Rudder
- Variable incidence mainplane
- Aileron
- Spoiler
- Elevator (or stabilator)
- Weight shift (bellow-shift mechanism)

Any inter-connection of control system, e.g., rudder/aileron, weight shift/elevator.

Understanding of type and operation of trim systems:

- Trim

	<p>Balance Anti-balance</p> <p>Understanding of the operation and indications of the flap or air brake system: Electric Mechanical Range of control movement Asymmetry - indication and protection</p> <p>Stall warning system type and indications: Mechanical Aerodynamic Electrical</p> <p>Understanding of type of and operation of nose wheel steering, including any inter-connection of nose wheel and rudder.</p> <p>LANDING GEAR</p> <p>Understanding of type of shock absorber: Leaf spring Bungee Oleo pneumatic</p> <p>Recognition of normal ground attitude of aircraft.</p> <p>Understanding of type and operation of brakes: Mechanical Hydraulic Disc Drum</p> <p>Knowledge of defects (particularly unacceptable) in tyres: Normal pressure</p> <p>Retractable: Knowledge of type and understanding of operation of system Knowledge of non-normal operation and emergency procedures</p> <p>ELECTRICAL SYSTEM</p> <p>Knowledge of system voltage.</p> <p>Type of generators or alternators. Understanding of system indications: Voltmeters Ammeter Warning lights</p> <p>Knowledge of location of batteries.</p> <p>Approximate length of time power is available from fully charged batteries.</p> <p>Knowledge of fuses/circuit breakers: Location Operation</p>
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HEATING/VENTILATING SYSTEM

Knowledge of type and operating of heating system.

- Normal operation
- Controls

Knowledge of potential dangers:

- Recognition of carbon monoxide
- Precautions to be taken if carbon monoxide is suspected

Knowledge of action in the event of a cabin fire.

FLIGHT INSTRUMENTS

Instruments operated by electrical system.

Instruments operated by pitot/static system:

Position of:

- Pitot heat
- Static vents
- Drains

Alternate static:

- Purpose of use of

ENGINE

Engine:

- Type (2 or 4 stroke)
- Reduction drive types

Carburettor:

- Type
- Permitted adjustments

Understanding of ignition system and component parts

Understanding of type and importance of engine cooling system

Knowledge of action in event of engine fire.

ENGINE INDICATIONS

Detailed knowledge of RPM:

- Maximum normal operating (red line limits)
- Overspeed

Temperature - CHT/EGT.

- Normal
- Maximum

Temperature – water/ coolant.

- Normal
- Maximum

Temperature - oil.

	<p>Minimum Maximum</p> <p>Pressure - oil. Minimum Maximum</p> <p>Purpose of Magneto check/ignition check:</p> <p>Significance of: Maximum drop Difference between magnetos Dead cut check.</p> <p>ENGINE CONTROLS</p> <p>Understanding of correct use of throttle controls.</p> <p>Understanding and correct use of mixture control (use of EGT gauge): Power and altitude limitations on leaning Leaning for maximum power Leaning for maximum economy</p> <p>Understanding of carburettor, heat system and of icing: Type of system Indication of icing Correct use of carburettor heat system</p> <p>Understanding of use of choke or priming control</p> <p>Understanding of magnetos or ignition control.</p> <p>FUEL SYSTEM</p> <p>Knowledge of grade of fuel</p> <p>Number and useable capacity of tank(s)</p> <p>Location/importance of: Location of fillers Special precautions</p> <p>Understanding of type and operation of fuel system: Gravity Pumps - electrical engine driven/pressure driven</p> <p>Airborne fuel management - any tank priority</p> <p>Use of electric pumps</p> <p>Knowledge of quantity indication: Mechanical Electrical Effect of aircraft attitude</p>
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	<p>Methods and precautions of priming.</p> <p>OIL SYSTEM</p> <p>Knowledge of oil system: Grade of oil Maximum and minimum quantities Location/size of tank (or sump) Correct fuel to oil ratio</p> <p>Understanding of lubrication system.</p> <p>PROPELLERS</p> <p>Understanding of importance of cleanliness/condition of blades (nick/cuts/delamination, etc)</p> <p>Understanding of variable pitch control: Mechanism Use</p> <p>Understanding of ground adjustable pitch: Mechanism Use.</p>
Standards required	<p>Throughout the Technical Exam Part 2 (Oral) the candidate must demonstrate a level of knowledge and understanding sufficient to ensure the safe operation of the aircraft. The candidate must be able to achieve a pass in every relevant section of the exam.</p>
Results	<p>Pass or Fail</p>
Admin	<p>On completion of the test the examiner will inform the candidate of the result and complete the assessment sheet accordingly.</p> <p>PASS If the candidate has displayed a satisfactory level of knowledge in all the relevant sections of the test, the examiner will record a 'pass' in Section 5 of the application form (FCL 102M) and give the form to the candidate. The assessment sheet is to be retained with the student's records held by the student's flight instructor.</p> <p>FAIL If the candidate has failed the test the examiner should ensure that the candidate fully appreciates the areas requiring improvement prior to a re-test. The examiner will present the candidate with a notice of failure (SRG 2129). The completed form should clearly state the reason for the failure. One copy of the form must be handed to the candidate, one set to the BMAA LIAC together with the assessment sheet and the third retained by the examiner for information.</p>
Validity period	<p>From 9 months preceding the date the licence application is received by the BMAA LIAC.</p>

Section 5.3 NPPL M GENERAL SKILLS TEST (GST)

Eligibility of candidate	The GST is taken after completion by the candidate of the exercises in the syllabus.
Examiner qualifications	<p>FE</p> <p>If the Flight Examiner's authority is not restricted to a particular Control Type of microlight aircraft (i.e. Fixed Wing or Flexwing), it is only appropriate for an Examiner to test a candidate in a Control Type in which the Examiner is competent. Competent on type can be defined as having logged a minimum of 5 hours PIC whilst giving flight instruction on the Control Type and being able to complete all manoeuvres to be covered in the GST, to a high standard.</p> <p>It is recommended that an Examiner does not test students which he has trained. In reality, however, it is not always possible to meet this recommendation. When it is unavoidable for a GST to be conducted by an Examiner who has been involved in the training of the candidate the following guidelines should be used:</p> <ol style="list-style-type: none"> 1. Arrange the exercises approaching the GST to be flown with an Instructor other than the Examiner. 2. Whilst ensuring that the candidate is not placed under undue pressure, the Examiner must establish an Examiner/Candidate relationship leaving the candidate in no doubt that he is under test.
Guidance for conduct of test	<p>Prior to starting the GST the Examiner must ensure the candidate's eligibility for the test.</p> <p>The Examiner must ensure that the aircraft to be used for the test is currently legal for flight. The Examiner should check that the airworthiness document and maintenance status are current; in addition he should be satisfied that the flight will be covered by mandatory insurance.</p> <p>The GST may consist of one or more flights flown on one or more days. The flight time element of the test should last for approximately one hour and must be completed within 28 days.</p> <p>In the event that during the test it becomes apparent to the Examiner the candidate has failed the test, the test should be completed. This will give the candidate an understanding of his performance on the remaining parts of the test in preparation for re test.</p> <p>The importance of the Examiner's role in the testing of student pilots during the General Skill Test (GST) cannot be overstated. The GST may be the one and only opportunity to assess a pilot's ability to safely operate a microlight aircraft during the time he holds a NPPL M.</p> <p>The Examiner is directly responsible to the CAA for conducting the GST. The Examiner should also consider his responsibilities to the candidate, any passengers he may fly with, other air users and third parties on the ground. All of these groups rely upon the Examiner to ensure the required standard has been achieved by a successful candidate.</p> <p>In addition the candidate has the right to be tested against an established standard in a fair and objective manner. In order to maintain objectivity and fair treatment, the Examiner should avoid any possibility of the candidate gaining the impression that he is competing against personal opinions, attitude or mood as opposed to established standards of performance.</p>

	<p>Following the initial meeting with the candidate the Examiner should attempt to place him at ease whilst establishing the correct Examiner/Candidate relationship. A suitably quiet, isolated and relaxed environment should be used for briefing and planning purposes. The avoidance of any distractions to either Examiner or candidate, at this time, is essential. The following aims to provide the Examiners with the ability to test candidates in a standardised manner and provides a suggested sequence for the various aspects to be covered during the GST. It is a logical sequence, which should provide an efficient means of covering all the required exercises. It is left to the individual Examiner on the day, however, to follow a sequence which he feels is appropriate. The Examiner is required, however, to ensure that all the elements are covered.</p>
Content of test	<p>BRIEFING</p> <p>The candidate should be reminded that the test is being conducted on behalf of the CAA and that there is a right of appeal to the CAA on the basis of the conduct of test but not the result.</p> <p>The candidate should be briefed to conduct all aspects of the flight as the pilot in command. The Examiner will indicate, however, that the Examiner is ultimately in command of the flight but he will only assume command if either the Examiner or candidate decides it is necessary.</p> <p>The candidate should be briefed to deal with any problems or emergencies occurring during the flight (i.e. all aspects of the flight should be dealt with by the candidate rather than the Examiner, unless directed otherwise).</p> <p>The Examiner will provide a detailed description of the sequence of the flight. The Examiner should brief the candidate that throughout the test he will indicate what is required from the candidate (i.e. it is not necessary for the candidate to remember the sequence from the ground briefing). The Examiner should prepare the candidate for the possibility of the sequence of the flight being amended, once airborne, for operational reasons.</p> <p>The candidate should be briefed to carry out any requests from the Examiner in his own time. Whilst the Examiner will not intentionally attempt to entrap the candidate, he should question any request, which appears inappropriate. The candidate should be encouraged to seek clarification if any doubt exists as to what is expected of him.</p> <p>The Examiner is required to indicate that all the appropriate parts of the NPPL M application form have been assessed during the test.</p> <p>PREPARATION FOR FLIGHT</p> <ul style="list-style-type: none"> - WEATHER SUITABILITY - AEROPLANE DOCUMENTS CHECK - PERSONAL DOCUMENTS CHECK - WEIGHT AND BALANCE - WEIGHT AND PERFORMANCE - FUEL AND OIL STATE - AEROPLANE ACCEPTABLE - BOOKING OUT, ATC - PRE-FLIGHT INSPECTION <p>The candidate must consider all the above aspects. The Examiner will ensure compliance by observation and where necessary appropriate questioning.</p>

STARTING, TAXYING AND POWER CHECKS

- PRE START CHECKS
- POST START CHECKS
- TAXYING CHECKS
- POWER CHECKS

The Examiner will assess these elements as a part of the candidate's normal operation of the aircraft.

TAKEOFF AND DEPARTURE

- PRE TAKEOFF CHECKS
- DURING AND POST TAKEOFF CHECKS
- NORMAL TAKEOFF
- AERODROME DEPARTURE PROCEDURE
- CLIMBING
- STRAIGHT AND LEVEL FLIGHT
- DESCENDING WITH POWER/FLAP/SPOILER
- TURNING - LEVEL/CLIMBING/DESCENDING

These elements are best assessed during the first part of the test. The exercises are relatively undemanding, the candidate will be able to relax, assess the aircraft and flying conditions. The candidate will have been briefed to depart the airfield in a predetermined direction climbing to a selected altitude.

The Examiner will request a series of manoeuvres, which will cover the above elements. To aid the Examiner in the assessment of the handling skills of the candidate it can be a useful exercise to link these simple manoeuvres together in an unusual sequence. For example, the Examiner can request the candidate to reverse a climbing turn to the right into a descending turn to the left, without establishing straight and level flight between manoeuvres. An additional exercise is for the Examiner to request a number of airspeed changes whilst the candidate completes a series of manoeuvres. If the aircraft is fitted with flaps and/or spoilers the candidate can be asked to lower and raise these devices whilst maintaining level flight at a selected airspeed.

The Examiner should arrange the sequence of these manoeuvres in order to position the aircraft in a suitable location at an appropriate altitude to continue with the upper air exercises.

NAVIGATION AND ORIENTATION

- RECOGNITION OF FEATURES
- ASSESSMENT OF HEADING

The ability of the candidate to use a chart and assess heading without formal navigational planning will be assessed throughout the test by the Examiner. At the briefing stage the Examiner should indicate the area in which the upper air exercises are to be completed. The Examiner will brief the candidate that he is expected to maintain knowledge of position throughout the test. The Examiner should appreciate the high workload that the candidate is likely to experience during the upper air sequences. The Examiner should accordingly arrange for the exercises to be flown close to a readily identifiable fix to assist the candidate in maintaining orientation.

The candidate will be expected to plan a return to the airfield at the Examiner's request. The Examiner will be looking for an approximate assessment of heading followed by adjustment based on the use of the chart and recognition of ground features.

SLOW FLIGHT, STALLING AND SPINNING

- CHECKS BEFORE MANOEUVRE
- SLOW FLIGHT
- RECOVERY FROM INCIPIENT STALL
- RECOVERY FROM DEVELOPED STALL
- RECOVERY FROM DEVELOPED STALL IN THE TURN
- RECOVERY FROM DEVELOPED STALL IN THE APPROACH CONFIGURATION

The candidate will fly the aircraft throughout the entry and recovery for this exercise.

The slow flight element should be flown at a small increment of speed above the stalling speed of the aircraft. A target airspeed should be established at the aircrafts stalling speed plus 5 to 10 knots (or miles per hour) dependent upon aircraft and flying conditions. The candidate will be required to carry out a series of level, climbing and descending manoeuvres in straight and turning flight at the slow flight airspeed.

The Examiner will expect the candidate to recover from the various types of stall entry by means of the Standard Stall Recovery. The Examiner may, however, specify a recovery into a gliding flight, without the use of power for a limited number of recoveries if he feels it is appropriate.

It is not possible to assess the candidate's ability to recover the aircraft from a spin at the incipient stage in the current generation of microlight aircraft, as none are cleared for spinning. In addition, the certified pitch and roll limits preclude approaching the incipient stage of the spin. In the case of aircraft types, which exhibit a wing drop at the stall the Examiner, should assess the candidate's knowledge of the spin and recovery by questioning.



ADVANCED TURNING

- TURNING AT HIGH ANGLES OF BANK

The Examiner will request the candidate to demonstrate level turns up to 60° of bank to both the left and right, onto a pre-determined heading.

UNUSUAL ATTITUDES

- RECOVERY FROM:

NOSE ATTITUDE HIGH WITH WINGS LEVEL AND WITH WINGS BANKED
NOSE ATTITUDE LOW WITH WINGS LEVEL AND WITH WINGS BANKED

This part of the test is best accomplished by the Examiner placing the aircraft in the disturbed condition and the candidate then recovering. This method will ensure that the candidate is correctly identifying the aircraft attitude and that the recovery is carried out using the appropriate technique.

In order to fully assess that a candidate is correctly analysing the manoeuvre it is necessary for the Examiner to enter each of the unusual attitudes in a manner that does not signpost the attitude that the candidate will be asked to recover from. This ensures that the candidate is capable on recognising the attitude of the aircraft rather than instinctively responding to a familiar entry manoeuvre.

	<p>The examiner will brief the candidate to expect the following:</p> <ol style="list-style-type: none"> 1. Following the appropriate checks the examiner will take control of the aircraft. 2. The candidate will leave his hands and feet on the controls and follow the examiner through the manoeuvres. 3. The power should be set at a medium or cruise setting (in the case of a flexwing aircraft it will be necessary for the candidate to maintain this setting on the foot throttle) 4. The examiner will manoeuvre the aircraft through several different attitudes before placing the aircraft in the chosen attitude and asking the candidate to recover. 5. When the examiner says "recover now" the candidate will take control of the aircraft and recover to a normal attitude. <p>FORCED LANDING</p> <ul style="list-style-type: none"> - CHECKS - PROCEDURE <p>This exercise is of prime importance. The ability of a microlight pilot to successfully land his aircraft following a power failure must be demonstrated unequivocally.</p> <p>In order to ensure that this exercise is realistically assessed the candidate should be briefed to treat the situation as genuine. The engine should not, however, be shut down. The candidate should not consider environmental or legal issues in the planning of the forced landing. These are the responsibility of the Examiner who should ensure that the area chosen for the exercise is not critical in terms of environmental or legal considerations. To ensure realism the Examiner should be responsible for warming the engine and instigating the missed approach.</p> <p>The Examiner will assess the candidate's performance in terms of his ability to utilise an appropriate procedure to plan a descent, approach and landing into a suitable field and subsequently to demonstrate good judgement and handling skill in the execution of the plan.</p> <p>The candidate may find it necessary to modify his original plan for a variety of reasons, in the majority of cases this is likely to be due to a poor plan, or a good plan poorly executed. In either case awareness of the problem has resulted in good judgement being applied and an alternative plan being instigated. The candidate, however, has demonstrated a degree of poor judgement in the original plan or subsequent execution and, depending on the circumstances, the Examiner may feel it necessary to test the candidate further in this area.</p> <p>A forced landing without power could also be addressed when assessing candidate's performance whilst flying Ex 16C.</p> <p>OTHER SIMULATED EMERGENCIES</p> <p>PRECAUTIONARY LANDINGS</p> <p>This exercise is of particular importance to microlight pilots. The factors to be considered and the procedure to be adopted during this exercise are also appropriate for assessing the suitability of any 'unimproved' site.</p>
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The Examiner should assess the candidate's understanding of the factors to be considered and the appropriate procedure involved in a forced landing with power. The Examiner may achieve this assessment by questioning the candidate and/or requesting him to demonstrate a forced landing with power.

INITIAL APPROACH, CIRCUIT, LANDING AND TAKEOFF

- PRE LANDING CHECKS
- GLIDE APPROACH AND LANDING
- POWERED APPROACH AND LANDING
- SOFT/SHORT FIELD LANDING CONSIDERATIONS
- ASSESSMENT OF CROSSWIND COMPONENT
- CROSSWIND APPROACH AND LANDING
- CROSSWIND TAKE-OFF
- SOFT/SHORT FIELD TAKE-OFF CONSIDERATIONS
- ABANDONED TAKE-OFF
- MISSED APPROACH PROCEDURE
- ENGINE FAILURE AFTER TAKE-OFF
- ENGINE FAILURE IN CIRCUIT
- AFTER LANDING CHECKS

The Examiner will request that the candidate returns to the airfield and joins the circuit. The Examiner will attempt to cover the majority of the above items.

The Examiner should attempt to test the candidate's ability to assess and operate in crosswind conditions. If the combination of wind conditions and runway direction preclude the possibility of operating with a crosswind, consideration should be given to covering these items on a future occasion. Under circumstances where it is not practical to postpone the completion of the test, the crosswind consideration could be covered as a discussion item.

The engine failure after take-off and in the circuit will only be simulated; the engine will not be shut down. The Examiner will brief the candidate to continue with the procedure until the Examiner instigates the missed approach. If the candidate plans an approach to land back on the airfield, following a simulated power failure, the Examiner should brief him to complete the approach and landing, unless directed otherwise.

SIMULATED EMERGENCIES

- ENGINE FIRE IN THE AIR AND ON THE GROUND
- CABIN FIRE IN THE AIR AND ON THE GROUND

These items may be covered as discussion items. The Examiner may, however, find it more valuable to use these simulated emergencies to instigate other procedures. An engine fire when airborne should result in the candidate carrying out a forced landing without power, whilst a cabin fire in the air may well set the scene for a forced landing with power. Similarly an engine fire on the take-off roll will provide the opportunity to assess a rejected take-off.

AIRMANSHIP, AWARENESS, ENGINE AND SYSTEMS HANDLING

- LOOKOUT
- POSITIONING - RESTRICTED AIRSPACE, HAZARDS AND WEATHER
- ATC LIAISON
- PASSENGER CARE

	<p>- ENGINE AND SYSTEMS HANDLING</p> <p>These elements will be assessed by the Examiner throughout the test and/or covered as discussion items.</p> <p>ACTION AFTER FLIGHT</p> <ul style="list-style-type: none"> - ENGINE SHUT DOWN - PARKING AND SECURING OF AEROPLANE - RECORDING OF FLIGHT DETAILS <p>The Examiner will assess these items by observation and, if necessary, by discussion with the candidate.</p>
Standards required	<p>The following defines the standard that the Examiner should require from candidates for the GST.</p> <p>The candidate should be able to meet the following requirements:</p> <p>QUALITATIVE REQUIREMENTS</p> <ol style="list-style-type: none"> 1) Exercise good judgement and airmanship 2) Operate the aircraft within its limitations 3) Complete all manoeuvres with smoothness and accuracy 4) Apply aeronautical knowledge 5) Execute emergency procedures and manoeuvres appropriate to the aircraft. 6) Demonstrate control of the aircraft at all times so that the successful outcome of a procedure or manoeuvre is never in doubt. <p>QUANTATIVE REQUIREMENTS</p> <p>The following tolerances are provided to give general guidance relevant to 'typical' training aircraft. Examiners should take into account specific aircraft performance when applying these requirements. All height and speed tolerances assume good flying conditions without any significant turbulence. In turbulent conditions suitable allowances must be made.</p> <ol style="list-style-type: none"> 1) Height control - tolerances <ul style="list-style-type: none"> - normally within 100 ft of required altitude - not more than 200 ft at any times - not more than 100 ft for more than 30 seconds 2) Heading control - tolerances <ul style="list-style-type: none"> - normally within 15 degrees of required heading - not more than 30 degrees at any time - not more than 15 degrees for more than 30 seconds 3) Airspeed control - tolerances <ul style="list-style-type: none"> - normally within 5 mph/kt of required airspeed - not more than 10mph/kt at any time - not more than 5mph/kt for more than 30 seconds - never below approach airspeed, during the approach 4) Stall recovery - height loss is significantly affected by aircraft type and loading. The candidate's performance should be assessed against the 'base line' of the height loss achieved by the application of the correct technique. The candidate should not exceed the 'base line' height loss by more than 50%.

	<p>5) Forced landing (without power)</p> <ul style="list-style-type: none"> - normally procedure should be correctly applied and produce a successful result - Further attempts may be allowed providing first procedure would not have resulted in an unsafe condition.
Results	<p>THE DEBRIEFING</p> <p>The candidate should be encouraged to analyse and criticise his own performance in all aspects of the test. The debriefing will follow the sequence of the test. The Examiner will comment on both the positive and negative aspects of the candidate's performance.</p> <p>In the event of a partial pass or failure it is important that the candidate fully appreciates the aspects of his performance that were unsatisfactory. The Examiner should provide precise details of areas, which did not meet the required standard, including explanation of the correct technique or procedure. The candidate should also be given guidance concerning the requirement for further training (in terms of both content and duration) prior to completing or attempting the GST again.</p> <p>THE RESULT</p> <p>There are three possible results to a GST. The normal result will be either a pass or a fail, there is an option for a partial pass.</p> <p>PASS</p> <p>If the candidate has passed the test he should be given some indication of the result as soon as possible.</p> <p>FAIL</p> <p>If the candidate has failed the test the result should be communicated to the candidate in a positive and yet diplomatic manner.</p> <p>PARTIAL PASS</p> <p>If the candidate fails to reach a pass level on some areas of the test but the Examiner feels that the rest was satisfactory a Partial Pass can be awarded. Elements of the flight that were failed can be flown at a later date following training or practice as required. On the subsequent test only those elements previously failed need be flown although the whole of that flight should be to pass standard. All the elements of the GST must be successfully completed within a 28 day period.</p>
Admin	<p>GENERAL</p> <p>An example of the NPPL M Application Form 102M and Checklist is included in the Guide, Section 3, and on the BMAA web site. It is important to ensure the up to date version is used for the application for the NPPL M and completion of Section 6 by the Examiner. This can be found on the BMAA web site.</p> <p>Whatever the result of the GST the candidate's flying logbook must be completed as detailed below. The entry must include details of the flight and be signed by the Examiner, including his Examiner authorisation number.</p> <p>The Examiner's fee (plus travelling expenses, if applicable) is paid directly to the Examiner by the candidate.</p> <p>GST PASSES</p> <p>The Examiner will complete Section 6 of the NPPL M Application Form 102M. The name of the candidate must be entered on the top of the form, together with details of the flight. If</p>

the GST consisted of more than one flight the details of each flight must be recorded on the form. The date on which individual parts of the test are completed must be entered in the appropriate column of the form. The Examiner will finally complete the form by including his own details and signing in the appropriate place.

