

Proposals for amendments to FAI Sporting Code Section 10 submitted to the 2012 CIMA Plenary meeting.

All in one pdf for convenience, the original proposals can all be found at <http://wiki.fai.org/x/OgGq>

v1 27 Sep 2012

# 1 = Definition of a microlight

## Proposal From:

Vladimir Silhan, Czech delegate

## Proposal title:

DEFINITION OF A MICROLIGHT OR PARAMOTOR AIRCRAFT

## Existing text:

### 1.3 DEFINITION OF A MICROLIGHT OR PARAMOTOR AIRCRAFT

1.3.1 A one or two seat powered aircraft whose minimum speed at Maximum Take Off Weight (MTOW) is less than 65 km/h, and having a MTOW of:

- 300 kg for a landplane flown solo
- 330 kg for an amphibian or a pure seaplane flown solo;
- 450 kg for a landplane flown with two persons
- 495 kg for an amphibian or a pure seaplane flown with two persons

*Note. These definitions also apply to foot-launched Microlight and Paramotor aircraft.*

1.3.2 The MTOW described in 1.3.1 may be increased by 5% if the aircraft is equipped with a parachute system designed to bring the entire aircraft to the ground if it is deployed.

## New text:

### 1.3 DEFINITION OF A MICROLIGHT OR PARAMOTOR AIRCRAFT

1.3.1 A one or two seat powered aircraft whose minimum speed at Maximum Take Off Weight (MTOW) is less than 65 km/h, and having a MTOW of:

- 300 kg for a landplane ~~flown solo~~ **built and equipped for one pilot only**
- 330 kg for an amphibian or a pure seaplane ~~flown solo~~ **built and equipped for one pilot only ;**
- 450 kg for a landplane ~~flown with~~ **built and equipped for** two persons
- 495 kg for an amphibian or a pure seaplane ~~flown with~~ **built and equipped for** two persons

*Note. These definitions also apply to foot-launched Microlight and Paramotor aircraft.*

1.3.2 The MTOW described in 1.3.1 may be increased by 5% if the aircraft is equipped with a parachute system designed to bring the entire aircraft to the ground if it is deployed.

## Reason:

Two-seater flown in solo isn't one-seater.

# 2 = Definition of a Microlight or Paramotor aircraft

## Proposal from

Naaman Tam Israel

## Proposal title

23-DEFINITION OF A MICROLIGHT OR PARAMOTOR AIRCRAFT

## Existing text

1.3.1 A one or two seat powered aircraft whose minimum speed at Maximum Take Off Weight (MTOW) is less than 65 km/h, and having a MTOW of:

- 300 kg for a landplane flown solo
  - 330 kg for an amphibian or a pure seaplane flown solo;
  - 450 kg for a landplane flown with two persons
  - 495 kg for an amphibian or a pure seaplane flown with two persons
- Note. These definitions also apply to foot-launched Microlight and Paramotor aircraft.*

## New text

1.3.1 A one or two seat powered aircraft whose minimum speed at Maximum Take Off Weight (MTOW) is less than 65 km/h, and having a MTOW of:

- 375 kg for a landplane flown solo
- 405 kg for an amphibian or a pure seaplane flown solo;
- 450 kg for a landplane flown with two persons
- 495 kg for an amphibian or a pure seaplane flown with two persons

*Note. These definitions also apply to foot-launched Microlight and Paramotor aircraft.*

## Reason

The AL1 and WL1 classes have not many competitors in the last years.

One reason should be that not many pilots own that aircrafts.

The other reason should be that pilots that own AL1 or WL1 do not like competing.

The MTOW change can let pilots who own AL2 or WL2 to compete solo.

Most of the AL2 empty weight is 255-270 kg so if pilot is 85 kg and at least 22 kg of fuel we get 375 kg MTOW.

# 3 = Microlight autogyros

## Proposal from

Richard Meredith-Hardy, CIMA President

## Proposal title

Delete temporary conditions for Microlight Autogyros

## Existing text

S10 1.5.2

.....  
*Microlight Autogyros were new in 2010; classes RGL1 and RGL2 are provisional and not eligible to compete in 1st Category Microlight events or claim Microlight records unless stated otherwise at [www.fai.org/microlight](http://www.fai.org/microlight)*

## New text

S10 1.5.2

.....

~~*Microlight Autogyros were new in 2010; classes RGL1 and RGL2 are provisional and not eligible to compete in 1st Category Microlight events or claim Microlight records unless stated otherwise at [www.fai.org/microlight](http://www.fai.org/microlight)*~~

## Reason

Depending on the outcome of the CASI review, (see [2012 CASI agenda and agenda annex 1](#)) this can be deleted, or if not, the URL must at least be altered to one that works and the text amended to the current position.

If the text is deleted, then Microlight Autogyros finally achieve the same status as any other class of microlight.

# 4 = Single Seat 'Open' Class

## Proposal from

GBR

## Proposal title

Single Seat 'Open' Class

## Existing text

Unsure of the text which refers. The simple addition to the table at 1.5.2 of "RL1" would have a significant effect on single seat competitors and records; therefore consultation is needed regarding the inclusion of the new text.

## New text

Single seat open class:

Option A

The creation of an 'Open' single seat class for both RAL1 and RWL1 combined unless both RAL1 and RWL1 are independently valid.

Option B

The creation of an 'Open' single seat class for solo classes unless they are independently valid.

## Reason

The imminent death of the RAL1 class and possibly the RWL1 class. Competitors are not willing to commit to a championship if they are not sure if the championship will be valid. The combination of the two classes will encourage competitors to participate if they believe they will compete in a single 'open' valid championship.

# 5 = Competitor identity

## Proposal from

PATRICE GIRARDIN/FRANCE

## Proposal title

Competitor identity

## Existing text

**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.*

etc.....

## New text

### 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~~ **identity**.

etc.....

## Reason

GS 8.1.5.2 any competitor may present an identity document. An FAI licence is not connected with the nationality but with the NAC which deliver the licence. Some competitors may have no nationality.

# 6 = Record claims

## Proposal from

Richard Meredith-Hardy, CIMA President

## Proposal title

International record claims must be ratified as a national record first.

## Existing text

*none*

## New text

S10 3.16.4 To be eligible as a World Record, the performance must have been recognized as a National record by the NAC concerned

**NOTE 1** This proposal is dependent on the outcome of the decision in the October 2012 CASI meeting. If that proposal fails, then this proposal can safely be withdrawn.

**NOTE 2** If this proposal is accepted by CIMA, the references to this provision must be amended in both record claim forms.

## Reason

This provision is currently in GS 6.1.2 but there is a move to delete it.

This subject came up at the 2011 CASI meeting and the CIMA President gave very good reasons why it was a bad idea for CIMA. The pre-meeting notes, item 9 conclude:

- If the ancient link between National & World claims is broken then there will be a proliferation of national records which exceed the World record.
- This devalues FAI World records, and in particular, **Microlight & Paramotor** ones.

And when it came to a vote, the proposal failed.

It is **again** in the October 2012 CASI meeting agenda, and for the same reasons, which are nothing to do with CIMA. (see [CASI Agenda, Annex 2](#) ) but its effect on Microlight and Paramotor record claims could be permanently detrimental.

World Microlight and Paramotor record claims from NACs have a particularly poor history of being rejected by FAI. The **only** check on this is the fact that all claims must be ratified as a national record first. If this requirement is removed then it essentially opens a floodgate of claims to FAI which won't have been checked properly, and they will either be accepted by FAI, potentially devaluing all records, or create a terrible lot of extra and unnecessary work for Secretariat in having to refer these unchecked claims back to the submitting NAC.

There are other, more subtle consequences too. It allows NACs to relax their checking of National record claims. This means that a pilot could have the record X ratified as a national record to some lesser standard which causes it to fail as a World claim, but it can safely still stand as a national record.

In the first instance, if that national record exceeds the world record this won't stop the holder claiming 'world record' even though it is not (most people will still believe it is). This devalues FAI's authority as 'keeper of World records'.

In the second instance, The same NAC can now file a later World claim less than national record X but exceeding the current World Record. This makes a real muddle of that NACs National and World records and was previously the 'check' which meant it couldn't be done at least without some embarrassment and back-peddaling internal to the NAC, now it can.

This proposal therefore moves the deleted section of the GS into S10 and the current integrity of microlight and paramotor World records is preserved.

# 7 = Class Validity

## Proposal from

Antonio Marchesi, Spain Alternate Delegate

## Proposal title

Class Validity

## Existing text

4.3.2 For a world or continental 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.

## New text

4.3.2 For a world or continental championship to be valid there must be **at least four** competitors from no less than ~~four~~ **two** countries in a class, ready to fly the first task, and must start a minimum of one task.

## Reason

(Note to new text: figures are written in letters instead of numbers as to strikethrough the number 4 is confusing for obvious reasons)

This has been applied in the last World Championships, it was suggested by organizers and carried by the CIMA Bureau. The fact is that some classes are close to the minimum number of competitors (now 4) and the 4 countries demand pushes the challenge of having those classes valid towards impossible. Reasons in favour of this proposal are:

- The 4 countries demand doesn't contribute to a better competitive level, as our contest is in principal an individual competition, team prizes are complementary.
- The minimum number of competitors remain the same.
- If any country feels that only 2 countries applying for 3 medals is unfair, it has a simple solution: please, bring competitors to the class. The current rule solves this possible unfair feeling by blocking the class. This proposal keeps the class on and it gives a opportunity of promotion to those classes. There's not better promotion that competitors winning medals.
- The classes affected are not only microlight AL1, WL1, GL1, solo classes with a descending number of competitors year by year. There are too pretty new classes as GL2 in microlight and PF2 and PF1f in paramotors with a good potential future but their growth could be affected by cancellations. These classes are growing fast in only a few countries and if there are valid championships we can expect that other competitors from other countries will join the class.

# 8 = Championship validation

## Proposal from

Andy Phillips - GBR

## Proposal title

28 - Championship validation

## Existing text

S10, 4.3.3

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.

S10 ANNEX 3, 1.8.2

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

## New text

S10, 4.3.3

The title of champion shall be awarded only if there have been at least 6 (or in Paramotor classes, 3) separate valid tasks in the class and at least one task of each type (navigation, economy, precision) has been valid.

S10 ANNEX 3, 1.8.2

The title of champion shall be awarded only if there have been at least ~~6~~ 3 separate valid tasks in the class and at least one task of each type (navigation, economy, precision) has been valid.

