



## Set Manoeuvres 2008



Proposed Set Manoeuvres for 2008, subject to confirmation on the official entry forms from January 2008.

The new moves are shown in red

No.	'k'	Manoeuvre	Judges Notes
1	1	Travelling Backwards Flip	With the aircraft travelling forwards along the flightline, a backwards flip is performed. The manoeuvre will be flown at medium speed maintaining constant height, direction and speed throughout.
2	1	2 x 4 point Backward Roll	With the model moving backwards at medium pace, the model will be aileron-rolled twice, each roll being clearly delineated by 4 hesitation points.
3	1	540 Bounce	This manoeuvre consists of 2 inverted stationary 540° pirouettes, 1 in each direction with the minimum hesitation at direction reversal. The manoeuvre will be entered from a stationary hover and should start and finish nose-in.
4	1	Stationary Metronomes	This manoeuvre consists of a repetitive metronome with 6 pitch-reversals. The manoeuvre will be symmetrical about the centre-line and of consistent height and speed. The manoeuvre may be performed tailboom vertical or horizontal
5	1	Pie Dish	The helicopter will prescribe remote circuits centred on the contest centreline. The model will maintain an acute angle while flying sideways at constant speed, altitude and attitude. There will be at least 4 complete revolutions, skids in, skids out, nose up or nose-down.
6	1	Figure 8 Inverted Circuit	The model should describe a uniform Figure 8 at a slow pace with consistent height and correctly centered
7	1.5	Coronet	The coronet is a series of tail-low Rainbows* each finishing with a 90° pirouette before moving on to the next Rainbow. In this way a square circuit is flown. There will be minimal hesitation at the pirouettes.
8	1.5	Tumbling Loop	The model will perform continuous Forward- or Backward tumbles while it describes a Forward or Backward Loop in the sky. The Loop will be centred and the rate of tumbling will be uniform.
9	1.5	K 1.5 Auto*	The K1.5 auto consists of an autorotational landing with a 360° Aileron Roll. The manoeuvre will show consistent height loss, uniform forward speed and land as close as possible to a marker positioned 3m in front of the pilot on the field centreline.
10	1.5	Inverted Nose-in Circuit	The circuit will be flat and slow with consistent height and properly centred on the pilot and judges.
11	1.5	Inverted Backward Loops	This manoeuvre consists of 2 consecutive inverted backward loops entered from backward inverted flight.
12	1.5	Sustained Chaos	The chaos should be sustained for a minimum of 10 seconds, up to a maximum of 30 seconds. The Manoeuvre will be stationary in front of the pilot and accurately centred
13	1.5	Pirouetting Roll / Flip (2)	The 2 pirouetting rolls / flips will be executed as a travelling manoeuvre continuously with no hesitation.
14	1.5	Snake	This snake-like manoeuvre should be performed along the flight line and consist of at least 4 joined crescents, tailboom-horizontal, switching skids-in to skids-out and vice-versa between crescents.
15	2	Elevator Slapper	This manoeuvre consists of a series of tailboom-vertical metronomes with a half aileron roll between the metronome stop points. 6 pitch reversals are required, and the model will retain constant tailboom orientation. The roll will be centred at the mid-point of the arc.
16	2	Inverted Pirouetting Figure 8	The inverted pirouetting figure 8 can be performed at any pirouette rate. The model will describe a symmetrical Figure 8 with a consistent rate of rotation.
17	2	Chaos Loop	The judges will be looking for an accurate, progressive loop made from a travelling chaos The Chaos pirouette rate should be fast and the more chaoses through the loop the better.
18	2	Pirouetting Outside Loop	The Pirouetting outside loop can be entered from either the top or bottom of the manoeuvre. It will be positioned symmetrically with a constant rate of rotation.
19	2	Pirouetting Metronome	The helicopter must metronome back and forth approximately 45° either side of vertical with least 6 pitch reversals and at least one complete pirouette during each traversal. The manoeuvre will be 'stationary' and consistent height, pirouette rate and reversal rate will be maintained.

20	2	Tumbling Circuit	The tumbling circuit can be performed with either forward or backward tumbles. The manoeuvre will exhibit accurate positioning and height control with a consistent rate of tumbling.
21	2	Waltzer - Pie-Dish with Multiple Aileron Rolls	A 'pie-dish' is a remote circuit flown with the tailboom of the helicopter vertical (or near-vertical), skids in or out. In the Waltzer, the model should perform at least 2 revolutions while continuously aileron-rolling.
22	2	K2 Auto*	The K2 auto consists of an autorotational landing beginning with a 360° Aileron Roll, followed by a further half roll to inverted, and ending with a Forward Elevator Flip. The manoeuvre will show consistent height loss, uniform forward speed and land as close as possible to a marker positioned 3m in front of the pilot on the field centreline.
23	2.5	London Eye	A vertical circle in front of the pilot/judges prescribed by a succession of sustained pirouetting metronomes with the full rotor disc at all times visible to the pilot/judges.
24	2.5	Wheel of Fortune	Metronoming Vertical Circle. The helicopter will begin the manoeuvre from a stationary elevator metronome at sufficient height to complete a downwards vertical circle, with the nose pointing vertically down and the full rotor disk presented to the pilot and judges. The helicopter shall then prescribe a complete vertical clockwise metronoming circle with the helicopter nose always pointing towards the centre of the circle.
25	2.5	Singapore Sling	Pirouetting Metronome with a stop and reversal of pirouette direction at each arc reversal. The Tailboom position at the point of reversal must be the same at each reversal of pirouette direction. At least 6 reversals are required to complete the manoeuvre. Judges will be looking for consistent stop points, accurate height control and the more pirouettes per arc the better.
26	2.5	K 2.5 Auto*	The K2.5 auto consists of an autorotational landing beginning with a Pirouetting Flip, followed by a 360° Aileron Roll, a further half roll to inverted, and ending with a Forward Elevator Flip. The manoeuvre will show consistent height loss, uniform forward speed and land as close as possible to a marker positioned 3m in front of the pilot on the field centreline.
27	3	Serpent	A Pirouetting Snake flown as a series of arcs along the flightline with a 180 degree turn-around followed by the same number of arcs in the reverse direction down the flightline. At least 4 arcs in each direction, all arcs to be the same size, height and speed and the pirouette rate to remain constant.
28	3	Googley	A succession of Slappers to form a square circuit. The objective is to fly a square with brief stops at each corner. Beginning with a nose-down or tail-down Elevator Slapper, the next side of the square is then flown as an Aileron Slapper with a forward or backward half-flip at the mid-point to reach the next corner. The next side is the opposite tail-down or nose-down Elevator Slapper and the next again the complimentary Aileron Slapper. 2 complete circuits are required.
29	3	Big Ben - Metronoming Clock Face	The model will be held in a sustained metronome directly in front of the judges with its nose vertical, the Judges viewing the rotor disk as a clock face. The model will then be made to rotate yawing clockwise prescribing the 12 points of a clock-face, each point defined by a 'tick' of the metronome. Start and finish of the manoeuvre are the two 12 o'clock points.
30	3	Pirouetting Globe	This is a succession of Pirouetting Loops, but with the axis of the loop rotating by degrees for each loop until an imaginary globe in the sky has been prescribed. Exit from the manoeuvre should be the same as the point of entry, but with the model moving in the opposite direction. The Manoeuvre will consist of at least 4 loops.

- In this context, an Elevator Slapper is an arcing half-flip with a half-roll at the mid-point
- In this context, an Aileron Slapper is an arcing half-roll with a forwards or backwards half-flip at the mid-point
- In this context, an auto is an autorotation with drive disengaged

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