



**LOCAL REGULATIONS**

**FOR THE 15<sup>TH</sup>**  
**FAI WORLD MICROLIGHT CHAMPIONSHIPS**

**AND THE 9<sup>TH</sup>**  
**FAI WORLD PARAMOTOR CHAMPIONSHIPS**

**Venue to be confirmed**  
**20<sup>th</sup>-27<sup>th</sup> August 2016 (also TBC)**

ORGANISED BY: BRITISH MICROLIGHT AIRCRAFT ASSOCIATION (BMAA)  
ON BEHALF OF THE FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE

Organizer Address: British Microlight Aircraft Association  
The Bullring, Deddington, Banbury, Oxon, UK OX15 0TT

Telephone: +44 (0)1869 338888

FAX: +44 (0)1869 337116

Email: [general@bmaa.org](mailto:general@bmaa.org)

Official Web Site: <http://bmaa.org>

**LOCAL REGULATIONS for 2016 WORLD MICROLIGHT AND PARAMOTOR CHAMPIONSHIPS**

**AUTHORITY**

These Local Regulations combine the General Section and Section 10 of the FAI Sporting Code with regulations and requirements specific to this championship. The FAI Sporting Code shall take precedence over the Local Regulation wording if there is omission or ambiguity.

**CLARIFICATION**

Classes [RAL1T](#), [RAL2T](#), [RWL1T](#), and [RWL2T](#), [RGL1](#) and [RGL2](#) are "Microlights" and classes [RPF1Tm](#), [RPF1Tf](#), [RPF2T](#), [RPL1T](#) and [RPL2T](#) are "Paramotors"

**CONTENTS**

LOCAL REGULATIONS for 2016 WORLD MICROLIGHT AND PARAMOTOR CHAMPIONSHIPS ..... 2  
 AUTHORITY ..... 2  
 CLARIFICATION ..... 2  
 CONTENTS ..... 2

**Part 1. Applies to all classes..... 3**

1 PART FOR ALL CLASSES..... 3

1.1 GENERAL ..... 3

1.2 PROGRAMME DATES ..... 3

1.3 OFFICIALS ..... 3

1.4 ENTRY ..... 3

1.5 INSURANCE ..... 3

1.6 LANGUAGE ..... 3

1.7 MEDALS AND PRIZES..... 4

1.8 CHAMPIONSHIP CLASSES..... 4

1.9 GENERAL COMPETITION RULES..... 4

1.10 FLYING AND SAFETY REGULATIONS..... 6

1.11 CHAMPIONSHIP TASKS ..... 7

1.12 CONTROL OF TASK FLIGHTS ..... 8

1.13 GNSS FLIGHT RECORDERS ..... 9

1.14 SCORING ..... 10

**Part 2. Applies to Microlights..... 12**

2.1 GENERAL REMARKS ..... 12

2.2 FLIGHT CONTROL..... 12

2.3 SCORING ..... 12

2.4 GENERIC TASKS..... 13

**Part 3. Applies to Paramotors..... 15**

3.1 GENERAL REMARKS ..... 15

3.2 FLIGHT CONTROL..... 15

3.3 FLYING THE TASKS ..... 16

3.4 SCORING ..... 18

**ENTRY FORM EXAMPLE ..... 19**

Barney Townsend 4/11/2015 08:00  
 Deleted: 3

Barney Townsend 4/11/2015 08:00  
 Deleted: 9

Barney Townsend 4/11/2015 08:00  
 Deleted: 17

## Part 1. Applies to all classes

### 1 PART FOR ALL CLASSES

#### 1.1 GENERAL

The purpose of the championships is to provide good and satisfying contest to determine the champion in each class and to reinforce friendship amongst pilots and nations (S10 4.2).

#### 1.2 PROGRAMME DATES

Training, aircraft inspection, registration: 15<sup>TH</sup> – 19<sup>TH</sup> AUGUST 2016  
 Opening Ceremony: SATURDAY 20<sup>TH</sup> AUGUST 2016  
 First Competition briefing: SATURDAY 20<sup>TH</sup> AUGUST 2016  
 Contest Flying Days 20<sup>TH</sup> – 26<sup>TH</sup> AUGUST 2016  
 Closing Ceremony, Prize-giving SATURDAY 27<sup>TH</sup> AUGUST 2016

#### 1.3 OFFICIALS

Director	ROB HUGHES
<a href="#">Competition Director - Microlights</a>	ROB GRIMWOOD
<a href="#">Competition Director - Paramotor</a>	MIKE CHILVERS
International Jury :	To be nominated
Stewards :	To be nominated

John 3/11/2015 20:33

**Deleted:** Deputy

John 3/11/2015 20:33

**Deleted:** Paramotor

#### 1.4 ENTRY

The Championships are open to all Active Member and Associate Member countries of FAI who may enter:

For Microlight championship 6 pilots plus one all-female crew in each class.

For Paramotor championship 6 pilots plus one all-female crew in the PF & PL classes, plus one wheelchair bound pilot in class PL1.

- Entries must be made on the official Entry Form.
- If applications, with fees paid, are not received by 19<sup>th</sup> AUGUST 2016, the entry may be refused.
- The entry fee is:

**£400** for pilot in each class

**£400** for each co-pilot or navigator

**£80** for each Team Leaders and accompanying persons [over the age of 16](#).

[The first regisitered RAL1T from each coutry will receive a free entry fee](#)

The entry fee includes:

- Competition operations (setting, controlling and evaluating the tasks)
- All competition materials (maps, task descriptions, control point atlases, etc.)
- Free use of the airport and free entry to all official events.
- Camping place for each team with water, electricity and one tent
- Preferential prices to eat

The entry fee is to be transferred before **19<sup>th</sup> AUGUST 2016** to .....**(Bank details)**

**A 10% reduction on the entry fee is applicable if it is paid before 19<sup>th</sup> June 2016.**

#### 1.5 INSURANCE

Third party insurance of minimum **750 000 SDR** is obligatory. Personal accident insurance for team members and insurance against damage to aircraft are highly recommended. Documentary proof of insurance as specified on the Entry Form must be presented to the Organizers at Registration. (GS. 3.9.6)

#### 1.6 LANGUAGE

The official language of the Championships is English.

**1.7 MEDALS AND PRIZES**

FAI medals will be awarded to:

- Pilots placed first, second and third in each class (including PF1f if in compliance with S10 4.3.2).
- National teams placed first, second and third.

