2011 Proposals

This is the list of the proposals made for the 2011 meeting.

Proposals have been re-numbered from the original order of entry to one which is in logical order of where the provisions lie in S10 and its annexes, prefixed with 'p'. This makes their discussion easier at the plenary.

- p01 - Weight of autogyros
- p02 - Colibri Badge revisions
- p03 - AL1 Class validity
- p04 - Championship validation
- p05 - Printed Task Information
- p06 - Briefing of alternative tasks
- p07 - Larger decks and removal of ordered launch
- p08 - Task Cancellation System
- p09 - Length correction for decks
- p10 - Width of decks in airfield runways
- p11 - Changes to Team Scoring (paramotors)
- p12 - Fuel Weighing
- p13 - Maximum points in slalom scoring
- p14 - wind limit for Clover leaf slalom
- p15 - Wind limit for Japanese slalom
- p16 - Slow Fast scoring
- p17 - Wind limit for Round the triangle
- p18 - Wind limit for the Eight
- p19- New Economy Task 3.B6
- p20 - New Economy Task 3.B7
- p21 - New Economy Task 3.B8
- p22 - New Economy Task 3.B9
- p23 - Removal of scored launch inflation
- p24 - Slalom Scoring Revision
- p25 - Trapezoidal gates
- x - Removal of weight requirement in record flights

p01 - Weight of autogyros

Proposal from

José Luis Esteban, Spain

Proposal title

Weight of autogyros

Existing text

Sec 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
- 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

New text

Option A:

> Add
>
> - 330 kg for an autogyro flown solo
> - 495 kg for an autogyro flown with two persons

Option B:

> Add
>
> - 375 kg for an autogyro flown solo
> - 560 kg for an autogyro flown with two persons

Reason

Annex II of Regulation EC 216/2008 establishes the MTOM for microlights exactly as CIMA defines them in Sec. 10. In the case of autogyros the MTOM is established in 560 Kg. The reasons for this extra weight are the need for high structural resistance, the weight of the rotor, required to provide the necessary inertia, the higher power demand that implies heavier engines and the higher amount of fuel that must be carried.

Very few modern autogyros can fly with two persons for 250 Km if they do not exceed the 450 Kg MTOM. So it seems sensible to increase the maximum weight.

Option A proposes a 10% increase over the AL and WL weights, reaching the same figures as the amphibians.

Option B rises the MTOM to the values defined by the European authorities, and it is included only for completeness.

Czech proposal:

Current text:

2.3.3 QUALIFICATIONS AND REQUIREMENTS
2.3.3.1 Bronze Colibri
a) 20 hours solo on Microlight or Paramotor aircraft including at least 50 flights.
b) 3 precision landings within 10 m of the centre of a given spot.
c) 1 precision landing within 20m of the centre of a given spot from a height of 300m (1000ft) AGL with the throttle fully closed. Demonstration of correct go-around (overshoot) procedure.
d) Two cross country flights of distance dM x 1 over a triangular course, one with an outlanding at a designated point along the route.
2.3.3.2 Silver Colibri
a) 100 hours on Microlight or Paramotor aircraft including at least 200 logged flights.
b) 2 flights to approximately 300m (1000ft) AGL, stop engine(s) complete a 360° turn and land within 5m of the centre of a given spot.
c) Four cross country flights of distance dM x 2 with any landing or turn points pre-declared. The courses may be straight, dog-leg (1 turn point), out and return, or triangular (2 turn points).
2.3.3.3 Gold Colibri
a) 300 hours on Microlight or Paramotor aircraft.
b) Have competed in two National or FAI recognised international Microlight or Paramotor competitions as pilot-in-command.
c) Complete a tour of at least the distance dM x 14 to a pre-declared flight plan within 7 consecutive days. The route to contain at least 3 control points which the aircraft is observed to overfly or where a landing is made. Only the final landing of the tour may be made at the initial departure point.
d) Hold one of the following:
National Microlight or Paramotor instructor rating;
National Microlight or Paramotor record (or have held such a record);
National Microlight or Paramotor seaplane rating plus two 75 km cross country flights on a seaplane;
National alpine rating;
Have participated in an FAI first category event, as pilot-in-command.
2.3.3.4 Diamond Colibri
A CIMA award, with inauguration 1st January 1990, for an outstanding Microlight or Paramotor flying achievement. The following special conditions apply:
a) Applicants or nominees must be qualified to at least silver badge standard.
b) In the case of two person crews, the pilots should have equal or equivalent aviation experience, and both should be necessary crew.
2.3.4 GENERAL CONDITIONS
2.3.4.1 All flights for Colibri badges must be flown on Microlight or Paramotor aircraft (S10 1.3).
2.3.4.2 A pilot must be alone in the aircraft on each flight, other than for the requirements for the gold and diamond.
2.3.4.3 A flight may count towards any badge or qualification for which it fulfils the requirement.
2.3.4.4 Badges may be awarded only in the correct order: bronze, silver, gold. A diamond may be awarded to silver badge holders.
2.3.4.5 A precision landing is a touchdown and stay down landing with no damage to aircraft or pilot. Distance is measured from the touchdown/stay down point of the main wheels.
2.3.4.6 To count for badge each leg of a cross-country flight must be completed in not more or less than 15% of the pilot's properly calculated flight time for that leg.
2.3.4.7 Barographs are not required.
2.3.4.8 A Sporting Licence is not required for badge flights.

2.3.4.9 Only a single course may be declared for any flight.
2.3.4.10 dM is the distance the aircraft can fly in nil wind in one hour at the manufacturer"s published cruise speed. Evidence of dM must be provided as part of the application for a Colibri award

2.3.5 CONTROL OF BADGE FLIGHTS

(See S10 Chapter 5).

