Amendments made at the F2 Technical Meeting are shown in green text.

ANNEX 4J

CLASS F2G - SPEED MODEL AIRCRAFT

Rule B.3.1. of Section 4B does not apply to class F2G

4.J.1. Definition of a Speed Model Aircraft

Model aircraft in which the power is provided by an electric motor and in which lift is obtained by aerodynamic forces acting on the supporting surfaces, which except for control surfaces remain fixed in flight.

4.J.2 Characteristics of an Electric Speed Model Aircraft

Maximum voltage of power supply 42 volts off load.

Minimum total projected area....5.0dm$^{2.}$

Maximum loading.....100g/dm2.

Maximum weight.....600g.

The model aircraft must take off from the ground.

The model aircraft must be fitted with a wheeled undercarriage for landing. Minimum wheel diameter 25mm.

The maximum flight time must not exceed 3 minutes from take-off.

4.J.3. Diameter of Control Lines

Only two-line control is allowed, minimum control line diameter is 0,40 mm with a tolerance of minus 0,011 mm. ~~Control wires shall be unplated carbon steel Piano / Music Wire~~.

The lines must be round in cross-section and may not have any liquid or coating material applied. Solvent may be used for cleaning purposes **only**.

No intentional twisting and/or linking of the two lines together shall be permitted from the point of exit of the model aircraft to the control handle. The lines shall be separated by at least 5 mm at the point of exit from the model aircraft and at least 25 mm at the handle.

4.J.4. Length of Course

The measured distance covered by the model aircraft must be at least one kilometre. The radius of the flight circle must be 17,69 m. (9 laps = 1 km).

4.J.5. Line Tests

A line test shall be made before each attempt for an official flight**.**

The radius is measured from the axis of the pivot on the pylon, to the axis of the propeller. Where two propellers are employed, the axis of symmetry is taken as the reference for measurement.

A load sufficient only to remove the slack from the lines shall be applied during the line length check.

A load test shall be applied to the assembled control handle, lines and model aircraft equal to 50 times the weight of the model aircraft and this test shall be applied separately to the safety strap when attached to the competitor's wrist.

In each case the pull shall be applied three (3) times, slowly increasing to maximum load and releasing rapidly. The pull test should be made on the handle grip, not near the point of attachment of the lines (see sketch in rule 4.1.7).

The diameter of the lines shall be checked at random distances on at least three points along the length of each line.

A safety strap connecting the competitor's wrist to the control handle must be provided by the competitor and used during all flights.

4.J.6. Control Handle and Pylon Fork

See F2A rule 4.1.7

4.J.7 Definition of an Attempt

It is considered an attempt when the pilot does not engage the control handle in the pylon fork within 3 minutes after the starting signal.

4.J.8. Number of Attempts

In the case of an unsuccessful first attempt for an official flight, the competitor is entitled to a second attempt.

4.J.9 Definition of an Official Flight

The flight is official when timing commences.

4.J.10 Number of Flights

Each competitor is entitled to three official flights.

4.J.11 Helpers

Two helpers are admitted to the contest area

4.J.12. Starting of Timing

The timing commences officially when the competitor has placed his handle in the pylon fork and the model aircraft having made 2 complete circuits again passes the electronic sensor or the height marker on the edge of the circuit directly opposite the timekeepers.

4.J.13. Height of Flight

During the timing of an official flight, the flying height must not be less than one metre and not more than 3 metres.

4.J.14. Cancellation of the Flight

A flight is cancelled when:

a) Any physical effort for the purpose of increasing the speed of the model aircraft during an official flight is applied by the pilot.
b) If at any time during the speed course the model aircraft exceeds a height of 6 metres or sustains a height in excess of 3 metres or less than one metre for more than one lap.
c) Continuous contact is not maintained with the pylon fork during the official flight.
d) Jettisoning occurs during the official flight.

4.J.15 Number of Timekeepers and Judges

a) The time shall be taken by either three timing officials equipped with 1/100-second resolution digital stopwatches or by an optical electronic system with equal or better resolution and accuracy. The optical system backup may be by some other electronic device or by two manual timekeepers.
b) Speed judges, at least two in number, shall be responsible for observing the conduct of the pilot and the altitude of the flight.

4.J.16. Classification

The individual times recorded by each timing official and/or by an optical electronic system shall be recorded in writing and retained by the senior judge or other official.

Times recorded should be handled as follows:

a) In the case of manual timekeepers, the mean time of the three stopwatches shall be taken to calculate the result, unless:
    i) One of the stopwatch times differs from the closer of the other two by more than 12/100 seconds, or the official reports that he made a mistake. In this case the mean time shall be calculated from the other two stopwatch times.
    ii) Two stopwatch times differ by more than 12/100 seconds from the middle one, or two officials report a mistake. In this case this fact should immediately be reported to the competitor or his team manager. The competitor then has the choice of using only the

remaining stopwatch time to calculate his result, or to be allowed a replacement attempt. His decision must be given to the F2A Circle Marshall without delay, and is irrevocable.

iii) No rounding off of decimals shall be made when calculating the mean time. The time thus obtained for calculating the speed shall be recorded and retained.

iv) The speed in km/h shall be calculated by dividing 3600 by the time according to a), and then taken to the nearest lower 1/10 km/h.

b) In the case of an optical electronic system, the senior speed judge shall check the result by looking at the logged individual lap times of the official flight, as well as the laps before and after the official flight. If there is any anomaly, the backup system shall be consulted. If the backup system is manual and both timekeepers report a mistake (they may have timed one lap short),or if the backup system is electronic and it shows an anomaly, or if both electronic systems fail, then the competitor shall be given a replacement attempt.

If the backup time, either manual or secondary electronic, is within 12/100 of the primary system time, the primary system time is used.

If the backup time, either manual or secondary electronic, differs by more, but is in itself consistent, its time should be used. If an uncertainty in excess of 12/100 seconds remains, then the competitor has the choice of choosing the slowest recorded speed or being allowed a replacement attempt. His decision must be given to the Circle Marshal without delay, and is irrevocable.

Replacement attempts shall be scheduled to take place within one hour of the original attempt.

(i) The recorded speed in km/h is to be taken from the **Electronic Official Speed. (**Eoff column **in the TransiTrace system)**.

c) The best speed attained during the three flights is used for classification. In case of a tie, to separate the fliers, the second best speed, and if still a tie, the third best speed is used.

d) The first three positions are subject to rechecking of the declared model aircraft characteristics.

End of document