FAI Diplomas will be awarded for those placed first to tenth.

**1.8 CHAMPIONSHIP CLASSES**

The Championships may be held in the following classes (S10 1.5):

[RWL1T](#), [RWL2T](#), [RAL1T](#), [RAL2T](#), [RGL1](#), [RGL2](#), PF1m + PF1f, PF2, PL1 and PL2

Each class is a championship in its own right and as far as possible interference of one class by another shall be avoided.

**1.8.1 CLASS VIABILITY**

For a championship to be valid there must be no less than 4 ~~competitors~~ in a class, ready to fly the first task, and they must ~~each~~ start a minimum of one task. (S10 4.3.2)

**1.8.2 CHAMPIONSHIP VALIDITY**

The title of Champion in any class shall be awarded only if there have been at least 6 separate tasks.

**1.9 GENERAL COMPETITION RULES****1.9.1 REGISTRATION**

On arrival the team leader and members shall report to the Registration Office to have their documents checked and to receive supplementary regulations and information. The following documents are required:

- Pilot License and qualifications.
- Evidence of competitor's identity.
- Valid FAI Sporting License for pilot and navigator.
- Aircraft Certificate of Airworthiness or Permit to Fly.
- Minimum speed declaration (not required for Paramotors or foot-launched Microlights).
- Evidence of conformity to class rules.
- Certificate of Insurance.
- Receipt for payment of entry fees.

The Registration Office will be open as indicated on the information board.

Registration forms may be inspected by Team Leaders on request prior to the start of competition flying.

**1.9.2 FLYING DURING TRAINING PERIOD**

~~During the period of training before the competition officially opens, no pilot may fly until:~~

- ~~- Their team leader has arrived on site, and been briefed by the director.~~
- ~~- They have fully completed the registration process.~~
- ~~- They have marked their competition numbers onto their flight equipment.~~

~~Pilots must carry a flight recorder, switched on and logging, during all training flights, and observe local airspace restrictions as per the team leaders briefing.~~

~~The director may request to see the track logs of flight recorders used during training in the case of complaints about airspace infringement. If pilots are found to have infringed, they may be subject to a penalty against their first task score, at the discretion of the director.~~

**1.9.3 PILOT AND NAVIGATOR QUALIFICATIONS**

A competing pilot shall be of sufficient standard to meet the demands of an international competition and hold a valid pilot license or equivalent certificate. Both pilot and navigator must hold an FAI Sporting License issued by his own NAC. The navigator must have reached the age of 14 years.

Barney Townsend 4/11/2015 07:37

**Deleted:** Other trophies (if any) will be also awarded for

Barney Townsend 4/11/2015 07:39

**Deleted:** competitors from

Barney Townsend 4/11/2015 07:39

**Deleted:** countries

#### 1.9.4 AIRCRAFT AND ASSOCIATED EQUIPMENT

Aircraft and equipment provided by the competitor must be of a performance and standard suitable for the event.

Each aircraft must possess a valid Certificate of Airworthiness or Permit to Fly not excluding competition flying. This document must be issued in or accepted by the country of origin of the aircraft or the country entering it or the country of the organisers. The aircraft must comply with the FAI definition of a Microlight or Paramotor at all times (S10 1.3).

The aircraft shall fly throughout the championships as a single structural entity using the same set of components as used on the first day except that propellers may be changed provided that the weight limit is not exceeded and the Certificate of Airworthiness or Permit to Fly is not invalidated. (S10 4.17.4)

All aircraft must be made available during the Registration period for an acceptance check in the configuration in which they will be flown. The organisers have the right to inspect for class conformity and airworthiness and, if necessary, ground any aircraft for safety reasons at any time during the event.

All aircraft must be equipped with a simple method of sealing the fuel tank.

#### 1.9.5 TEAM LEADER RESPONSIBILITIES

The team leader is the liaison between the organisers and his team. He is responsible for the proper conduct of his team members, for ensuring that they do not fly if ill or suffering from any disability which might endanger the safety of others and that they have read and understand the rules. No member of the team may fly during the training period until their team leader is on site and has been briefed.

#### 1.9.6 STATUS OF RULES AND REGULATIONS

Once competition flying on the first day has started:

- No rules or regulations may be changed. Any additional requirements within the rules needed during the event will not be retrospective. (S10 4.9.4).
- Competitors may not be substituted, change to another class nor change their aircraft.

#### 1.9.7 PRACTICE & REST DAYS

An official practice period of not less than 2 and not more than 5 days immediately preceding the opening of the Championships shall be made available to all competitors. All the infrastructure for the competition (camping, maps, offices, scoring...) shall be ready for the first day of the official practice period. If practicable, on at least one practice day a task should be flown under competition conditions to test the integrity of the organisation. The scores thus generated shall not be counted. (S10 4.7.3)

Rest days will only be held on account of bad weather or unforeseen emergency.

#### 1.9.8 COMPLAINTS

A competitor who is dissatisfied on any matter may, through his team leader, make a complaint in writing to the Director.

Complaints shall be made, and dealt with, without delay but in any case must be presented not later than 6 hours after the respective Provisional Score sheet has been published, not counting the time between 22:00 and 07:00, except for the tasks of the last competition day, or for Provisional Score sheets published on or after the last competition day, when the time limit is 2 hours.

A complaint that could affect a task result must be dealt with and answered in writing before any official score sheet is issued. All complaints and their responses must be published on the official notice board. (S10 4.36)

#### 1.9.9 PROTESTS

If the competitor is dissatisfied with the decision about its Complaint, the Team Leader may make a protest to the Director in writing and accompanied by the protest fee of £40. The fee is returnable if the protest is upheld or withdrawn before the start of the proceedings. A protest may be made only against a decision of the Championship Director.

A protest must be presented not later than 6 hours after the respective Official score sheet has been published, except for the tasks of the last competition day, or for Official Score sheets published on or after the last competition day, when the time limit is 2 hours. The night time between 22:00 and 07:00 is never included. (S10 4.36)

#### 1.9.10 OFFICIAL NOTICE BOARD AND OFFICIAL TIME

The official notice board will have the form of a website. Competitors will be able to connect to the championship's intranet and teams are expected to bring their own computers with a wi-fi network interface.

Official time will be GPS local time.

