



## LOCAL REGULATIONS

for the

# 13<sup>th</sup> FAI WORLD MICROLIGHT CHAMPIONSHIPS 2012

Marugán, Segovia, Spain, 7 – 18 August 2012

organised by

**Real Federación Aeronáutica Española**  
and  
**Club Altair Sport**

on behalf of the

**Fédération Aéronautique Internationale**

Organiser Address: Club Altair  
Olivar 70  
40142 Marugán (Segovia), Spain

Tel: +34 629 216 905

E-mail: [mundiales-aviacion-ligera-2012@googlegroups.com](mailto:mundiales-aviacion-ligera-2012@googlegroups.com)

Official Web Site: <http://sites.google.com/site/wmc2012spain>

Discussion Forum: <http://groups.google.com/group/wmc2012spain>

### 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 RAL1, RAL2, RWL1, RWL2, RGL1 and RGL2 are "Microlights".

Differences between the model local regulations of FAI S10 Annex 3 and the text approved by the 2011 CIMA Plenary are shown in red.



## Contents

<b>1</b>	<b><u>Applies to All Classes</u></b>	<b>3</b>
1.1	<u>General</u>	3
1.2	<u>Programme Dates</u>	3
1.3	<u>Officials</u>	3
1.4	<u>Entry</u>	3
1.5	<u>Insurance</u>	4
1.6	<u>Language</u>	4
1.7	<u>Medals And Prizes</u>	4
1.8	<u>Championship Classes</u>	4
1.9	<u>General Competition Rules</u>	4
1.10	<u>Flying and Safety Regulations</u>	6
1.11	<u>Championship Tasks</u>	7
1.12	<u>Control of Task Flights</u>	9
1.13	<u>GNSS Flight Recorders</u>	10
1.14	<u>Scoring</u>	11
<b>2</b>	<b><u>Applies to Microlights</u></b>	<b>13</b>
2.1	<u>General Remarks</u>	13
2.2	<u>Flight Control</u>	13
2.3	<u>Scoring</u>	14
2.4	<u>Generic Tasks</u>	14
<b>3</b>	<b><u>Entry Form</u></b>	<b>17</b>
<b>4</b>	<b><u>Sealed Device Sheet</u></b>	<b>19</b>
<b>5</b>	<b><u>Obtaining Permission to Fly in Spain</u></b>	<b>20</b>



# 1 APPLIES TO 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:	7 – 10 August
Opening Ceremony:	11 August
First Competition briefing:	11 August
Contest Flying Days:	12 – 17 August
Closing Ceremony, Prize-giving:	18 August

## 1.3 OFFICIALS

Event Director	María Jesús Jiménez
Competition Director	José Luis Esteban
Deputy Competition Director	Miguel Monzón
International Jury	_____ (president)
	_____
	_____
Stewards	_____
	_____
Monitor	_____

## 1.4 ENTRY

The Championships are open to all Active Member and Associate Member countries of FAI who may enter **6 (six) crews** plus one all-female crew in each class.

- Entries must be made on the official Entry Form.
- If applications, with fees paid, are not received by **10<sup>th</sup> of July**, the entry may be refused.
- The entry fee is:  
450 EUR for pilot  
450 EUR for co-pilot (navigator)  
100 EUR for each team leader
- **Entry fees don't need to be nominal before the 10<sup>th</sup> of July. After this date all entries shall be nominal or a refund may be requested.**
- **Pilot or co-pilot entry fees paid before 1<sup>st</sup> of April will have a 50 EUR discount.**
- **Pilot or co-pilot entry fees paid later than 10<sup>th</sup> of July will have a 50 EUR surcharge.**

The entry fee includes:

- Competition operations (setting, controlling and evaluating the tasks)
- All competition materials (task descriptions, control point atlases, etc.)
- **One copy of the official map**
- Free use of the airport and free entry to all official events.
- Camping place for each team with **electricity and common services of water supply and toilets.**
- Preferential prices to eat