## Reason

With the huge amount of time and investment put into any championship by all concerned, it would be a disaster for it not to be validated, as it was in 2004 in Portugal. In 2011, both the PG and the HG Worlds only had two tasks each and the PG Accuracy Worlds only 4 tasks. All were validated. There is nothing to gain having the current rule, but a lot to lose.

In the event of poor weather forecast, a Meet Director is under great pressure to get his championship validated and may end up setting inappropriate or non-meaningful tasks. Even worse, he may start tasks in unsafe conditions; this was evidenced in a (later cancelled) task in Spain 2012 in which pilots were still being told by marshals to take off 15 minutes after sunset, even though there were already over 30 pilots in the air queuing to do their spot landing. Flying after sunset is illegal in Spain, but I believe the directors felt pressure to get a valid task to ensure a valid championship.

This proposal also addresses the discrepancy in the text between S10, 4.3.3 and Annex 3, 1.8.2.

# 9 = Validity of a championship

## Proposal From:

Vladimir Silhan, Czech delegate

## Proposal title:

VALIDITY OF A CHAMPIONSHIP

## Existing text:

*none*

## New text, OPTION A:

S10 4.3.4 Championship classes are established for aircrafts defined in S10 1.5.2. Championship classes aren't specified by MTOM, but by fact, if were flown in solo or with two persons. Using of two-seater aircraft for flying in solo class is possible, limits ( VS0 and MTOM) don't exceed limits for two-seater aircraft defined in article 1.3.

## New text, OPTION B:

S10 4.3.4 Championship classes are established for aircrafts defined in S10 1.5.2 in section 10. Championship classes aren't specified by MTOM, but by fact, if were flown in solo or with two persons. Using of two-seater aircraft for flying in solo class is possible, limits ( VS0 ant MTOM) don't exceed limits for two-seater aircraft defined in article 1.3. minus 50 kg.

## Reason:

In WMC 2012 weren't valid classes AL1, GL1 and WL1 was at the critical boundary of validity.

We can have competition pilots provided the rules are defined for the kind of airplanes that common pilots commonly fly. What kind of airplanes do pilots fly nowadays little or not at all? It is the single seaters. The reason is simple: the costs to buy a single seat airplane are not much lower than for a two-seater and the operational costs are comparable, while versatility of use is considerably limited.

That is why almost nobody would build them or spend money on buying them. This phenomenon has already surfaced in the form of "clinic death" of the AL 1 category, and WL1 is going to follow in matter of several years, GL1 doesn't start its career. This tendency which I have been pointing out repeatedly is obvious from the charts in my presentation from 2010. It is loaded in FAI Wiki.

Reason for defending and keeping of solo classes is clear. Solo pilot must be the best pilot with best skills, because all necessary activities he must make oneself. To be successful in solo class may be the best prove of pilot's ability and the biggest challenge. Flying in championships and other competitions might to be competition between pilots, to fly with bigger airplane isn't any advantage in competition. In my opinion, we (CIMA) shall make necessary changes for surviving of solo classes as championship classes. Proposed change has no any influence to records and limits for one-seat airplanes for records shall be kept.

# 10 = Young pilots trophy

## Proposal From:

Vladimir Silhan, Czech delegate

## Proposal title :

Young pilots trophy

## Original text:

*none*

## New text :

S10 4.3.5

### **Young pilot's trophy**

In each Championship class may be established a special sub class for young pilots (crew) no older, than XX years (In two-seater classes both members must be younger than XX years). This subclass may be valid, if more than 3 crews from at least two countries will be registered and will start in the first task. The age will be judged by age in the opening ceremony date.

Note: XX shall be defined in CIMA meeting from 23 to 30

## Reason:

Pilots in championship are older from year to year. We may initiate some special motivation for young pilots to compete.

# 11 = Language on FAI medals

## Proposal from

Richard Meredith-Hardy, CIMA President

## Proposal title

Language on FAI medals

## Existing text

*none*

## New text, Option a

S10 4.7.7 The text engraved on each FAI medal shall be in either French or English according to the preference of the organizers.

## New text, Option b

S10 4.7.7 The text engraved on each FAI medal shall be in either French or English according to the preference of the organizers and shall include the class name (S10 1.5.1).

## Reason

It is something of an enduring mystery why the 'caption' engraved on FAI medals awarded at CIMA Sanctioned Cat. 1 events is always in French. Indeed this has led more than once to confusion when medals have actually been distributed at medals ceremonies where the hosts have not been familiar with that language.

It therefore seems reasonable that the host nation should have a small choice of language it best understands (option 1), or alternatively (and additionally), the class names as used in S10 are used where possible as well (option 2).

There seems to be nothing about the text or language to be used on FAI medals in FAI Statutes, Bylaws or the Sporting Code, this proposal is therefore not contradicting any other text.

## Example captions

Option 1 French  (Only current option)	Option 1 English	Option 2 French	Option 2 English
<b>12ème Championnat d'Europe de Micro-Aviation</b>	<b>12th European Microlight Championships</b>	<b>12ème Championnat d'Europe de Micro-Aviation</b>	<b>12th European Microlight Championships</b>
Pendulaire Biplace	Weight-shift flown with two people	RWL2	RWL2
Pendulaire Monoplace	Weight-shift flown solo	RWL1	RWL1
Multiaxe Monoplace	Three-axis flown solo	RAL1	RAL1
Multiaxe Biplace	Three-axis flown with two people	RAL2	RAL2
Autogyre Monoplace	Autogyro flown solo	RGL1	RGL1
Autogyre Biplace	Autogyro flown with two people	RGL2	RGL2

Pendulaire / Multiaxe Equipe	Microlight team	Equipe ULM	Microlight team
<b>6ème Championnat d'Europe de Paramoteur</b>	<b>6th European Paramotor Championships</b>	<b>6ème Championnat d'Europe de Paramoteur</b>	<b>6th European Paramotor Championships</b>
Décollage à pied Monoplace	Foot-launched flown solo	RPF1	RPF1
Décollage à pied Monoplace Femme	Foot-launched flown solo (women)	RPF1f	RPF1f
Décollage à pied Biplace	Foot-launched flown with two people	RPF2	RPF2
Décollage chariot Monoplace	Trike flown solo	RPL1	RPL1
Décollage chariot Biplace	Trike flown with two people	RPL2	RPL2
Décollage à pied Monoplace Equipe	Foot-launched flown solo Team	RPF1 Equipe	RPF1 Team
Décollage à pied Biplace Equipe	Foot-launched flown with two people Team	RPF2 Equipe	RPF2 Team
Décollage chariot Monoplace Equipe	Trike flown solo Team	RPL1 Equipe	RPL1 Team
Décollage chariot Biplace Equipe	Trike flown with two people Team	RPL2 Equipe	RPL2 Team

**Note** Refer to CASI 2012 meeting agenda, annexes 6 & 7 for more proposals regarding medals which may be in place by the time of the 2012 CIMA Plenary.

# 12 = Stewards

## Proposal from

PATRICE GIRARDIN/FRANCE

## Proposal title

NUMBER OF STEWARDS

## Existing text

**4.13 STEWARDS***4.13.1 The organisers shall appoint not less than 2 stewards. If Microlights and Paramotors are competing in the same venue at the same time, there will be a minimum of 3 stewards.*

## New text

**4.13 STEWARDS***4.13.1 The organisers shall appoint a minimum of 1 not less than 2 steward(s). If Microlights and Paramotors are competing in the same venue at the same time, there will be a minimum of 3 stewards.*

Reason

This rule hasn't been applied on the previous World Championship and is difficult to apply

# 13 = Team leader

## Proposal from

PATRICE GIRARDIN /FRANCE

## Proposal title

TEAM LEADER

## Existing text

*4.14.4 The team leader may be a competitor or crew but it is strongly advised that he/she should be additional to them. If not a competitor the team leader may be of any nationality. If a class is to be flown separately, a deputy team leader should be nominated for it.*

## New text

*4.14.4 The team leader may be a competitor or crew but it is strongly advised that he/she should be additional to them. ~~If not a competitor the team leader may be of any nationality~~ **A team leader shall hold a valid FAI licence.** If a class is to be flown separately, a deputy team leader should be nominated for it.*

## Reason

The FAI aim is to favour the FAI licence before the nationality. The team leader is the master piece of any national team. This is the NAC responsibility to select him ( SC 10 4.14.3), so to deliver an FAI licence.

# 14 = Eco task proportion

## Proposal from

Paap Kolar / Estonia

## Proposal title

Eco task proportion

## Existing text

4.29.3

Tasks shall, as far as practicable, conform to the following guidelines in standard championships:

### **For Microlight aircraft classes AL, WL WF and GL**

A Tasks for flight planning, navigation, etc with no fuel limit: 55% of the total value of the tasks flown.

B Tasks for fuel economy, speed, duration, etc with limited fuel: 30% of the total value of the tasks flown.

### **For Paramotor aircraft classes PF and PL**

A Navigation: 33% of the total value of the tasks flown.

B Economy: 33% of the total value of the tasks flown.

C Precision: 33% of the total value of the tasks flown.

## New text

4.29.3

Tasks shall, as far as practicable, conform to the following guidelines in standard championships:

### **For Microlight aircraft classes AL, WL WF and GL**

A Tasks for flight planning, navigation, etc with no fuel limit: 55% of the total value of the tasks flown.

B Tasks for fuel economy, speed, duration, etc with limited fuel: 30% of the total value of the tasks flown.

### **For Paramotor aircraft classes PF and PL**

A Navigation: 40% of the total value of the tasks flown.

B Economy: 20% of the total value of the tasks flown.

C Precision: 40% of the total value of the tasks flown.

## Reason

Economy tasks are not such a test of pilot skill compared with navigation and precision and are mostly about engine consumption/performance only, which makes them unfair, unattractive and useless, with all negative impacts unnecessary and harmful to the sport.

a) 33 % has never been followed, because it cannot be followed exactly, especially in integrated approach.

b) 33 % should not be followed. It will make competition too much dependent on engine performance and less skills and makes it uninteresting, boring and less fun.

c) 33 % will create unnecessary pressure to the comp director to force efforts in following these proportions and also for all competitors knowing they are competing mostly for their engine performance in eco tasks.

d) 33 % will create extra stress for heavier pilots being aware of their disadvantage in fuel consumption and their endless punishing for their weight by unfair scoring of eco tasks.

e) For eco tasks there is always tendency for pilots to tune their machines as lean as possible, which creates additional risk of engine failure, material damage and unpredictable outlandings with following retrieval, scoring 0 for the task and possible retirement from the whole competition in case of severe engine damage.

