TASK CATALOGUE
EUROPEAN MICROLIGHT CHAMPIONSHIP, LEÓN 2006

NEW CLASSES

AUTHORITY

This Task Catalogue is to be used in conjunction with the Local Regulations. The General Section and Section 10 of the FAI Sporting Code takes precedence over the Local Regulation and Task Catalogue wording if there is ambiguity.

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1. Part 1

2. Part 2. Tasks

Part 1

1.1   INTRODUCTION

This catalogue describes tasks which may be set in FAI World and Continental championships. It does not preclude new tasks provided they have been tried out satisfactorily in national competitions and are clearly described and accepted when the FAI Microlight Commission (CIMA) approves the Local regulations.

Good tasks make for good championships, but tasks also drive the design direction for the aircraft. For example, microlights in the Classic-classes would soon lose their short field capability if no more precision landing tasks into a 100m deck were given.

Flight planning and navigation tasks develop good pilot skills but they, too, affect the characteristics of competition aircraft so a Director must try to set a reasonable balance between tasks where ultimately speed is the advantage and economy is the advantage. These tasks should be as long as possible, so that pilot skills are tested by having to fly over new and different country.

Competition Directors are cautioned against setting a few complicated tasks in favour of lots of simple ones. It is all too easy for a Championship to end with the minimum of tasks required (S10 Chapter4, 4.3.3) and there is nothing more likely to upset pilots than if they think they have not flown enough in a championship to properly demonstrate their skills.

1.2   TASK TYPES

1.2.1   GENERAL

Tasks fall into Three Categories:

A Flight planning, navigation estimated time and speed. No fuel limitation.

B Fuel economy, speed range, duration. Fuel limited to 15 kg or less.

C Precision

The proportion of each task to be used is stated in S10, 4.24.3

Any task may be set more than once, either identically or with variations.

Distances should be as long as possible referring to the recommended still air range of the competing aircraft stated in S10 Chapter 4, 4.13.7 .

In any task requiring pre-declaration of speed or elapsed time the Director may set up hidden gates through which the pilot would fly if on the correct flight path. Pilots failing to be checked through such gates or who are observed flying a devious path to adjust timing/speed errors may be penalised. No information will be given at briefing on the existence or whereabouts of hidden gates, or the method by which they are controlled.

The Director may set a time period for completion of a task in addition to the last landing time.

EXAMPLE TASKS

The following tasks are examples of the tasks described above. Their purpose is to show the way in which real tasks have been designed using the generic principles outlined earlier. However, this is not an exhaustive set of tasks and others may be designed using these principles.Certain aspects of the scoring have been included in the task descriptions, in particular a schedule of penalties. However, the specific scoring for photos, markers and turnpoints etc to be used in the competition will be briefed prior to the task being flown.

Key to symbols used in the task catalogue   **Marker Symbols**

Symbol	Description	Symbol	Description	Marker
↗	Line drawn before takeoff	**FP** □	Finish point	H
↗ (dashed)	Line drawn after takeoff	**FP** △	Finish point with time gate	]
↰	Free flight	△ Π	Marker identity given before takeoff	K
►	Direction of travel	⬭	Home airfield	L
□	Marker selected from list of Marker Symbols	╱	Outlanding airstrSP	N
○	Ground feature to be identified from photograph	╱╱	Direction of landing	T
⬠	Turnpoint	╱╱	Left hand circuit	U
⬠ (photo)	Turnpoint to be identified from photograph	╱╱	Right hand circuit	X
▦	Ground feature to be photographed or controlled by FR evidence.	╱╱600'	Circuit height above ground in feet	□
△	Timing point or gate	▱	Windsock	=
SP □	Initial or Start point	⊤	Landing direction indicator	Π
SP △	Initial or Start point with time gate	〰	Road or track	△

Part 2, Tasks for class PF1 and PF2 (PARAMOTORs) PL1 and PL2 (PPTs)

2.A1 PURE NAVIGATION

Objective

To fly a course between as many turn points or markers as possible within the time window and return to the deck.