LOGBOOK

The candidate's logbook must be completed to show the Examiner as Captain, the candidate as P1/S, the flight duration entered in the P1 column and the remarks column should show 'GST Pass' and be signed by the Examiner.

The GST hours do not count towards the solo requirements for the licence application.

The Examiner must not place a 'Certificate of Test' in the candidate's logbook, only the licensing agency is permitted to sign the initial Certificate.

Prior to the submission of a NPPL M application to the BMAA LIAC it is suggested that the application is reviewed to ensure all requirements have been satisfied. The NPPL M Application Checklist is provided both in this Guide and on the BMAA web site to help Instructors and Examiners fulfil this recommendation.

The successful candidate must be made aware that on receipt of the Licence it must be signed by the Holder before the privileges of that Licence can be exercised.

GST PARTIAL PASS

The Examiner will complete Section 6 of the NPPL M Application Form 102M as far as possible. Those parts of the GST successfully completed will be dated on the form.

LOGBOOK

The candidate's logbook should show the Examiner as Captain, the candidate as PUT, the duration of the flight entered in the Dual/P2 column. The remarks column should show 'GST Partial Pass' and be signed by the Examiner.

When the test is completed the remaining details should be entered in Section 6 and the flight exercises completed should be dated on the form 102M. The Examiner should complete the declaration at the bottom of the page.

LOGBOOK.

The candidate's logbook should show the Examiner as Captain, the candidate as P1/S and the duration of the flight should be entered in the P1 column. The remarks column should show 'GST Completed Pass' and be signed by the Examiner.

GST FAILURES

The Examiner should not complete any part of Section 6 of the NPPL M application form.

The candidate must be given a 'Notice of Failure' form (Form FCL 252 or SRG 2129). The reason for the failure should be given clearly and in detail and the form must be signed by the Examiner.

The candidate must be invited to sign the form and their attention must be drawn to their right of appeal. Copies of the form must be sent to the BMAA together with the test report, a copy given to the candidate and the Examiner should retain a copy.

In all cases if the candidate refuses to sign the form the Examiner should endorse the copies accordingly. If the candidate refuses to accept the copy, the Examiner should forward it with the other documents to the BMAA LIAC with an explanatory note.

	<p>LOGBOOK.</p> <p>The candidate's logbook must be completed to show the Examiner as Captain, the candidate as PUT and the flight duration entered in the Dual / P2 column. The remarks column should show 'GST Fail' and be signed by the Examiner. (Note: this looks a little harsh but it stops the candidate rushing off to another Examiner for test before any required training. It is however a true record of the flight).</p>
Validity period	<p>All parts of the GST must be passed within a 28 day period and within the 9 months preceding the date the application for the NPPL M is received by the BMAA LIAC.</p>



Section 5.4 NPPL M GENERAL SKILL TEST (GST) – SINGLE SEAT

It is recommended that where possible all GSTs are carried out in two place aircraft with the Examiner on board and an efficient means of communication available between Examiner and candidate. There remains, however, the provision for solo GSTs to be conducted in single place aircraft in exceptional circumstances.

Examiners should discuss the particular case with the BMAA LIAC and obtain approval **prior** to carrying out a solo GST.

Eligibility of candidate	<p>The GST is taken after completion by the candidate of the exercises in the syllabus.</p> <ol style="list-style-type: none">1. The candidate must hold a valid Medical Certificate.2. The candidate must have prior approval through the BMAA LIAC.
Examiner qualifications	<p>FE</p> <p>If the Flight Examiner's authority is not restricted to a particular Control Type of microlight aircraft (i.e. Fixed Wing or Flexwing), it is only appropriate for an Examiner to test a candidate in a Control Type in which the Examiner is competent. Competent on type can be defined as having logged a minimum of 5 hours PIC whilst giving flight instruction on the Control Type and being able to complete all manoeuvres to be covered in the GST, to a high standard. This requirement applies to GSTs conducted in both one or two place aircraft. In exceptional circumstances if an Examiner has insufficient hours on type prior approval may be obtained through the BMAA LIAC.</p>
Guidance for conduct of test	<p>GENERAL</p> <p>The Examiner should conduct the solo GST in accordance with the same considerations as for the dual GST. The following guidance addresses the aspects of a solo GST, which differ from a test conducted in a two place aircraft.</p> <p>The Examiner is required to assess the candidate in all aspects of his operation of the aircraft. It requires considerable care and effort on the part of the Examiner to genuinely test the candidate whilst ensuring the test does not compromise safety</p> <p>The use of radio will aid considerably the safe and efficient conduct of the test. The Examiner may also find the availability of a pair of binoculars a useful provision.</p> <p>The solo GST should be divided into a series of flights in order to reduce the work load on the candidate; in addition the Examiner may wish to clarify various aspects of the candidate's performance at intervals throughout the test.</p> <p>Consideration must be given to the integration of the GST with other airfield users. The candidate will be completing a series of manoeuvres within sight of the Examiner and therefore in proximity to the airfield. It is essential that all pilots operating in the vicinity are aware that the GST is in progress.</p> <p>BRIEFING</p> <p>The briefing for the solo GST should be highly detailed. The Examiner must ensure that the candidate does not attempt to complete any manoeuvre or procedure with which he is not fully familiar. The Examiner should ask the candidate to describe the precise manner in which he intends to complete each manoeuvre and procedure. This allows the Examiner to ensure that the candidate's understanding is sufficiently sound to attempt the GST; in addition it allows assessment of the candidate in a way, which is not possible by observation alone.</p> <p>The candidate must be left in no doubt that he is in command of the aircraft at all times and</p>

	as such has complete control over the conduct of the flight. If the candidate is unable to continue with the sequence of the flight, for any reason, he should be briefed to return to the airfield.
Content of test	<p>In all aspects the same as those for the NPPL M GST but where applicable to a single seat microlight.</p> <p>The solo GST should be flown in a series of flights progressively becoming more demanding. This allows the Examiner to assess the candidate in basic exercises before progressing to more advanced areas. The following guidance provides a logical and progressive sequence for the test.</p> <ol style="list-style-type: none"> 1. Following preparation for flight, starting and taxiing the solo GST is best commenced with a series of take-offs, circuits and landings. The various types of take-off, approach and landing can progressively be demonstrated during the first part of the test. The Examiner can closely monitor the candidate and assess his ability to continue with the test. 2. The next part of the test should cover the upper air exercises. The candidate should be briefed to depart the airfield circuit and climb to a pre-determined area at a selected altitude to complete a series of manoeuvres. Each exercise should start and finish on a particular heading (usually into the wind). The candidate will demonstrate each of the required upper air exercises. It may be necessary to divide this part of the test into more than one flight, if the candidate finds it difficult to remember the required sequence. The candidate's ability to navigate and maintain orientation can be checked by the setting of an 'informal' cross country flight to a nearby feature. This part of the test will be completed with a return to the airfield and circuit joining procedure. In order to ensure that these exercises are being flown correctly the Examiner will need to observe the candidate very closely and, if necessary, clarify his performance by subsequent questioning. 3. The final flight of the solo GST will cover the simulated emergency situations. The forced landing exercises should be completed from overhead the airfield. Circuit emergency procedures should also be covered in this part of the test. The candidate will finally complete the actions after flight.
Standards required	The standards required of the Solo GST are the same as those for the Dual GST.
Results	The result options of the Solo GST are the same as those for the Dual GST.
Admin	<p>As for the Dual GST, except for the logbook entries:</p> <p>LOGBOOK</p> <p>The candidate's logbook should be completed as for the Dual GST options but the candidate will always be shown as Captain and all flight times logged as PI. The Examiner should add the wording 'Solo Supervised' in the remarks column to avoid any confusion during licence administration.</p>
Validity period	All parts of the GST must be passed within a 28 day period and within the 9 months preceding the date the application for the NPPL M is received by the BMAA LIAC.

SECTION 6

NPPL M / PPL M REVALIDATIONS AND RENEWALS



Section 6.1 MICROLIGHT CLASS RATINGS - REVALIDATION AND RENEWAL

1 AIRCRAFT RATING REVALIDATIONS Revalidation by experience.

- 1.1 The normal way of revalidating the privileges of a Microlight Class Rating is by experience. A Certificate of Experience or Revalidation may only be completed and signed if the flying logbook presented to the Examiner indicates that the required flight experience has been achieved.
- 1.2 Experience requirements: There are different minimum flight experience requirements for Microlight Class ratings that are dependent upon the type of licence in which the rating is included and the date that the rating was first issued.
 - 1.2.1 **NPPL MICROLIGHT CLASS RATING HOLDERS.** For all microlight class ratings issued from the 1st of February 2008, and all those included in any NPPL, the requirements are that within the 24 month period of validity of a Certificate of Revalidation the holder must have completed:
 - 1) A minimum total of 12 hours flight time
 - 2) Of the 12 hours at least 6 must have been flown within the 12 months preceding the expiry date of the current certificate
 - 3) Any 8 of the 12 hours must have been flown as Pilot in Command
 - 4) At least 12 take offs and 12 landings
 - 5) At least one hour of flight training in a microlight aircraft conducted by an instructor entitled to give flight training in a microlight aircraft
 - 1.2.1.1 The requirement for 1 hour of flight training does not require that the training be conducted in one flight, nor in the same aircraft, nor with the same instructor. This is a difference to the revalidation requirement for EASA PPL system.
 - 1.2.1.2 Flight Instructor Tests can be classed as flight training for the purposes of the NPPL revalidation.
 - 1.2.1.3 Where the holder has not completed the required 1 hour of flight training but has completed all other requirements the Certificate may be revalidated but must be endorsed "Single Seat aircraft only". The holder may then only fly single seat aircraft until the endorsement is removed following the completion of the required minimum of 1 hour of flight training.
 - 1.2.1.4 The Single Seat endorsement does not allow the holder to fly two-seat aircraft solo.
 - 1.2.1.5 The Certificate of Revalidation, gained by experience, can only be signed during the period of validity of the current Certificate. The new certificate will be valid for two years from the end of the month during which the current certificate expires regardless of the date the current certificate is presented to the examiner.
 - 1.2.1.6 Because there is a requirement for at least 6 hours to be flown in the last twelve months of the certificate's validity an examiner cannot revalidate a certificate in the first twelve month period.
 - 1.2.1.7 All the requirements must have been completed within the currency of the existing Certificate.

- 1.2.1.8 The Certificate of Revalidation cannot be signed after the expiry of the previous Certificate, nor can experience gained during the validity of a Certificate that has expired be used to qualify for revalidation by experience.
- 1.2.1.9 If the holder of an expired rating presents his documents to an Examiner for renewal the Examiner cannot complete a renewal by experience, the applicant must renew by test.
- 1.2.1.10 It is likely that a Certificate of Test will be signed on a day part way through a calendar month. In this case, the Certificate of Revalidation will be valid until the end of the month in which it is issued and then for a further complete 24 months.
- 1.2.1.11 ADMINISTRATION: The examiner completes a Certificate of Revalidation in the holder's licence.
- 1.2.1.12 To remove the Single Seat Only restriction the examiner enters the same Rating Revalidation as for the existing Rating omitting the Single Seat Only restriction. The validity date remains the same as for the current rating.
- 1.2.1.13 HOLDERS OF MORE THAN ONE NPPL CLASS RATING. The holder of more than one NPPL Aeroplane Class rating may use experience gained in aircraft of all NPPL Classes towards the revalidation by experience of any one Class. However, the minimum flight time required to revalidate by experience in any particular Class is 1 hour as Pilot in Command or 1 hour of flying training with an instructor in that Class. NPPL holders with multiple class ratings can undertake the dual hour of instruction flight in any class, i.e., M, SLMG or SSEA. Details of experience required for multiple rating holders are published in CAP 393 Schedule 8.
- 1.2.2 **PPL MICROLIGHT CLASS RATING HOLDERS.** For Microlight Class ratings issued before 1st February 2008 but EXCLUDING those included in a NPPL the requirements are that within the preceding 13 months and during the validity of an existing Certificate of Experience or Test the holder must have completed at least:
 - 1.2.2.1 5 hours experience as pilot of a microlight, including at least 3 hours as Pilot in Command which can include up to 2 hours as dual flying instruction as PUT with a qualified flying instructor who has certified that he/she was fit to act as PIC.
 - 1.2.2.2 **Note:** If more than 13 months have elapsed since the aircraft rating was issued or revalidated a Certificate of Experience may still be issued if sufficient flying experience was gained during the 13 months preceding the date that the logbook is presented to the examiner for signing, and provided such flying was carried out within the validity period of the previous Certificate of Experience or Certificate of Test.
 - 1.2.2.3 The Certificate of Experience is valid from the date of signing for thirteen months after the last day of the month in which it was signed.
 - 1.2.2.4 ADMINISTRATION: The examiner enters and completes a Certificate of Experience in the holder's logbook.
 - 1.2.2.5 Microlight Class Rating holders. Holders of Microlight Class ratings issued before 1st February 2008 but EXCLUDING those included in a NPPL may opt to adopt the NPPL revalidation requirements, as detailed in 1.2.1, as an alternative to the 13 month system detailed in 1.2.2

1.2.3 NPPL SSEA & SLMG CLASS RATINGS - REVALIDATION

- 1.2.3.1 Examiners can only sign certificates for other NPPL class ratings, SSEA & SLMG, if their Examiner Authorities specifically include those classes.
- 1.2.3.2 Before taking advantage of this scope of the authority an examiner must make sure that they fully understand the requirements for all NPPL Class Rating revalidations and any limitations that an examiner might be subject to. For details refer to The CAA Flight Examiners' Handbook.

2 AIRCRAFT RATING RENEWALS / REVALIDATION BY TEST.

- 2.1 Pilots who are unable to revalidate by experience are required to complete an aircraft rating renewal by Test. Ratings revalidated by test have the same validity period as those revalidated by experience.
- 2.2 The examiner should ensure the pilot's eligibility prior to commencing the GST. The examiner must ensure that if refresher training was required that it has been completed and endorsed in the pilot's logbook by the relevant flying Instructor.
- 2.3 **ALL MICROLIGHT CLASS RATINGS.** Revalidation by test **within the validity period** of the current certificate.
 - Pass the NPPL (M) GST conducted by a Microlight Examiner
- 2.3.1 Validity period. A revalidation by test of a Microlight Class rating issued on or after the 1st February 2008, and in any NPPL, completed during the validity period of a current Certificate is valid from the date of test and will remain valid for 24 months after the end of the month in which the test was taken, unless the date of test is within three months of the expiry of the current Certificate in which case the new Certificate will be valid for 24 months from the expiry date of the existing Certificate.
- 2.3.2 Validity period. A revalidation by test of a Microlight Class rating issued before the 1st February 2008, other than in any NPPL, completed during the validity period of a current Certificate is valid from the date of test and will remain valid for 13 months after the end of the month in which the test was taken.
- 2.4 **ALL MICROLIGHT CLASS RATINGS.** Renewal by test for expired ratings. Where the last **certificate has expired by less than 5 years**, the holder will be required to complete the following:
 - Pass the NPPL (M) GST conducted by a Microlight Examiner
- 2.4.1 **ADMINISTRATION:** For Microlight Class ratings issued before 1st February 2008 other than in any NPPL the examiner enters a Certificate of Test in the holder's logbook.
- 2.4.2 **ADMINISTRATION:** For all Microlight Class ratings issued from the 1st of February 2008 and all those included in any NPPL the examiner completes the Certificate of Revalidation in the holder's licence.

2.5 **ALL MICROLIGHT CLASS RATINGS.** Renewal by test for expired ratings. Where the last **certificate has expired by 5 years or more**, the holder will be required to complete the following:

- Undergo a course of refresher flight training in a microlight as specified by an instructor qualified to give instruction on a microlight;
- Pass the NPPL (M) GST conducted by a Microlight Examiner
- Pass the Aeroplane Technical Part 2 Oral exam conducted by a Microlight Examiner, the exam to include pilot maintenance and conditions of the Permit to Fly

2.5.1 **ADMINISTRATION:** For Microlight Class ratings issued before 1st February 2008 other than in any NPPL the examiner enters a Certificate of Test in the holder's log book.

2.5.2 **ADMINISTRATION:** For all Microlight Class ratings issued from the 1st of February 2008 and all those included in any NPPL the examiner completes the Certificate of Revalidation in the holder's licence.

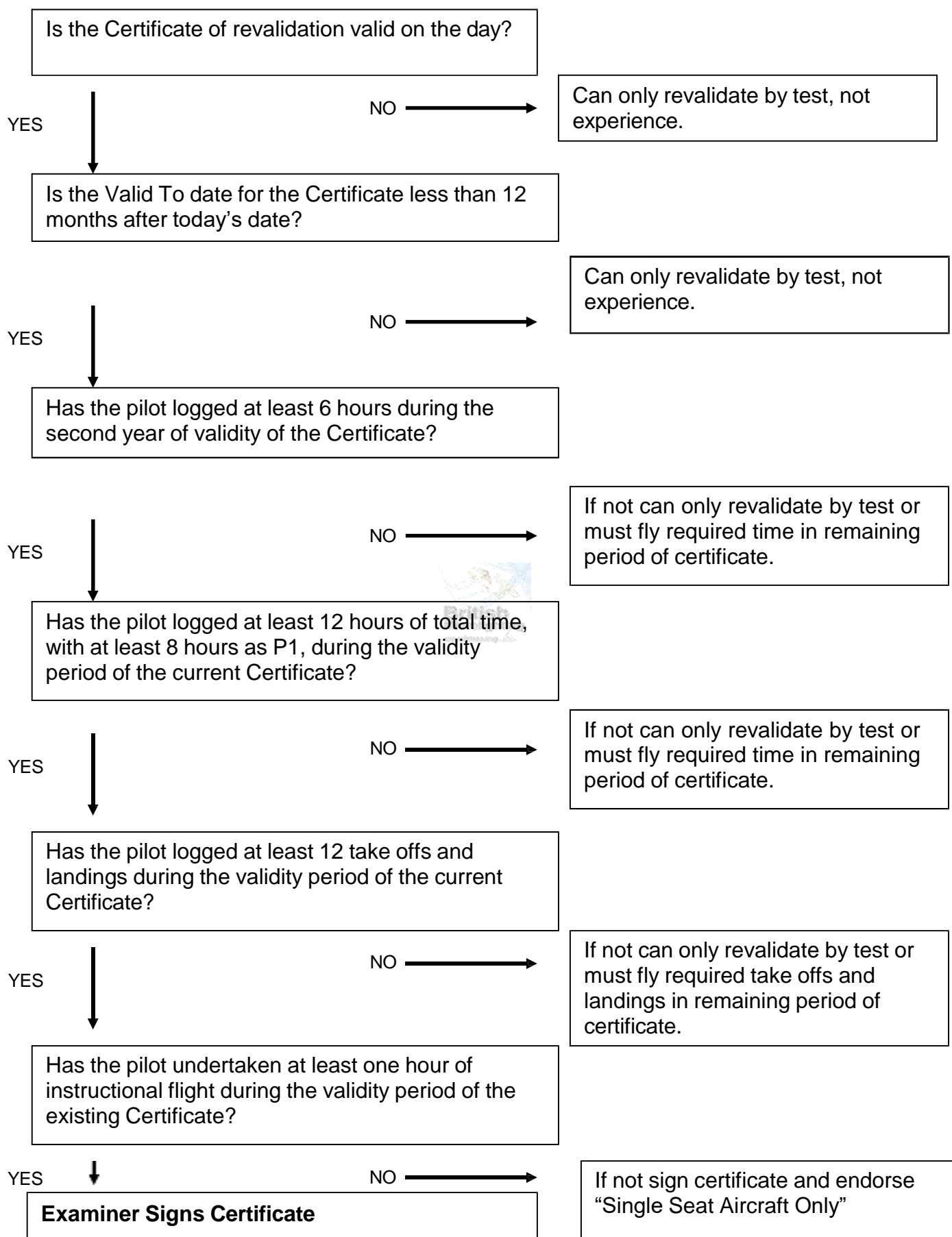
2.6 Notes

2.6.1 A licence holder may not exercise the privileges of a rating until the Certificate has been completed.

2.6.2 A renewal of an expired Microlight Class rating by test is valid from the date of test.



NPPL REVALIDATION BY EXPERIENCE, TESTS FOR ELIGIBILITY



Section 6.2 GUIDANCE ON DUAL FLIGHT FOR REVALIDATION OF A NPPL LICENCE

1. The requirement for the Dual Instructional Flight for the Revalidation of the Microlight Class Rating is for one hour of flight time with an Instructor entitled to instruct in that Class of aircraft.
2. Although the requirement is for one hour of flying training with an Instructor, not necessarily on one flight, there would be little time for any useful benefit to the pilot if the Dual flying is divided into very short flights.
3. The Dual Flight is an opportunity for the pilot to gain benefit on subjects he may be under confident with or out of practice with, such as Practice Forced Landings or Stalling, and for the Instructor to advise on areas which would further benefit from practice or training.
4. **The flight should be seen as an opportunity not an imposition or chore.**
5. On the ground it is an opportunity for the pilot to have an exchange of information with an Instructor on any changes in aviation law, procedures, flight planning information etc. since he last had occasion to be in a training environment.



SECTION 7

INSTRUCTOR CRITERIA AND TESTS



Section 7.1 MINIMUM CRITERIA FOR APPROVAL OF INSTRUCTORS

1 FI (R) - Flight Instructor (Restricted)

1.1 Pre-course qualifying requirements:

- Must hold a licence that includes a valid Microlight Class rating. The microlight rating must be "Without Operational Limitations".
- Must have held a valid PPL with a SEP or Microlight rating for a minimum period of eight months before starting the FI(R) course.
- Must have 100 hours as pilot in command (PIC) of which 5 hours are on microlight aircraft and must include at least 5 hours as PIC on the Control Type to be used on the course.
- Must pass a pre-entry written exam and a flight test conducted by a Microlight Flight Instructor Examiner (FIE) or Flight Instructor Course Instructor (FICI) in the 6 months immediately preceding the course commencement date.

1.2 FI (R) Course requirements:

- The minimum training requirement comprises of not less than 40 hours ground school and 15 hours flying training conducted by a Microlight FIC Instructor at an approved Flying Training Organisation.
- On completion of training the Candidate must pass a FI (R) Certificate Flight Test and Ground Exam conducted by a Microlight FIE.

2 FI - Flight Instructor.

2.1 To upgrade from an FI (R) to FI must fulfil the following requirements:

- Have not less than 250 hours experience as PIC of which 200 hours must be on microlight aircraft.
- Have held an AFI Rating/ FI (R) for at least 10 months and have a minimum of 100 hours experience instructing on microlight aircraft.
- Pass a Flight Test and Ground Exam conducted by a Microlight FIE.

3 FIC Instructor - Flight Instructor Course Instructor.

3.1 Minimum requirements for appointment:

- Have a FIC recommendation on last Instructor Test.
- Have 600 instructional hours of which 400 must be on microlight aircraft.
- Have held a Flight Instructor rating for 3 years.
- Candidate will be interviewed by the Panel of Microlight Examiners and the CAA. If successful at interview shall then pass a FIC Instructor Flight Test with a Microlight FIE.

4 Certificate / Approval Issue

4.1 In all cases, if successful, the CAA will issue the Certificate/ Approval



Section 7.2 INSTRUCTOR CERTIFICATE TESTS

1 TYPES OF INSTRUCTOR TESTS

From the introduction of the ANO 2016 all new Instructor Certificates, FI and FI (R), are Control Type restricted (Fixed wing, Flexwing or Powered Parachute). Instructors who have Control Type restrictions on their Instructor Certificates can only instruct on those Control Types. To be able to instruct on other Control Types see 1.3 below. Instructors with no control type restrictions on their Instructor Certificate should test on each control type that they instruct on at least once in every three instructor revalidation tests.

