



Safety Hot Spot: Winter Weather Safety Checkup

Flight Planning

- ✓ **Briefing** — During your preflight briefing, pay particular attention to the possibility of in-flight icing, and be sure to check for icing airmets and pilot reports along your route of flight. A caveat, though: Pilot reports are great "real-world" information, but remember that weather often changes rapidly in the winter. Look at the big picture: One "good" pirep doesn't necessarily mean it's safe to go.
- ✓ **Flight plans** — It's *always* smart to file (and open) a VFR flight plan for cross-country trips, but it's particularly important in the more challenging survival conditions of winter. The best way to survive is to be found—and that means having someone looking for you. Bring a cell phone. If you fly in remote areas, think about carrying a good survival kit as well.
- ✓ **Eyewitness reports** — The information you need doesn't always come in an official report. For example: Have the taxiways at your destination been plowed since last night's blizzard? Sometimes it's best to pick up the phone and talk to someone on the scene.

Airport Operations

- ✓ **Airport diagrams** — It's easy to get lost at snow-covered airports when runway and taxiway markings are hidden. Download and print free airport taxi diagrams (<http://www.aopa.org/asf/publications/taxi/>) from ASF; use them to help increase your situational awareness.
- ✓ **Taxiing** — Taxi at a slower pace when surface areas are covered in snow or slush, and use brakes sparingly to avoid sliding across icy patches. Use the throttle and rudder to control speed and direction. As you advance the throttle for runup, look outside to be sure that you're not sliding on ice. Also, be careful if snow or ice is obscuring the edges of paved areas. It's easy to let a main wheel drop off the edge, and it may take a great deal of effort to get it back on.
- ✓ **Braking action reports** — At towered airports, pay attention to braking action reports. If conditions are reported as *good* or *fair* you're probably OK for taxi, takeoff and landing, but allow extra distance for all operations. If the report is poor or nil, you may want to rethink your entire flight, or, if airborne, divert to another airport. Even light crosswinds will complicate landings. For more information, read the *Cold Facts: Braking Action Reports Safety Brief* (<http://www.aopa.org/asf/publications/SB03.pdf>).

Preflight

- ✓ **Gloves, hats, and boots** — Preflight will take longer in cold weather, and it's easier to do a thorough job if you're warm and comfortable. Good winter gear may also help ensure survival in the event of an off-airport landing.
- ✓ **Engine preheat** — Be kind to your engine: Have it preheated before starting, particularly when the outside temperature is below 25 degrees Fahrenheit. One thing to remember: Wind chill only applies to living things. Your engine will be no more difficult to start on a cold day with a 30-knot gale than it is when winds are calm (though a warm engine *will* cool down faster when exposed to wind).
- ✓ **Ice removal** — If there's snow or ice on the aircraft, it must be completely removed before flight. Use the procedures recommended in the *Cold Facts: Wing Contamination Safety Brief* (<http://www.aopa.org/asf/publications/SB02.pdf>) to remove ice. Visually inspect the top of each wing and the tail, then touch them to verify they're ice-free. Snow may look light and fluffy, but don't count on it blowing off during taxi or takeoff. Remove all snow (and any ice it was hiding) during preflight.
- ✓ **Engine start** — In cold weather, piston engines can be temperamental, to say the least. If it's really cold, delay any preflight item that draws current from the battery (radios, electric flaps, etc.) until *after* the engine's started. Cold start procedures vary, but generally avoid pumping the throttle during start attempts, as it can lead to an engine fire.
- ✓ **Warm-up** — Keep the tach below 1,000 rpm until the oil pressure reaches the green arc, and generally avoid high rpm until the engine's had significant time to warm up.

In Flight

- ✓ **Pireps** — When it comes to avoiding nasty weather, pilot reports are some of the best tools at your disposal. Ask for them during your preflight briefing, and check with ATC or Flight Service for new ones en route. While you're at it, take a minute to give your own: Your fellow pilots will thank you! If you need a refresher on how to give a pirep, take ASF's SkySpotter online course (http://www.aopa.org/asf/online_courses/skyspotter/).
- ✓ **Get the picture** — Around weather, keep the big picture in mind. Where are the fronts? How are they moving? Cloud bases and tops? Is the MEA below the freezing level? The weather tends to change faster in winter, and systems are often smaller, meaning you're more likely to pass through changing conditions in a given flight.
- ✓ **Ice is a drag** — If you encounter ice, don't hesitate: Turn around, descend to warmer temperatures, climb to colder temps, or divert. Tell ATC you're picking up ice, and don't be afraid to ask for an "immediate" climb, descent or turn. If necessary, declare an emergency. For more information, read ASF's *Aircraft Icing and Aircraft Deicing* (<http://www.aopa.org/asf/publications/sa11.pdf>) and *Anti-icing Equipment* (<http://www.aopa.org/asf/publications/sa22.pdf>) *Safety Advisors*.
- ✓ **Let it snow?** — Depending on temperature and the moisture content of the snow, it may or may not present an icing hazard. Still, it doesn't have to stick the airframe to be dangerous. Falling snow can very quickly produce a "whiteout" condition, in which visibility drops to nothing almost instantaneously.