

WORLD AIR GAMES 2009

TORINO (ITALY)

6 – 13 June 2009

MICROLIGHT / PARAMOTOR SPORTING CODE

APPLIES TO ALL CLASSES

The purpose of the championships is to provide good and satisfying contest to determine the champion in each class and to reinforce friendship amongst pilots and nations (S10 4.2).

The championship consists of a series of locally based qualifying championships which were scored on a universally comparable basis. The pilots with the best qualifying performance have been selected to compete in the finals at the World Air Games venue.

1) FINAL COMPETITION VENUE

The final competition will take place on the Aeritalia Airport, Torino - Italy, from 6th to 14th June 2009 (see <http://www.wag2009.com>)

2) OFFICIALS AND ORGANIZERS

Tomas Backman, Carlos Trigo, Assaad Assaker: international jury

Wolfgang Lintl: FAI liason officer

Giovanni Fantini: competition director (trikes)

Alessandro Menichini: competition director (paramotor)

Paolo Piana: WAG 2009 air sport director (microlight class)

3) LANGUAGE

The official language of the competition is English.

4) MEDALS AND PRIZES

At the final competition:

- FAI medals will be awarded to Pilots placed first, second and third in each class.
- FAI Diplomas will be awarded for those placed first to tenth in each class.

5) COMPETITION CLASSES

The Competition will be held in the following classes (S10 1.5): Microlight class, WL2 , two-seat weight-shift trike and Paramotor class, PF1, single seat foot-launched paramotor. Each class is a championship in its own right.

6) TEAMS

Pilots in the microlight class (two-seat trike) will be considered a team of two for the duration of a competition. Both pilots must be of the same nationality. Generally, scores can only be set in a competitive one-on-one basis complete with all penalties - NOT on a

time-trial while flying the course alone. The pilot will fly alone only when the paired aircraft was not able to take off within the established time

7) REGISTRATION

Before the first flight from the competition venue each pilot must have their documents checked. The following documents are required:

- Pilot License or equivalent certificate.
- Aircraft Certificate of Airworthiness or Permit to Fly not excluding competition flying. This document must be issued in or accepted by the country of origin of the aircraft or the country entering it or the country of the organisers.
- Third party insurance of minimum € 1 000 000.
- Valid FAI Sporting License for every competitor.
- Evidence of conformity to class rules.

Note: Personal accident insurance for competitors and insurance against damage to aircraft are highly recommended.

8) PROTECTIVE EQUIPMENT

A protective helmet must be worn on all flights. An emergency parachute system is highly recommended, and it will not be considered part of the paramotor structure and could be added or taken away during the competition.

9) AIRCRAFT AND ASSOCIATED EQUIPMENT

Aircraft and equipment provided by the competitor must be of a performance and standard suitable for the competition.

Each aircraft must comply with the FAI definition of a Microlight or Paramotor at all times (see S10 1.3).

Each aircraft must be made available during the registration period for a possible acceptance check in the configuration in which it will be flown.

All aircraft must fly throughout each competition as a single structural entity using the same set of components as used in the first task, except that propellers may be changed provided that the weight limit is not exceeded and the Certificate of Airworthiness or Permit to Fly is not invalidated.

The organisers have the right to inspect for class conformity and airworthiness and, if necessary, ground any aircraft at any time during a competition for safety reasons or breaching the conformity rules.

10) STATUS OF RULES AND REGULATIONS

Any additional requirements within the rules needed during the event will not be retrospective.

11) COMPLAINTS AND PROTESTS

A competitor who is dissatisfied on any matter may make a complaint in writing to the Competition Director.

Complaints must be made, and dealt with, without delay. Complaints concerning provisional scores must be made in writing within the time limit specified on the score sheet.

A complaint that could effect a task result must be dealt with and answered in writing before any official score sheet is issued.

If the competitor is dissatisfied with the decision, the pilot may make a protest to the director in writing within 6 hours of an OFFICIAL score sheet being issued (not counted

between 22:00 and 06:00), or 2 hours in the case of the last contest task. The protest fee is € 50.

12) BRIEFING

Briefings will be held for team leaders/competitors ahead of all tasks. Place and venue will be prominently displayed. All briefings will be recorded, either by tape, notes or video.

Briefings will include full task description, meteorological information, flight safety requirements, prohibited or restricted flying areas, procedures for takeoff, flying the task, landing, scoring and penalties and will be given in writing to the team leaders/competitors and the Jury members.

13) COMPLIANCE WITH THE LAW

Each competitor is required to conform to the laws and to the rules of the air.

14) DAMAGE TO A COMPETING AIRCRAFT

Any damage must be reported to the organisers without delay and the aircraft may then be repaired. Any replacement parts must be replaced by an identical part, except that major parts such as a wing for a paramotor may be replaced by a similar model or one of lesser performance. A Change of major parts may incur a penalty.