**Bank details are noted in the entry form.**



## 1.5 INSURANCE

Third party insurance of of **at least 750 000 SDR and a passenger insurance of at least 100 000 SDR (applicable to co-pilot) is required by Regulation (EC) No 785/2004 of the European Parliament and the Council of 21 April 2004**. 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
- 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):

WL1, WL2, AL1, AL2, **GL1, GL2**

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 competitors from no less than 4 countries in a class, ready to fly the first task, and must start a minimum of one task. (S10 4.3.2)

### 1.8.2 CHAMPIONSHIP VALIDITY

The title of champion shall be awarded only if there have been at least 6 separate valid tasks in the class and at least one task of each type (navigation, economy, precision) has been valid.

## 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 nationality
- Valid FAI Sporting License for pilot and navigator
- Aircraft Certificate of Airworthiness or Permit to Fly
- Certificate of Insurance
- Receipt for payment of entry fees.
- **Permission from the Spanish Civil Aviation Authorities obtained as indicated in [chapter 5](#).**

**Registrations won't be accepted without all documents and the entry fee won't be returned.**

**Evidence of conformity to class rules will be checked by inspection and/or flight tests before the start of the competition. Conformity with minimum speed may be checked by all means described in Annex 1 to Section 10. A non compliant aircraft won't be allowed to compete and the entry fee won't be returned.**

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 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.

### 1.9.3 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.

### 1.9.4 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.

### 1.9.5 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, except for the provisions in 1.10.5.

### 1.9.6 PRACTICE & REST DAYS

The official practice period from 7<sup>th</sup> to 11<sup>th</sup> August will be made available to all competitors. All the infrastructure for the competition will be ready for the first day of the official practice period. At least one practice day a task will 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.

### 1.9.7 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 made and will be published on the official championship's web site.



### 1.9.8 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 50 EUR. 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)

### 1.9.9 OFFICIAL NOTICE BOARD AND OFFICIAL TIME

The official notice board will have the form of a web site. Competitors will be able to connect to the championship's intranet and teams are expected to bring their own computers provided with a WiFi 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 published for everyone on the championship's web site.

Procedures for flight preparation, take-off, 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: <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)

#### 1.10.10 CLOUD FLYING

Cloud flying is prohibited and aircraft shall not carry gyroscopic 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 ([see sealed device sheet on page 19](#)), 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)

### 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. (“Navigation”)
- B Fuel economy, speed range, duration, with limited fuel. (“Economy”)
- 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 FLIGHT PLANNING

The Director may decide that flight planning has to be done individually. Then, certain task details like turn-points or ground features will not be given during the briefing. Instead, pilots will receive such *last-minute task details* just before they are allowed to start planning their flight.

Individual planning shall be done in quarantine. No communication devices or electronic devices capable of performing calculations will be allowed (1.10.11). The only exceptions are non-programmable electronic calculators.

The director may designate a planning time for each pilot. In this case, marshals will hand last minute task details at the designated time to each pilot.

#### 1.11.6 FLYING THE TASKS

Any part of a competition task may be flown either

- along a set course in the direction specified at the briefing,
- along an in flight decided course in the direction selected by the pilot,
- 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,
- the order in which pilots finish their flight plans,
- 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.

#### 1.11.7 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)

#### 1.11.8 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)

#### 1.11.9 EMERGENCIES

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

#### 1.11.10 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.

#### 1.11.11 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. Measured fuel quantities include oil where it is mixed with petrol.

**Fuel weighing will be done in the presence of an official observer. The Director may allow pilots to choose between weighing the exact amount of fuel or increasing it by an arbitrary safety amount. In the second case, a second weighing shall be performed after landing.**

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.

**Fuel checking will be done in quarantine after the flight. After landing, pilots will be directed to the quarantine area and a marshal will check the integrity of the fuel seals. If the pilot flew with a safety amount of fuel, the remaining fuel will be measured and the difference will be calculated.**

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.