1.1 THE FLIGHT INSTRUCTOR'S (RESTRICTED) CERTIFICATE - INITIAL TEST

- 1.1.1 The purpose of this test is to assess the candidate's ability as an Instructor who will give flying instruction to student pilots under the supervision of a Flight Instructor and on the Control Type which is used on the test. The rating is valid for a period of 36 months in addition to the remainder of the month in which the test falls.

1.2 THE FLIGHT INSTRUCTOR'S (RESTRICTED) CERTIFICATE – REVALIDATION

- 1.2.1 The purpose of this test is to assess the candidate's continuing ability as an Instructor giving flying instruction to student pilots under the supervision of a Flight Instructor. The new certificate is valid for 36 months.

1.3 THE ADDITIONAL CONTROL TYPE TEST

- 1.3.1 The purpose of this test is to assess an Instructor's ability to instruct on an additional Control Type (i.e. Fixed Wing, Flexwing or Powered Parachute Microlight). This test must be conducted by a Microlight Flight Instructor Examiner (FIE). The new control type will be added to the existing Certificate by the CAA and the validity will extend to the end of the existing Certificate.

1.4 THE FLIGHT INSTRUCTOR'S (FI) CERTIFICATE – INITIAL TEST

- 1.4.1 The purpose of this test is to assess the candidate's ability to instruct without the close supervision given to FI (R)s. The rating is valid for 36 months. The Certificate issued will be Control Type restricted to the Control Type that the instructor has been tested on. The candidate, if successful will also be able to supervise a FI (R) and this should be considered when assessing the result.

1.5 THE FLIGHT INSTRUCTOR'S (FI) CERTIFICATE - REVALIDATION

- 1.5.1 The purpose of this test is to assess the candidate's ability to instruct to a good standard.

1.6 TESTS FOR FIC APPROVAL

- 1.6.1 The purpose of this test is to assess an instructor's suitability to conduct Flight Instructor Courses. See Section 8.3 of the Guide - FIC Instructor Test.

2 GENERAL

- 2.1 Examiners are reminded that under the CAA Regulation the candidate has a right of appeal against the conduct of the test. It is most important therefore that all aspects of the administrative procedures and the test itself are conducted in a thoroughly correct manner.
- 2.2 Copies of the Instructor Form 1 are held by the BMAA LIAC and the originals sent to the CAA. The Form 1 forms part of the individual's instructor record and are available for perusal by any Microlight Flight Instructor Examiner (FIE) conducting future tests with the agreement of the instructor to whom it refers. Permission is only valid for an individual FIE. If the candidate presents to another FIE, the candidate's permission must be obtained once again.
- 2.3 The instructor will contact a Microlight FIE and make the necessary arrangements for the test. A list of FIEs is published on the BMAA web site.
- 2.4 In planning the timing of an instructor test the candidate should take into account the possibility of the test being postponed due to unsuitable weather, aircraft unserviceability, illness etc. all of which are unavoidable and cannot be anticipated. To provide an adequate reserve of time it is suggested that instructors should initiate the arrangements for a test at least 2 months prior to the expiry of their current Certificate of Test.
- 2.5 In the case of initial FI (R) tests a FIE should be contacted before the completion of the FI (R) course and a rough/best estimate given for planning the timing of the test.
- 2.6 It is vital that bookings once made and confirmed as regards date, time and venue are honoured unless the FIE or candidate is prevented because of illness or other unavoidable cause.
- 2.7 Examiners and candidates should give each other at least 48 hours' notice when cancelling a test booking. Candidates should also be instructed to contact the examiner on the evening prior, or morning of the test to confirm weather suitability.
- 2.8 The test must be completed within a period of 31 days. The date of completion of the final part of the test is to be taken as the date of commencement of the period of validity of the rating or the date of continuance or revalidation of the privileges of the rating.

3 INSTRUCTOR REVALIDATION TESTS

- 3.1 Instructors must note that it is their responsibility to maintain their ratings and that neither the CAA nor the BMAA send reminders.

3.2 AIRFIELD, DOCUMENTATION & EQUIPMENT

- 3.2.1 The test may be conducted at the examiner's or the candidate's base using an aircraft supplied by either.
- 3.2.2 A suitable examination room must be available offering privacy during the test.
- 3.2.3 Prior to the day of the test the examiner must ensure that the candidate is certain as to what items he should provide.
- 3.2.4 A suitable aircraft must be available. It must be equipped with dual controls and a means of efficient in-flight two way communications.
- 3.2.5 The following documentation must be available:
- Valid Permit to Fly.
 - Current Certificate of Validity
 - Valid Certificate of Registration.
 - Valid Certificate of Insurance to include cover for the purpose of the test.
 - Aircraft and Engine Logbook.
 - Owners/Flight manual.
 - Aircraft Radio Licence (if applicable)
- 3.2.6 The Examiner or the candidate may provide the above prerequisites of conducting the test.
- 3.2.7 The candidate must always provide:
- Pilot's Licence
 - Current Certificate of Experience or Test/ Revalidation or Renewal.
 - Existing Instructor Certificate (where applicable)
 - Personal Flying Logbook
 - Medical Certificate or Pilot Medical Declaration
 - Flight Radio Telephony Operator's Licence (if applicable)
- 3.2.8 The candidate should obtain and complete his personal details on the Instructor Form 1 and take it along on the day of the test. A blank Instructor Form 1 can be downloaded from the BMAA web site.
- 3.2.9 The candidate should also have any checks and notes normally used by him for pre-flight briefings plus any other training aids or models normally used.

Section 7.3 FLIGHT INSTRUCTOR TESTS and REVALIDATION TESTS

Eligibility of candidate	<p>A FI or FI (R) whose instructor rating has not lapsed by 5 years or more.</p> <p>If lapsed by 5 years or more then must have completed refresher training with a FIC Instructor and be recommended as suitable for test.</p> <p>For an initial FI test consult the FI (R) upgrade to FI test document as well (Section 7.6).</p>
Examiner qualifications	<p>Microlight FIE.</p> <p>A FIE conducting refresher FIC training should not then conduct the Instructor test with the Instructor taking part in that refresher training.</p> <p>A FIE should not, save in exceptional circumstances, conduct more than two consecutive tests on any one candidate. The FIE will consider whether real hardship to the candidate would arise if the request was declined and refer to the Panel of Examiners.</p>
Guidance for conduct of test	<p>Prior to starting the test the FIE will ensure the candidate's eligibility for the test.</p> <p>The FIE will normally have available to him a copy of the candidate's previous Instructor Form 1. If the FIE has been unable to obtain a copy of the form he may contact the BMAA LIAC in order to obtain the information over the telephone. The FIE will use the details of the exercises covered and the comments made during the candidate's previous test, to assist in structuring the planned test.</p> <p>The FIE must obtain the candidate's permission in writing before asking for, or obtaining, information regarding previous tests.</p> <p>Although works of reference should be available and/ or accessible online (e.g. CAP 804, ANO: CAP 393 and AICs), the candidate is not expected to need to refer to sources of information (including his own notes) to answer the questions posed by the FIE. However use of notes during the flight briefing, and in flight, is acceptable and the candidate may use reference documents to find unusual detail or demonstrate familiarity with such documents.</p> <p>The whole of the test must be completed within 31 days.</p> <p>The test will consist of the following elements:</p> <p>A General Briefing by the FIE</p> <p>The FIE will attempt to put the candidate at ease. The FIE will indicate to the candidate that the test is primarily an opportunity to demonstrate the skills that have been acquired through the FI (R) course and subsequent experience gained as an Instructor. It also provides an opportunity for the FIE to "coach" the candidate in areas of current thinking.</p> <p>A Pre-flight Briefing exercise by the candidate</p> <p>The FIE or the candidate may nominate the basic training exercise for the pre-flight briefing. The FIE will indicate to the candidate who will nominate the exercise. Weather conditions will be a prime factor in establishing an appropriate exercise, as this exercise will be subsequently demonstrated by the candidate in the air.</p>


	<p>The Flight Test The flight test should normally last between 1 and 1 1/2 hours depending on the type of test and the exercises to be covered.</p> <p>In order to complete the flight test in a reasonable time the FIE may elect not to complete the briefed exercise in its entirety in the student role when handed controls by the candidate. In this case FIEs should be careful not to disrupt the flow of the exercise and candidates should not attempt to abbreviate the exercise.</p> <p>Prior to leaving the aircraft, the FIE might consider it desirable to discuss with the candidate any points related to the operation of the aircraft which he wishes to clarify. It may, for instance, be necessary to establish whether the candidate has a valid reason for operating the aircraft or a part of its equipment in a particular way, which is best discussed whilst remaining in the aircraft.</p> <p>Optional debriefing by FIE of the PFB and Flight Test The FIE may elect to debrief the candidate on the first two elements of the test whilst these exercises are still fresh in the minds of both the FIE and the candidate. It is unlikely that the FIE will choose to debrief at this stage of the test if the candidate's performance has been unsatisfactory, as this will unfavourably predispose the candidate to the next element of the test.</p> <p>Ground Oral Examination This part of the test should normally take between 1 and 2 hours. The exact duration will depend on the type of test being taken and the candidate's performance. A proportion of the questions should be couched in terms which a student pilot might use but others should be somewhat more searching.</p> <p>Result and overall debrief It would be impossible to devise a complete and detailed formula by which the FIE can assess whether a candidate has passed or failed the test. Nevertheless, it is essential that the highest possible degree of instructional standardisation should be achieved. FIEs must also remember the privileges and responsibilities of FI (R)s, FIs or FIC instructors and judge the candidate accordingly. If the FIE assesses that the candidate has demonstrated the potential qualities required from an FIC instructor the appropriate recommendation will be made.</p> <p>Whatever the result of the test the FIE may use the debriefing as an opportunity to assist and/or instruct the candidate in areas where it is necessary.</p>
Content of test	<p>GENERAL BRIEFING BY FIE</p> <p>The FIE will indicate the various elements of the test and discuss any variations in the sequence that may be required due to weather, aircraft availability etc.</p> <p>The candidate will be expected to provide and interpret both weather and NOTAM briefings from approved/ official sources.</p> <p>The FIE will explain that he will be acting as a mock student for parts of the test. The candidate is expected to treat the FIE as a student during those times. If any doubt exists in the mind of the candidate as to what</p>

	<p>role the FIE is assuming then the candidate must seek clarification. The FIE will make notes throughout the test in order to assist with the debriefing. This is normal procedure and the candidate should not allow himself to be distracted or discouraged by it.</p> <p>The candidate will be assessed under five main headings:</p> <ol style="list-style-type: none"> 1. Flying ability and airmanship. 2. Ability to impart knowledge. 3. Ability to recognise and correct typical student faults. 4. Knowledge of the air exercises and sequences. 5. Knowledge of technical subjects. <p>The candidate will be judged on the overall impression given and he should not attempt to judge himself on individual errors or shortcomings although he may be asked to evaluate and criticise his own performance during the debriefing at the end of the test.</p> <p>PRE FLIGHT BRIEFING EXERCISE</p> <p>The PFB will be assessed under the following headings on the Instructor Form 1: Content, Visual Presentation, Technical Accuracy, Clarity of Explanation and Speech, Instructional Technique, Use of Models and Aids and Student Participation.</p> <p>Content will be assessed against the detail of the exercise as published in the current NPPL Microlight syllabus.</p> <p>The FIE will clarify the following points to the candidate:</p> <ol style="list-style-type: none"> 1. The "student" has satisfactorily completed all the exercises in the syllabus preceding the exercise to be briefed. 2. The associated 'long' briefing has been completed. 3. The candidate may use notes for the briefing. <p>The Instructor will be allowed 15-20 minutes to prepare the briefing.</p> <p>If possible the completed briefing should be retained for reference for debriefing later.</p> <p>THE FLIGHT TEST</p> <p>The FIE will indicate to the candidate that the flight test will include elements of several air exercises not just the one on which he gave a briefing. During these additional exercises the candidate may assume that the FIE is acting as a student who has satisfactorily completed the exercises preceding it in the syllabus and has received the appropriate pre-flight briefing. When these exercises are asked for, the candidate can take a few moments to marshal his thoughts, during this time the FIE may take control of the aircraft.</p> <p>The content of the flight test will be decided by the FIE. It is recommended, however, that the following areas are covered during the flight test irrespective of the subject of the main exercise:</p> <ol style="list-style-type: none"> 1. At least one of the following exercises: flight at critically slow airspeed, stalling, spin awareness, advanced turning, unusual and dangerous attitudes / conditions. 2. Forced landings without power.
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	<ol style="list-style-type: none"> 3. Take-off and climb. 4. Approach and landing. <p>The form and content of the test will be discussed to ensure that the candidate knows exactly what is expected of him in terms of checks, the general area of operation, the approximate altitude for the flight, bearing in mind the weather and any local regulations, and other matters relevant to the flight.</p> <p>Before the flight, the following points should be clarified by the FIE:</p> <ol style="list-style-type: none"> 1. Who is to be Commander of the aircraft. 2. Who will be responsible for local navigation and R/T (if applicable). 3. The action to be taken during an actual emergency. 4. The action the candidate is expected to take during any simulated emergencies which the FIE might introduce and the manner in which they will be initiated. <p>The Flight will be assessed under the following headings on Instructor Form 1: Content of Demonstration, Arrangement of Demonstration, Synchronisation of Patter, Student Participation, Correction of Faults, Aircraft Handling, Positioning and Use of Airspace, General Airmanship.</p> <p>The FIE will remind the candidate that notes may be made to assist with the debriefing.</p> <p>OPTIONAL DEBRIEFING OF THE PRE FLIGHT BRIEFING AND FLIGHT PART OF THE TEST</p> <p>GROUND ORAL EXAMINATION</p> <p>Before starting the ground test the candidate should be briefed that:</p> <ol style="list-style-type: none"> 1. Some of the questions will be asked as if from a student and should be answered as such. 2. There will be no trick questions and he should, therefore, answer them all in a straightforward manner. 3. If the candidate does not understand the question, he should say so and the FIE will reword it. 4. The candidate should be encouraged to use any visual aids which he considers to be appropriate to the questions. 5. The FIE will remind the candidate that notes will be taken to assist with the debriefing. <p>All instructors should consult the relevant part of the 'Syllabus for the Microlight Assistant Flying Instructor Course' in order to review the scope of this part of the test. In addition, the syllabus includes a list of recommended reading material to cover the subjects included in this part of the test.</p> <p>The following illustrates the types of material with which candidates should be familiar. Candidates should be able to construct fully developed explanations.</p> <p>The examples are grouped under each of the ground oral headings:</p> <ol style="list-style-type: none"> 1) TEACHING LEARNING AND ADMINISTRATION <ul style="list-style-type: none"> - Principles of teaching and practical application
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	<p>(e.g.: the learning curve, lesson planning, student assessment)</p> <p>2) LAW, RULES AND PROCEDURES</p> <ul style="list-style-type: none"> - Airspace classification, VMC criteria, licence privileges - Altimeter setting procedures - Rules of the Air (e.g.: low flying, signals) - Sources of information (e.g.: ANO: CAP 393, AIC's, CAP 804) <p>3) AVIATION NAVIGATION</p> <ul style="list-style-type: none"> - Construction of charts - Techniques of navigation - Measurement of track and distance - Chart symbols - Definition of navigational terms <p>4) AVIATION METEOROLOGY</p> <ul style="list-style-type: none"> - Lapse rates and stability - Fog formation - Fronts and air masses - Types of wind <p>5) PRINCIPLES OF FLYING</p> <ul style="list-style-type: none"> - Stability and control - Effect of wing loading on stall speed - Types of drag - Forces acting during gliding flight <p>6) AIRFRAMES AND ENGINES</p> <ul style="list-style-type: none"> - Design of the propeller - Operation of Two-stroke and Four-stroke engines - Classification of forces on aircraft components <p>7) INSTRUMENTS</p> <ul style="list-style-type: none"> - Effect of blockages on flight instruments - Instrument errors <p>8) AIRWORTHINESS DOCUMENTATION</p> <ul style="list-style-type: none"> - Limitation of a Permit to Fly - Inspection procedures <p>9) SPECIFIC TYPE</p> <ul style="list-style-type: none"> - Aircraft limitations <p>10) FIRST AID AND SAFETY EQUIPMENT</p> <ul style="list-style-type: none"> - Fire extinguisher types and uses - Basic first aid procedures <p>11) HUMAN PERFORMANCE & LIMITATIONS</p> <ul style="list-style-type: none"> - Cause and symptoms of hypoxia - Flying with a common cold
Standards required	<p>PRE-FLIGHT BRIEFING</p> <p>The candidate must be able to present a correct, clear and concise pre-flight briefing that prepares the student for the airborne exercise.</p> <p>FLIGHT</p>

	<p>1) For FI Tests and FI Revalidations: In addition to the requirements applied to an FI (R) the candidate should display a polished standard of aircraft handling combined with accurate and synchronised 'patter'. The importance of appropriate student participation and the ability to accurately identify analyse and correct errors must be clearly demonstrated.</p> <p>The candidate should display a degree of maturity, experience and understanding commensurate with the giving of unsupervised flying instruction.</p> <p>All aspects of authorising a student's first solo flight and supervising an FI (R) must be fully appreciated by the candidate.</p> <p>2) For FI (R) Revalidations: The candidate should display, at the minimum, a standard equal to that for an initial FI (R) test.</p> <p>GROUND ORAL</p> <p>The ground test is designed to determine the candidate's knowledge of all subjects related to the NPPL M syllabus and, equally as importantly, their ability to impart this knowledge to others.</p>
Results	<p>There are three possible results to a FI test. The normal result will be either a pass or a fail. On occasions a partial pass may be awarded.</p> <p>PASS. If the candidate passes the test the FIE will record on Instructor Form 1 the details and the results of the test and award the candidate with an overall grade. In addition, if appropriate, the FIE will assess the candidate's suitability for FIC approval, and record his assessment on the Instructor Form 1.</p> <p>FAIL. If the candidate fails the test the FIE may recommend further training with a FIC instructor, prior to re-test, if he feels it is necessary. The FIE will record his recommendations on Instructor Form 1, together with the details and the result of the test.</p> <p>In the case of a failed test the candidate's instructor privileges are suspended immediately until such time as a satisfactory test has been completed.</p> <p>PARTIAL PASS. A partial pass should only be awarded when a candidate is considered to be able to pass the test but on this occasion failed to do themselves justice on a part of the overall test. The details and the result of the test will be recorded on Instructor Form 1.</p> <p>In the case of a Partial Pass the candidate's instructor privileges are suspended immediately until such time as a satisfactory test has been completed.</p> <p>A partial pass may only be awarded for one element of the test (i.e. Pre-Flight Briefing, part of the Flight or Ground Oral). The unsatisfactory element must be repeated in its entirety. Where the partial pass is awarded for one of the 'Other' Flight exercises, and not the Main Flight exercise, it would be normal for this exercise to be briefed as a main exercise on the subsequent flight to achieve the test pass.</p>

	<p>The second test to complete a 'partial' pass will normally be performed by the same FIE. The whole of the test must be completed within 31 days. If the test is not completed within 31 days the test result becomes a Fail.</p> <p>The partial pass should be used with discretion.</p> <p>DEBRIEFING</p> <p>The candidate should be encouraged to analyse and criticise his own performance in all aspects of the test.</p> <p>The debrief will follow the sequence of the test. The FIE will comment on both the aspects that were completed to a good standard and those that were unsatisfactory.</p> <p>In the event of a failure or partial pass it is important that the candidate fully appreciates the aspects of his performance that were unsatisfactory. The FIE will clearly indicate what will be required from the candidate during re-test and how he can best prepare for it.</p> <p>If the FIE debriefs the candidate after the two first parts of the test there will be no need to repeat the points in the final debrief. The FIE will, however, summarise the candidate's performance over the whole of the test during the final debriefing.</p> <p>The FIE will inform the candidate of the grades, recommendations and written comments he has recorded or intends to record on Instructor Form 1. The FIE will also remind the candidate that the grades and comments recorded on the form may be made available to a FIE prior to the candidate's next instructor test with the candidate's prior written permission.</p> 
Admin	<p>The BMAA charge an Instructor Test Fee to cover the cost of administration of the Instructor System. This should be sent to the BMAA LIAC together with the Instructor Form 1. Details of charges are contained in Appendix A of this guide.</p> <p>The FIE should complete and send the Instructor Form 1 to the BMAA LIAC.</p> <p>The FIE's fee (plus travelling expenses, if applicable) must be paid directly to the FIE by the candidate.</p> <p>PASS</p> <p>In the case of a 'pass' the FIE will take the following action:</p> <p>LOGBOOK</p> <p>The candidate's logbook must be completed to show the FIE as Captain, the candidate as P1/S, the flight duration entered in the P1 column. The remarks column should show 'FI (R)/FI Test Pass', indicate the exercises examined and be signed by the FIE.</p> <p>INSTRUCTOR FORM 1</p> <p>The FIE will ensure that the applicable items of the Instructor Form 1 are completed and the FIE will return it to the BMAA LIAC.</p> <p>Initial Issue</p> <p>If the test was for the initial issue of a FI rating, the applicable box in</p>

	<p>Instructor Form 1 Section 1 should be ticked. The candidate should be instructed to send his documents and the appropriate fees to BMAA LIAC. See notes on the Instructor Form 1 for details.</p> <p>The candidate should be reminded that he may not exercise the privileges of any rating until it has been issued by the CAA.</p> <p>Revalidations If the test was for the purpose of Revalidating an existing FI (R)/ FI Rating the applicable box in Instructor Form 1 should be ticked.</p> <p>The FIE should sign the Revalidation Certificate in the candidate's licence.</p> <p>FAIL In the event that a candidate has failed the test, they must be given a 'Notice of Failure' form (Form FCL 252 or SRG 2129). The reason for the failure should be given clearly and in detail and the form must be signed by the examiner.</p> <p>The candidate must be invited to sign the form and their attention must be drawn to their right of appeal. Copies of the form must be sent to the BMAA together with the test report, a copy given to the candidate and the examiner should retain a copy.</p> <p>In all cases if the candidate refuses to sign the form the examiner should endorse the copies accordingly. If the candidate refuses to accept the copy, the examiner should forward it with the other documents to the BMAA LIAC with an explanatory note.</p> <p>The candidate should be informed that they may not exercise the privileges of their FI /FI (R) Certificate until they has passed the appropriate test with an FIE.</p> <p>LOGBOOK The candidate's logbook must be completed to show the FIE as Captain, the candidate as PUT, the flight duration entered in the Dual column and the remarks column should show 'FI (R)/FI Test Fail' and indicate the exercises examined and be signed by the FIE.</p> <p>INSTRUCTOR FORM 1 The FIE will ensure that the applicable parts of the Instructor Form 1 are completed and the FIE will return it to the BMAA LIAC.</p> <p>The BMAA does not charge the Administration fee for a Failed test.</p> <p>PARTIAL PASS LOGBOOK If the flight part of the test is unsuccessful, the candidate's logbook should show the FIE as Captain, the candidate as PUT, the duration of the flight entered in the Dual column. The remarks column should show 'FI (R)/FI Test Partial Pass', indicate the reason for the partial pass, and be signed by the FIE.</p> <p>If either the Ground Oral or PFB parts of the test are unsuccessful, but the flight was to pass standard, the logbook should show the candidate as P1/S but the FIE should not sign the entry until the whole test has been completed successfully.</p>
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	<p>INSTRUCTOR FORM 1 The FIE will complete the Instructor Form 1 and indicate where applicable the unsuccessful part of the FI Test.</p> <p>Until the Test is successfully completed the Instructor cannot exercise the privileges of the Rating to which the test relates.</p> <p>On successful completion of the Test:</p> <p>LOGBOOK The candidate's logbook should show the FIE as Captain, the candidate as P1/S and the duration of the flight should be entered in the P1 column. The remarks column should show 'FI (R)/FI Test Completed Pass' and be signed by the FIE.</p> <p>INSTRUCTOR FORM 1 The detail of the element of the test that was re-examined should be completed on a new Instructor Form 1. Both Instructor Form 1s should then be sent to the BMAA LIAC together with the administration fee.</p> <p>FIE should sign the Certificate of Test on the candidate's rating if revalidating an existing Rating.</p> <p>If the test is not completed successfully:</p> <p>LOGBOOK The candidate's logbook should show the FIE as Captain, the candidate as PUT and the duration of the flight should be entered in the Dual column. The remarks column should show 'FI (R)/FI Test Completed Fail' and be signed by the FIE.</p> <p>A Form FCL 252 or SRG 2129 must be completed and submitted as for a Failed Test above.</p>
Validity period	<p>The new certificate is valid for 36 months from the end of the month in which the test was taken.</p> <p>If the test is taken within 3 months prior to expiry of the existing certificate then the 36 month period would start from the end of the month which includes the expiry date of the existing certificate.</p>