## **1.10 FLYING AND SAFETY REGULATIONS**

### **1.10.1 BRIEFING**

Briefings will be held for team leaders and/or competitors on each flying day. The time and place for briefing meetings and any postponements will be prominently displayed.

All briefings will be in English and be recorded in notes, by tape recorder or video. A Full task description, meteorological information, flight safety requirements, penalties and details of any prohibited or restricted flying areas will be given in writing, as a minimum, to team leaders, Jury members and Stewards. (S10 4.21)

Procedures for flight preparation, takeoff, flying the task, landing and scoring together with any penalties will be specified in each task description. (S10 4.21)

Flight safety requirements given at briefing carry the status of regulations. (S10 4.21)

Team Leaders' meetings, in addition to briefings, may be called by the Director, but shall be held within 18 hours if requested by five or more team leaders. (S10 4.22)

### **1.10.2 COMPLIANCE WITH THE LAW**

Each competitor is required to conform to the laws and to the rules of the air of the country in which the championships are held. (S10 4.23.1)

### **1.10.3 PREPARATION FOR FLIGHT**

Each aircraft shall be given a pre-flight check by its pilot and may not be flown unless it is serviceable. (S10 4.23.3)

### **1.10.4 FLIGHT LIMITATIONS**

Each aircraft shall be flown within the limitations of its Certificate of Airworthiness or Permit to Fly. Any manoeuvre hazardous to other competitors or the public shall be avoided. Unauthorised aerobatics are prohibited. (S10 4.23.2)

### **1.10.5 DAMAGE TO A COMPETING AIRCRAFT**

Any damage shall be reported to the organisers without delay and the aircraft may then be repaired. Any replacement parts must be replaced by an identical part, except that major parts such as a wing for a paraglider controlled aircraft may be replaced by a similar model or one of lesser performance. Note. Change of major parts may incur a penalty. (S10 4.23.4)

An aircraft may be replaced by permission of the Director if damage has resulted through no fault of the pilot. Replacement may be only by an identical make or model or by an aircraft of similar or lower performance and eligible to fly in the same class. (S10 4.23.5)

### **1.10.6 TEST AND OTHER FLYING**

No competitor may take-off on a competition day from the contest site without the permission of the Director. Permission may be given for a test flight but if the task for that class has started the pilot must land and make a competition take-off on the task. Practising prior to a task is not permitted. (S10 4.25)

### **1.10.7 FITNESS**

- A pilot may not fly unless fit. Any injury, drugs or medication taken, which might affect the pilot's performance in the air, must be reported to the Director before flying.
- Every nation has the full responsibility to fight against doping. Anti doping control may be undertaken on any competitor at any time.
- The decision to impose anti doping controls may be taken by the FAI, the organiser or the organiser's national authority.
- All relevant information can be found on the FAI Web site: [www.fai.org/medical](http://www.fai.org/medical)

### **1.10.8 AIRFIELD DISCIPLINE**

Marshalling signals and circuit and landing patterns will be given at briefing and must be complied with. Non compliance will be penalised.

### **1.10.9 COLLISION AVOIDANCE**

A proper look-out must be kept at all times. An aircraft joining another in a thermal shall circle in the same direction as that established by the first regardless of height separation.

A competitor involved in collision in the air must not continue the flight if the structural integrity of the aircraft is in doubt. (S10 4.24.5)

During a navigation **along a leg**, competitors must not backtrack along the track line against the direction of the task. If there is a need to backtrack, competitors must leave the track line and fly back well clear of it before rejoining the track line at an earlier point.

Backtracking is defined as flying with an angle of greater than 90 degrees in respect to the intended flight direction. This limitation is extended to the corridor defined by the width used to score gates in the task.

#### 1.10.10 CLOUD FLYING

Cloud flying is prohibited and aircraft shall not carry gyro instruments or other equipment permitting flight without visual reference to the ground. (S10 4.24.6)

#### 1.10.11 ELECTRONIC EQUIPMENT

CIMA approved GNSS flight recorders and ELT's without voice transmission capability are permitted and may be carried. Sealed mobile phones, switched off, may be carried for use after landing or in an emergency, the director must be immediately informed if the seal is broken.

Unless otherwise briefed, then in the period between entering quarantine before flying a task and leaving quarantine after flying a task only materials issued by the organizer, mathematical calculators without any capability for any data transfer, and clocks may be used for preflight preparation and flight control. No other electronic devices with real or potential communication and/or navigation capabilities shall be available to, or accessed by the pilot or crew. (S10 4.27)

All other electronic devices with real or potential communication or navigation capabilities must be declared and approved for carriage by the Championship Director.

A document describing the device will be signed by the competitor when it is being sealed, and the document will be retained by the organization. After the task, provided the seal is not broken, documents will be returned to each competitor when he comes to unseal the device. If a document is still in the possession of the organization at the time of issuing the scores, the competitor will get a 100% task penalty.

Before each task the Director will ask marshals to check for infringements. The penalty is disqualification from the competition.

#### 1.10.12 EXTERNAL AID TO COMPETITORS

Any help in navigation or thermal location by non-competing aircraft, including a competing aircraft not carrying out the task of their own class is prohibited. This is to ensure as far as possible that the competition is between individual competitors neither helped nor controlled by external aids. (S10 4.26)

For paramotor classes, help from assistants is positively encouraged until a competitor enters the take-off / landing deck or pilot weighing area to start a task. From that moment onwards, all external assistance is forbidden except from marshals or those people expressly appointed by the Competition Director, until the moment the competitor leaves the deck having finished a task, or otherwise lands according to the outlanding rules. Assistance from fellow competitors is not permitted unless authorised by a marshal.

### 1.11 CHAMPIONSHIP TASKS

#### 1.11.1 GENERAL

To count as a valid championship task all competitors in the class concerned will be given the opportunity to have at least one contest flight with time to carry out the task.

A task for each class may be different and a task may be set for all classes. (S10 4.29.5)

A competitor will generally be allowed only one take-off for each task and the task may be flown once only. A competitor may return to the airfield within 5 minutes of take-off for safety reasons or in the event of a GNSS flight recorder failure. In this case a further start may in principle be made without penalty but equally the competitor must not benefit in any way from restarting. Exceptions and penalties will be specified in the Task Description. (S10 4.30)

Precision tasks may be combined with other tasks or set separately.

#### 1.11.2 TASK PERIOD

Times for take-off, closing of take-off windows, turn points and last landing will be displayed in writing. If the start is delayed, given times will be correspondingly delayed unless specifically briefed to the contrary.

