

# **BMAA**

## **RULES & REGULATIONS for the UK NATIONAL CHAMPIONSHIPS**

**2003**

### **FLM (Foot Launched Microlights)**

**These rules are derived from the UK national microlight championships rules  
And  
FAI rules for international competitions as customarily used.**

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# 1. General

The rules and regulations for the UK National Championships comprise this document and the task catalogue for the appropriate class.

The latest and definitive versions of all documents will be those available on the web site:  
<http://www.flymicro.com/footnat03>

Text in italics is included as interpretative material.

## 1.1. Introduction

- 1.1.1. The purpose of these championships are:
- To determine the UK National Champions in the two FLM classes.
  - To encourage participation in competitive events and foster goodwill amongst pilots.
  - To reward pilot skills rather than aircraft performance.
  - To select the National team to go forward to the 2003 World Championships in the PF1 (PPG) class.
- 1.1.2. Non UK citizens are invited to compete and will be scored, but may not be named champion.
- 1.1.3. The entry fee for each contest shall be set and collected by the club holding the event but will not normally exceed £50.
- 1.1.4. All persons participating in, or in any way connected with a BMAA event shall be bound by the rules of the competition and accept any consequences arising from participation in the contest.

## 1.2. Format

- 1.2.1. The UK FLM National championships 2003 will take the form of a single contest.
- 1.2.2. For a contest in any class to qualify as a valid national championships contest:
- There must be a quorum in a class of no less than 3 competitors with entry fees paid and who are available to fly on the first day.
  - The contest must contain at least four tasks, of which there shall be at least one navigation task, one economy task and one precision task.
- 1.2.3. No task other than those published by the BMAA may be scored towards the national championships.
- 1.2.4. In the event of a quorum not being present at a contest the competition may still take place but the scores cannot be counted towards the national championships.
- 1.2.5. Any additional requirements within the rules needed during the season will not be retrospective.

## 1.3. Programme

- 1.3.1. The championship will take place from 24 – 27 May 2003 and based at Milton Keynes. For exact details see the website.
- 1.3.2. A Mandatory initial briefing will be at 08:00, 24 May. Pilots should expect to be ready to take off on the first task at 09:00.

- 1.3.3. In the event that meteorological conditions prevent the minimum required number of tasks from occurring, in the first instance an extra day of competition may be added to the event.

In the second instance the organisation will endeavour to organize an alternate set of dates for a replacement contest. The 'first reserve' dates will be announced on the website. Scores from an abandoned contest will not be carried over to its replacement.

## 1.4. Officials

- 1.4.1. Will be appointed by the BMAA Council or by the delegated authority vested in the Council member responsible for competitions.
- 1.4.2. A competition director shall be appointed to run the organisation of each contest.
- 1.4.3. The route of each task shall have been flown beforehand to establish there are no problem areas which may not have shown up in ground planning.

## 1.5. Results and Prizes

- 1.5.1. A printed contest result sheet shall be issued by the organiser to all competitors at the end of the contest.
- 1.5.2. Trophies may be awarded by the organising club to the winners of each contest.
- 1.5.3. The title of champion in each class shall be awarded at the next Annual General Meeting of the BMAA.

# 2. General competition rules

## 2.1. The Foot Launched Microlight (FLM)

- 2.1.1. All aircraft must conform with the UK definition of a *Foot Launched Powered Flying Machine* as defined by the CAA in the Exemptions or regulations in force for the time being.
- 2.1.2. **PF1**  
A Powered Paraglider (hereinafter **PPG**) flown solo, consisting of a wing without any rigid structure (**the canopy**), coupled by flexible lines to a **power unit** which the pilot must carry on his back during take-off and landing. The wing may rest on the ground during the start of the take-off run.
- 2.1.3. **Open**  
Any aircraft including PPG's and Powered Hang Gliders (hereinafter **PHG**) which conform and are operated within all the conditions of the CAA Exemptions or regulations regarding a *Foot Launched Powered Flying Machines* in force for the time being.
- 2.1.4. All take-offs and landings in the competition must be made on foot without the assistance of any 3<sup>rd</sup> party, any kind of vehicle or any external power source.

