# **MMRCA Helicopter Requirements**

Members wanting to fly helicopters on the main club field will be required to fly check flights to demonstrate their knowledge and ability to safely fly their helicopter. This is a two level process. These levels are an adaptation taken from the International Radio Control Helicopter Association's (IRCHA) Pilot Proficiency Program. These check flights may be taken at anytime and given by any instructor or club officer and must be witnessed by another club member.

Members that are veteran pilots will not be required to perform the check flights provided at least 2 club members can attest to the pilot's knowledge and ability to fly safely.

The check flights will consist of a demonstration of the following requirements:

#### Level 1

Level 1 is the most basic of the program and helps the pilot in becoming SAFE and proficient in Hover and its related phases. Pilot position for the maneuvers shall be from the position of Tailin towards the pilot. Hovering should be done at an altitude of 3-5 feet. For safety reasons this level is to be flown from the hover areas only with a maximum altitude of 20 feet. This level must be completed before a pilot is allowed to fly on the main runway.

#### Maneuver Description

A. Take-off

The take-off should be performed straight up from the landing area, at a constant rate of climb, with little lateral deviations. Come to a complete stop without any vertical bounce or dip, and little to no lateral wobble or drifting. The landing area is defined as a 72" diameter circle.

#### B. Stationary Hover

- 1. After the take-off, coming to a complete stop with little to no vertical bounce, dip, lateral drifting, or wobble.
- 2. Hold in the Stationary Hover for 30 seconds.
- 3. The Stationary Hover should give the appearance of being under total control.

- C. Hover Laterally
  - 1. From take-off area hover forward ten (10) feet, hold for ten (10) seconds.
  - 2. From there hover backward twenty (20) feet, hold for ten (10) seconds.
  - 3. From there hover forward ten (10) feet until you are over the landing area, then hover to the left ten (10) feet, hold for ten (10) seconds.
  - 4. From there hover to the right twenty (20) feet, hold for ten (10) seconds.
  - 5. From there hover back to the left ten (10) feet until you are over the landing area.
  - 6. Land within the landing area.
- D. Multiple-level Hover
  - 1. Take-off, hover for five (5) seconds.
  - 2. Climb straight up 10-15 ft; hold for five (5) seconds.
  - 3. Descend vertically 10-15 ft; hold for five (5) seconds.
  - 4. Land within the landing area.
- E. Circle Hovering
  - 1. Constant Heading Circle
    - a. Take-off, hold hover for five (5) seconds.
    - b. Move the helicopter to the right or left, keeping the tail pointed in the same direction; complete a 30' circle in front of the pilot until the helicopter is hovering over the take-off point.
    - c. Move the Helicopter the opposite direction, repeating step b above.
    - d. Land within the landing area.

Once a pilot demonstrates the ability to perform Level 1 they can move on to the second level.

#### Level 2

This level will teach the skills necessary to become a well rounded pilot capable of performing Basic Flight Skills. For safety reasons this level will be practiced on the main flying field only when no other aircraft are being flown.

### **Maneuver Description**

- A. Complete Level I
- B. Climb-Out
  - 1. From hover, begin ascent by gradually increasing power/collective.
  - 2. Continue to climb until an altitude of approximately fifty (50) feet.
  - 3. Climb out should be parallel to flight path and at a moderate speed.

## C. 180 Degree Turns

- 1. While flying straight and level, execute a turn hold this turn until the helicopter has come around back to the same direction it has just come from, straighten out and continue in straight and level flight.
- 2. Turns should be made turning away from the pilot to the right and left.
- 3. Turns should be made turning toward the pilot to the right and left.

## D. Straight and Level Flight

- 1. Fly from the Left to the Right.
- 2. Fly from the Right to the Left
- E. Traffic Pattern Approach to Landing

- From straight and level flight, after the helicopter passes the pilot execute a 180 degree turn away from the pilot.
- 2. Start to reduce speed and power.
- 3. After the helicopter passes the pilot execute a 180 degree turn towards; continue to reduce power/collective so as to descend at a gradual angle to the landing zone.
- 4. This must be done starting from both the right and the left.

Once Level 2 requirements have been met the pilot is now qualified to fly on the main runway in the traffic pattern that is being flown while abiding by all field regulations.