Open Class Manoeuvres

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.* Red highlighted manoeuvres are new manoeuvres introduced in 2017

Manoeuvres

1. **Split S.** The model flies S & L, performs one half roll ending on the centreline, immediately followed by one half loop, and then flies S & L.
   K5

2. **One Inside Loop.** The model flies straight and level (S & L), performs one inside loop and then flies S & L.
   K5

3. **One Roll.** The model flies S & L, rotates smoothly around its longitudinal axis and then flies S & L.
   K5

4. **Stall Turn.** The model flies s & l at 90 degrees to the centre line and just past the centre line, performs one-quarter of an inside loop (to a vertical attitude, and at a position about 45 degrees from the centre line from the viewpoint of the judges), continues to fly vertically upwards for a short distance, yaws (into wind) through 180 degrees, flies vertically downwards for a short distance, performs one-quarter of an inside loop, then flies s & l at the same altitude but on the opposite heading to the start of the manoeuvre. **Note:** A score of zero should be given if the model falls more forward or backward than sideways.
   K6

5. **Immelmann Turn**. The model flies S & L, performs one half loop on the centreline, immediately followed by one half roll, and then flies S & L.
   K6

6. **Half Reverse Cuban Eight**. The model flies S & L with the manoeuvre starting before the centreline, performs one-eighths of a loop up the 45° line and half roll to inverted on centreline into five eighths of a loop then flies S & L at the same altitude but opposite heading to the start.
   K7

7. **Half Cuban Eight**. The model flies S & L, performs five-eighths of a loop (to an inverted 45° diving attitude), performs one half roll (the centre of the half roll being at the height of the centre of the loop), performs one eighth of a loop then flies S & L at the same altitude but opposite heading as the start.
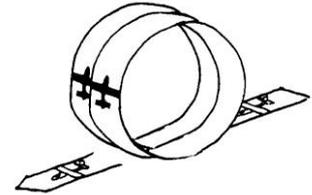   **K7**

8. **Straight Inverted Flight**. The model flies S & L, performs one half roll, flies S & L inverted for about five seconds, performs a second half roll, and then flies S & L.
    K7

9. **Two Inside Loops** The model flies S & L, performs two consecutive inside loops and then flies S & L.
    K8

10. **Two Rolls** The model flies S & L, rotates 720° around its longitudinal axis and then flies S & L.
    K8

11. **Three Turn Spin** The model flies S & L into wind, slows down until it stalls and, in a fully stalled condition, falls into a spin on the centreline. At the end of three revolutions the model recovers from the spin, flies vertically downwards to regain flying speed, performs one-quarter of a loop, and then flies S & L in the same direction as the start of the manoeuvre.
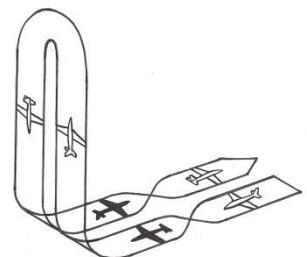
    K8

12. **Double Immelmann** The model flies S & L and performs one half loop, immediately performs one half roll, flies S & L for about one second, performs one half outside loop, immediately performs one half roll then flies S & L at the same altitude and heading as the start of the manoeuvre.
    K9

13. **Outside Stall Turn** The model flies S & L then rolls 180° to inverted on the centreline. The model then pushes to vertical and performs a stall turn. Push to inverted level attitude on the base line and roll 180° back to wings level and upright on the centreline. Model exits flying S+L.
    K9

14. **Half Reverse Cuban with Full Role** Model flies S&L then pulls to a 45 degree line, halfway up a full roll is completed followed by 5/8th of an outside loop back to the base line which is followed by a half roll, model exits flying S&L. Both rolls must be performed on the centre line.
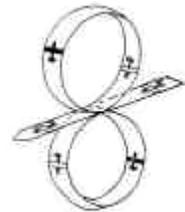**K9**

15. **Three Inside Loops** The model flies S & L, performs three consecutive inside loops and then flies S & L.
K10

16. **Vertical Eight** The model flies S & L, performs one inside loop, immediately performs one outside loop, then flies S & L at the same altitude and heading as the start of the manoeuvre.
K10

