



S10 Editor's report **Proposed Section 10 amendments 2017**

S10 Editor
Barney TOWNSEND (GBR)

S10 Committee
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20/10/2017

S10 Editor's report, October 2017

Notes:

- A few minor editorial changes / updates to S10 have been made in order to bring the full text in line with voting results from 2016. Thanks to Petr Jonáš for pointing these out. These are:
 - 1) S10 3.4.1 The weight of the aircraft at take-off, including the pilot, fuel and all auxiliary equipment shall not exceed the maximum permitted weight limit as defined in **S10 1.3.1**
 - amended to refer to **S10 1.3** to cater for the 5% increase of MTOW stated in 1.3.2 (an amendment approved by plenary 2016)
 - 2) Amendments to the percentages of different task types for microlights were approved by the plenary in 2016 as they were put in the S10 of 2017. **Annex 3 2.3.1** has now been amended to be brought in line with **S10 4.29.3**.
- 20 S10 amendment proposals were received, either through the CIMA WIKI or directly to S10 Editor by email.
- Proposals in this document have been reordered from those uploaded to the CIMA Wiki; they are presented in order of their occurrence in S10.
- Competition Directors must use the model local regulations and model task catalogue unless changes are approved by CIMA. This ensures a satisfactory standard of task setting and avoids numerous problems.
- The voting guide for Sub-Committee Chairmen has been included in this report to help the Microlight and Paramotor Sub-Committee Chairmen.
- Sub-Committee Chairmen; please fill out the enclosed voting sheet



Sub-committee voting guide

For sub-committee Chairs

1. Votes must follow FAI rules

Paramotor and Microlight sub-committees shall vote on S10 proposed amendments, according to a decision taken during the CIMA 2013 plenary. These votes therefore have to be conducted according to FAI statutes and by-laws.

2. Votes are limited to S10 amendments

Votes are limited to S10 proposed amendments according to the list provided by the S10 Editor. Any new items must receive 2/3 majority support before being discussed. Any issue affecting CIMA in general must be raised during a plenary session and be voted on accordingly.

3. Eligible votes only

Only those who are eligible to vote will have their votes counted. SC Chairmen must ensure that only valid votes are counted. These will include (for example):

- NAC Delegates
- NAC Alternate Delegates if the Delegate is not present
- NAC Voting Representatives if neither the Delegate nor the Alternate is present.
- Proxies, if they have been accepted by the FAI office.

The FAI representative can confirm who is eligible and will provide country panels which should be distributed to eligible voters.

4. Record all decisions

All votes (and any amendments or other relevant comments) must be recorded. The SC Chairmen should ask someone to act as a meeting secretary and take Minutes. Any votes not recorded in Minutes are not valid. These Minutes shall be published and distributed to CIMA Delegates before the start of the Plenary sessions.

The Minutes can be short - just a list of the votes. Any further amendments or clarifications should be included in the Minutes. The Minutes should be sent out via the CIMA email lists as soon as the meetings have finished.

Barney Townsend
October 2017

Proposal 1

Proposal from

Błażej PIECH (POL)

Proposal title

MTOW for GL

Existing text

S.10

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
- 375 kg for a landplane specifically designed to be flown with two persons but flown solo in championships.
- 330 kg for an amphibian or a pure seaplane flown solo;;
- 405 kg for an amphibian or a pure seaplane specifically designed to be flown with two persons but flown solo in championships.
- 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

S.10

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- 375 kg for a landplane specifically designed to be flown with two persons but flown solo in championships.
- 330 kg for an amphibian or a pure seaplane flown solo;
- 405 kg for an amphibian or a pure seaplane specifically designed to be flown with two persons but flown solo in championships.

- 450 kg for a landplane flown with two persons
- 495 kg for an amphibian or a pure seaplane flown with two persons
- 560 kg for autogyro 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 (except for autogyro flown with two persons) 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

Modern autogyro is developed mainly due to EASA rules. The reason is specific construction and safety. For actually manufactured gyros not many can comply with these requirements which leads to diminished number of competitors in championship events.

Proposal 2

Proposal from

Wolfgang LINTL (GER), CIMA President

Proposal title

Clarification of rules for records to avoid overlap

Existing text

S.10 3.4 GENERAL RULES FOR RECORDS

3.4.1 The weight of the aircraft at take-off, including the pilot, fuel and all auxiliary equipment shall not exceed the maximum permitted weight limit as defined in S10 1.3.1.

3.4.2 Landing or refuelling during a record attempt either on the ground or in the air is prohibited.

3.4.3 A new record must exceed the previous record by 1% for distance and speed records and by 3% for altitude and height records.

3.4.4 In the measurement of record distance, the error must not exceed 0.5% and for altitude and height records 1%.

3.4.5 No fuel, ballast or other disposable items may be jettisoned after take-off or prior to the completion of the record attempt.

3.4.6 A foot launched Microlight or Paramotor must be foot launched from a surface which has no slope greater than 1% over a radius of 100 m from the take off point.

3.4.7 To obtain a record with an amphibian, it must take-off from land and land on water or vice-versa.

3.4.8 A serviceable barograph and/or a FR shall be carried.

3.4.9 The pilot and crew must hold a FAI sporting licence.

New text

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3.4.8 A serviceable barograph and/or a FR shall be carried.

3.4.9 The pilot and crew must hold a FAI sporting licence.

3.4.10 A record in our class R under Section 10 can only be made in this class and not parallel in classes E (Rotorcraft) or in classes that fall under Section 2 (Aeroplanes).

Reason

In FAI there is a discussion about the possibility to collect several records with one flight in different categories/classes. CASI established a working group (I am a member) to find out the overlap and recommend some rule changes.

So far, we have identified that we have some overlap with rotorcraft and with general aviation. I had a conversation with the chair of this working group and the result is, that the WG will probably come up with a solution or proposal right before the FAI GC. This will be too late for us to make a Sec. 10 change.

It is not a big problem in our community, but we should fill this gap with a proper regulation. To make it as easy as possible, we can amend our rules with this proposal of a sentence to be added to S10.

Regarding Sec. 2 we can have in mind, that most of the true performance records like distance, altitude, time to climb, 3 km. speed etc. already have performances that cannot be broken by microlights. The only issue is speed over a recognised course.

Proposal 3

Proposal from

Petr JONÁŠ (CZE)

Proposal title

Briefing Recordings

Existing text

S.10

4.21.2 Briefings shall be recorded by notes, tape recorder or similar. Recordings shall be kept intact for not less than 6 months.

New text

S.10

4.21.2 Briefings shall be recorded by ~~notes, tape~~ voice recorder or similar. Recordings shall be kept intact for not less than 6 months. **Recordings shall be made available to the competitors on request**

Reason

To prevent misunderstandings and enable the competitors to double check what was briefed in case of doubt.

