GBRCAA Intermediate Schedule

I-01 Racetrack Take-off Sequence (K=1)

The model is placed on the take-off area, parallel to the flight line and released. The model rolls along the take-off area until flying speed is achieved, then establishes straight climbing flight parallel to the flight line. The model then turns through 180 degrees in a continuous turn and flies back over the manoeuvring area centre line. Take-off is completed once the centre line has been crossed and the model then performs a 180 degree turnaround of the pilot's choice, which is not scored.

Notes: Box limitations do not apply to this manoeuvre. On rough surfaces or when there is a crosswind, it is acceptable for a helper to restrain the model on the ground until take-off power is applied.

Judging notes

- Model does not track straight on take-off: 1-2 points. (Disregard the effect of the take-off surface e.g. ruts and pot holes on grass sites)
- Wings not level after take-off: 1 point per 15 degrees
- Rate of climb too steep: 1-2 points above 30 degrees
- Model goes behind judge's line after take-off: zero points
- Model retouches runway after lift-off: 1 point
- Any part of the aircraft structure becomes detached on take-off: zero points for the whole flight.

I-02 Triangular Loop (Base at the bottom) (K=3)

From upright on the baseline pass centre and pull through a 3/8 loop into a 45° up line. Pull through a 1⁄4 loop positioned on the centre line into a 45° down line. Pull through a 3/8 loop to exit upright at baseline height.

Judging notes

- All radii equal
- Entry and exit should be same height
- Base of a 45˚ triangle is longer than other two lines

I-03 Stall Turn, Full Roll Up (K=3)

From upright on the baseline pull through a 1⁄4 loop into a vertical up line, perform a full roll, followed by a stall turn into a vertical down line. Pull through a 1⁄4 loop to exit upright.

Judging notes

- Full roll should be centred on vertical up line
- If the stall turn radius is between half and 1 wingspan then downgrade 1 point

- If the stall turn radius is between 1 wingspan and 1.5 wingspans then downgrade 2-3 points
- If the stall turn radius is between 1.5 wingspans and 2 wingspans then downgrade 4-5 points
- If the stall turn radius is greater than 2 wingspans the score shall be zero
- If the aircraft exhibits a pendulum effect after exiting the stall turn then deduct 1 point

I-04 Four Point Roll (K=3)

From upright, perform 4 consecutive 1⁄4 rolls, exit upright.

Judging notes

- Pauses between rolls should be short and of equal length
- Constant roll rate
- Aircraft is on centre line of box in middle of inverted line

I-05 Immelmann Turn with Half Roll (K=2)

From upright pull into a half loop and immediately perform a half roll to exit upright.

Judging notes

- Constant radius through half loop
- Half roll must immediately follow half loop

I-06 Square Loop with 1⁄2 Rolls in Legs 1 and 3 (K=4)

From upright on the top line pass centre and push through a 1⁄4 loop into a vertical down line. Perform a half roll centred on the vertical down line. Pull through a 1⁄4 loop to upright on the baseline and fly past centre and pull through a 1⁄4 loop to a vertical up line. Perform a half roll centred on the vertical up line. Push through a 1⁄4 loop to exit upright on the top line.

Judging notes

- All radii equal
- Manoeuvre performed on centre line
- Half rolls to be in centre of lines

I-07 Split S Full Roll, Exit Inverted (K=2)

From upright on the top line perform a full roll immediately followed by half an outside loop to exit inverted on the baseline.

Judging notes

- Half loop immediately follows full roll
- Constant radius through half loop

I-08 Cuban Eight with Half Rolls, Exit Inverted (K=3)

From inverted on the baseline fly past centre and push through 5/8 of an outside loop into a 45° down line. Perform a half roll in the centre of the 45° down line. Push through 3⁄4 of an outside loop into a 45° down line. Perform a half roll in the centre of the 45° down line. Push through a 1/8 loop to exit inverted on the baseline.

Judging notes

- Half rolls performed on centre line of box, and in middle of 45˚line
- All radii equal

I-09 Humpty Bump Push, Pull, Pull (K=2)

From inverted on the baseline push through a 1⁄4 loop into a vertical up line. At the top of the vertical up line pull through a half inside loop into a vertical down line. At the bottom of the down line, pull through a 1⁄4 loop to exit upright on the baseline.

Judging notes

- All radii equal

I-10 Figure S (K=4)

From upright on the baseline on centre pull through half an inside loop and immediately push into half an outside loop to exit upright on the top line.

Judging notes

- All radii equal
- There should be no line between half loops

I-11 Figure 6, Half Roll Down (K=3)

From upright on the top line, push into a vertical down line. Perform a half roll centred on the vertical down line. At the bottom of the down line, push through 3⁄4 of an outside loop to exit upright at mid height.

Judging notes

- All radii equal
- Roll must be in middle of down line

I-12 Knife Edge, Exit Inverted (K=4)

From upright at mid height before centre perform a 1⁄4 roll (either direction) into knife edge. Past centre perform a 1⁄4 roll to exit inverted at mid height.

Judging notes

- Knife edge should be held long enough to demonstrate controlled, sustained knife-edge flight (3 to 5 seconds as a guide).
- Whole manoeuvre should be centred

I-13 Half Loop (K=1)

From inverted at mid height, push through half a loop to exit upright on the top line.

Judging notes

- Radius must be constant

I-14 Three Turn Spin (K=4)

From upright on the top line, on the centre line of the box perform three consecutive spins followed by a vertical down line. At bottom of vertical down line, pull through a ¼ loop followed by a well-defined, straight line to exit upright on the baseline.

Judging notes

- Climbing on entry into spin, downgrade 1 point per 15 degrees
- Yawing before entry into spin, downgrade 1 point per 15 degrees
- Snap-roll entry, zero points
- Forced entry, severe downgrade
- Spin under or over rotation, downgrade 1 point per 15 degrees

I-15 Racetrack Landing Sequence (K=1)

On completion of the previous manoeuvre a short straight and level flight should be flown. At reduced power the model turns 180 degrees into a level or descending downwind leg and then executes a second 180 degree turn upwind for the final descending approach to the runway, touching down inside the landing zone.

Landing is complete after the model has rolled 10 metres or has come to rest inside the landing zone. The landing zone is an area described by a circle of 50 metres radius or lines across a standard runway spaced 100 metres apart where the runway is 10 metres wide.

Judging notes

- Model does not follow landing sequence: zero points
- Landing gear retracts or wheels come off on landing, zero points
- Model lands outside the zone: zero points
- 90 or 180 degree turns not 90 or 180 degrees 1-2 points
- Wings not level in downwind and upwind legs 1 point per 15 degrees
- Model does not track on runway after touchdown 1-2 points
- Model bounces on touchdown 1-2 points
- Model climbs and dives on downwind leg or final approach to runway 1-2 points

- Model changes heading left or right on approach to runway 1-2 points

The landing will not be downgraded if:

- The pilot elects sideslip to land due to crosswind conditions, in which case the upwind wing will be low
- Wing dips due to cross wind turbulence and is corrected IMMEDIATELY