Section 7.4 THE INITIAL FLIGHT INSTRUCTOR (RESTRICTED) FI (R) CERTIFICATE TEST

Eligibility of candidate	<p>The Candidate shall:</p> <ol style="list-style-type: none"> 1. Hold a licence that includes a valid Microlight Class Rating with no operational limitations and have held a valid SEP or Microlight Class Rating for at least 8 months prior to start of the FI (R) course. 2. Prior to starting the FI (R) course have flown at least 100 hours as PIC of aircraft of which at least 5 hours are on microlight aircraft, including 5 hours as PIC on the Control Type to be used for the course. 3. Have successfully completed a FI (R) course conducted by a Microlight FIC Instructor at an approved Flight Training Organisation (FIC School) comprising of not less than 40 hours ground training and 15 hours flight training as specified in the current edition of CAP 804. 4. Present to the examiner an Instructor Form 1 showing that the course has been completed and signed by the FIC Instructor. 5. Present their logbook/s which shall clearly identify the exercises, or parts thereof, flown on each flight which shall be certified as being correct at the end of the course by the FIC Instructor.
Examiner qualifications	<p>Microlight FIE</p> <p>The FIE conducting the test shall not have conducted any part of the FIC Course that the candidate has undertaken.</p>
Guidance for conduct of test	See FLIGHT INSTRUCTOR RATING TEST.
Content of test	<p>See FLIGHT INSTRUCTOR RATING TEST.</p> <p>In addition the candidate must appreciate the requirement to be supervised by a FI and the limitations applicable to a FI (R) whilst providing flight instruction.</p>
Standards required	<p>The candidate must demonstrate thorough knowledge of the NPPL syllabus, the principles of teaching and the technical aspects of the aircraft and its operation.</p> <p>The candidate must be able to present a correct, clear and concise pre-flight briefing.</p> <p>The ability to synchronise suitable 'patter' with safe and accurate aircraft handling must be demonstrated. All manoeuvres should be completed within the tolerances and requirements described for the Microlight GST.</p> <p>The candidate should be able to identify, analyse and correct student errors.</p> <p>Whilst assessing a FI (R) candidate the examiner will take into account the candidate's lack of experience with 'genuine' students. The candidate must</p>

	display the ability to give correct and complete flight instruction but will not be expected to produce a polished performance.
Results	See FLIGHT INSTRUCTOR RATING TEST.
Admin	<p>The FIE's fee (plus travelling expenses, if applicable) must be paid directly to the FIE by the candidate.</p> <p>PASS In the case of a 'pass' the FIE will take the following action:</p> <p>LOGBOOK The candidate's logbook must be completed to show the FIE as Captain, the candidate as P1/S, the flight duration entered in the P1 column. The remarks column should show 'FI (R) Test Pass', indicate the exercises examined and be signed by the FIE.</p> <p>INSTRUCTOR FORM 1 The FIE will ensure that the applicable parts of the Instructor Form 1 are completed. The FIE will specify either "Microlight Flexwing" or "Microlight Fixed Wing" and return the completed form to the BMAA LIAC.</p> <p>The candidate should be instructed to send his documents and the appropriate fee to BMAA LIAC.</p> <ol style="list-style-type: none"> 1. The candidate's Personal Flying Logbook. 2. The candidate's PPL or NPPL. 3. The candidate's current medical Certificate or Declaration. 4. The current BMAA fee (see appendix A). 5. The current CAA fee (see appendix A). <p>The candidate should be reminded that he may not exercise the privileges of any rating until it has been issued by the CAA.</p> <p>FAIL In the event that a candidate has failed the test, they must be given a 'Notice of Failure' form (Form FCL 252 or SRG 2129). The reason for the failure should be given clearly and in detail and the form must be signed by the examiner.</p> <p>The candidate must be invited to sign the form and their attention must be drawn to their right of appeal. Copies of the form must be sent to the BMAA together with the test report, a copy given to the candidate and the examiner should retain a copy.</p> <p>In all cases if the candidate refuses to sign the form the examiner should endorse the copies accordingly. If the candidate refuses to accept the copy, the examiner should forward it with the other documents to the BMAA LIAC with an explanatory note.</p> <p>LOGBOOK The candidate's logbook must be completed to show the FIE as Captain, the candidate as PUT, the flight duration entered in the Dual column and the remarks column should show 'FI (R) Test Fail' and indicate the exercises examined and be signed by the FIE.</p> <p>INSTRUCTOR FORM 1 The FIE will ensure that the applicable parts are completed. The BMAA does not charge the Administration Fee for a Failed test.</p>

	<p>PARTIAL PASS</p> <p>LOGBOOK If the flight part of the test is unsuccessful, the candidate's logbook should show the FIE as Captain, the candidate as PUT, the duration of the flight entered in the Dual column. The remarks column should show 'FI (R)/FI Test Partial Pass', indicate the reason for the partial pass, and be signed by the FIE.</p> <p>If either the Ground Oral or PFB parts of the test are unsuccessful, but the flight was to pass standard, the logbook should show the candidate as P1/S but the FIE should not sign the entry until the whole test has been completed successfully.</p> <p>On successful completion of the test:</p> <p>LOGBOOK The candidate's logbook should show the FIE as Captain, the candidate as P1/S and the duration of the flight should be entered in the P1 column. The remarks column should show 'FI (R) Test Completed Pass' and be signed by the FIE.</p> <p>INSTRUCTOR FORM 1 The detail of the element of the test that was re-examined should be completed on a new Instructor Form 1. Both Instructor Form 1s should then be sent to the BMAA LIAC together with the documents and fees as detailed for a PASS result.</p> <p>On receipt of applications the BMAA Office checks the documents and copies the Instructor Form 1 which then forms the start of the candidate's Instructor record. The documents are then forwarded to the CAA who will issue the FI (R) Certificate direct to the candidate.</p> <p>The candidate should be reminded that they may not exercise the privileges of any rating until it has been issued by the CAA.</p> <p>If the test is not completed successfully:</p> <p>LOGBOOK The candidate's logbook should show the FIE as Captain, the candidate as PUT and the duration of the flight should be entered in the Dual column. The remarks column should show 'FI (R) Test Completed Fail' and be signed by the FIE.</p> <p>A Form FCL 252 or SRG 2129 must be completed and submitted as for a Failed Test above.</p>
Validity period	The Certificate will be valid for 36 months from the end of the month in which the test was taken.

Section 7.5 ADDITIONAL CONTROL TYPE TEST

Flight Instructors who are Control Type restricted (Fixed Wing, Flexwing, Powered Parachute) and who wish to instruct on an additional Control Type must pass a test on that control type.

Eligibility of candidate	The candidate must hold a current Instructor Certificate and have a minimum of 5 hours PIC on type.
Examiner qualifications	Microlight FIE
Guidance for conduct of test	<p>The purpose of this test is to assess the candidate's ability to give instruction on an additional microlight aircraft Control Type. The candidate will be expected to demonstrate, on the ground and in the air, his knowledge of the principle differences between the two types.</p> <p>The test should consist of the following elements:</p> <ol style="list-style-type: none"> 1. General briefing by the examiner. 2. Pre-flight briefing 3. Flight Test. 4. Ground Oral Examination 5. Result and debriefing. 6. Administration.
Content of test	<p>GENERAL BRIEFING BY THE EXAMINER</p> <p>The briefing will cover the points as laid down for other tests. The examiner will indicate to the candidate that the purpose of the test is to assess his flying ability, technical knowledge and in addition the ability to impart knowledge on the additional control type.</p> <p>GROUND ORAL EXAMINATION</p> <p>This part of the test may be conducted with reference to the aircraft or by using a model and 'chalkboard' in a formal classroom environment. A combination of the two approaches is likely to be most suitable.</p> <p>The examiner will concentrate on the principle of flight and technical aspects which are unique to the additional control type.</p> <p>FLIGHT TEST</p> <p>The flight test will be conducted with the examiner occupying the seat normally occupied by the student and will be acting as a student for parts of the test.</p> <p>The candidate will be asked to demonstrate a series of exercises to the examiner as if he, the examiner, was a student.</p> <p>The examiner will concentrate on exercises or aspects which are unique to either Fixed Wing, Flexwing or Powered Parachute microlights or where significant differences exist.</p>

	<p>RESULT AND DEBRIEFING</p> <p>The debrief will follow the lines as outlined for Instructor Tests.</p>
Standards required	<p>When assessing the performance of the candidate it is important that the examiner remembers the privileges and responsibilities of the instructor which will be exercised whilst instructing on the additional control type.</p> <p>The examiner should be mindful of the considerable differences which exist between Fixed Wing, Flexwing and Powered Parachute microlights.</p> <p>Although this test is not a 'full' Instructor test, the elements which are covered should be assessed in accordance with the guidance provided for Instructor Tests.</p>
Results	Pass or Fail
Admin	<p>If the candidate is successful the person conducting the test will complete the Instructor Form 2 and the following are sent to the BMAA LIAC:</p> <ol style="list-style-type: none"> 1. The completed Instructor Form 2. 2. The candidate's NPPL/PPL. 3. The candidate's Instructor Certificate. 4. The candidate's Personal Flying Logbook. 5. The current CAA fee (see Appendix A).
Validity period	To the end of the existing Instructor Certificate validity period.



Section 7.6 FI (R) UPGRADE TO FI CERTIFICATE TEST

The following is in addition to the FLIGHT INSTRUCTOR CERTIFICATE TEST when an FI (R) requests an assessment for a FI upgrade recommendation.

Eligibility of candidate	<p>The candidate must:</p> <ol style="list-style-type: none"> 1. Have not less than 250 hours experience as PIC of which 200 hours must be on microlight aircraft. 2. Have held an FI (R) Certificate valid for microlight aircraft for at least 10 months. 3. Have at least 100 hours experience instructing on microlight aircraft.
Examiner qualifications	See FLIGHT INSTRUCTOR CERTIFICATE TEST
Guidance for conduct of test	<p>See FLIGHT INSTRUCTOR CERTIFICATE TEST and in addition:</p> <p>The test for this Certificate must assess the candidate's ability to instruct without the close supervision given to FI (R)s.</p> <p>The examiner should specifically address those aspects of instructing where the candidate hopes to gain new responsibilities, such as the standard of flying they would expect a student to achieve before being sent on a first solo.</p> <p>All aspects of authorising a student's first solo flights and supervising an FI (R) must be fully appreciated by the candidate and this should be considered when assessing the result.</p>
Content of test	See FLIGHT INSTRUCTOR'S CERTIFICATE TEST
Standards required	See FLIGHT INSTRUCTOR'S CERTIFICATE TEST
Results	<p>See FLIGHT INSTRUCTOR'S CERTIFICATE TEST and in addition:</p> <p>UPGRADE RECOMMENDED</p> <p>If a PASS the examiner should consider revalidating the existing FI (R) Certificate if there is a possibility of the candidate's existing Certificate lapsing whilst the new Certificate is being processed. In such cases the Examiner should complete the Certificate of Revalidation in the candidate's Licence and also complete the relevant recommendation on the Instructor Form 1.</p> <p>The candidate should be reminded that he may not exercise the privileges of any new Certificate until it has been issued by the CAA.</p> <p>UPGRADE NOT RECOMMENDED</p> <p>If the candidate's performance during an initial upgrade test for the FI Certificate is such that the Examiner cannot recommend an upgrade but considers the standard achieved is acceptable for an FI (R) then the candidate will have his FI (R) revalidated.</p>

	<p>FAILED TEST</p> <p>It is possible for the Candidate to fail the upgrade and not demonstrate sufficient competence to retain a FI (R) Certificate. In this case the result is a failed test. See Failed Test in Section 7.3.</p>
Admin	<p>UPGRADE RECOMMENDED</p> <p>The Examiner will complete the Instructor Form 1 to recommend a FI Certificate Issue and will send the completed Instructor Form 1 to BMAA LIAC.</p> <p>The candidate should be instructed to send his documents and appropriate fees to the BMAA LIAC.</p> <ol style="list-style-type: none"> 1. The candidate's NPPL/PPL 2. The candidate's Personal Flying Logbook 3. A current Medical Certificate or Declaration 4. The candidate's FI (R) Certificate 5. The current CAA fee (see Appendix A). 6. The current BMAA fee (see Appendix A). <p>The BMAA Office checks the documents and copies the Instructor Form 1 for the Instructor's record and then forwards them to the CAA who will issue the FI Certificate direct to the Instructor.</p> <p>UPGRADE NOT RECOMMENDED</p> <p>To Revalidate the FI (R) Certificate only, the Examiner will sign a Certificate of Test for existing instructional privileges. The Examiner will tick the box on the front of the form to indicate that the test is for the revalidation of an existing Certificate.</p> <p>The Examiner will send the completed Instructor Form 1 to BMAA LIAC. The BMAA administration fee must also be sent to the BMAA LIAC.</p> <p>FAILED TEST</p> <p>See Section 7.3.</p>
Validity period	<p>If successful the FI Certificate is valid for 36 months in addition to the remainder of the month in which the test falls.</p> <p>NB The Instructor cannot exercise the privileges of a FI until the new certificate has been signed by the Instructor.</p> <p>If unsuccessful for upgrade but successful for revalidation of the FI (R) Certificate, the new certificate will be valid for 36 months from the end of the month in which the test was taken.</p> <p>If the test is taken within 3 months prior to expiry of the existing certificate then the 36 month period would start from the end of the month which includes the expiry date of the existing certificate.</p>

SECTION 8

INSTRUCTOR TRAINING / FIC INSTRUCTORS



Section 8.1 CONDUCT OF FLYING INSTRUCTOR (RESTRICTED) COURSES

1. COURSE LENGTH

- 1.1. Courses must be designed to consist of at least the minimum time requirements. The final length of the course, however, will be dictated by the ability of the student to complete the content of the course to a satisfactory standard. As with the course, the subject material which the student uses within the course is progressive in content and each exercise should be completed to a standard which is acceptable in isolation before moving onto further exercises. The time this takes may or may not exceed the minimum time for the course and the student should be made aware of this before starting the course so that if this is not acceptable, due to financial or time constraints for example, the course is not started without hope of a satisfactory conclusion.

2. COURSE STRUCTURE

- 2.1. The FI(R) course content should obviously start with the Principles of Teaching section completed to a standard whereby the student has the basic tools to embark on the practical sessions involving Briefings, Flying Exercises and Ground Syllabus Lectures. During the early periods of these sections the FIC Instructor will be correcting teaching technique and lesson content, whether that is classroom or flight material. Later, as ability grows and technique improves the student will have the skills to teach the more complex exercises encountered towards the end of the course.

3. USE OF THE SYLLABUS



- 3.1. The NPPL Syllabus has been designed to lead a NPPL student through the required flying training exercises in a progressive and logical way. It is not the intention of the syllabus to create lesson plans but more to regulate the content of the exercises used in flying training periods. Experienced flying instructors are able to blend exercises together to form useful and efficient flying training sessions. All elements of the exercises covered will be completed despite the flexibility shown by the instructor. The new FI(R) does not have the experience to blend exercises and must be able to follow a logical sequence during a training flight to cover the exercise in a more linear way. As experience grows blending will occur.
- 3.2. For the purpose of testing, examiners must have a standard to mark against. For Instructor testing the syllabus exercises are taken in isolation, therefore, the student FI(R) must be able to brief and fly exercises in this way. It is the responsibility of the FIC Instructor to construct the course in such a way that this will be the case. Standardisation of exercise content is vital. Instructors should not design their own syllabus and expect their students to be able to pass an Instructor test.

4. THE GROUND SUBJECTS

- 4.1. The student FI(R) should be led through the entire syllabus for the ground examinations for the NPPL and given the opportunity to practice lecturing the subjects to the FIC Instructor. Most students left to watch tapes or read notes without further one to one

tuition give a very poor showing at their first Instructor test and in some cases the level of knowledge remains low over the following years. A test candidate who cannot read a chart or explain the formation of radiation fog is not only wasting the time of the examiner but his own as well.

5. COURSE RESULTS

- 5.1. The attitude of the FIC Instructor in viewing the aims of the course and its end result, will dictate the ability of the FI(R) candidate at test. Courses run to a minimum of input and hours have always shown a lower standard of test result than courses where the FIC Instructor aims to produce a high standard of candidate regardless of the time involved. All FIC instructors should strive to produce the best results possible for the future standard of pilot training.

6. CONCLUSION

- 6.1. It should be the aim of all involved in FI(R) training and testing to communicate and standardise to produce competent Instructors.



Section 8.2 FLIGHT INSTRUCTOR COURSE INSTRUCTOR (FICI) APPROVALS

Applicants for FIC Instructor approval who meet the qualifying requirements will be invited to attend an interview board and if successful will proceed to the FICI Flying and Ground Test at a later date.

The BMAA offers a preparatory seminar for prospective FEs and FICIs. The seminars have been developed to give applicants an insight into the role and guidance for their preparation for both the selection interview and the position that they are applying for.

Seminars are held periodically throughout the year as demand dictates. It is strongly recommended applicants attend one of these seminars prior to interview and priority for interview will be given to applicants who have attended a seminar.

INTERVIEW

Eligibility of candidate	<p>The candidate should have been a FI for 3 years, have 600 instructional hours of which 400 should be on microlight aircraft and been assessed as suitable at his last instructor test.</p> <p>The candidate will have completed a FIC Instructor Approval application form, returned it to the BMAA LIAC together with the fee and been invited for interview.</p> <p>Candidate to produce the following at the time he attends the interview:</p> <ol style="list-style-type: none">1. NPPL/PPL with current C of E/T or Revalidation/ Renewal2. Current Medical Certificate3. Instructor Rating4. Personal Flying Logbook5. At least three sets of student records from completed flying training courses6. A set of briefing notes to be used as a guide for the proposed FI(R) course.
Examiner qualifications	<p>The Interview Board would normally consist of at least two Microlight Panel Examiners and representative/s from the Licensing & Training Standards department of the CAA.</p>
Guidance for conduct of interview	<p>The interview aims to assess the suitability of the candidate prior to the initial FIC Instructor flying and ground test.</p>
Content of interview	<p>In the course of the interview the candidate will be asked to discuss the following subjects:</p> <ul style="list-style-type: none">• The candidate's background, experience and current instructional activities.• The candidate's reasons for applying for the approval.• Outline the proposed course structure, content and time management.• The candidate will be asked to describe various aspects of teaching

	<p>potential instructors and operating an FI(R) Course.</p> <ul style="list-style-type: none"> • The abilities and qualities which should be developed in the student instructor. • The candidate will also be asked to provide detailed explanations concerning the technical aspects of microlight aircraft, operations and the syllabus.
Standards required	The candidate must demonstrate to the interview board that he has the appropriate level of knowledge, understanding, motivation and commitment to teach student instructors.
Results	A successful applicant will proceed to an FIC Instructor flying and ground test. The Examiner for the test will normally have been a member of the interview board.
Admin	The Chairman will note on the Interview Application the recommendations.
Validity period	A successful candidate will have 12 months to complete the flying and ground test, or until reapplication if unsuccessful at interview.



Section 8.3 FIC INSTRUCTOR FLIGHT and GROUND TEST

Eligibility of candidate	<p>The candidate should have been a FI for a minimum of 3 years, have 600 instructional hours of which 400 should be on microlight aircraft and been assessed as suitable at his last instructor test.</p> <p>Before a candidate presents himself for the test he will have also attended a successful interview with the CAA and Microlight Panel Examiners.</p>
Examiner qualifications	Microlight FIE, normally a member of the interview board.
Guidance for conduct of test	<p>In general terms, the test should follow the lines of the other tests detailed in this document. By virtue of the responsibilities of an FIC Instructor, however, the form of the test will need to be modified and a higher standard must be expected.</p> <p>It is most important that the candidate appreciates that he will be assessed on the presentation of his work as much as on pure technical competence.</p> <p>The subject of the 'Formal Lecture' to be delivered by the candidate should be given to the candidate several days before the test to enable him to make the necessary preparation.</p>
Content of test	<p>1. GENERAL BRIEFING BY THE EXAMINER</p> <p>The general briefing should cover all the points laid down for other tests, plus emphasis on the fact that the candidate will be expected to demonstrate an above average ability in all aspects of instruction, including lecture/ classroom technique.</p> <p>2. FORMAL LECTURE</p> <p>The candidate will be required to give a formal "chalkboard" lecture on a subject nominated by the examiner. The subject of this lecture should have been given to the candidate before the test. The candidate should be told that he will be assessed on his instructional technique as much as on the technical content of the lecture. Normally the examiner will be able to stop the lecture after about 30 minutes. The examiner will brief the candidate that he should assume he is giving the lecture to a small group of student instructors who will not only wish to make notes as a basis for their own technical notes but who will also be expecting to learn and develop instructional techniques from his presentation. The candidate should be advised that he should use any appropriate lecture aids.</p> <p>3. PRE-FLIGHT BRIEFING EXERCISES</p> <p>The pre-flight briefing exercise will differ from the other tests in that the candidate should treat it in the context of briefing an FI(R) course student. Not only should it include the flight exercise details but also training on pre-flight briefing techniques.</p> <p>Additionally, the examiner should give the candidate a brief as though he was</p>

	<p>an FI(R) course student and the candidate should be requested to criticise/debrief the examiner's performance.</p> <ol style="list-style-type: none"> 1. A pre-flight briefing exercise by the candidate to a 'student instructor' 2. A pre-flight briefing by the examiner in the role of student instructor 3. Debrief by the candidate of the 'student instructor's' PFB. <p>3. FLIGHT TEST</p> <p>During the test the examiner will assume the role of a student instructor. Accordingly the examiner will occupy the seat normally occupied by the instructor in the ab initio training situation.</p> <p>The examiner will evaluate not only the candidate's ability to present the flight exercises but also his ability to correct and analyse the student instructor's performance. The flight test will be as follows:</p> <ol style="list-style-type: none"> 1) The candidate will be expected to teach at least one air exercise in a manner appropriate to the needs of a student instructor. The candidate will not only present the sequence in the standard manner but also indicate to the student instructor the best way of presenting the sequence and demonstrating how to overcome particular handling problems associated with that exercise. 2) The examiner will assume the role of a student instructor for one air exercise (normally the same exercise that was used for the pre-flight briefing). The candidate will be expected to correct and analyse the examiner's performance. The candidate must demonstrate an ability to assess weaknesses and inaccuracies and then re-demonstrate the correct method. <p>4. OPTIONAL DEBRIEF OF THE FLYING TEST AND PRE-FLIGHT BRIEFING EXERCISE BY THE EXAMINER</p> <p>5. GROUND ORAL</p> <p>During the ground oral part of the test the candidate should be aware that presentation is as important as technical knowledge itself and that he will be assessed on both aspects equally. The content of the examiner's questioning will be pitched at a level of a student FI(R) rather than a NPPL student pilot.</p>
Standards required	<p>In addition to the requirements for a FI the candidate must display a deeper understanding of all aspects of providing flying instruction. The candidate must be able to complete flying exercises to a very high standard. Aircraft handling and the synchronisation of 'patter' should be virtually faultless.</p> <p>The standard of knowledge of the ground subjects and the ability to present explanations must be demonstrated to a high standard.</p> <p>The prepared lecture delivered by the candidate should display the ability to structure a complete and correct presentation. The lecture should also demonstrate the ability to utilise a variety of training aids in order to provide an example of the principles of teaching.</p>
Results	If successful the examiner will recommend the FI for a FICI approval, the

	<p>examiner may also revalidate the FI's Rating by Certificate of Test.</p> <p>If the candidate has failed to achieve the standard for a recommendation for FICI approval but is of the standard required to pass a FI revalidation test the examiner may revalidate the FI Rating.</p>
Admin	<p>LOGBOOK Candidate's logbook should be completed as for other Instructor Rating tests adding the details of the results of the FICI test.</p> <p>INSTRUCTOR FORM 1 If successful, the completed Instructor Form 1, including section 1 box 4 will be forwarded to the BMAA LIAC, together with the appropriate fee. If the test also resulted in the candidates FI rating being revalidated the examiner will sign the candidate's Certificate of Test and Instructor Form 1 section 1 box 3 should also be completed.</p> <p>The examiners fee (plus traveling expenses, if applicable) must be paid directly to the examiner.</p> <p>Details of charges are contained in Appendix A of this guide.</p>
Validity period	<p>Renewal of a FIC appointment is dependent on the candidate having received a recommendation on the Instructor Revalidation test. In the event of a FIC instructor failing to obtain a recommendation during the appointment period of authorisation, the candidate will be given the opportunity to carry out refresher training and present himself for retesting to obtain the necessary recommendation.</p> <p>If the candidate fails to obtain a recommendation on the second test, Licensing & Training Standards Department of the CAA should be contacted to review the case.</p> <p>The final outcome may result in revoking the candidate's authority.</p>

Section 8.4 FLIGHT INSTRUCTOR COURSE SCHOOL APPROVAL

1. APPLICATION

- 1.1. An applicant who wishes to run an approved Flight Training Organisation (FTO) to conduct FI(R) courses can obtain an application form for the Approval from the CAA. The completed form, SRG 1143, should be returned to the CAA who will make arrangements for the FTO to be inspected by a Panel Examiner and/or a CAA FTO inspector.
- 1.2. If after the Inspection of the school it is found to be satisfactory a recommendation will be made and the CAA will issue the school with a letter of approval. The appropriate annual charge must be paid to the CAA.