Proposal 4

Proposal from

Barney TOWNSEND (GBR)

Proposal title

Clarification of Rules for Backtracking

Existing text

S.10 4.24.5

During a navigation along a leg, competitors must not backtrack along the track line against the direction of the task. Backtracking is defined as flying with an angle of greater than 90 degrees in respect to the intended flight direction. This limitation is extended to the corridor defined by the width used to score gates in the task.

Also, in

Annex 3, 1.11.9 Collision Avoidance

During a navigation **along a leg**, competitors must not backtrack along the track line against the direction of the task. If there is a need to backtrack, competitors must leave the track line and fly back well clear of it before rejoining the track line at an earlier point. Backtracking is defined as flying with an angle of greater than 90 degrees in respect to the intended flight direction. This limitation is extended to the corridor defined by the width used to score gates in the task.

New text

S.10 4.24.5

During a navigation along a leg, competitors must not backtrack along the track line against the direction of the task **under any circumstances**. Backtracking is defined as **either re-joining the active track line at a point prior to the point where you departed from it or** flying with an angle of greater than 90 degrees in respect to the intended flight direction within a -. This limitation is extended to the -corridor defined by the width used to score gates in the task. **In tasks with more than one possible active track line (e.g. Cog wheel navigation with unknown legs), all track lines shall be considered as active.**

Also, in

Annex 3, 1.11.9 Collision Avoidance

During a navigation along a leg, competitors must not backtrack along the track line against the direction of the task **under any circumstances**. ~~If there is a need to backtrack, competitors must leave the track line and fly back well clear of it before rejoining the track line at an earlier point.~~ Backtracking is defined as **either re-joining the active track line at a point prior to the point where you departed from it or** flying with an angle of greater than 90 degrees in respect to the intended flight direction **within a** ~~This limitation is extended to the~~ -corridor defined by the width used to score gates in the task. **In tasks with more than one**

possible active track line (e.g. Cog-wheel navigation with unknown legs), all track lines shall be considered as active.

New text

The current wording and definition of backtracking do not prohibit the repeat flying of the track line by a competitor in order to gain competitive advantage, provided that they fly to a previous point on the track line whilst remaining outside the corridor. Similarly, in tasks with more than one possible active track line, it does not prohibit a competitor flying more than one track line successively provided that they fly between the tracks whilst remaining outside the corridor. This was illustrated at the EMC, where a competitor flew the whole of the second half of a cog-wheel on the inner track after missing a turnpoint photograph that would have sent them to the outer track. Upon realising the error, he flew to a point outside the corridor defined by the width used to score gates before turning, flying back to the outer track, and completing the task on the correct track. The jury accepted a protest against this behaviour but only because he strayed inside the corridor during his flight between the two active tracks and put other competitors at risk.

Proposal 5

Proposal from

Petr JONÁŠ (CZE)

Proposal title

Flying part of the task twice

Existing text

S.10

4.24.5 During a navigation along a leg, competitors must not backtrack along the track line against the direction of the task. Backtracking is defined as flying with an angle of greater than 90 degrees in respect to the intended flight direction. This limitation is extended to the corridor defined by the width used to score gates in the task.

New text

4.24.5 During a navigation along a leg, competitors must not backtrack along the track line against the direction of the task. Backtracking is defined as flying with an angle of greater than 90 degrees in respect to the intended flight direction. This limitation is extended to the corridor defined by the width used to score gates in the task.

4.24.6 If a competitor flies a part of the task twice, all photos, markers and all gates on this part of the task are invalidated for this competitor. No score points will be awarded to this competitor for the part of the track flown multiple times. If a turnpoint marked by a photo or a marker was supposed to be found on such part of the task, the following leg is invalidated in the same manner.

[and subsequent amendments to numbering system of further points in section]

Reason

Flying a part of the task multiple times created an unfair advantage, giving another chance to find photos or markers or to fly through a check gates.

I leave to the decision of the S10 editor, whether this should become a new paragraph or should be added to the backtracking paragraph.

Proposal 6

Proposal from

Ryoya IGARISHI (JAP)

Proposal title

Normalization of point values for championship task types

Existing text

S.10

4.29 CHAMPIONSHIP TASKS

4.29.1 On each flying day a task shall be set chosen from A4, unless prevented by the weather. A precision task may be combined with a cross-country task or set separately as specified at briefing. If possible, two tasks should be set on each day for each class.

4.29.2 The tasks to be used shall be chosen from the Task Catalogue defined by the Director, based on the Master Task Catalogue, S10 A4. The Task Catalogue shall be approved by CIMA and precisely set out in the local regulations together with the method of scoring.

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: 65% of the total value of the tasks flown.

B Tasks for fuel economy, speed, duration, etc with limited fuel: 20% of the total value of the tasks flown.

C Precision tasks: 15% 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

4.29.4 Final scores for a paramotor championship (classes PF and PL) are calculated by normalizing the points according to the following ratios:

Normalize the total score of the Precision tasks to a maximum of 3000 points.

Normalize the total score of the Navigation tasks to a maximum of 3000 points.

Normalize the total score of the Economy tasks to a maximum of 3000 points.

Therefore, the winner has a maximum score of 9000 points (if they are the winner in each of the three task types)

Reason

The score of each task must be evaluated equally in the championship competition.

Section 10 states that where practicable, the tasks should ideally be balanced by 33% to each type of task:

Navigation tasks 33%.

Economy tasks 33%
Precision tasks 33%

The points awarded at AOPC2017 were heavily weighted towards precision tasks.

At AOPC2017:

Economy task T6 T9 T13 scored up to 90 points, 23% of total points value

The navigation task has a T1 T9 scored of up to 60 points, 15.3% of total points value

Precision Task T2 T3 T4 T5 T8 T10 T11 T12 scored up to 240 points, 61.5% of total points value

Total score 390 points distributed as follows: Economy tasks 23%, Navigation tasks 15.3%, and Precision tasks 61.5%

This ratio is clearly far outside of the CIMA S10 recommendation for task balance at classic competitions, and may have significantly disadvantaged pilots that have selected their equipment optimized for economy or navigation.

This proposal is made out of concern that the same balance might apply 2018 World Paramotor Championships, which will be hosted on the same site by the same organization team, which would contravene CIMA S10 guidelines and the spirit of fair and balanced competition that is the objective of classic style competitions.

I propose to solve this problem with this amendment to S10 to be approved by the CIMA Plenary. For example, if many precision tasks are flown at a classic championship, you will normalize the total of that score to a maximum of 3000 points, so do not affect the results of other Navigation or Economy tasks.