Scoring

$$\text{Pilot score} = 1000 \times \frac{NBp}{NBmax}$$

Where, according to briefing;

Either:

NBp = The number of ground markers and/or turn points a pilot collects in the task

NBmax = The maximum number of markers and/or turn points collected in the task

OR

NBp = the distance flown by the pilot in the task.

NBMax = the maximum distance flown in the task.

2.A2 NAVIGATION, PRECISION & SPEED

Objective

To make a clean take-off from the deck, to fly a course between as many turn points or markers as possible within a given time, and to collect bonus points for landing at designated markers before returning to the deck.

Special rules

- The clock starts the moment the marshal makes the signal to take off.

- At the start, 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.

- In the case of landing markers, If the pilot elects to switch off his engine at least 5m above the marker and:

  Makes a first touch on the marker: Landing bonus: 200 points

  Misses the marker: landing bonus: 50 points

 - If the pilot elects to not switch off his engine and:

  Makes a first touch on the marker: Landing bonus: 100 points

- If the pilot falls over as a result of a landing: zero landing bonuses for that landing.

- If the pilot obstructs another competitor attempting to land at a landing marker penalties will apply.

- The clock stops the moment the pilot either crosses a line or lands back on the deck.

- Any outside assistance: Score zero.

Scoring

$$\text{Pilot score} = \left(500 \times \frac{NBp}{NBMax}\right) + Bto + \left(200 \times \frac{Bld}{BldMax}\right)$$

Where, according to briefing;

Either:

NBp = The number of ground markers and/or turn points a pilot collects in the task

NBmax = The maximum number of markers and/or turn points collected in the task

OR

NBp = the distance flown by the pilot in the task.

NBMax = the maximum distance flown in the task.

AND

Bto = Pilot's takeoff bonus points

Bld = Pilot's landing bonus points

BldMax = The maximum landing bonus points achieved.

2.A3   NAVIGATION / ESTIMATED SPEED

Objective

To fly a course between any combination of turn points, markers and gates as defined at the briefing having declared estimated flight times or estimated times of arrival as required at the briefing, and return to the deck.

Special rules

- The value of T, in seconds, will be given at the briefing.

Scoring

$$\text{Pilot score} = \left(700 \times \frac{NBp}{NBMax}\right) + (300 - T)$$

Where, according to briefing;

Either:

NBp = The number of ground markers and/or turn points a pilot collects in the task

NBmax = The maximum number of markers and/or turn points collected in the task

OR

NBp = the distance flown by the pilot in the task.

NBMax = the maximum distance flown in the task.

AND

T = The total difference in between pilot's estimated and actual times for all timed sectors. (>=300 = 300)

2.A4   NAVIGATION / ESTIMATED SPEED / PRECISION

Objective

To fly a course between any combination of turn points, markers, landing markers and gates as defined at the briefing having declared estimated flight times as required at the briefing, and return to the deck.

Special rules

- The value of T, in seconds, will be given at the briefing.

- At the start, the pilot scores 150 bonus points for a clean take off at the first attempt, 100 for the second, 50 for the third, zero for any attempts thereafter.

- All landing markers may be attempted with engine on unless the marker is in the landing deck and is the final element in the task.

- If the pilot falls over as a result of a landing: zero landing score for that landing.

- If the pilot obstructs another competitor attempting to land at a landing marker penalties will apply.

Scoring

$$\text{Pilot score} = \left(400 \times \frac{NBp}{NBMax}\right) + (250 - T) + Bto + \left(200 \times \frac{Bld}{BldMax}\right)$$

Where, according to briefing;

Either:

NBp = The number of ground markers and/or turn points a pilot collects in the task

NBmax = The maximum number of markers and/or turn points collected in the task

OR

NBp = the distance flown by the pilot in the task.

NBMax = the maximum distance flown in the task.

