

**FASI AEROMODELLING  
RC PYLON RACING MODEL AIRCRAFT RULES**

**I. General Rules**

1. Definition of Radio Control Pylon Racing Model Aircraft :

Model aircraft in which the propulsion energy is provided by a piston type engine and in which the lift is obtained by aerodynamic forces acting on the supporting surfaces, which, except for the control areas, must remain fixed in flight.

2. Model Number

Each competitor may possess and use a maximum of three models during contest.

3. Transmitter Impound

Each transmitter must be impounded during the competition except 2.4 GHZ Spectrum Transmitter and should only be handed back to those pilots who are on their way to the Ready Area. When returned to the Impound after each heat, the transmitters should be checked to ensure that they are switched off.

4. Caller

- a. All pilots must be accompanied by a caller for reasons of safety.
- b. In each race, the caller must release the model aircraft at the start and give the pilot verbal information regarding the flying course of his model aircraft and any official signals.
- c. Electronic communication with the pilot shall be prohibited.
- d. There will be no pilots helpers at any of the pylons.

5. Helmet

- a. Competitor and callers on the racecourse must wear a crash helmet with a properly fastened chin strap
- b. During the competition, any pilot or caller not wearing an appropriate helmet will disqualify that team from the heat.

**II. Technical Specifications**

1. Engine :

- a. The engine must be a commercially available, front-intake, side-exhaust. The engine shall be stock, except for modifications as listed in point f.

- b. Displacement:  
Maximum displacement is 7.6cc (0.46 cubic inches)
- c. Exhaust System:  
The engine shall be equipped with an expansion chamber muffler or zero-boost muffler as provided by the engine manufacturer for that particular model. The muffler shall be stock, except for modifications as follows:
- Replacement of bolts, or screws and welding or gluing to improve reliability is permitted.
  - The muffler may be tapped for a pressure fitting to supply pressure to the fuel system.
  - Tuned mufflers and tuned pipes are prohibited.
- d. Intake  
The carburettor as supplied by the manufacturer shall be used and must be capable of reducing the engine speed to idling. The carburettor and any associated remote needle valve shall be stock, except for longevity-enhancing modifications as follows:
- Adjustment screws and idle needle valves may be held in place with commercially available thread locker, epoxy, or other adhesives and safe tied with rubber bands, wire, or plastic ties.
  - Barrel retaining screws or pins may be replaced with commercially available screws or pins of harder material and may be held in place with commercially available adhesives. Barrels may be de-burred for smoother movement and may be safe tied with rubber bands, wire, or plastic ties.
  - Throttle arms may be modified or replaced.
- e. Fuel Feed  
Other than muffler pressure, no fuel system pressurization is permitted.
- f. Modifications  
The following parts may be substituted for the original engine parts and may come from any source:
- Backplate mount (provided the crankcase volume is not varied)
  - Bearings
  - Gaskets
  - Glow plug
  - Head and crankcase bolts
  - Propeller nut (spinners may be used)
  - Propeller washer
  - The head clearance of the engine may be altered from the manufacturer's setting by adding or removing head shims.
- g. Engine Installation  
The engine and engine mount shall be fully exposed. No cowling or streamlining of the engine is permitted.
- h. Approved Engine List  
See Annex 1 for current engine approval list.