- 2.1.5. Each FLM should have a fuel capacity sufficient for a flight of at least 100Km in still air.
- 2.1.6. All aircraft must be made available during the registration period for an acceptance check in the configuration in which they will be flown.
- 2.1.7. All FLM's must be in an airworthy condition. The director may at any moment during the competition check the condition of any FLM and ground it if he considers a safety risk exists.
- 2.1.8. The aircraft shall fly throughout each contest as a single structural entity using the same set of components as used on the first day except that propellers may be changed.

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## 2.2. Entry

- 2.2.1. A provisional booking should be made by each competitor with the organiser at least seven days before the contest. Failure to do so will result in a 200 point penalty being added to the pilot's final score.

*This is so food, drink and accommodation can be organized, and, should the weather prospects appear particularly unfavourable, to be able to contact competitors to postpone the contest.*

- 2.2.2. The minimum age for pilots is 16 years at the start of a contest.
- 2.2.3. Each competing pilot must have gained at least 45 hours as pilot in command of aeroplanes, microlight aeroplanes, gliders, hang gliders or paragliders, of which 25 hours must be on the class of FLM to be flown (i.e. PPG or PHG) including at least 5 hours on type.
- 2.2.4. On arrival at each contest site, each competitor shall report to the registration office to have their documents checked and to receive supplementary regulations and information.
- 2.2.5. The following documents are required:
  - Certificate of 3rd Party legal liability insurance valid for the aircraft to be flown.

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## 2.3. Complaints and protests

- 2.3.1. A complaint may be made to the director to request a correction. It should be made with the minimum of delay and it will be dealt with expeditiously.
- 2.3.2. In the event a competitor is not satisfied with the director's decision he/she may appeal to a Jury comprised of the Director, the BMAA competitions representative and one other organisation official.
- 2.3.3. At each contest the time limit for protest is 12 hours after publication of the official task results, except that after the last task of a contest it is 1 hour.

# 3. Flying and safety regulations

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## 3.1. Briefings

- 3.1.1. A pre competition briefing will be held covering local area regulations, airfield circuit patterns, arrival and departure procedures, Met, and any additional information as deemed necessary by the director.

- 3.1.2. Briefings will be held for competitors before each task. Full task details and any additional information as deemed necessary by the director will be given.
- 3.1.3. Attendance at all briefings is compulsory for all competitors.
- 3.1.4. Flight safety requirements given at briefings carry the status of regulations.
- 3.1.5. Regardless of competition requirements, pilots must at all times be aware of and comply with UK Air law.

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## 3.2. Protective equipment

- 3.2.1. A protective helmet must be worn whenever the pilot is strapped into the harness of an FLM  
*It is recommended that pilots are equipped with emergency parachutes.*

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## 3.3. Prohibited equipment

- 3.3.1. Any accessory or item of equipment considered dangerous by the director.
- 3.3.2. Disposable ballast.
- 3.3.3. Gyro instruments or other equipment permitting flight without reference to the ground.
- 3.3.4. GPS, VOR or any other electronic navigation aid.
- 3.3.5. Radios, or any other electronic communications equipment.
- 3.3.6. Binoculars.
- 3.3.7. Mobile phones may be carried in a sealed container or pocket for use on the ground solely as a recovery aid. The device must be declared to the director or his assistant before each task commences. Penalties may apply if the seal is broken during a task.
- 3.3.8. Approved GNSS flight recorders are permitted and encouraged, so long as it is satisfactorily demonstrated that the pilot or crew has no possible in-flight access to any information it may be capable of displaying, eg by having a CIMA approval certificate for the type.

Before each task the Director will ask marshals to check for infringements.

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## 3.4. Fitness

- 3.4.1. The use of non prescribed drugs including alcohol, likely to impair the pilots performance is prohibited. Any injury, drugs or medication taken which might affect the pilot's performance in the air must be reported to the director before flying.

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## 3.5. Preparation for flight

- 3.5.1. Each FLM shall be given a pre flight check by its pilot and may not be flown unless it is serviceable.
- 3.5.2. Each pilot takes off, flies and lands entirely at his own risk.
- 3.5.3. Each competitor is obliged to assess the weather conditions with reference to his own capacity as a pilot and the performance of his equipment before making a decision to fly.

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## 3.6. Airfield discipline

- 3.6.1. Marshalling signals, take-off, circuit and landing patterns will be given at a briefing and must be complied with. Non compliance will be penalised.