An aircraft may be replaced by permission of the Competition Director if damage has resulted through no fault of the pilot. Replacement may be only by an identical make or model or by an aircraft of similar or lower performance and eligible to fly in the same class.

15) TEST AND OTHER FLYING

No competitor may take-off on a competition day without the permission of the Competition Director. Practising prior to a task is not permitted.

16) FITNESS

A pilot may not fly unless fit. Any injury, drugs or medication taken, which might affect the pilot's performance in the air must be reported to the Competition Director before flying.

Anti doping control may be undertaken on any pilot at any time. The decision to impose anti doping controls may be taken by the FAI, the organiser or the organiser's national authority. All relevant information can be found on the FAI Web site: www.fai.org/medical

17) AIRFIELD DISCIPLINE

Marshalling signals and circuit and landing patterns will be given at briefing and must be complied with. In any case, acting against flight limitations will be considered dangerous flying and will cause disqualifying.

18) THE CROWD LINE

For safety purposes it has been established a crowd line. The crowd line is a line or an area (not necessarily the fence separating spectators from the flying area) over which no part of a competitor's aircraft must pass at any height at any time.

The exact location of the crowd line will be briefed by the competition organizer. The normal penalty for infringement is instant disqualification.

19) ASSISTANTS

Help from assistants is positively encouraged until a competitor enters the takeoff area to start a task. From that moment onwards, all external assistance is forbidden except from marshals or those people expressly appointed by the Director, until the moment the competitor leaves the landing area having finished a task.

20) **START LINE PROCEDURE**

A competitor will generally be allowed only one take-off for each task and the task may be flown once only.

Tasks will be started when the competitor will be called to the starting line. From this moment, the pilot has 60 seconds to be ready to take off. For further details and timing see description of the tasks.

Pilots who have not acknowledged they are ready to start within the 1 minute start period will be penalized for not being ready to start.

If any part of the aircraft crosses the start line before the start flag is dropped, the pilot will be penalized for a false start.

21) **THE RED FLAG**

The red flag and/or "STOP TASK" repeated several times over the radio indicates "STOP at once". If a red flag is displayed, all pilots must immediately abandon the task and, if airborne, proceed to the landing area. The reason will be given over the radio.

Pilots who have not acted in such a way as to cause the red flag to be displayed in the first place shall be permitted to fly the task again.

22) **TASK SUSPENSION OR CANCELLATION**

The Director may suspend flying after take-offs have started, if to continue is dangerous. If the period of suspension is sufficiently long to give an unfair advantage to any competitor, the task must be cancelled. Once all competitors in a class have taken off or had the opportunity to do so, the task will not be cancelled except for reasons of force majeure.

23) **EMERGENCIES**

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

24) **SCORING**

The decisive element in all competition is time. Every result in a task will be shown as the time spent by the competitor plus time penalties relevant to the task. The competitor (or team, in the case of two-seat classes) with the shortest time to complete all the tasks in the competition is the winner.

All times are given, taken and calculated in simple elapsed time, rounded down to the most accurate permitted precision. (see S10 5.2.6 and 5.2.7)

Each task description will include a default penalty time which is the maximum time considered reasonable to complete the task. No total pilot time can exceed the default penalty time of a task.

Each pilot who fails to start or finish a task will receive the default penalty time.

In the case of two seat aircraft, unless otherwise stated in the task description, both pilots must fly the task solo and the result will be the sum of what they achieved individually.

A pilot who did not fly will be marked DNF or "Did Not Fly" on the score sheet . A pilot who is disqualified scores zero and will be marked DSQ or "Disqualified".

Score sheets must state the date for the task and the date and the time when the score sheet was issued, the task description, task number, classes involved, competitors name, country, the competitors number and score.

Score sheets shall be marked Provisional, Official, or if a protest is involved, Final. A Provisional score sheet may only become Official after all complaints have been addressed. Scores may not be altered when the Provisional sheet is made Official. (see S10 4.29.1)

25) **PENALTIES**

In general, any infringement of any flying, safety or task regulation will result in penalty.

It is particularly important that competition directors carefully brief the safety aspects of 'close-quarter' precision or racing tasks and are rigorous in issuing penalties when competitors act contrary to what was briefed.

Directors are encouraged to employ a policy of 'two strikes and you are out' in the case where infringements do not quite merit immediate disqualification but still easily merit a default penalty time for a task. A second similar infringement by the same competitor in the same competition should merit disqualification.

Pilots who suddenly realize they have taken the wrong route around a course would be wise to immediately abandon the task by climbing away from the course in a safe manner or there is a very real risk they will be disqualified for dangerous flying.