17. **Reverse Cuban Eight** The model flies S & L with the manoeuvre starting before the centreline, performs one-eighths of a loop up the 45° line and half roll to inverted on centreline into three quarters of a loop, up the 45° line and half roll to inverted on centreline, performs five eighths of a loop then flies S & L at the same altitude and heading as the start.
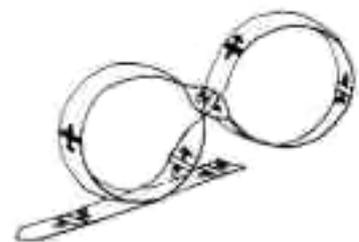**K10**

18. **Humpy Bump** Model flies S&L then pulls to a vertical upward line. At the top a half loop is flown followed by a vertical downline. The model is pulled to horizontal on the base line. All radii and half loop must be equal.
K10

19. **Cuban Eight.** The model flies S & L, performs five-eighths of a loop (to an inverted 45° diving attitude), performs one half roll (the centre of the half roll being at the height of the centre of the loop), performs three quarters of a loop (to an inverted 45° diving attitude, with the centre of the loop at the same altitude as the first loop), performs one half roll (the centre of the half roll being at the height of the centre of the loop), performs one eighth of a loop then flies S & L at the same altitude and heading as the start.
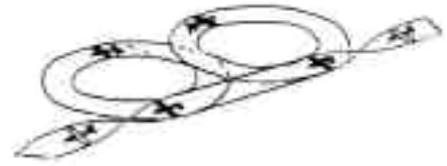**K11**

20. **Slow Roll** The model flies S & L, performs one roll then flies S & L. The roll shall be at a uniform rate and shall take approximately five seconds. **Note:** A significantly faster roll should be downgraded proportionately, e.g. a roll executed in approximately 3 seconds
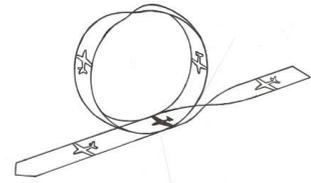
should be downgraded 50%, and a roll executed in 1 second scored zero.
K12

21. **Inverted Eight** The model flies S & L across wind, performs one half roll to an inverted attitude, turns (into wind) through 90°, immediately turns in the opposite direction through 360°, immediately turns in the first direction through 270°, performs one half roll, then flies S & L at the same altitude and heading as the start of the manoeuvre.
K12

22. **Rolling Loop** The model flies S & L then rolls180⁰ to inverted on the centreline and immediately pushes half an outside loop. At the top the model rolls 180⁰ to inverted and pulls the second half of the loop to exit wings level and upright. Model finishes by flying S & L.
K**12**

23. **Square Loop** This is a variation of the basic loop. The two vertical lines and the horizontal line on top have to be of the same length. The exit line at the bottom has to be at least as long as the other three sides. The quarter loops that connect the four sides have to have the same radius at each corner.
K12

24. **Barrel Roll** The model flies S & L then rotates at a constant roll rate around both the longitudinal and vertical axes (i.e. loop and roll at the same time). The model should enter and exit the manoeuvre on the same heading, but should be flying at 90° to this heading when the model crosses the centre line at the highest point of the manoeuvre. The model exits the manoeuvre by flying S & L at the same altitude and heading as the entry.
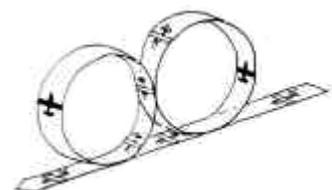**K13**

25. **Four Point Roll** The model flies S & L, rolls through 90° to a knife-edge attitude, hesitates briefly before repeating the quarter-rolls and hesitations back to a wings-level attitude, then flies S & L.
K13

26. **Horizontal Eight** The model flies S & L, performs three-quarters of an inside loop (to a vertically downward attitude), performs one outside loop (to a vertically downward attitude), performs one quarter of an inside loop then flies S & L at the same

altitude and heading as the start of the manoeuvre.
K13

27. **Two Opposite Rolls** Model flies S&L then performs one complete roll
    followed by a second complete roll in the opposite direction without hesitation
    between the two rolls. Centre of the manoeuvre is between the two rolls with
    the model in the upright position.
    K14