



*Fédération  
Aéronautique  
Internationale*

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# Performance Record Rules

For  
**Canopy Piloting**

2012 Edition  
Effective 01 March 2012

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## **FEDERATION AERONAUTIQUE INTERNATIONALE**

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## 1. FAI Authority

The competition will be conducted under the authority granted by the FAI, according to the regulations of the Sporting Code of the FAI, General Section, and Section 5 as approved by the IPC and validated by the FAI, and these rules. All participants accept these rules and the FAI regulations as binding by registering in the competition.

## 2. Definitions of Words and Phrases used in these Rules

- 2.1 Course:** The designated path that competitors must navigate as indicated by a series of course markers or course outline.
- 2.2 Gate:** Consists of two markers or electronic sensors separated laterally by a variable distance. Gates are used to define the flight path of the course.
- Entry Gate: The first gate set at the beginning of the course.
- Exit Gate: The last gate set at the end of the course.
- Water Gates: The series of gates positioned on the water portion of the course.
- 2.3 Course markers:** Objects to mark and indicate the boundaries of the course. The construction of all markers must be acceptable to the Chief Judge, the Course Technical Director and the Meet Director.
- 2.4 Body:** All or any part of the human anatomical structure, including normal prosthetic appendages, that make up a competitor's physical being.
- 2.5 Vertical Extension:** When a competitor passes between but above the course markers of a gate, so that no part of the body breaks the imaginary plane between the two markers that make up that gate.
- 2.6 Marker Strike Penalty:** Assessed in the Speed Event when any part of the competitor's body or equipment contacts the course marker and causes the marker to become non-functional or to need repair of any description.
- 2.7 Zones:** In the Accuracy Event, zones are landing areas that have assigned point values.
- 2.8 Maximum Penalty:** The minimum score for a round
- |           |          |
|-----------|----------|
| Distance: | 0 points |
| Accuracy: | 0 points |
| Speed:    | 0 points |
- 2.9 Closing the course:** For any reason, such as excessive wind speeds or an accident, the course will be closed with a floatable, orange smoke canister placed at the beginning of the course or other location mentioned during the pre-event competitors' briefing. In this case, the next competitor is not allowed to navigate the course. The competitor should stay outside the course, but if an alternative landing area is not available, the competitor may make a non-aggressive landing on the course. If the competitor does not follow this procedure, the competitor will receive the minimum points for that round.
- 2.10 Course Technical Director:** A person proficient in course planning, appointed by the Organiser and accepted by the IPC Canopy Piloting Committee for that position. The Course Technical Director is responsible for planning, setup and maintenance of the courses before and during the competition.
- 2.11 Safety zones:** Zones outside the course as specified in Addendum A.
- 2.12 Stand-up landing:** A landing performed where no other part of the body but the feet come in contact with the surface.
- 2.13 Surface Contact:** The point at which any part of the competitor's body or equipment (except the pilot-chute, where separately stated) comes in contact with any part of the earth's surface, including grass, ground, trees, water, etc.

**2.14 Kited (Kiting):** A situation in the Speed Event in which the competitor keeps the canopy (excluding the pilot chute) flying without it coming in contact with any part of the earth's surface.

**2.15 Dragging Water:** Maintaining uninterrupted contact with the surface of the water.

### **3. THE EVENTS**

#### **3.1 Event Descriptions**

Speed: The competitor navigates his parachute through a course as fast as possible.

Distance: The competitor navigates his parachute through a course for the longest distance possible.

#### **3.2 Objective of the Events**

3.2.1 Objective of Speed Event: To navigate a parachute through the entry gate and continue flying the parachute through the course and through the exit gate in as fast a time as possible.

3.2.2 Objective of Distance Event: To navigate a parachute through the entry gate and continue flying for as far a distance as possible before touching any part of the earth's surface.

### **4. GENERAL RULES**

#### **4.1 Equipment**

4.1.1 Hard-shell protective head covering must be worn by all competitors. Full-face helmets must have the visor removed.