Actions which will normally result in immediate disqualification:

- a. Bringing the event, its organisers, the FAI or the sporting code into disrepute.
- b. The use of banned substances.
- c. Dangerous flying or crossing the crowd-line.

26) **CONTEST NUMBERS**

The numbers or letters supplied by the organisers must be displayed on a suitable space on the underside of the wing with their top towards the leading edge. The underside wing number must be of a colour contrasting to the background. Identification may also be required on other parts of each microlight (e.g. fin, cockpit side or pilot's helmet).

27) **RADIO EQUIPMENT**

VHF aviation R/T capable of operating in the frequency range 118.000 - 136.000 MHz is mandatory for all aircraft.

Applies to Paramotors

GENERAL PART

During the World Air Games, three paramotor tasks will be organized, i.e. clover leaf slalom, basket ball slalom and dragon tail chase – precision landing. The ranking will be based on the sum of the timings (plus penalties, if any) achieved by the competitors in each of the 3 tasks. An additional clover leaf task will be flown as a final contest, with the best 8 pilots of the general ranking, in a knock-out competition.

START LINES

Start lines are laid out facing into wind. There will be two starting positions on the start line for each task. Each of these starting positions will be at the same distance from the task area respectively. Pilots must start their takeoff from within 10m of their designated starting position.

TAKE-OFF

No pilot may take-off without permission from the Competition Director or a Marshal.

One authorized assistant is permitted to help the pilot lay out the canopy, but the takeoff must be completely unassisted.

A paramotor must be foot launched for all tasks.

An aborted take-off does not in principle attract any penalty, if the task has started, a failed takeoff does not mean the pilot must retreat behind the start line. The authorized assistant is permitted to help the pilot to re-lay the canopy, if the pilot is beyond the start-line the assistant must leave the area immediately thereafter.

FLIGHT LIMITATIONS

Aerobatics and manoeuvres such as stalls, B-line stalls, deep stalls, spins and extreme porpoising are prohibited. 'Big ears' is accepted.

LANDING

Upon landing, pilots must immediately remove their paramotor from the landing area.

In tasks where the pilot is asked to switch off his engine above 500 Ft, this means "The engine must be stopped for a minimum period of 60 seconds before any part of the aircraft or the pilot touches the ground."

In tasks where pilots are asked to make a precision landing, the objective is for the pilot to make a good landing on his own two feet without falling over. "Falling over as a result of the landing" will be interpreted as:

- GOOD: If the pilot falls to ONE knee - landing score as achieved.
- BAD: If the pilot falls to TWO knees OR if any part of the power unit touches the ground during the landing process – penalty assigned (see task description).