AND

T = The total difference in between pilot's estimated and actual times for all timed sectors. (>=250 = 250)

Bto = Pilot's takeoff score

Bld = Pilot's landing points

BldMax = The maximum number of landing points achieved in the task.

2.B1.   PURE ECONOMY

Objective

Take-off with a measured quantity of fuel and stay airborne for as long as possible and return to the deck.

Special rules

-    Free take-off within the time window.

-    Departure from 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.

Scoring

$$\text{Pilot score} = 1000 \times \frac{Tp}{Tmax}$$

Where:

Tp = The pilot's time,

Tmax = The longest time taken to complete the task

2.B2   ECONOMY & DISTANCE

Objective

To take off from the deck with a given quantity of fuel, fly as many laps as possible around a course not exceeding 1Km in length and land on another deck.
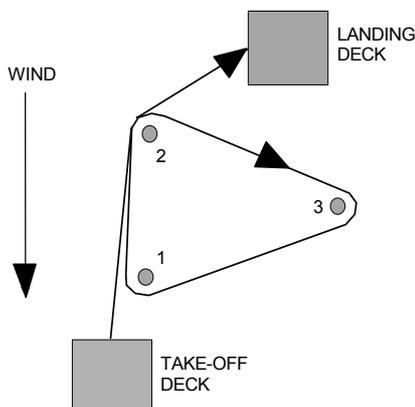
Special rules

- Pilots must not exceed 200ft height at any time, or 30ft whilst rounding pylons.

- Exceeding the height limitations or failure to round a pylon does not score that lap.

- If the pilot or any part of his PARAMOTOR touches the ground during the task and takes off again, score zero.

- Failure to land in the landing deck: 20% penalty.

Scoring

$$\text{Pilot score} = 1000 \times \frac{Lp}{Lmax}$$

Where:

Lp = The number of whole laps completed by the pilot

Lmax = The maximum number of whole laps achieved in the task.

2.B3   ECONOMY & NAVIGATION

Objective

To take off with a given quantity of fuel and locate an unknown number of markers within defined sectors and return to the deck.

Description

Each sector will contain a given IP (initial point) and a FP (finishing point) which may be a turn point, marker or gate. The pilot flies a given track between the IP and FP. An unknown number of markers may be distributed along the track.

Special rules

- Outlanding: Score zero.

Scoring

$$\text{Pilot score} = 1000 \times \frac{NBp}{NBmax}$$

Where:

NBp = The number of ground markers and/or turn points a pilot collects in the task

NBmax = The maximum number of markers and/or turn points collected in the task

2.B4.   ECONOMY & PRECISION

Objective

To make a clean take-off in the time window with a given quantity of fuel, stay airborne as long as possible within a defined area and land on landing markers situated within the deck before the end of the time window.

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.

Scoring

$$\text{Pilot score} = \left(500 \times \frac{Tp}{Tmax}\right) + Bto + Bld$$

Where:

TP = The pilot's time

Tmax = The longest time taken to complete the task

Bto = Takeoff bonus points

Bld = Landing bonus points

2.B5   SPEED TRIANGLE AND OUT AND RETURN

Objective

With limited fuel, to fly around a circuit in the shortest possible time, return to the deck, and then, with the pilots remaining fuel fly in a given direction as far as possible and return to the deck.

Description

Fuel quantity allowed: (Suggested: 6 litres)

Part 1: Speed; The pilot take off time is noted. The pilot flies to one or more turnpoints and returns to the deck where he is timed.

Part 2: Distance; The pilot then flies in a given direction to a point of pilot choice, photographs it, and returns to the deck.

Special rules

- Land out before completing part 1: Score zero.

- Land out before completing part 2: Score zero for part 2.

- IMPORTANT: The point the pilot photographs as his point of greatest distance in part 2 MUST be clearly and unequivocally interpretable onto the official map. It is recommended the pilot takes several views of the point to confirm his position in relation to surrounding features and also takes back-up photos of earlier points along his route.

