

**1. Glaciers.** Be conscious of your altitude when flying over glaciers. The glaciers may be rising faster than you are climbing.

### 7–5–14. Operations in Ground Icing Conditions

**a.** The presence of aircraft airframe icing during takeoff, typically caused by improper or no deicing of the aircraft being accomplished prior to flight has contributed to many recent accidents in turbine aircraft. The General Aviation Joint Steering Committee (GAJSC) is the primary vehicle for government–industry cooperation, communication, and coordination on GA accident mitigation. The Turbine Aircraft Operations Subgroup (TAOS) works to mitigate accidents in turbine accident aviation. While there is sufficient information and guidance currently available regarding the effects of icing on aircraft and methods for deicing, the TAOS has developed a list of recommended actions to further assist pilots and operators in this area.

While the efforts of the TAOS specifically focus on turbine aircraft, it is recognized that their recommendations are applicable to and can be adapted for the pilot of a small, piston powered aircraft too.

**b.** The following recommendations are offered:

**1.** Ensure that your aircraft’s lift–generating surfaces are COMPLETELY free of contamination before flight through a tactile (hands on) check of the critical surfaces when feasible. Even when otherwise permitted, operators should avoid smooth or polished frost on lift–generating surfaces as an acceptable preflight condition.

**2.** Review and refresh your cold weather standard operating procedures.

**3.** Review and be familiar with the Airplane Flight Manual (AFM) limitations and procedures necessary to deal with icing conditions prior to flight, as well as in flight.

**4.** Protect your aircraft while on the ground, if possible, from sleet and freezing rain by taking advantage of aircraft hangars.

**5.** Take full advantage of the opportunities available at airports for deicing. Do not refuse deicing services simply because of cost.

**6.** Always consider canceling or delaying a flight if weather conditions do not support a safe operation.

**c.** If you haven’t already developed a set of Standard Operating Procedures for cold weather operations, they should include:

**1.** Procedures based on information that is applicable to the aircraft operated, such as AFM limitations and procedures;

**2.** Concise and easy to understand guidance that outlines best operational practices;

**3.** A systematic procedure for recognizing, evaluating and addressing the associated icing risk, and offer clear guidance to mitigate this risk;

**4.** An aid (such as a checklist or reference cards) that is readily available during normal day–to–day aircraft operations.

**d.** There are several sources for guidance relating to airframe icing, including:

**1.** <http://aircrafticing.grc.nasa.gov/index.html>

**2.** <http://www.ibac.org/is-bao/isbao.htm>

**3.** [http://www.natasafety1st.org/bus\\_deice.htm](http://www.natasafety1st.org/bus_deice.htm)

**4.** Advisory Circular (AC) 91–74, Pilot Guide, Flight in Icing Conditions.

**5.** AC 135–17, Pilot Guide Small Aircraft Ground Deicing.

**6.** AC 135–9, FAR Part 135 Icing Limitations.

**7.** AC 120–60, Ground Deicing and Anti–icing Program.

**8.** AC 135–16, Ground Deicing and Anti–icing Training and Checking.

The FAA Approved Deicing Program Updates is published annually as a Flight Standards Information Bulletin for Air Transportation and contains detailed information on deicing and anti–icing procedures and holdover times. It may be accessed at the following website by selecting the current year’s information bulletins:

[http://www.faa.gov/library/manuals/examiners\\_inspectors/8400/fsat](http://www.faa.gov/library/manuals/examiners_inspectors/8400/fsat)