New text:

2.3.3 QUALIFICATIONS AND REQUIREMENTS

2.3.3.1 Bronze Colibri

a) 20 hours solo on Microlight or Paramotor aircraft including at least 50 flights.

b) 3 precision landings within 10 m of the centre of a given spot or 3 precision landings with engine on into the landing deck for at least 50 points during an official competition. ~~(~~see Annex 4 TASK CATALOGUE FOR CHAMPIONSHIPS , 2.C1 SPOT LANDING)

c) 1 precision landing within 20m of the centre of a given spot from a height of 300m (1000ft) AGL with the throttle fully closed or 1 precision landing into the landing deck with engine stopped for at least 50 points during an official competition . ~~Demonstration of correct go-around (overshoot) procedure~~.

d) Two cross country flights of distance dM x 1 over a triangular course, one with an out landing at a designated point along the route or participation and successful finishing of 2 navigation tasks flown in an official competition. ~~.~~

2.3.3.2 Silver Colibri

a) 100 hours on Microlight or Paramotor aircraft including at least 200 ~~logged~~ flights.

b) 2 flights to approximately 300m (1000ft) AGL, stop engine(s) complete a 360° turn and land within 5m of the centre of a given spot or 2 precision landings into the landing deck with engine stopped for at least 200 points during an official competition.

c) Four cross country flights of distance dM x 2 with any landing or turn points pre-declared. The courses may be straight, dog-leg (1 turn point), out and return, or triangular (2 turn points) or participation and successful finishing of 4 navigation tasks flown in an official competition ~~.~~

2.3.3.3 Gold Colibri

a) 300 hours on Microlight or Paramotor aircraft.

b) Have competed in two National or FAI recognised international Microlight or Paramotor competitions as pilot-in-command.

c) Complete a tour of at least the distance dM x 14 to a pre-declared flight plan within 7 consecutive days. The route to contain at least 3 control points which the aircraft is observed to overfly or where a landing is made. Only the final landing of the tour may be made at the initial departure point.

d) Hold one of the following:

National Microlight or Paramotor instructor rating;

National Microlight or Paramotor record (or have held such a record);

National Microlight or Paramotor seaplane rating plus two 75 km cross country flights on a seaplane;

~~National alpine rating;~~

Have participated in an FAI first category event, as pilot-in-command.

2.3.4 GENERAL CONDITIONS

2.3.4.1 All flights for Colibri badges must be flown on Microlight or Paramotor aircraft (S10 1.3).

2.3.4.2 A pilot must be alone in the aircraft on each flight, other than participation in navigation tasks in an official competition and for the requirements for the gold and diamond.

2.3.4.3 A flight may count towards any badge or qualification for which it fulfils the requirement.

Komentář [VŠ1]: What is the sense this requirement?

Komentář [VŠ2]: Log books aren't mandatory in each country

Komentář [VŠ3]: Nobody knows, wh the alpine rating is

2.3.4.4 Badges may be awarded only in the correct order: bronze, silver, gold. A diamond may be awarded to silver badge holders.
2.3.4.5 A precision landing is a touchdown and staydown landing with no damage to aircraft or pilot. Distance is measured from the touchdown/staydown point of the main wheels or in the case of landings into a landing deck in an official competition the first touch of ground in relevant field of the landing deck.
2.3.4.6 To count for badge each leg of a cross-country flight must be completed in not more or less than 15% of the pilot's properly calculated flight time for that leg.
2.3.4.7 Barographs are not required.
2.3.4.8 A Sporting Licence is not required for badge flights.
2.3.4.9 Only a single course may be declared for any flight.
2.3.4.10 dM is the distance the aircraft can fly in nil wind in one hour at the manufacturer‟s published cruise speed. Evidence of dM must be provided as part of the application for a Colibri award
In the case of participation in an official competition evidence shall be done by FR record.

2.3.5 CONTROL OF BADGE FLIGHTS

Evidence shall be confirmed by official observer.

Number of hours and flights - this fact shall be declared by pilot´s affirmation.

Evidence of the flight shall be checked by FR record

~~(See S10 Chapter 5).~~

Komentář [VŠ4]: There is no possibility, how to check this fact effectively.

Komentář [VŠ5]: In the S10 Chapter is nothing relevant to badges.

Reasons for these changes –

Every NAC has problems with motivation of pilots for participation in official competitions. Proposed changes may help to motivate pilots to fly in competitions.

p03 - AL1 Class validity

Proposal from

GBR - Rob HUGHES

Proposal title

AL1 Class validity

Existing text

S10, 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

S10, 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. This does not apply to class AL1, where there are no minimum entry requirements.

Reason

Class AL1 was not valid at EMC2010 despite there being at least 6 pilots who wanted to register. AL1 is a small class and struggles to meet the '4 countries' rule. It is better to delete this rule to guarantee that the class takes place and to encourage AL1 participation. If AL1 grows as a result, this exception to the general rule can be deleted in the future.

p04 - Championship validation

Proposal from

Andy Phillips, GBR

Proposal title

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.

A3

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~~ 3 separate valid tasks in the class and at least one task of each type (navigation, economy, precision) has been valid.

A3

1.8.2

The title of Champion in any class 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

There has not been an international championship since 2009, and it would be a disaster to have the next one not validated.

In the event of poor weather forecast, a Competition 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.

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. A non valid championship would be a complete disaster for everyone, as it was in 2004 in Portugal.

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

p05 - Printed Task Information

Proposal from

Andy Phillips, GBR

Proposal title

Printed task information

Existing text

A3

1.10.1

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

S10

4.21.1

The organisers shall hold a briefing for team leaders and/or competitors as a minimum on each flying day at which full meteorological and operational information concerning the tasks shall be given. Task, weather, airspace information and any special requirements shall be in writing either on a large permanent display briefing boards or as printed handouts to team leaders, jury members and stewards.

New text

A3

1.10.1 New Text:

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

A3

1.10.1 Proposed additional paragraph:

Any changes or additional information briefed verbally should be summarised at the end of the briefing, and must be confirmed in writing and posted on the official notice board and/or championship intranet. (S10 4.21.5). Any additional task information not displayed on the official notice board and/or intranet may not later be used in disputes.