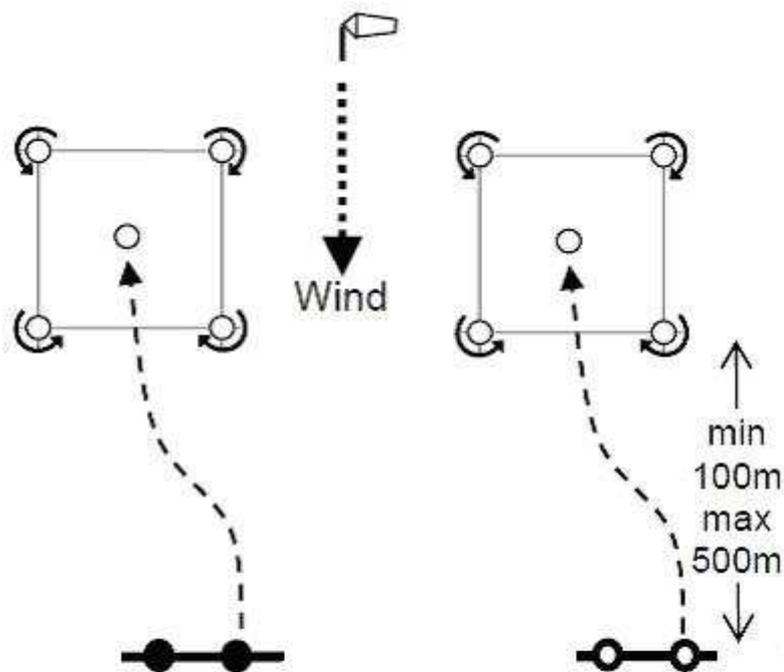
TASKS DESCRIPTIONS

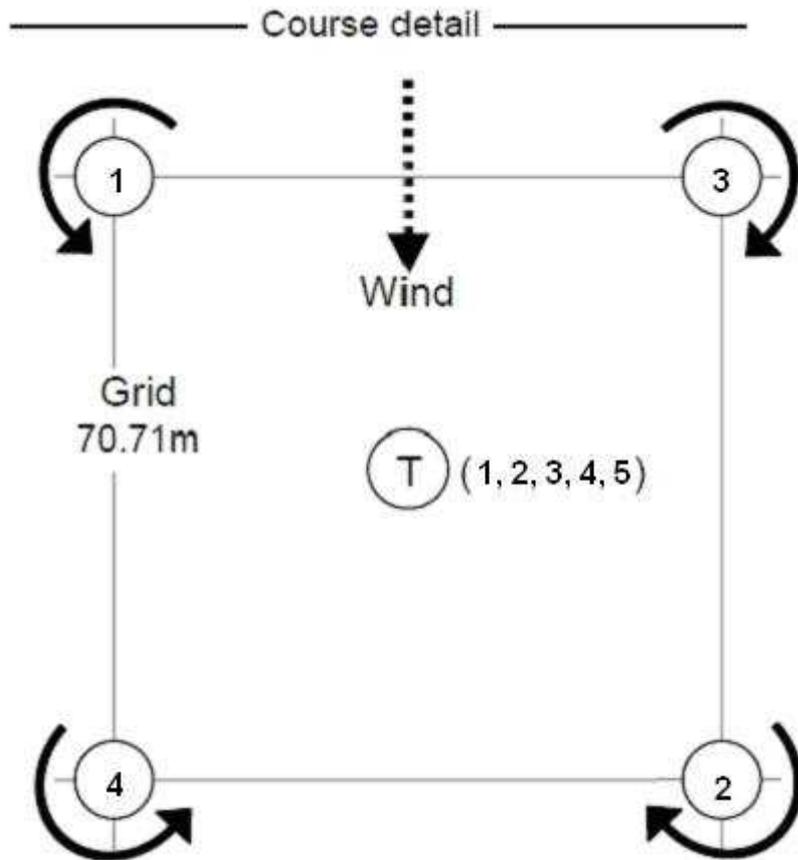
Clover Leaf Slalom.

Task description

Each of the two slalom courses consists of 4 giant inflatable pylons 12 m tall placed at the corners of a 70.71m square. A target, a flexible slalom-pole, is placed at the centre of the square. Both courses are at the same distance from each start line.

The distance between a start line and a slalom course will be between 100m and 500m.





Flying the course

The competitors will wait in two areas near the starting line, in the order that has been drawn up at the briefing. The Competition Director will tell the two starting marshals (one for each starting position) when the next couple of paramotors are to be called to the starting line. The starting marshals, aided by the other marshals, will tell the pilots in question. The Competition Director then raises the starting flag (green or checked) and keep it raised. From this moment, the paramotors will have 60 seconds to reach their starting position. When the competitor is in position and clearly shows to be ready for take off, the nearby starting marshal raises a white flag. When both flags are upheld and anyway not later than 60 seconds after the call, the Competition Director gives the starting signal, by dropping the flag. The timing also starts in this moment and will be separately taken with manual stopwatches by two official time- keepers.

If after 60 seconds a paramotor is still not able to take off (e.g. technical problems, engine stopped, etc.), the pilot will be considered “not ready to start”, will not be allowed to take off at a later time and will receive a default penalty. The other aircraft will fly the course alone. Each pilot enters his course and strikes the target T (strike 1). Then the pilot flies around each pylon and each time returns to kick the stick T in this order:

- Pylon 1 – strike target T (strike 2);
- Pylon 2 – strike target T (strike 3);
- Pylon 3 – strike target T (strike 4)
- Pylon 4 – strike target T (strike 5).

The timing stops when target T is kicked for the last time (strike 5).

Both paramotrs must then exit the task area in an expeditious and safe manner to land in the designated area.

Detail 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, or (if briefed)
- has struck it firmly enough to trigger the automatic sensing device.

The pilot's body must be clearly seen to round each pylon in the correct direction; pylons 1 & 4 must be rounded in an ANTI CLOCKWISE direction and pylons 2 & 3 must be rounded in a CLOCKWISE direction.

Pilots have only one attempt to strike the target, when entering the course and after each rounding of a pylon, except for the last strike when two attempts are permitted.

Penalties

- Finishing the task after the pilot on the other course (coming second): 5 seconds.
- General penalty for infringements of procedures detailed at briefing: 15 Seconds for each infraction.
- A default penalty time of 2 minutes will be applied in these cases:
 - ❖ Failure to strike the target any time or round any pylon;
 - ❖ Touch the ground at any point between strikes 1 and 5;
 - ❖ Not ready to start, false start or did not start.
- Any part of the aircraft crosses the crowd line or dangerous flying: disqualified.

Scoring

The time used by each pilot to complete the course, plus penalties (if any) will establish the ranking, from the shortest to the longest.