Japan delegate Ryoya Igarashi

Proposal 7

Proposal from

Petr JONÁŠ (CZE)

Proposal title

Video footage made available (microlights)

Existing text

S.10

4.31.5 Take-offs and landings by Microlights in all tasks shall be completed within a 100 x 25 m landing deck, or for the task “Short take off and landing over obstacle”, within a deck 150 m x 25 m. Aircraft not capable of taxiing unaided from the deck after landing score zero. Landing provisions in the case of an emergency shall be specified at briefing. Failure to comply with instructions regarding emergency shall incur a penalty.

Deck length shall be corrected for altitude at the rate of a 7% increase for every full 300m of elevation, rounding the result to the nearest integer metre. The width of the deck may be decreased to be adjusted to the width of the existing runway (S10 4.31.5).

To minimise the potential for incorrectly applying landing penalties for landing decks prepared on grass runways, the approach area to the landing deck shall have its grass cut short. The length of the approach area shall be at least equal in length to the landing deck unless otherwise constrained by airfield physical limitations. When scoring landings to a deck, ALL video footage (ie all that available from differing viewing angles) should be reviewed before landing penalties are confirmed.

New text

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This video footage must be made available to all competitors before the time window for complaints starts.

Reason

The modern technology enables us to easily double check how each crew performed in the landing task.

I believe that each competitor would like to see their landing - not only so that they are happy with the scoring but also to learn.

Nowadays some of the individual national teams are sending their team members to the landing deck with video cameras to shoot their own video footage, but not everybody can spare a person in order to do that.

Making the official video footage available would also prevent "preventive complains" filed by competitors for the "what-if" case, when they are not sure about the result and scores.

When everybody can see all the videos, there is simply no room for doubts about the scoring.

One simple external hard-drive in the briefing room, where the team leaders can come with a laptop and download the videos would be a simple and cheap solution for this.

Proposal 8

Proposal from

Petr JONÁŠ (CZE)

Proposal title

En-route photographs for microlights

Existing text

S.10

4.31.8 The en-route photographs used for navigation tasks of Microlights must be taken from the air, between 150 and 300m AGL in the direction of the track, not more than 30 degrees off the track direction. The object on the photograph, that has to be found by the competitor, must not lie more than 200m off the track.

New text

4.31.8 The en-route photographs used for navigation tasks of Microlights must be taken from the air, between 150 and 300m AGL in the direction of the track, not more than 30 degrees off the track direction. The object on the photograph, that has to be found by the competitor, must not lie more than 200m off the track. **The object to be found by the competitor should be indicated by a circle on the photograph. Otherwise the center of the photo is taken as reference for the photo location in the map.**

Reason

The reason for this change is that some en-route photographs span several hundred meters on the ground, often more than what is the tolerance for locating the photo in the competition map.

It must be perfectly clear to the crew, which exact object on the photo is to be used as a reference point to indicate it's location in the map precisely.

Proposal 9

Proposal from

Petr JONÁŠ (CZE)

Proposal title

Length of legs (microlights)

Existing text

None

New text

S.10

4.31.9 In Microlight navigation tasks, the known turn points must have their distance from the start point declared in the task instructions given to the crew, with the resolution of 100m or better. This distance must be used for time scoring. No absolute time gates can be used more than 30km away from a point with known distance. When time is to be checked further than 30km away from a turn point with known distance or on an unknown track, the time has to be checked by checking the ground speed or time elapsed between two gates.

Reason

This change is here in order to make the time checks flyable. On very long legs, especially curved or unknown before take-off, it is very difficult to plot the map precisely and maintain the time since the start-point in a two-seat class, and close to impossible in a one-seat class. This change ensures that the "added error" of plotting cannot grow too high, because at least every 30km the pilot will know the precise distance (and therefore time) since start point. On unknown parts of the track, a "section time" will be measured, where the absolute added error does not matter

Proposal 10

Proposal from

Petr JONÁŠ (CZE)

Proposal title

Official Map for Scoring

Existing text

S.10

4.34.4 The time of issue is the moment when a score sheet is posted on the official score board and carries the time when this is done, together with the signature of the championship director. In the case of an electronic score publishing system, the director's signature won't be necessary as long as the publishing system is directly managed by the director and his scoring team.

New text

S.10

4.34.4 The time of issue is the moment when a score sheet is posted on the official score board and carries the time when this is done, together with the signature of the championship director. In the case of an electronic score publishing system, the director's signature won't be necessary as long as the publishing system is directly managed by the director and his scoring team.

4.34.5 Along with the issue of the first provisional scores, an official task map must be issued, where all the photo and marker locations and gates used for scoring are marked. This requirement does not apply if the track logs according to 4.34.20 contain this information and are made available to the competitors before the issue of provisional scores.

[and subsequent amendments to numbering system of further points in section]

Reason

This enables an easy check for the competitors, which photos did they not find / mark correctly and where were the gates that were used for scoring.

This is normally done using the track logs, but those are not always made available in time.

This information needs to be available before the complaint time window.

Proposal 11

Proposal from

Wojtek DOMAŃSKI (POL)

Proposal title

Modification of Paraglider

Existing text

S.10 Annex 3 Part 1

1.10.1 REGISTRATION

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

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

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

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

3.1.9 PROHIBITED PARAGLIDER MODIFICATION

none

S.10 Annex 1

CONFORMATION REQUIREMENTS for PARAMOTORS

3 AIRCRAFT INTEGRITY REQUIREMENT

none

Paraglider Integrity Declaration

none

New text

S.10 Annex 3 Part 1

1.10.1 REGISTRATION

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

- Pilot License and qualifications.
- Evidence of competitor's identity.
- Valid FAI Sporting License for pilot and navigator.
- Aircraft Certificate of Airworthiness or Permit to Fly.
- Minimum speed declaration (not required for Paramotors or foot-launched Microlights).
- **Paraglider Integrity Declaration (S10-An.1 4) required if the paraglider of a pilot/crew has been modified from its standard design**
- Evidence of conformity to class rules.
- Certificate of Insurance.
- Receipt for payment of entry fees.

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

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

3.1.9 PROHIBITED PARAGLIDER MODIFICATION

Pilot/crew is expected to fly on a paraglider originally designed by the manufacturer. Any self-modifications to the following paraglider elements:

- canopy shape, and dimension
- lines configuration, and dimension
- riser, and riser accessories configuration, and dimension

is prohibited and will be the subject to pilot/crew disqualification, unless the modification is made by the wing manufacturer. In the case of manufacturer's modification to the wing, pilot/crew is obliged to deliver a valid Paraglider Integrity Declaration (S10-An.1 4) listing which parts of the wing have been modified.

