

Aviation Safety Checklist

1. Drain all sumps (first flight and after fueling)

Always drain each fuel sump before the first flight of the day and after every refueling. This ensures water, dirt, or contaminants are removed before engine start. Contaminated fuel can cause engine failure in flight.

2. Check oil (wipe stick before reading)

Remove the dipstick, wipe it clean, reinsert, then read the level. This prevents false readings and ensures the oil quantity is accurate. Always check against the recommended minimum and maximum levels.

3. How much air in tires (how often you check)

Check tire pressure regularly with a gauge, not just by sight. Underinflated tires can blow on landing; overinflated tires wear unevenly. Tire checks should be part of both preflight and scheduled maintenance.

4. Chock and/or tie down (172 story – take your own)

Always use wheel chocks or tie-downs when parked, especially in windy conditions. Carry your own lightweight chocks or ropes, since FBOs may not always provide them.

5. Lock controls (tie with seat belts – B-17 story)

Secure the flight controls with seat belts or a control lock when parked. Gusts of wind can damage control surfaces if they are left free to move.

6. Do a circle check before boarding

Walk completely around the aircraft before entering. Look for leaks, loose panels, bird nests, flat tires, or other visible hazards that may have developed since the last flight.

7. Do you leave the strobe light switch on?

Consider leaving strobes on so they activate with the master switch — this helps prevent taxi/runway accidents. However, strobes can be blinding at night or in clouds; use judgment.

8. As soon as you start to taxi — test brakes

Gently apply brakes at the start of taxi to confirm both pedals respond. Weak or uneven braking should be identified before reaching higher taxi speeds.

9. Do you give the engine a good warm-up?

Allow the engine to reach safe operating temperatures before applying full power. Cold oil or cylinders can result in engine wear or failure during takeoff.

10. How often do you do an oil analysis?

Regular oil analysis helps detect early signs of engine wear (metal particles) or contamination. Consider sending samples every oil change to establish a baseline trend.

11. How long has it been since your last BFR (Biennial Flight Review)?

FAA requires a review every 24 calendar months. Staying current improves safety and proficiency — don't wait until the last minute.

12. How often do you check nav/landing/strobe lights?

Walk around at night or dusk to verify all lights are working. Carry spares if your aircraft uses replaceable bulbs. Lighting failures affect both safety and legality.

13. Do you give passengers a full briefing?

Explain seat belts, emergency exits, sterile cockpit rules, no-smoking policies, and what to do in an emergency. A clear briefing reduces panic and improves safety.

14. Do you know your glide ratio and best glide speed?

Every pilot should memorize best glide speed (Vg). In case of an engine failure, immediate transition to best glide maximizes distance and safety options.

15. Wood prop (must be retorqued every 25 hours)

Wooden propellers expand/contract with humidity and temperature. Re-torquing every 25 hours ensures the bolts remain tight and safe.

16. Last time your vacuum system was calibrated

If your aircraft still uses a vacuum system for instruments (AI, DG), make sure it's tested and calibrated. Failures are often gradual and go unnoticed until IFR conditions make them critical.

17. When does your registration run out?

Aircraft registrations must be renewed every 3 years with the FAA. Flying with expired registration makes the aircraft illegal and may void insurance.

18. Night fliers – carry at least one good flashlight

Always carry a reliable flashlight (plus spare batteries). Headlamps with red light preserve night vision. FAA requires certain emergency equipment for night ops.

19. Carry a good first aid kit

Keep a well-stocked aviation-grade first aid kit on board. It may be essential in remote areas or during emergency landings.

20. Carry a roll of duct tape

A practical addition. Duct tape can secure loose interior panels, temporary fairing issues, or protect against wind damage until permanent repair is made.