4.1.2 All competitors must wear footwear that covers the whole foot.

4.1.3 Failure to wear protective head covering and footwear as per 4.1.1. and 4.1.2. while navigating a competition course will result in the minimum score for that round.

4.1.4 Protective body equipment may be worn and is strongly recommended. This must be of the type that will not hinder the competitor's parachute equipment or compromise safety.

4.1.5 The competitor's normal dressed weight, including parachute equipment, but not including additional weights, is used as a basis to define the maximum amount of additional weight. Random checks of maximum weight allowed will be performed either before or after a jump and recorded by a person designated by the FAI Controller and any competitor in excess of their allowed maximum weight will receive minimum score for that round. The maximum amount of additional weight, in accordance with addendum E, is calculated in relation to the competitors dressed weight and parachuting equipment. A competitor will be allowed one additional kilogram of weight above the maximum amount shown in Addendum E. The organiser must provide the scale used for weight checks. The scale must be available during official practice day and during competition days so that competitors have the opportunity to check additional weight loads.

Additional weight must have quick releases, must not come loose by itself and must be acceptable to the FAI Controller.

#### **4.2 Safety violations**

4.2.1 The first safety violation by a competitor will result in a yellow card warning from the Chief Judge to that competitor. Yellow cards will be issued for unsafe actions such as (but not limited to): low turns or low approaches into the course, crowding or cutting off of lower competitors or erratic canopy control.

4.2.2 A second safety violation, resulting in a second yellow card, is the equivalent of the Issuance of a red card. (see 4.2.3 below)

4.2.3 The issuance of a red card will result in the disqualification of the competitor from the competition, including the disregard of any competition results during this competition, and in the elimination of the competitor from further jumping in the competition.

A red card can be issued without a prior yellow card warning for any action that presents immediate danger to the competitor or others on the ground. Examples of this include low

approaches over the crowd or flying the canopy in an uncontrolled manner into any person outside the course.

- 4.2.4 Notwithstanding and in addition to the above, a competitor may be disqualified from any event, at any time, by the mutual agreement of the FAI Controller and the Chief Judge, if it is determined that the competitor is performing in an unsafe manner. Safety violations observed during official practice jumps may also result in the issuance of yellow or red cards.

#### 4.3 Jump Order

- 4.3.1 With the agreement of the Meet Director and Chief Judge, one event may be completed prior to the beginning of another. No event holds priority.
- 4.3.2 Each competition day the order of exit passes will be rotated by 20%, rounded down. If convenient, by decision of the Meet Director, the order of exit passes will be rotated also between events, applying the same procedure.
- 4.3.3 All competitors must have the opportunity on the official practice day to make at least one orientation jump on both a straight course and a Speed Event course, weather permitting. All practice jumps shall be judged by the Official Panel of Judges, or Judges in Training under direct supervision of the Chief of Judge Training.

#### 4.4 Exit Order

- 4.4.1 Aircraft load and pass assignment for the first round shall be determined from the results of the previous FCE (WPC/World Cup). Those participating at the previous competition will be grouped in reverse order of placing and will jump at the end of the round. Those that did not compete previously will be grouped by blind draw and shall jump at the beginning of the round. Number consolidation will take place if a previous competitor is not in attendance. The Meet Director may make an updated reverse order of placing for the final round (Round 9) of competition.
- 4.4.2 Within an exit pass, the exit order will be determined by the competitors, supervised and recorded by a person designated by the Chief Judge. The Meet Director or Chief Judge must be notified of any change prior to boarding.
- 4.4.3 There will be a maximum of four (4) competitors per exit pass.
- 4.4.4 The exit delay between competitors must be such so as to ensure safe separation and time to allow for any judging.
- 4.4.5 Competitors must enter the course in order of exit. Any competitor wilfully violating this rule will be issued the minimum score and possibly a yellow or red card warning. In circumstances beyond the control of the competitor, provided there will be no conflict with other competitors, he may enter the course and receive the assessed score.
- 4.4.6 The aircraft pilot will signal the competitors when they are clear to exit. All the competitors will be briefed on the specific exit and spotting signals at the pre-event competitors' meeting.