Overall organization

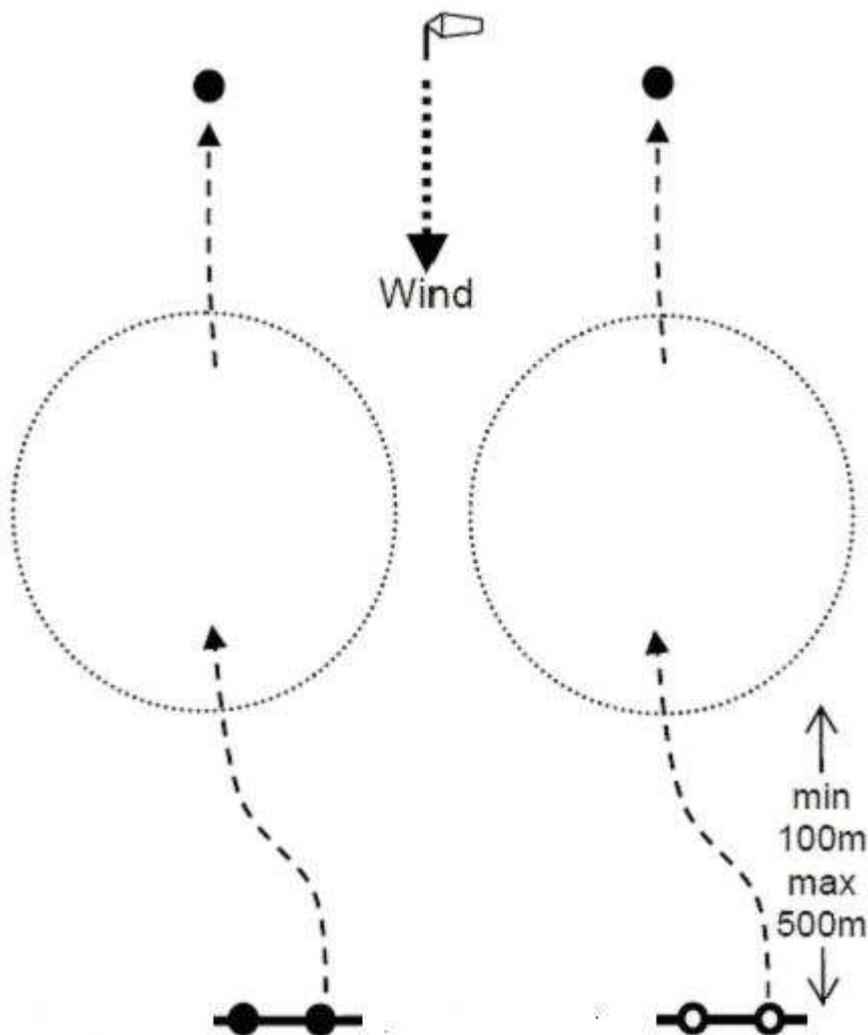
As explained in the general part, the Clover Leaf Slalom will be run twice in the WAG. The the second time it will serve as a final with the best 8 qualified pilots in the usual knock-out format (1-8, 2-7, 3-6, 5-4, etc.). Take-off order and competitors couplings will be drawn at the briefing. If the procedure has been briefed, the winner may be told over the radio that he is permitted a fly-past.

Dragon tail chase and precision landing

Task description

Two manoeuvring areas are laid out at the same distance from the two starting lines (see picture below). Each pilot is issued with a 15 m streamer (**Note 1**).

The distance between the starting line and the manoeuvring area will be between 100m and 500m.



Flying the task

Starting procedure will be the same as explained for the Clover Leaf, except for the timing that will not start simultaneously with dropping of the flag by the Competition Director. Both pilots may then take off and then climb directly to their manoeuvring area.

At a height of the pilots own choice, each pilot lets his streamer trail from the aircraft and then releases it. At this point the timing starts and will be separately taken with manual

stopwatches by two official time-keepers.

Each pilot then attempts to recapture his streamer as quickly as possible, at which point the timing stops when this is accomplished.

After recapturing the streamer, or the streamer is on the ground, the pilot climbs to 500ft in his manoeuvring area, switches off his engine and attempts to land as near as possible to the centre of the target.

Detail rules

A valid recapture of the streamer is when the pilot can clearly touch some part of it. Has the streamer once got entangled in the canopy or canopy lines, the pilot will not score, even if he later will be able to reach it. The target is a soft ball or other similarly sized three dimensional soft object.

Engine must be off for minimum 1 minute before first touch at the landing target.

The whole task should be completed within a maximum time of 8 minutes, from take off to precision landing.

Penalties

- Coming second, by recapturing the streamer after the pilot on the other course: 5 seconds.
- A default penalty time of 60 seconds in these cases:
 - ❖ Streamer entangled in the canopy lines;
 - ❖ Failure to capture the streamer;
 - ❖ Engine off for less than one minute or falling over at the target (perform a BAD landing, see general part);
 - ❖ Not ready to start, false start or did not start, taking more than 8 minutes to complete the whole task
- Target: 1 second for every 50 cm from first touch to target.
- General penalty for infringements of procedures detailed at briefing: 15 Seconds for each infraction.
- Any part of the aircraft crosses the crowd line or dangerous flying: disqualified.