By lowering the proportion of eco tasks to 20 % the disadvantage of heavy pilots will become much more acceptable and it leaves enough space for the best selection of eco tasks where pilots skills are playing major role. Thus eco tasks will become more fair and more fun.

# 15 = Flight Recorder

## Proposal from

PATRICE GIRARDIN/ FRANCE

## Proposal title

FR Forgotten

## Existing text

**4.30.3 A competitor may return to the airfield within 5 minutes of take-off for safety reasons or in the event of a FR 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.**

## New text

***Versus A 4.30.3 A competitor may return to the airfield within 5 minutes of take-off for safety reasons or in the event of a FR failure **but not forgotten**. 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.***

***Versus B 4.30.3 A competitor may return to the airfield within 5 minutes of take-off for safety reasons or in the event of a FR 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 - **including penalties for FR forgotten** - will be specified in the task description***

## Reason

To prevent any benefit from the failure in the flight preparation. To prevent interpretation about what is an FR failure as done by the previous WMC and WPC without specification in task description

To forgot a FR is a strong fault which has to be penalised by A or B and not considered as a FR failure.

# 16 = Task Cancellation

## Proposal from

GBR (Andy Phillips)

## Proposal title

35 - Task Cancellation

## Existing text

S10 4.30.5

After take-offs have started the organisers may suspend flying if to continue is dangerous. If the period of suspension is sufficiently long to give an unfair chance to any competitor the director shall cancel the task. Once all competitors in a class have taken off, or had the opportunity to take off, the task may not be cancelled other than for reasons of force majeure.

S10 4.34.17

In Paramotors, 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:

Pilot final task score =  $Ps * (\text{MIN}(1, (Ts/Tc) * 2))$

*Where*

Ps = Pilot task score after all penalties Etc. are applied.

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

Tc = Total class; total number of pilots in class.

## New text

S10 4.30.5

If the meet director feels there is a possibility of a task being cancelled due to deteriorating weather, he will not use an ordered launch. After take-offs have started the ~~organisers~~ **competition director** may suspend flying if to continue is dangerous ~~or if he regrets starting the task~~. If the period of suspension is sufficiently long to give an unfair chance to any competitor, ~~or it is clear that weather conditions are deteriorating~~, the director ~~shall~~ **may** cancel the task, ~~regardless of how many competitors have already taken off~~. In the event of a task cancellation, this shall be communicated to competitors who are in the air by the use of at least a clear and agreed visual signal displayed on the landing deck(s). ~~Once all competitors in a class have taken off, or had the opportunity to take off, the task may not be cancelled other than for reasons of force majeure.~~

S10 4.34.17

In Paramotors, 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:

Pilot final task score =  $Ps * (\text{MIN}(1, (Ts/Tc) * 2))$

*Where*

Ps = Pilot task score after all penalties Etc. are applied.

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

Tc = ~~Total class; total number of pilots in class.~~

## Reason

The rule 4.34.17 is a legacy from paragliding competitions in which free launch is standard. In the current most commonly used Paramotor system of ordered launch there is undue pressure on pilots to make a fast decision whether to fly or not, or risk losing 20% of their points from missing their position in the launch order.

The existing rules allow Competition Directors to launch a task in potentially unsafe conditions, falling back onto the arguments that it is up to the pilots to fly if they wish, and let a formula devalue the points.

The UK Squad prefer the idea of a Competition Director who has to make a judgement on the suitability of a task in the prevailing and forecast weather conditions, and cancel the task, whether some pilots have launched or not, in the interest of safety.

There are always some pilots willing to risk their lives in dangerous conditions for the sake of a few points. Even if the points for a task in which not many pilots choose to fly are hugely devalued, it could still mean the difference of two or three hundred points relative to someone who chooses not fly, which could very easily be the difference between medal positions. It is unfair to put pilots in the position of having to evaluate their own safety against championship places. The Competition Director should still be able to cancel a task if pilots have taken off already.

# 17 = Information board

## Proposal from

Wolfgang Lintl, Delegate Germany

## Proposal title

Information board

## Existing text

S10 4.34.2

Score sheets shall state the date when the task took place, and the date and time when the score sheet was issued, the task number, classes involved in the task, competitor names, country, competitor number and score.

## New text

S10 4.34.2

Score sheets shall state the date when the task took place, and the date and time when the score sheet was issued, the task number, classes involved in the task, competitor names, country, competitor number and score.

Regardless of an electronic board for publishing scores or results, score sheets has to post on a board physically.

## Reason

The new way of dealing with score sheets is modern, quick and effective, but every pilot and team leader disappears after landing somewhere else in the camp site or tent to check the results. An official board with the task sheets in paper will work as a meeting point and keep the pilots together there and speak to each other.

# 18 = Team score

## Proposal from

Wolfgang Lintl, Delegate Germany

## Proposal title

Team Score

## Existing text

S10 4.34.11 The team score shall be computed from the sum of the scores of the top three pilots of each country in each class in each task grouped together in:

- Classes AL1, AL2, WL1, and WL2  
...

## New text

S10 4.34.11 The team score shall be computed from the sum of the scores of the top three pilots of each country in each class in each task grouped together in:

- Classes AL1, AL2, WL1, ~~and~~ WL2, **GL1 and GL2**  
...

## Reason

There is no reason any longer to exclude the GL-classes from the team score.

# 19 = Team Scoring

## Proposal from

GBR

## Proposal title

37 - Team Scoring

## Existing text

4.34.11 The team score shall be computed from the sum of the scores of the top three pilots of each country in each class in each task grouped together in:- Classes AL1, AL2, WL1, and WL2- Each valid Paramotor class which has a minimum of 8 pilots.

4.34.12 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.

## New text

Proposed Wording: Option A

4.34.11 The team score shall be computed from the **average of the sum of all team pilot's individual task scores.** ~~sum of the scores of the top three pilots of each country in each class in each task grouped together in:- Classes AL1, AL2, WL1, and WL2- Each valid Paramotor class which has a minimum of 8 pilots.~~

4.34.12 **All eligible class entrants will contribute to the team score.**

**4.34.13** 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.

**4.34.14 To be eligible for the Team prize a nation must enter at least 2 competitors.**

Proposed Wording: Option B

As above but:

**4.34.14 To be eligible for the Team prize a nation must enter at least 3 competitors.**

## Reason

The current team scoring system favours the largest team and is quite often decided before the first person has flown. This was to encourage large teams but it is entirely unfair to the smaller teams who may have performed - on average - better than their opponents.

This system of team scoring would reflect the performance of every team member and would therefore be a reward for the best team. It will have the secondary effect of encouraging greater teamwork within each team to ensure the weaker members are helped and encouraged to improve their performance.

# **20 = Changes to Team scoring for Classic classes**

## **Proposal from**

GBR

## **Proposal title**

38 - Changes to Team scoring for Classic classes

## **Existing text**

4.34.11 The team score shall be computed from the sum of the scores of the top three pilots of each country in each class in each task grouped together in:

- Classes AL1, AL2, WL1, and WL2
- Each valid Paramotor class which has a minimum of 8 pilots.

## **New text**

#### Option A

4.34.11 The team score for Classic classes shall be computed from the sum of the scores of the top three aircraft of each country in each task **across all the classes (AL1, AL2, WL1, WL2) which have at least 12 competing aircraft.** ~~in each task grouped together in:~~

~~Classes AL1, AL2, WL1, and WL2~~

~~Each valid Paramotor class which has a minimum of 8 pilots.~~

- Crews in valid Classic classes with less than 12 competing aircraft can compete for individual medals but cannot score for their Team.

- For a task to count towards the Team score, half or more of the qualifying Classes must have flown that task, with the same potential maximum score.

#### Option B

4.34.11 The team score for Classic classes shall be computed from the sum of the scores of the top **five** aircraft of each country in each task **across all the classes (AL1, AL2, WL1, WL2) which have at least 12 competing aircraft.** ~~in each task grouped together in:~~

~~Classes AL1, AL2, WL1, and WL2~~

~~Each valid Paramotor class which has a minimum of 8 pilots.~~

- Crews in valid Classic classes with less than 12 competing aircraft can compete for individual medals but cannot score for their Team.

- For a task to count towards the Team score, half or more of the qualifying Classes must have flown that task, with the same potential maximum score.

#### Option C

4.34.11 The team score for Classic classes shall be computed from the sum of the scores of the top three aircraft of each country in each task **across all the classes (AL1, AL2, WL1, WL2) which have at least 8 competing aircraft.** ~~in each task grouped together in:~~

~~Classes AL1, AL2, WL1, and WL2~~

~~Each valid Paramotor class which has a minimum of 8 pilots.~~

- Crews in valid Classic classes with less than 8 competing aircraft can compete for individual medals but cannot score for their Team.

- For a task to count towards the Team score, half or more of the qualifying Classes must have flown that task, with the same potential maximum score.

## Reason

The current way of scoring Teams in Classic classes often means that the results are known before the competition starts in advance, purely based on the number of aircraft some nations have entered.

It would be more meaningful to reward the Teams' performance by quality rather than quantity, with more nations fighting for a place on the podium.

This change would accommodate the new Gyro classes as and when they become approved.

# 21 = Protest

## Proposal from

Patrice Girardin / France

## Proposal title

Protest

## Existing text

SC 10 4.36.1 If a 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. 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

## New text

SC 10 4.36.1 If a competitor is dissatisfied with the decision ~~about its~~ **on a** complaint, the team leader may make a protest to the director in writing and accompanied by the protest fee. 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

## Reason

The current version of this rules which refer to GS chapter 5 move away from the original text who said " on a " complaint rather than its. SC10 cannot be more restrictive than GS .  
However if the aim of SC10 is allow a proets solely on a complaint made by the claimant, then GS has to be changed at CIMA request.

# 22 = Inflatable pylons

## Proposal from

Richard Meredith-Hardy, CIMA President

## Proposal title

Specifications and rules for inflatable pylons

## Existing text

none

## New text

This text in ms Word format

### **S10 5.7 INFLATABLE PYLONS**

5.7.1 The purpose of an inflatable pylon is to clearly define a point. The point originates at the centre of the base of the pylon and extends vertically to an infinite height.

