



# HENLEY AIR FLYING CLUB

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## Precision Skills Day Rules

### Description of the Exercise

Each team consists of a pilot and co-pilot. The aim of the exercise is for the pilot to navigate a helicopter in such a way that the co-pilot can manoeuvre a bucket of water tied on a rope through a series of gates and finally place the bucket on a target on the ground.

### The Course

- The course consists of a gate section followed by a target section.
- The gate section consists of 10 gates marked with green and white flags.
- The target section consists of a single red box with a white "X" marked on the top.
- Teams must familiarize themselves with the course layout before the start of the day's competition. Access to the course will be given to all teams for 30 minutes prior to starting the competition.
- Laminated cards showing the layout of the course are provided for the pilot and co-pilot to use for navigation during the exercise.

### Scoring System

Each team begins with 500 points. Points are deducted for faults as described below. The team with the highest number of points at the end of the competition will be declared the winner. The judge's decision is final.

### Description of Faults

#### Time

- Teams should aim to use a full 10 minutes to complete the entire course.
- No points are deducted if the course is completed between 9½ minutes and 10½ minutes.
- 5 points are deducted for every 30 seconds between 8 minutes and 9½ minutes.
- 5 points are deducted for every 30 seconds between 10½ and 12 minutes.
- 10 points are deducted for every 30 seconds under 8 minutes and over 12 minutes.
- The start time is taken as the time that the bucket passes over the start line marked by two red flags on the ground in front of gate 1.
- The end time is taken as the time that the rope is dropped from the helicopter.

#### Gates Missed

- 10 points are deducted for each gate missed. A missed gate is defined as passing the bucket too high over the flags or outside the uprights of the gate and then proceeding on to the next gate.
- Teams can repeat a gate until it has been completed successfully.

#### Wrong Gate Sequence

- 20 points are deducted for each gate passed in the wrong sequence.

#### Rope Length

- For the gate section of the course, the rope must be extended to the first marker.
- For the target part of the course, the rope must be extended to the second marker i.e. the full length of the rope.
- 25 points are deducted if the bucket is landed on the target from any rope length other than the full rope length.

#### Rope Control

- After take off, the co-pilot must carefully lower the bucket until the first marker on the rope is reached. The co-pilot must then keep holding the rope with their left hand at this marker for the duration of the gate part of the course.
- 25 points are deducted every time that the co-pilot tries to make the rope shorter or longer than the first marker.

#### Bucket Control

- 5 points are deducted each time the bucket touches the ground during the course.

#### Bucket On or Off the Target

- 10 points are awarded to the team's score if the bucket is placed on the target.
- 0 points are awarded to the team's score if the bucket is not placed on the target.

#### Bucket Precision

- Points are awarded to the team's score based on the distance the bucket is from the centre of the target. The closer the bucket is landed to the centre of the target, the more points teams are awarded.

#### Water Loss

- 5 points are deducted for every ½cm of water lost from the bucket during the exercise.