

Winter flying

Since winter is upon us, it's good to consider what that means for flying, other than being able to leave an aircraft with a canopy in the sun for a couple of hours knowing that the sun won't turn your seatbelt buckle into a branding iron.

Fronts

Cold fronts are fairly common in WA in winter. They're caused by cold air wedging itself under warmer air and pushing it up. Because it's being forced to rise, the warmer air is unstable, so if there's enough moisture in it, you'll get cumuliform clouds. If there's enough moisture and enough instability, you may get thunderstorms, line squalls and severe turbulence. Unlike some weather such as isolated convective summer storms, the thunderstorms associated with a cold front may be too extensive for you to divert around. The precipitation will be showers rather than rain, and while the wind ahead of the front will be generally northwesterly, backing to the southwest as the front passes, we pilots are more likely to be interested in the gusts and windshear. Along with the low cloud and rain, it generally means a good day to sit at home and watch Top Gun rather than going flying. Remember one of the great truisms of flying is that it's much better to be down here wishing you were up there than the other way around.

Fog

The most common type of fog in winter is radiation fog. It's the early morning fog caused by the ground radiating its heat to the atmosphere overnight (hence the name), and the air close to the ground then cooling by conduction (contact with the cold ground). Cooler air below and warmer air above means a radiation inversion, and if there's enough moisture, the result will be fog. It happens on clear nights, with no cloud to hold the heat in, and a little bit of wind will make it worse because that will mix some of the cold surface air with the warmer air above it, which will make the fog thicker and harder to dissipate.

The fog will usually burn off early in the morning, provided no mid-level cloud forms to block the sun's warmth, and provided the fog doesn't form in a hole like Northam airfield! On that point, winter fog is a very good example of why Northam always requires an alternate for cross-country flying. We don't get a TAF, so if we rely on the Area 60 forecast, which says the fog will clear by 0900, you can usually be assured it will stick around at Northam until 10 or 11 a.m.

Daylight

Winter obviously means shorter days. On the shortest day of the year (June 22nd), first light is 0645 and last light is 1744. But that's on nice clear days on flat terrain. With the ranges to the west, and with winter cloud cover, the actual time of last light may be quite a bit earlier than the published time. So don't get caught out flying around late in the day with a nice horizon, only to find out on descent that the lights have well and truly gone out at ground level.

Night VFR

On the subject of last light, the reason the Night VFR rating was created wasn't so people could go flying at night. It was so you could finish a daytime flight after dark. The logic was that if you were safe and legal to do, say, the last half hour of your flight in the dark, you wouldn't rush around, load insufficient fuel and make planning mistakes because you were in a hurry to get airborne so you could get home before last light.

So with the short days in winter, many people find it's a useful rating to have. Charles and I are both current and available (Charles more than me) to do NVFR training, so if you're interested, give us a call and we'll work out a way to make it happen.