5.7.2 A pylon may be used to define a point to be turned, or if arranged in a pair, to define the extents of a gate.

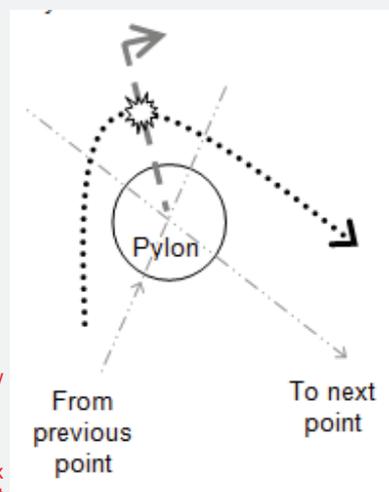
5.7.3 If it is intended for a pylon to be turned at low level (any part of the aircraft below pylon height) then the pylon shall be minimum 8m tall.

5.7.4 Pylons shall be constructed and erected in a manner such that:

- They will not deform or fall over in any wind in which it is reasonable to expect the task could be safely flown.
- They will deform in the event of contact with an aircraft.
- There are no supporting lines, or if there are, they do not constitute a hazard.
- Stakes, inflation devices and other hard obstacles associated with a pylon are either buried, protected with padding or positioned to minimize accidental contact by a pilot or aircraft.

5.7.5 The local regulations or task description shall clearly explain what constitutes a valid rounding of a pylon (eg pilot body or whole aircraft) and any limitations (eg not below pylon height).

5.7.6 Unless described otherwise in the task description, a pylon shall be deemed rounded when the pilot crosses in the correct direction the line on the ground with its apex at the pylon and orientated symmetrically to and remote from the two legs of the course at the pylon. (ref. GS A13.1 but without the 90 deg quadrant)



## Reason

Inflatable pylons have now become an established fact at competitions.

There is some evidence to suggest pylons less than 8m can be dangerous in slalom tasks because there is an enhanced possibility the canopy lines can be hooked over the top in a steep turn, hence 8m is defined as the minimum height for this type of task. It is also worth pointing out simple safety aspects about supporting lines and other obstacles associated with a pylon.

5.7.6 is not designed to supersede anything that might be said in a task description, for example the Clover leaf and other slaloms specifically define which direction a pylon is to be turned. Rather, this provision becomes a default solution for use in those cases when a task description

does not adequately specify what constitutes the rounding of a pylon (notably the Chinese Slalom).

Since 5.7.6 defines a way of constructing a specific line which defines when a pylon is rounded, this can also be implemented in any slalom task when split times are being used as something to make a slalom task more interesting and exciting for an audience.

So long as suitable analysis software was available, it may in a future provision be interesting to apply this same technique of defining a line (or gate) at a single point to standard nav task turnpoints. This would then provide a standard means of obtaining a precise time of passing one, which currently does not exist..

# 23 = Known gates

## Proposal from

Wolfgang Lintl, Delegate Germany

## Proposal title

KNOWN GATES

## Existing text

Annex 3, Part 2

### 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.

## New text

### 2.2.3 KNOWN GATES

Unless otherwise briefed, when competitors prior to take off are informed of the location of a timing gate, the approach to that gate ~~may~~ must be between 500 and 1000 feet height and in a straight line for the final 1 km. Any deviation from this approach ~~may~~ will incur a penalty of 20 %.

## Reason

Rules like this should be a „must“ and not a „may be“ to make it clear for the competitor. Also the penalty have to be describe exact. Our task catalogue knows only two penaltys: 100 % and 20 %. A penalty of 20 % for each infringement of this rule seems adequate.

# 24 = Known gates (2)

## Proposal From:

Vladimir Silhan, Czech delegate

## Proposal title:

Known gates

## Existing text :

S10 Annex 3, Part 2  
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.

## New text:

S10 Annex 3, 2.2.3 - delete entire provision

~~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.~~

## Reason

This rule lost its sense. It was rule, which was important, when times and passing of gates was evaluated by ground marshals. If evaluation is providing due an electronic records, this rule lost any sense. Any rule which forces pilots anything to do or to do not, must have some reason. What is natural reason for this rule today?

Is the big question, what the straight line is. Strict application of this rule may bring penalty for ½ of competitors (or more). Measuring if height of flight was in limits will be a reason for lot of complaints and disputes. Our loggers aren't designed for measuring of height and GPS height mistake is round 20 m. I have tested it several times and difference between two loggers in one time in one place exists and a difference between two measurements in two different times (30 minutes period) in one logger exists too. If this rule shall be applied, the tolerance of 50 m as minimum must be set. The scoring of navigation tasks will be more difficult and time consuming without any positive affect.

# 25 = Larger decks

## Proposal from

Andy Phillips - GBR

## Proposal title

29 - Larger decks

## Existing text

Annex 3: 3.1.4

### THE LANDING DECK

- A landing deck is a clearly marked area defined at the briefing. A minimum of 100m x 100m is required.
- There will be one landing deck provided for every 30 competitors.
- 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.

## New text

Annex 3: 3.1.4

### THE LAUNCH AND LANDING DECKS

- ~~A landing deck is a clearly marked area defined at the briefing. A minimum of 100m x 100m is required.~~
- 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.
- ~~There will be one landing deck provided for every 30 competitors.~~
- 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.

## Reason

100m by 100m decks are a legacy from microlight competitions in which you only have one aircraft launching at a time. Paramotor decks should be as large as possible for safety reasons, either in the case of a change in wind conditions to allow for a safe launch in the face of potential obstacles, or because it reduces the need for pilots to run in-between other pilots who have laid their wings out but are not yet ready to launch.

A free (un-ordered) take off has been tested in UK competitions for several years and greatly speeds up launch times. Marshalling is made considerably easier, freeing up resources to focus on marshalling the task itself. This also allows for pilots to fix last minute problems on the deck (which are no reflection of pilot skill – for example, the last minute discovery of a frayed line) and still compete in the task. It may be appropriate to use an ordered launch in precision tasks towards the end of the competition in order to keep the top pilots flying in similar weather conditions.

# 26 = Economy tasks based on weight of fuel used in flight

## Proposal from

Andy Phillips - GBR

## Proposal title

27 - Economy tasks based on weight of fuel used in flight

## Existing text

S10 Annex 3

### 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.

## New text

S10 Annex 3

### 3.2.3 FUEL MEASUREMENT IN TASKS WITH A STANDARD FUEL QUANTITY

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 FUEL MEASUREMENT IN TASKS BASED ON WEIGHT OF FUEL USED IN FLIGHT

This is an alternative method of flying and scoring fuel economy tasks in the PF1 class by:

- weighing the machine before and after the flight to measure the amount of fuel used in the task.
- allowing pilots to carry as much fuel as they want, to ensure full task participation.
- making pilots responsible that they adhere to the rules for risk of zero score.

For the purpose of scoring: One litre of fuel = 0.74kg = 740 grams

#### 3.2.4.1 Weighing of machine before launch.

The weighing scale(s) must be capable of an accuracy of +/-20g, and must be located next to the launch deck.

The machine should be weighed immediately before entering the launch deck.

The machine is only to be weighed with allowed items attached. It is each pilot's responsibility to ensure that all other non-allowed items are removed prior to weighing.

The machine is photographed from all sides at the point of weighing.

After weighing, the machine is then moved onto the deck with a view to launching as soon as possible.

Marshals should ensure that pilots spend as little time as possible between the weighing and the launching, and may demand for a machine to be re-weighed if necessary. Any machine leaving the deck must re-weighed before re-entering.

#### 3.2.4.2 Weighing of pilot and machine after landing.

As soon as a pilot lands back on the deck, a Marshal will direct the pilot to the scale for the machine to be weighed immediately.

The machine is only to be weighed with allowed items attached. It is each pilot's responsibility to ensure that all other non-allowed items are removed prior to weighing.

The machine is then weighed and photographed once again from all sides.

Marshals should be vigilant, and check for non-allowed items that may be hidden or concealed on the machine. (Bulges in reserve containers, harness pockets etc)

If a machine is found to be weighed with a non-allowed item at the final weigh-in, then that pilot will score zero for that entire task.

Allowed Items:

- Reserve parachute
- Permanently fitted "Competition fuel bottle"
- Permanently fitted lighting
- Permanently-fitted gauges (such as fuel gauges, EGT, CHT, tachometer)

Non-allowed items:

- Anything not in "Allowed items" including;
- GPS loggers
- Pilots own instruments (vario, compass etc)
- Propeller covers
- Helmets
- Ear defenders
- Goggles/sunglasses
- Map boards/cases.

[Existing para 3.2.4 to be re-numbered as 3.2.5]

## Reason

Current problems:

- Emptying machines of all fuel is a tedious exercise that often wastes precious flying time.
- An economy task cannot be set at short notice.
- There is inconsistency in the way pilots are supervising each other's fuelling and to get away with keeping some fuel in pipes (or priming bulb) is not really seen as cheating.
- Pilots have to modify their machines with complicated and potentially dangerous fuel systems and header tanks.
- Running out of fuel and landing out is a problem with retrieves taking yet more time.
- Waste fuel is often discarded on the ground with the obvious environmental impacts.

The new proposal addresses all of these problems.

# 27 = Economy tasks based on weight of pilot and machine

## Proposal from

Paap Kolar / Estonia

## Proposal title

Scoring economy tasks taking into account the weight of each pilot and their machine.

## Existing text

S10 Annex 3

### 3.2.3 FUEL MEASUREMENT

Fuel will be measured by weight or volume but will be consistent for any given refueling session. Refueling 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.

## New text

S10 Annex 3

### 3.2.3 FUEL MEASUREMENT IN TASKS WITH A FIXED FUEL QUANTITY

Fuel will be measured by weight or volume but will be consistent for any given refueling session. Refueling 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 FUEL MEASUREMENT IN TASKS BASED ON WEIGHT OF FUEL USED FOR THE TASK

This is an alternative method of flying and scoring fuel economy tasks by:

- weighing pilots and machines (not the wing) before and after the flight to measure the amount of fuel used in the task.

- allowing pilots to carry as much fuel as they want, to ensure full task participation safely

- allowing application of "Average Weight Handicapping Index (AWHI)" to level the playing field between light and heavy pilots and machines.

For the purpose of scoring: One liter of fuel = 0.74kg = 740 grams

#### 3.2.4.1 Weighing of pilots and machines before launch.

The weighing scale(s) must be capable of an accuracy of +/-20g, and must be located next to the launch deck. Several weighing scales should be prepared in case heavy classes are involved (for example 3 scales for PL2).