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 **will be obtained 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.

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, Q = Partial/intermediate score, P = Total score before penalties

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

Calculations will be performed using full numerical precision. Rounding will only be done when calculating Q and P values and will be done to the nearest integer value. Q and P variables will always be integers greater than or equal to zero. If a calculation results in a negative number, zero will be assigned as the result.

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 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 from the competition:

- Bringing the event, its organisers, the FAI or the sporting code into disrepute
- The use of banned substances
- Flight outside the specified flight envelope of the aircraft or dangerous flying
- Flight or attempted flight with prohibited equipment.
- Interference with the firmware, software or data content of a CIMA approved GNSS flight recorder

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

- Unauthorised assistance during a task.
- Breaking the quarantine
- Flying into a no-fly zone

# FAI World Microlight Championships 2012 Local Regulations

Marugán, Spain, 11–18 August



- Flying before the task when no free flight or a specific test flight has been allowed
- Fuel seal broken
- Consuming more fuel than the designated amount
- Landing out of the briefed airfield boundaries
- Not following the sealed device procedure

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

- Not being ready for weighing at the designated time
- Not being positioned at the deck at the designated take-off time
- Not taking off within the deck limits when a standard deck take-off is required
- Crossing the start point after the designated or calculated crossing time
- Landing out of the designated deck when a standard deck landing is required
- Declaration sheet partially or incorrectly filled
- Failing to follow marshal's indications



## 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 both cockpit sides or the pilots' helmets**.

#### 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)

#### 2.1.6 PRECISION LANDING PRACTICE

**Precision landing practice will only be allowed during announced time slots and supervised by marshals. This includes the practice days.**

### 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.

#### 2.2.2 DISTANCE MEASUREMENTS

Distance will be measured for all competitors on the same official map. Measurement will be made to the nearest 0.5 km.

#### 2.2.3 KNOWN GATES

When competitors prior to take off are informed of the location of a timing gate, the approach to that gate may be between 500 and 1000 feet height and in a straight line for the final 1 km. Any deviation from this approach may incur a penalty.

#### 2.2.4 TAKE-OFF RULES

**The Director may decide between three different take-off procedures: at a *designated time*, just after planning or in an *open window*.**

##### 2.2.4.1 Take-off at a designated time

**Take-off time will be designated for each pilot and published in advance. Pilots will be penalised for not being ready for take-off in time. Marshals will allow one minute for take-off since the pilot is in**



position on the deck.

#### 2.2.4.2 Take-off after planning

This procedure applies when planning time is included in the overall task time, so pilots will be willing to take-off as soon as possible. The take-off order will be determined by the order in which the declarations are handed to the marshal.

Aircraft will line up in a take-off queue and wait for the preceding pilots to take-off. Marshals will speed up the operation and any pilot causing a delay will be sent to the last position in the take-off queue.

#### 2.2.4.3 Take-off in open window

In some tasks the director may allow pilots to take off when they wish within a given time window. The opening and closing times for the take-off window will be published in advance.

A pilot may decide to take-off at any moment. This will be indicated by joining the take-off queue while the window is open. No pilot will be allowed to join the take-off queue after the take-off window is closed.

Once in the take-off queue, the pilot will wait for the preceding pilots to take off and will be ready to take-off immediately. A pilot who causes a delay of more than 30 seconds in the take-off queue will be sent out of the take-off queue. The pilot will be able to join the queue again if the window continues open.

#### 2.2.4.4 Time from take-off to start point

A maximum time from the effective take-off to crossing a start point (SP) may be established by the director. In this case, pilots will be penalised for a delayed crossing of SP.

