B+01 Loop with half roll integrated into top $90^{\circ}$, Exit Inverted:
From upright on the baseline at the centre line pull through a full loop with a half roll integrated into the top quarter. Exit inverted at baseline height.

Judging notes

- All radii equal.
- Entry and exit should be same height.
- Constant roll rate.
- Roll should be integrated with top $90^{\circ}$ of loop.


## Half Reverse Cuban Eight, Full Roll up:

From inverted on the baseline push through a $1 / 8$ loop into a 45 degree up line. Perform a full roll. Pull through a $5 / 8$ loop to exit upright on the baseline.

## Judging notes

- All radii equal.
- Up line is not 45 degrees (downgrade 1 point per 15 degrees).
- Heading change (downgrade 1 point per 15 degrees)
- Half roll performed in middle of 45 degree line.


## Reverse Knife Edge:

From upright on the baseline before centre perform a $1 / 4$ roll (either direction) into knife edge flight. On centre perform a half roll (either direction) into knife edge flight. Perform a $1 / 4$ roll (either direction) to exit upright on the baseline.

## Judging notes

- Knife edge should be held long enough to demonstrate controlled, sustained knifeedge flight ( 2 to 3 seconds as a guide).
- Constant roll rate.
- Manoeuvre centred on centre line.
- Entry and exit should be same height.


## Top Hat, 1/4 Roll Up, $1 / 4$ Roll Down:

From upright on the baseline pull through a $1 / 4$ loop into a vertical up line followed by a $1 / 4$ roll (either direction). Pull through a $1 / 4$ loop into cross box inverted flight. Pull through a $1 / 4$ loop into a vertical down line followed by a $1 / 4 \mathrm{roll}$ (either direction). Pull through a $1 / 4 \mathrm{loop}$ to exit upright on the baseline.

## Judging notes

- All radii equal.
- Heading not parallel or perpendicular (downgrade 1 point per 15 degrees).


## 2 Roll Rolling Circle:

From upright on the baseline at the centre line perform a two roll rolling circle to exit upright at baseline height.

## Judging notes

- Constant roll rate and radius
- Manoeuvre centred on centre line.
- Entry and exit should be same height.

B+06 Humpty Bump, Pull, Pull, Push. Half Roll Up and Down. Exit Inverted:

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

Judging notes

- All radii equal.
- Half rolls to be performed in middle of vertical up line.
- Lines are not vertical (downgrade 1 point per 15 degrees).

B+07 Stall Turn, 1/4 roll up and down. Exit Inverted:
From inverted on the baseline push through a $1 / 4$ loop into a vertical up line on the centre line, perform a $1 / 4$ roll, followed by a stall turn into a vertical down line. Perform a $1 / 4 \mathrm{roll}$. Push through a $1 / 4$ loop to exit inverted on the baseline.

Judging notes

- $1 / 4$ rolls should be centred on the vertical up line.
- If the stall turn is between half and 1 wing span then minus 1 point.
- If the stall turn is between 1 wing span and a 1.5 wing spans then minus $2 / 3$ points.
- If the stall turn is between 1.5 wing spans and a 2 wing spans then minus $4 / 5$ points.
- If the stall turn is greater than 2 wing spans then minus 10 points.
- If the aircraft exhibits a pendulum effect after exiting the stall turn then minus 1 point.


## B+08 Half Roll Rolling Half Circle:

From inverted on the baseline perform a half horizontal circle with an integrated half roll to the outside to exit upright on the baseline.

Judging notes

- Constant roll rate and radius.
- Entry and exit should be same height.


## Cuban Eight with Half Rolls:

From upright on the baseline fly past centre and pull through 5/8 of an inside loop into a $45^{\circ}$ down line. Perform a half roll in the centre of the $45^{\circ}$ down line. Pull through $3 / 4$ of an inside loop into a $45^{\circ}$ down line. Perform a half roll in the centre of the $45^{\circ}$ down line. Pull through a $1 / 8$ loop to exit upright on the baseline.

Judging notes

- Half rolls performed on centre line and in middle of $45^{\circ}$ lines.
- All radii equal.


## B+10 Half Knife Edge Circuit, Half Roll, Exit Inverted:

From upright on the baseline perform a $1 / 4$ roll (either direction) to knife edge flight. After a short pause push or pull through a $1 / 4$ horizontal circle into cross box knife edge flight. Perform a half roll. Push or pull through a $1 / 4$ horizontal circle into a parallel knife edge flight. After a short pause perform a $1 / 4$ roll (either direction) to exit inverted on the baseline.

Judging notes

- All radii equal.
- Heading not parallel to hall (downgrade 1 point per 15 degrees).
- Constant knife edge flight (downgrade 1 point per 15 degrees).
- Roll not in centre of cross box flight.
- Constant height.


## B-09

## One Torque Roll, Exit Inverted:

From inverted on the baseline reduce flying speed and pivot the model about the centre of gravity into a vertical hover on the centre line. Pause briefly and then perform one torque roll, pause briefly and then pivot the model about the centre of gravity to exit inverted on the baseline.

Judging notes

- Manoeuvre centred on centre line.
- Height in torque roll to be constant.
- Model does not rotate with torque.


## Maximum score $=370$. Promotion $=259$ (70\%)