2. VALIDITY

- 2.1. The approval is renewed each year after a satisfactory annual inspection and payment of the annual charge to the CAA. Applications must be made to the CAA Office at least 6 weeks in advance of the expiry date.
- 2.2. Prospective FIC Schools must be able to demonstrate compliance with the 'Minimum Requirements for the Approval of Courses for the Flight Instructor (Restricted) Rating (Aeroplanes) Microlight':



3. MINIMUM REQUIREMENTS FOR APPROVAL OF COURSES FOR THE FLIGHT INSTRUCTOR (RESTRICTED) RATING (AEROPLANE) MICROLIGHTS

3.1. INTRODUCTION

- 3.1.1. The courses are designed solely for the purpose of enabling licence holders to qualify to give instruction in flying to persons seeking to obtain a National Private Pilot's Licence (Microlight).
- 3.1.2. Courses for the Flight Instructor (Restricted) (FI(R) Rating may only be given at Flight Training Organisations (FTOs) approved for the purpose. The minimum requirements to be met by organisations seeking approval from the CAA to conduct these courses are set out below.
- 3.1.3. The courses to which these requirements relate are as follows:
 - The Course for the Flight Instructor (Restricted) (FI(R) Rating (Aeroplane) Microlight.
 - Refresher Training for the renewal of a Flight Instructor (Restricted) (FI(R) or Flight Instructor Rating.

3.2. QUALIFICATIONS OF INSTRUCTIONAL STAFF

3.2.1. Flight Instructor Course (FIC) Instructors.

3.2.1.1. All Flight Instructors shall be currently approved by the Civil Aviation Authority to give Flight Instructor Courses on Microlight Aeroplanes.

3.2.1.2. There shall be one such instructor who shall be known as 'The Nominated FIC Instructor'. There may also be a 'Deputy FIC Instructor' and 'Other FIC Instructors' if so required by the applicant.

3.2.1.3. Note: In connection with the privileges associated with various licences as they relate to flight training, attention is drawn to the ANO and CAP 804.

3.2.2. Ground Instructors.

3.2.2.1. When a ground instructor is employed full time or part time, he should normally hold or have held a Flight Instructor Rating or have relevant qualification acceptable to the BMAA and the CAA.

3.3. APPROVED TRAINING

3.3.1. All courses shall be conducted in accordance with BMAA flying and ground training syllabus as approved by the CAA and as published by the BMAA in the document 'Syllabus of Instruction for the Flight Instructor (Restricted) (Aeroplane) Microlight'.

3.3.2. The flying and ground elements of each course shall be properly integrated so that progress in one complements progress in the other so that the student instructor is given adequate knowledge and competence in respect of the flying and ground tests conducted by the 'Microlight Panel of Examiners'.

3.3.3. Should it be desired to give the courses or significant parts thereof at a base other than the one at which approved facilities and organisations are provided, it will be necessary to apply to the CAA for further guidance and permission.

3.4. FLYING - CONTROL AND DISCIPLINE

3.4.1. Flying authorisation authority shall be confined to FIC instructors for all flights made for the purposes of the courses.

3.4.2. Flying authorisation sheets, books or similar documents shall be used to record the pertinent pre and post flying details of each flying made for the purposes of each course. The record shall include at least:

- The date.
- The aeroplane registration marks.
- The names of the FIC instructor and student instructor.

- The exercise to be flown or the route and destination aerodrome(s) to be visited.
- The authorising FIC Instructor's initials or signature.
- The initials or signature of the pilot in command both before and after flying.
- The intended duration of the flying.
- The total actual time elapsed of flying.
- Post flying recording of any divergence from the intended exercise.

3.4.3. A local Flying Order Book shall be prepared and shall cover local administrative and operational requirements as they affect the proper conduct of flying for the purposes of the courses. Each order shall be issued and signed by the Nominated Flight Instructor Course Instructor and shall show the date on which it was first issued. Each FIC instructor shall sign as having read all orders at least once per 12 months and also whenever a new order is published. Student instructors shall similarly sign at least once during the period of the particular course and whenever a new order is published.

3.4.4. Note: Where an FTO already has a Flying Order Book issued and dated by the CFI, another Order Book is not required. However, it may be necessary to add orders specific to the needs of instructor training. Such orders shall be issued and signed by the Nominated FIC Instructor and show the date on which they were first issued.



3.5. TRAINING RECORDS AND LOG BOOKS

3.5.1. Adequate training records and progress reports, which shall be kept for at least five years after the completion of the course, shall be maintained for all flying and ground training received by each student. The records shall include at least:

- Each training flight giving the date, the flying time, exercise or parts of exercises practised, the name of the FIC Instructor giving the training. There should also be comments on the student's performance, progress and other factors such as attitude and manner during flying and when applicable, during the course as a whole.
- Progressive totals of hours flown.
- Ground Instruction, giving the subject covered, the date, the time spent and the name of the instructor.
- A course completion certificate shall be signed by the Nominated FIC Instructor on the Instructor Form 1.

3.5.2. Student instructor's logbooks shall, in addition to being kept in accordance with the ANO, clearly identify the exercises of parts thereof flown on each flying made for the purposes of each course and shall be certified as being correct at the end of each course by the Nominated FIC Instructor.

3.5.3. FIC Instructors' logbooks shall clearly distinguish flying instructor course instructional flying from any other form of flying.

3.6. DUTIES OF THE NOMINATED FIC INSTRUCTOR

3.6.1. The Nominated FIC Instructor shall be required to ensure that all requirements governing the giving of courses of training are implemented as set out above.

3.6.2. In addition, he shall be required to supervise:

- The progress of each student including conducting flying checks as necessary and if applicable.
- The training given by all flying and ground instructors to ensure that at least all minimum standards are met, that it is given in accordance with the requirements set out herein and that the content of the instruction is adequately standardised.

3.6.3. Note: The duties of the Deputy FIC Instructor, when one is appointed, shall be the same as the Nominated FIC Instructor during any absence of the Nominated FIC Instructor. He may be given other duties at the discretion of the Nominated FIC Instructor.

3.7. AEROPLANE - PROVISION, MAINTENANCE AND REQUIREMENTS

3.7.1. At least one aeroplane shall be available and be suitable for the course to be given.

3.7.2. Each aeroplane shall have a valid appropriate airworthiness document and be maintained accordingly.

3.7.3. Of the required aircraft documents at least the current appropriate airworthiness documents for each aeroplane must be readily available at all times for each pilot to see. Similarly, the record of the rectification of defects logged from previous flights must also be readily available for each pilot to see.

3.7.4. No aeroplane shall be used on the course unless it satisfies the following minimum requirements:

- Each aeroplane shall be fitted with an efficient two-way communication system.
- All flying, engine and associated ancillary instruments shall be readily visible to both the FIC instructor and the student instructor when secured in their customary seats.
- Each aeroplane shall be fitted with adequate controls so positioned that both the FIC instructor and the student instructor can readily use them when sitting normally in their customary seats with safety belts or harnesses fastened.

3.7.5. Note: The Nominated FIC Instructor may impose reasonable additional requirements affecting the aeroplane type to be used for all or any of the exercises.

3.8. EQUIPMENT FOR GROUND INSTRUCTION

3.8.1. The minimum equipment to be provided for ground instruction for the Course shall be:

- Model aeroplane with working controls.
- Topographical charts. (Current ICAO 1:500,000 and 1:250,000 charts, relevant to the area to be over flown, shall be available on loan or for sale to Student Instructors).
- Equipment for instruction in visual signal e.g. Aldis lamp, signals square and marshalling signals.
- Such engine, airframe and ancillary equipment diagrams and components as are necessary for practical demonstration purposes.
- Chalkboards or similar equipment.

3.9. REFERENCE PUBLICATIONS

3.9.1. The following publications shall be accessible and/or kept in adequate numbers and be available on loan or for sale to Student Instructors as appropriate and, when applicable, be kept current by amendments in order that adequate coverage of the syllabus is provided.

- The Air Navigation Order, Air Navigation (General) Regulations, the Rules of the Air Regulations, the Civil Aviation Authority Regulations, Permanent Air Navigation (Restriction of Flying) Regulations: (Collectively CAP 393).
- CAP 413 and CAP 804.
- UK Aeronautical Information Publication (AIP) or Pooleys/ Airplan Flying Equipment Flying Guides or any other publication giving details of aerodromes likely to be visited during the course.
- NOTAMS or "Bulletins" provided/ approved by NATS.
- Chart of UK Airspace Restrictions and Hazardous Areas.
- Aeronautical Information Circulars.
- The Flight Manual (or where applicable) the Owner's Manual for the aeroplane with actual or specimen Certificates of Registration, the appropriate airworthiness documents, Radio Licence and Radio Installation Approval (if applicable). A copy of the Flight or Owner's Manual or at least an adequate extract there from and a Check List shall be made available to each student. Extracts from the Manual and Check List produced by the FTO shall not be in conflict with the requirements of the Flight or Owner's Manual.
- The BMAA Syllabus of Instruction for the Assistant Flying Instructor Rating (Aeroplanes) Microlight Course.
- The BMAA Syllabus of Instruction for the National Private Pilot's Licence Microlights.
- The BMAA Microlight Instructor and Examiner Guide.

- Complete set of specimen pre-flight briefings covering all flying exercises in the syllabus.
- ATC Flight Plan.
- Any other recognised works of reference directly related to the flying and ground syllabus, including those listed in the BMAA document 'Syllabus of Instruction for the Flight Instructor (Restricted) Rating (Aeroplane) Microlight'.

3.10. GENERAL ACCOMMODATION REQUIREMENTS

- 3.10.1. The minimum accommodation to be provided and reserved for the purposes of the courses is a lecture/briefing room of adequate size relative to the maximum student capacity. A quiet room for individual self-study is desirable.

3.11. AERODROME REQUIREMENTS

- 3.11.1. The aerodrome shall be suitable in every way for the type of aeroplane to be used on the course, bearing in mind the special needs of Student Instructors and the performance of the aeroplane.

- 3.11.2. The aerodrome must comply with the following minimum criteria:

- There must be a minimum take-off and landing roll of 250 metres available, allowing safe margins of clearance for obstructions on climb out and approach.
- There must be enough clear ground surrounding the field to allow a safe landing to be made following an engine failure at any stage in the circuit.
- The climb out and approach paths should be well clear of congested areas.
- The field should be reasonably level, smooth and well drained. If the field slopes, or is saucer shaped, or if the ground is soft, the field should then be larger than the normal requirement.
- Reasonable access for emergency vehicles must be available and, if not obvious, must be marked.

3.11.3. AIRFIELD EQUIPMENT

- Windsock.
- Fire extinguishers - 1 x 3kg (or 2 x 1.5kg) Multipurpose (ABC).
- First Aid Kit containing at least:
 - 3 emergency dressings BPC 9
 - 3 emergency dressings BPC 12
 - 3 triangular bandages

- 1 pair scissors
- One Harness knife (complete with sheath).
- One person with knowledge of the use and operation of the above equipment.
- Telephone (or location of nearest one, within a reasonable distance, to be posted in an obvious position).

3.12. APPROVAL - CONDITION AND ADMINISTRATION

- 3.12.1. Applications for approval are to be made on the CAA application form SRG1143 which can be obtained from the CAA web site and returned for processing. Initial approval is for a period of 12 months and is dependent upon a successful inspection of the Course and the FTO's facilities by a 'Microlight Panel Examiner' and/or a CAA inspector. The continuation of approval is dependent upon re application and a further satisfactory inspection every 12 months. The cost of the inspection and approval will be met by the FTO.
- 3.12.2. All requirements being satisfied, the approval will be granted to the Flying Training Organisation concerned for the giving of Courses under the direction of the Nominated FIC Instructor.
- 3.12.3. It will be a condition of the approval that, should the Nominated FIC Instructor leave the post, the approval will automatically lapse. The CAA shall be informed of his departure or intended departure. However, provided that a named Deputy FIC Instructor has been in post at that FTO and has been active for at least 90 days before the Nominated FIC Instructor leaves his post, permission may be given for the approval to continue in the Deputy's name pending the appointment of a replacement Nominated FIC Instructor.
- 3.12.4. Approval may be withdrawn or suspended at the discretion of the CAA if any of the above requirements cease to be met in whole or in part, or if the standards on which the approval was granted are not maintained.

Section 8.5 FI(R) COURSE PRE-ENTRY FLIGHT TEST AND WRITTEN EXAM

1 FI(R) COURSE PRE-ENTRY REQUIREMENTS

- 1.1 Prior to commencing a FI(R) Course the prospective FI(R) must pass a flight test and written exam.
- 1.2 The purpose of the pre-entry tests is to ensure that the candidate has maintained a level of knowledge and ability appropriate to commencing an FI(R) Course.
- 1.3 It is recommended that these tests are taken prior to confirming a booking to attend the FI(R) Course.

2 FI(R) COURSE PRE-ENTRY FLYING TEST

Eligibility of candidate	<p>Prior to starting the FI(R) Course the candidate must show compliance with the following:</p> <ol style="list-style-type: none">1. Hold a licence that includes a valid microlight class rating with no operational restrictions.2. Hold a valid SEP or microlight rating for at least 8 months.3. Have a minimum of 100 hours as PIC of aircraft of which 5 hours are on microlight aircraft including 5 hours as PIC on the control type to be used on the course.
Examiner qualifications	Microlight FICI / FIE
Guidance for conduct of test	<p>The flying test should be conducted with the candidate seated in the 'first pilot' position. The test does not aim to assess the candidate's ability to fly the aircraft from the instructor's position.</p> <p>The flying test should be conducted in the same manner as the NPPL M GST.</p>
Content of test	The flying test should include the content of the NPPL M GST.
Standards required	<p>The purpose of this flying test is to ensure that the candidate has maintained a suitable standard since qualifying for a NPPL M and has benefited from his experience as a pilot. The candidate must be able to demonstrate ability at least equal to a candidate being examined during the initial GST for the issue of a NPPL M.</p> <p>The candidate should be able to complete all aspects of a GST with smoothness, accuracy and confidence.</p>
Results	Pass or fail.
Admin	<p>If successful the FICI will complete Section 5c of Instructor Form 1 and complete an entry in the candidate's logbook as for a GST.</p> <p>If unsuccessful record as a dual training flight in the candidate's logbook and indicate a failed pre entry test.</p>

Validity period	6 months immediately preceding the start of the AFIC.
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3 FI(R) COURSE PRE-ENTRY WRITTEN EXAM

Eligibility of candidate	<p>Prior to starting the FI(R) Course the candidate must show compliance with the following:</p> <ol style="list-style-type: none"> 1. Hold a licence that includes a valid microlight class rating with no operational restrictions. 2. Hold a valid SEP or microlight rating for at least 8 months. 3. Have a minimum of 100 hours as PIC of aircraft of which 5 hours are on microlight aircraft including 5 hours as PIC on the control type to be used on the course.
Examiner qualifications	Microlight FICI / FIE
Guidance for conduct of test	The written exams should be conducted in accordance with the guidance for the NPPL M written exams.
Content of test	<p>The pre-entry written exams are written by the Panel of Examiners on behalf of the CAA. The exam is based upon the contents of the NPPL M (Ground Subjects) Syllabus.</p> <p>The purpose of the exam is to ensure that the candidate has maintained a level of knowledge which is appropriate to a student commencing a FI(R) Course.</p>
Standards required	The candidate must achieve a mark of at least 80% in order to pass the exam.
Results	Pass or Fail.
Admin	<p>Complete Section 5b of Instructor Form 1.</p> <p>In all cases, a pass or fail, the answer paper to be retained by the FICI.</p> <p>The completed paper forms part of the AFIC records and should be kept for at least two years following course completion.</p>
Validity period	6 months immediately preceding start of AFIC.

Section 8.6 RESTRICTED FLIGHT INSTRUCTOR SUPERVISION

1. INTRODUCTION

- 1.1. Flight training given by a Restricted Flight Instructor (FI(R)) must be supervised by a Flight Instructor (FI) at all times. This rule exists not only to safeguard the Student Pilot, but to foster the correct approach, attitude and teaching technique in the FI(R) himself.
- 1.2. This section of the guide is designed to assist both the FI(R) and his supervising FI in maintaining compliance with this and the other rules laid down in the Air Navigation Order, and also help them to develop the instructional potential of the FI(R) to the full.

2. THE FI(R) AND HIS LEGAL LIMITATIONS

- 2.1. The following restrictions are placed on a Microlight FI(R) exercising the privileges of his rating:
 - a) A FI(R) may only give instruction if supervised by a FI who is present during take-off and landing at the aerodrome from which the instruction is to begin and end. ("Present" has been defined as meaning "on the aerodrome or within the circuit").
 - b) A FI(R) may only give instruction on control type which he is rated, i.e. Flexwing or Fixed Wing.
 - c) A FI(R) must not give directions to a Student Pilot in respect of his first solo flight.
 - d) A FI(R) must not give directions to a Student Pilot in respect of his first solo cross country flight. (A "cross country" flight is defined in the ANO and CAP 804 as one where the aircraft flies more than 3 nautical miles from the departure aerodrome).

3. THE SUPERVISING FI

- 3.1. The supervising FI should be thoroughly conversant with the aircraft type being used by the FI(R). He must hold a Flight Instructor's rating entitling him to instruct on an aircraft of the same control type or class as the aircraft on which instruction is being given. He should have a minimum of 5 hours experience, whilst giving flight instruction, on that control type (Flexwing or Fixed wing).
- 3.2. This should apply in all cases - including that of an EASA Flight Instructor supervising a microlight FI(R).

4. OBJECTIVES

- 4.1. The newly qualified FI(R) will have completed an approved Flight Instructor Course and will have been assessed by a microlight FIE (Panel Examiner) as having reached the required standard to begin teaching student pilots under the supervision of a FI.

- 4.2. The Flight Instructor Course will have equipped the new FI(R) with the basic knowledge and skills for the task ahead, but of course, he has never actually given instruction to a student pilot at this stage. It is the job of the supervising FI to guide the FI(R) as he sets about putting theory into practice.
- 4.3. Any misconceptions allowed to develop at this stage of the FI(R)'s career are likely to become a part of the instruction provided by the FI(R), it follows, therefore, that the newly qualified FI(R) must be carefully and actively supervised to ensure proper development.
- 4.4. During the testing of FI(R)s applying to be upgraded to FIs it has all too frequently been apparent that this supervision has been lacking and, as a result, the FI(R) has not progressed as expected.
- 4.5. The objective of this period of supervision by a FI is to develop the FI(R)'s abilities to the point where he is capable of assuming the responsibilities and carrying out the duties of a FI unassisted and unsupervised.

5. AREAS OF SUPERVISION

5.1. Broadly, supervision will entail:

- a) Assuming overall responsibility for the safety of all operations involving the FI(R).
- b) Ensuring that at all times the conditions are suitable for both the training exercise being flown and the student pilot being taught.
- c) Selecting students and exercises for the FI(R) to progressively ease him into his new role, starting with the simpler exercises and gradually exposing him to the more demanding areas of instructing.
- d) Ensuring that the progress of the student pilots being taught by the FI(R) is satisfactory.
- e) Monitoring the content of the flight and ground instruction being given by the FI(R).
- f) Maintaining a continuous process of discussion covering assessment of conditions, evaluation of student progress, problem areas, alternative methods, lesson planning etc.
- g) Ensuring that by the time the FI(R) has completed his period under supervision he has gained a good all round understanding of the practicalities of flight training and has had the opportunity to teach all parts of the syllabus. Ideally, if possible, the FI(R) will have taught at least one student from starting training to gaining his licence.

5.2. Specifically, the supervising FI should:

- a) Brief and debrief the FI(R) before and after each instructional session. The extent of the briefing will obviously depend on the level of experience of the FI(R) as he progresses and could vary from a detailed discussion of weather conditions, choice of

location and altitude, student ability, previous problems etc., to a few words to confirm the FI(R)'s intentions. Likewise the de brief.

- b) Carry out sufficient check flights with the FI(R) (the FI acting as student) to monitor progress and ensure that all exercises are being taught correctly.
- c) Carry out sufficient check flights with student pilots being taught by the FI(R) to ensure that their progress is satisfactory.
- d) Sit in on sufficient pre-flight briefings, debriefings and ground lectures given by the FI(R) to student pilots to ensure that their content and quality is satisfactory.
- e) Initially the FI will find it necessary to closely supervise the newly qualified FI(R), but as his abilities and experience increase the FI(R) should be allowed to assume more responsibility and encouraged to make his own decisions in preparation for his future role as a fully qualified Flight Instructor.

6. CONCLUSION

- 6.1. Careful supervision of an FI(R) will take considerable time and effort on the part of the supervising FI, particularly in the early stages. At the end of this period the FI(R)'s knowledge will be greatly expanded and his teaching techniques improved and polished. This will ensure that the FI(R) will be able to provide good instruction based on sound principles refined through experience, which in turn will produce safe pilots.



SECTION 9

EXAMINER CRITERIA AND APPOINTMENTS



Section 9.1 EXAMINER APPOINTMENTS

1. REVALIDATION (R) EXAMINER PRIVILEGES AND CRITERIA

- 1.1. R Examiners can sign Certificates of Experience and Revalidation to maintain a pilot's rating privileges.
- 1.2. Applicants must show that there is a need for such appointment.
- 1.3. The normal minimum requirement for appointment is for the applicant to be an instructor. In exceptional circumstances a pilot, with a current Microlight rating, may be accepted as an R examiner.
- 1.4. Applicants must answer correctly a series of written questions based upon revalidation scenarios which assess the applicant's knowledge of the revalidation process. The questions are supplied to the applicant by the BMAA LIAC on receipt of the application. When successfully completed the Panel will review the application and, if it is approved, make a recommendation to the CAA to issue the Letter of Authority.
- 1.5. If an applicant is unable to successfully answer the questions within three attempts they may not reapply for a period of three months.