#### 1.11.3 TASK SUSPENSION OR CANCELLATION

The Director may suspend flying after take-offs have started, if to continue is dangerous. If the period of suspension is sufficiently long to give an unfair advantage to any competitor, the task shall be cancelled. Once all competitors in a class have taken off or had the opportunity to do so, the task will not be cancelled except for reasons of force majeure. (S10 4.30)

#### 1.11.4 TYPES OF TASKS

Only tasks approved by CIMA or listed in S10 A4 will be used:

- A Flight planning, navigation estimated time and speed. No fuel limitation.
- B Fuel economy, speed range, duration, with limited fuel.
- C Precision

A catalogue of tasks (and their scoring systems) to be implemented during the championship is attached to these local regulations.

#### 1.11.5 FLYING THE TASKS

Any part of a competition task may be flown either

- a along a set course in the direction specified at the briefing,
- b along an in flight decided course in the direction selected by the pilot,
- c according to a local pattern specified at the briefing.

The resulting complete task is the combination of the above.

Order of take off may be

- a scheduled take off order, balloted by the Organiser,
- open window,
- current championship or reverse championship order

The actual scheduled take off order is annexed to the relevant Task Description.

If a touch and go is required in order to separate parts of a task, details will be given in the Task Description and at the briefing.

#### 1.11.6 OUTLANDINGS

Outlandings shall be scored zero, unless specifically stated at the briefing. If a pilot lands away from the goal field or from base he must inform the organisers by telephone, with the minimum of delay and at the latest by the closing time of the task. He may break the fuel tank seal and fly home or return by road.

Evidence of the landing place must be obtained from GNSS flight recorder evidence. On return to base he must go immediately to Control with his evidence. Failure to follow this procedure without good reason may result in the pilot not being scored for the task, or charged for any rescue services which have been called out, or disqualification. (S10 4.32)

#### 1.11.7 FLIGHT BOUNDARIES

Flights terminating beyond the boundaries of the organiser's country shall score only to the point where a straight line between the start point or last turn point and the landing place last cuts the boundary, unless permission is given at briefing to cross such boundaries. (S10 4.33)

#### 1.11.8 EMERGENCIES

A competitor landing to help an injured pilot shall not, at the discretion of the Director, be disadvantaged by this action.

#### 1.11.9 THE SECURE AREA

This is a clearly marked area where the aircraft must be placed from time to time as instructed by the director. Once in the Secure Area and without the expressed permission of the director, no aircraft may be touched for any reason other than to remove it from the Secure Area. Competitors who do not respect the rules of the Secure Area may be liable to penalty.

#### 1.11.10 QUARANTINE

This is a clearly marked area to which aircraft and crew must go from time to time as instructed by the director, usually for the purposes of scoring, fuel measurement and scrutineering of fuel tank seals, fuel systems, telephone seals etc. Once in the Quarantine and without the expressed permission of the Quarantine Marshal, the crew may not communicate with anyone else and may not modify or otherwise change the configuration of their aircraft and items carried. Competitors who do not respect the rules of the Quarantine area may be liable to penalty.

#### 1.12 CONTROL OF TASK FLIGHTS.

##### 1.12.1 TIMING

All times are given, taken and calculated in local time or simple elapsed time, rounded down to the most accurate permitted precision. (S10 5.2.6 and 5.2.7)

### 1.12.2 FUELLING

Fuel will be measured by weight or volume but will be consistent for any given refuelling session. Measured fuel quantities include oil where it is mixed with petrol. Fuel measured by volume shall be within  $\pm 10^{\circ}\text{C}$  of the ambient temperature.

Refuelling will be in the order and in accordance with the instructions given at briefing. Failure of the aircraft to be present on time may result in penalty for the pilot.

An official observer, or a team leader or competitor from a rival team must control fuelling.

Official observers will collect documentary evidence that all competitor's fuel systems are sealed immediately after fuelling, and that all competitor's fuel systems seals have been inspected after landing. Sealing of tanks is optional if aircraft are moved under supervision of officials directly to the take off place.

If there is no separate class for aircraft with electric engines there shall be no fuel limit for them in any task. (S10 4.17.9)

### 1.12.3 ACCURACY

Landing accuracy will be verified by video cameras.

### 1.12.4 GATES, TURNPOINTS AND MARKERS

Gates are normally a straight line 250m wide perpendicular to the briefed track [or may be a cylinder of 250m diameter](#).

Gates may be:

- Known gates. Their position and height to be crossed will be briefed.
- Hidden gates. The height to be kept along the sections of the course where they are situated will be briefed.

Proof of passing a gate and it's timing will be by Marshals report or GNSS flight recorder evidence, as briefed.

Control points may be: A geographical point, a ground marker, a landing marker or a kicking stick.

Control points may be:

- Known control (turn) points. Their position and description will be briefed.
- Hidden control points. The track along which they will be found and their description will be briefed.

Proof of reaching a control point may be:

- by the competitor recording the symbol and position on the declaration sheet.
- by a Marshal's report.
- by flight recorder evidence.

The precise requirements will be described in the Task Description.

### 1.13 GNSS FLIGHT RECORDERS

1.13.1 The status of GNSS flight recorder evidence relative to other forms of evidence is as follows:

- All aircraft shall carry a FR which will be used as primary evidence.
- In the event of a failure of the primary FR, a second FR or observer's report may be used as secondary evidence.

1.13.2 Only CIMA approved FRs may be used and they must be operated in strict accordance with their approval documents. (S10 A6)

1.13.3 The FR to be used by a pilot in a championship will be supplied by the pilot. The FR case must be clearly labelled with the pilots name and competition number and (if applicable) this information must be entered into the memory of the FR.

1.13.4 The pilot must make a data transfer cable and a copy of the transfer software available to the organization if required.

Before the championship starts, each FR must be presented together with its CIMA approval document to the organization for inspection and recording of type and serial number. The pilot must be sure it fully complies with any requirements in the approval document e.g. that manufacturer's seals are intact and it is equipped with a data-port sealing device if it is required or it will be rejected by the organization.

Once the championship has started the pilot must always use the same FR. In the event of a permanent failure, another FR may be used after it has been presented together with its CIMA approval document to the organization for inspection and recording of type and serial number.