#### 4.5 Exit Altitude

The minimum exit altitude with 2 - 4 competitors on one pass shall be 1500 meters AGL.

The minimum exit altitude with one (1) competitor on one pass shall be 1200 meters AGL.

#### 4.6 Scoring Gates

The entry gate is scored when any part of the competitor's body or equipment breaks or passes through the imaginary plane between the two markers forming the entry gate, or breaks the electronic beam. Failure to do this by vertical extension or by missing the entry gate will result in the minimum score for that round.

#### 4.7 Malfunctions

- 4.7.1 A competitor experiencing a control problem or malfunction requiring the use of the reserve canopy must make no attempt to navigate the course and must utilize an alternate landing area if accessible. A competitor will be granted only one re-jump during the competition, by reason of the mentioned problems.
- 4.7.2 A malfunction of the main parachute canopy, that creates a control problem for a

competitor not requiring canopy release, may merit a re-jump. In this case the competitor shall make no attempt to land on the course. A qualified person, appointed by the Chief Judge, shall make an inspection of the equipment immediately after the competitor has landed to confirm that the competitor did suffer a malfunction that was not created by the competitor himself (i.e. packing error). The competitor will not disturb the canopy condition prior to inspection.

A control problem is a condition of the parachute that makes it is virtually impossible to attempt a safe approach to the course.

#### 4.8 Re-jumps

- 4.8.1. **Re-jumps due to weather conditions:** If the winds exceed the maximum limit at any time after the competitor initiates their turn to final approach, and ending when the competitor either passes through the electronic sensors at the end of the course or makes final contact with the surface, the competitor will be awarded a re-jump by the Chief Judge or Event Judge.

If the competitor experiences adverse weather conditions, as determined by the Chief Judge or Event Judge, the competitor may be offered a re-jump.

A competition may be suspended if the Chief Judge or FAI Controller deems that the existing wind or weather conditions may pose a danger to competitors.

- 4.8.2. **Re-jumps due to interference:** A competitor who suffers interference from other competitors, jumpers or aircraft, either on the ground or in the air, may be offered a re-jump by a decision of the Chief Judge or Event Judge.

After landing, competitors shall exit the course immediately. If a competitor does not comply with this rule the competitor will get a minimum score for that round unless the circumstances are beyond the competitors' control as determined by the Chief Judge or the Event Judge. Any other competitor suffering interference as a result of a competitor not clearing the course immediately may be issued a re-jump, at the sole discretion of the Chief Judge or Event Judge.

If two or more competitors approach and/or enter the course close together and in the process create interference between each other, a re-jump may be awarded to one or more competitors, at the sole discretion of the Chief Judge or Event Judge.

#### 4.9 Wind Conditions

- 4.9.1 The maximum allowable wind speed in Canopy Piloting, measured by an anemometer, is 7 m/s in any direction on the competition course.

- 4.9.2 Near the course, there shall be an anemometric wind measuring system (SC5, 4.3.5) that shall be checked at 10-minute intervals. If the winds exceed 5 metres per second they shall be monitored constantly until the winds have remained below 5 metres per second for at least 15 minutes.

If there is a sudden change in ground wind direction of more than 90 degrees when the wind speed is more than 3 m/s, and automatically recorded by an electronic device, a competitor landing within 30 seconds after the wind change must be offered a re-jump. The competitor's decision must be made immediately.

4.9.2.1 A windsock shall be positioned within 50 metres of the course and must be fully visible for competitors approaching the course. The windsock must be capable of responding to winds of at least 2 m/s and shall be acceptable to the Chief Judge.

4.9.2.2 A wind direction indicator (streamer) mounted on a pole near, and within 20 metres of the entry gate, that is capable of responding to winds of less than 2 m/s, shall be placed by the Chief Judge or Event Judge.