S10

4.21.1 New Text:

The organisers shall hold a briefing for team leaders and/or competitors as a minimum on each flying day at which full meteorological and operational information concerning the tasks shall be given. All briefings will be in English and be recorded in notes, by tape recorder or video. ~~Task, weather, airspace information and any special requirements shall be in writing either on a large permanent display briefing boards or as printed handouts to team leaders, jury members and stewards.~~A full task description, meteorological information, airspace information, flight safety requirements, penalties, details of any prohibited or restricted flying areas and any special requirements will be given in writing, as a minimum, to team leaders, Jury members and Stewards. This shall be provided in advance of the briefing.

S10

4.21.1 Proposed additional paragraph 4.21.5:

Any changes or additional information briefed verbally should be summarised at the end of the briefing, and must be confirmed in writing and posted on the official notice board and/or championship intranet. Any additional task information not displayed on the official notice board and/or intranet may not later be used in disputes.

Reason

S10 lacked some of the detail of Annexe 3. These changes combine the two statements so that there is no ambiguity between the two. "...given in writing... ...to team leaders", etc. clearly implies written on a paper and handed out or posted on an intranet as opposed to posted on a briefing board.

p06 - Briefing of alternative tasks

Proposal from

Andy Phillips, GBR

Proposal title

Briefing of alternative tasks

Existing text

S10

4.29.7

The director may set an alternative task at briefing for use, should the weather change.

New text

S10

4.29.7

~~The director may set an alternative task at briefing for use, should the weather change.~~

Where possible and practicable, the task director should try set an additional or alternative task at briefing for use, should the weather conditions change from those forecast at the time of the briefing.

Reason

The process of briefing team leaders who then have to brief their teams is time-consuming. Particularly when tasks are briefed in the evening for the following day, weather conditions can change, in some cases making the briefed task dangerous to fly. If an alternative task has already been briefed, precious time does not need to be wasted in order to fly a different task within a small window.

This has been common practice in UK competitions for several years, and has been proven to work very effectively. The new wording still does not mandate the director to do so, but lays greater emphasis on the fact that he should try to where possible.

p07 - Larger decks and removal of ordered launch

Proposal from

Andy Phillips, GBR

Proposal title

Larger decks and removal of ordered launch

Existing text

S.10

4.30.1

The order in which competitors shall take-off shall be given at briefing or may be left free within an open window period. Take offs shall normally be made from the marked deck.

A3

3.1.4

- 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.

New text

S.10

4.30.1

~~The order in which competitors shall take-off shall be given at briefing or may be left free within an open window period.~~ The order of take off shall normally be left free within an open window period. The task director may, on occasion, set an order in which competitors shall take off, which will be given at briefing. Take offs shall normally be made from the marked deck, which will 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.

A3

3.1.4

~~- 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.~~

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.

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.

p08 - Task Cancellation System

Proposal from

Andy Phillips, GBR

Proposal title

Task Cancellation System

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*(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

~~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.~~

If the competition 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 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 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).

S10

4.34.17

~~In Parameters, 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*(MIN(1,(Ts/Te)*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).*~~

~~Te = 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.

There are always a few pilots desperate for points who would be prepared to fly in dangerous conditions.

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.

In the UK, we have successfully used an SMS-based task cancellation system for the last three years in addition to the use of visual signals on the deck.

p09 - Length correction for decks

Proposal from

José Luis Esteban, Spain

Proposal title

Length correction for decks.

Existing text

Sec. 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.

An. 3

2.1.2 TAKE-OFF AND LANDING
Unless it is stated differently in the task description all competition take-offs and landings must be completed within a deck 100m x 25m. The penalty for failing to take off or land entirely within the deck will be 20% - 50% of pilot score, as briefed.

An. 4

2.C1 SPOT LANDING
2.C2 SPOT LANDING - TIMED
2.C3 POWERED PRECISION LANDING
2.C4 POWERED PRECISION LANDING - TIMED

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide.

2.C8 DECK TAKEOFF
Objectives
The objective is for the aircraft to take off from a deck 100 metres long by 25 metres wide.
Summary
This task proves the short takeoff capability that is fundamental to the performance characteristics of a Microlight by demonstrating that the aircraft can take off in 100 metres in still air at sea level. Where local conditions, such as airfield altitude or slope of the runway, will make a significant difference to takeoff runs the length of the deck may be adjusted accordingly.

2.C9 DECK LANDING
Objectives
The objective is for the aircraft to land in a deck 100 metres long by 25 metres wide.
Summary
This task proves the short landing capability that is fundamental to the performance characteristics of a Microlight by demonstrating that the aircraft can land in 100 metres in still air at sea level. Where local conditions, such as airfield altitude or slope of the runway, will make a significant difference to landing runs the length of the deck may be adjusted accordingly.

New text

Sec. 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 every 300 m of elevation, rounding the result to the nearest integer metre.

An. 3

2.1.2 TAKE-OFF AND LANDING
Unless it is stated differently in the task description all competition take-offs and landings must be completed within ~~a deck 100m x 25m~~ the marked deck. The penalty for failing to take off or land entirely within the deck will be 20% - 50% of pilot score, as briefed.

An. 4

2.C1 SPOT LANDING
2.C2 SPOT LANDING - TIMED
2.C3 POWERED PRECISION LANDING
2.C4 POWERED PRECISION LANDING - TIMED

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).

2.C8 DECK TAKEOFF
Objectives
The objective is for the aircraft to take off from a deck 100 metres long by 25 metres wide.
Summary
This task proves the short takeoff capability that is fundamental to the performance characteristics of a Microlight by demonstrating that the aircraft can take off in 100 metres in still air at sea level. Deck length shall be adjusted according to the airfield elevation (S10 4.31.5). Where other local conditions, such as ~~airfield altitude or~~ slope of the runway, will make a significant difference to takeoff runs the length of the deck may be adjusted accordingly.

