CLASS S11/P - ROCKET POWERED AIRCRAFT AND SPACESHIPS

11.8 CLASS S11/P

11.8.1. **Definition:**

The Rocketplane or Spaceship competition is a single class which is limited to models which are scale models, resembling the prototype, of rocketplanes or future (futuristic) spaceship (S-F) past or present. The objective is to build a model of a Rocketplane/Spaceship and fly it by radio control. Rule 4.7. applies.

11.8.2. **Choice of the Model:**

The competitor must have produced a genuine rocketplane or spaceship (futuristic or not). However, the competitor shall do his best to reproduce a model from an original subject.

There are two possible subclasses to be chosen:

- rocket powered aircraft S11/P (R)
- spaceships (futuristic or not) S11/P (S)

11.8.2.1. **Maximum Weight and Thrust:**

Maximum weight (at take-off) ..... 1000 g

Maximum total impulse 160 Newton seconds

Engines up to 80 Ns are allowed.

11.8.3. **Spaceship with Several Stages:**

If the entry is a scale model of a multi-stage vehicle, it may be designed so that one or more of the upper stages are inoperable dummies. However, the upper stage of a multi-staged vehicle may not be entered and flown without its operable lower stages unless specific data is furnished to the judges to prove that the upper stage configuration was designed to be or has been flown separately, alone and as a vehicle itself.

A futuristic spaceship can have several stages. The last stage must be radio-controlled.

11.8.4. **Stabilisation Flaps:**

The rocketplane model (or spaceship) should have the functional radio-controlled control surfaces of the real craft.

11.8.5. **Kit of Plastic Parts:**

Parts from plastic model kits cannot be used.

11.8.6. **Introduction of the Model for Judging:**

Models will be judged for scale qualities in flight condition minus space model motors. All clear plastic fins, launching lugs and fittings and other flight items must be attached to the model for scale judging. Nothing may be added to or taken off the model between the scale judging and the flight except space model motors and recovery device packing.

11.8.7. **Number of Flights:**

Each model must make one stable flight. Two attempts will be accorded to the competitor, time and weather permitting.

11.8.8. **Judging of the Model:**

The models will be judged according to the following rules:

- static judging
- flight execution

Static Judging:

The competitor will present his model on the top of the launcher. Both launcher and model will be judged according to the following criteria:

11.8.8.1 **Quality of technical data - max. 50 points**

- genuine drawings of the prototype
- drawings at the same scale as the presented model colour
- photographs of the model ready to be launched, in flight and landing.

11.8.8.2. **Quality of Design - 300 points**

- level of detail, care given to assembling and degree of finish
- fuselage: 100 points
- moveable flaps: 100 points
- colours and markings: 100 points

11.8.8.3 **Degree of Difficulty - 400 points**

The number of points given will be according to the degree of difficulty encountered during the assembly of the model.

- number of external parts: 100 points
- complexity of the painting pattern: 100 points
- complexity of the design necessary for a flying model: 100 points
- launcher: 100 points

Flight Execution

The flight must be in accordance with the following rules, taking off and ascending within a 60 degree conical area; a stable gliding flight; perfect precision of landing on a landing area of 20 m x 5 m (no crash allowed). Each model must fly a stable flight.

11.8.8.4 **Judging Criteria - 400 points**

- launching: 100 points
- light stability: 100 points
- landing quality (no crash, no damage): 100 points
- landing precision 100 points in the landing area:
  10 points/metre will be deducted for a landing outside the area.

In the case of a major failure caused by an engine malfunction and if the model can not fly again, no points will be given for the flight execution; only the points given for the static judging will be taken into consideration for the final classification.