S.10 Annex 1

CONFORMATION REQUIREMENTS for PARAMOTORS

3 AIRCRAFT INTEGRITY REQUIREMENT

3 PARAGLIDER INTEGRITY REQUIREMENT

3.1 A paraglider flown in the competition has to conform to the original design by the manufacturer.

3.2 Any self-made modification to the canopy, lines, and riser can result in a significant change of paraglider performance **and safety**, and as such are considered dangerous and prohibited.

3.3 Pilot/crew flying on a self-modified paraglider is a subject for disqualification.

3.4 The change of any of the following paraglider parameters is considered as a prohibited modification:

- canopy shape, and dimension
- lines configuration, and dimension
- riser (including riser accessories) configuration, and dimension

3.5. A standard dimension and configuration reference is considered any printed or electronic material published by the manufacturer in:

- manual
- service instruction
- web service
- etc.

3.4 It is allowed that pilot/crew will fly on a paraglider modified **by the manufacturer** upon

an individual agreement between pilot and manufacturer. Such an agreement has to be proved by a Paraglider Integrity Declaration (p. 4) presented to organizer during registration. Paraglider Integrity Declaration shall include:

- pilot identity
- paraglider serial number
- the nature of changes against serially produced wings are specified, signed and stamped by the manufacturer.

4 Paraglider Integrity Declaration form

PARAGLIDER INTEGRITY DECLARATION

Manufacturer:

Name:

Address:

.....

.....

.....

Paraglider:

Type / Size / Version:

Serial Number:

Manufacturing date:

Modifications:

1.

2.

3.

4.

5.

Manufacturer Representative:

Name and Last Name	Signature	Stamp
.....

Important:

Each element of the paraglider canopy, lines, or risers which dimension can be measured, or which configuration can be observed, and differs from the information published by the manufacturer in manuals, service instruction, or web page, has to be included in this form.

Examples of entries:

- *Speed system extended by 5 cm*
- *Trimmer webbing extended by 7 cm*
- *Additional steering line attached to the tip and to B-row maillon*
- *etc.*

Reason

In the last few years, design of paramotor wings has gone through serious (r)evolution. The size of canopies has been significantly decreased, and riser system has become more complicated.

Risers are able to deeply regulate paraglider angle of attack and/or airfoil shape, thus even a subtle risers modification design can result in a significant change of glider performance **and safety**. If the modification is made by manufacturers, the results (including safety) are verified during factory test flights, and then in a homologation/certification test flights. Tests are inevitable as erroneous riser adaptation can result in unsafe flight modes. Paraglider might have a tendency to unexpected collapses.

Unfortunately, during few recent competitions, we could observe several cases of DIY riser adaptations made by pilots, resulting in an unstable wing behavior.

Pilots should not tamper with such mighty system as paraglider lines, canopy, and risers because results are potentially hazardous. On the other hand, because of their high skills, competition pilots are the best person to test and verify new solutions, not existing yet in a serial production. Thus, to no shut the door of progress and invention, there has to be a procedure of a legal introduction of new solutions if required.

The amendment puts on a pilot an obligation to fly only on serially produced paragliders, which dimensions and solutions precisely correspond to information and data included in a user manual, service instructions, and technical data. In case a pilot/crew flies on a wing amended by a manufacturer, the pilot/crew has to present a *Paraglider Integrity Declaration* in which:

- pilot identity
- paraglider serial number
- the nature of changes against serially produced wings are specified, signed and stamped by the manufacturer.

Proposal 12

Proposal from

Petr JONÁŠ (CZE)

Proposal title

Gates for microlights

Existing text

S.10 Annex 3 – Part 1

1.13.4 GATES, TURNPOINTS AND MARKERS

Gates are normally a straight line 250m wide perpendicular to the briefed track.

Gates may be:

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

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

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

Control points may be:

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

Proof of reaching a control point may be:

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

The precise requirements will be described in the Task Description.

New text

1.13.4 GATES, TURNPOINTS AND MARKERS

Gates are normally:

For Paramotor aircraft classes PF and PL:

a straight line 250m wide perpendicular to the briefed track.

For Microlight aircraft classes AL, WL WF and GL:

a straight line perpendicular to the briefed track, extending 250m to either side of the track.

Gates may be:

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

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

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

stick.

Control points may be:

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

For Microlight classes, gates and control points must be placed on a natural line depicted in the map (such as a road, river, high voltage transmission lines etc.), where the line is crossing the track, or at the level of an object that is depicted in the map (such as a church), when the object is not more than 300meters off the track (in that case the gate is placed on the track at the closest point to the given object) .

Known control (turn) points must be placed on an object that is depicted in the map (such as a crossroad, church etc.).

Proof of reaching a control point may be:

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

The precise requirements will be described in the Task Description.

Reason

This change was approved in the exact same form by the Microlight subcommittee last year. The Paramotor subcommittee did not approve this change, because of a different spirit of their navigation tasks.

I have modified this proposal to that it only affects Microlights now.

Gates in this form (actually even 300m to each side of the track, but most importantly on a natural line or an object!) were used at the European Microlight Championship in Hungary and the feedback was VERY positive!

For completeness, the reasoning from last year:

According to 5.7.3, the width of a gate has to be at least 2mm in the official map. Since the normal scales used to competitions of microlights are 1:200 000 or 1:250 000, the gate cannot be 250m, as that would only be around 1mm. By extending the gate 250m to each side, therefore making it 500m, it is 2mm wide on the 1:250 000 map.

The accuracy and time measurements should be done on a landmark, so that the pilot can find and can adjust his position and timing to it.

Proposal 13

Proposal from

Wojtek DOMAŃSKI (POL)

Proposal title

Residual amount of fuel in paramotor economy tasks

Existing text

S.10 Annex 3 – Part 3, Paramotors

3.2.3 FUEL MEASUREMENT

Fuel will be measured by weight or volume but will be consistent for any given refueling 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 a penalty for the pilot. Competitors must be able to demonstrate that their entire fuel system is empty.

S.10 Annex 4 – Part 3, Paramotors

3.B1. PURE ECONOMY

[...]

Special rules:

- Free take-off within the time window.
- Departure from a view of the marshals or egress from the permitted flight area will incur penalties.
- Land outside the airfield boundary: Score zero.
- Land inside the airfield boundary but outside the deck: 20% penalty.

3.B3 ECONOMY & NAVIGATION

[...]

Special rules:

- Outlanding: Score zero.

3.B4. ECONOMY & PRECISION

[...]

Special rules:

- The pilot scores 300 bonus points for a clean take off at the first attempt, 200 for the second, 100 for the third, zero for any attempts thereafter.
- Departure from view of the marshals or egress from the permitted flight area will incur penalties.
- When landing, If the pilot elects to switch off his engine at least 5m above a marker and:
Makes a first touch on the marker: Landing bonus: 200 points
If the pilot elects to not switch off his engine and:
Makes a first touch on the marker: Landing bonus: 50 points
- If the pilot falls over as a result of the landing: zero landing bonus.
- If the pilot obstructs another competitor attempting to land at a landing marker penalties will apply.