All FR's must be presented to the organization for inspection immediately before the start of each task. If secondary evidence is presented then both sets must be clearly marked 1 and 2. Only one set of evidence will be used to verify the flight.

- 1.13.5 It is the pilots responsibility to ensure that he is fully aware of the functions and capabilities of his FR eg. that it has sufficient battery power and that the antenna is correctly positioned etc.
- 1.13.6 Where FR data is to be used for scoring, the organizer must have visited every location which could affect the scoring and got a GNSS fix of that position. E.g. turnpoints, hidden gates etc. It is not acceptable to extract positions from a map in any circumstances. Points that will not require FR evidence for scoring (eg. because a marshal will be taking times at a hidden gate) must be specifically briefed.
- 1.13.7 The scoring zone for FR's is independent of any other zone or sector (eg. one with ground observers). A scoring zone will normally be a cylinder of 200 m radius and of infinite height.

To score, a track fix point must either be within this circle, or the line connecting two sequential track fixes must pass through the circle. Additionally the task may require one of these fixes to be associated with a pilot event mark (PEV).

Complaints about the physical mis-positioning of a scoring zone relative to a turnpoint will not be accepted unless it can be shown that the physical position of the location is outside a circle of radius  $R = R_p/2$  where  $R_p$  = Radius or size of the scoring zone defined by the organizers (*ie the physical location must lie inside an inner circle half the width of a gate or radius of a scoring zone*).

- 1.13.8 Gate or point time is taken from the fix immediately before it is crossed.

## 1.14 SCORING

### 1.14.1 GENERAL

The overall results will be computed from the sum of the task scores for each competitor, the winner having the highest total score in the class. (S10 4.34.10)

A score given to a competitor shall be expressed to the nearest whole number, 0.5 being rounded up. (S10 4.34.13)

All distances not obtained from GNSS shall be calculated from the official map and rounded up to the next 0.5 km. (S10 4.34.14)

A pilot who did not fly scores zero and will be marked DNF or "Did Not Fly" on the score sheet. A pilot who is disqualified scores zero and will be marked DSQ or "Disqualified". (S10 4.34.15)

Deduction of penalty points shall be made after scoring for that task is completed. (S10 4.34.16)

If a pilot's score is for any reason negative including penalties his score for the task shall be taken as zero. Negative scores shall not be carried forward. (S10 4.34.18)

The following standard symbols will be used for scoring:

V = Speed, D = Distance, T = Time

The scoring system to be used shall be approved by the FAI Microlight Commission and attached to the Local regulations.

Score sheets shall state the date for the task and the date and the time when the score sheet was issued, the task number, classes involved, competitors name, country, competition number and score.

Score sheets shall be marked Provisional, and Official, or if a protest is involved, Final. A Provisional score sheet shall only become Official after all complaints have been answered by the Director. Scores shall not be altered when the Provisional sheet is made Official. (S10 4.34.3)

If a failure in GNSS flight analysis or scoring is discovered before the end of the championship and the failure is due to a technical error which emanates from [either the Competition Director or the scoring staff](#) or the equipment being used for the GNSS flight analysis or scoring, this failure must be corrected regardless of time limits for complaints and protests. (S10 4.34.19)

### 1.14.2 PENALTIES

In general, any infringement of any flying, safety or task regulation will result in penalty.

Actions which will normally result in disqualification:

- a. Bringing the event, its organisers, the FAI or the sporting code into disrepute.
- b. The use of banned substances.
- c. Unauthorised interference with an aircraft in a Secure Area.
- d. Flight outside the specified flight envelope of the aircraft or dangerous flying.
- e. Flight or attempted flight with prohibited equipment.
- f. Unauthorised assistance during a task.
- g. Interference with the firmware or software of a CIMA approved GNSS flight recorder

**Actions which will normally result in a 100% penalty of the overall task score:**

- a. Unauthorised assistance during a task.
- b. Breaking the quarantine
- c. Flying into a no-fly zone when it can be seen to have given the pilot an advantage in the task (i.e. it is deemed by the director to have been done deliberately)
- d. Flying before the task when no free flight or a specific test flight has been allowed
- e. Fuel seal broken
- f. Not following the sealed device procedure.

**Actions which will normally result in a 20% penalty of the overall task score:**

- a. Flying into a no-fly zone when the action does not provide any clear task score advantage (i.e. it is deemed by the director to have been done inadvertently)
- b. Not being ready for weighing at the designated time
- c. Not being positioned at the deck at the designated take-off time
- d. Not taking off within the deck limits when a standard deck take-off is required
- e. Landing out of the designated deck when a standard deck landing is required
- f. Failing to follow marshal's indications.

## Part 2. Applies to Microlights

### 2.1 GENERAL REMARKS

#### 2.1.1 RANGE

All aircraft will be expected to have a still air range of 250 km.

#### 2.1.2 TAKE-OFF AND LANDING

Unless it is stated differently in the task description all competition take-offs and landings must be completed within the marked deck. The penalty for failing to take off or land entirely within the deck will be 20% - 50% of pilot score, as briefed.

#### 2.1.3 CONTROL OF CLASS CONFORMITY:

**2.1.3.1** Weighing equipment shall be made available to competitors during the practice period. All aircraft may be weighed again at any time in the championships. The take-off weight is the weight of the aircraft ready to fly including pilot(s), fuel, and any supplementary equipment. The take-off weight must not exceed the FAI definition of a Microlight for the class in which it is flown.

**2.1.3.2** Any competitor attempting to start a task overweight will be disqualified from that task.

#### 2.1.4 CONTEST NUMBERS

The numbers or letters supplied by the organisers shall be displayed on a suitable space on the underside of the wing with their top towards the leading edge. The underside wing number shall be of a colour contrasting to the background. Identification may also be required on other parts of each Microlight (e.g. fin, cockpit side or pilot's helmet).