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## 3.7. Flight limitations

- 3.7.1. All manoeuvres considered dangerous are forbidden, whether a danger to the pilot, other aircraft or the public, or not. This includes stalls, spins, B line stalls and deep stalls. 'Big ears' is not considered a dangerous manoeuvre.
- 3.7.2. Flight in clouds is forbidden.

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## 3.8. Collision avoidance

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

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## 3.9. Test and other flying

- 3.9.1. No competitor may take off during the competition day from the contest site without the permission of the Director.
- 3.9.2. 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 precision landing is not permitted.
- 3.9.3. Once a task has been declared, reconnaissance flights of the route in any aircraft are forbidden.

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## 3.10. Damage to a competing aircraft

- 3.10.1. The director must be informed of any damage to an FLM without delay and before any repair is undertaken. Any replacement parts must conform to the original specifications. Change of any major part such as a wing, canopy or engine may incur a penalty.
- 3.10.2. Any aircraft may be replaced if damage has resulted through no fault of the pilot. Replacement may be only by an identical make or model or by an FLM of similar or lower performance.

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## 3.11. External aid to pilots

- 3.11.1. Help from assistants is positively encouraged until a competitor enters the landing 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.
- 3.11.2. Any help in navigation or thermal location by non competing aircraft is prohibited. This is to ensure as far as possible that the competition is between individual pilots neither helped nor controlled by external aids.

# 4. Championship tasks

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## 4.1. General

- 4.1.1. The official notice board is the place where all information necessary to competitors is displayed: Briefing times, fuelling times, task opening times, results etc. Whatever is on the board at the time is the officially current information.  
*It is important that competitors regularly check this notice board for changes. There can be no excuse for ignorance of news that has been posted.*
- 4.1.2. To count as a championship task all pilots will be given the opportunity to have at least one flight with time to carry out the task.
- 4.1.3. A pilot will be allowed one take-off for each task and the task may be flown once only. However, if a pilot returns to the landing deck within 5 minutes of take-off then he will be permitted to restart without penalty. This flight time may be added to subsequent flight time and refuelling is not permitted.

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## 4.2. Task period

- 4.2.1. Times for take-off, closing of take off windows and last landing will be briefed. If the start is delayed, given times will be correspondingly delayed.
- 4.2.2. 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 and a marker laid out on the deck as a signal to pilots already in the air. 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

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## 4.3. Types of task

- 4.3.1. The tasks listed in the *Catalogue of tasks* for the appropriate class will be used.
- 4.3.2. Tasks are divided into 3 Categories  
A. Flight planning, navigation estimated time and speed. No fuel limitation.  
B. Fuel economy, speed range, duration. Fuel limited to 6 litres or less.  
C. Precision
- 4.3.3. Precision tasks may be combined with other tasks or set separately.

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## 4.4. The Secure area

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

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## 4.5. The landing deck

- 4.5.1. A landing deck is a clearly marked area 100m x 100m.

- 4.5.2. A landing deck is a prohibited area except to contest officials and pilots who are in the process of taking off or landing.
- 4.5.3. There will be one landing deck provided for every 30 competitors.
- 4.5.4. Unless otherwise briefed, all take-offs and landings are to be made within a landing deck.
- 4.5.5. A landing deck will have a wind-sock within 100m of its boundary.
- 4.5.6. The organiser will endeavour to ensure there are no significant obstacles within 200m of the boundary of a landing deck.
- 4.5.7. Unless otherwise briefed, penalties will be awarded to Pilots if any part of their FLM touches the ground anywhere outside the landing deck during a task.

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## 4.6. The airfield boundary

- 4.6.1. The airfield boundary is the recognised boundary of the airfield upon which the landing decks are situated.

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## 4.7. Take-off

- 4.7.1. No pilot may take-off without permission from the Director or a Marshal.
- 4.7.2. Each pilot must ensure carefully that his equipment is properly in order before attempting to take-off. He must not attempt to take-off if this is not the case.
- 4.7.3. Open window or given order of take off may be applied to tasks.
- 4.7.4. 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.
- 4.7.5. Before departure a pilot and/or his FLM may be inspected at any time for contraventions of any regulations. It is the duty of competitors to assist marshals as much as possible in assisting and expediting any inspection.
- 4.7.6. 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.
- 4.7.7. In the case where the take-off order is given:
  - No more than six pilots are permitted on a take off deck at any one time.
  - 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.
  - 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.
- 4.7.8. 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.

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## 4.8. A "clean" take off

- 4.8.1. (PF1) 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.