2.C9 DECK LANDING
Objectives
The objective is for the aircraft to land in a deck 100 metres long by 25 metres wide.
Summary
This task proves the short landing capability that is fundamental to the performance characteristics of a Microlight by demonstrating that the aircraft can land in 100 metres in still air at sea level. Deck length shall be adjusted according to the airfield elevation (S10 4.31.5). Where other local conditions, such as ~~airfield altitude or~~ slope of the runway, will make a significant difference to landing runs the length of the deck may be adjusted accordingly.

Reason

Deck length correction for altitude was never defined in Sec. 10. This proposal defines such correction according to the ICAO Aerodrome Design Manual , point 3.5.2.

It means the standard 100 m deck is extended 1 metre every 43 m of elevation approximately.

p10 - Width of decks in airfield runways

Proposal from

José Luis Esteban, Spain

Proposal title

Width of decks in airfield runways

Existing text

Sec. 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.

An. 3

2.1.2 TAKE-OFF AND LANDING
Unless it is stated differently in the task description all competition take-offs and landings must be completed within a deck 100m x 25m. The penalty for failing to take off or land entirely within the deck will be 20% - 50% of pilot score, as briefed.

An. 4

2.C1 SPOT LANDING
2.C2 SPOT LANDING - TIMED
2.C3 POWERED PRECISION LANDING
2.C4 POWERED PRECISION LANDING - TIMED

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide.

2.C8 DECK TAKEOFF
Objectives
The objective is for the aircraft to take off from a deck 100 metres long by 25 metres wide.
Summary
This task proves the short takeoff capability that is fundamental to the performance characteristics of a Microlight by demonstrating that the aircraft can take off in 100 metres in still air at sea level. Where local conditions, such as airfield altitude or slope of the runway, will make a significant difference to takeoff runs the length of the deck may be adjusted accordingly.

2.C9 DECK LANDING
Objectives
The objective is for the aircraft to land in a deck 100 metres long by 25 metres wide.
Summary
This task proves the short landing capability that is fundamental to the performance characteristics of a Microlight by demonstrating that the aircraft can land in 100 metres in still air at sea level. Where local conditions, such as airfield altitude or slope of the runway, will make a significant difference to landing runs the length of the deck may be adjusted accordingly.

New text

Sec. 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.

The width of the deck may be decreased to be adjusted to the width of the existing runway.

An. 3

2.1.2 TAKE-OFF AND LANDING
Unless it is stated differently in the task description all competition take-offs and landings must be completed within ~~a deck 100m x 25m~~ the marked deck. The penalty for failing to take off or land entirely within the deck will be 20% - 50% of pilot score, as briefed.

An. 4

2.C1 SPOT LANDING
2.C2 SPOT LANDING - TIMED
2.C3 POWERED PRECISION LANDING
2.C4 POWERED PRECISION LANDING - TIMED

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide. The width of the deck may be decreased to be adjusted to the width of the existing runway (S10 4.31.5).

2.C8 DECK TAKEOFF
Objectives
The objective is for the aircraft to take off from a deck 100 metres long by 25 metres wide.
Summary
This task proves the short takeoff capability that is fundamental to the performance characteristics of a Microlight by demonstrating that the aircraft can take off in 100 metres in still air at sea level. Where local conditions, such as airfield altitude or slope of the runway, will make a significant difference to takeoff runs the length of the deck may be adjusted accordingly. The width of the deck may be decreased to be adjusted to the width of the existing runway (S10 4.31.5).

2.C9 DECK LANDING
Objectives
The objective is for the aircraft to land in a deck 100 metres long by 25 metres wide.
Summary
This task proves the short landing capability that is fundamental to the performance characteristics of a Microlight by demonstrating that the aircraft can land in 100 metres in still air at sea level. Where local conditions, such as airfield altitude or slope of the runway, will make a significant difference to landing runs the length of the deck may be adjusted accordingly. The width of the deck may be decreased to be adjusted to the width of the existing runway (S10 4.31.5).

Reason

In airfields with clearly defined runways it is not always safe to mark a wider deck.

p11 - Changes to Team Scoring (paramotors)

Proposal from

Andy Phillips, GBR

Proposal title

Changes to Team Scoring (paramotors)

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

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

New text

S10

4.34.11

The team score for Paramotor classes 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:~~ across all the classes (PF1, PF2, PL1, PL2) which have at least 20 competing aircraft.

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

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

- Pilots in valid Paramotor classes with less than 20 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

It seems meaningless to award Team medals for Classes that are undersubscribed, when often, the results are known in advance, purely based on the number of aircraft some nations have entered.

Having only one Team score across all the Paramotor classes would be more meaningful, as long as only the Classes that are well subscribed do score towards it.

A similar proposal for Classic Classes has been put forward

Option B

Same proposed text as Option A but replacing “top three aircraft of each country" by “top five aircraft of each country”.

p12 - Fuel Weighing

Proposal from

Andy Phillips

Proposal title

Fuel Weighing

Existing text

A3

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

A3

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.

Additional paragraph

A3

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 pilot and machine (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.

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

3.2.4.1 Weighing of pilot and 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 pilot should only get weighed when he/she is intending to launch.

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

The wing must be detached from the 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.

The pilot should carry the paramotor on his/her back, as well as all equipment and accessories when stepping up onto the scale.

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

The pilot should then proceed to his/her 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 the 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.

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

Food and drink weigh the same whether in the pilot's pockets or consumed.

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 him/her 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.

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

If the pilot appears to be abnormally wet, then the marshal may ask for the flying suit and boots to be weighed separately as well for investigation and possible later adjustment.

Note for S10 Editor: Existing 3.2.4 must be renumbered as 3.2.5 if this proposal is accepted.