- Failure to takeoff or land entirely in the deck: 20% penalty.

Scoring

$$\text{Pilot score} = \left(500 \times \frac{tMin}{tp}\right) + \left(500 \times \frac{dp}{dMax}\right)$$

Where:

tp = the pilot's time,

Tmin = The best time (Part 1)

dp = the pilot's distance

dMax = the greatest distance (Part 2)

2.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 point.

25cm dia; **250 points**

2m dia; **175 points**

4m dia; **100 points**

6.50m dia; **50 points**

Outside 6.50m dia;
zero landing score
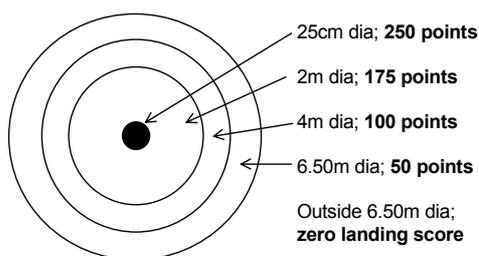
Description

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.

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 is the point from which the pilot's score will be derived. A first touch on the line scores the higher score.

- 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

2.C2.   PRECISION CIRCUIT IN THE SHORTEST TIME

Objective

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

Description
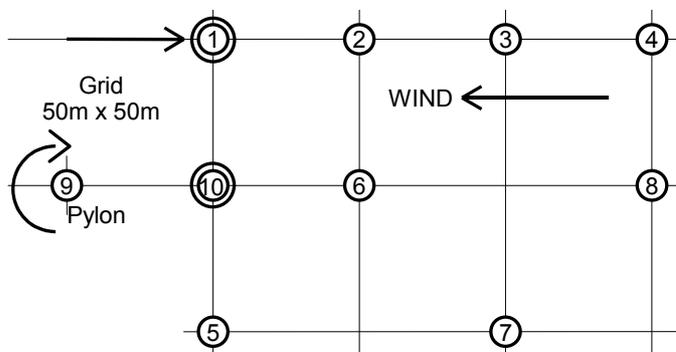
8 targets 2m in height are laid out 50M apart in two arrays. The first array has 4 targets in a straight line, the second array has 4 targets in a slalom.

A further target is placed 50M behind target 10 to serve as a pylon which must be flown round (by the body of the pilot) before target 10 is struck.

Special rules

-   A valid strike on a target is one where the pilot or any part of the PARAMOTOR has been clearly observed to touch it.

-   To count as a strike, target No. 9, the pylon, must be rounded in a CLOCKWISE direction.

-   A strike on target 1 starts the clock, a strike on target 10 stops the clock.

-   Pilots may have only one attempt at striking each target except for the first and last targets where three attempts at each are permitted.

-   Failure to strike the first or last target or touch the ground at any point between them: score zero.

Scoring

$$Q = \frac{NQ^3}{Sp} \quad \text{Pilot Score} = \left(1000 \times \frac{Q}{Qmax}\right)$$

Where:

NQ = The number of targets struck by the pilot

Sp = The pilot's elapsed time in seconds between striking target 1 and target 10

2.C3. SLOW / FAST SPEED

Objective

To fly a course as fast as possible and then return along the course as slow as possible.

Description

A straight course between 250m and 500m long and 25m wide is laid out with gates at each end. The pilot makes a timed pass along the course as fast as possible, returns to the start, and makes a second timed pass in the same direction as slow as possible.

Special rules

-   For each leg, the clock starts the moment the pilot passes the first gate and stops the moment he passes the second.

-   If the pilot or any part of his PARAMOTOR touches the ground during the first leg: VP1 = zero and EP = zero

-   If the pilot or any part of his PARAMOTOR touches the ground during the second leg: VP2 = zero and EP = zero

-   If the pilot zigzags or if the body of the pilot overflies a side of the course or exceeds 2m above ground: Score zero.

