General Aviation – Air Navigation Race (ANR)

WHAT IS THE AIR NAVIGATION RACE?

The Air Navigation Race (ANR) is a knock-out competition where the crews fly in elimination heats against each other. The crews have to fly along predetermined corridors with irregular shapes at a specific speed. The corridors are generated by sophisticated mapping and software that ensures they are of equal length. The ANR scoring software produces maps with a certain number of corridors, so as to allow the crews to fly in each heat. Finally the best crews battle against each other to determine the final podium positions. The accuracy landings consist of two different landing types: the first normally over an obstacle and the second called “forced landing without power”. The aim is for the landings to be made as close as possible to the zero line. The crew with the lowest number of penalties will be the accuracy landings winner.

The competition consists of ANR qualification rounds and accuracy landings.

ANR qualification rounds

Crews are handed their map with the printed corridor, the times over start- and finish-point, and the ground speed (normally 80 knots). They have thirty minutes to plan their flight. GPS loggers are used to log the flight track, with timing accurate to within a second. Times will be checked on passing Take off line - overhead start- and finish point. The start and finish points must be well-defined features, both on the map and on the ground. Crews must at all times remain within the corridors. The recommended flying altitude is 1'000 feet above ground level (AGL). The organizer has the right to declare a different altitude for safety reasons. The departure and the return flight via prescribed route are mandatory.

Accuracy landings

Emphasizing the ability to land an aircraft in short and narrow places with the simulation of trees or other obstacles on the approach, thereby fully demonstrating a pilot's ability to handle an aircraft both accurately and safely. Accuracy landings normally consist of two different landing types:

Obstacle landing (or normal landing): The team will make a landing after passing a marked obstacle 2 meters high, placed 50 meters before the touchdown line, or else make a normal landing without obstacle. Use of power, spoilers, flaps or sideslip is at the discretion of the pilot.

Forced landing: Abeam the zero line, the engine is throttled back to idle power. Power shall not be used thereafter. Flaps, spoilers and sideslip may be used at the discretion of the pilot.

All landings are to be made as close as possible to the zero line, within a strip 12 meters wide and 72 meters long. The strip will be marked and aircraft must keep within the strip.

HOW IS IT SCORED

There are winning crews in the categories:

- Air Navigation Race
- Landing
- TOP Air Navigation Race (Air Navigation Race and Landing)
**Air Navigation Race:** The crews are penalised for flying outside their corridors and for timing errors. Crews are eliminated on a heat by heat basis.

**Landing:** Penalties are also awarded for the landings. The crew with the lowest number of penalties is the winner.

**TOP Air Navigation Race:** The final results will consist of the lowest number of penalties in one ANR qualification round and Landing being added together.

**TELL ME MORE**

The Air Navigation Race (ANR) was invented by the FAI General Aviation Commission (GAC). It is designed for Pilot and Navigator Crews flying single piston engine aircraft. The sport of Air Navigation Race flying is aimed at improving fundamental flying skills to enable a Pilot/Navigator Crew to navigate and handle an aircraft under basic visual flying conditions independent of the use of technical systems, thus enhancing flying safety.

“ANR is fun for pilots, navigators and spectators”