#### 2.1.5 PROTECTIVE EQUIPMENT

A protective helmet must be worn on all flights unless this restricts vision from within an enclosed cockpit canopy with supine seating. An emergency parachute system is highly recommended. (S10 4.24.1)

### 2.2 FLIGHT CONTROL

#### 2.2.1 FUEL

Prior to fuelling for economy tasks, competitors must be able to demonstrate that their aircraft tanks are empty and that the engine cannot run in either the ground or in-flight attitude of the Microlight. The engine will then be run for 60 seconds to ensure all systems are free of air. Where possible, this process will take place immediately prior to the task to enable engines to be warmed up. When tanks are required to be sealed before a task the penalty for returning to the quarantine area with a broken or a missing seal will be 100% of the pilot score. [In an economy task, aircraft which have landed will be required to taxi under power of their own engine between two points on the airfield where the landing has taken place separated by 100m in order to prove the aircraft carries useable residual fuel. If the aircraft fails to complete the 100m taxi, the competitor will be scored as if the aircraft has outlanded \(see 1.11.6 above\). If so briefed, it may be permissible to push the aircraft from the landing point to the start of the 100m taxi.](#)

#### 2.2.2 DISTANCE MEASUREMENTS

Distance will be measured for all competitors on the same official map of a scale of 1:250,000. Measurement will be made to the nearest 0.5 km.

*Note: 2.2.3 removed*

### 2.3 SCORING

**2.3.1** The total value of tasks flown in each class during the championships must as far as possible be very close to:

- A Tasks for flight planning, navigation, etc with no fuel limit: 50% of the total value of the tasks flown.
- B Tasks for fuel economy, speed, duration, etc with limited fuel: 20% of the total value of the tasks.
- C Precision tasks: 30% of the total value of the tasks flown.

**2.3.2** The winner of each class shall be the pilot or crew gaining the highest total points in the class. (S10 4.34.10)

**2.3.3** The team prize shall be computed from the sum of the scores of the top three pilots from each country in each class in each task. The task score for which a pilot was disqualified shall not count for team scoring. Other valid tasks flown by this pilot are not affected. (S10 4.34.11)

#### 2.3.4 CROSS COUNTRY TASKS

The maximum score will be between 500 and 1500 points per task.

#### 2.3.5 PRECISION TASKS

The scoring formula for each precision task is to be found in A4, the task catalogue.

## **2.4 GENERIC TASKS**

### **2.4.1 FLIGHT PLANNING, NAVIGATION TASKS**

#### **2.4.1.1 OBJECTIVES**

The objectives of a flight planning navigation task include testing the competitors' ability to:

- Plan a flight from information provided.
- Follow an accurate course in the prevailing conditions.
- Maintain a given or predicted ground speed.

#### **2.4.1.2 SUMMARY**

Competitors are required to fly accurately along a course provided by means of:

- A straight line, an arc, a circle, a polygon, an irregular line or any combination of these drawn on a map.
- A line with beginning and end points marked on a map or provided as map references with geometric instructions specifying the line between them.
- A line start point marked on the map or provided as a map reference with geometric instructions specifying the route to be followed.
- A start point located on the ground with a true or magnetic heading or geometric instructions specifying the route to be followed.

The task may consist of one or several legs, each using any of the above. In addition competitors may be required to fly all or part of the course at a given or predicted ground speed.

#### **2.4.1.3 EVIDENCE**

Evidence of the accuracy with which the competitors have flown may be provided by means of:

- Marks made by competitors on a map indicating the location of on-track ground features identified from photographs provided.
- Successful navigation by competitors to the next waypoint or turnpoint.
- Marshals observing and recording the time that aircraft pass through on-track gates or pass over waypoints or turnpoints.
- A GNSS record of the flight.

Competitors may be required to provide a pre-flight declaration which may include:

- A list of waypoints or turnpoints to be visited.
- The order in which waypoints or turnpoints are to be visited.
- The time a waypoints or turnpoints is to be visited.
- The predicted groundspeed over any part or parts of the course.

### **2.4.2 FUEL ECONOMY, SPEED RANGE, DURATION TASKS**

#### **2.4.2.1 OBJECTIVES**

The objectives of a fuel economy task include testing the competitors' ability to:

- Maximise aircraft fuel performance.
- Predict aircraft fuel consumption.
- Use prevailing weather conditions to supplement fuel.

#### **2.4.2.2 SUMMARY**

Competitors are required to fuel their aircraft with a measured volume or weight of fuel, or with the amount of fuel they predict they will need to fly a given task in the prevailing conditions, to seal their fuel tanks and then:

- Fly as far as possible before landing at a designated landing area.
- Fly for as long as possible before landing at a designated landing area.
- Fly a multi-leg task in which each leg may have different performance objectives.
- Fly a planned task before landing in a designated landing area.

Or any combination of these. Competitors may be permitted to fly to empty tanks or may be required to return with a specified safety quantity of fuel.

#### **2.4.2.3 EVIDENCE**

Evidence of competitors' performance may be provided by means of:

- Marks made by competitors on a map indicating the location of ground features identified from photographs provided to prove distance travelled.
- Marshals observing and recording the time that aircraft pass through gates on or off the airfield to prove distance or time travelled.
- A GNSS record of the flight.

Evidence of fuel consumption may be provided by:

- Verifying that the competitors' fuel tanks and systems are empty before fuelling.
- Measuring the fuel with which the tank is filled.
- Sealing the fuel tank before the flight.
- Verifying after the flight that seals on the fuel tank are intact.

### **2.4.3 PRECISION TASKS**

#### **2.4.3.1 OBJECTIVES**

The objectives of a precision task involve testing the competitors' ability to handle their aircraft, where possible in circumstances similar to those that may be encountered during normal or emergency flying activity.

#### **2.4.3.2 SUMMARY**

Competitors are required to demonstrate:

- Normal takeoffs.
- Short takeoffs.
- Powered landings.
- Engine-off landings.
- Short landings.

#### **2.4.3.3 EVIDENCE**

Evidence of competitors' skill may be provided by means of:

- Observation recorded by marshals with reference to marks or measurements on or near the ground.
- Tapes, ribbons, balloons or other items that may be cut or broken by an aircraft without causing damage to the aircraft or injury to the crew or observers.
- Electrical or electronic equipment that records the passage of the aircraft using a pressure detector, photo cell or similar device.

### **2.4.4 COMPOSITE OR SEQUENTIAL TASKS**

#### **2.4.4.1 OBJECTIVES**

The objective of a composite task, which may combine any of the above, is to make the competition more demanding and more interesting for the competitors. The objective of a sequential task, in which any of the above tasks may follow another without a break, is to enable a competition director to run two tasks in a shorter time than would otherwise be possible.

#### **2.4.4.2 SUMMARY**

Composite tasks may combine any or all of the navigation, economy & precision tasks, although such tasks must be carefully designed in order to ensure that one aspect of the task does not compromise another. For example, precision tasks may usefully be combined sequentially with navigation or economy or other precision tasks. Care must be taken to ensure that a problem in the first task does not invalidate the next task in sequence. A timed economy task that ends with an engine off precision landing may be compromised by congestion around the landing deck.