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

Scoring

$$\text{Pilot score} = \left(125 \times \frac{Vp_1}{Vmax}\right) + \left(125 \times \frac{Vmin}{Vp_2}\right) + \left(250 \times \frac{Ep}{EMax}\right)$$

Where:

Vmax = The highest speed achieved in the task, in Km/H

Vp1 = The speed of the pilot in Km/H in the first leg of the task

Vmin = The lowest speed achieved in the task, in Km/H

Vp2 = The speed of the pilot in Km/H in the second leg of the task

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

2.C4 THE FOUR STICKS

Objective

This task is intended as a small break task between elements of an overall task.

Description

There are 4 standard kicking sticks set at the corners of a 50m x 50m square. The pilot must kick 3 of the 4 sticks. The first stick the pilot kicks may be any of the 4 sticks. The third stick the pilot kicks must be diagonally opposite the first, the second stick may be either of the two other sticks.
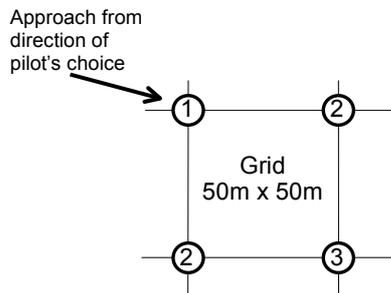
Special rules

- If this task is used to take a time for the purposes of an element of the overall task then the time shall be taken the moment the pilot strikes the first stick.

- The pilot may have as many attempts as necessary at striking the first stick.

- Only ONE attempt is allowed at kicking both the second and third sticks.

- There shall be one group of 4 sticks for every 15 competitors in the task.

- On approach to the task, pilots should choose a "free" group of sticks. However if, in the opinion of the marshals on duty a conflict with another aircraft existed (depending on the overall task, for example if there is a timing involved) both should kick only one stick and then depart on the rest of the overall task. Both pilots will then be given the opportunity to have ONE further attempt at this task as soon as possible after the end of the overall task.

Scoring

The scoring should be integrated into the overall task as NQ. If the pilot fails to kick either the second or third stick then for each stick then the penalty shall be no more than 5% of the overall task score.

2.C5   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 point.

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 is the point from which the pilot's score will be derived.

 -        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 = $Bto + \left(250 \times \dfrac{Dp}{Dmin} \right)$

Where

Bto = Pilot's takeoff score.

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 circle should be marked by cones or some other visual indication.

2.C6   SHORT TAKE-OFF OVER A FENCE

Objective

To take off and clear a fence from as short a distance as possible. This task is intended to be included as a small element of another task.

Description

A fence 2m high and 10m long is manoeuvred into a position of pilot choice.

When takeoff permission is granted, pilots takes off and tries to fly over the fence. Maximum distance of pilot's feet on the ground to the fence is scored.

Special rules

- If the pilot's feet have not left the ground and the line of the fence is not reached at the first attempt then one second attempt is permitted.

- Zero fence score for breaking the fence or weaving.

Scoring

The scoring should be integrated into the overall task scoring as F. If the pilot fails to clear the fence then the penalty shall be no more than 10% of the overall task score.

Pilot score = $\left(100 \times \dfrac{Fmin}{Fp} \right)$

Where

Fmin = The shortest distance in metres for a takeoff over the fence

Fp = The pilot's takeoff distance to clear the fence.

Notes

A fence may simply be 2 kicking sticks with a plastic tape between.

To prevent unnecessary delay the fence should only be brought to the pilot when he is ready to take off.

The pilot should not be told the distance he is from the fence, the distance should be at the sole visual judgement of the pilot.

The distance measured is the maximum distance the pilot is away from the fence whilst touching the ground, thus if the pilot steps away from the fence during launch then this distance should be included.

The job of holding the two poles supporting the fence can be quite hazardous; it should be entrusted to marshals experienced in PF operations.