- 4.9.3 The Chief Judge or Event Judge will decide the positions of the wind indicating devices, which are not reasons for protest.

## **5. RULES SPECIFIC TO THE SPEED EVENT**

- 5.1 The course must be laid out as specified in these rules.
- 5.2 Any part of the competitor's body must pass between the course markers to score the entry gate, and at least part of the competitor's body must remain within the boundaries of the course, as defined by the course markers, to obtain a score. A competitor that is assessed a Vertical Extension on any course gate or fails to navigate the course will be marked as "No Score", and will be ranked below those competitors who do obtain a score and will be given zero points for that round for the purposes of the calculation in 9.3.2.
- 5.3 The time – measured to the thousandth of a second - starts when any part of the competitor's body or equipment breaks the electronic beam at the entry gate. Electronic sensors shall be placed inside (after) the entry gate and outside (after) the exit gate, maintaining the prescribed length of the course (distance between sensors).
- 5.4 The time stops when any part the competitor's body breaks the electronic beam at the exit gate. The competitor must clear the course as soon as possible.
- 5.6 A marker strike penalty (see 2.6) of 1 second will be added to the competitor's time for each marker strike assessed in each round. This penalty may also be assessed after the time has stopped. No more than two marker strike penalties may be awarded in each round.
- 5.7 If a course marker has been rendered non functional and cannot be repaired before the next competitor(s) navigate the course, those competitor(s) shall be awarded a rejump.
- 5.8 There is no penalty for landing before the end of the course; however the competitor must keep the canopy flying kited as any part of his body passes through the exit gate to receive a time.
- 5.9 If at any time before the competitor passes through the exit gate the canopy (excluding the pilot chute) comes in contact with the surface or at any time comes in contact with a transmitter or sensor, including fixation devices, causing one or all to become non functional, the run is over and the competitor will be marked as "No Score", and will be ranked below those competitors who do obtain a score and will be given zero points for that round for the purposes of the calculation in 9.3.2.
- 5.10 A competitor's score for a round is recorded as the time taken to navigate the course. The ranking in each round is calculated from the lowest time to the highest time. Competitors with no recorded time are scored accordingly and ranked after those competitors with a recorded time.

## **6. RULES SPECIFIC TO THE DISTANCE EVENT**

- 6.1 The course must be laid out as specified in these rules.
- 6.2 Any part of the competitor's body must pass between the course markers to score the entry gate, and at least part of the competitor's body must remain within the boundaries of the course, as defined by the course markers, to obtain a score. After scoring the entry gate there is no penalty for vertical extensions. Vertical extension of the entry gate will result in minimum score for that round.
- 6.3 The first point of contact with the surface, within the course, is marked as the distance. Sidelines are considered to be part of the course. If it is determined that the first point of contact is within the course, the competitor may exit the course in any manner.
- 6.4 If the first point of contact with the surface, other than the water before the entry gate, is outside the course the competitor will receive the minimum score for that round.
- 6.5 Scores for each round are recorded as the distance reached in navigating the course in meters to the second decimal point. The ranking in each round is calculated from the longest distance to the shortest distance. Competitors with no recorded distance are scored accordingly and ranked after those competitors with a recorded distance.