The pilots should only get weighed when they are intending to launch.

The combined pilot(s) + paramotor + all supplementary items is weighed, with the exception of the wing.

The wing must be detached from the carabiners and paramotor unit, and can be already prepared in the launch deck. Wing bags, if used, must either be carried by pilots when weighed or not be taken on the flight.

In PF classes pilots should carry the paramotor on his/her back, as well as all equipment and accessories when stepping up onto the scale.

In PL classes pilot(s) and equipment can be weighed separately and the result summarized.

If the pilot is moving too much on the scale, the readout will fluctuate and the highest value will be recorded.

The pilots should then proceed to their wing with a view to launch as soon as possible.

Marshals should ensure that pilots spend as little time as possible between the weighing and launching, and may demand for a pilot to be re-weighed if necessary. Any pilot (or equipment) leaving the deck must re-weighed before re-entering. Possible penalties will be briefed.

Marshals should ensure that pilots are not "ballasting" themselves by grabbing soil or stones as they get ready to launch.

#### 3.2.4.2 Weighing of pilot and machine after landing.

As soon as a pilot lands back on the deck, a Marshal will direct them to the scale, to be weighed immediately. The wing is detached and as before, the combined pilot + paramotor + all supplementary items is weighed, with the exception of the wing.

Once more, Marshals should be vigilant with pilots not "ballasting" themselves with stones etc. In case of any suspicion from the Marshal, he has the right to carry out a thorough investigation with corresponding penalties.

If the pilot(s) are moving too much on the scale, the readout will fluctuate and this time, the lowest value will be recorded.

#### 3.2.4.3 Applying Average Weight Handicapping Index (AWHI).

Data of weighing the pilots and machines (POW = Pilot Overall Weight) before the first eco task will be used to calculate Absolute Average Weight (AAW) of the class (the summarized weight of all competing pilots and aircrafts in class divided by the number of crews in class).

To stimulate development of lighter engines and economy, the Absolute Average Weight (AAW) will be corrected upwards by 10 % to get Relative Average Weight (RAW) of the class for the scoring purposes. By discretion of Comp Director this percentage can be adopted for each competition and announced in the Task Catalogue or at opening briefing.

All pilots are then given a personal Average Weight Handicapping Index (AWHI), calculated from each pilot's exact weight with machine (POW), divided with Relative Average Weight (RAW) of the class.

For example:

a) If AAW is 130 kg, RAW is 10 % more (110 % of AAW), which is 143 kg  
With POW (Pilot Overall Weight) 122 kg:  
POW 122 kg will be divided by AAW 143 kg = AWHI 0,853  
(eg. With POW 140kg = AWHI 0,979 and with 85kg = 0.594)

b) If AAW is 140 kg, RAW is 10 % more (140 + 14), which is 154 kg  
With POW (Pilot Overall Weight) 122 kg:  
POW 122 kg will be divided by AAW 154 kg = AWHI 0,792  
(eg. POW 140kg = AWHI 0,9 and 85kg = 0.55)

c) If AAW is 120 kg, RAW is 10 % more (120 + 12), which is 132 kg  
With POW (Pilot Overall Weight) 122 kg:  
POW 122 kg will be divided by AAW 132 kg = AWHI 0,92  
(eg. POW 140kg = AWHI 1,06 and 85kg = 0.64)

Personal AWHI will be used in all scoring formulas throughout all eco tasks despite what method of fuel measurement has been used.

As a result, this method allows fair and easy scoring of eco tasks for all pilots regardless of their weight and the weight of their machines.

## Reason

**What are current problems with a traditional fueling method for eco tasks and their scoring?**

**Why it is unfair and not practical?**

### Physics

Pilots can choose which equipment they use but they cannot help greatly with their bodyweight. The heavier the pilot, the greater the fuel used.

NB! There is a common belief that heavier pilots gain in speed. This is not true as clearly evidenced in both flight theory and actual competition results. Pilots can choose a wing to give them an acceptable launch speed and speed range to meet the needs of the various tasks.

### Fairness

The most importantly the traditional method of fuel weighing without any pilot and/or machine weight handicapping is unfair, especially towards heavier pilots because the amount of fuel given is similar to all pilots, regardless of the weight of pilot or machine.

Pilots with thirsty engines not only score badly but are also denied full task participation.

Emptying all tanks and bottles can be in some cases very complicated or even impossible.

Since fuel tank emptying, measurement and control will remain inaccurate, the result will be unfair even from the aspect of fuel amount used.

In cases where fuel systems can be emptied completely, refilling and restarting of the engine can be fuel consuming task itself, depending on the fuel management system in question.

There are numerous possibilities to go around the traditional method and to cheat, even after sealing all tanks and caps.

This proposal takes a step towards leveling the playing field and giving all pilots a more equitable chance to perform well in economy tasks.

### **Safety**

Any kind of excessive operations with fuel should be avoided or minimized

Traditional method fuel management involves continuous emptying, measuring, weighing, storing, refilling, sealing, seal braking etc. throughout the whole competition

Pilots have to modify their machines with complicated and potentially dangerous fuel systems and header tanks which

- have no operative or safety standards
- are not approved by manufacturer, thus not conforming S10 (4.23.2 Airworthiness. Each aircraft shall be flown within the limitations of its certificate of airworthiness or permit to fly.)
- have to be kept attached and unchanged for the whole period of competition, including navigation and precision tasks
- will create unnecessary risks of leaking and fire hazard (<http://les-droles-d-oiseaux.xooit.fr/t342-Accident-Tristan.htm>)

Running machines empty with propellers rotating on the ground is dangerous not only to the pilot in command but also to other competitors, organizers, public and the machine.

Running out of fuel in the middle of the task and landing out in unexpected conditions is dangerous. Almost every outlanding will end with retrieval.

Results of outlandings often include personal injury, damage to the aircraft or to the 3-rd parties.

### **Environment**

The whole idea of eco tasks is to save fossil fuels, to develop this sport sustainably and to reduce an environmental impacts to the minimum.

Instead of saving fuel and taking care of environment the traditional fueling method is promoting:

- fuel wasting while running engines empty
- environment pollution by spilling fuel while filling, emptying, refilling, relocating, weighing, storing etc.
- fire hazard in fuel management and in fueling systems management
- noise pollution while running engines empty, especially at late hours.

Thus eco task management is probably wasting more than saving and creating additional environmental hazards.

### **Expenses**

- Building complicated comp bottles and fuel management systems with additional bottles, pumps, valves, tubing and fittings.
- Providing extra special canisters by pilots.
- Providing conditions for storage and quarantine by Organiser
- Providing marshals for weighing, sealing, controlling etc. by Organiser
- Conforming regulations of fire safety
- Spilled fuel
- Running machines empty with propellers rotating on the ground is dangerous not only to the pilot in command but also to the propeller blades and to the machine
- Consequences of engine tuning, seizing, parts and repair
- Wasted time
- Consequences of noise while running engines empty
- Landing out damages, injuries and retrieval with possible involvement of police, ambulance or medivac service

### **Time**

Emptying machines of all fuel and weighing fuel with traditional method is a tedious exercise that wastes precious flying time.

For a small task of 15 minutes, hours of good weather and flyable time is wasted, often time of one whole task.

An economy task cannot be set at short notice, thus planning by weather is ineffective.

### **Accuracy of measurement**

There is always some fuel left in the system because emptying the machine of fuel cannot be carried out properly, especially in case of some specific comp bottle solutions.

This will make fuel measuring accuracy worthless because the result will be inaccurate, thus unfair from the aspect of fuel amount used.

### **Control**

There is inconsistency in the way pilots are supervising each other's fueling and to get away with keeping some fuel in pipes (or priming bulb) is not really seen as cheating

Sealing tank caps is not effective enough and leaves numerous ways for cheating

Controlling of fuel systems is complicated and needs expertise

### **Task management**

Exhausting task preparations for all parties involved.

Prevents adding an economy element to other tasks simple.

Scoring zero if forced to outland because lack of fuel.

With the proposed new fueling procedure it is only a simple modification in the formulae to compute the amount of fuel used in proportion to the POW (Pilots Overall Weight).

### **Fun factor**

To gain popularity amongst pilots all over the world and to get more pilots to join competition activities, competition tasks should be enjoyable.

It is not fun to deal with fuel for several hours a day to fly a task of 15 minutes.

It is not fun to fly economy tasks knowing that light pilots with light machines will always be favored and for heavy pilots results will always be scored unfairly.

It is not fun to fly economy tasks to compete not for pilot skills but for engine consumption/performance and with unfair scoring.

### **Regulations**

S10 4.23.2 Airworthiness. Each aircraft shall be flown within the limitations of its certificate of airworthiness or permit to fly.

There is no manufacturer known to supply paramotors with comp bottles as a standard.

Any modifications made to the fuel system by pilot and not approved by manufacturer cannot conform with manufacturers specifications.

In front of law and S10 this makes all extra tanks and comp bottles illegal without proper certification.

EU regulations

In EU there are very strict regulations existing on handling, storing and management of flammable substances. There is a serious doubt that these EU and also local regulations have been ignored at many paramotor comps so far. Not following these regulations will get more and more difficult in time and can create huge legislative and financial risk for the organiser, NAC or FAI.

### **Why a new method is better?**

Using a new method as an alternative to the traditional one will offer solution to all issues in all categories described above.

### **Fairness**

New method is fair to every pilot, regardless his/her bodyweight

Less possibilities for cheating

Easier to control

### **Safety**

No need to empty fuel systems

No running engines empty, no spilling

No outlandings and corresponding consequences

### **Task management**

Task preparation and fuel management will be fast and effective  
No need for quarantine zones

An economy task can be set at short notice

Any Nav or precision task can include a weigh-in at the launch deck and integration of eco elements becomes possible

### **Environment**

Silent

No spilling

### **Time**

Fast and effective

No tedious fueling sessions anymore

An economy task can be set at short notice

### **Accuracy of measurement**

Accuracy is dependent on scale's specifications and this can be solved easily these days, being just matter of technological solution.

Despite the fact that often scales used were not very accurate, there have been no complaints or protests towards this method and everybody involved so far were happy with this method.

The argument of sweating, often brought up against this new method, has actually very little to do with it because sweating is largely compensated here with Average Weight Handicapping Index (AWHI).