Reason

When this proposal was last brought to CIMA, Richard Meredith-Hardy expressed a view that this system should be tested first at national level competition. Since then it has been used in the Belgian Open 2009 and 2011, France in 2010 and 2011, and in 8 UK competitions since 2006. The UK now considers these examples to have adequately demonstrated its value.

The proposal still does not mandate the competition director to use the system, but offers him the choice, which he may wish to take for the following reasons:

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 fuel systems and header tanks.

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

- Running out of fuel and landing out is a problem with retrieve.

The new proposal addresses all of the problems given above plus it allows an optional "Fuel in proportion to bodyweight" system which has now been permanently adopted by UK competitions committee.

It was tested very successfully in the 2006 UK National Championships and was popular with Pilots and Organisers alike.

Since 2006 this system has been used in the UK championships every year and in the UK league. It has now been permanently adopted by the UK competition committee as their preferred method of fuel usage measurement.

No pilots in any of these competitions have landed out due to fuel shortage in economy tasks and the associated retrieve problems are therefore eliminated.

Economy tasks have been set at short notice and have been "bolted on" to other tasks with little disruption to the launch deck or window enabling task directors improved flexibility in task setting and task type proportioning to validate competitions.

p13 - Maximum points in slalom scoring

Proposal from

Andy Phillips, GBR

Proposal title

Maximum points in slalom scoring

Existing text

A3

3.4.1 ALL TASKS

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

P = Q/Qmax x 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/Qmax x 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 = Ps*(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

A3

3.4.1 ALL TASKS

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

P = Q/Qmax x 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/Qmax x 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 = Ps*(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.

For all slalom tasks, Q = between 500 and 1000 points as briefed by the competition director depending on how many slalom tasks are likely to, or have already been, flown, according to weather conditions with view to balancing out the point value of the three different types of tasks.

Reason

The points given to precision tasks need to be balanced with other types of task, and this allows the competition director the discretion to devalue slalom tasks according to how many he can fit in with prevailing weather conditions. An example scenario would be one in which conditions only allow the minimum number of navigation and economy tasks to validate the championship, but there are 6 or 7 short windows in which a slalom task could be flown. The proposed addition means that the point value can be more fairly allocated between types of task.

p14 - wind limit for Clover leaf slalom

Proposal from

Paap Kõlar / Estonia

Proposal title

Recommended wind limit for Clover leaf slalom

Existing text

none

New text

3.C5 PRECISION CIRCUIT IN THE SHORTEST TIME (‘Clover leaf slalom’)

New text in the end of Special rules:

- Recommended wind limit for this task is 2 m/s

Reason

Modern flying techniques of paramotor precision flying for competition purposes achieved the level where the wing’s aerodynamic qualities are often utilized at their limits.

To avoid accident risk associated with possible collapses induced by flying through competitor’s own wake, maximum wind limit recommendations for some tasks should be applied for organizers.

p15 - Wind limit for Japanese slalom

Proposal from

Paap Kõlar, Estonia

Proposal title

Wind limit for Japanese slalom

Existing text

none

New text

3.C6 PRECISION CIRCUIT IN THE SHORTEST TIME (‘Japanese slalom’)

New text in the end of Special rules:

- Recommended wind limit for this task is 3 m/s

Reason

Modern flying techniques of paramotor precision flying for competition purposes achieved the level where the wing’s aerodynamic qualities are often utilized at their limits.

To avoid accident risk associated with possible collapses induced by flying through competitor’s own wake, maximum wind limit recommendations for some tasks should be applied for organizers.

p16 - Slow Fast scoring

Proposal from

Andy Phillips, GBR

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 = null and Ep = zero

- If the pilot zigzags: Score zero.

In the fast course;

- If the pilot or any part of his Paramotor touches the ground: Vp1 = zero and Ep = zero

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

Pilot score = (125 x Vp1 / Vmax) + (125 x Vmin / Vp2) + (250 x 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.

Vmin = The lowest speed achieved in the slow course, 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 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 = null and Ep = zero

- If the pilot zigzags: Score zero.

In the fast course;

- If the pilot or any part of his Paramotor touches the ground: Vp1 = zero and Ep = zero

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

Pilot score = (~~125~~ 0.25 x Q x Vp1 / Vmax) + (~~125~~ 0.25 x Q x Vmin / Vp2) + (~~250~~ 0.5 x Q x Ep / EMax)

Where:

Q = Maximum task score between 500 and 1000 points, as briefed

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.

Allowing the Competition Director to brief this task to be scored between 500 and 1000 points

p17 - Wind limit for Round the triangle

Proposal from

Paap Kõlar, Estonia

Proposal title

Wind limit for Round the triangle

Existing text

none

New text

3.C9 ROUND THE TRIANGLE

New text in the end of Course description

Course description

The course consists of 4 sticks to be

kicked and another stick or pylon as a

turn point.

- Recommended wind limit for this task is 2 m/s

Reason

Modern flying techniques of paramotor precision flying for competition purposes achieved the level where the wing's aerodynamic qualities are often utilized at their limits.

To avoid accident risk associated with possible collapses induced by flying through competitor's own wake, maximum wind limit recommendations for some tasks should be applied for organizers.

p18 - Wind limit for the Eight

Proposal from

Paap Kõlar, Estonia

Proposal title

Wind limit for the Eight

Existing text

none

New text

3.C10 THE EIGHT

New text in the end of Flying the course

- Recommended wind limit for this task is 5 m/s

Reason

Modern flying techniques of paramotor precision flying for competition purposes achieved the level where the wing's aerodynamic qualities are often utilized at their limits.

To avoid accident risk associated with possible collapses induced by flying through competitor's own wake, maximum wind limit recommendations for some tasks should be applied for organizers.

p19- New Economy Task 3.B6

Proposal from

Andy Phillips, GBR

Proposal title

New Economy Task 3.B6

Existing text

None

New text

A4

3.B6 Cat's Cradle navigation

[Based on exisiting economy tasks, but adapted to the proposed new fuelling procedures - this proposal is dependant on the acceptance of Proposal p12]

This task is for use in tasks based on weight of fuel used in flight.