**7. JUDGING**

- 7.1 Each performance shall be assessed by at least 6 qualified FAI Canopy Piloting Judges.
- 7.2 All Judges must be FAI Canopy Piloting Judges. FAI Canopy Piloting Judges in Training, provided they are under the direct supervision of the Chief of Judge Training or his designee, having attended the Judge's Conference, may be used in addition to the Official Panel of Judges.
- 7.3 For all events there must be one primary digital PAL video camera set up on a tripod or other fixed platforms at the exact height of the entry gate. The camera must be operated by an experienced videographer, appointed by the organiser and approved by the Chief Judge, or an FAI Canopy Piloting Judge. An FAI Canopy Piloting Judge shall be positioned at this point and shall be responsible for determining, subject to video review, whether a vertical extension penalty shall be given for the entry gate. The primary video system must be capable of reduced speed playback. The competitor numbers and names shall be recorded on the digital recording media. For the Distance Event, in addition to the entry gate camera, a camera shall be placed in a position determined by the Chief or Event Judge. If available, at the discretion of the Chief Judge, additional video cameras may be used.
- 7.4 The Judges must also note if the competitor flies outside of the course or violates other rules. This shall be noted and recorded on the score sheets.
- 7.5 The scores will not be final until the data and/or recording media have been reviewed, if needed. The Chief Judge shall be responsible for determining a competitor's final score and placing.
- 7.6 **Video review**  
At the request of a member of the judging panel, and if a recording sheet has been noted as requiring a video review, the Chief Judge or Event Judge, if possible the panel member that requested the review, and at least one other judge, at the earliest opportunity, shall review the jump in question and render a decision. If needed, the score sheet shall be adjusted and the adjusted score will then be entered on the master score sheet. A review cycle is comprised of a maximum three viewings of the jump in question – reduced speed playback may be used. At any time during the review process, and without discussion, the judges may render their decision which must be unanimous, otherwise the result shall be in favor of the competitor.
- 7.7 **Judging Speed**  
An electronic scoring system will be used in the speed event. Malfunctions of the electronic scoring system will result in a re-jump to those competitors affected.
- 7.8 **Judging Distance**
- 7.8.1 The Judges must be positioned along the perimeter of the ground portion of the course. Judges may also be assigned to video the entry gate or other portions of the course to record video for later review, if needed.
- 7.8.2 The Judges, positioned outside the course, will determine the point of first contact with the surface, which shall be recorded as the distance scored. If the first point of contact with the surface is determined to be on a sideline of the course that shall be recorded as the distance scored.
- 7.8.3 If available, an electronic measuring system will be used in the distance event. If unavailable, a metric measuring tape will be used.
- 7.8.4 The score will be recorded in meters to two decimal places.

## 7.9 Other judging responsibilities

All Judges shall watch for unsafe canopy flight by competitors. If a Judge witnesses what they feel was an unsafe act they shall inform the Chief Judge, so a yellow or red card may be issued, if appropriate.

During all events, a Judge or other person appointed by the Chief Judge, shall be positioned on or near the course to warn of approaching competitors. This person shall be equipped with an audible warning device of sufficient decibel levels that all Judges and support staff are aware of possible danger.

The Chief Judge must organize a Judges' conference prior to the start of the competition. All Judges shall attend the conference.

During official practice the Chief judge will announce a time period per event during which that event can be judged and practised.

## ADDENDUM A – GENERAL COURSE SPECIFICATIONS

1. All courses must be 10 meters wide over the total length of the course.
2. All courses must begin over a body of water as specified in these rules.
  - 2.1. The body of water must be at least 15 meters wide, at least 65 meters long and at least 60 cm deep over this area. If the water is more than 1.5 meters deep a safety boat and rescue personnel are mandatory.
  - 2.2. For all events, the body of water must include at least 20 meters of safety area before the entry gate and be at least 60 cm deep over this area.
3. All courses must have a 5-meter wide safety zone along both sides and at the end of the course between the course outline and the spectator areas.
4. Course Markers
  - 4.1. All entry gate and Speed Event course markers must be 1.5 meters in height above the surface.
  - 4.2. Course markers must be of the standard inflatable type for the Speed Event. For the Distance Event, course markers on the water portion of the course, other than entry gates, may be (Polyform A-0 -F) marker buoys of approximately 20 cm in diameter.
  - 4.3. Safety zone markers must not be higher than five (5) meters.
  - 4.4. The course outline must be indicated by lines or markings clearly visible from above.
  - 4.5. A marker line must indicate the beginning of Zone 0 between the water-to-land transition area.
5. All courses must be acceptable to the Course Technical Director and the Chief Judge.