### **Simplicity**

Simple to follow for competitors  
Easy to implement for organisers  
No need for quarantine zones

No need for pilots to modify their machines by fitting header tanks, extra pumps, etc

### **Fun factor**

More time for flying

Eco tasks become more interesting, more fair, less stressful and frustrating

### **History**

Proven positive history over the last 7 years internationally, even at FAI events like WPLC

Used successfully in many countries and in nearly 20 comps

Popular among pilots all over the world

One main concern of pilots to be improved at FAI comps

### **Physics** (from physics book):

Power = Force x distance / time

1 watt = 1 newton x 1 metre / 1 second

When an aircraft is flying level, Lift equals Weight and Thrust = Drag

Therefore the thrust needed to fly level is equal to the weight divided by the Lift/Drag ratio (glide ratio).

Lift/Drag = Weight/Thrust

So Thrust = Weight / (Lift/Drag)

Power is the fuel used and Force is the thrust:

Fuel used = Weight / (L/D) x velocity

The ratio Lift / Drag is also equal to the ratio Horizontal Speed / Sink Rate

So we can also say that:

Fuel used = Weight x Sink Rate

The pilot can choose a wing with a good compromise of speed and sink rate, or a lightweight paramotor but he cannot change his bodyweight.

Weight is the enemy of economical powered flying.

In summary, fuel consumption is directly proportional to the total flying weight, and the new method is designed to level the playing field, to allow pilots of all weights an equal chance to perform in economy tasks.

# 28 = Marked deck

## Proposal from

Girardin Patrice / France

## Proposal title

Marked deck

## Existing text

FAI Sporting Code - Section 10 - 2012 ANNEX 3 – PART 3, PARAMOTORS

items in 3.3.3

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

and 3.3.5

~~All landings, unless otherwise briefed, **must should** be effected entirely within the **a landing deck, marking 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.**~~

## New text

### New paragraph 3.3.6 Take off and Landing

Taking off and landing area are determined by the Competition Director for each task.

**For the purpose of a task, competition take-offs and landing should be completed within a marked deck. Marked decks must be different for taking off and landing for the same task. If more than one marked deck is used for taking off, the decks must be separate by a safe distance. Marked deck as part of a task have a minimum of 100x100m plus 20% for PF2, PL1, PL2, and take off and or landings must be effected entirely within. Failure to comply will result in a penalty of 20% of the pilot's score.**

## Reason

This is a safety issue. Decks too close in particular when there is no wind, create a situation with potential collision during the take off. Coordination between one deck to another is difficult in particular in the take off phase where a pilot can deviate from its track. In some tasks, some pilots end the task before the last pilots have taken off. This causes potential collision while not using a radio. One of the issues to prevent such problems is to have plenty of Marshalls which is never the case and to have a consistent and faithful wind - situation.

This proposal is made for using decks as a part of a task, now and again. Standards must be taking off and landing area defined by the CD prior to a task.

# 29 = Shortest Take-off

## Proposal from

Paap Kõlar / Estonia

## Proposal title

Shortest Take-off

## Existing text

*none*

## New text

Option a) Replace S10 An 4, 3.C4 (Short takeoff over a fence)

Option b) Add to S10 An 4 section 3 as a new number at the discretion of the S10 Editor

## Shortest Take-off

### Objective

To take off in as short distance as possible.

This task is intended to be included as a small element of another task.

### Description

Takeoff permission is granted after the pilot has indicated he is ready to take off.

The maximum distance on the ground, from where the pilot's feet or aircraft wheels have been since the start signal, to where the pilot's feet or aircraft wheels permanently leave the ground will be measured and scored. (permanently is defined as aircraft is airborne for more than 10 sec.)

### Special rules

- There will be time and distance limits established at briefing according to the weather conditions.
- If not otherwise briefed, the time limit for this task is 1 min.
- No restrictions on number of attempts within the time limit.
- No penalties for the wing touching the ground on each attempt.
- If not otherwise briefed, the distance limit is 30 m.
- Exceeding either time or distance limits will be signaled with red flag and scored zero.

### Scoring

Pilot score =  $100 \times (S_{min} / S_p)$

#### *Where*

$S_{min}$  = The shortest distance in metres for a takeoff.

$S_p$  = The pilot's takeoff distance.

The scoring can be done separately or may be integrated into the overall task scoring as S.

If the pilot scores 0 then the penalty shall be no more than 10% of the overall task score.

### Notes

Marking pilot's footsteps or wheels on the ground can be a tricky task for marshals. Using 2-3 m long rods (sail battens, fishing rods or similar) has proven to be effective to help in fixing visual observation results on the ground before they are measured.

Alternative methods can be developed and used for more precise measurements.

## Reason

**Practical and useful, fun to follow for spectators and for other competitors as well.**

Background.

This task has been tested in several Baltic and Finnish competitions at 2010, 2011 and 2012 seasons with great success as a small entry element of an integrated task.

# 30 = Fastest Take-off

## Proposal from

Paap Kõlar / Estonia

## Proposal title

Fastest Take-off

## Existing text

*none*

## New text

Option a) Replace S10 An4 3.C4 (Short takeoff over a fence)

Option b) Add to S10 An 4 section 3 as a new number at the discretion of the S10 Editor

## Fastest Take-off

### Objective

To take off as fast as possible.

This task is intended to be included as a small element of another task.

### Description

Takeoff permission is granted after the pilot has indicated he is ready to take off.

The time between the moment the wing first leaves the ground and when the pilot's feet or the aircraft wheels permanently leave the ground will be measured and scored. (Permanently is defined as aircraft is airborne for more than 10 sec.)

### Special rules

- There will be a time limit established at briefing according to the weather conditions.
- If not otherwise briefed, the time limit is 30 sec. between when takeoff permission is granted and when the wing must first leave the ground.
- If a takeoff is aborted after the wing has first left the ground, one second attempt is permitted.
- Exceeding the time limit will be signaled with red flag and scored zero.

### Scoring

Pilot score =  $100 \times (F_{min} / F_p)$

Where

$F_{min}$  = The fastest time for a takeoff.

$F_p$  = The pilot's takeoff time.

The scoring can be done separately or integrated into the overall task scoring as F.

If the pilot scores zero then the penalty shall be no more than 10% of the overall task score.

### Notes

The most challenging part of the time measurement is to determine the last touch before pilot's feet permanently leave the ground. Fortunately stopwatches with Split/Lap measuring features can be used to solve this.

## Reason

**Practical and useful, fun to follow for spectators and for other competitors as well.**

Background.

This task has been tested in several Baltic and Finnish competitions at 2010, 2011 and 2012 seasons with great success as a small entry element of an integrated task.

# 31 = Removal of wind reference in Cloverleaf Slalom

## Proposal from

Andy Phillips GBR

## Proposal title

26 - Removal of wind reference in Cloverleaf Slalom

## Existing text

S10 An4 3.C5

### Objective

To strike a number of targets laid out in a given order in the shortest possible time and return to the deck.

### Description

4 pylons 2m in height are laid out

- At the corners of a 70.71m square for PF1 and PL1 classes.

- At the corners of a 100m square for PF2 and PL2 classes.

A fifth target is set at the centre of the square.

The pilot enters the course into wind and strikes the target T (strike 1). At this point the clock starts. The pilot flies around pylon 2 and returns to kick the stick T (strike 3), he then flies around pylon 4 and returns to kick the stick T (strike 5). This continues until all four pylons have been rounded. The clock stops when target T is kicked for the last time (strike 9).

[There is currently a wind direction arrow on the associated diagram].

## New text

### Objective

To strike a number of targets laid out in a given order in the shortest possible time and return to the deck.

### Description

4 pylons 2m in height are laid out

- At the corners of a 70.71m square for PF1 and PL1 classes.

- At the corners of a 100m square for PF2 and PL2 classes.

A fifth target is set at the centre of the square.

The pilot enters the course ~~into wind~~ and strikes the target T (strike 1). At this point the clock starts. The pilot flies around pylon 2 and returns to kick the stick T (strike 3), he then flies around pylon 4 and returns to kick the stick T (strike 5). This continues until all four pylons have been rounded. The clock stops when target T is kicked for the last time (strike 9).

[The wind direction arrow should be removed from the diagram].

## Reason

The direction of entry to the course should be at the pilot's discretion. The current wording puts the onus on the organisers to correctly assess the wind direction for each run. If the wind direction varies during a task, it should be up to the pilot to decide the best direction to enter the course.

Another key reason is that some pilots prefer to enter the course downwind as they consider the combination of downwind and into wind turns to

be safer, particularly in a breeze.

In Past competitions, pilots have entered the course NOT into wind without penalty, so the precedent has already been set and there is no value in keeping the potentially troublesome "into wind" stipulation and graphic in place.

# 32 = Slalom Scoring

## Proposal from

GBR (Andy Phillips)

## Proposal title

34 - Slalom Scoring

## Existing text

S10 A4 3.C5  
PRECISION CIRCUIT IN THE SHORTEST TIME ('Clover leaf slalom')  
Scoring

$t_{pen} = t_{pil} + m * v_{pen}$

$Q = \text{LOG}(3 * t_{best} / (t_{pen} - t_{best} + 3))$

Where

$t_{pil}$  = the measured pilots time (seconds)  
 $m$  = the number of missed targets  
 $v_{pen}$  = the time penalty for each missed target (seconds)  
 $t_{pen}$  = the pilots time (after penalties for missed targets)  
 $t_{best}$  = the best time (after penalties for missed targets)  
 $Q$  = the task value before normalization

Note: Spreadsheet formulas:

$t_{pen} = \_t_{pil} + m * v_{pen}$

$Q = \text{LOG}(3 * t_{best} / (t_{pen} - t_{best} - 1))$

And same in S10 A4 3.C6, S10 A4 3.C7, S10 A4 3.C9, S10 A4 3.C10

## New text

S10 A4 3.C5  
PRECISION CIRCUIT IN THE SHORTEST TIME ('Clover leaf slalom')  
Scoring

$t_{pen} = t_{pil} + m * v_{pen}$

~~$Q = \text{LOG}(3 * t_{best} / (t_{pen} - t_{best} + 3))$~~

$Q = (T_{min}/T_{pen})$

Where

$t_{pil}$  = the measured pilots time (seconds)  
 $m$  = the number of missed targets  
 $v_{pen}$  = the time penalty for each missed target (seconds)  
 $t_{pen}$  = the pilots time (after penalties for missed targets)  
 $t_{best}$  = the best time (after penalties for missed targets)  
 $Q$  = the task value before normalization

Note: Spreadsheet formulas:

$t_{pen} = \_t_{pil} + m * v_{pen}$

~~$Q = \text{LOG}(3 * t_{best} / (t_{pen} - t_{best} - 1))$~~

$Q = (T_{min}/T_{pen})$

And similar in the other slalom tasks: S10 A4 3.C6, S10 A4 3.C7, S10 A4 3.C9, S10 A4 3.C10

## Reason

Section 10, 4.29.3 states that

"Tasks shall, as far as practicable, conform to the following guidelines in standard championships:

For Paramotor aircraft classes PF and PL:

A) Navigation: 33% of the total value of the tasks flown.

