

5E.6.11. AUTOROTATIONS

The manoeuvre begins and ends as announced by the caller. The end must be after the landing. Because the autorotation can contain several flying manoeuvres, the announced beginning can be before the engine is powered off or set to idle. The manoeuvre description must clearly state, when the engine has to be powered off or set to idle position. In order to obtain the maximum score the MA must have executed the flying manoeuvres exactly as described in the manoeuvre description, and after the smooth landing the MA tailboom must be parallel to the judges' line. If the flight path is stretched, shortened or deviated from, in order to reach the landing circle, the manoeuvre must be downgraded. The required flight path gives maximum score, but there will be downgrades of 1 or 2 points depending of the severity of the path deviation. For example: If the flight path clearly points to a landing close to one of the flags, but the path is stretched to reach the circle, the score can only be a maximum of 6 (corresponding to outside the circles), and there will be an additional downgrade of 2 points for the stretch. This means the score can only be a maximum of 4. If the model lands without stretching, the maximum score would have been a 6.

Scoring criteria for Autorotation landings:

Landing gear inside 1m circle = Maximum 10 points.

Rotor shaft points to inside of 1m circle = Maximum 9 points.

Landing gear inside 3m circle = Maximum 8 points.

Rotor shaft points to inside of 3m circle = Maximum 7 points.

Rotor shaft points to outside of 3m circle = Maximum 6 points.

Note: If a flying manoeuvre is missed out or if the engine is not powered off (or not set to idle position), the score for the complete figure shall be zero.

5.11.10 Flight Program

Safety During the Flights

The prohibited flying area (see figure 5.11.A) is observed by the judges. If the safety line is crossed the flight shall be scored zero points.

The competitor may choose his position during the flight with the following constraints:

- (a) The MA must not be flown between the pilot and judges.
- (b) The pilot must stand in front of the judges.

The non-observance of these constraints will be penalised by a zero score in the safety criterion for the manoeuvre or the flight in Freestyle.

If, during a flight in any of the schedules, a part of the helicopter except the landing gear or tail fin touches the ground the flight is terminated and scored zero points. This also applies to the MA tilting over after a landing or autorotation.

Set Manoeuvre Flight

Every pilot makes his choice of **seven** eight different manoeuvres from the list of manoeuvres (refer to paragraph 5.11.11). He may choose different manoeuvres for each round. The list with the manoeuvres chosen for a round must be delivered to the Contest Director or an official before the beginning of the round. The flight time of the Set Manoeuvre rounds is eight minutes.

Freestyle Flight

Each competitor is given a flight timeframe of at least three, and no more than four minutes.

During this time there are no restrictions for the flight or the performed manoeuvres except those regarding safety. The play-back of music is not allowed. The flight time begins when the helper gives a distinctive hand signal and finishes only with another distinctive helper hand signal.

Music Freestyle Flight

The same criteria as in Freestyle, but the play-back of music during the flight is prescribed. The flight time begins when the helper gives a distinctive hand signal and finishes only with another distinctive helper hand signal. If the music starts before the flight, the flight time starts not later than 15 seconds after the start of the music.

Aerobatic Manoeuvres in Basic Orientations	
40 <u>3</u>	Examples: Immelmann, short straight passages, loop, loop with full pirouette on top, roll, turn, 540° turn, pirouettes
45 <u>5</u>	Examples: ½ Cuban eight, long passages, nose-in circle, flips, autorotation
20 <u>6</u>	Examples: inverted hovering on eyelevel, flip sideward, Cuban eight, flips with hovering stops
20-30 <u>6-10</u>	Examples: Horizontal eight, loop sideways, turn with hesitations and/or changes of turning direction, rolling stall turn, autorotation with 180 degree turn, death spiral, knife edge pirouette, speed circle, stationary tictoc, funnel, 4-point roll, multi-point tictoc, Snake
Aerobatic Manoeuvres in Several Orientations	
30-45 <u>10-15</u>	Aerobatic manoeuvres that demonstrate several orientations like inverted, sideways, backwards etc. Examples: Backward Inverted Cuban eight, skids in and out knife edge manoeuvres, snake parallel to flight line and to centerline, different kinds of funnels like waltz
Aerobatic Manoeuvres including Piros, Rolls and Flips Etc	
40-55 <u>13-18</u>	Aerobatic manoeuvres flown in a way where in addition to the CG movement of the main manoeuvre, the model is continuously performing rolls, piros, flips, tictocs or similar. In order to get a high score, many orientations must be shown. Examples: Pirouetting Globe, Chaos, Rolling Globe, Rolling circles, Pirouetting funnels
Aerobatic Manoeuvres including Reversals and Transformations	
50-60 <u>17-20</u>	Aerobatic manoeuvres flown in a way, where piros, rolls, tictocs or other secondary manoeuvres are included/integrated and reversed in an equal and balanced way. Examples: Rolling globe with roll reversals, horizontal circle with continues flips/rolls so that tail boom is always parallel to centerline, Reversing chaos In order to score near maximum, many orientation changes must be displayed, and flight must include many clearly defined manoeuvres.