2. GROUND EXAMINER (GR) EXAMINER PRIVILEGES AND CRITERIA

- 2.1. The GR Examiner Authority contains within it the R Examiner Authority privileges.
- 2.2. GR Examiners can sign Certificates of Experience and Revalidation to maintain a pilot's rating privileges and, in addition, hold the Ground Examination papers for the grant of the NPPL M.
- 2.3. Applicants must show that there is a need for such appointment.
- 2.4. The normal minimum requirement is for the Candidate to be a Flight Instructor.
- 2.5. If the Applicant does not already hold an R Examiner Authority they must answer correctly a series of written questions based upon revalidation scenarios which assess the applicant's knowledge of the revalidation process. The questions are supplied to the applicant by the BMAA LIAC on receipt of the application. When successfully completed the Panel will review the application and, if it is approved, make a recommendation to the CAA to issue the Authority.
- 2.6. If an applicant is unable to successfully answer the questions within three attempts they may not reapply for a period of three months.

3. FLIGHT EXAMINER (FE) EXAMINER PRIVILEGES AND CRITERIA

- 3.1. The FE Examiner Authority contains within it the GR Examiner Authority privileges.
- 3.2. An FE can sign Certificates of Experience and Revalidation to maintain a pilot's rating privileges and holds the Ground Examination papers for the grant of the NPPL M.
- 3.3. In addition FEs can conduct the General Skills Tests for the grant, revalidation and renewal of a Microlight NPPL on Control Types specified in their Approval.
- 3.4. Applicants must show that there is a need for such appointment.
- 3.5. Minimum requirements are that the Candidate must have been a Flying Instructor for 2 years, have 300 Instructional hours of which 200 should be on microlights.
- 3.6. If the Applicant does not already hold an R or GR Examiner Authority they must answer correctly a series of written questions based upon revalidation scenarios which assess the applicant's knowledge of the revalidation process. The questions are supplied to the applicant by the BMAA LIAC on receipt of the application.
- 3.7. If an applicant is unable to successfully answer the questions within three attempts they may not reapply for a period of three months.
- 3.8. Applicants must have attended an Examiner Seminar held by the Panel, or completed one-to-one coaching with a Microlight FIE, within the previous 12 months.
- 3.9. Applicants must have successfully completed a Flight Instructor Test on each control type for which FE privileges are sought before making an application.
- 3.10. Applicants will undertake a flight and ground oral assessment test with a Microlight FIE. If successful the Panel will recommend to the CAA that the FE Authority be issued.
- 3.11. Applicants for a FE for multiple control types will be required to complete a flight and oral assessment on one type and only oral assessments on any others.

4. APPLICATIONS AND VALIDITY

- 4.1. Applications for all Examiner Authorities should be made on an Examiner Authority Application Form available from the BMAA LIAC and the BMAA website and returned to the BMAA LIAC together with the administration and CAA fee where applicable.
- 4.2. All applications will be considered by the Microlight Panel of Examiners. In the case of a successful application a recommendation will be made to the CAA. The Letter of Authority will be issued by the CAA.
- 4.3. All Letters of Authority are issued for a period of 3 years.
- 4.4. All Examiners should be aware that their Authorities are issued in respect of the

organisation specified on their letter of Authority. In order to maintain their Authority within another organisation it is necessary for an application to be made to the CAA, through the BMAA LIAC, for the issue of a new Letter of Authority.

- 4.5. Examiners must note that it is their responsibility to maintain their Authorities. Reminders are not sent by the CAA or BMAA.

5. RENEWAL AND REVALIDATION

5.1. All Examiners

- 5.1.1. All examiners must make an application for renewal or revalidation of their Authority using the Microlight Examiner Application Form from the BMAA website.

- 5.1.2. On receipt of the application the BMAA LIAC will send the applicant a series of written questions based upon revalidation scenarios which assess the applicant's knowledge of the revalidation process. The Panel cannot make a recommendation for renewal or revalidation of an Examiner Authority until the questions are completed successfully. If the Examiner is unable to successfully answer the questions within three attempts they may not reapply for a period of three months.

5.2. FE Examiners


- 5.2.1. FE Examiners, if current or expired by less than 3 years, are required to pass an oral assessment with a Microlight FIE to obtain a Panel recommendation for the issue of a new Letter of Authority.
- 5.2.2. FE Examiners who have expired by 3 years or more must pass a Flight and Ground assessment with a Microlight FIE in order to obtain a Panel recommendation for the issue of a new Letter of Authority. It is not required that these applicants attend a refresher seminar or complete one-to-one training with a FIE but it is recommended that they do so.
- 5.2.3. In the event of a FE failing to obtain a recommendation the outcome may result in revoking the applicant's Authority.
- 5.2.4. Flight Examiners with no control type restrictions, wishing to revalidate on all control types, should be assessed on a 1 in 3 assessment basis on each control type, similar to FI revalidations.

Section 9.2 GUIDANCE NOTES FOR THE CONDUCT OF MICROLIGHT FLIGHT EXAMINER (FE) ASSESSMENTS

1. INTRODUCTION

- 1.1. After recommendations from the CAA the Microlight Panel of Examiners agreed to change the process by which applicants for the grant, revalidation or renewal of a Microlight Flight Examiner (FE) could gain a recommendation from the Microlight Panel of Examiners to support the application.
- 1.2. The most significant change for an initial application is the replacement of an interview to demonstrate capability with a practical demonstration during which the applicant will carry out a mock GST with a Microlight Flight Instructor Examiner (FIE) acting as the candidate. The FIE will assess the applicant's performance and base the decision on whether to make a positive recommendation, or not, on that performance.
- 1.3. For a revalidation, or renewal of an authority that has lapsed by less than three years, the Panel recommendation is based upon an oral assessment carried out by a Microlight FIE.
- 1.4. For the renewal of an authority that has lapsed by three years or more the applicant must undertake a practical assessment with a Microlight FIE as for an initial application.

2. TERMINOLOGY

- 2.1. Within this guidance the following terms are used:
 - 2.1.1. Applicant. The person who is seeking a recommendation to support an application for the grant of a Microlight Flight Examiner (FE) Authority.
 - 2.1.2. Candidate. The role taken by the FIE when the applicant is conducting the mock GST.

3. BOOKING AN ASSESSMENT.

- 3.1. The applicant will request an assessment with a Microlight FIE of their choice and make arrangements for date, time, location and aircraft to be used.
- 3.2. The FIE cannot examine any applicant that they have coached as part of the preparation.
- 3.3. When arranging an assessment the FIE must establish whether the applicant is to undertake a flight or oral assessment, and which control systems the applicant is applying to be authorised as an examiner for. (Flexwing, Fixed Wing, Powered Parachute). If the applicant is asking to have an additional control system added to an existing FE this should be made clear at this stage.
- 3.4. The FIE will advise the applicant of all costs involved.

4. ASSESSMENT PROCEDURE FOR THE INITIAL GRANT OF A MICROLIGHT FE AUTHORITY OR RENEWAL OF AN AUTHORITY LAPSED BY 3 YEARS OR MORE.

4.1. DOCUMENT AND AIRCRAFT CHECKS

- 4.1.1. The FIE will check that the applicant holds a valid pilot's licence, valid microlight instructor rating, valid aircraft rating and medical documentation as applicable.
- 4.1.2. The applicant will provide evidence of meeting the minimum requirements of need and experience as specified in the BMAA Instructor and Examiner Guide. Section 9.1 3.4 – 3.8.
- 4.1.3. An aircraft documents check is to be carried out so that both the FIE and applicant are satisfied that the aircraft to be used meets documentary requirements.
- 4.1.4. A physical examination of the aircraft is to be carried out so that both the FIE and applicant are satisfied that it is in an airworthy condition.
- 4.1.5. If any of the above is unsatisfactory the assessment cannot proceed further.

4.2. PRE ASSESSMENT BRIEFING

- 4.2.1. The FIE will brief the applicant on the following aspects of the assessment:
 - 4.2.1.1. The applicant will treat the FIE throughout as a candidate for an initial NPPL Microlight GST, having completed a course of training.
 - 4.2.1.2. The applicant will carry out a GST with the FIE acting as the NPPL M candidate. The GST will include:
 - A pre-GST briefing
 - The flight
 - A post-flight debriefing with a result
 - Conduct of a Ground Oral examination
 - Completion of example documents to reflect the result
 - 4.2.1.3. The applicant may use the POH for the aircraft type being used for the test.
 - 4.2.1.4. The applicant must be aware of the role of a FE and not give coaching to the candidate during the test.
 - 4.2.1.5. Following the completion of the assessment the FIE will advise the applicant of the outcome.
 - 4.2.1.6. If the applicant has demonstrated sufficient understanding and ability to act as a Microlight FE, the FIE will confirm that, on behalf of the Panel, a recommendation will be made to the CAA to issue the applicant with a Microlight FE authority.
 - 4.2.1.7. If the FIE does not consider that the applicant has demonstrated sufficient understanding and ability to act as a Microlight FE, the FIE will inform the applicant

that the Panel will not make a recommendation to the CAA for the issue of a FE authority. The FIE will advise the applicant of how they can improve their performance before applying for another assessment.

4.2.1.8. In the event of a failed assessment there is no appeal procedure.

4.3. THE ASSESSMENT

4.3.1. The applicant will carry out the GST sequence and Ground Oral Exam as specified in the FIE's pre-assessment briefing.

4.3.2. The FIE will expect the following from the applicant before the flight begins:

- 4.3.2.1. an introduction as the candidate's examiner;
- 4.3.2.2. a pre-test document check to assure that the candidate is eligible for the GST;
- 4.3.2.3. a pre-GST briefing given to the candidate detailing;
 - Purpose of the GST
 - Possible outcomes
 - Appeal procedure
 - Responsibilities
 - Expected practical sequence
 - Key phrases for control handover and responsibilities at all times, and specifically in the event of a real emergency, the unusual attitudes sequence and simulated forced landings
 - The procedure for non-critical events, e.g. Communications failure

4.3.3. The FIE will expect the following from the applicant during the flight:

- 4.3.3.1. That the flight follows the briefed sequence so that the candidate is not confused by change;
- 4.3.3.2. That the applicant makes all flight manoeuvre requests clearly, so that there is no possibility for misunderstanding;
- 4.3.3.3. That the applicant uses key phrases as appropriate;
- 4.3.3.4. That the applicant demonstrates that they understand that their role is as an examiner and does not slip into an instructor role;
- 4.3.3.5. That the applicant is able to recognise when it is appropriate to intervene either verbally or physically during any part of the flight;
- 4.3.3.6. That the applicant ensures that safety is never compromised;
- 4.3.3.7. That the applicant ensures that air law is complied with at all times. E.g. VFR minima, low flying rules.

4.3.4. The FIE will expect the following from the applicant after the flight has been completed:

- 4.3.4.1. To be informed of the result of the GST at an appropriate time in an appropriate manner;
 - 4.3.4.2. An accurate debrief of the candidate's performance throughout the GST and how the performance led to the final result;
 - 4.3.4.3. In the event of a Partial Pass or Fail to be advised of options and action to be taken before requesting a re-test;
 - 4.3.4.4. For the actual result, the applicant to accurately complete an entry in the candidate's personal flying logbook and on the licence application form, Form 102M, as appropriate to the result.
- 4.3.5. The FIE will expect the following from the applicant during the Ground Oral examination:
- 4.3.5.1. A complete understanding of the scope of the examination appropriate to the aircraft being used;
 - 4.3.5.2. A clear, unambiguous, questioning technique;
 - 4.3.5.3. A good knowledge of the subjects being examined;
 - 4.3.5.4. An accurate assessment of the candidate's knowledge to determine a pass or fail;
 - 4.3.5.5. Correct recording of the result as required for a licence application.



4.4. POST ASSESSMENT

- 4.4.1. Following the assessment the FIE must debrief the applicant on their performance and advise whether or not the applicant will receive a recommendation from the Panel for the CAA to issue a Microlight FE authority.
- 4.4.2. The FIE will record their assessment on Form BMAA LIAC FE/FA¹.
- 4.4.3. In the case of a satisfactory assessment the FIE will notify the BMAA LIAC in writing using Form BMAA LIAC FE/FA and the recommendation will be recorded on the applicant's application form. When all requirements for the particular application have been met the BMAA will forward the application to the CAA on behalf of the Microlight Panel of Examiners.
- 4.4.4. Following all satisfactory flight assessments a logbook entry should show the FIE as Captain and the applicant as P1S.
- 4.4.5. In the case of an assessment where the applicant has not shown satisfactory performance in either the flight or oral aspect of the assessment the examiner may award a Partial Pass. A pass may be awarded if the applicant successfully completes the test within 90 days, otherwise the whole assessment is considered failed.

¹ (FE Flight Assessment record)

4.4.6. Following an unsuccessful assessment or Partial Pass with a failed flight assessment the logbook entry should show the FIE as Captain and the applicant as PUT.

4.4.7. In the case of an unsatisfactory assessment the FIE will notify the BMAA LIAC in writing using Form BMAA LIAC FE/FA and the notification will be attached to the applicant's application form, together with a completed SRG2129 notice of failure, but no further action will be taken.

5. ASSESSMENT PROCEDURE FOR THE REVALIDATION OF A MICROLIGHT FE AUTHORITY OR RENEWAL OF AN AUTHORITY LAPSED BY LESS THAN 3 YEARS.

5.1. DOCUMENTATION CHECK

5.1.1. The FIE will check that the applicant holds a valid pilot's licence, valid microlight instructor rating, valid aircraft rating and medical documentation as applicable. If any of these are not satisfactory the assessment cannot proceed further.

5.2. PRE ASSESSMENT BRIEFING

5.2.1. The FIE will brief the applicant on the following aspects of the assessment:

5.2.1.1. The applicant will be questioned on all aspects of conducting a GST and Ground Oral examination for the grant of a NPPL with a Microlight Class rating.

5.2.1.2. The applicant will be asked to describe in detail aspects of:

- A pre-GST briefing including a pre-test document check to ensure that the candidate is eligible for GST
- The flight sequence and standards of skills to be displayed
- The conduct of a post-flight debriefing and options for a result
- The conduct of the Ground Oral examination
- The completion of example documents to reflect a result

5.3. POST ASSESSMENT

5.3.1. Following the completion of the assessment the FIE will advise the applicant of the outcome.

5.3.2. If the applicant has demonstrated sufficient understanding and ability to act as a Microlight FE, the FIE will confirm that, on behalf of the Panel, a recommendation will be made to the CAA to issue the applicant with a Microlight FE authority.

5.3.3. If the FIE does not consider that the applicant has demonstrated sufficient understanding and ability to act as a Microlight FE, the FIE will inform the applicant that the Panel will not make a recommendation to the CAA for the issue of a FE authority. The FIE will advise the applicant of how they can improve their performance before applying for another assessment.

5.3.4. In the event of an unsuccessful assessment applicants may be required to undertake a flight test as for an initial assessment, rather than another oral assessment, to obtain a recommendation.

5.3.5. In the event of a failed assessment there is no appeal procedure.

5.3.6. The FIE will record their assessment on Form BMAA LIAC FE/OA².

5.3.7. In the case of a satisfactory assessment the FIE will notify the BMAA LIAC in writing using Form BMAA LIAC FE/OA and the recommendation will be recorded on the applicant's application form. When all requirements for the particular application have been met the BMAA will forward the application to the CAA on behalf of the Microlight Panel of Examiners.

5.3.8. In the case of an unsatisfactory assessment the FIE will notify the BMAA LIAC in writing using Form BMAA LIAC FE/OA and the notification will be attached to the applicant's application form together with a completed SRG2129 notice of failure, but no further action will be taken.



² (FE Oral Assessment record)

SECTION 10

FLYING INSTRUCTOR EXAMINER /
PANEL EXAMINER



Section 10.1 FIE - FLYING INSTRUCTOR EXAMINER

1 FIE - PRIVILEGES

- 1.1 A FIE can sign Certificates of Experience/ Revalidation to maintain a pilot's rating privileges, holds the Ground Examination papers for the grant of the NPPL M and conduct the General Skills Tests for the grant, revalidation and renewal of a NPPL M.
- 1.2 A FIE Authority contains within it a FE Authority.
- 1.3 FIEs also hold FIC Instructor Approval as part of their Authority.
- 1.4 In addition a FIE can conduct tests for the grant or renewal of a Microlight FI (R) or FI rating.

2 FIE – QUALIFYING REQUIREMENTS

- 2.1 1000 Instructional hours of which 600 should be on Microlights.
- 2.2 The Candidate shall be a Microlight FIC Instructor and have completed FI(R) Courses prior to application.
- 2.3 This is an Authority issued by the CAA following a successful interview with the Microlight Panel of Examiners and the CAA.
- 2.4 FIEs must apply to CAA to renew the authority every three years.

3 FIE - INTERVIEW

- 3.1 Applicants for FIE appointments who meet the qualifying requirements will be invited to attend an interview conducted by the CAA. The interview board will consist of FIEs and a member of the CAA.
- 3.2 It is strongly recommended that prior to attending the interview one to one coaching with an existing FIE is taken.

- 3.3 In the course of the interview the applicant will be asked to discuss the following subjects:
- 1) The applicant's background, experience and current instructional activities.
 - 2) The applicant's reasons for applying for the appointment.
 - 3) The applicant will be asked to describe the way in which he would conduct an Instructor Test and the standard that would be required from a successful candidate. The applicant will be required to describe, in detail, the flight manoeuvres and ground aspects covered during an Instructor Test.
- 3.4 The candidate should demonstrate a deep understanding of all aspects of teaching student instructors together with the high level of integrity and motivation required for this demanding appointment.
- 3.5 A successful candidate will observe a test carried out by an existing FIE before being observed conducting an Instructor Test by an existing FIE.



Section 10.2 ROLE OF THE FLYING INSTRUCTOR EXAMINER/ PANEL EXAMINER

1. Flying Instructor Examiners (FIEs) form a group called the MICROLIGHT PANEL OF EXAMINERS. The Panel advises the CAA and BMAA on instructional and examining matters relating to microlight licensing.
2. A Panel Examiner is a FIE who is also a member of the Panel.
3. FIEs are appointed by the Civil Aviation Authority and are authorised to conduct Tests for the issue and renewal of the Flying Instructor and Assistant Flying Instructor Ratings and to sign Certificates of Test in respect of these ratings. On occasions an examiner may be called upon to conduct tests to assess an Instructor's suitability to conduct Flying Instructor Courses.
4. The authority to conduct these tests derives from The Air Navigation Order. During these tests the examiner is administering a part of the ANO in the interest of microlight aviation. The importance of thorough testing conducted to a common standard cannot be overstated. By ensuring the application of appropriate standards during instructor testing it assures not only the quality of the instructor, but also the likely quality of his students. The flying training system can be viewed as a pyramid, if proper standards are applied at the top good quality instruction and flying should flow downwards and outwards towards the base.
5. The qualities of tact, detachment and impartiality expected from the examiner are beyond the ordinary; especially when examining a friend or colleague. The examiner must always insist upon the proper standards of flying and airmanship and apply them inflexibly and without favour.
6. The terms of the examiner's authorisation do not require an examiner to conduct a test on a particular candidate, nor, unless directed by the CAA, may a candidate be required to undergo a test with a particular examiner. In the interests of standardisation, an examiner should not, save in exceptional circumstances, conduct more than two consecutive tests on any one candidate. If a request for a third test is made by the candidate, the examiner will consider whether real hardship to the candidate would arise if the request was declined. The final decision rests with the examiner.
7. A FIE conducting an FI(R) course should not conduct the initial instructor test with the student taking part in that course. This principle should also be extended to a FIE testing an instructor with whom he has been conducting refresher FIC training.
8. All tests should be conducted in accordance with the guidance given in this document.
9. Authorisation to conduct tests will normally remain valid until revoked. Should an examiner's licence or instructor rating become invalid for any reason, this authorisation shall immediately cease to be in force.
10. Each examiner is required to conduct a minimum of four tests during each and every yearly period in order to maintain his authority. An examiner who does not comply with this requirement must report the circumstances to the Chairman of the Microlight Panel of Examiners, so that continued validation of the appointment may be considered.
11. Examiners will be required to attend meetings in order to ensure continued testing of instructors to a common standard and identify areas requiring attention in flight

training. Examiners are not normally expected to miss more than one consecutive 'Panel' meeting. Examiners will also be invited to attend interview 'boards' for the purpose of interviewing candidates for FICl and FIE appointments and approvals. Examiners are also responsible for inspecting FIC schools. Examiners are expected to make themselves available for these additional tasks.

12. The Panel of Examiners is responsible for considering applications made for the grant or renewal of Microlight Examiner Authorities and subsequently making a recommendation to the CAA for their issue. The procedure for examiner application consideration is detailed in Section 9.1 and 9.2 of this guide.



SECTION 11

APPENDICES

Appendix A – FEES

Appendix B – BMAA Code of Good Practice, sample of a Flying Order book

Appendix C – Sample Docs – Checklists, Cross Country Certificate, Oral Exam Assessment, Ground Exam Answer Sheet, Sample Student Record Sheet

Appendix D – Instructor bulletins



APPENDIX A

FEES



APPENDIX A

FOR CURRENT FEES AND CHARGES, FOLLOW THIS LINK:

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



APPENDIX B

BMAA Code of Good Practice

Example of a Flying Order Book





BMAA Code of Good Practice for Microlight Clubs



BMAA Code of Good Practice for Microlight Clubs

Contents

1. Introduction
2. Principles
3. Rules and regulations
4. Airfields
5. Airfield facilities
6. Safety
7. Aircraft
8. Microlight Schools – Administration and documentation
9. Microlight Schools - Conduct of training
10. Appendix A - Example Flying orders
11. Appendix B - BMAA recommended minimum criteria for a microlight site
12. Appendix C - Example Club membership form
13. Appendix D – BMAA Competition/Event Risk Assessment pro-forma

BMAA Code of Good Practice for Microlight Clubs

1) Introduction

The BMAA represents the sport of Microlight Flying in the UK. The aims of the BMAA include:

- ***Encouraging a high standard of safety within the sport of Microlight flying***
- ***Encouraging a high standard of airmanship within the sport of Microlight flying***

During the development of Microlight flying within the UK the BMAA has gathered a huge amount of experience and knowledge that it used to create this document to help all members achieve the aims of their Association.

It is hoped that by guiding the membership to achieve these two aims another aim of the BMAA will also be achieved. That aim is:

- ***To promote the sport of Microlight flying as an enjoyable form of recreational flying which is available and affordable to as wide a section of the population as possible.***



Although this document is entitled the “BMAA Code of Good Practice for Microlight Clubs” the principles that it contains should also be considered to apply to individual pilots operating outside of a Club environment. By promoting best practice within a Club environment we hope that the members of the Club welcome it and they do not feel it is imposed on them.

Microlight Clubs may operate on a formal basis running one or more flying sites or just be a loosely associated group of pilots who get together for social and flying activities. Of the formal Clubs, some may operate a school within the Club.

Clubs, and individuals, adopting the “BMAA Code of Good Practice for Microlight Clubs” are expected to commit themselves to the parts of the code that are applicable to themselves and their operations.

2) Principles

Safety. Flying in itself is not dangerous but it can be very unforgiving of mistakes.

Mistakes will be made by all of us at some stage or other during our flying career but most mistakes can be avoided by thinking ahead and good preparation. For example you will not run out of fuel and have to force land if you have calculated your fuel requirement before flight and monitored usage during flight. If your consumption is higher than planned by having considered this possibility before flight and having planned a diversion you will still avoid running out of fuel in the air. All straight forward - thinking ahead and good preparation.

Other mistakes can be made by just not having the skill level required for that flight. If you are not in current flying practice yet you choose to take off in difficult conditions you are more likely to make an error of handling or judgement than if you had been more in practice and so less over stretched or stressed during the flight.

Thinking ahead and realising that your skill level may be low and planning to fly in better conditions or taking a refresher training flight can prevent the pilot from getting into these situations.

Airmanship can be described as an attitude of mind. Good preparation, current knowledge and consideration for others are all part of good airmanship. Poor preparation, lack of understanding and tunnel vision when it comes to other airspace users are examples of attitudes leading to poor airmanship.

Good airmanship leads to safe flying, and safe pilots are usually good airmen, so by promoting one we hope to achieve both.

If we have been successful we have achieved the first two aims that are set out at the start of this publication.

BMAA Code of Good Practice for Microlight Clubs

3) Rules and regulations

Try to think of rules and regulations as a guide to your safety. It is hard to think of a single rule of Aviation Law that is not geared to safety.