Objective

Fly around as many given waypoints as possible whilst achieving the best possible fuel consumption (litres/hour).

Description

Time limit (for instance 2 hours) with penalties for being late (for instance 50%).

The task either scores on the number of waypoints visited or the distance flown.

500 points for the distance part.

500 points for the economy part.

Pilots can carry as much fuel as they wish.

Time starts from launch (or start gate) and ends on landing (or finish gate).

Penalty for landing outside field (100%)

Penalty for landing outside deck (50% on economy part)

Scoring

(500 x NBp / Nbmax) + (500 x FCmin / FCp)

Where:

NBp = The number of waypoints a pilot collects in the task (or the distance flown)

NBmax = The maximum number of waypoints scored or (maximum distance flown)

FCp = The fuel consumption of a pilot (litres/hour)

FCmin = Best fuel consumption

Reason

This task is for use with the weighed fuel proposal #p12

p20 - New Economy Task 3.B7

Proposal from

Andy Phillips, GBR

Proposal title

New Economy Task 3.B7

Existing text

None

New text

A4

[Based on exisiting economy tasks, but adapted to the proposed new fuelling procedures - this proposal is dependant on the acceptance of Proposal p12]

3.B7 ECONOMY & DISTANCE

This task is for use in tasks based on weight of fuel used in flight.

Objective

Fly a given number of laps, ideally at least 40km total distance (for instance 20 x 2km laps) then return to the deck by using as little fuel as possible.

Special rules

No height limit but each lap must be validated by kicking one stick on the upwind leg.

Only one attempt at kicking a stick per lap.

There are several sticks available to kick to avoid congestion but some of the sticks are positioned in such a way as to increase the lap distance.

Time starts from launch and ends on landing back on the deck.

Reversed championship order is preferable.

Pilots can carry as much fuel as they wish.

Penalty for landing outside the deck (50%)

Penalty for landing outside the field (100%)

Penalty for not flying the minimum required number

of laps (100%)

No penalty for flying more laps than the required number

Scoring

(1000 x FUmin / FUp)

Where:

FUp = The amount of fuel used by a pilot to fly the task

FUmin = The minimum amount of fuel used

Note: By not imposing a maximum height, we can make this task much safer, even in windy conditions. Loggers should be used. Laps should be big enough to cater for many pilots, now able to fly the whole task. Overtaking would be easier and much safer with more height and the bigger laps. Keeping track of the number of laps flown is a skill in itself and if pilots have doubts, then they may have to fly more laps to avoid penalties.

Marshals would only have to take a note of pilots failing to kick a stick with a view to void those laps.

This task is still primarily a pure economy task but the kicking sticks, the climbing back to a safe height, the keeping count, the improved overtaking and the full participation of every pilot have the potential to make this task real fun, much safer and a great spectacle for the public.

Reason

This task is for use with the weighed fuel proposal #p12

p21 - New Economy Task 3.B8

Proposal from

Andy Phillips, GBR

Proposal title

New Economy Task 3.B8

Existing text

None

New text

A4

[Based on exisiting economy tasks, but adapted to the proposed new fuelling procedures - this proposal is dependant on the acceptance of Proposal p12]

3.B8 PURE ECONOMY

This task is for use in tasks based on weight of fuel used in flight.

Objective

Get airborne for at least one hour and achieve the best possible fuel consumption (litres/hour).

Special rules

Pilots are timed for their duration, from launch to landing. The amount of fuel used, divided by the duration gives the fuel consumption (litres/hour)

Penalty for flying less than one hour (50%)

Penalty for landing outside the deck (50%)

Penalty for landing outside field (100%)

There is a land-by time with penalty thereafter (100%)

Pilots can carry as much fuel as they wish.

Example of formula:

(1000 x FCmin / FCp)

Where:

FCp = The fuel consumption of a pilot (litres/hour)

FCmin = The minimum fuel consumption

The only incentive for a pilot to stay airborne for much longer than one hour is to improve on the overall fuel consumption, by using outside energy such as thermals.

Reason

This task is for use with the weighed fuel proposal #p12

p22 - New Economy Task 3.B9

Proposal from

Andy Phillips, GBR

Proposal title

New Economy Task 3.B9

Existing text

None

New text

A4

[Based on exisiting economy tasks, but adapted to the proposed new fuelling procedures - this proposal is dependant on the acceptance of Proposal p12]

3.B8 SPEED TRIANGLE AND OUT AND RETURN

This task is for use in tasks based on weight of fuel used in flight.

Objective

Fly around a circuit (for instance a triangle) in the shortest possible time and then fly as far as possible in the direction of the pilot's choice before returning to the deck, whilst achieving the best possible fuel range (km/litre) for the whole flight.

Special rules

The fuel range is calculated as the whole flight distance divided by the quantity of fuel used

There should be an elapsed time limit.

Penalty for landing outside the deck (50% of range score)

Penalty for landing outside the field (100% of range score)

Penalty for exceeding time limit (50% of range score)

Scoring

(500 x Tmin / Tp) + (500 x FRp / FRmax)

Where:

Tp = The pilot's time in the speed section

Tmin = The fastest time in the speed section

FRp = The fuel range achieved by a pilot (Km/litre) for the whole flight

FRmax = The maximum fuel range

Reason

This task is for use with the weighed fuel proposal #p12

p23 - Removal of scored launch inflation

Proposal from

Andy Phillips, GBR

Proposal title

Removal of scored launch inflation

Existing text

A4

3.C1. PRECISION TAKE-OFF AND LANDING

Objective

To make a clean take off at the first attempt in the deck, and subsequently land as near as possible to a target.

Description

The pilot is permitted four takeoff attempts, climbs to 500ft overhead the target, cuts the engine before passing through a gate and tries to make a first touch as near as possible to the centre of a target consisting of:

- A series of concentric circles for PF1 and PF2 classes.