2.C7.   PRECISION CIRCUIT IN THE SHORTEST TIME ('Clover leaf slalom')

Objective

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

Description
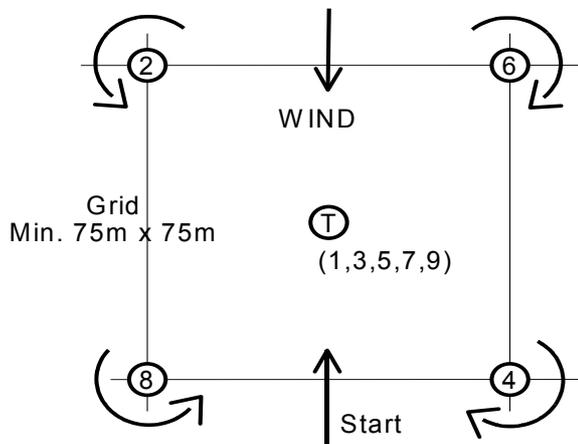
4 pylons 2m in height are laid out at the corners of a 75M square. A fifth target is set at the centre of the square.

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

Special rules

-   A valid strike on the target T is one where the pilot or any part of the PARAMOTOR has been clearly observed to touch it.

-   To count as a strike, the pilot's body must be clearly seen to round each pylon and pylons 2 & 8 must be rounded in an ANTI CLOCKWISE direction and pylons 4 & 6 must be rounded in a CLOCKWISE direction.

-   A strike on target 1 starts the clock, a strike on target 9 stops the clock.

-   Pilots may have only one attempt at striking each target except for the first and last targets where three attempts at each are permitted.

-   Failure to strike the first or last target or round at least one pylon or touch the ground at any point between them: score zero.

-   The grid may be opened up to max. 100M at the briefing if the meterological conditions dictate.

Scoring

$$Q = \frac{NQ^3}{Sp} \quad \text{Pilot Score} = \left(500 \times \frac{Q}{Qmax}\right)$$

Where:

NQ = The number of targets struck by the pilot

Sp = The pilot's elapsed time in seconds between striking target 1 and target 9

2.C8.   **PRECISION CIRCUIT IN THE SHORTEST TIME ('Japanese slalom')**
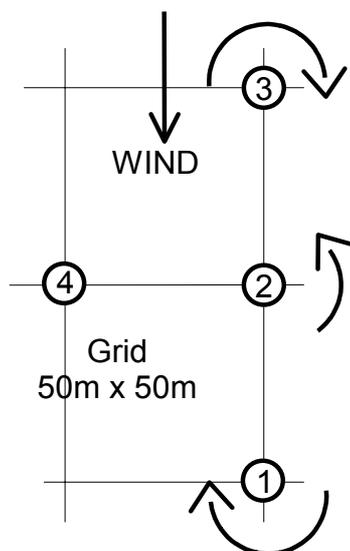
Objective

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

Description

4 pylons 2m in height are laid out on a 50m x 50m grid.

The pilot enters the course into wind and strikes target 1.At this point the clock starts.
The pilot then strikes targets 2 and 3.
He then returns to fly clockwise around target 1 (strike 4), anticlockwise around target 2 (strike 5) and clockwise around target 3 (strike 6).
He then returns to strike target 1 (strike 7), target 4 (strike 8) and target 3 (strike 9).
The clock stops when target 3 (strike 9) is kicked.

Special rules

- A valid strike on a target is one where the pilot or any part of the PARAMOTOR has been clearly observed to touch it

- When targets are acting as pylons, to count as a strike, the pilot's body must be clearly seen to round it, pylons 1 & 3 must be rounded in a CLOCKWISE direction and pylon 2 must be rounded in an ANTI CLOCKWISE direction.

- A strike on target 1 starts the clock, a strike on target 9 stops the clock.

- Pilots may have only one attempt at striking each target except for the first and last targets where three attempts at each are permitted.

- Failure to strike the first or last target or touch the ground at any point between them: score zero.

