# **PRIVATE PILOT**

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

L. TASK: GO-AROUND/REJECTED LANDING

### **OBJECTIVE**

To determine that the applicant:

- 1. Exhibits knowledge of the elements related to a go-around / rejected landing.
- 2. Makes a timely decision to discontinue the approach to landing.
- 3. Applies takeoff power immediately and transitions to climb pitch attitude or  $V_Y$ , and maintains  $V_Y + 10/-5$  knots.
- 4. Retracts the flaps as appropriate.
- 5. Retracts the landing gear, if appropriate, after a positive rate of climb is established.
- 6. Maneuvers to the side of the runway / landing area to clear and avoid other traffic.
- 7. Maintains takeoff power  $V_Y + 10/-5$  knots to a safe maneuvering altitude.
- 8. Maintains directional control and proper wind-drift correction throughout the climb.
- 9. Completes the appropriate checklist.

### **ELEMENTS**

- 1. Whenever landing conditions are not satisfactory, a go-around is warranted.
- 2. Know the recommended flap settings and speeds from the POH / AFM.
- 3. Either the pilot or a tower controller can call for a go-around for reasons such as:
  - a. Unexpected appearance of hazards on the runway.
  - b. Overtaking another airplane.
  - c. Wind shear.
  - d. Wake turbulence.
  - e. Mechanical failure.
  - f. Unstabilized approach.
  - g. Any other reason determined by the pilot or tower controller.
  - h. Practice (prior permission from tower controller is courteous).
- 4. The go-around is a normal maneuver that can be used under normal conditions or in an emergency situation.
- 5. The three cardinal principles of the procedure are power, attitude and configuration.
- 6. Power:
  - a. Apply full or maximum allowable takeoff power smoothly and without hesitation the instant a go-around decision is made.
  - b. The airplane's downward inertia must be overcome before a climb may take place, requiring more power and time than a takeoff.

### 7. Attitude:

- a. A pitch attitude must be maintained that will permit a buildup of airspeed well beyond the stall point before any effort is made to gain altitude or turn.
- b. In some situations, it may be desirable to lower the nose briefly to gain airspeed.
- 8. Configuration:
  - a. After full power is applied, the go-around attitude is set and the descent is halted, the flaps may be partially retracted or placed in the takeoff position as recommended by the manufacturer.
  - b. Raising flaps in increments will allow the airplane to accelerate after each flap setting.
  - c. Additional right rudder will be needed to counteract torque and P-factor.
  - d. Trim should be applied to relieve adverse control pressures.
  - e. Landing gear should be retracted only after trimming and when it is certain the airplane will remain airborne.

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## **COMMON ERRORS**

- a. Failure to recognize a situation where a go-around / rejected landing is necessary.
- b. Not knowing the hazards of delaying a decision to go-around / rejected landing.
- c. Improper power application.
- d. Failure to control pitch attitude.
- e. Failure to compensate for torque effect.
- f. Improper trim procedure.
- g. Failure to maintain recommended airspeeds.
- h. Improper wing flaps or landing gear retraction procedure.
- i. Failure to maintain proper track during climb-out.
- j. Failure to remain well clear of obstructions or other traffic.

## REFERENCES

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