B) Economy: 33% of the total value of the tasks flown.

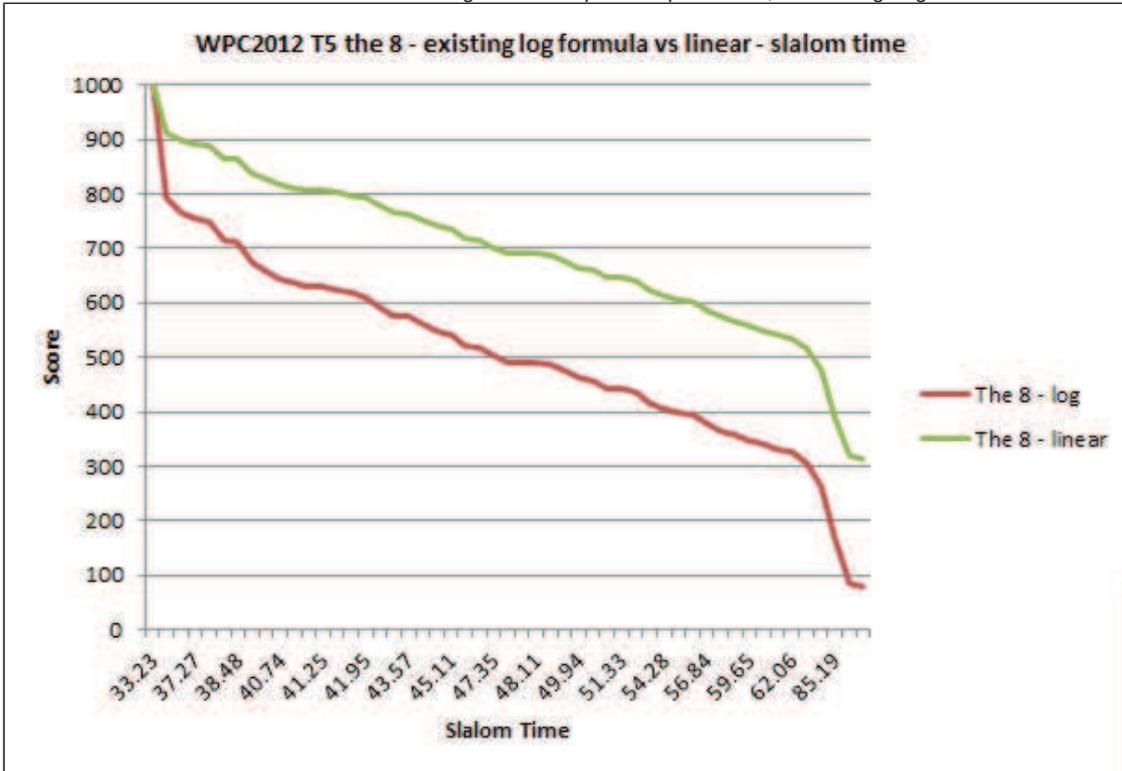
C) Precision: 33% of the total value of the tasks flown."

This rule is correctly in place to ensure complete fairness to all pilots.

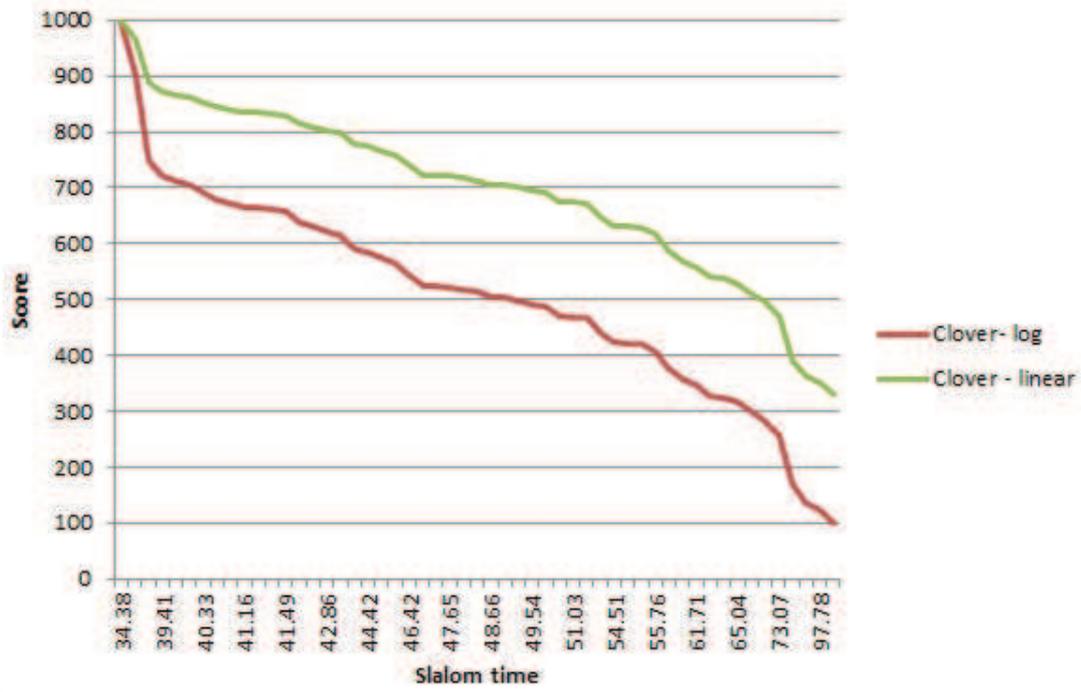
The current scoring formula for slalom tasks is too complicated and too punitive to all but the top couple of pilots, giving them an unfair advantage in the overall competition rankings. This could be argued to be in direct contravention of the spirit of rule 4.29.3. In order to be consistent in the spread of points we are proposing that the task is scored in fair proportion to the times recorded. If navigation tasks are scored on a linear formula, so should be the slalom tasks.

A number of different formulae have been tested over the last few FAI championships, but none have been ideal, and the current one is directly unfair. We therefore propose to revert to a formula that is demonstrably fair to all pilots.

By way of example, the following graphs show the pilot times and scores from the 8 and the clover leaf tasks at the World Paramotor Championship 2012, directly compared against what the pilots would have scored if our proposed linear formula was used. It can be clearly seen that the linear formula removes the unfair advantage that the top slalom pilots have, whilst still giving them a small bonus for being at the top.



WPC2012 T7 clover leaf - existing log formula vs linear - slalom time



# 33 = Chinese Slalom

## Proposal from

CIMA President

## Proposal title

Add the option of inflatable pylons to Chinese slalom

## Existing text

S10 An4 3.C7

...

## Objective

To strike a number of targets laid out in a given order in the shortest possible time and return to the deck.

## Description

Between 6 and 12 targets are laid out on a course not exceeding 3Km in length. Targets are sticks.

The pilot enters the course into wind and strikes target 1. At this point the clock starts.

The pilot then flies the course to strike all the other targets in the given order, a strike on the last one stops the clock.

## Special rules

- A valid strike on a 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.
  - A strike on target 1 starts the clock, a strike on the last target stops the clock.
  - Pilots may have only one attempt at striking each target except for the first and last targets where three attempts at each are permitted.
  - Failure to strike the first or last target or at least two of the intermediate targets or touch the ground at any point between them: score zero.
- ...

## New text

S10 An4 3.C7

...

### Objective

To strike a number of targets laid out in a given order in the shortest possible time and return to the deck.

### Description

Between 6 and 12 targets are laid out on a course not exceeding 3Km in length. Targets are sticks, **intermediate targets may also be min. 8m inflatable pylons.**

The pilot enters the course into wind and strikes target 1. At this point the clock starts.

The pilot then flies the course to strike all the other targets in the given order, a strike on the last one stops the clock.

### Special rules

- A valid strike on a 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 if a target is an inflatable pylon, when the pilot crosses in the correct direction the line which defines when a pylon is passed correctly. (S10 5.7)**
- A strike on target 1 starts the clock, a strike on the last target stops the clock.
- Pilots may have only one attempt at striking each target except for the first and last targets where three attempts at each are permitted.
- Failure to strike the first or last target, or at least two of the intermediate targets, **or any inflatable pylon**, or touch the ground at any point between them: score zero.

...

## Reason

Note that this amendment relies on the **Inflatable pylons** amendment (S10 5.7) being accepted.

This task is interesting because unlike all other slalom tasks there is no opportunity for pilots to practise it in advance. Now that inflatable pylons are becoming more common there is no reason why they can't be used to enhance this task too.

They were used in this task at ABG, but since the opportunities to approach pylons from different directions is likely to be somewhat higher than in the other more formal slaloms, the question arose 'what makes a valid strike on a pylon?'

The solution was based on the classical FAI observation zone described in GS A13.1 but simplified to have just the line at the centre of where the 90 deg photo-sector quadrant usually is. And to prevent clever 'short cuts', all pylons were classed as mandatory.

This worked very well at ABG, this proposal attempts to define the idea as a permanent option in the task.

Since it is usually easy to judge whether someone has gone around a tall pylon the option is designed **only** for use with inflatable pylons. If only sticks are used, then unlike in other tasks which allow sticks as pylons (eg clover-leaf slalom), sticks must always be kicked in this task and cannot alternatively be defined as a 'pylon'.

# 34 = Slow Fast scoring

## Proposal from

Andy Phillips

## Proposal title

Slow Fast scoring

## Existing text

A4

### 3.C8 FAST / SLOW SPEED

#### Objective

To fly a course as fast as possible and then as slow as possible (or vice versa).

#### Description

A straight course consisting of four equally spaced 'kicking sticks' between 250m and 500m long is laid out facing approximately into wind.

The course shall be flown twice. The order will be briefed (fast then slow or slow then fast).

The pilot makes a timed pass along the first course, returns to the start, and makes a second timed pass in the same direction.

