

PRIVATE PILOT

X. AREA OF OPERATION: EMERGENCY OPERATIONS

A. TASK: EMERGENCY APPROACH AND LANDING (SIMULATED)

OBJECTIVE

To determine that the applicant:

1. Exhibits knowledge of the elements related to emergency approach and landing procedures.
2. Analyzes the situation and selects an appropriate course of action.
3. Establishes and maintains the recommended best-glide airspeed +/-10 knots.
4. Selects a suitable landing area.
5. Plans and follows a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.
6. Prepares for landing, or go-around, as specified by the examiner.
7. Follows the appropriate checklist.

ELEMENTS

1. Upon the beginning of a simulated engine-out emergency landing, immediately establish a wings-level pitch attitude that will result in the best-glide airspeed (V_G).
2. Ensure the flaps and landing gear are in the proper configuration for the existing situation.
3. When the best-glide airspeed (V_G) is attained, lower the nose and trim the airplane to maintain that speed.
4. Select a point of intended engine-out landing considering altitude, obstructions, wind direction, landing direction, landing surface and landing gradient. Identify the area verbally.
5. Turn toward the selected landing area, maintaining the best-glide airspeed (V_G).
6. Follow the appropriate checklist. The checklist should contain steps for checking:
 - a. The position of the fuel tank selector.
 - b. The quantity of fuel in the selected tank.
 - c. The fuel pressure gauge to see if electric fuel pump activation is needed.
 - d. The position of the mixture control.
 - e. The position of the magneto switch.
 - f. The use of carburetor heat.
7. Using any combination of normal gliding maneuvers, from wings-level to spirals, position the airplane at the normal key position at a normal traffic pattern altitude for the selected landing area.
8. Fly a normal power-off approach (higher than a powered approach).
9. Use slips, flaps and varying the position of the base and final legs to adjust the power-off approach.

COMMON ERRORS

- a. Improper airspeed control
- b. Poor judgment in the selection of an emergency landing area.
- c. Failure to estimate the approximate wind speed and direction.
- d. Failure to fly the most suitable pattern for existing situation.
- e. Failure to accomplish the emergency checklist.
- f. Undershooting or overshooting selected emergency landing area.

REFERENCES

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