For example the Low Flying rules require a minimum separation between an aircraft and an object or person that it may fly close to. The separation provides a safety margin so that a small error of control leading to slight change of direction does not result in a coming together of the two objects.

Similarly the minimum visibility requirements ensure that there is time for pilots to take any action necessary to avoid collision with another aircraft that they have seen during flight. The visibility minimums increase with altitude. It is usual for faster flying aircraft to fly at higher levels and because their closing speeds are greater they need to be able to see each other earlier to take any avoiding action, hence the requirement to have a greater minimum visibility distance.

In the BMAA Code of Good Practice for Microlight Clubs we are not trying to set more rules or regulations but to list guidelines to help operate a microlight in a safe manner which will also comply with regulation and be seen to promote safety and good airmanship.

It is up to the microlight pilots that make up our Clubs to choose how they interpret and use the Code in their particular environment.

Flying Order Book



It is useful, where there are many pilots operating from an airfield, to have a central reference document in which the operating guidelines, requirements and procedures are published. This is usually called the Flying Order Book or Standing Orders.

The scope of information covered will vary from airfield to airfield because of the different operating environments and activities. It is useful to use the document to publish the;

- airfield operating times
- local circuit procedures
- local avoidance areas
- arrangements with local controlled airspace
- ground handling practices
- required pilot qualifications
- information and contact details

and any other information that the operator feels necessary for the safe operation of the airfield.

Training organisations may wish to include more detail in the Orders as they think fit to suit their operation.

An example of a Flying Order book is included at Appendix A to this Code. The template can be changed to suit the needs and scope of the Club. (**Appendix A**)

BMAA Code of Good Practice for Microlight Clubs

4) Airfields

The BMAA publish recommended minimum criteria for airfields where microlights are flown.
(Appendix B)

When setting the criteria the BMAA recognised that microlights do not need very long, wide runways and they need not be surfaced with tarmac or concrete. However the BMAA also believes that the airfield should be a safe operating environment and that thought has been given to problems that may occur.

Runways

A runway is of course critical to the airfield. The runway should be long enough to allow the aircraft using it to accelerate in nil wind conditions, if that is what you choose to fly in, and take off with a safe controllable airspeed into a climb that will allow it to safely clear any obstructions on the climb path.

The runway length should not be so short as to require a minimum speed take off and low airspeed, steep climb, just to avoid obstructions.

The runway should also be long enough for a landing in nil wind conditions at safe speeds with an adequate length for braking so the aircraft can be stopped safely in the prevailing conditions.

The actual length of the runway needed to achieve these requirements will depend upon the surface texture, gradient and to some extent the surrounding ground and the type of aircraft flown.

Although a microlight is a narrow aircraft compared to many light and commercial aircraft the runway width should allow a margin for error and not be only just wide enough for the aircraft. This will give room for the less than precision landing and some space for crosswinds.

Runways used for training are best if longer and wider than absolute minimum to allow for error and lack of skills that will inevitably be displayed by student pilots.

Surrounding area

We have learnt that engines do fail. Knowing that this can happen at any time microlights should be operated so that a safe landing can be made when it does. A critical time for engine failure is when the aircraft is close to the ground usually just after take off and into the climb to a safe circuit or cruising height.

The area surrounding the airfield should always allow a safe landing to be made at any stage during the flight. If for example the only climb path is over a wooded area, and an engine failure during climb would lead to a landing in the woods, that airfield would not be considered safe to use. If there was an available alternative that would allow a safe landing then the woods do not stop use of that runway.

If a microlight suffers engine failure during flight in the normal circuit then it should be able to be landed safely somewhere around the circuit. It is not necessary to be able to glide back to the runway or to have a perfect grass field to make the forced landing into but the result of a well-flown procedure should result in a safe landing.

BMAA Code of Good Practice for Microlight Clubs

Although much of the time microlights are landed from a gliding approach with the engine on tick over there are times when an approach with power to flatten the glide slope is desirable. The approach path to the runway should allow the aircraft to be flown safely to the runway using the chosen method. A short runway that demands the use of power on the approach for a minimum speed short field technique must have a clear undershoot area to allow a safe landing in the event of the engine failing during the approach outside of gliding range of the runway itself.

Local area

Noise Microlights along with all other types of powered aircraft produce noise. Whilst as pilots we may have chosen to protect ourselves against the noise by wearing ear defenders or just with it for the sake of our enjoyment, people on the ground are not so protected or willing to put up with high levels of intrusive noise.

Noise is perhaps aviation's biggest enemy and microlights, rightly or wrongly, are seen to be among the worst culprits when it comes to generating it. Considerate pilots will do all they can to minimise the effect that the noise of their aircraft has on the residents of their local area.

The basic layout of the circuit pattern should seek to avoid flying close to houses whilst the aircraft is using high power settings. This can be achieved by routing the climb path away from houses although this should not be done in a way that can compromise the safety of the aircraft in the event of a power failure.

Where circuits are flown at relatively high levels it may be possible to reduce the power and cruise climb to the final circuit height once a safe height has been reached.

The remainder of the circuit when flown at cruise power is usually not offensive and the approach, often flown in a glide can create even less noise. However remember that to some people on the ground any noise is too much so try to minimise the effect of your flight at all times.

At some airfields training will take place and circuit flying is necessary. The airfield may wish to set a limit on the amount of circuit flying allowed during any particular period of time. It may wish to limit circuit flying to particular times of day so as to reduce the possible disturbance at the quiet ends of the day, particularly at weekends and during holiday times when residents can be expected to be at home.

Flight paths to and from the airfield should be considered for their position in relation to habitation. It is usually possible to choose routes that disturb fewer people and the Club should encourage pilots to use those routes. With changing wind conditions it is normal to expect that aircraft will have several routes in and out of the circuit area and so there will be some natural spreading of the traffic on a day-to-day basis.

When the airfield operators have considered the noise impact that the aircraft may make and established flight paths and take off and approach procedures it is important that both home based and visiting pilots are able to find the information. It is usual to publish the procedures to Club pilots in a Club manual and maybe even issue maps to the members showing the preferred routes and avoid areas. It is useful to include any time restrictions on the map as well so that all the information is easily available to the pilots.

BMAA Code of Good Practice for Microlight Clubs

Airfields wishing to encourage visiting aircraft should also make the information available to them perhaps by submitting it to the commercial guides to print or publishing it on a Club website.

The BMAA does not expect its members to cease flying altogether just because their aircraft produce noise but would hope that members and clubs are considerate towards their neighbours and show respect for the privileges of other people.

5) Airfield facilities

One of the advantages of operating a microlight rather than a conventional aircraft is the ability to easily operate out of a farm strip or just a farmer's field. This is often less expensive than being based on a conventional airfield and may be more convenient if the pilot does not live close to established airfields.

Actual facilities at the field may be very minimal or alternatively even a small Club may be able to offer as much as is on offer at conventional airfields. Clubs that offer training will be expected to have made arrangements for a wider range of facilities that will allow them to operate as a training environment. These facilities may not always have to be on the airfield but should be available as required for student training.

Buildings. For pleasure flying there is no requirement for a building of any sort on the airfield. Club sites may choose to have a small caravan or hut of some type. Larger Clubs may have purpose built buildings with briefing rooms and a pilot lounge. Toilet and washing facilities may be basic or palatial. Club buildings are ideal places to display pilot information. This can consist of the Club Standing Orders, weather information, NOTAM information or other details that the Club wants to make sure that the members are aware of. If information is displayed at the airfield the Club must ensure that the information is current and have a procedure for removing information when it falls out of date.

For the benefit of the members and to promote the image of the sport of microlight flying Club buildings, however basic, should be kept clean and tidy.

Wind indicator. As an absolute minimum there should be a wind indicator of some sort at the airfield so that the pilot can determine wind direction and strength. Conventional windsocks have been designed to show both strength and direction although simple flags or banners can always be used to determine direction.

Weather information. Prior to flight the pilot will determine from the available information whether the weather is suitable for the planned flight. Specific aviation weather information can be obtained prior to arriving at the airfield using the Internet or telephone based forecasts. General weather trends can be sought from the TV and Radio broadcast forecasts but should not form part of the flight planning. Some airfields may be able to provide weather information on site through an Internet link, which makes it simpler to obtain current weather information when at the field.

Out of date weather information is useless and can be dangerous. If a Club has a system of posting weather information for pilots it is important that the information is up to date. The Club must ensure that old information is removed.

BMAA Code of Good Practice for Microlight Clubs

6) Safety

Accidents can happen anywhere and airfields are no exception. Airfield operators do have a duty of care towards people allowed to operate from the site. Prevention of accidents by good practice goes a long way towards fulfilling this duty of care.

The area. The term “Risk Assessment” can be quite daunting for a person just wanting to operate a small strip to allow a handful of pilots to fly from. It needn’t be off putting. The assessor needs to look at the environment and see how it may have pitfalls that could cause accidents. Simple precautions such as handrails on steps, cables not routed so that they can be tripped over, and barriers to stop visitors walking into the path of taxiing aircraft or onto the runway can minimise the risk at the outset.

When the area has been made as safe as practically possible by eliminating all the obvious potential causes of accidents the Club, School or individual should consider how operating the aircraft might be potentially hazardous.

Aircraft. There have been many accidents over the years when aircraft have been started and then run away under their own power, out of control. This accident is not just confined to microlights but has happened in all types of powered aircraft. There will never be a guarantee that the aircraft will start at a low power setting just because the throttle position is set to low. There have been runaways as the result of jammed cables that cannot or have not been seen when the throttle position is closed. Good practice should always be to treat the aircraft as live and ready to start and run off. The pilot should make sure that if this does happen he has taken precautions to see that it will not result in an accident. Simple precautions such as the use of wheel chocks and facing the aircraft away from buildings, people and other aircraft when starting can reduce the dangers resulting from a high power start.

Medical. Airfield operators, whether individuals, clubs or schools should consider it good practice to have at least basic first aid equipment available.

A range of plasters and bandages for the treatment of cuts is no more than is carried in most cars and can easily be kept on the airfield site. Antiseptic and creams for the treatment of small burns can be included and perhaps a pair of tweezers for removing splinters etc.

Busy airfields may want to carry a greater range of first aid equipment and if operating as a business may require that there is always someone on hand with First Aid training.

Safety officer. The BMAA promote safe flying and have a Chief Safety Officer who is able to help Clubs develop a safety culture. The Club should have a single representative to be a point of contact with the BMAA. The Club Safety Officer will be notified of safety related matters by the BMAA Chief Safety Officer and be expected to be able to communicate those matters to the Club members in a manner appropriate to the type of club.

Events. Many BMAA Clubs run Fly-in events and competitions. The BMAA have produced a Draft Risk Assessment, which can be used by organisers when setting up and running events of this kind. The example, which is included in this document at Appendix D is not exhaustive but gives a guide to organisers to help start them on their own assessment plan. **(Appendix D)**

BMAA Code of Good Practice for Microlight Clubs

7) Aircraft

It is the pilot's responsibility to operate the aircraft in a safe and legal way. Clubs should encourage their members to maintain their aircraft in accordance with the manufacturer's instructions. Whilst the BMAA would not suggest that the Club should act as policemen it is expected that members would encourage good practice by example.

A Club membership form can act as a good reminder for pilots when it comes to their own paperwork management. If the Club asks the members for proof of licence and aircraft legality each year it makes sure that the members are aware of the relevant dates. An example of such a form is included at Appendix C to this code **(Appendix C)**.



BMAA Code of Good Practice for Microlight Clubs

Microlight Schools

Whilst the foregoing content of this Code is applicable to all Microlight Clubs and the BMAA encourages all individuals to use it as a guide to good practice, the BMAA also feels that some more specific guidance should be given to schools training microlight pilots to achieve their NPPL Microlight.

8) Administration and documentation

BMAA Licensing and Instructor Administration Centre. (LIAC). The BMAA has taken on the responsibility of administering the microlight instructor and examiner system.

Responsibility includes maintaining records of microlight instructors and examiners, providing information to help keep instructors and examiners aware of changes to legislation that may affect them, writing a guide to instruction, examining and procedures for use by the microlight instructors and examiners.

The BMAA has been appointed by CAA to receive and recommend applications for the grant of a NPPL Microlight licence or rating. All microlight ratings are processed by BMAA on behalf of the CAA.

NPPL Microlight Syllabus. The BMAA has produced a syllabus for pilot training. The syllabus has been approved by the Civil Aviation Authority (CAA) and with only minor updates has been in use since 1983 when the requirement to hold a licence to fly microlights in the UK was introduced. The BMAA NPPL Microlight Syllabus is the only CAA approved microlight syllabus.

It is important that all schools training microlight pilots follow the content of the BMAA NPPL Microlight Syllabus during pilot training.

Copies of the Syllabus are available to purchase from the BMAA and it is expected that all student pilots will purchase a copy, or have access to the school copy, during their training.

BMAA Instructor and Examiner Guide. The BMAA produces a comprehensive guide to the procedures involved in microlight instruction and examination. The Guide contains details of appointment requirements, revalidation requirements, paperwork processing and administration of the wide variety of subjects dealt with by microlight instructors and examiners.

The Guide also contains detailed guidance for instructors wishing to carry out microlight flight training. The guidance material addresses good instructional practice and details of each of the flight exercises included in the BMAA NPPL Microlight Syllabus.

The BMAA expects that all schools offering microlight pilot training will have at least one copy of the BMAA Instructor and Examiner Guide available for reference to all their instructors.

BMAA Code of Good Practice for Microlight Clubs

9) Conduct of Training

It is important to the BMAA that schools offering microlight training do so in a manner that reflects well on the reputation of microlight flying as an activity. Schools are expected to act in a professional manner and take all measures necessary to provide a safe environment in which to conduct effective training.

The Aircraft

Maintenance. Whilst the regulations for maintenance of microlights used for training are no different from those used privately the BMAA expects that schools ensure that there are procedures in place to ascertain that the maintenance of school aircraft is carried out correctly.

The school should appoint one person to be responsible for aircraft maintenance.

At schools where aircraft are used by more than one instructor there should be a clear system ensuring that use of the aircraft is recorded accurately and in a timely way after each flight. The records should show any faults identified by an instructor and the system should prevent the opportunity of the aircraft being flown without knowledge of any recorded faults by subsequent pilots.

Record of flight time and faults can be achieved by a simple record sheet being kept at the point of booking out so that reference can be made to it by pilots immediately before flight.

Inspection. Aircraft which are used extensively for training may be subject to higher rates of wear and tear than privately owned aircraft. Although before each flight the aircraft will be subject to an inspection it is possible that continuing wear may go unnoticed, particularly if the inspections are carried out by student pilots. The school should be aware of the possibility of higher than normal wear rates and ensure that thorough inspections are carried out by trained people on a frequent basis. These inspections should be logged so that pilots using the aircraft are aware that they have been carried out. These more in depth inspections are not a substitute for normal daily or pre-flight inspections.

Documents. The aircraft documentation should always be available to the pilot of a school aircraft so that they can ensure that the flight will be made with any required document in date, e.g. insurance or Certificate of Validity, and that maintenance records can be confirmed. Instructors should not fly the aircraft unless they have satisfied themselves that the aircraft conforms to the paperwork and maintenance requirements.

School equipment

Clothing and equipment. Schools should make available to all their students any specialist clothing or equipment that will be required for the flight until such time as the student has had the opportunity to obtain their own.

Helmets. It has become standard practice to wear safety helmets in open flexwing microlights and in many fixed wing microlights with open cockpits. Some would recommend the wearing of helmets in all lightweight aircraft. Although helmets are not required by law to be worn when flying in microlight aircraft they do offer a degree of protection to the wearer in the event of an accident. Simple taxiing accidents can lead to occupants receiving head injuries that can be prevented by safety helmets.

BMAA Code of Good Practice for Microlight Clubs

Helmets should be well fitting. One size does not fit all so a school should have a variety of sizes to fit a variety of heads. When putting on the helmet the wearer should be shown how to adjust it for a good fit and how to lock the visor if applicable. The wearer should know how to remove the helmet.

Clothing. Very few microlights have heaters. Very many microlights are open cockpit. The student pilot should wear clothing that will protect them from the effect of a cold airflow, offer some skin protection in the event of the aircraft tipping over and be a secure cover to prevent items being able to fall from the wearer's pockets. One-piece flying suits are designed to meet these needs. For open cockpit aircraft gloves should be worn to offer protection to the hands in the event of a tip over or other accident.

Headsets. It is important that the instructor can communicate with the student pilot throughout the flight. In most microlights the noise level is too great for easy communication without help from an intercom system. The student pilot should be fitted with a suitable headset and shown how to adjust the headset volume so they can hear well without having a very high noise level that is also detracting and tiring.

Lesson plans

All lessons should follow a similar format. The student should be briefed on the exercise to be carried out. The flight should be flown in accordance with the briefing. The student should be debriefed on the actual sequence and content of the flight.

Briefing. The briefing should prepare the student pilot for the planned flight. The BMAA Instructor and Examiner Guide contains specific guidance on the conduct of flight briefings. The content of the brief must always be relevant to the flight.

For first flights, referred to as Trial Lessons or Air Experience flights (BMAA Exercise 3) the briefing is generally not technical but will prepare the student for the experience of flying in a microlight. It is usual to include a basic brief on the effect of the controls to prepare the student for some "hands on" during the flight.

Many first time flyers are not aware that lessons in microlights are not treated by the Authorities in the same way as commercial flights in Airliners and it is important that the student is made aware of this and not lead to believe that there is "no risk". Making the student aware of this difference does not take away any responsibility from the school to ensure that the flight is conducted safely.

The briefing must cover the normal requirement for pilots to brief any passenger on the safety aspects of the flight. The brief must include use of seat belts, doors and helmets if applicable and actions in the case of an emergency.

For subsequent flights the briefing will tend to be more technical as the handling of the aircraft is described. The instructor must still include the safety briefing that is applicable to all flights and as pilot in command they are required by law to include.

BMAA Code of Good Practice for Microlight Clubs

Flight recording

The instructor must record the training flight in their personal logbook. Pilots under training must also record all training flights in their own logbook and the instructor should ensure that the entry is correct.

The instructor is required to complete a student record to show the student's progress through the training syllabus.

The aircraft log must be completed after the flight. If the aircraft is next to be used by another instructor or pilot the logbook entry must be completed before the subsequent flight.

The entry must show any faults or problems that have occurred to the aircraft so that subsequent pilots are aware of any airworthiness issues.



BMAA Code of Good Practice for Microlight Clubs

Instructors

The BMAA expects microlight instructors to carry out training in a professional, safe and honest manner. The instructor is often the first point of contact between the new potential pilot and the world of microlighting. It is important that the instructor presents the activity of microlight flying as a well-run responsible branch of aviation.

The instructor's overriding responsibility is to give safe and complete instruction to the student pilot. It is important that the needs of the student are always put first when planning flight and ground training. When planning a day's flying it is important that the instructor does not try to overstretch himself and achieve more than is reasonably possible.

Training sessions. It is generally agreed that a flight training flight of one hour duration is a reasonable length of time to plan for. Most students are unable to benefit from longer lessons due to fatigue. To allow time for pre-flight briefing, the flight and post flight de-briefing lessons are usually booked with a two hour time slot available. Booking lessons very much closer together tends to hurry the ground operations and reduce the quality of the lesson.

Instructor fatigue. Instructing is a demanding job. Not only is the instructor the Captain of the aircraft, and so responsible for its safety and the safety of those on board, but the instructor is simultaneously conducting a teaching exercise. For most pilots just flying the aircraft is demanding enough. Instructors should not underestimate the effect of the workload on their capacity to act as Captain and conduct a meaningful lesson. The most experienced instructors today agree that four to five hours of teaching in a single day is generally the limit an instructor can maintain and be able to be safe and give valuable instruction.

Currency and paperwork. Instructors should lead by example. It is expected that all instructors will know the limitations of their instructor ratings and operate within those limits. Personal paperwork such as aircraft rating and medical should always be current when acting as pilot. It is only sensible that instructors remain current on the types of aircraft that they are teaching on or take refresher training as appropriate. The student's lesson time should not be used by the instructor to learn a different type.

Honesty. The BMAA expects schools to act in an honest and upright manner. The BMAA does not attempt to become involved, or influence, commercial considerations within the training schools but does expect all microlight training providers to act in a straightforward and honest way.

BMAA Code of Good Practice for Microlight Clubs

10) Safeguarding and whistleblowing

The *Safeguarding Vulnerable Groups Act (SVGA) 2006* was passed to help avoid harm, or risk of harm, by preventing people who are deemed unsuitable to work with children and vulnerable adults from gaining access to them through their work (<https://www.legislation.gov.uk/ukpga/2006/47/contents>).

It is inevitable that in the course of your club/school operations instructors will be teaching young people (under the age of 18) or vulnerable adults (those with mental or physical impairment). Being alone in close quarters with a young or vulnerable person can constitute a risk to the student, the instructor, and the school, should actions or words be misinterpreted or otherwise inappropriate. It is important that instructors be made aware that a teaching technique (whether physical or verbal) that may be perfectly acceptable with an adult student may be perceived as inappropriate or hurtful to a child or vulnerable adult.

It is therefore crucial that your club/school has a clear and transparent policy for ensuring that instructors understand their responsibilities for safeguarding, and that, in the event that allegations are made of inappropriate behaviour, these are investigated robustly, and appropriate action taken. Any whistleblower should be afforded the right of anonymity should they request it.

The head of the club/school, or another designated person, should make themselves aware of the principles of the SVGA 2006 to ensure all at the club/school are adhering to these at all times.

The BMAA would remind any Microlight club or school that being able to demonstrate that each instructor is DBS checked is an option that would immediately put any concerned parent or caregiver at ease, but understand that this may not be possible for all. In the absence of this, it is even more important that an open and safe atmosphere be fostered, and all allegations be treated with dignity and respect. This will most importantly protect the students from harm, but also the reputation of the club/school, and the sport of Microlighting itself.

BMAA Code of Good Practice

APPENDIX A





FLYING ORDER BOOK

2021

This document must be read and signed by all licensed Club pilots when they first join the Club and at the beginning of each subsequent calendar year. All student pilots must read and sign the document before flying solo.

Use of “*Microlight Airfield*” and “*Microlight Club*” membership presumes total acceptance of these orders.

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NEW ORDERS WILL BE MARKED * AND DATED. PLEASE SIGN THE REGISTER AT THE BACK OF THIS BOOK TO SHOW YOU HAVE READ ALL THE NEW ORDERS.

1) Pilot Licenses

- ❑ All pilots must know the extent of the privileges of their licence and fly within those privileges.
- ❑ It is the responsibility of the licence holder to ensure that they have a current Certificate of Experience or Test as appropriate.
- ❑ The licence must be available for inspection by the Club if requested.
- ❑ All pilots must hold an appropriate licence if they wish to operate an aircraft radio.

2) PILOT HEALTH

- ❑ All licensed pilots and solo student pilots must be in possession of a valid medical certificate or declaration of health as required by their particular licence.
- ❑ It is the pilot's responsibility to ensure that the certificate/declaration is current.
- ❑ Pilots should only fly when in good health.
- ❑ Pilots should be aware of the side effects of some medication on their ability to operate the aircraft.
- ❑ The current regulations concerning alcohol and flying impose a limit that is one quarter of the allowed limit for driving a car in the UK.

In detail the prescribed limits are:

When acting as a pilot of an aircraft during flight;

- In the case of breath: 9 micrograms of alcohol in 100 millilitres.
 - In the case of blood: 20 milligrams of alcohol in 100 millilitres.
 - In the case of urine: 27 milligrams of alcohol in 100 millilitres.
- ❑ It is suggested that no pilot or passenger should fly in an aircraft from this club site within ten hours of consuming any amount of alcohol.

3) INSURANCE

- ❑ Solo students and club pilots must have valid third party insurance for ground and flight operation of the aircraft.
- ❑ Club pilots must have valid passenger insurance for ground and flight operation of the aircraft, unless flying solo only.
- ❑ The current EU minimums equate to £xx,xxx passenger insurance and £xxx,xxx third party liability.