3.B5 SPEED TRIANGLE AND OUT AND RETURN

[...]

Special rules:

- Land out before completing part 1: Score zero.
- Land out before completing part 2: Score zero for part 2.
- Failure to takeoff or land entirely in the deck: 20% penalty.

New text

S.10 Annex 3 – Part 3, Paramotors

3.2.3 FUEL MEASUREMENT

Fuel will be measured by weight or volume but will be consistent for any given refueling 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 a penalty for the pilot. Competitors must be able to demonstrate that their entire fuel system is empty.

Competition director decides for each economy task about the amount of fuel allowed for the aircraft in each class, as well as about a residual amount of fuel which the crew is obliged to bring back to the airfield (e.g. 0.5 kg for PF1/PL1, 1.0 kg for PF2/PL2).

Aircrafts have to have the fueling system constructed the way, which makes possible measuring the residual amount of fuel brought back from an economy task.

If a crew is not able to demonstrate that amount of fuel remaining in the aircraft after completing the economy task is not less than expected residual, the crew is scored zero - analogically to landing outside the airfield.

S.10 Annex 4 – Part 3, Paramotors

3.B1. PURE ECONOMY

[...]

Special rules:

- Free take-off within the time window.
- Departure from a view of the marshals or egress from the permitted flight area will incur penalties.
- Land outside the airfield boundary **or bringing less fuel than specified residual amount:** Score zero.
- Land inside the airfield boundary but outside the deck: 20% penalty.

3.B3 ECONOMY & NAVIGATION

[...]

Special rules:

- Outlanding **or bringing less fuel than specified residual amount:** Score zero.

3.B4. ECONOMY & PRECISION

[...]

Special rules:

- The pilot scores 300 bonus points for a clean take off at the first attempt, 200 for the second, 100 for the third, zero for any attempts thereafter.
- Departure from view of the marshals or egress from the permitted flight area will incur penalties.
- When landing, If the pilot elects to switch off his engine at least 5m above a marker and:
Makes a first touch on the marker: Landing bonus: 200 points
If the pilot elects to not switch off his engine and:
Makes a first touch on the marker: Landing bonus: 50 points

- If the pilot falls over as a result of the landing: zero landing bonus.
- If the pilot obstructs another competitor attempting to land at a landing marker penalties will apply.
- bringing less fuel than specified residual amount not bringing fuel deposit: Score zero.

3.B5 SPEED TRIANGLE AND OUT AND RETURN

[...]

Special rules:

- Land out before completing part 1: Score zero.
- Land out before completing part 2 or bringing less fuel than specified residual amount: Score zero for part 2.
- Failure to takeoff or land entirely in the deck: 20% penalty.

Reason

In paramotor economy tasks (3.B1, 3.B3, 3.B4, 3.B5) pilot/crew is expected to fly back to the airfield. Pilot/crew is scored zero for landing out of the airfield. Despite the severe penalty outlandings do happen due to the competitive spirit, and they create several issues for pilots and organizers:

- a logistic problem for the team to collect pilot(s) and aircraft, and bring back to the airfield (especially difficult for small teams),
- safety issue which might arise due to landing in unprepared areas,
- a problem for organizers to supervise each of the cases
- “geographical” problems like landings on private properties surrounded by fences, or on active pastures.

The above-mentioned issues are especially severe for trikes, and for tandems. However, since FAI competitions are held all over the world, it is easy to make a mistake when evaluating the safety of an accidental landing spot outside of the airfield, due to differences in fauna, flora, culture, property rights, etc.

The proposal aims to reduce the number of out landings by imposing on pilot/crew the condition to bring a residual amount of fuel back to the airfield. The residual amount shall be specified by competition director along with the allowed amount of fuel for each class (e.g. 0.5 kg for PF1/PL1, 1.0 kg for PF2/PL2).

The residual fuel requirement has successfully been implemented in economy tasks of a microlight classes for several years.

Proposal 14

Proposal from

Wojtek DOMAŃSKI (POL)

Proposal title

Ordered Scoring for Paramotors

Existing text

S.10 Annex 3 – Part 3, Paramotors

3.4 SCORING

3.4.1 ALL TASKS

The maximum score may be up to 1000 points per task and is generally calculated as follows: $P = Q/Q_{max} \times 1000$

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

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

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

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

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

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

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

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

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

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

Where

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

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

T_c = Total class Total number of pilots in class.

New text

S.10 Annex 3 – Part 3, Paramotors

3.4 SCORING

3.4.1 ALL TASKS

The maximum score may be up to 1000 points per task and is generally calculated as follows: $P = Q/Q_{max} \times 1000$

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

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

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

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

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

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

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

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

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

Where

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

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

T_c = Total class Total number of pilots in class.

3.4.2 ORDERED SCORING

The organizer can decide to use an ordered scoring for the competition. In this case, the following rules apply:

3.4.2.1 After each task, task points (TP) mentioned in 3.4.1 are used to create an order of pilots/crews in that task,

3.4.2.2 Then pilots are awarded competition points (CP):

1st in the task receives 1 CP

2nd in the task receives 2 CP

3rd in the task receives 3 CP

etc.

3.4.2.3 Pilots having the same amount of TP, share an average of CP adequate to the order in that task they did achieve. E.g. if 2nd and 3rd pilots win the same amount of TP, they will both receive 2.5 CP ((2 CP + 3 CP) / 2 = 2.5 CP)

3.4.2.4 Before the first task, a maximum CP (MCP) for each class is announced. MCP equals to the number of pilots/crews registered in that class.

3.4.2.5 Pilot/crew who does not fly in the task, or who is disqualified is awarded MCP+2 CP

3.4.2.6 For each pilot/crew less than 3 originating from one country in the class, an MCP+2 CP score is added to the team score.

3.4.2.7 For each pilot/crew missing from the Nation Score formula given in S10 3.4.11.b, an MCP+2 CP are added to the Nation Score.

3.4.2.8 The best pilot/team/nation is considered the one which at the end of the competition is awarded the smallest number of CP, second best with next smallest amount of CP, etc.

Reason

Order scoring has been successfully used since the very beginning in Slalom Championships, as well as in several countries in national open classic competitions (e.g. France, UK, etc.)