Scoring

The time used by each pilot to complete the course, plus penalties (if any) will establish the ranking, from the shortest to the longest.

Overall organization

This task will be run once in the WAG. Takeoff order (i.e. who competes against who) will be drawn at the briefing.

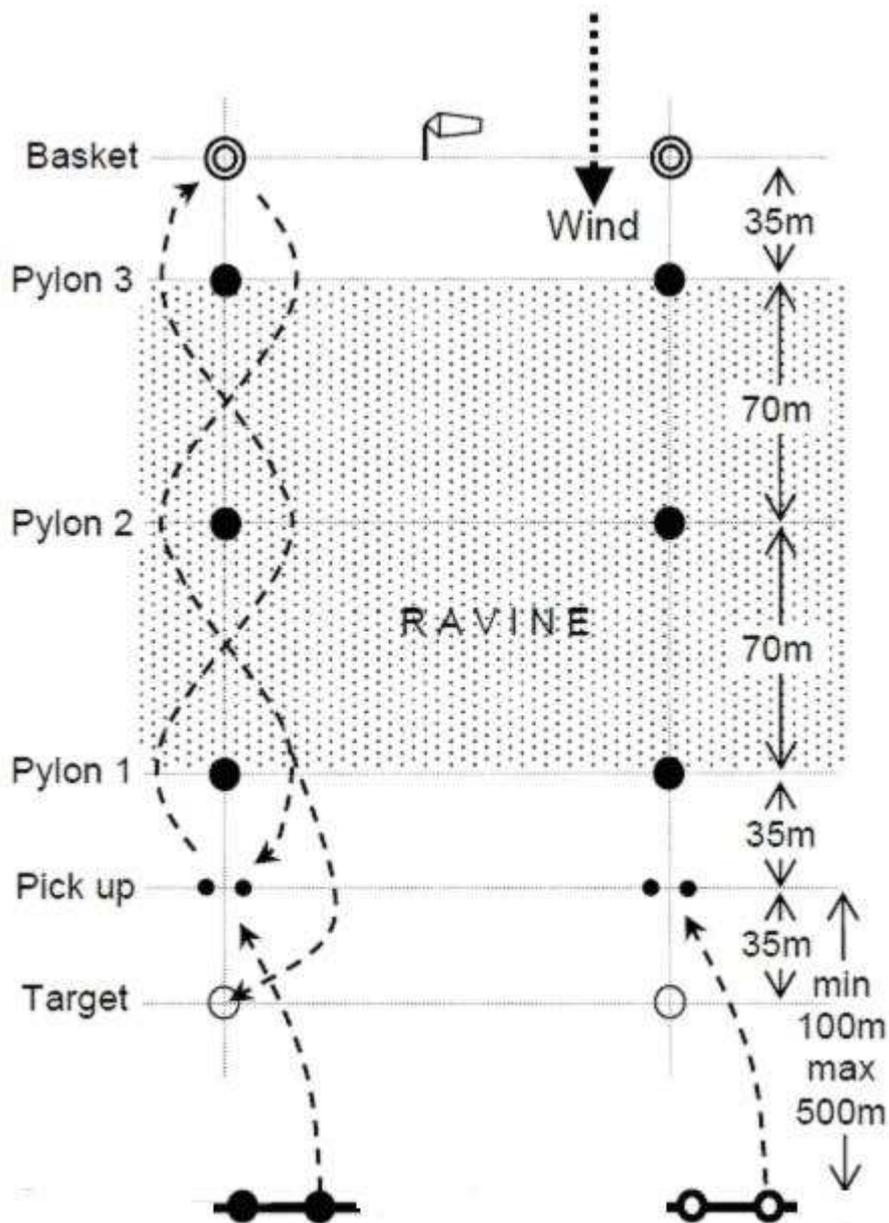
Note 1

The LOC is aware that for this task a thin plastic streamer has been widely used, red and white striped, e.g. as used in road works. During the qualification competition / test event held in Torino (September 2008), alternative paper streamers were used with favourable results. These were paper tapes, e.g. as used in cash calculators. The LOC believes that paper streamers could be safer in case of contact with the propeller. More tests are still undergoing.

Basket ball slalom

Task Description

Two courses are laid out along straight lines at the same distance from the two starting lines, each course consists of a ski slalom pole, a pickup zone containing two balls, three pylons 12 m tall in a line and a basket.



Flying the task

Starting procedure will be exactly the same as explained for the Clover Leaf Slalom. Both pilots take off and fly to the pickup zone, to pick up one ball between their feet.