- A series of 5m wide parallel strips for PL1 and PL2 classes

Special rules

- The pilot scores 250 points for a clean take off at the first attempt, 170 for the second, 90 for the third, zero for the fourth.

- The circuit to be flown will be detailed at briefing.

- The first touch of the ground by the pilot's foot (PF) or the aircraft wheels (PL) is the point from which the pilot's score will be derived. A first touch on the line scores the higher score. When more than one PL wheel touches simultaneously, the point chosen is the one in favour of the pilot.

- Contestants will be awarded a zero score if the pilot or any part of the aircraft touching the ground outside the deck while undertaking the task.
- Contestants will be awarded a zero landing score for:

Engine not stopped before the gate.

Gate not passed correctly.

Falling over as a result of the landing.

Scoring

Pilot score = (Bto + Bld)

Where:

Bto = Takeoff points

Bld = Landing points

A4

3.C3. PRECISION TAKE-OFF AND LANDING

Objective

To make a clean take off at the first attempt in the deck, and subsequently land as near as possible to a target

which is:

- A point for PF1 and PF2 classes
- A 5 m long line marked on the ground perpendicular to the wind direction for PL1 and PL2 classes.

Description

The pilot is permitted four takeoff attempts, climbs to 500ft overhead the target, cuts the engine before passing through a gate and tries to make a first touch as near as possible to the centre of a target.

Special rules

- The pilot scores 250 points for a clean take off at the first attempt, 170 for the second, 90 for the third, zero for the fourth.

- The circuit to be flown will be detailed at briefing.

- The first touch of the ground by the pilot's foot (PF) or the aircraft wheels (PL) is the point from which the pilot's score will be derived. When more than one PL wheel touches simultaneously the point chosen is the one in favour of the pilot.

- Zero score if the pilot or any part of the aircraft touches the ground outside the deck while undertaking the

task.

Contestants will be awarded a zero landing score for:

- Engine not stopped before the gate.

- Gate not passed correctly.

- Falling over as a result of the landing.

Scoring

Pilot score = Bto + (250 * (Dp/Dmin))

Where

Bto = Pilot’s takeoff score.

Dmin = x - the closest distance to the target achieved
Dmin = x - the closest distance to the target achieved by any pilot.

Dp = x - the pilot’s distance to the target (> x m = zero landing score).

The value of x, in metres will be given at briefing but may be between 10 and 25 metres depending on the

meteorological conditions. This outer zone should be marked by cones or some other visual indication in the form

of:

- A circle for PF1 and PF2 classes,

- Two 5m long lines parallel to the target for PL1 and PL2 classes.

New text

A4

3.C1. PRECISION ~~TAKE OFF AND~~ LANDING

Objective

To ~~make a clean~~ take off ~~at the first attempt in the deck,~~ and subsequently land as near as possible to a target.

Description

The pilot ~~is permitted four takeoff attempts,~~ climbs to 500ft overhead the target, cuts the engine before passing through a gate and tries to make a first touch as near as possible to the centre of a target consisting of:

- A series of concentric circles for PF1 and PF2 classes.

- A series of 5m wide parallel strips for PL1 and PL2 classes

Special rules

~~- The pilot scores 250 points for a clean take off at the first attempt, 170 for the second, 90 for the third, zero for the fourth.~~

- The circuit to be flown will be detailed at briefing.

- The first touch of the ground by the pilot's foot (PF) or the aircraft wheels (PL) is the point from which the pilot's score will be derived. A first touch on the line scores the higher score. When more than one PL wheel touches simultaneously, the point chosen is the one in favour of the pilot.

- Contestants will be awarded a zero score if the pilot or any part of the aircraft touching the ground outside the deck while undertaking the task.
- Contestants will be awarded a zero landing score for:

Engine not stopped before the gate.

Gate not passed correctly.

Falling over as a result of the landing.

Scoring

Pilot score = (~~Bto +~~ Bld)

Where:

~~Bto = Takeoff points~~

Bld = Landing points

A4

3.C3. PRECISION TAKE-OFF AND LANDING

Objective

To ~~make a clean~~ take off ~~at the first attempt in the deck,~~ and subsequently land as near as possible to a target which is:

- A point for PF1 and PF2 classes
- A 5 m long line marked on the ground perpendicular to the wind direction for PL1 and PL2 classes.

Description

The pilot ~~is permitted four takeoff attempts,~~ climbs to 500ft overhead the target, cuts the engine before passing through a gate and tries to make a first touch as near as possible to the centre of a target.

Special rules

~~- The pilot scores 250 points for a clean take off at the first attempt, 170 for the second, 90 for the third, zero for the fourth.~~

- The circuit to be flown will be detailed at briefing.

- The first touch of the ground by the pilot's foot (PF) or the aircraft wheels (PL) is the point from which the pilot's score will be derived. When more than one PL wheel touches simultaneously the point chosen is the one in favour of the pilot.

- Zero score if the pilot or any part of the aircraft touches the ground outside the deck while undertaking the task.

Contestants will be awarded a zero landing score for:

- Engine not stopped before the gate.

- Gate not passed correctly.

- Falling over as a result of the landing.

Scoring

Pilot score = ~~Bto +~~ (250 * (Dp/Dmin))

Where

~~Bto = Pilot's takeoff score.~~

Dmin = x - the closest distance to the target achieved
Dmin = x - the closest distance to the target achieved by any pilot.

Dp = x - the pilot's distance to the target (> x m = zero landing score).

The value of x, in metres will be given at briefing but may be between 10 and 25 metres depending on the meteorological conditions. This outer zone should be marked by cones or some other visual indication in the form of:

- A circle for PF1 and PF2 classes,

- Two 5m long lines parallel to the target for PL1 and PL2 classes.

Reason

It can be pure chance, and no reflection of a pilot's skill to get knots in their lines, lines caught up, or risers stuck under swing bars. This rule encourages pilots to whom this occurs to continue the launch and attempt to fix the problem in the air. This is inherently unsafe.