## 2.3 SCORING

### 2.3.1 VALUE OF TASKS

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 WINNER

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 TEAM PRIZE

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

### 2.3.5 PRECISION TASKS

The scoring formula for each precision task is to be found in 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:

- Successful navigation by competitors to the next waypoint or turnpoint.
- Marshals observing and recording the time that aircraft **take-off, land**, 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 ground speed 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:

- Marshals observing and recording the time that aircraft **take-off, land**, 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 take-offs.
- Short take-offs.
- 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.





# FAI World Microlight Championships 2012 Local Regulations

Marugán, Spain, 11–18 August



Names/number of accompanying technical officials if known \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## ENTRY FEES

	Fee	Number	Total Entry fee
Pilot / Co-pilot			
Team Leader			

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

### Notes:

- If applications, with fees paid, are not received by 10th of July, the entry may be refused.
- Entry fees don't need to be nominal before the 10th of July. After this date all entries shall be nominal or a refund may be requested.
- Pilot or co-pilot entry fees paid before 1<sup>st</sup> of April will have a 50 EUR discount.
- Pilot or co-pilot entry fees paid later than 10<sup>th</sup> of July will have a 50 EUR surcharge.

We declare that the above information is true.

Signed : \_\_\_\_\_ Position in NAC \_\_\_\_\_

Print Name \_\_\_\_\_ Date \_\_\_\_\_

### Entry fee payment is to be made to:

Bank: \_\_\_\_\_  
Branch: \_\_\_\_\_  
Account: \_\_\_\_\_  
IBAN: \_\_\_\_\_  
BIC: \_\_\_\_\_

See section 1.4 for fees payable. Payee responsible for all transfer charges

*Please include a reference indicating who the payment is from and what it is for, and notify \_\_\_\_\_ with all the details of the transaction.*

## INSURANCE

Third party insurance of at least 750 000 SDR and a passenger insurance of at least 100.000 SDR (applicable to co-pilot) is required by Regulation (EC) No 785/2004 of the European Parliament and the Council of 21 April 2004. 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.

## 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.



## 4 SEALED DEVICE SHEET

### Instructions

Pilots will fill in one of this sheets for every sealed container carrying one or more devices they need to carry sealed during a task. It's the pilot's responsibility to have the necessary sheets at the moment of sealing.

Each competitor may use his own wrapping method, or the marshals may provide it. In any case, a marshal will decide if the method is valid, verify that the device is disconnected and proceed to seal the device and verify that it can't be connected. The marshals will keep this sheet while the device is sealed.

Marshals may inspect the competitors' integrity of seals at any time during a task.

After the task, pilots will request their seals to be inspected and checked against the sealing records. This sheet will be given back to the pilot if the seal is not broken.

At the end of the scoring process of each task, the scoring team will review the pending sheets. Pilots who haven't got their sheets back will get a 100% penalty in the task.

**Pilot** \_\_\_\_\_

**Device** \_\_\_\_\_

**Comp. No.** \_\_\_\_\_ **Team** \_\_\_\_\_ **Class** \_\_\_\_\_

**Task No.** \_\_\_\_\_ **Date** \_\_\_\_\_ **Time** \_\_\_\_\_

**Pilot's Signature**

**Marshal** \_\_\_\_\_

**Marshal's Signature:**



## 5 OBTAINING PERMISSION TO FLY IN SPAIN

Foreign microlight aircraft are required to obtain a temporary permission from the Spanish Civil Aviation Authorities (AESA) in order to fly in Spain.

This permission can be obtained for free by sending an email message to [aviaciondeport.aesa@fomento.es](mailto:aviaciondeport.aesa@fomento.es) with the following information and documents scanned (valid and legal in your countries):

- Dates to fly in Spain. The longest allowed period is 6 months.
- Pilot's name
- Aircraft registration
- A valid pilot's license
- A valid medical certificate
- A valid Certificate of Registration of the aircraft
- A valid Permit to Fly of the aircraft
- A valid insurance in Spain according to the EU requirements

If any of those documents is not required in your country, please remark it clearly.