

PRIVATE PILOT

IV. AREA OF OPERATION: TAKEOFFS, LANDINGS AND GO-AROUNDS

D. TASK: SOFT FIELD APPROACH AND LANDING

OBJECTIVE

To determine that the applicant:

1. Exhibits knowledge of the elements related to soft-field approach and landing.
2. Considers the wind conditions, landing surface and obstructions, and selects the most suitable touchdown area.
3. Establishes the recommended approach and landing configuration, and airspeed; adjusts pitch attitude and power as required.
4. Maintains a stabilized approach and recommended airspeed, or in its absence not more than $1.3V_{SO}$, +10/-5 knots, with gust factor applied.
5. Makes smooth, timely, and correct control application during the roundout and touchdown.
6. Touches down softly with no drift, and with the airplane's longitudinal axis aligned with the runway / landing path.
7. Maintains crosswind correction and directional control throughout the approach and landing sequence.
8. Maintains proper position of the flight controls and sufficient speed to taxi on the soft surface.
9. Completes the appropriate checklist.

ELEMENTS

1. Know the recommended power / flap settings, V_x and V_y from the POH / AFM.
2. Complete the Before Landing Checklist.
3. Establish a stabilized approach.
4. Extend full flaps at least 500 feet AGL from the touchdown area.
5. Use power to level off in ground effect.
6. Hold the airplane 1 to 2 feet off the surface in ground effect as long as possible while slowing.
7. Touchdown gently at the lowest possible airspeed with the airplane in a nose-high pitch attitude.
8. Using back-elevator pressure and engine power gently transfer the weight of the airplane from the wings to the wheels.
9. In nosewheel-type airplanes, hold sufficient back-elevator pressure to keep the nosewheel off the surface as long as possible.
10. Gently lower the nosewheel when turning off the runway.
11. Avoid using brakes and stay in continuous motion while taxiing.
12. Complete the After Landing Checklist.

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COMMON ERRORS

- a. Improper use of landing performance data and limitations.
- b. Failure to establish approach and landing configuration at proper time or in proper sequence.
- c. Failure to establish and maintain a stabilized approach.
- d. Excessive descent rate on final approach.
- e. Excessive airspeed on final approach.
- f. Failure to consider the effect of wind and landing surface.
- g. Improper procedure in use of power, wing flaps, or trim.
- h. Inappropriate removal of hand from throttle.
- i. Improper procedure during roundout and touchdown.
- j. Roundout too high above the runway surface.
- k. Poor power management during roundout and touchdown.
- l. Hard touchdown.
- m. Inadequate control of the airplane weight transfer from wings to wheels after touchdown.
- n. Failure to hold back elevator pressure after touchdown.
- o. Closing the throttle too soon after touchdown.
- p. Poor directional control after touchdown.
- q. Allowing the nosewheel to "fall" to the runway after touchdown rather than controlling its descent.
- r. Improper use of brakes.

REFERENCES

1. FAA-H-8083-3A, Airplane Flying Handbook, Chapter 8.
2. POH / AFM, Pilot Operating Handbook / FAA-Approved Airplane Flight Manual.