



Task No 6

Task type #A5 Version 4

Navigation with partially known track (Gearwheel)

Pilots will place the aircraft in the quarantine area as briefed. Each crew will receive the maps and photos for the task in the planning time published on the starting list. Before take off completed speed declaration sheet must be given to the Marshals.

Summary

'Gearwheel' - Known track consists of two concentric tracks. There is a marked point in the middle of the inner track for constructing the unknown legs. SP is on outer track. Pilot starts course on time and proceeds around the track in counterclockwise direction looking for photos and keeping to declared groundspeed. When turnpoint photo is found, a line consisting of a radial, using the marked midpoint is constructed and flown to intersect with the outer track. On reaching outer circle follow it counterclockwise looking for photos and keeping to declared groundspeed. When turnpoint photo is found, a line consisting of a radial using the marked midpoint is constructed and flown towards the inner circle. Photos may be found on the constructed line and groundspeed continues. On reaching inner circle continue and repeat process until FP.

Timing and tracking gates are possible on the whole track. Photos must be marked accurately on the map. If marked within ± 2 mm each will be scored 150 points, between 2-5 mm no points will be given. Gates will be 600 m wide. The maximum point for correctly crossed gates is 100 each, ± 5 s tolerance is applied, for every second over the tolerance, 1 point will be decreased from the score for the gate.

After landing the logger and the map must be given to the Marshal.

Scoring:

$$Q = (P \times 150) + (TG \times 100 - T) + (G \times 100)$$

Where: P = correctly marked photos

T = 1 point per seconds over the 5 s tolerance at timing gate

G = correctly passed tracking gates

Penalties:

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

- 100% for outlanding

- 100% using prohibited devices

- 20% for not following approaching and landing procedure

- 20% from the next tasks scores if late from quarantine

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.