FAI on-line helicopter competition

Event 1 - Helicopter Pen

1.1.0 Event description

The event requires precise flying to manoeuvre a bucket, attached to a 5 metre rope through 3 gates and a "pen". The helicopter will be configured with the pilot's door on & closed, dual controls and crewman's door removed.

Flying times:

• 120 seconds (2 minutes).

1.1.1 Preparation:

The helicopter will come to the preparation line and wait for the previous helicopter to finish.

At a signal from the judges, the helicopter will move and land at the departure line. The loader will hand over the rope with the attached bucket.

The rope will be held by the crew member, sitting on a seat on the side opposite to the pilot, in a normal position and wearing the safety harness correctly. The crew must remain seated. The rope will be maintained on the floor of the cabin, either inside or outside the skids where fitted.

1.1.2 Start:

Upon an indication of ready from the pilot (or crewmember), the starter will signal the start by dropping a flag. The helicopter will take off from the departure line at the sign of the starter lowering of a flag, with the bucket resting on the ground, the crewmember holding the rope by the handle

The rope will remain held by the crew member who must have both hands visible. Manoeuvring of the rope is allowed provided the rope is not shortened by any part of the body below the red painted ball.

1.1.3 Composition of the course:

The course comprises of a departure gate, an entrance gate, a pen and an exit gate.

The course will be placed as per **Annex 1**; the direction of flight will be indicated in **Annex 1**.

To correctly pass the entrance gate, the top of the bucket must pass below the top of the poles. If an attempt of passing the gate fails, the bucket must go backwards around the outside of the poles before another attempt is made. Multiple opportunities to pass a correctly will be allowed.

The course will be flown in the following order – departure gate to entrance gate to exit gate via the pen.

1.1.4 Pen and Exit Gate

After passing the entrance gate, the bucket will be lowered into the pen and 4 tasks will be performed:

- 1. 360° turn of the aircraft to the left (minimum 15 seconds)
- 2. Lifting the bucket clear of the pen on completion of task 1
- 3. Lowering the bucket into the pen
- 4. 360° turn of the aircraft to the right (minimum 15 seconds).

Each turn must take a minimum of 15 seconds

For the purpose of timing, the timing will start at the beginning of the turn and it will be timed from when the top of the bucket is first lowered into the top of the pen.

To complete the course, the bucket must pass through the exit gate.

1.1.5 Timing

The competition time starts with lowering of a flag by the starter at the departure line and the time stops when the bucket passes the exit gate.

1.1.6 Tie Break

If there is a tie for a place, the winning crew is determined by the shortest flight time with the lowest penalties.

1.1.7 Scoring

Score is determined by subtracting the Penalty Points from 300. The minimum score achievable is zero.

1.1.8 Awards

Tba

1.1.9 Fees

Tba

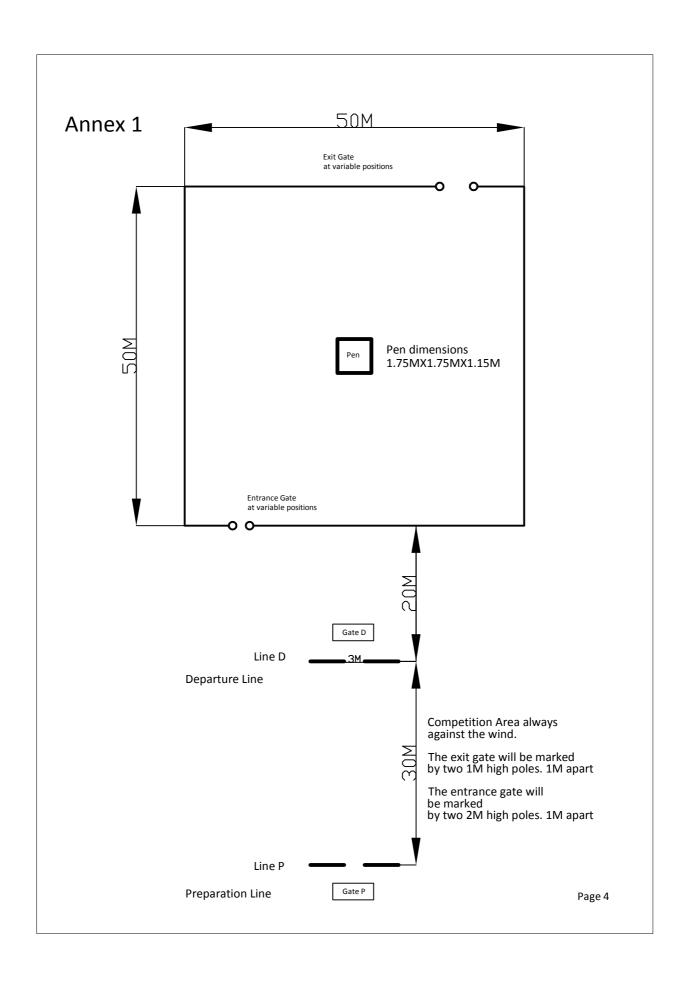
Measurements of competition area and equipment (see attached Annexes)