## Part 3. Applies to Paramotors

### 3.1 GENERAL REMARKS

#### 3.1.1 RANGE

All aircraft will be expected to have a still air range of 100 km.

#### 3.1.2 THE SECURE AREA

Is a clearly marked area where aircraft must be placed from time to time as instructed by the director. Once in the Secure Area and without the express permission of the director, no aircraft may be touched for any reason other than to remove it from the Secure Area.

Competitors who do not respect the rules of the Secure Area may be liable to penalty.

#### 3.1.3 A "CLEAN" TAKE OFF

Is defined as a take off attempt in which the canopy does not touch the ground between the moment it first leaves the ground and the moment ten seconds after the entire aircraft including the pilot is airborne.

#### 3.1.4 THE LAUNCH AND LANDING DECKS

- The launch and landing decks are clearly marked areas defined at the briefing.
- Occasionally, the same area may be used for both launch and landing depending on the requirements of the task.
- Both launch and landing decks will normally be allocated as large an area as is available given the size of the airfield and any other space requirements imposed by the specific task being flown.
- A minimum of 100m x 100m is required per 30 competitors and should be scaled and/or reshaped, at minimum, proportionally according to competitor numbers.
- All delineating borders of a landing deck shall be clearly visible from the air.
- A landing deck will have a windsock within 100m of its boundary.
- There will be no significant obstacles within 200m of the boundary of a landing deck.
- Unless otherwise briefed, penalties will be awarded to Pilots or any part of their aircraft touching the ground anywhere outside the landing deck during a task.
- Launch areas shall be arranged and used such that no class of aircraft may launch or land from behind and/or overhead any other class.

#### 3.1.5 CONTEST NUMBERS

Aircraft shall carry the number centrally on the underside of the paraglider, top towards the leading edge.

#### 3.1.6 EMERGENCY EQUIPMENT

An emergency parachute is not to be considered as a part of the structural entity of an aircraft.

#### 3.1.7 PROTECTIVE EQUIPMENT

A protective helmet must be worn whenever the pilot is strapped into the harness of an aircraft. An emergency parachute system is mandatory.

#### 3.1.8 PROHIBITED EQUIPMENT

In addition to those items detailed in Part 1 of the local regulations: Disposable ballast & binoculars.

### 3.2 FLIGHT CONTROL

#### 3.2.1 TIMINGS

Normally, take-off times are taken at the moment a pilot's feet leave the ground.

Normally, landing times are taken at the moment a pilot's feet or any other part of the pilot or aircraft touch the ground.

Timings may also be taken when the pilot kicks a stick or flies overhead an observer as briefed for the task in question.

A task is deemed to have started the moment the first pilot to take-off is ready to take-off and ends the moment the last pilot has landed and has exited the landing deck.

In the case of a take-off time window, the precise time of take-off is entirely at the discretion of the pilot but shall be within the overall time window. In the case where a particular take-off time is given, the clock will start running at that moment and the pilot may subsequently take-off at any time.

**3.2.2 DISTANCE MEASUREMENT**

All distance not obtained from FR's shall be calculated from the same official map, of a scale not smaller than 1:100,000, and rounded up to the next 0.5 km.

**3.2.3 FUEL MEASUREMENT**

Fuel will be measured by weight or volume but will be consistent for any given refuelling session. Refuelling will be in the order and in accordance with the instructions given at briefing. Failure of the aircraft to be present on time may result in penalty for the pilot.

Competitors must be able to demonstrate that their entire fuel system is empty.

**3.2.4 FLIGHT ACCURACY MEASUREMENT**

Ground markers

- Certain ground markers may be designated as "Landing markers", where a bonus score may be available in the task for landing on the marker. Landing markers are min. 4m x 4m.

Kick sticks

- Some tasks may involve the use of "Kicking sticks". A valid strike on a stick is one where the pilot or any part of the aircraft has been clearly observed to touch it OR when electronic 'kick stick' sensors which have been shown to meet the standard tests are used, a valid strike is one which is recorded by the device.
- The stick should be approx. 2m in height, visible from a range of at least 250 meters, and of a construction such that it is unlikely to enter a propeller once struck.
- One or more sticks may be used in a task for the purposes of separating elements of that task (e.g. to take a time) and a bonus score may be available for successfully kicking a sequence of sticks in a given order and/or time.

**3.3 FLYING THE TASKS****3.3.1 PROPORTIONS**

The proportion of the tasks accumulated during the championship is approximately A: B:C = 1/3:1/3:1/3

**3.3.2 ASSISTANTS****3.3.2.1 GENERAL**

Help from assistants is positively encouraged until a competitor enters the deck to start a task. From that moment onwards, all external assistance is forbidden except from marshals or those people expressly appointed by the Director, until the moment the competitor leaves the deck having finished a task, or otherwise lands according to the outlanding rules.

**3.3.2.2 PL1 WHEEL-CHAIRIED DISABLED PILOT**

A disabled pilot flying in PL1 class may be assisted in pre-launch preparation by one authorized person. Once the pilot is ready to launch, the assistant shall report that fact to the marshal, and will not help any more in the launch procedure. Either holding any part of Paramotor or wing canopy, or giving information about a canopy inflation is considered as a help.

**3.3.3 TAKE-OFF**

In all tasks A PF must be foot launched and a PL must take off on its wheels.

No pilot may take-off without permission from the Director or a Marshal.

Open window or given order of take off may be applied to tasks.

All take-offs, unless otherwise briefed, must be effected entirely within the landing deck, except for emergency provisions given at briefing. Failure to comply will result in a penalty of 20% of the pilot's score.

Before departure, a pilot and/or his aircraft may be inspected at any time for contravention of any regulations. It is the duty of competitors to assist marshals as much as possible in expediting an inspection.

Except in specified tasks, an aborted take-off does not in principle attract any penalty, however the pilot must comply with any instruction from the marshals to expedite a re-launch or the pilot risks being relegated to the end of the queue.

In the case where the take-off order is given:

- The first 6 pilots must be ready to takeoff at the start of the task.
- Every pilot must take off before the sixth pilot in order after him has taken off or a 20% penalty will apply, at the discretion of the director.
- If a marshal considers a pilot to be causing unreasonable delay (has been on the deck more than 20 minutes with the opportunity to take off), a 20% penalty will apply.