Order scoring has several benefits:

- a. Is simple to carry on
- b. Is easy to understand for the audience and for pilots
- c. Keeps competitors competitive until the very end of the competition, as getting an unrecoverable advantage over others is difficult
- d. Equalizes the chance to get an advantage over other competitors for pilots who are experts in a certain group of tasks: for example, in navigation or precision tasks differences between first few pilots is most often given in 1-2 digit number of task points, and rarely approaches close to 200 points. On the other hand, in economy tasks (only), it is possible for pilots flying really good in thermal condition to reduce the score of majority competitors to e.g. 20-30% of their score. Of course, thermal flying is a valuable skill and no doubt that better pilot should be awarded score higher than their competitors, although it is unfair that only economy tasks give an opportunity to flatten the overall result of so many pilots. It is a kind of *qui pro quo* that possibility for such a big advantage is given only to a paragliding expert in a paramotor competition. After all, CIMA governs a paramotor sport discipline rules, so either all kind of experts should be given a chance to flatten others scores, or none of the experts should have it.
- e. The trend of choosing higher aspect ratio wings for FAI competitions, which fly better in thermals but are easier collapsing, will be diminished to the benefit of overall safety.

Simulations of TP to CP recalculation performed upon results from few recent competitions, prove that winner and few top pilots remain the same positions regardless the scoring system used. The best is still the best - which proves the ordered scoring is fair. The differences appear randomly in further places. But, as I said before, the greatest benefit is that almost to every pilot competition remains exciting until the very last task. Almost always it is possible to get a higher overall position if the pilot proves to be better than other in the task.

Proposal 15

Proposal from

Petr JONÁŠ (CZE)

Proposal title

Removal of short landing scoring (microlights)

Existing text

S.10 Annex 4 2.C1/C2/C3/C4 – Applies to Microlights

Objectives

The objective is for the aircraft to touch down within a marked deck, as close to the start of the deck as possible, coming to a halt in as short a distance as possible.

Summary

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide. Deck length shall be adjusted according to the airfield elevation (S10 4.31.5). The width of the deck may be decreased to be adjusted to the width of the existing runway (S10 4.31.5). The first 25-metre section of the deck is divided into five 5 metre strips which are scored from 250 to 50 points as shown. The remainder of the deck scores 25 points. In order to score the main wheels must touch down in a particular strip and the aircraft must come to a complete halt within the 100-metre deck, as close to the start of the deck as possible.

Landing

Once the aircraft has started its final approach no deviation of over 90 ° from the deck centreline either in the air or on the ground is permitted and the engine must remain at idle or may be switched off. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

Scoring

The score will be the value of the strip in which both main wheels touch down with the ground (PS) plus the distance between the finish of the deck and the closest wheel, scored 1 point per whole metre (PD). Touching down on a dividing line scores the higher of the two strips.

The pilot will be scored zero if:

- The aircraft commences takeoff before instructed to do so by the marshal
- The engine is not stopped or the throttle is not closed before passing over the deck
- The aircraft does not pass over the entire length of the deck before turning to descend
- The engine does not remain at idle once final approach has started if engine idle permitted
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and coming to a standstill

- Any part of the aircraft touches the ground before the deck.
- The aircraft does not stop within the limits of the deck.
- The aircraft moves from the deck before instructed to do so by a marshal
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty

Thus the score calculation will be (PS + PD) with a hypothetical maximum score of 350

New Text

Objectives

The objective is for the aircraft to touch down within a marked deck, as close to the start of the deck as possible, ~~coming to a halt in as short a distance as possible.~~

Summary

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide. Deck length shall be adjusted according to the airfield elevation (S10 4.31.5). The width of the deck may be decreased to be adjusted to the width of the existing runway (S10 4.31.5). The first 25-metre section of the deck is divided into five 5 metre strips which are scored from 250 to 50 points as shown. The remainder of the deck scores 25 points. In order to score the main wheels must touch down in a particular strip ~~and the aircraft must come to a complete halt within the 100-metre deck, as close to the start of the deck as possible.~~

Landing

Once the aircraft has started its final approach no deviation of over 90 ° from the deck centreline either in the air or on the ground is permitted and the engine must remain at idle or may be switched off. ~~The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.~~

Scoring

The score will be the value of the strip in which both main wheels touch down with the ground (PS) ~~plus the distance between the finish of the deck and the closest wheel, scored 1 point per whole metre (PD).~~ Touching down on a dividing line scores the higher of the two strips. ~~If the aircraft bounces after touchdown and jumps over more than 1 strip, the touchdown after the bounce is measured as the first touchdown for scoring.~~

The pilot will be scored zero if:

- The aircraft commences takeoff before instructed to do so by the marshal
- The engine is not stopped or the throttle is not closed before passing over the deck
- The aircraft does not pass over the entire length of the deck before turning to descend
- The engine does not remain at idle once final approach has started if engine idle permitted
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and ~~landing coming to a standstill~~
- Any part of the aircraft touches the ground before the deck.

~~- The aircraft does not stop within the limits of the deck.~~

~~- The aircraft moves from the deck before instructed to do so by a marshal~~

- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty

-The aircraft touches the ground with any part other than the main wheels before touching with both main wheels.

~~Thus the score calculation will be (PS + PD) with a hypothetical maximum score of 350~~

This proposal includes the same modifications to tasks 2.C2, 2.C3, and 2.C4.

Reason

The short landing tasks are the most dangerous, leading to most accidents, putting a lot of strain on the aircraft undercarriages and are one of the reasons why not more participants are coming to the competitions. By removing this, we can attract new competitors and prevent practically all accidents.

By adding the restriction on bouncing and touchdown with the main wheels first, we encourage the pilots to execute a nice, low speed precision landing on the main wheels, instead of pushing the aircraft into the deck, sometimes nose wheel first and then braking hard. That will increase both safety and recognition of well executed landings instead of pushing the landing gear and the brakes to (or beyond) its limits.

Proposal 16

Proposal from

Petr JONÁŠ (CZE)

Proposal title

Landing over an obstacle (microlights)

Existing text

S.10 Annex 4 2.C7 – Applies to Microlights

SHORT LANDING OVER AN OBSTACLE

Objectives

The objective is for the aircraft to fly over and clear an obstacle, to land and come to a standstill as close to the obstacle as possible.

Summary

This task simulates a short field landing over a hedge, the hedge being represented by a tape stretched across the runway 1 metre above the ground. The pilot must land over the tape and stop. This distance will be measured from the centre of the foremost wheel and rounded up to the nearest 0.1 metre.

Joining

This task may form part of another task. Instructions for joining will be provided at the briefing or in the instructions for the main task.

