



Task No 1

Task type #A4

Navigation over a known circuit

Objectives

Follow a known circuit from SP to TP1, them to TP2 and to FP, identifying ground features from photographs and locating their positions on a map and crossing hidden gates. There will be timing gates to take times for time precision evaluation.

Summary

Competitors will be given:

- Lines drawn on a map.
- The location of a start point (SP) before which no ground features or gates will be found.
- The time at which they must overfly the start point.
- The location of a finish point (FP) after which no ground features will be found.
- Photos of any ground features to be identified.

Competitor must:

- Declare the ground speed at which he plans to fly entire course.

After completing the landing the competitor will be required to enter a Quarantine area for scoring.

Scoring

Spatial precision:

Vh = Value assigned to crossing a hidden gate or properly placing a mark on the map (100)

Nh = Number of hidden gates correctly crossed or properly placed marks on the map (less than 2 mm error). Mark only once.

Markers placed between 2 and 5 mm error score ½ point.

More than 5 mm score zero.

Out of track marks score zero

$$\mathbf{Qh = Vh * Nh}$$

Time precision:

Vt = Gate value (180)

Ei = Absolute error in seconds in gate i.

Maximum error is Vt.

Time gates not crossed do not add error.

$$\mathbf{Qt = \sum (Vt - Ei)} \text{ (sum of gate value minus time error each gate crossed)}$$

$$\mathbf{Total: Q = Qh + Qt}$$

$$\mathbf{P = 1000 * Q / Qmax}$$

The following penalties will apply

100 % - Breach of Quarantine



100 % - For backtracking. Backtracking is defined as either re-joining the active track line at a point prior to the point where the pilot departed from it or flying with an angle of greater than 90 degrees in respect to the intended flight direction within a corridor defined by the width used to score gates in the task. The only exception to this is within the radius of a specified turn point at which the track line itself turns through more than 90 degrees. If the task involves more than one possible active track line (e.g. Cog wheel navigation with unknown legs), all track lines shall be considered as active

A competitor may return to the airfield within 5 minutes of take-off for safety reasons or in the event of a FR failure. In this case a further start may in principle be made without penalty, if the competitor during the waiting time for restart returns all photos and maps to the marshal.