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## 4.9. Landing

- 4.9.1. All landings, unless otherwise briefed, must be effected entirely within the landing deck. The pilot may be liable to penalty if he or any part of his FLM touches the ground outside the deck before the FLM is fully under control after a landing.
- 4.9.2. After landing, pilots must immediately remove their FLM's to a parking area.

*It is recommended that competitors view the official notice board as soon as possible after landing to get the latest information*

- 4.9.3. In tasks where pilots are asked to make a precision landing or to land on a marker, 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 (PF1) if any part of the FLM touches the ground during the landing process - zero landing score.

(Open) if any part of the aircraft touches the ground during the landing process other than devices explicitly designed to protect the propeller - zero landing score.

- 4.9.4. 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."
  - 5 metres: "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."

*For aircraft with clutches where the propeller may continue to freewheel, this is interpreted as "engine must be stopped & propeller clearly not being driven".*

- 4.9.5. Obstruction at landing markers: If a pilot or any part of his FLM 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.
- 4.9.6. Landings outside the landing deck but within the airfield boundary will attract a 20% penalty.
- 4.9.7. Landings outside the airfield boundary are considered outlandings.
- 4.9.8. Pilots 'abandoning' their FLM's on the landing deck will be liable to penalty.

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## 4.10. Outlandings

- 4.10.1. Any touch of the ground by pilot or FLM outside the airfield boundary will constitute an outlanding.
- 4.10.2. There may or may not be a penalty applied for outlanding depending on the task being undertaken.
- 4.10.3. Upon outlanding and having folded his canopy, a pilot must contact the organisation *as soon as possible* and before contacting anyone else, to declare that he has outlanded. The organisation will need to know the pilot's precise landing location, where he can be picked up, and the name of the person the organisation should contact to pick him up.
- 4.10.4. The contact procedure must be followed EVERY time, even if the pilot, by outlanding, has scored zero. Failure to do so will attract a penalty.

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## 4.11. Emergencies

- 4.11.1. All pilots must fold up their canopies immediately upon landing. A canopy which 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 organisation as soon as possible.
- 4.11.2. A competitor landing to help an injured pilot should not, at the discretion of the Director, be disadvantaged by this action.

# 5. Control of flight tasks

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## 5.1. Maps

- 5.1.1. The official maps shall be the standard ordnance survey 1:50,000 maps which cover the area of the contest, in conjunction with the standard 1:250,000 aeronautical chart for airspace information. Tasks will be planned by the organisers using the official maps. Details of which maps will be used will be on the official website.
- 5.1.2. Distance will be measured for all pilots on the same official map in Km to the nearest 0.25 Km.

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## 5.2. Timings

- 5.2.1. All times are given, taken and calculated in local time.
- 5.2.2. Normally, take-off times are taken at the moment a pilot's feet leave the ground.
- 5.2.3. Normally, landing times are taken at the moment a pilot's feet or any other part of the pilot or FLM touches the ground.
- 5.2.4. Timings may also be taken when the pilot kicks a stick or flies overhead an observer or passes through a gate, as briefed for the task in question
- 5.2.5. 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.

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## 5.3. Ground markers and gates

- 5.3.1. In certain designated tasks, ground markers made of one or more sheets or tarpaulins 3m x 0.5m will be laid out along the line of a route to represent different symbols.
- 5.3.2. Certain ground markers may additionally 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.
- 5.3.3. When a ground marker is observed its symbol AND position should be recorded.
- 5.3.4. "Off track markers" will be at least 125m off track.
- 5.3.5. Gates will be at least 250m wide.

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## 5.4. Turn points

- 5.4.1. If turn points are to be identified from photographs, diagrammatic plans, or from points on a map, photocopy facsimiles of the photographs, plans or relevant sections of the map shall be distributed to each competitor at the task briefing.
- 5.4.2. If turn point positions are to be identified by latitude and longitude then a photocopied list must be distributed to each competitor and the positions shall have been independently checked by three competent persons in advance.