Landing

Once the aircraft has started its final approach no deviation of over 90° from the centreline of the runway is permitted. The pilot may choose whatever engine setting he chooses or may switch off the engine unless otherwise instructed at the briefing. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

Scoring

The competitor in each class that comes to a standstill closest to the tape (DMIN) having cleared the tape without breaking it will score 250 points. Other competitors will be awarded scores

based on their distance from the tape when they stop (DP) relative to DMIN. The competitor will be scored zero if:

- The aircraft fails to fly over the tape
- Any part of the aircraft touches the ground before the tape
- Any part of the aircraft breaks the tape
- The aircraft turns by more than 90 degrees from the runway centreline between starting the landing approach and coming to a standstill
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty

Thus the score calculation will be $(250 \times \text{DMIN} / \text{DP})$ with a maximum score of 250

New text

SHORT LANDING OVER AN OBSTACLE

Objectives

The objective is for the aircraft to fly over and clear an obstacle **before the deck during a precision landing**, ~~to land and come to a standstill as close to the obstacle as possible.~~

Summary

This task simulates a short field landing over a hedge, the hedge being represented by a tape stretched across the runway 1 metre above the ground. ~~The pilot must land over the tape and stop. This distance will be measured from the centre of the foremost wheel and rounded up to the nearest 0.1 metre.~~ **The pilot must fly over the tape and land in the deck 100 metres long and 25 metres wide. Deck length shall be adjusted according to the airfield elevation (S10 4.31.5). The width of the deck may be decreased to be adjusted to the width of the existing runway (S10 4.31.5). The first 25-metre section of the deck is divided into five 5 metre strips which are scored from 250 to 50 points as shown. The remainder of the deck scores 25 points. In order to score the main wheels must touch down in a particular strip. The tape should be placed 20 meters before the deck.**

Joining

This task may form part of another task. Instructions for joining will be provided at the briefing or in the instructions for the main task.

Landing

Once the aircraft has started its final approach no deviation of over 90 ° from the centreline of the runway is permitted. The pilot may choose whatever engine setting he chooses or may switch off the engine unless otherwise instructed at the briefing. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

Scoring

~~The competitor in each class that comes to a standstill closest to the tape (DMIN) having cleared the tape without breaking it will score 250 points. Other competitors will be awarded scores based on their distance from the tape when they stop (DP) relative to DMIN. The competitor will be scored zero if:~~

~~- The aircraft fails to fly over the tape~~

~~- Any part of the aircraft touches the ground before the tape~~

~~- Any part of the aircraft breaks the tape~~

~~- The aircraft turns by more than 90 degrees from the runway centreline between starting the landing approach and coming to a standstill~~

~~- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty~~

~~Thus the score calculation will be $(250 \times DMIN / DP)$ with a maximum score of 250~~

The score will be the value of the strip in which both main wheels touch down (PS) plus the distance between the

finish of the deck and the closest wheel, scored 1 point per whole metre (PD). Touching down on a dividing line

scores the higher of the two strips.

The pilot will be scored zero if:

- The aircraft fails to fly over the tape
- Any part of the aircraft breaks the tape
- Any part of the aircraft touches the ground before the deck
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and coming to a standstill
- The aircraft does not stop within the limits of the deck.
- The aircraft moves from the deck before instructed to do so by a marshal
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine

will not incur a penalty

Thus the score calculation will be (PS + PD) with a maximum hypothetical score of 350

Reason

This proposal was submitted last year including the removal of having to stop within the deck. As I understood, this change is welcome, but majority prefers to keep the braking in the deck. I am therefore resubmitting this proposal but keeping the braking in the deck.

The landing over the tape like this would create a psychological effect for the pilot and make the precision landing more difficult and fun. However, it would still be about precision and nice landing with main wheels first, rather than pushing the aircraft over the tape quickly and very hard to the ground and then braking hard. That will increase both safety and recognition of well executed landings instead of pushing the landing gear and the brakes to (or beyond) its limits.

Proposal 17

Proposal from

Barney TOWNSEND (GBR)

Proposal title

Navigation with precision route

Existing text

None.

New text

(New task - modify subsequent task numbering accordingly)

S.10 Annex 4.

3.A2 NAVIGATION WITH PRECISION ROUTE

This is a time-limited task in which the pilot must fly a course of their choosing from a given array of turn points, with the objective either to collect as many turn points as possible, or to cover as much distance as possible within the time limit, whilst flying as accurately as possible in straight line legs between turn points.

The pilot must cross a start gate and finish gate for the task, and may also be required to pass particular intermediate gates during the task, as specified at the briefing. There are no pre-declaration elements. Unless otherwise briefed, pilots will perform a free launch from their designated deck.

LANDING

After crossing FP, pilots will proceed to land. Unless otherwise briefed, they will perform a standard deck landing at their designated decks.

After landing they will secure their aircraft and take their loggers to the download office.

TASK-SPECIFIC PENALTIES

Landing out before passing the finish point of the course: 100% penalty

Landing out after passing the finish gate: no penalty.

SCORING

$$D_p = (N_{log} - N_{Dp}) / N_{Dp}$$

$$N_p = (500 * (N_{Bp}/N_{Bmax})) + (500 * (D_{pmin}/D_p))$$

$$\text{Pilot score} = 1000 * (N_p / N_{pmax})$$

Where, according to briefing;

Either:

N_{Bp} = The number of turn points a pilot collects in the task.

N_{Bmax} = The maximum number of turn points collected in the task.

OR

NBp = the distance flown by the pilot in the task as a straight line measured between the turn points collected.

NBMax = the maximum distance flown in the task.

NDp = the distance flown by the pilot in the task as a straight line measured between the turn points collected.

Nlog = the pilot's GPS logged track length between the start and finish gates

Np = the value used for normalised scoring after adjustment for track error.

Reason

This task was designed for and tested in the British Open Paramotor Championship 2017. It is intended to provide an incentive for pilots to not to fly pure navigation (turn point hunt) tasks at full speed throughout, because even very slight deviations from the shortest possible course between the selected turn points are reflected highly in the scores. Pilots need to slow down in advance of each turn point so that they can be sure they leave it travelling in exactly the right direction. Any error in navigation that results in a dog-leg course correction will result in a big penalty so pilots must be 100% accurate with their navigation to the ideal straight line.

Proposal 18

Proposal from

Barney TOWNSEND (GBR)

Proposal title

Removal of paramotor slalom tasks from classic catalogue

Existing text

S.10 Annex 4:

3.C6 PRECISION CIRCUIT IN THE SHORTEST TIME ('Clover Leaf Slalom')

3.C7 PRECISION CIRCUIT IN THE SHORTEST TIME ('Japanese Slalom')

3.C8 PRECISION CIRCUIT IN THE SHORTEST TIME ('Chinese Slalom')

3.C10 ROUND THE TRIANGLE

3.C11 THE EIGHT

(titles only included here for brevity)

New text

~~3.C6 PRECISION CIRCUIT IN THE SHORTEST TIME ('Clover Leaf Slalom')~~

~~3.C7 PRECISION CIRCUIT IN THE SHORTEST TIME ('Japanese Slalom')~~

~~3.C8 PRECISION CIRCUIT IN THE SHORTEST TIME ('Chinese Slalom')~~

~~3.C10 ROUND THE TRIANGLE~~

~~3.C11 THE EIGHT~~

(removal of these tasks from the catalogue)

Reason

There were significant and valid concerns raised by a number of teams in advance of EPC2017 regarding flying of slalom tasks over land, with the result that the CIMA Paramotor Subcommittee and the Bureau made a recommendation to the organisers to remove these tasks from their catalogue.