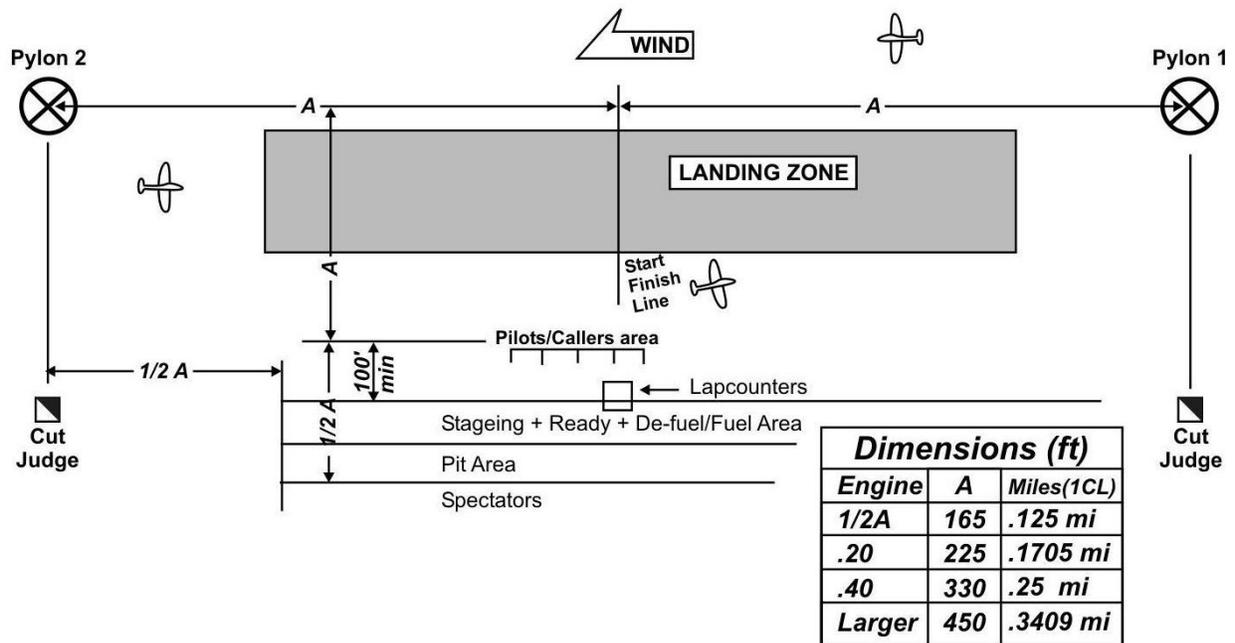
## 2. Aircraft

- a. Wing Area  
Minimum 3225 cm<sup>2</sup> (500 square inches).
- b. Wing Span  
Minimum 1270mm (50 inches), maximum 1397mm (55 inches).
- c. Airfoil Thickness  
Minimum 2.54 mm (1inches).
- d. Weight  
The weight of an assembled aircraft, ready for flight, but less fuel shall be a minimum of 1580grams (3-1/2 pounds).
- e. Landing Gear  
The landing gear shall be fixed, with at least 2 main wheels.
- f. Propeller
  - Metal propeller are not permitted
  - Minimum diameter 9 inches. Nominal pitch 6 inches, as indicated by the manufacturer's stamp or packaging.
  - Propellers shall be stock and commercially available. One blade may be modified forbalancing.

## 3. Fuel

The organisers shall supply fuel to a standard formula for glow plug motors containing maximum 15% nitro

### III. Race Course (Two Pylon)



- For the race course lay-out, see the diagram. The race course specification may be modified in the interest of safety or to suit existing field condition.
- The pylons should have a minimum height of 4 m and should not exceed 5 m in height.
- All laps are to be flown counter-clockwise with turns to the left.

### IV. Organizing and Scoring

#### 1. Round, laps, heat and start.

The number of rounds will be announced by the organiser before the start of the competition with a minimum of 4 and a maximum of 12 round, and 10 laps each round with maximum of 3 (three) models per heat and 2 seconds delay to start each model. Because of weather conditions or other important reasons, the number of rounds may be reduced during the competition, but only after consultation with the team managers or the competitors in an early a stage as possible.

#### 2. Number of judges :

- 1 (one) starter judge for start / finish line.
- 3 (three) judges for pylon no 1 (cut judge)
- 3 (three) judges for pylon no 2 (cut judge)
- 3 (three) judges for time and lap counter

3. The flight of each model aircraft shall be timed by a lap counter/timekeeper. Timing shall start when the starting signal is given to the individual competitor.
4. The lap counter/timekeeper stops his timing device after ten laps have been completed by the competitor and, supervised by the Starter, records the elapsed time from the timing device on the competitor's score sheet.
5. At the completion of each heat, the pylon and side-line judges shall notify the Starter as to which model aircraft, if any, have had infringements recorded against them. The Starter then advises the lap counters/timekeepers assigned to those aircraft who will record the total number of infringements for each competitor on his score sheet.
6. The score sheets are then processed by a scorekeeper who:
  - For one infringement, will add 1/10th of the flyer's time for ten laps to give the corrected time; (1 Pylon cut = 1 infringement)
  - For two or more infringements, will give a score of 300.
7. Points shall be awarded after each race as follows:
  - The competitor's score shall be his corrected time.
  - If the competitor fails to complete his flight or is disqualified his score shall be 300
8. The winner of the event is the competitor who has accumulated the lowest score after the conclusion of all heats. If four or more rounds are flown, each competitor's worst (highest) score shall be discarded. If eight or more round are flown, each competitor's worst (highest) two scores shall be discarded. If twelve or more rounds are flown, each competitor's worst (highest) three scores shall be discarded.

#### Annex 1

##### Approved engine list

- OS .46
- Thunder Tiger.46
- ASP .46
- Super Tigre G45