In addition it requires many more marshals, smaller unsafe decks (see proposal 5), and takes longer to launch than a free launch, increasing the risk of not all pilots being able to fly the task in a short weather window. Missing an inflation is worth testing under timed conditions in a different task, in which a smaller amount of points lost by having to re-inflate for safety reasons is less likely to result in pilots launching dangerously.

Our experience in the UK is that almost all pilots score 100% nowadays and the pilots who don't, score low through bad luck, rather than a lack of skill. We shouldn't be scoring luck.

p24 - Slalom Scoring Revision

Proposal from

Andy Phillips, GBR

Proposal title

Slalom Scoring Revision

Existing text

A4

3.C5; 3.C6; 3.C7; 3.C9; 3.C10

Scoring

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: = *LOG(3 * t_best / (t_pen – t_best – 1))*

New text

A4

3.C5; 3.C6; 3.C7; 3.C9; 3.C10 (same amendment for scoring in all of these tasks)

Scoring

~~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: = LOG(3 * t_best / (t_pen - t_best - 1))*~~

Tv = Task value between 500 and 1000 points as briefed

N = number of targets

T = time from first to last target

Q = N^3 / T

Total score P = TV * Q / Qmax

Reason

Before the use of the current formula, at the 2009 World Championship, the Clover Leaf slalom task showed the top 5 scores in PF1 class as follows:

1=1000, 2=852, 3=844, 4=817, 5=816

With the new current equation, the scores would have been much more punishing:

1=1000, 2=685, 3=676, 4=649, 5= 648

The current scoring formula for slalom tasks is too complicated and too punitive to all but the top couple of pilots. 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.

In 2006, a new radical formula was voted in and at the following Worlds in China, the Team leaders tried unsuccessfully to revert to the previous formula. In 2007, another formula was voted in and used in 2008 and 2009. It was not perfect and there must be a better way to score slalom tasks, but the new current one is not an improvement in any way or shape.

I therefore propose to revert to a formula that anyone could use with a simple calculator until a better one can be debated and demonstrated to be an improvement.

Option B to be scoring proportional to the square of the times, which is still not as punitive as the current formula.

p25 - Trapezoidal gates

Proposal from

José Luis Esteban, Spain.

Proposal title

Trapezoidal gates

Existing text

None.

New text

Annex 6. Insert 6.3.6:

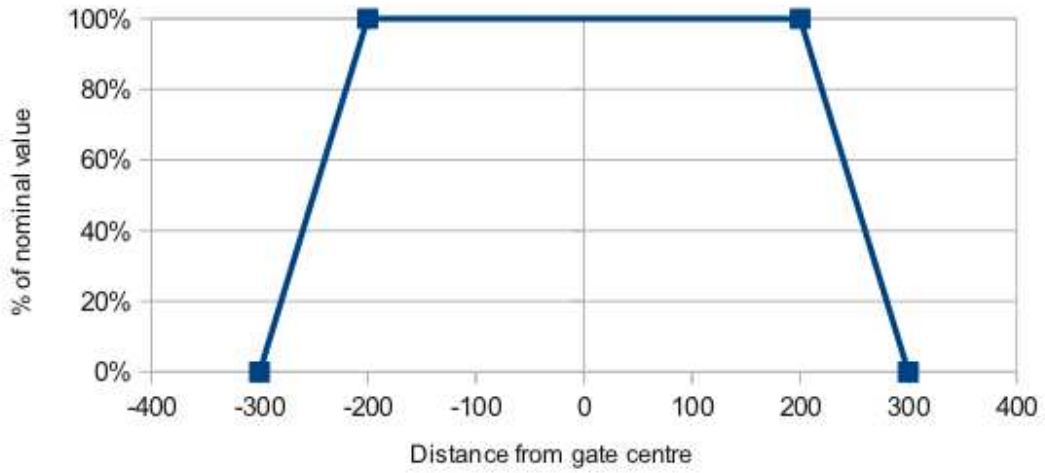
At the discretion of the Director, a standard hidden gate may be extended to half its width again. When the standard gate is crossed, it scores 100% of the nominal gate value as usual. When the gate is crossed at an intermediate position between the gate width and the limit of the extension, the score decreases linearly as the crossing position approaches the extension's limit.

Current points 6.3.6 to 6.3.8 need to be renumbered.

Reason

Tasks like Precision Navigation or Navigation with Unknown Legs are based on gate scores. In the case of a 200 m gate radius (400 m wide) a pilot flying 201 m away from the central point loses all his score in the gate. Losing all the score by 1 m is always disappointing for the pilots and makes the scores rather random. To mitigate this randomness, a large amount of gates must be defined, analysed and scored.

As an alternative, a gate may lose its value gradually. For example, when gate radius is 200 m (400 m wide) the zero-value radius may be 300 m and the gate value would decrease gradually between 200 and 300 m. A pilot crossing 201 m away from the central point would score 99% of the gate value, 50% at 250 m, 1% at 299 m and zero when the distance is larger than 300m.



This is not mandatory but an option for the director. In fact, current gate scoring is only a particular case of the proposed system, in which the gate width and the zero-value width are the same.

x - Removal of weight requirement in record flights

Proposal from

Andy Phillips, GBR

Proposal title

Removal of weight requirement in record flights

Existing text

Note 44 on Record Claim Form

It is vital to every claim that the takeoff weight is within the FAI Microlight or Paramotor definition requirements in S10 1.3.1 See also S10 5.2.1 Weighing equipment

New text

Note 44 on Record Claim Form

It is vital to every claim that the takeoff weight is within the FAI Microlight or Paramotor definition requirements in S10 1.3.1 See also S10 5.2.1 Weighing equipment. Not required for Foot-launched classes.

Reason

There is no point in weighing a foot-launched aircraft, as the pilot(s) will never physically be able to carry, let alone launch, an aircraft that is up to the limit or over.