

PRIVATE PILOT

II. AREA OF OPERATION: PREFLIGHT PROCEDURES

D. TASK: TAXIING

OBJECTIVE

To determine that the applicant:

1. Exhibits knowledge of the elements related to safe taxi procedures.
2. Performs a brake check immediately after the airplane begins moving.
3. Positions the flight controls properly for the existing wind conditions.
4. Controls direction and speed without excessive use of brakes.
5. Complies with airport / taxiway markings, signals, ATC clearances, and instructions.
6. Taxies so as to avoid other aircraft and hazards.

ELEMENTS

1. Keep aware of other aircraft taking off, landing or taxiing.
2. Keep eyes focused outside the airplane while taxiing, to the sides as well as front.
3. Be aware of the entire area to ensure the airplane will clear all obstructions and other aircraft.
4. When in doubt about clearance, stop the airplane and have someone check the clearance.
5. Taxi at a cautious speed on congested or busy ramps.
6. Do not use the brakes unless engine power is first set at a minimum.
7. Slow down before attempting a turn (sharp, high-speed turns place undesirable side loads on the landing gear and may result in an uncontrollable swerve or ground loop).
8. In high-wind conditions, the airplane will tend to weathervane (turn to face the wind).
9. Steering is accomplished with rudder pedals (bungeed to nose wheel).
10. Differential braking should be used only when bungeed nose wheel and rudder do not provide enough control authority.
11. More engine power may be required to start the airplane moving forward or to start a turn.
12. Power should be immediately reduced when movement begins to prevent excessive acceleration.
13. When first beginning to taxi, the brakes should be tested for proper operation.
14. If braking action is unsatisfactory, the engine should be shut down immediately.
15. Downwind taxiing will usually require less engine power after the initial ground roll is begun, since the wind will be pushing the airplane forward.
16. When taxiing with a quartering headwind, raise the upwind aileron, or "turn into wind." This will reduce the tendency for the wind to lift the upwind wing.
17. When taxiing with a quartering tailwind, raise the downwind aileron and lower the elevator, or "dive away from the wind." This will reduce the tendency for the wind to lift the upwind wing and tail.

COMMON ERRORS

- a. Improper use of brakes.
- b. Improper positioning of the flight controls for various wind conditions.
- c. Taxiing too fast.
- d. Failure to comply with airport / taxiway surface marking, signals, and ATC clearances or instructions.

REFERENCES

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