After that each pilot has picked up the ball between his feet, he will fly with it up the slalom course (in a sense of pilot's choice) to drop the ball in the basket.

Each pilot returns down the slalom in the opposite sense to the way he flew up the slalom, picks up a second ball, and repeats the course.

Instead of a third ball, each pilot should strike the target. At that moment the timing is stopped.

Detail rules

The two balls are placed 5m apart on an axis perpendicular to the centre-line. These are Pilates Stability Balls, also known as Swiss Balls or 'Gymnastik balls', of between 50cm and 60cm in diameter and about 1Kg weight with a non-slip ribbed surface. They are not completely inflated, to make it easier holding them between the feet (**Note 1**)

The zone between Pylon 1 and Pylon 3 is deemed to be a ravine and if the ball is dropped or rolls into it, it is lost.

Two attempts are permitted at picking up each ball.

The pilot's body must be clearly seen to round each pylon in the correct direction.

The basket is 3m diameter. Beyond the ravine, the first touch of the ball on the ground is scored; either in the basket, or out.

Two attempts are permitted at kicking the final target, a valid strike is one where the pilot or any part of the paramotor:

- has been clearly observed to touch it or (if briefed)
- has struck it firmly enough to trigger the automatic sensing device.

Penalties

- Coming second, by striking the target after the pilot on the other course: 5 seconds.
- Fail to get a ball beyond the ravine: 1 minute each ball.
- Get a ball beyond the ravine, but fail to get it in the basket: 10 seconds.
- A default penalty time of 3 minutes in these cases:
 - ❖ Failure to round any pylon or strike the final target treacher entangled in the canopy lines;

- ❖ Touch the ground in the ravine
- ❖ Not ready to start, false start or did not start
- General penalty for infringements of procedures detailed at briefing: 15 Seconds for each infraction.
- Any part of the aircraft crosses the crowd line or dangerous flying: disqualified

Scoring

The time used by each pilot to complete the course, plus penalties (if any) will establish the ranking, from the shortest to the longest.

Overall organization

This task will be run once in the WAG. Takeoff order (i.e. who competes against who) will be drawn at the briefing.

If the procedure has been briefed, the winner may be told over the radio that he is permitted a fly-past.

Note 1

The ball has a diameter of 65 cm when fully inflated and weights about 1 kg. To make it easier keeping it between the feet, it is partially deflated so that the diameter is 51 cm. Under these conditions, if a weight of 5 Kg is rested on the top of the ball, a squeezing of 5 cm will be noted, therefore the diameter passes from 51 to 46 cm.

Applies to Microlight trikes

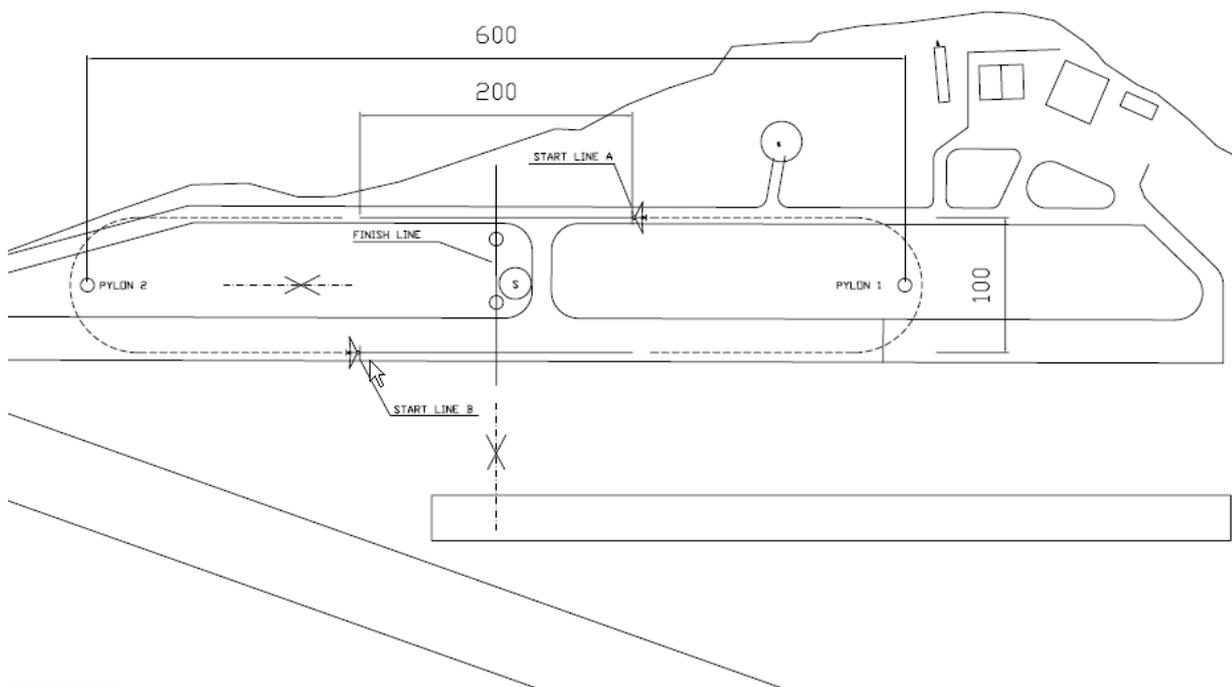
Pylon pursuit racing

Task description

A course is laid out 600m x 150m with 2 inflatable 12 m high pylons.