- 50 x 50 metres competition area. **See Annex 1.**
- One departure, gate internal width 3 metres.
- One entrance, gate internal width 1 metre.
- One pen, dimensions 1.75 metre x 1.75 metre x 1.15 metre high. See Annex 2.
- One exit gate, internal width 5 metres
- One 5 litre bucket made from break proof material complete with handling aids. See
 Annex 3.

Penalties

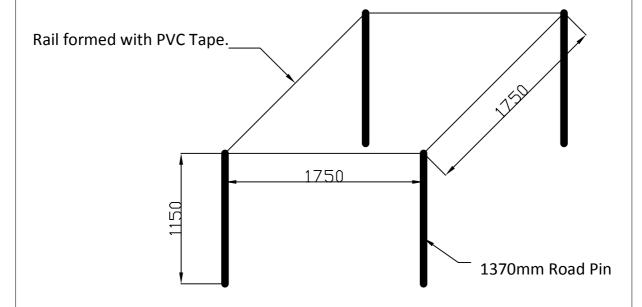
	Penalty points
Infringement	
Departure before starting signal is given	20
Missing a gate	20
Each second in excess of 120 seconds	1
*Missed pen	100
In the pen	
Bucket or rope in contact with tape, per second	10
Grounding the bucket, per second	10
Lifting the top of the bucket above the top of the tape, per second	5
Rope shortened, has knots or handled below red ball (per each infringement)	50
Turn completed in less than 15 seconds	15
Bottom of bucket not clear of pen between turns	30
Crew not staying seated or fastened (both hands and legs not visible)	50

^{*}the pen will be deemed as missed if the bucket is grounded, lifted above the tape for more than 180 degrees of a turn



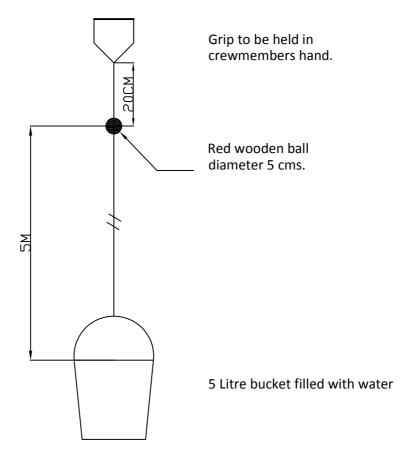
Annex 2

All Dimensions in mm.



The Pen

Annex 3



Judge.....

PEN PAL TOTAL TIME ALLOWED 120 SECONDS

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Running Order	AIRCRAFT REGN & TYPE	Departure before starting signal is given (X for penalty)	Failing to pass through Entrance Gate (X for penalty)	Failing to pass through Exit Gate (X for penalty)	TOTAL GATE PENALTIES	Bucket or rope in contact with tape, per second (Number of seconds)	Grounding the bucket, per second (Number of seconds)	Lifting the top of the bucket above the top of the tape, per second (Number of seconds)	Turn completed in less than 15 seconds (X for Penalty)	Bottom of bucket not clear of pen between runs (X for Penalty)	Missed Pen (X for penalty)	TOTAL PEN PENALTIES	Crew not staying seated or fastened (both hands and legs not visible) (X for Penalty)	Rope shortened, has knots or handled below red ball (per each infringement) (X for penalty)	TOTAL TIME PENALTIES Each second over 120	TOTAL PENALTIES
		20 points	20 points	20 points	Total Points	10 per second	10 per second	5 per second	15 points	30 points	100 points	Total Points	50 points	50 points	1 per second	Total.
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