In the case where a particular take-off time is given, the clock will start running at that moment and the pilot may subsequently take-off at any time.

### 3.3.4 FLIGHT LIMITATIONS

Aerobatics and manoeuvres such as stalls, B-line stalls, deep stalls and spins are prohibited. 'Big ears' is accepted.

### 3.3.5 SLALOM

"Targets" in slalom courses may consist either of sticks (which may include electronic sensors), inflatable pylons, or electronics timing gates.

A valid strike on a **stick** target is:

- EITHER one where the pilot or any part of the Paramotor has been clearly observed to touch it.
- OR when electronic 'kick stick' sensors which have been shown to meet the standard tests are used, a valid strike is one which is recorded by the device.
- OR when sticks are being used as 'pylons' (as in the "Japanese Slalom" task), the pilot's body must be clearly seen to round the target in the correct direction for the task as briefed.

A valid strike on a **pylon** target is: when the pilot's body must be clearly seen to round the target in the correct direction for the task as briefed.

A valid strike on an **electronic timing gate** target is one which activates the timer. This will be dependent upon the equipment used for the gates and will be briefed.

Pilots will normally have only one attempt at striking each target except for the first and last targets where three attempts at each are permitted, unless otherwise briefed

A strike on target 1 starts the clock, a strike on the last target stops the clock.

A 100% penalty (zero score) will normally be applied if:

- when inflatable pylons are used, any part of the aircraft touching the pylon scores zero for the task.
- The pilot or any part of the aircraft touches the ground between the first and last strikes

If any part of the aircraft crosses the crowd line or is considered to be flown dangerously (outside of the requirements of the task) the director may disqualify the pilot.

### 3.3.6 LANDING

All landings, unless otherwise briefed, must be effected entirely within the landing deck, except for emergency provisions given at briefing. Failure to comply will result in a penalty of 20% of the pilot's score. The pilot may be liable to penalty if he or any part of his aircraft touches the ground outside the deck before he has removed his harness.

- Upon landing, pilots must immediately remove their aircraft from the deck.
- Landings outside the landing deck but within the airfield boundary will attract a 20% penalty.
- Pilots 'abandoning' their aircraft on the landing deck will be liable to penalty.

In tasks where pilots are asked to make a precision landing or to land on a marker:

**In PF:** The objective is for the pilot to make a good landing on his own two feet without falling over. "Falling over as a result of the landing" will be interpreted as:

- GOOD: If the pilot falls to ONE knee - landing score as achieved.
- BAD: If the pilot falls to TWO knees OR if any part of the power unit touches the ground during the landing process - zero landing score.

**In PL:** The objective is for the pilot to make a good landing after which the aircraft comes to rest the right way up and without any damage. Zero landing score if the aircraft comes to rest off all its wheels or is structurally damaged in any way, although failure to restart the engine will not incur a penalty.

In tasks where the pilot is asked to switch off his engine above specific heights, the heights will be determined by:

- 500 Ft: "The engine must be stopped & propeller stationary for a minimum period of 60 seconds before any part of the aircraft or the pilot touches the ground." If pilots are using small wings that are likely to descend this distance in less than 60 seconds, they should ensure that they climb to a suitable margin of extra height before switching off their engine.
- 15 ft: "The engine must be stopped & propeller stationary for a minimum period of 2 seconds before any part of the aircraft or the pilot touches the ground."

Obstruction at landing markers: If a pilot or any part of his aircraft obstructs the attempted landing or the takeoff of another competitor at a landing marker then a 20% penalty will apply. However, any pilot who scores more than zero for his landing at a landing marker has exclusive use of the area immediately surrounding the marker for a maximum period of one minute in which to clear his aircraft from the area.

### 3.3.7 EMERGENCIES

All pilots must fold up their canopies immediately upon landing. A canopy that has not been folded within three minutes indicates the pilot is in need of help. Any pilot who observes such a situation is obliged to render assistance and contact the organization as soon as possible.

## 3.4 SCORING

### 3.4.1 ALL TASKS

The maximum score may be up to 1000 points per task and is generally calculated as follows:

$$P = Q/Q_{\max} \times 1000$$

Where: Q = pilot scores, Q max = best score for the task, P = Total score

but, depending on the task, absolute scores for pilots' performance may also be awarded either in combination with the above or exclusively. Where a combination is used the total available absolute score shall not be more than 50% of the total available score.

e.g.:  $P = Q/Q_{\max} \times 750 + y$  (where the maximum value of y would be 250)

OR  $P = y$  (where the maximum value of y could be 1000)

In all cases: P = Total score, Q = pilot score, Q max = best score for an element of the task, y = an absolute score

The winner of the class shall be the pilot gaining the highest total points in the class

The Paramotor team prize is computed from the sum of the scores of the top three pilots of each country in each task in each valid class which has minimum of 8 pilots.

The task score for which a pilot was disqualified shall not count for team scoring. Other valid tasks flown by this pilot are not affected (S10 4.34.12)

In the PF and PL classes, if less than 50% of pilots in class start a task then after all penalties have been applied each pilot score for the task will be reduced on a pro-rata basis according to the following formula:

$$\text{Pilot final task score} = P_s \cdot (\text{MIN}(1, (T_s/T_c)^2))$$

Where

$P_s$  = Pilot task score after all penalties Etc are applied.

$T_s$  = Total started; Total number of pilots in class who started the task (ie properly, beyond 5 minute rule).

$T_c$  = Total class; Total number of pilots in class.



**ENTRY FEES**

	Fee	Number	Total Entry fee
Pilot / Nav			
Assistant			
Team Leader			
Technical Official			

This amount is enclosed/will be paid by \_\_\_\_\_ (date) in the form of \_\_\_\_\_ (currency)

*Note :* The closing date for the receipt of entry fees is 28 days before the start of the event. Late entries may not be accepted.

We declare that the above information is true.

Signed : ..... Position in NAC.....

Print Name ..... Date .....

**INSURANCE:**

Each competing aircraft shall be covered for public liability risk to the value of \_\_\_\_\_ (value & currency). Proof of cover must be provided at Registration and before the aircraft is flown. Competitors are strongly advised to take out personal accident cover.

**PUBLICITY:**

A passport type photograph and a short biographical note for each pilot and the team leader should be provided either with this Entry Form or at latest at Registration.