## ADDENDUM B – SPEED COURSE

1. The Speed course must have an angle of 75° and shall be 70 meters long measured along the centreline of the course (see addendum F). This measurement is taken between electronic sensors. The carving course must have a radius of 53.48 meters.
2. The direction of the carve must be specified in the accepted organisation bid. There shall be 5 pairs of course markers, including entry and exit gates. The course markers on the inside of the course shall be of contrasting colour visible from above.
3. At least 10 meters at the end of the course must be out of the water.

## ADDENDUM C – DISTANCE COURSE SPECIFICATIONS

1. The measuring device (metric tape) must run down the edge of the land portion of the course laid flat on the surface with attaching devices placed at each end and at least every five (5) meters. The measuring tape and attachments must not create an obstacle for the competitors or judging staff. Position of the measuring tape must be acceptable to the Chief Judge. The distance from the entry gate to the shoreline shall be measured and marked as acceptable to the Chief Judge.
2. The Distance course must be 50 meters longer than the current World record.
3. A clearly visible course outline must extend from the entry gate to the end of the course.

**ADDENDUM E**

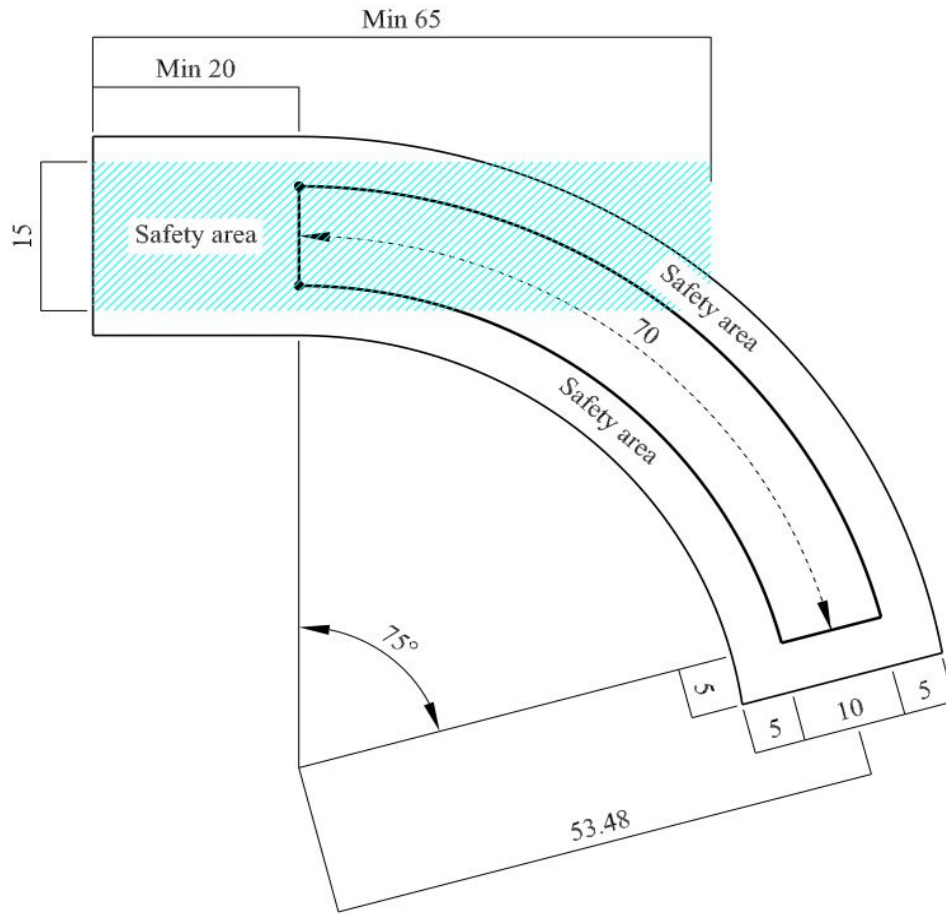
If a competitor's weight with equipment is lower than 77.2 kg, the maximum extra weight will apply.