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## 5.5. Photographic evidence

- 5.5.1. When photographic evidence of turn points is required, incorrect or unclear photographs will not be scored.
- 5.5.2. Cameras must have a fixed focus lens of between 35mm & 58mm focal length and it must not be possible to alter the order of the exposures.
- 5.5.3. Unless otherwise briefed, all photographs must be on a single uncut roll of 100 ASA 36 exposure 35mm colour print film as follows:
  - i. Photograph of the official task board showing date and time
  - ii. Photograph of the aircraft against a recognisable background on the airfield.
  - iii. Turn points as briefed in correct sequence.
  - iv. Photograph of the aircraft against a recognisable background on the airfield, or if outlanding, photograph showing the aircraft with recognisable background of the landing place.

*It is the responsibility of pilots to supply their own film stock.*
- 5.5.4. The photo of a turn point is to be taken from within the briefed sector, or within a quadrant with its apex at the turn point oriented symmetrically opposite the two legs of the flight which meet at the turn point. Unless otherwise briefed the distance should not be more than 500 metres at a height of not more than 1000 ft.
- 5.5.5. As soon as possible after landing the pilot must take his flight report and camera(s) to control and rewind and remove the film in the presence of the marshal. If two cameras are used both films are to be handed in marked 1 and 2. The second film will only be processed in the event of technical problems in the processing of the first.

## 5.6. Alternative evidence

- 5.6.1. GNSS Flight Recorders (FR's) are not mandatory for the event, but if the organizer is in a position to provide all competitors with a FR then, according to the briefing, flight evidence from these may constitute Primary evidence.

A deposit and small rental fee may be levied for 'loaned' FR's.

## 5.7. Fuelling

- 5.7.1. 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.

- 5.7.2. All FLM's must be equipped with a simple method of sealing the fuel tank when required.

- 5.7.3. Measured fuel quantities *include* oil where it is mixed with petrol.

- 5.7.4. The competitor must bring his FLM to the refuelling area completely empty of fuel together with a can of fuel, an empty fuel can into which to pour the measured amount and a funnel.

*Completely means the entire fuel system including fuel tank, fuel lines, filters, primer bulbs and carburettor. Competitors not presenting their FLM for refuelling completely empty may be liable to penalty.*

- 5.7.5. Immediately fuelling is complete the competitor, under supervision of a marshal, must remove any spare fuel from the refuelling area and place his FLM in the Secure area.

- 5.7.6. It is the duty of the competitor to assist the marshals as much as possible in expediting the refuelling process.

## 5.8. Outlanding confirmation

- 5.8.1. Pilots must take photographs of their FLM on the ground against a recognisable background. They must also obtain the name, address and telephone number of at least one witness other than a fellow competitor.

# 6. Scoring

## 6.1. General

- 6.1.1. The proportion of the scores accumulated during the Championships shall be approximately:  
PF1: A:B:C = 1/3:1/3:1/3  
Open: A:B:C = 1/2:1/4:1/4
- 6.1.2. A score given to a pilot shall be expressed to the nearest whole number, 0.5 being rounded up.
- 6.1.3. All distances are rounded to the nearest 0.25 Km.
- 6.1.4. All times are taken to Hours, Minutes and Seconds.
- 6.1.5. A pilot who did not fly in a particular task scores zero and will be marked DNF on the score sheet. A pilot who is disqualified will be marked DSQ.
- 6.1.6. Deduction of penalty points shall be made after scoring for that task is completed.

- 6.1.7. If a pilot's score is for any reason negative, including penalties, his score for the task will be taken as zero.

- 6.1.8. 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.

# 7. Penalties

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

- 7.2. Actions which will normally result in disqualification:
- Bringing the contest, its organisers, the BMAA or the National Championships into disrepute. The use of hostile 'tactical protests' falls into this category.
  - The use of performance enhancing drugs.
  - Not informing the organisation of an injury, medical complaint or medication being taken.
  - Unauthorised interference with an aircraft in a Secure Area.
  - Flight outside the specified flight envelope of the aircraft or dangerous flying.
  - Flight or attempted flight with prohibited equipment.
  - Unauthorised assistance during a task.
  - Use of any other transport during a task (before declaring an outlanding)
  - Interfering with the software or firmware of a Flight Recorder.

- 7.3. Actions which will normally result in Zero score for the task:

- Use of a camera with an unpermitted focal length
- Unauthorised changes to canopy, wing or power unit
- Flight without Helmet
- Unauthorised take-off
- Outlanding in a task where it is not permitted
- The aircraft disappears from the sight of the marshals (where this is a requirement of the task)
- Departure from the permitted flight area (where this is a requirement of the task)
- The task is not completed in the given order (where this is a requirement of the task)