Pylons are considered to be of infinite height.

Other two pylons are positioned to define the arrival and clearly separate the flight lines for safety reasons.



Flying the task

The teams, made up of two pilots each, will use two-seater trikes, that will be flown solo by one pilot at a time in two non-consecutive runs.

The competitor trikes will be parked in two areas near the runways, already lined up in the

order that has been drawn up at the briefing. Competition Director will tell the starting marshal when the next couple of aircraft are to be called to the starting line. The starting marshal, aided by the other marshals, will tell the pilots in question. The competition director then raises the starting flag and keep it raised. From this moment, the aircraft have 60 seconds to reach their starting position on the runways, placed as shown in the drawing above. The front wheel of each trike should never touch the starting line before the starting signal. When the aircraft are in position and the pilot clearly shows to be ready for take off, the starting marshal raises a white flag. When both flags are upheld and not later than 60 seconds after the call, the Competition Director gives the starting signal, by dropping the flag. The timing also starts in this moment and will be separately taken with manual stopwatches by two official time- keepers.

Each aircraft shall then begin a regular take off (full thrust and accelerating) within 5 seconds from the starting signal. If this is not possible due to technical problems, engine off, etc., the pilot will then be stopped by the marshal or by a message over the R/T and will be considered “not ready to start” and will get a default penalty. The other airplane will fly the course alone. This 5 second rule is due to safety issues. **(Note 1 and 2)**

Both aircrafts take off and fly three complete laps of the course chasing each other, so that they have both flown exactly the same distance.

Except at take-off and landing, the whole run must be flown so that every part of the aircraft always will be at an altitude higher than the pylon height (12 m). Infringement of this rule will be considered as dangerous flying.

Pylons should be by passed outside as indicated in the drawing above. No part of the aircraft may cut over the center of the pylons

At the briefing , the position of the crowd line will be clearly shown; the line should not be crossed at any time, this will be considered as dangerous flying.

Timing stops when each aircraft crosses the finish line after three laps.

Both aircraft must then safely perform a last turn, fly to the other side of the track, land and go to the waiting area, as shown by the marshal.

When all the aircraft have completed the first run, the second run will be started, where the second pilot in the teams will be flying.

The task repeated by the second pilot of the team in symmetrical conditions allows for compensation for wind direction, sun position, etc.

Equipment

It is mandatory that the trikes are equipped with R/T suited for the aeronautical frequencies (VHF 108-136 MHz).

General organization and scoring

Twelve aircrafts will participate in the WAG competition. The competition will be divided in three parts: the heat, the semifinal and the final.

In each part of the competition, couplings will be drawn at the briefing and maintained for both the runs of the day.

The first 8 aircraft of the heat races will compete in the semifinal, leading to the 4 best aircraft that will compete in the final.

The ranking is established going from the shortest scored time to the longest, and being measured from the total times scored by the team members. The total team time is the sum of time scored by the two pilots in the runs they have flown, plus penalties (if any). The results scored in one part of the competition will only be used in order to select the teams that will qualify for the next part of the competition and will not be carried when establishing the next ranking.

Penalties

- Coming second in the round: 5 seconds.
- General penalty for infringements of procedures detailed at briefing: 15 seconds for each infraction.
- Not passing a pylon correctly: 60 seconds for each infraction.
- Not ready to start, false start or did not start, not landed after 3 laps: default penalty time, 3 minutes.
- Any part of the aircraft crosses the crowd line or dangerous flying: disqualified.

Notes

- 1) *It is possible that an aircraft that did not start will need to be moved to the opposite runway for the second round, flown by the other pilot of the team. In this case, the trike should be moved as soon as the other competing pilot has finished his race.*

- 2) *The start will be executed by the Competition Director standing in a position that easily could be seen from both runways. For safety reasons, the pilots could be briefed to fly their course clockwise (opposite from what shown in the drawing above). In this case, alternative and symmetrical starting positions will be used.*
- 3) *The tailwind component will be seriously considered by the marshals and the Competition Director: Marginal or dangerous weather situations will cause a delay of the competition. In any case, significant winds are not statistically expected on the airport at the competition time.*