

COLD FACTS

WING CONTAMINATION

During winter weather, frost and snow often accumulates on wings, elevators, and other surfaces when an aircraft is parked outside on the apron.



Any un-removed frost or snow will disrupt airflow over the wings and substantially alter flight characteristics increasing stall speeds, longer takeoff rolls, or an inability to fly at all may be the result. Even a passing snow shower can foul surfaces enough to make flight inadvisable.

When faced with airframe and wing contamination, you have two choices: go home, or spend some extra time during preflight **completely removing** frost and snow from the aircraft.

CLEAN IT UP!

The best and easiest way to prevent contamination is to park the aircraft in the hangar.

In the highly regulated airline world the rule is simple: An aircraft can depart only when it's clean: no snow, frost, or ice on any part of the aircraft. GA pilots should use the same winter operations principle.

If the aircraft is snow-covered, consider using clean towels or microfibre rags, these will remove snow without scratching the paint.

The bad news is that underneath the snow there may be a layer of ice that also needs to be removed. Removing frost and ice is trickier than loose snow,

but just as critical. The best tool is a warm hangar and an hour to spare. When melting the frost and ice make sure water does not penetrate control surface hinges where it might refreeze and cause problems.

FROM AN AERODYNAMIC VIEWPOINT, THERE IS NO SUCH THING AS "LITTLE ICE".



Cleaning off the canopy is slightly different. Some pilots clear the aircraft's windshield by using a **clean towel** or **microfibre rag** (inside and outside). This technique works without damaging the canopy and removes interior haze. Other pilots start the airplane and wait for the defroster to do the job, but this could take a while in cold weather at idle power.

Do not use car ice scrapers, debit cards, or any other hard plastic device to remove frost or snow from the canopy. **Do not** use any car chemicals or deicing agents, these will create a permanent haze in the plastic. **Do not** taxi until you can see enough to move safely. **No cheating!**

Finally, remember that do-it-yourself airframe decontamination will take a while, in cold often windy conditions. A light flight jacket and tennis shoes while stylish, do not work well. A parka, boots, gloves, and a beanie will encourage you to give this critical job the time and attention it deserves.

Fly Safe fellow pilots!

Questions or comments? Let me know your opinion.

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