There may be two courses but they must be of equal dimensions and orientation and separated by at least 200m flying distance.

#### Special rules

- A valid strike on a stick 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.

- For each course, the clock starts the moment the pilot kicks the first stick and stops the moment he kicks the fourth stick.

- The pilot may have 3 attempts at kicking the first stick on each run.

- If the pilot misses the second or third stick then he is considered 'too high', penalty 50% course score for each stick missed.

- The maximum time allowed for a pilot to complete each course is 5 minutes.

In the slow course;

- If the pilot or any part of his Paramotor touches the ground or the fourth stick is missed:  $Vp2 = \text{null}$  and  $Ep = \text{zero}$

- If the pilot zigzags: Score zero.

In the fast course;

- If the pilot or any part of his Paramotor touches the ground:  $Vp1 = \text{zero}$  and  $Ep = \text{zero}$

- The pilot may have three attempts at kicking the fourth stick.

Pilot score =  $(125 \times Vp1 / Vmax) + (125 \times Vmin / Vp2) + (250 \times Ep / EMax)$

Where:

$Vmax$  = The highest speed achieved in the fast course, in Km/H

$Vp1$  = The speed of the pilot in Km/H in the fast course.

$V_{min}$  = The lowest speed achieved in the slow course, in Km/H

$V_{p2}$  = The speed of the pilot in Km/H in the slow course.

$E_p$  = The difference between the pilot's slowest and fastest speeds, in Km/H

$E_{max}$  = The maximum difference between slowest and fastest speeds, in Km/H

**New text**

## A4

### 3.C8 FAST / SLOW SPEED

#### Objective

To fly a course as fast as possible and then as slow as possible (or vice versa).

#### Description

A straight course consisting of four equally spaced 'kicking sticks' between ~~250m~~ 150m and ~~500m~~ 300m long is laid out facing approximately into wind.

The course shall be flown twice. The order will be briefed (fast then slow or slow then fast).

The pilot makes a timed pass along the first course, returns to the start, and makes a second timed pass in the same direction.

There may be two courses but they must be of equal dimensions and orientation and separated by at least 200m flying distance.

#### Special rules

- A valid strike on a stick 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.

- For each course, the clock starts the moment the pilot kicks the first stick and stops the moment he kicks the fourth stick.

- The pilot may have 3 attempts at kicking the first stick on each run.

- If the pilot misses the second or third stick then he is considered 'too high', penalty 50% course score for each stick missed.

- The maximum time allowed for a pilot to complete each course is 5 minutes.

In the slow course;

- If the pilot or any part of his Paramotor touches the ground or the fourth stick is missed:  $Vp2 = \text{null}$  and  $Ep = \text{zero}$

- If the pilot zigzags: Score zero.

In the fast course;

- If the pilot or any part of his Paramotor touches the ground:  $Vp1 = \text{zero}$  and  $Ep = \text{zero}$

- The pilot may have three attempts at kicking the fourth stick.

Pilot score =  $(125 \times Vp1 / Vmax) + (125 \times Vmin / Vp2) + (250 \times Ep / EMax)$

Where:

$Vmax$  = The highest speed achieved in the fast course **without penalties**, in Km/H

$Vp1$  = The speed of the pilot in Km/H in the fast course.

$Vmin$  = The lowest speed achieved in the slow course **without penalties**, in Km/H

$Vp2$  = The speed of the pilot in Km/H in the slow course.

$Ep$  = The difference between the pilot's slowest and fastest speeds, in Km/H

$Emax$  = The maximum difference between **scored** slowest and fastest speeds **after penalties**, in Km/H

## Reason

More realistic course length, as it is often difficult to fit the current minimum 200m course on some fields.

Fixing the current anomalies that min and max speeds should only affect everyone else's score if not incurring penalties.

# 35 = Gate timing

## Proposal from

Richard Meredith-Hardy, CIMA President

## Proposal title

Timing at finish lines

## Existing text

S10 AN6

8.4 TIMING IN GATES

Crossing time will be taken from the oldest point defining the track segment that crosses the gate. This is the track point just before crossing the gate.

...

## New text

S10 AN6

8.4 TIMING IN GATES

~~Crossing time will be taken from the oldest point defining the track segment that crosses the gate. This is the track point just before crossing the gate.~~ A Start line, IP or gate time is taken from the fix immediately before the line is crossed. A Finish line or FP time is taken from the fix immediately after the line is crossed.

...

## Reason

S10 An6 2005 6.3.3 said ~~A Start line, IP or gate time is taken from the fix immediately before the line is crossed. A Finish line or FP time is taken from the fix immediately after the line is crossed.~~

I can't remember exactly when this got changed, but nobody seems to have noticed the replacement text in 8.4 introduced a significant problem.

Whilst in respect of start lines the new text has the same meaning as the old text, the new text omits to consider how times should be taken at finish lines.

Besides being obviously wrong to have a finish time taken at any point before crossing a finish line, if the previous fix was long before the finish line then this could have a very significant effect on the resulting performance.

Consider a speed record attempt over a 15 Km course for example. Pilot has a logger recording at 1 second intervals, start line fix is the one before the start line, the logger records another fix, and then the pilot covers the gps antenna until he crosses the finish line 15 Km later, and then lets it start recording again. If the fix before the finish line is considered the finish time, then the 15 Km would be considered to have been flown in 1 sec, which computes to a speed of 54,000 Km/h.

# 36 = Logging frequency

## Proposal from

Richard Meredith-Hardy, CIMA President

## Proposal title

Logging frequency

## Existing text

S10 Annex 6, 8.4

...

When crossing time is to be checked against an estimation given by the pilot or calculated by the scoring team, a margin equivalent to the logging period (P) must be applied. If a pilot crosses the gate up to P seconds too early or too late, he gets a zero (0) time error in the gate. If a pilot crosses the gate one more second too early or too late, he gets 1 second error in the gate.

The logging period (P) applied above must be the maximum allowed, regardless of the specific logging period used by an individual competitor, to avoid random advantage of some pilots over others. P is currently 5 seconds (A6 2.1.1.3)

## New text

S10 Annex 6, 8.4

...

~~When crossing time is to be checked against an estimation given by the pilot or calculated by the scoring team, a margin equivalent to the logging period (P) must be applied. If a pilot crosses the gate up to P seconds too early or too late, he gets a zero (0) time error in the gate. If a pilot crosses the gate one more second too early or too late, he gets 1 second error in the gate.~~

~~The logging period (P) applied above must be the maximum allowed, regardless of the specific logging period used by an individual competitor, to avoid random advantage of some pilots over others. P is currently 5 seconds (A6 2.1.1.3)~~

## Reason

The fact that someone chooses to use an old-fashioned logger which can only manage 5 second fixes is not 'random', it is a choice. CIMA rules should encourage pilots to acquire or develop improved loggers (which besides anything else are inexpensive, much easier to manage, and faster to download) but this margin of error means the default timing is equivalent to the worst loggers we allow, and removes all incentive for improvement.

This provision also adds a whole layer of complication to the analysis and scoring which is quite unnecessary.

We could just amend An6 2.1.1.3 to make 1 sec. logging mandatory, but for the time being this seem a bit of an overkill especially while quite a lot of people are still using older loggers as their secondary, but we should have a means of encouraging the use of loggers which record at 1 sec intervals by making it in the pilots' interest to have one. Deletion of this provision does that.

# 37 = A new format for changes to Section 10

## Proposal from

Paap Kolar / Estonia

## Proposal title

A new format for changes to Section 10

## Existing text

None

## New text

New text:

Section 10 is reviewed annually with changes proposed and voted in at the annual plenary meeting.

Changes can be submitted in two different ways:

Method #1/ Delegates can submit proposals before the specific deadline, quoting a particular rule, its existing text, and the proposed new text.

Method #2/ A Section 10 Editorial Panel is elected at every annual plenary meeting and has the responsibility to update and progress the rules in Section 10,

with the involvement of all potential human resources and with the view to drive the sport in the right direction.

Membership of this Editorial Panel may consist of Delegates but should also seek to bring on board experienced competitors, competition organisers or Team leaders

who have the knowledge and expertise needed and who are committed to do the job.

The Editorial Panel is also a point of contact for anyone who wishes to propose some changes in the rules but who may be experiencing difficulties in using method #1 because of no contact with delegate, no good English, not enough knowledge of formal procedures or no good abilities to express himself/herself in writing.

The Panel aims to receive actively a thorough debriefing from the latest world or continental championship(s) and from other popular paramotor events to address any encountered problems, with proposals for remedy at the following plenary meeting.

Naturally, Jury members, Stewards and Team leaders can play a big part in the feedback process.

## Reason

The current method (method #1) is proving very difficult for some delegates, not to speak about simple pilots, as a perfect fluency in the English language is required, including for some English speaking countries.

# 38 = No sanction fee for under 21 year old competitors

## Proposal from

GBR

## Proposal title

36 - No sanction fee for under 21 year old competitors

## Existing text

Organiser Agreement Schedule 1.1 (ii)

No later than 30 days after the commencement date of the Championships the sum of EUR 29.00 per competitor or Team Leader in the Championship by way of sanction fee ("the Sanction Fee").

## New text

Organiser Agreement Schedule 1.1 (ii)

No later than 30 days after the commencement date of the Championships the sum of EUR 29.00 per competitor **aged 21 or over on the day of the Opening Ceremony** or Team Leader in the Championship by way of sanction fee ("the Sanction Fee").

## Reason

To encourage young pilots to compete. This is the easiest form of financial help that CIMA can offer and is a symbolic gesture to show that CIMA wants to see more young pilots competing.

# Ed01 - Numbering error in An 6

## Proposal from

RMH (CIMA President)

## Proposal title

Numbering error in S10 Annex 6

## Existing text

There are duplicate provisions 2.2.2 and 2.2.2.1

## New text

Amend appropriately

## Reason

This is an editorial issue

# Ed02 - Hyperlinks and Addresses

## Proposal from

CIMA President

## Proposal title

Fix hyperlinks to new FAI website and physical address

## Existing text

- S10 3.16.2 Hyperlink to FAI website.
- Record Claim form - FAI address on pages 1 & 2
- Championship record Claim form - FAI address on pages 1 & 2
- Both record claim forms - URLs to documents on FAI website.

## New text

Amend to current

## Reason

All URL references have changed with the new FAI website and should be updated.

It would be helpful if FAI would establish a way of linking to groups of documents without having to provide a URL and then an instruction like ...then click on Records.