It is clear that pilots do not want to fly these kind of tasks over land any more, using current highly specialised wings. An alternative solution that has been proposed is to mandate that these tasks to be flown over water only (as with pure slalom competitions), but this makes classic championships difficult to organise, and it still encourages pilots to train for these tasks over land at home, where water sites are not available, and so it does not really reduce the safety risk.

This proposal is for the temporary removal of these types of tasks from the catalogue until such time as new, safer precision tasks can be tested and proposed.

Proposal 19

Proposal from

Barney TOWNSEND (GBR)

Proposal title

Template Risk Assessment for Championships

Existing text

None

New text

[New document](#) attached proposed to form new Annex to S.10.

Reason

As monitor for EPC2017, I was surprised to hear that no formal risk assessment document was produced. All relevant safety information I requested was provided to me by the organisers, but I felt that it would be useful to produce a template to help future organisers to consider these aspects.

A risk assessment is not just an administrative exercise. It is a useful tool for considering all potential safety risks and what mitigating factors might be put in place to minimise them.

Also, in the event of an accident, this is the first thing that any investigating officer will ask for. Many of these people are from local authorities and have no experience or familiarity with our sports. So a single, standalone document that they can read and understand the measures taken to reduce risk is very helpful in these situations.

The document is intended to be used as a template, that prompts questions to be considered by the organisers, and can be adapted by them to the particular context of their own local rules and championships.

I have proposed this as a further Annex to S10.

Proposal 20

Proposal from

Paap KOLAR (EST)

Proposal title

Paramotor Endurance Format for Cat 1 Championship

Existing text

None

New text

New document attached proposed to form new Annex to S.10.
<https://www.dropbox.com/s/jdfnvt6pp0wj9/WPEC%20Proposal.pdf?dl=0>

(note, this document is currently undergoing editorial in consultation with S10 editor. A final version will be published in advance of the plenary).

Reason

I have been now proposing this for several years as you all know and I hope you understand that I am not interested to make another bid which still will be denied.

After years of experience in developing and organising a new endurance competition format, we are actually very well prepared for the 2018 already. We even have now another suitable island completely reserved and available for such event and thus we are going to organise Nordic Endurance 2018 anyway.

This time for PF1 only. Island Hiiumaa, Estonia.

There will be no questions if CIMA is still not interested in such modern and attractive format. We feel completely satisfied to go on with it just regionally as Cat2 but pilots all over the world are asking for it to be Cat1 event and this is not for me to decide.

The main difference for us is that in case of Cat1 WC we just need to extend this event up to one full week.

As last version of Local Regulations is available in CIMA Wiki from 2016 Plenary, I hope everybody has sufficient information already but of course any assistance in clearing content and fixing my bad English will be welcome, as well as all proposals for the further development.

Now please let me present an idea.

What do you all think of such solution, if we will leave this matter fully for the CIMA Plenary or Bureau to decide as appropriate and then we can act accordingly.

We certainly have full knowledge and experience on this format we invented and developed ourselves after 7 years of competition practice with great success.

Actually, we are looking much further into the future, offering universal solution and new approach to maybe quite many problematic issues in CIMA competition management, arising already and especially in the future (organising complexity, economy and precision integration, fueling and weighing issues, technology involvement, assistance, safety, technical support, event scheduling, satisfaction of pilots, overall atmosphere, growth of FAI member countries, stimulation for bidding etc.)

Unfortunately in 2017 we missed Nordic Endurance Race (NOPER), which was planned to circulate amongst Nordic countries. It happened because both main candidates, Finland and Sweden were not able to supply suitable competition (noisy) area for such event, big enough for 100+ turnpoints, snake figures etc.

As a matter of fact, finding appropriate competition area may appear the main and probably only serious obstacle for such format in the future, because for the best and most compact result the overall competition area should be at least 1000 km² of flyable area, better even more and for the best weather planning options it should be an island.

We are still lucky in Estonia, as we have one more suitable island available, with suitable settings and low population but with good infrastructure and perfect beaches.

Note to all interested countries.

To go on smoothly with such new endurance competition format and to avoid misinterpretations of rules and failures in preparations and organising, we are now prepared to offer a full package of competition management to any country interested in organising but not having specific knowledge, qualification or staff.

Such service package may contain following elements:

1. Consulting and advisory service.
2. Creation of Local regulations and Task catalogue according to local needs and FAI standards.
3. Competition preparations and organising with full staff management.
4. Map preparations with all turnpoints and tasks included.
Full map production ready for competition.
5. Competition directing, all briefings, staff training, task setting, overall control of the event etc.
6. Full electronic scoring service with special software, GPS loggers and full live results' calculation.
7. Online GPS live coverage of the full event over the internet.
8. GPS online tracking with pre-programmed GPS trackers for competitors, safety and service vehicles.

To sum it up, with such new service development, any FAI member country, willing to organise such an event, can consider this option as much easier, with providing mainly only local and non-specific matters, such as area, infrastructure, accommodation, food, competition center, prizes, local staff, financing, promotion, public relations etc.

Finally I need to inform you that I am not able to participate on Plenary myself this time, due to my extreme flight injury in 2014, from which I am still recovering (long story). I am operative but still not in flight condition. I cannot even predict, how long I am able to be at your service.

Luckily right now my brain is in the best condition ever and I am completely ready to participate in the Plenary over the Skype, to explain whatever needed and to answer all possible questions before, at or after the Plenary.

Please let me know or call me anytime over Skype: p4kop4ko

For the best and smooth worldwide communications I am inviting all of you to actively discuss these matters with me and with pilots all over the world in our Facebook where I am uploading this letter openly for public discussions.

<https://www.facebook.com/EstPPA/>

With regards,

Life is an adventure!

Paap Kolar
CIMA Delegate
Board Member of EPPA
Developer of Paramotor Endurance Competition format
Competition Director and Organiser of NOPER 2015 - 2018
Multiple Estonian Paramotor Champion
Finnish Paramotor Champion 2012
Swedish Paramotor Champion 2014
NOPER Champion 2014
Inventor of Power Attack and Smart Risers