Scoring

$$Q = \frac{NQ^3}{Sp} \quad \text{Pilot Score} = \left(500 \times \frac{Q}{Qmax} \right)$$

Where:

NQ = The number of targets struck by the pilot

Sp = The pilot's elapsed time in seconds between striking target 1 and target 9

3.C9   **PRECISION CIRCUIT IN THE SHORTEST TIME ('Chinese slalom')**

Objective

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

Description

Between 6 and 12 sticks 2m in height are laid out on a course not exceeding 3Km in length.

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

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

Special rules

- A valid strike on a target is one where the pilot or any part of the paramotor has been clearly observed to touch it

- A strike on stick 1 starts the clock, a strike on the last stick stops the clock.

- Pilots may have only one attempt at striking each stick except for the first and last sticks where three attempts at each are permitted.

- Failure to strike the first or last stick or at least two of the intermediate sticks or touch the ground at any point between them: score zero.

Scoring

$$Q = \frac{NQ^3}{Sp} \quad \text{Pilot Score} = \left(500 \times \frac{Q}{Qmax} \right)$$

Where:

NQ = The number of sticks struck by the pilot

Sp = The pilot's elapsed time in seconds between striking the first and last sticks.

Note to Director: This task is ideally suited for sites where there are physical features which obscure a direct view from one stick to the next.

3.C10   SLOW / FAST SPEED (variant)

Objective

To fly a course as slow as possible and then return along the course as fast as possible.

Description

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

The pilot makes a timed pass along the first course as slow as possible, returns to the start, and makes a second timed pass in the same direction along the course as fast as possible and then returns to the deck.

Special rules:

- A valid strike on any stick is one where the pilot or any part of the aircraft has been clearly observed to touch it.

- For each leg, 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% leg score for each stick missed.

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

In the slow leg:

- If the pilot or any part of his PPG touches the ground or the fourth stick is missed: VP1 = zero and EP = zero

- If the pilot zigzags: Score zero.

In the fast leg:

- If the pilot or any part of his PPG touches the ground: VP2 = zero and EP = zero

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

Pilot score = $\left(125 \times \frac{Vp_1}{Vmax} \right) + \left(125 \times \frac{Vmin}{Vp_2} \right) + \left(250 \times \frac{Ep}{EMax} \right)$

Where:

Vmax = The highest speed achieved in the task, in Km/H

Vp1 = The speed of the pilot in Km/H in the first leg of the task

Vmin = The lowest speed achieved in the task, in Km/H

Vp2 = The speed of the pilot in Km/H in the second leg of the task

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

2.N1   NOISE IN CLIMB

Objective

From a stationary position on the ground in front of a line and using a fixed throttle (and propeller pitch) setting of pilot choice, the pilot takes off and climbs in a straight line over a microphone set 300m distant from the line.   The max noise in dBA of the aircraft is measured.

Special rules

- Weaving, failure to fly directly over the microphone, changing throttle or propeller pitch setting: Zero score.

Scoring

Pilot score = $500 \times \left(\dfrac{nMin}{nP} \right)$

Where:

nMin = The minimum noise in dBA achieved in the   class

nP = The noise achieved by the pilot in dBA

2.N2   MINIMUM NOISE IN LEVEL FLIGHT

Objective

To fly two legs of a course in opposite directions as quietly as possible.

Description

The course is between two points 300m apart and must be flown in a straight line at a height of 25ft (± 10ft). at a pilot selected constant throttle and propeller pitch setting. The microphone is positioned 100m offset from the centreline and equidistant from the two points.

Special rules

- Weaving, changing height, throttle or propeller pitch setting whilst in the course: Zero score for that run.

Scoring

Pilot score = $\left(250 \times \left(\dfrac{nMin_1}{nP_1} \right) \right) + \left(250 \times \left(\dfrac{nMin_2}{nP_2} \right) \right)$

Where:

nMin1 and nMin2 = The minimum noise in dBA achieved on each run in the   class.

nP1 and nP2 = The noise achieved by the pilot in dBA on each run.