



Task No 11 version 2

Task type #A4

Navigation over a known circuit with Deck landing

Objectives

After Take off follow a known circuit from SP2 to TP2 and to FP2, 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. At the end of the task, pilot has to approach as briefed and perform deck landing.

Summary

Competitors will be given:

- Lines drawn on a map.
- The location of a start point (SP2) before which no ground features or gates will be found.
- Marked distance from SP2 to TP2
- The location of a finish point (FP2) 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.

Landing

Once the aircraft has started its final approach no deviation of over 90 ° from the deck centerline either in the air or on the ground is permitted. The pilot may choose whatever engine setting he chooses or may switch off the engine. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

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

$$Q_h = V_h * N_h$$

Time precision:

Vt = Gate value (100)

Ei = Absolute error in seconds in gate i.

Maximum error is Vt.

Time gates not crossed do not add error.

$$Q_t = \sum (V_t - E_i) \text{ (sum of gate value minus time error each gate crossed)}$$

$$\text{Total: } Q = Q_h + Q_t$$



$$P = 1000 * Q / Q_{max}$$

Penalties briefed and listed below 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

20 % Penalty to the task will be applied if:

- Any part of the aircraft touches the ground before the deck.
- The aircraft turns by more than 90 degrees from the deck centerline between starting the landing approach and coming to a standstill.
- The aircraft does not stop within the limits of the deck.
- The aircraft moves from the deck before instructed to do so by a marshal.
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty.

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.