

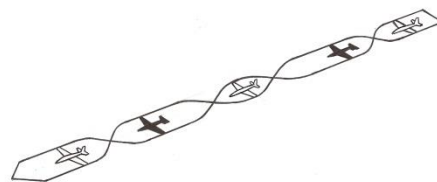
Expert Class Manoeuvres - 2018

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List A

- 1. Alternating Roll** The model flies S & L then rolls 180° to inverted, hesitates then rolls 360° in the opposite direction back to inverted, hesitates and then rolls 180° again in the original direction back to wings level and upright and exits flying S & L. Half way through the 360° roll must be on the centre line.

K12



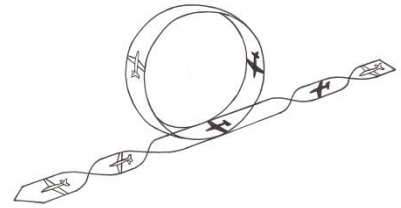
- 2. Slow Roll** The model flies S & L, performs one roll then flies S & L. The roll shall be at a uniform rate and shall take approximately five seconds. **Note:** A significantly faster roll should be downgraded



proportionately, e.g. a roll executed in approximately 3 seconds should be downgraded 50%, and a roll executed in 1 second scored zero.

K12

- 3. Four Point TOSS Roll** The model flies S & L then performs two points of a four point roll, on the centre line the model performs an outside loop followed by the remaining two points of the four point roll. Model exits flying S & L.



K14

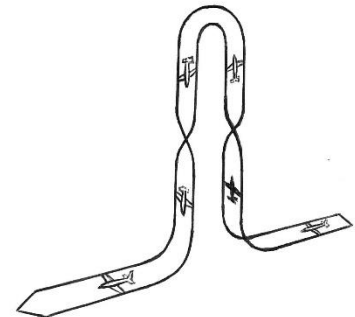
- 4. Ching - Ching - Chong - Chong** The model flies S & L then performs 2 out of 4 of a four point roll with hesitations at 90 degrees and 180 degrees then rolls in the opposite direction to perform another 2 out of 4 of a four point roll with a hesitation at 90 degrees to bring the model back to the upright position then flies S & L.

K14

- 5. 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.

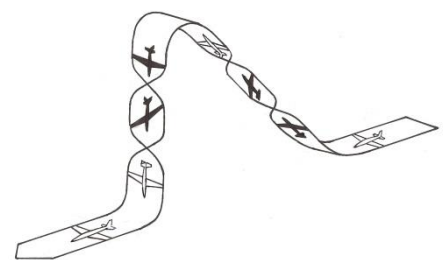
K14

- 6. Thread the Needle** The model flies S & L, performs one-quarter of an inside loop to a vertical up-line on the centre line. The model then rolls through 90° so that the top side (canopy side) of the model is facing the judges. The model continues on the vertical up-line then jaws through 180° as per stall turn manoeuvre. The model travels halfway down the vertical down-line before rolling through 90° followed by a second equal length down-line before performing a one-quarter of an inside loop, then flies S & L at the same altitude and heading as the start of the manoeuvre.



K15

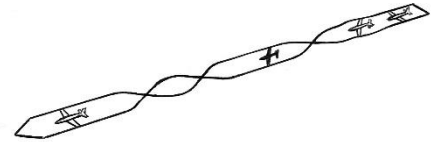
- 7. Sharks Tooth** The model flies S & L then pulls to a 45° up line. Half way to the top the model performs two points of a four-point roll. At the top of the 45° line, pull a tight radius (as on a square loop) to a vertical down line which must be on the centreline. Half way down the model must perform two points of a four-point roll and then is pulled to wings level and upright on the base line. Model finishes by flying S & L.



K15

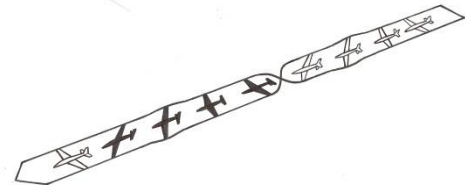
- 8. Damian Roll.** The model flies S & L, rolls through 90° to knife-edge attitude, hesitates briefly before rolling in the opposite direction through 180° to knife-edge attitude, hesitates briefly, then rolls in the opposite direction through 450° to a wings level attitude, then flies S & L.

K16



- 9. Eight Point Roll** The model flies S & L then performs eight 45° rolls with equal hesitations between each 45° ending with wings level attitude and flying S & L. Plane must be horizontal inverted when on the centre line.

