Aeromodelling – RC Pylon Racing
Semi-scale models with controlled technology (F3T)

WHAT IS THE PYLON RACING COMPETITION?

Four semi-scale race models start from a platform for a race over 10 laps on a race course of 180x40 meters, one lap having a nominal distance of 400 meters.

The task for the pilot is to fly the radio controlled model as accurately as possible around the 3 pylons in the course. This means of course that he must steer the model in such a way that it passes very close to the pylons, but also flies the best radius in the curve - a compromise between flying minimum distance and losing as little speed as possible. In the race he must avoid collisions with the other three planes, which sometimes fly very close to his model.

The task of the mechanics (callers) is to give the perfect setting to the engine (a 6,6 cc, single cylinder two-stroke engine with a tuned muffler, running at about 28,000 rpm) and to launch as quickly as possible after the start signal given by an automatic starting and timing system. During the race the caller gives the pilot information about when to turn and what his position in the race is.

At the same time the pylon judges that are sitting around the course, inform the contest director if a pilot flies inside the pylons (which means he has made a so-called “pylon cut”).

HOW IS IT SCORED?

The scoring in a race is simple: The pilot that finishes the 10 laps first gets 4 points, nr. 2 gets 3 points, nr. 3 gets 2 points and nr 4 gets 1 point. In case the model does not finish or the pilot is disqualified - for instance by making 2 pylon or more cuts - he gets 0 points.

The contest comprises between 5 and 10 qualifying rounds. The 8 pilots with the highest points added from these rounds will fly two semi-finals. In case of a tie, the pilot’s fastest time decides.

The 4 pilots with the highest total points from the semi-finals will fly the final, the result of which determines the final classifications 1 - 4.

The winner of the final is awarded the “FAI World Air Games Champion” title.

WHAT DO YOU HAVE TO DO TO WIN?

The aim is to fly faster around the course than your opponents. This means of course that you need a fast, perfectly trimmed model and a well-prepared engine. That engine needs to have the best adapted and most efficient propeller and race setting. A lot of practice is essential to be able to fly the shortest possible distance, the best curve radii and to orientate in the course. The models fly at a low altitude, appr. 4 - 8 meters above the ground, at an airspeed of approximately 300 km/h, so the pilot needs to concentrate highly on his model and be well aware where the other models are. In case a pilot makes a pylon cut, he has to fly an extra lap to finish his race, which means of course a loss of time but also a complication for racing tactics: the caller has to inform his pilot what his true position is in the race. All in all this type of racing is very demanding for the pilots and callers.

TELL ME MORE!

Radio-controlled racing is a popular but very demanding discipline. Although the models are relatively easy to fly, these world class competitors have hundreds of hours of practice behind them to become an experienced air racer.

The models used are of a semi-scale design, based on airplanes that really race or have raced, approved by a committee. They are built with high-tech materials, like carbon fiber in CNC produced molds with very smooth surfaces and the minimum possible aerodynamic drag.

The engines are very powerful for their size, but they have to be standard, commercially available and approved by the F3T committee.

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