

**F1: Vertical Hourglass with Pirouettes 90°/180° (UU)**

**K=1.5**

MA takes off vertically from the helipad and ascends to 2 m, stops and hovers for a minimum of 2 seconds, flies backwards to flag 1 (2) while simultaneously performing a 90° nose in pirouette, stops and hovers for a minimum of 2 seconds. MA ascends sideways to 7 m over flag 2 (1) by a straight line while simultaneously performing two 180° pirouettes that are in opposite direction, stops and hovers for a minimum of 2 seconds. MA flies sideways horizontally back to flag 1 (2) while simultaneously performing two pirouettes 180° that are in opposite direction, stops and hovers for a minimum of 2 seconds. MA descends sideways to 2 m over flag 2 (1) by a straight line while simultaneously performing two 180° pirouettes that are in opposite direction, stops and hovers for a minimum of 2 seconds. MA flies sideways horizontally to the helipad while simultaneously performing a 90° pirouette in opposite direction as the first pirouette, stops and hovers for a minimum of 2 seconds. MA descends and lands into the helipad.

Note: The change of the pirouettes direction must be done smoothly on the centre line.

**F2: Laid Eight with Pirouettes (UU)**

**K=1.5**

MA takes off vertically from the helipad and ascends to 4.5 m while performing simultaneously a 360° pirouette in any direction, then hovers there for at least two seconds. MA flies backwards and descends describing a vertical circle with a radius of 2.5 m while simultaneously performing a 360° pirouette in any direction. MA flies forward and descends describing a vertical circle with a radius of 2.5 m while simultaneously performing a 360° pirouette in the opposite direction, stops and hovers for at least two seconds over the helipad. MA descends and lands into the helipad while simultaneously performing a 360° pirouette in any direction.

Note: The change of direction of the pirouettes must occur smoothly on the center line.

**F3: Candle with 360° Tail Turn and 180° pushed Flip (UU)**

**K=1.0**

MA flies straight and level for a minimum of 10 m and pulls up into vertical ascent on centre line by doing a quarter loop. MA then performs a 360° tail turn, flies minimum 2 m vertically backwards and performs a 180° pushed flip while descending vertically. MA flies minimum 2 m vertically forward, pulls with a quarter looping into horizontal straight and level flight for a minimum of 10 m at the same altitude as when entering the figure.

Note 1: The quarter loops at the entrance and the exit of the figure must have the same radius.

Note 2: The vertical lines before and after the 180° flip must be of equal length.

**F4: Double Candle with ½ Flips and ½ Rolls (DD)****K=1.0**

MA flies straight and level for a minimum of 10 m and performs after crossing the center line a quarter loop and pulls up into a vertical ascent. At the end of the vertical ascent MA performs a 180° pushed flip followed by a recognizable distance of a vertical nose down descend followed by a half roll. MA performs a half inside loop and pulls up into a vertical ascent. At the end of the vertical ascent MA performs a 180° pulled flip followed by a recognizable distance of a vertical nose down descend followed by a half roll. MA performs a quarter inside loop and exit after a 10 m straight line at the same altitude as when entering the figure.

Note 1: The 180° flips and the half rolls must be on the same altitude.

Note 2: The vertical lines before the half rolls must be of equal length.

**F5: Double Stall Turns with half Rolls and Flip (UU)****K=1.0**

MA flies straight and level for a minimum of 10 m and pulls up into vertical ascent on centre line by doing a quarter loop. At the end of the ascent MA performs a 180° stall turn followed by a half roll in either direction. MA performs a ¾ inside loop followed by a travelling 360° centered pushed flip and another ¾ inside loop. MA ascends vertically and performs a second 180° stall turn at the end of the ascent followed by a half roll in either direction. MA pulls with a quarter looping into horizontal straight and level flight for a minimum of 10 m at the same altitude as when entering the figure.

Note 1: Before and after the half rolls straight vertical lines are allowed, but they must all be of equal length.

Note 2: Before and after the 360° flip straight horizontal lines are allowed, but they must all be of equal length.

**F6: Three opposite Rolls (DD)****K=1.0**

MA flies straight and level for a minimum of 10 m, performs a roll in any direction followed by a roll in opposite direction followed by a roll in the same direction as the first roll. MA flies straight and level for a minimum of 10 m.

Note 1: During the second roll the MA must be in inverted flight when it crosses the center line.

Note 2: The rolls must be executed one immediately after the other, straight flights between the rolls will be downgraded by one to two points.

Note 3: The elapsed time from the beginning of the first to the end of the third roll must be at least 4 seconds.

**F7: Inverted Umbrella with half Rolls (UU)****K=1.0**

MA flies straight and level for a minimum of 10 m and pulls up into a vertical ascent on center line. After a nose up stop MA performs immediately in a backward vertically flight a half roll followed by a half backward loop. After MA stops it performs a centered „U“. After a nose up stop MA performs a half backward loop followed by a backwards vertically ascent. After a nose down stop MA performs immediately in a forward vertically flight a half roll followed by a vertical descent. MA pulls with a quarter looping into horizontal straight and level flight for a minimum of 10 m at the same altitude as when entering the figure.

Note 1: The quarter loops at the entrance and the exit of the figure und the half loop of the centered „U“ must have the same radius.

Note 2: The two half backward loops must be of equal size and must have half radius than the half loop of the centered „U“.

**F8: Autorotation with Flip and two 90° Turns (DU)****K=1.0**

MA flies straight and level flight for a minimum of 10 m performs a pulled 360° flip in horizontal movement, flies horizontal straight and level for a maximum of 10 m and turns off the engine during this straight flight period, just before reaching the center line. MA executes 3 constantly descending sides with two 90° turns in the direction of the pilot and lands against the wind into the helipad.

Note 1: The descent rate must be constant to a point just before touchdown on the helipad.

Note 2: Parts of the second side, the second 90° turn and the beginning of the third side may be flown out of the 60° flight window.

Scoring criteria for landing: See ANNEX 5E Paragraph 5E.6.11.