

## **6.4 SCALE OUTDOOR FREE FLIGHT (Engine Powered)**

### **6.4.1 General Characteristics**

Maximum surface area	150 m <sup>2</sup>
Maximum weight of complete model without fuel	5 kg
Maximum loading	50gdm <sup>2</sup>
Motive Power:	
(a) Piston engines, total	10 cm <sup>3</sup> max
(b) Electric Motors	no limitations
(c) Solid fuel reaction motors (Jetex)	allowed

### **6.4.2 Definition of an Official Flight**

An official flight shall be recorded when the model has been airborne for 30 seconds except when the wind velocity exceeds 4 m/s when the qualifying time shall be reduced to 20 seconds.

### **6.4.3 Number of Flights**

Each competitor shall have the opportunity to make a minimum of four flights.

### **6.4.4 Flying Time**

Competitors must be called at least five minutes before they are required to occupy the starting area. Each competitor shall have a flying time of five minutes (plus one minute for each additional engine of multi-engined models) to complete each flight programme, the flying time commencing when the competitor begins to start the engine(s) or two minutes after entering the starting area, whichever is first. No points may be scored after the end of the flying time.

### **6.4.5 Flight**

(a) Take-Off (Optional, see 6.1.6 (a))	K=13
(b) Initial Climb	K= 10
(c) Realism in Flight	K= 23
(d) Transition to descent	K= 6
(e) Descent and landing approach	K= 13

**Total K=65**

#### 6.4.6 Complexity Bonus

The flight score shall be subject to a complexity bonus as listed in the following schedule. All bonuses are additive. The best flight score shall be factored by the appropriate total bonus, to become the scoring flight.

Engines (on different thrust lines)	Bonus
Single	0
Twin	10%
Three	10%
Four	20%

N.B. To qualify for the multi engine bonus each propeller must be driven by a separate engine unless this was not the case with the prototype modelled. The engines must deliver similar levels of power.

Undercarriage	
Fixed (any configuration)	0
Retractable (remains up for landing)	5%
Retractable (lowers again for landing)	10%

#### 6.4.7 Marking (Flight Points)

Each part of the flight<sub>3</sub> as defined in 6.4.5. will be awarded marks between 0 and 10 by each judge during the flight. These marks are then each multiplied by the appropriate K factor and aggregated before the bonuses are applied as described in 6.4.6.

#### 6.4.8 Flight Score

The flight score shall be the aggregate sum of points awarded by the judges as described in 6.4.7.

#### 6.4.9 Total Score

Add the points earned in 6.1.11 to the best flight score as defined in 6.4.8.

Note Static judging is to take place at a minimum distance of 2 metres for items I to 5 in 6.1.11. and 0.5 metre for items 6 to 8 in 6.1.11.