Exit weight with equipment kg	Maximum extra weight kg	Total weight kg
<77.2	15.9	93.1
<77.6	15.6	93.2
<78.1	15.3	93.4
<78.5	15.0	93.5
<79.0	14.6	93.6
<79.5	14.3	93.8
<79.9	14.0	93.9
<80.4	13.7	94.1
<80.8	13.4	94.2
<81.3	13.0	94.3
<81.7	12.7	94.5
<82.2	12.4	94.6
<82.6	12.1	94.7
<83.1	11.8	94.9
<83.5	11.5	95.0
<84.0	11.1	95.1
<84.5	10.8	95.3
<84.9	10.5	95.4
<85.4	10.2	95.6
<85.8	9.9	95.7
<86.3	9.5	95.8
<86.7	9.2	96.0
<87.2	8.9	96.1
<87.6	8.6	96.2
<88.1	8.3	96.4
<88.6	8.0	96.5
<89.0	7.6	96.6
<89.5	7.3	96.8
<89.9	7.0	96.9
<90.4	6.7	97.1
<90.8	6.4	97.2
<91.3	6.0	97.3
<91.7	5.7	97.5
<92.2	5.4	97.6
<92.6	5.1	97.7
<93.1	4.8	97.9
<93.6	4.5	98.0
<94.0	4.1	98.1
<94.5	3.8	98.3
<94.9	3.5	98.4
<95.4	3.2	98.6
<95.8	2.9	98.7
<96.3	2.5	98.8
<96.7	2.2	99.0
<97.2	1.9	99.1
<97.6	1.6	99.2
<98.1	1.3	99.4
<98.6	1.0	99.5
<99.0	0.6	99.6
<99.5	0.3	99.8
<99.9	0.0	99.9
100+	0.0	

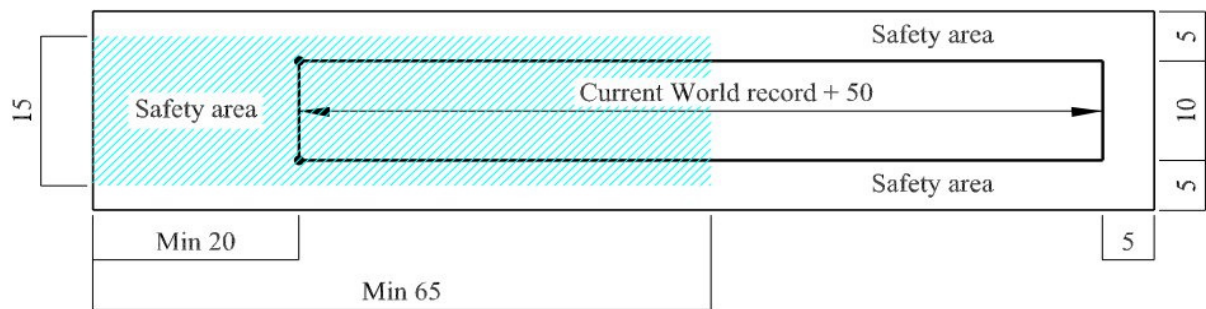
## ADDENDUM F

Examples of course lay outs.