K17

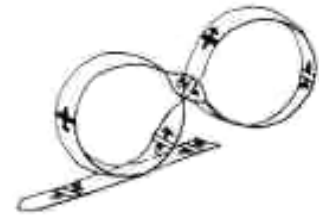


- 10. Rolling Stall Turn** The model flies S&L on the base line, at the centre it performs a half roll to inverted, after 2 seconds the model is pushed to a vertical up line. Half way up, the model performs a half roll, at the top of the vertical line, a stall turn is executed, half way down the vertical line, the model again performs a half roll. The model is pushed to straight and inverted on the base line and when reaching the centre point, the model performs a final half roll to exit the manoeuvre flying S&L.

K17

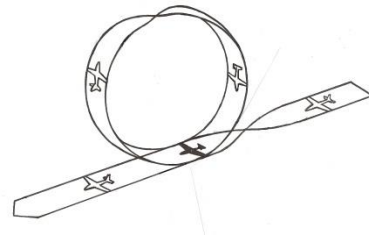
List B

- 1. 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.



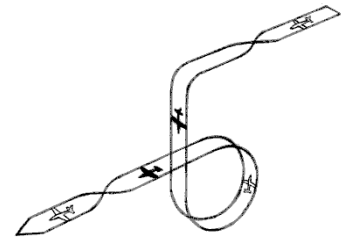
K11

- 2. Rolling Loop** The model flies S & L then rolls 180° to inverted on the centreline and immediately pushes half an outside loop. At the top the model rolls 180° to inverted and pulls the second half of the loop to exit wings level and upright. Model finishes by flying S & L.



K12

- 3. Downward Six.** Flying with wings straight and level near the top of the box, halfway along the top leg, half roll to inverted. At the end of the leg, pull to a vertical down line on the centre line. Before reaching the bottom of the box, pull $\frac{3}{4}$'s of a loop exiting inverted. A second later, half roll to upright and finish with wings straight and level. NOTE: The top radius must be the same radius as the $\frac{3}{4}$ loop.



K12

- 4. Outside Barrel Roll** The model flies S & L then rolls 180° to inverted then rotates at a constant roll rate around both the longitudinal and vertical axes (i.e. outside 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 rolling 180° to upright then flying S & L at the same altitude and heading as the entry

K14

- 5. Eye of the Tiger** Eye of the Tiger is a triangle standing on its head. The model flies S&L, on the centre of the base line the models pulls to a 60 degree up line, at sufficient height to create a presentable size triangle, the model is pulled through 120 degrees to fly level and inverted. Once the model has flown an equal length leg, it is again pulled through 120 degrees to fly a 60 degree down leg, once the model reaches the centre point of the base line, it is pulled through 60 degrees to exit the manoeuvre flying S&L.

K14

6. Outside Cuban Eight The model flies S & L, rolls inverted before crossing the centerline, performs $\frac{5}{8}$ of an outside loop (to an upright 45 degree diving attitude), performs $\frac{1}{2}$ roll (the Centre of the $\frac{1}{2}$ roll being at the height of the Centre of the loop), performs $\frac{3}{4}$ of an outside loop (to an upright 45 degree diving attitude), performs $\frac{1}{2}$ roll (the Centre of the half roll being at the height of the Centre of the loop), performs one eighth of an outside loop then flies level inverted for a brief moment before performing $\frac{1}{2}$ roll to upright and flies S & L to complete the maneuver.

K15

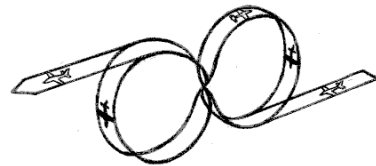
7. Humpty Bump with Half Rolls Model flies S&L then pulls to a vertical upward line. Halfway up the line a half roll is performed then the top a half loop is flown to a vertical down line. Half way down another half roll is performed followed by a pull to horizontal on the base line. All radii and half loop must be equal.

K15

8. Sunny Side Up The model flies S & L, starts $\frac{1}{4}$ inside loop then rolls $\frac{1}{2}$ roll as the model approaches vertical and continues to push $\frac{1}{2}$ an outside loop until the model approaches vertical then does $\frac{1}{2}$ roll and pulls $\frac{1}{4}$ inside loop then flies S & L to complete the maneuver.

K16

9. Horizontal Eight with Centre Rolls Enter with wings straight and level, before the centre line, pull the first $\frac{1}{4}$ of a loop and perform a half roll which is on the centre line. Continue by pushing a complete outside loop and again on the centre line, perform a half roll. Push $\frac{5}{4}$'s of an outside loop to exit upright and with wings straight and level.



K17

10. Loop with Two Rolls at the TOP Model flies S&L and on the centre line begins to perform a loop. Two consecutive rolls must be performed at the top of the loop being centred on the centre line after which the model completes the loop and exits on the base line.

K18