4) CHECK FLIGHTS

- ❑ Solo students and licensed Club members who have not flown for 28 days or more may be required to undergo a check flight at the discretion of the Club
- ❑ The student or Club member will be responsible for any cost incurred.

5) PASSENGERS

- ❑ Pilots are reminded that the law requires that to carry a passenger the pilot must have carried out at least 3 take offs and landings as the sole manipulator of the controls of an aircraft of the same type within the previous 90 days.
- ❑ Pilots wishing to carry passengers are responsible for:
- ❑ Enrolling the passenger as a day member of the Club using Club form ref: XXX
- ❑ Briefing the passenger before flight as required by law.

6) LOG BOOKS

- ❑ The completion of flight records including pilot log books is required by law. Club members should note the following requirements:
- ❑ Pilots should complete log books post flight showing training exercises carried out and passenger / instructor name as applicable.
- ❑ Log books must be kept for a minimum of 2 years after the date of the last entry.

7) CHARITY FLIGHTS

- ❑ It is only legal for payment to be made for flight in a microlight aircraft when the flight is an instructional or examination flight.
- ❑ Raffle and draw prizes where the winner has paid for a ticket are deemed to be public transport flights if the flight is not instructional or an examination. Public transport flights cannot be given in microlight aircraft.
- ❑ Charity flights are flights where money has been paid to a registered charity for the purpose of the flight and which would otherwise be considered to be aerial work. There are strict conditions applied to the conduct of charity flights, which are explained in an Aeronautical Information Circular. The circular can be read on the AIS web site at www.ais.org.uk

8) AIRCRAFT OPERATION

- ❑ Pilots must be in possession of aircraft manuals and have knowledge of the operational limits and required procedures.
- ❑ Pilots must know the registration and airworthiness requirements for their aircraft and comply with them.

9) FLIGHT SAFETY

- ❑ It is the pilot's responsibility to always operate the aircraft in a safe manner.
- ❑ Pilots must not fly in a manner likely to endanger people, property or the aircraft.

10) WEATHER

- ❑ It is the pilot's responsibility to obtain weather forecasts for the route to be flown and destination airfields.
- ❑ Students must obtain authorisation for cross-country flights before take off.
- ❑ No aircraft may be flown unless the weather minimum with regard to licence and aircraft requirements can be complied with.

11) OPERATING HOURS - Microlight Airfield

- ❑ Flights from “*Microlight Airfield*” may only be made during the following times.
 - Take off: ???? to ????
 - Landing: ???? to ????
 - No circuit flying before ????
- ❑ All times are local.

12) BOOKING OUT AND IN

- ❑ Before all flights pilots are required/requested to book out on the flight record sheet giving details of intended take off time, passengers name, area to be flown in and destination airfield.
- ❑ Following the flight pilots are required to book in on the flight record sheet giving details of landing time and number of landings made at Microlight Airfield.
- ❑ Failure to book out or in may lead to missing aircraft not being noticed and aircraft safely in the hangar being reported as missing.

13) SOLO AUTHORISATION

- ❑ Solo students may not fly unless authorised by an instructor and may only fly authorised exercises.
- ❑ Student pilots must have their booking entry countersigned by the authorising instructor before flight.

14) CLOTHING

- ❑ Safety helmets must be worn at all times when in an open cockpit aircraft including during ground engine runs and taxiing for position.
- ❑ An exemption from this rule may be available for certain aircraft by agreement with the Chief Flying Instructor.
- ❑ Suitable clothing affording protection in the event of an aircraft tipping over must be worn at all times in aircraft. This includes gloves and full cover for arms and legs.

- ❑ Suitable shoes should be worn at all times in aircraft. Sandals have straps that make them unsuitable footwear.

15) SMOKING

- ❑ Smoking is forbidden in or near the hangar or the fuel store.
- ❑ Smoking in or near aircraft is bad practice and dangerous.

16) AIRCRAFT PREPARATION

- ❑ All aircraft must be thoroughly checked and prepared before flight in accordance with manufacturers manuals, the permit to fly conditions and air law requirements.
- ❑ Ref Doc: Aircraft manual
 Permit to Fly

17) FUEL

- ❑ Aircraft may not be fuelled:
 - In the hangar.
 - Within five yards of the hangar door.
 - On the grass rigging and parking areas.
 - Whilst still running.
 - Whilst hot.

18) STARTING ENGINES

- ❑ Engines must not be started or run:
 - In the hangar.
 - In congested areas.
 - Outside the hangar where propeller wash will go into the hangar door.

- Where propeller wash will cause a problem to other people or aircraft.
- From outside the aircraft unless secured by trained persons and never with a passenger only seated in the aircraft.

19) TAXIING

- ❑ With consideration to the poor brakes often fitted to microlights taxiing aircraft should not taxi above a jogging pace.
- ❑ Taxiing aircraft should follow ground collision avoidance regulations.

20) NOISE SENSITIVE AREAS

- ❑ All flights must avoid noise sensitive areas as shown on the map opposite.
- ❑ Please make sure that you use entry / exit lanes as marked on the circuit map.

21) CIRCUIT PROCEDURES

- ❑ All pilots must follow the circuit pattern as displayed in the school classroom and on the page opposite.
- ❑ When using runway XX / XX pilots must give priority to aircraft using runway XX / XX.
- ❑ Aircraft leaving or joining the circuit must do so by the displayed routes.
- ❑ Remember that light aircraft and motor gliders usually fly longer circuits at a higher speed than microlights. All aircraft should keep station in the circuit and not overtake.
- ❑ If in doubt on approach or landing a pilot should execute a GO AROUND climbing to circuit height and clearing the runway centre line before rejoining the circuit on the crosswind leg.
- ❑ No aircraft is to orbit in the circuit.
- ❑ No turns after take off may be made below 300 feet unless for cross wind considerations.

22) LOCAL AREA FLYING

- ❑ Aircraft should be flown at least 1000 feet above ground level when operating in the local area unless carrying out forced landing practice in a designated area or landing at another airfield.
- ❑ Stall and unusual attitude training should be flown to ensure recovery is achieved above 1000 feet above ground level.
- ❑ When flying in the local area pilots should remember that there is an intensity of traffic in the local area and spend as little time as possible in it.
- ❑ Local avoidance areas are marked on the local map.

23) LOW FLYING

- ❑ Low flying rules must be observed at all times. Any flights below 500 feet above ground level within 10 miles of the airfield must be reported to the Chief Flying Instructor on landing.
- ❑ Practice forced landings may only be made with specific authorisation from the Chief Flying Instructor and in authorised areas.

24) UNCERTAIN OF POSITION / LOST PROCEDURE

- ❑ A pilot who is uncertain of position during flight in the local area should call
 - XXX RADAR on XXX.XXX and request radar help, or
 - NATS Distress and Diversion on 121.500
- ❑ A pilot who is lost should follow the procedures as for uncertain of position or call
 - NATS Distress and Diversion on 121.500

25) STUDENT PILOTS LANDING OUT

- ❑ Student pilots landing out at other than the planned destination must not take off again without first informing the authorising instructor of the circumstances of the landing.

26) AIRSPACE INFRINGEMENTS

- ❑ Any airspace infringements must be reported to the Chief Flying Instructor on landing.

27) AIRPROX

- ❑ Airprox reports should be made on landing to the Chief Flying Instructor and an Air Traffic Control Centre.
- ❑ A written report on form CA 1094 must be completed within 7 days.

28) ACCIDENTS and INCIDENTS

- ❑ All accidents and incidents must be reported to the Chief Flying Instructor in writing.
- ❑ Notifiable accidents must be reported to the AAIB on 01252 512299 and also should be reported to BMAA on 01869 338888

29) BREACH OF ORDERS

- ❑ **ANY BREACH OF ORDERS OR BEHAVIOUR LIKELY TO BRING THE MICROLIGHT CLUB INTO DISREPUTE WILL CAUSE LOSS OF MEMBERSHIP PRIVILEGES AT THE DISCRETION OF THE CHIEF FLYING INSTRUCTOR.**

A MICROLIGHT CLUB FLYING ORDER BOOK

Please check the contents page at the beginning of the book prior to flying to check for new orders and re-sign this page after any new orders have been added.

Sign below to show you have read and fully understand the orders in this book.

[illegible]

BMAA Code of Good Practice

APPENDIX B



BMAA RECOMMENDED MINIMUM CRITERIA FOR A MICROLIGHT FLYING SITE

BMAA Site Recommendations For Private Sites

1. Permission for use must be obtained from the landowner.
2. Location should be outside controlled airspace. If not, permission from the Senior Air Traffic Controller responsible for such airspace must be obtained.
3. The site should be smooth, reasonably level and well drained when in use.
4. The take-off/landing criteria are as follows –
 - The runway should be a minimum length of 250 metres and a minimum width of 10 metres.
 - When located in an area of crop that is over a third of a metre in height, The runway minimum width should be 15 metres.
 - Boundary obstructions at either end of a runway in use should not exceed a height of 2 metres - that of a normal hedge - when the runway is of the minimum length of 250 metres.
 - No vertical obstacles (trees, pylons, etc.) should be within 25 metres either side of the centre line of the first 250 metres of the runway in use.
5. To avoid sensitive locations, designated departure/arrival flight paths should not require steep turns at low level on take-off or on approach to land.
6. There should be enough clear ground surrounding the site to allow a safe landing to be made in the event of an engine failure at any stage in the circuit - particularly on take-off.
7. One or more windsocks should be in place to indicate wind direction
8. Any local operational conditions pertinent to the site to be strictly adhered to at all times and clearly made known when briefing pilots seeking PPR.

Most important

1. Before flying a new or unfamiliar aircraft at a site, a pilot should consult an instructor or check pilot well versed with the type by one who is competent to judge the suitability of the site for use by such an aircraft.
2. The experience/qualifications of the pilot intending to fly from the site must also be taken into account in the assessment made.
3. Good airmanship must always prevail.
4. The pilot alone is solely responsible for safety in flight within uncontrolled airspace. Within controlled airspace advice and directions from an air traffic controller will take place but the overall responsibility for flight safety still lies with the pilot.

BMAA RECOMMENDED MINIMUM CRITERIA FOR A MICROLIGHT FLYING SITE

BMAA Site Recommendations For Training Schools

The criteria for a private site must be met with the additional factors.

1. Access for emergency vehicles should be known and clearly marked if not obvious.
2. Means of access to weather reports and forecasts.
3. The following additional airfield requirements are:
4. Suitable fire extinguishers should be close to hand.
 - A first-aid kit containing at least:-
 - 3 x Emergency dressing BPC 9 or equivalent 3 x Emergency dressing BPC 12 or equivalent 3 x Triangular bandage
 - 1 pair of Scissors
 - One harness knife (complete with sheath)
 - The presence of a person with the knowledge and capability of using the aforesaid equipment.
5. The location of the nearest telephone, within a reasonable distance, to be clearly posted in sight to all persons.
6. Details of any landing strips/airfields, warnings, notams, etc for student reference prior to cross-country flights.
7. Proper control of public access must be exercised.



BMAA Code of Good Practice

APPENDIX C



"Microlight Club" Membership Form

Name	
Address	
Phone Home	
Phone Work	
Phone Mobile	
Email address	
BMAA number	
BMAA expiry date	
Licence type	
Licence number	
Revalidation date due	
Medical next due	
Radio licence number	
Insurance next due	
Aircraft type	
Aircraft registration	
Permit validity expires	
Weight report expires	
Radio installation licence expires	

I (A Member) apply for membership of the "Microlight Club" and agree to abide by any rules of the Club.

Signed: *A Member*

Date:

BMAA Code of Good Practice

APPENDIX D





A GUIDE TO WRITING A RISK ASSESSMENT FOR A BMAA EVENT



What is an event Risk Assessment?

An event Risk Assessment (RA) is a document that shows that the writer has considered the potential hazards and risks that may exist at an event. The risk assessment also includes mitigation measures and actions taken, and to be taken, to minimise risks and their potential outcomes.

Why is a risk assessment important?

Risk assessments are very important because they form an integral part of a safety management plan. They help to:

- Create awareness of hazards and risk.
- Identify who may be at risk (e.g., employees, visitors, contractors, the public, etc.).
- Determine whether a control program is required for a particular hazard.
- Determine if existing control measures are adequate or if more should be done.
- Prevent injuries or illnesses, especially when done at the design or planning stage.
- Prioritize hazards and control measures.
- Meet legal requirements where applicable.

What is a hazard?

A good definition is: *a **hazard** is any source of **potential** damage, harm or adverse health effects on something or someone.*

What is risk?

A good definition is that: ***risk** is the combination of the **likelihood** of the occurrence of a harm and the **severity** of that harm. **Likelihood** is the **chance** of something happening.*

An everyday example

When you teach a child to cross a road you will warn them of the danger of being run down by a car. You have identified a hazard which has the potential to have a serious outcome.

You reason that the likelihood of being run down is greater when there is less opportunity for the car to avoid the child, such as if trying to cross from between parked cars when the driver has very little opportunity to see the child and anticipate that it might start to cross.

To reduce the risk you teach mitigating measures. The first basic measure is to look out for the cars rather than just walk across the road regardless. The lookout is a mitigation measure.

Further risk can be reduced by teaching the child to cross in a place that gives both the driver and child the best chance of seeing each other. So, not between parked cars or from behind the ice cream van. This is a further mitigation measure.

You have just completed a risk assessment. You have identified a hazard, assessed risk (likelihood) and developed measures to reduce the risk. That's all there is to it. For our purposes the assessment and mitigations are written down.

Calculating risk

When preparing a risk assessment there is a method of calculating risk that arrives at a numerical score. The score helps you to focus mitigation measures where they are most needed. There are two steps to calculating the **Risk Score**.


Categorise and score injury using the following table of injury type and value. (Injury rather than damage is the main concern for BMAA events organisers.

Hazard severity	Trivial	Minor Injury	Serious Injury	Single Fatality	Multiple Fatality
Value	1	2	3	4	5

Consider the likelihood of the hazard occurring and assign a value using the following table

Likelihood	Highly Unlikely	Possible	Quite Possible	Likely	Highly Likely
Value	1	2	3	4	5

Consider each hazard and its likelihood together and arrive at a risk score by multiplying the two values. The table below shows examples:

Hazard	Hazard Severity	Likelihood	Risk Score			
Trip hazards in and around marquees due to power cables / loose carpet / support ropes and stakes.	2	3	6			
Runaway aircraft entering a spectator area	5	2	10			
Spectators walking into a turning propeller in the aircraft parking area.	4	3	12			

Having made the assessment of possible hazards and their likelihood the organiser must consider mitigation measures to reduce the likelihood of the hazard occurring. And then recalculate the risk score as in the table below.

Hazard	Hazard Severity	Likelihood	Risk Score	Mitigation measures	Revised Likelihood	Revised Risk Score
Trip hazards in and around marquees due to power cables / loose carpet / support ropes and stakes.	2	3	6	To prevent trip hazards from the infrastructure of the marquees: Power cables routed on the ground will follow the perimeter of the	1	2 (was 6)

				<p>marquee where possible. Where power cables cross the visitor walkways they will be covered with rubber protective strips which will be fastened to the ground so that they don't become a trip hazard themselves.</p> <p>All carpet must be taped or pegged to the ground so that there are no loose edges to present a trip hazard.</p> <p>Support ropes and stakes will be marked with high visibility tape to draw attention to them. Walkways will be designed not to be so close to support ropes so as to create the likelihood of tripping.</p> <p>Before, and during the event, Event Staff will approve measures taken and monitor throughout.</p>		
Runaway aircraft entering a spectator area	5	2	10	<p>Designated spectator areas (SA) are located at least 50 metres from the edge of airside areas.</p> <p>SA are parallel to taxiways and runways so that aircraft taxiing, taking-off or landing will not naturally run towards spectators in the event of running out of control.</p> <p>Pilots will be instructed not to start aircraft facing towards a SA.</p>	1	5 (was 10)
Spectators walking into a turning propeller in the	4	3	12	Designated spectator areas (SA) are located at least 50 metres from the	1	4 (was 12)

aircraft parking area.				<p>edge of airside areas.</p> <p>SA are marked by high visibility tape forming a boundary barrier. Signs warning spectators not to cross the tape are exhibited every 20 metres along its length.</p> <p>Spectators are not allowed to enter any airside areas. Airside includes all aircraft parking, taxiways and runways.</p> <p>Airside areas are marked with high visibility warning tape supplemented by signs warning spectators not to cross.</p> <p>Event staff will be tasked to monitor SA and Airside boundaries and prevent spectators crossing.</p>		
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Mitigation measures

When considering mitigation measures it is important to be realistic. In the examples above the mitigation measures to protect spectators rely upon fencing, signage and constant monitoring by Event Staff. If the event cannot afford, or provide, these measures then it would be better to restrict the event entry so there are no spectators. This might be cheaply achieved by a sign on the gate and a single person responsible for ensuring that no unauthorised people come onto the site. By doing that the hazard is eliminated and the risk score is zero. It is likely that the final outcome of the risk assessment is a balance of reducing the hazards and applying mitigations.

Where do I start?

It is helpful to use a pre-prepared template to start your RA. The BMAA has written a template that can be used for ground based and flying events. However, each event may present its own unique hazards and so the writer must only use the template as a guide, not as an exhaustive list.

APPENDIX C

Sample Documents:

- Checklists
- Cross Country Certificate
- Oral Exam Assessment
- Ground Exam Answer Sheet



EXAMPLE CHECKLISTS

PRE-START CHECK

S	SECURITY	No loose objects e.g.: harnesses, maps, gloves etc. liable to go through prop
T	THROTTLES	Set as required, choke set as required
A	ALL-CLEAR	Area around prop clear of people, animals etc., no aircraft behind liable to be damaged by propwash and area in front clear
I	IGNITION	Switch on
P	PROP	Shout "CLEAR PROP", check again and start

PRE-TAKEOFF CHECK

C	CONTROLS	Full and free movement of flying controls, throttles working, (check idle) set as required, choke closed, ignition switch working, magneto check (if applicable)
H	HARNESS	HELMET AND HATCHES SECURE (if applicable) No loose objects
I	INSTRUMENTS	Correct settings, sensible indications and secure
F	FUEL	Sufficient, switched on, pump on (if applicable), top secure and vent clear
T	TRIM	Set for take-off
W	WIND	Strength and direction
A	ALL CLEAR	Clear on base leg, finals and runway
P	POWER	Ensure full power achieved

PRE-STALL/SPINNING/EXTREME MANOEUVRING CHECK

H	HEIGHT	Sufficient to complete manoeuvre with safety
A	AIRFRAME	Security of harness, helmet, hatches (if applicable) and no loose objects.
L	LOCATION	Clear of built up areas and regulated airspace
L	LOOKOUT	No other aircraft near or below

ENROUTE CHECK

L	OCATION	Knowledge of position
I	NSTRUMENTS	Correct settings and indications
F	UEL	State and tank selection (if applicable)
E	LAPSED-TIME	Since airborne

AIRFIELD APPROACH CHECK

F	UEL	State, tank selection and pump on (if applicable)
A	LTIMETER	Set as required
R	UNWAY	In use and joining procedure

PRE-LANDING CHECK

F	UEL	Sufficient for missed approach
A	LL-CLEAR	On runway, in circuit and on long finals
W	IND	Direction and strength
N	OSEWHEEL	Straight for landing (if applicable), wheel brakes off (if applicable)
T	HROTTLE	Foot and hand throttles set as required

EMERGENCY SHUT DOWN CHECKS

T	HROTTLE	Set closed
I	GNITION	Switched off
F	UEL	Selected off
S	ECURITY	Of helmets, harnesses and hatches (if applicable)

NPPL (M) QUALIFYING CROSS COUNTRY CERTIFICATE

NOTICE TO PILOTS

In the event of a landing being made at a place other than an aerodrome named below, the authorisation for the flight is automatically terminated. The CFI is then to be immediately notified by telephone (No.) and the flight MUST NOT be continued without his/her specific authorisation.

This is to certify that.....holder of Pilot's Licence No (if applicable)..... and pilot of Microlight aircraft, G was authorised to leave at..... hours, on/...../..... for the purpose of

Signed..... (Chief Flying Instructor)

This is to certify that the above named pilot landed at.....
Airfield/Aerodrome at.....hours, on...../...../.....

The nature of the landing was.....

The standard of airmanship displayed was.....

As far as can be ascertained the pilot was alone in the aircraft and unaccompanied by any other aircraft.

Signed.....(CFI or ATC Officer)

The above Qualifying Cross Country Test was carried out to my satisfaction in accordance with the requirements of the NPPL Microlight Training Syllabus.

Signed..... (Chief Flying Instructor)

NATIONAL PRIVATE PILOT'S LICENCE TECHNICAL EXAM - AEROPLANES
(PART 2) (SPECIFIC TYPE) - ORAL EXAM (MICROLIGHT)

NOTE This assessment sheet must be completed by an Examiner authorised by the CAA to conduct tests for Microlight aircraft ratings. Questions must be based on the information included in the 'Guide to Microlight Instructors and Examiners' provided by the BMAA.

NAME OF CANDIDATE _____

AIRCRAFT TYPE _____ REGISTRATION _____

PLACE OF TEST _____ DATE _____

SUBJECT	PASS Or N/A	SUBJECT	PASS Or N/A
Rigging/de-rigging		Flight Instruments	
Pilot Maintenance		Engine	
Aircraft Limitations		Engine Indications	
Flying Controls		Engine Controls	
Landing Gear		Fuel System	
Electrical System		Oil System	
Heating/ Ventilation		Propellers	

I have examined the candidate in all the above subjects (where applicable to Aircraft type).

The candidate has passed/failed the test.

Examiners name _____ CAA Examiner No. _____

Examiners signature _____ Date of signature _____

Civil Aviation Authority

NPPL(A) Microlight Examination Answer Sheet



Candidate Name		CAA Ref No :	
Signature :			

Date :		Exam Number	
Subject :			

Answers to written questions	
No	Answer

Answers to multiply choice questions															
	A	B	C	D		A	B	C	D		A	B	C	D	
1					10					19					
2					11					20					
3					12					21					
4					13					22					
5					14					23					
6					15					24					
7					16					25					
8					17										
9					18										


Copy blank answer sheet as required

Civil Aviation Authority

NPPL(A) Microlight Examination Answer Sheet

TO BE COMPLETED BY NOMINATED GROUND EXAMINER ONLY:	
Examiner's Name :	
Examiner's Signature :	
Ground Examiner Ref No :	
Date :	
Percentage Mark :	PASS * / FAIL *
<p>EXAMINATION IN CONFIDENCE: Marked answer sheet to be personally retained by Ground Examiner for a maximum period of validity 24 months) in accordance with Standards Document 11 at the latest version.</p> <p>UNDER NO CIRCUMSTANCES should the marked answer sheet be given to the candidate, held with the student records or sent to other schools as proof of passing an examination.</p> <p>* Action following a PASS or FAILURE follow guidance in Standards Document 11 at the latest version.</p>	



Sheet No: 1		STUDENT RECORDS for:								
Personal Details		Address			Tel: Home				Email address	
D.O.B.					Tel: Mob Tel: Work					
Start Date		Medical Cert Expires			Previous Flying Exp					
Any other comments										
Examinations		Date	Set No.	%	Examiner Name		Authorisation No		GST Date	
Aviation Law									Licence No	
Meterology									Restricted/Full	
Navigation									Date authorised to carry passengers	
Aeroplane Technical Part 1									Date restrictions removed	
Human Performance Limitations										
Aeroplanes Technical Park 2				Pass Y/N						
Date	Instructor Signature	A/c Type	A/c Regn	Exercises	Dual Hrs	Dual Total	Solo Hrs	Solo Total	Comments on Progress,Etc.	
										

Sheet No:		STUDENT RECORDS for:								
Date	Instructor Signature	A/c Type	A/c Regn	Exercises	Dual Hrs	Dual Total	Solo Hrs	Solo Total	Comments on Progress,Etc.	

APPENDIX D

Instructor Bulletins



INSTRUCTOR BULLETINS

LINK

<https://www.bmaa.org/information-library/pilot-licensing/pilot-licensing---instructors-and-examiners/instructor-bulletins>

