

Thursday, April 30, 2026

Vertical Takeoff and Landing

Purpose and Objective

A good pickup and setdown is an indication of fine tuned skill, practice and proficiency. Practicing these skills gives a pilot a better understanding between themselves and the helicopter.

Maneuver, Pickup

1. Pick a reference outside, slightly below eye level. Distinguishable objects or points are preferred.
 2. Begin to raise collective smoothly, while at the same time applying slight left pedal.
 3. The helicopter will at one point begin to shift, moving laterally or yawing. It is important at this point that any further collective raise stops!
 4. Make the necessary control inputs, cyclic or pedals, needed to neutralize the movement that occurred before continuing to raise the collective.
 5. Repeat this process as many times as possible to prevent the helicopter from moving around.
 6. The right skid will lift off the ground first. When you feel this happen, simultaneously apply slight right cyclic and a gentle raise of the collective.
 7. The helicopter will pick up off the ground and you'll be in a stable hover.
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Maneuver, Setdown

1. Pick a reference outside.
2. Gently begin lowering the collective, in small increments, allowing the helicopter to descend.
3. The left skid will first make contact with the ground.
4. Simultaneously apply slight left cyclic and lower the collective to set both skids down on the ground.
5. Once both skids are on the ground, lower the collective fully to complete the setdown.



Common Errors

- Looking too much at the ground in front of the helicopter when picking up and setting down.
 - Abrupt collective inputs.
 - Not adjusting for helicopter movement during pickups.
 - Being too tense on the controls during setdowns.
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Performance Standards

Private Pilot for Rotorcraft Category Helicopter Rating ACS, Area of Operation IV, Task A.

Highlights

- Ascend to and maintain recommended hovering altitude, and descend from recommended hovering altitude in headwind, crosswind, and tailwind conditions, without drift.
- Maintain recommended hovering altitude, $\pm 1/2$ of that altitude within 10 feet of the surface, if above 10 feet, ± 5 feet.
- Maintain position within 4 feet of a designated point with no aft movement.
- Descend vertically to within 4 feet of the designated touchdown point.
- Maintain specified heading, $\pm 10^\circ$.

