

**Iowa Wing Safety Officer
Civil Air Patrol
United States Air Force Auxiliary
305 West Main Street
Washington, Iowa 52353**

Safety Briefing December 2002

Winter Safety Tips:

1. Inspect furnace and fireplaces for problems with combustion. Install smoke and carbon monoxide detectors, if you don't now have them. Refresh batteries.
2. Take care with burning candles. Never display lighted candles with unattended small children, or leave them near windows or exits.
3. If you plan to use a Christmas tree make sure it is not allowed to dry out, that it is kept in a sturdy stand, and that it is promptly removed after the season. Keep open flame away from it.
4. Space heaters should be kept at least three feet from flammables, including wall paper. Never leave them operating when you go to bed, or when you leave home.
5. Don't use small gauge electrical cords, or those that are frayed or damaged. Don't overload electrical circuits.
6. Falls rival poisoning as the number one home accident in the U.S. Wear footwear that has slip-resistant surfaces. Keep your hands and arms free to help balance. Keep your walks and porch areas clear of snow, and remove it before it gets packed into ice.
7. Always use your car seat belts. And drive even more defensively than usual. Make sure your tires have sufficient tread to provide traction.
8. Pilots: beware of the hazards of melting snow, where the water can enter flight control hinges, and freeze. Keep fuel tanks full to avoid condensation in the tanks. Take extra caution on taxiways and runways. Remember that cross winds can be more of a problem if the tires cannot give good traction. Watch your footing when moving aircraft. Wear sufficient warm clothing so that you can walk a distance safely if you have to "put down" and wait for help, or find your way to shelter [no longer are there 4 farm houses per mile]. Remember how brittle and breakable everything gets when it is extremely cold. Make sure the CO detector is in good condition. Take the time to clear the windshield of snow, frost, etc. Don't hesitate to ground yourself if you are not feeling physically and mentally 100%.
9. Put a well-stocked emergency bag in your car. Included in this should be a blanket, extra gloves, flashlight, trash bags that you can use for an outer windbreaker, and for snow boots, cord to tie them with, a bag of sand [which gives a bit more weight and also available for traction], nutrition items like health food bars, a couple of bottles of water [can be melted when needed], and keep your cell phone charged.
10. Make sure your car's battery is healthy and fully charged. Check your anti-freeze.

A Note for CAP Flight Crews
By Maj. George Cobley

I must have missed fall because it sure is feeling like winter. Yet, we know we should get quite a few days where the temperatures will go above freezing then slip back when the sun goes down. There are four things I would like to remind you of. These are the need for engine preheat, frost, and melting snow.

In order to support of critical missions, the aircraft need to be operational all of the time. With the onset of cold weather, electric heaters need to be activated. These heaters while performing a valuable service, are potentially dangerous. Operation of heaters without thermostats is an unnecessary risk. Thermostats should be located close to the heat source. Thermostats mounted outside of the heated object do little to protect from over heating. Engine heaters can get so hot the oil will scorch even though the ambient temperatures are only in the thirties and forties.

Frost is a serious risk because it can form on aircraft flight surfaces very quickly. A check should be made of the flight surfaces just prior to flight when the temperature and dew points are near freezing. An airplane sitting on a ramp while being fueled can accumulate a dangerous amount of frost. If frost is discovered the crew should polish the frost smooth before attempting flight.

Now for a discussion of that four-letter word, SNOW. I want to mention a problem or two with melting snow. With tempers going above and below freezing, any snow on an airplane will melt. That water then can enter into the flight control system, especially the hinges. Most of the time during preflight, or while doing a run up, the controls will be moved. That should clear any problem, except for one. The trim control is frequently not run through full travel. I suggest that the trim at least be run far enough either side of the takeoff position to assure it is free. (Experience talking here. I had one freeze during climb and that makes for a lot of extra effort to fly level.) When an aircraft is hangered, snow is less of a problem, but can still cause grief to the next crew. One little thing to remember when fueling while it is snowing, the fuel is usually above freezing and can melt snow that falls on the wings in the area of the tanks. That water can move into flap joints.

Flying this time of year can be exhilarating. The air can be smooth, the skies clear and the winds calm. We just need to be a little cautious about some of the less discussed issues that can ruin a perfect day.