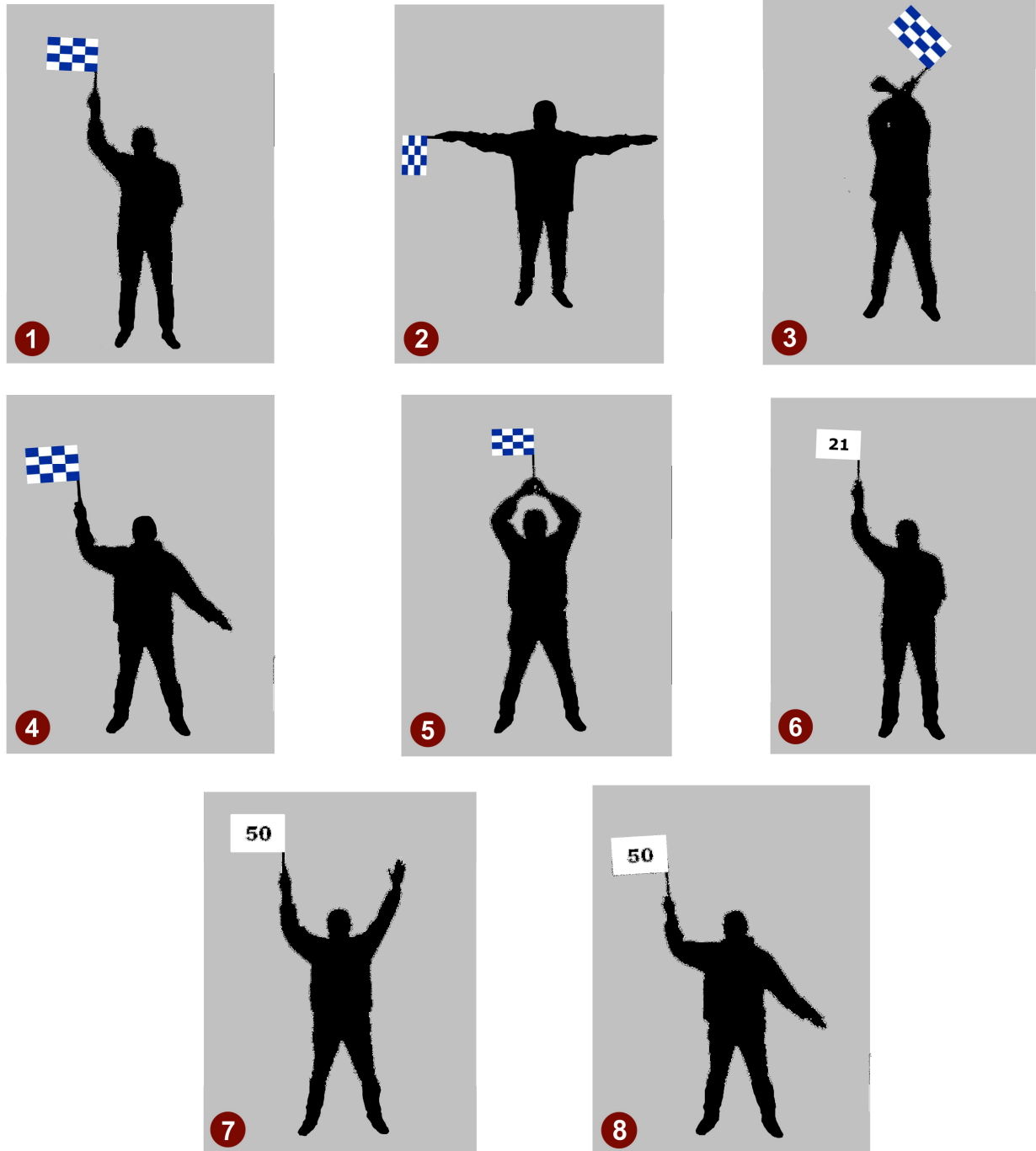
### 1. Speed



### 2. Distance



**ADDENDUM G – RECOMMENDED STANDARD JUDGING SIGNALS**



KNUSI&EXI DESIGNS

1. VERTICAL EXTENSION – ALL EVENTS
2. OUT OF COURSE – ALL EVENTS
3. VIDEO REVIEW – ALL EVENTS
4. MARKER STRIKE PENALTY – SPEED EVENT
5. CANOPY TOUCH DOWN – SPEED EVENT
6. WATER GATE SCORED – ACCURACY EVENT
7. STAND UP LANDING – ACCURACY EVENT
8. FALL DOWN LANDING – ACCURACY EVENT