

# WINTER'S WAYS WITH DODGY DAYS

*Posted on 27.11.2023 by Steve Forward*



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**Editorial**

## **It can pay dividends to spend a few minutes thinking about what might go wrong before getting airborne in these trickier times**

Winter is coming! Those who are aficionados of 'Game of Thrones' will recognise those words and the dread that they instilled within the storyline. But it's time again for us also to think about the implications of a return to the cold, wet and often gloomy days of winter. For some, it's a question of hanging up the flying kit and hibernating until next Spring, but for other brave souls there are enough crisp blue flying days to be had that justify that ever-hopeful check of the met forecast each day.

Whilst being weather-aware is always important, it's even more so in the winter when there's a temptation to get airborne when the weather is close to the limits and things can change rapidly and unexpectedly in flight. We keep banging on about Threat & Error Management (TEM) but it can pay real dividends to spend a few minutes thinking about what might go wrong with the weather before getting airborne in the winter months.

Whilst you will hopefully not fail to check the 'forecast' and 'actual' for your planned destination,

have you selected a diversion that is in a more favourable area if the weather is at all dodgy when you arrive where you're planning to go on that 'A-to-B' excursion? Even if you're only going 'A-to-A', where would you go if the weather turned against you on recovery, and have you got a plan that keeps enough fuel in reserve to get there? This edition's 'I Learned About Human Factors From That' (ILAHFFT) is a cautionary tale about pushing the weather that highlights some of the relevant decision-making.

When was the last time that you practised that 180° turn on instruments? Hopefully you won't get caught out by pressing-on into bad weather but it happens! Why not seek out an instructor and gain some proper instruction on instrument flying before the bad weather really settles in and you may have to turn to those skills for real? Weather patterns and visibility levels encountered in this country can quickly catch out experienced and inexperienced pilots alike; you may technically be flying legally, but you need to be able to cope with those conditions confidently and safely, especially in reduced visibility situations approaching 1500m or when flying into that setting sun in hazy conditions.

Ice can also be a problem, not just airframe or carburettor icing but also on the runway and apron surfaces. Unexpected black ice or slippery airfield markings can suddenly take the edge off your day when you find out you can't stop the aircraft so judicious use of power is a must, and always with the anticipation in mind that you may take longer to stop than you thought. Prior to powering up to start taxiing, what is the surface like ahead, and can you turn or stop in good time if it goes wrong? Why not walk the ground ahead of the aircraft first before you get in and start up so that you can be confident that there are no icy or slippery areas as you start to taxi?

I remember well taxiing one of HMG's finest pointy fast-jet aircraft in Canada once when we hit ice at a 90° turn in the taxiway and ended up doing an uncontrolled 180° pirouette – sadly, I didn't have enough brain-power left to work out which thrust reverser to use to stop the spin before we came off the ice and nonchalantly carried on taxiing. Perhaps I should have tempered that first-tourist eagerness to get airborne and slowed down a bit as we approached that turn irrespective of having been assured that the airfield surfaces were all 'cleared and de-iced' before we got into the aircraft.

Whilst speaking of stopping (or not), ice on the runway may not necessarily increase your take-off distance but consider what will happen if there is a significant crosswind or you need to reject the take-off for some reason – how effective will directional control or the brakes be? Furthermore, it may well be possible to take off from a contaminated surface, but will it be safe to land again? On wet and muddy grass, the brakes will largely be ineffective. Similarly, on icy surfaces the use of brakes may cause considerable control difficulties (as I can testify!). [CAA Safety Sense Leaflet No7](#) recommends additional safety factors for take-off and landing distances for other than dry surface conditions.

The bottom-line? Don't push the weather, especially in winter, and have a Plan B for when things

start to deteriorate. That way you hopefully won't have to fall back on your instrument flying skills – but be ready and practised in at least the 180° turn on instruments just in case things go quickly and unexpectedly pear-shaped. Whilst on the topic of winter operations, [CAA Safety Sense Leaflet No3 'Winter Flying'](#) contains many good gems that are worth reviewing before the hard weather arrives – why not take the time to sit by the fire in the clubhouse with a hot cup of cocoa and have a read so that you're ready for when the weather doesn't go quite the way you expected?

CHIRP provides a vital safety net as another route to promote change when the normal channels of reporting aren't delivering results, you don't feel able to report through formal Occurrence Reporting systems, and for collecting reports with safety concerns that did not meet the threshold for normal reporting and would otherwise have gone unwritten. We rely on you to report Human Factors aviation-related safety concerns to us so that we can both help in their resolution and highlight relevant issues to others.

Reporting is easy by using either our [website](#) portal or our App (scan the appropriate QR code shown or search for 'CHIRP Aviation' – avoiding the birdsong apps that come up!). In our reporting portal you'll be presented with a series of fields to complete, of which you fill in as much as you feel is relevant – not every field is mandatory, but the more information you can give us the better. Although you'll need to enter your email address to get access to the portal, none of your details are shared outside CHIRP, and we have our own independent secure database and IT systems to ensure confidentiality.



Stay safe!

**Steve Forward, Director Aviation**

### CHIRP FEEDBACK Survey



We value your opinion about our FEEDBACK newsletters and associated engagement methods, please spend a few minutes responding to [10 short questions about CHIRP Aviation FEEDBACK](#).

### Comments on previous FEEDBACKs

**Comment No 1: PA28R Undercarriage lights** Dear CHIRP, GA FEEDBACK Edition 97 contained a

report (GA1345) about PA28R undercarriage position indication lights that were set to dim because the panel lights were on and therefore didn't appear to display when the pilot selected the undercarriage down. In addition to the comments you made about the need for a check that the panel lights are turned off during any undercarriage emergency lowering checklist, you should also have mentioned that on the PA28R checklist's cockpit preparation page it reads:

- Master switch – ON
- Landing gear indicator – 3 greens

The pilot shouldn't have got past that item if 3 greens were not displayed, let alone start up and take off.

**CHIRP Response:** It's a fair comment, cockpit preparation/pre-start checks are there for a reason and should be followed to the letter, which would have highlighted the problem before start up. No doubt we've all been guilty of paying lip-service to such checks when we're in a rush or under pressure but it's a well-known human factors issue that habituation also sometimes fools us into seeing things that we expect to see rather than what is actually present, or missing items that we don't check properly – aviation history is littered with examples of pilots calling final and internally reciting the mantra 'Reds, Blues, Greens'[\[1\]](#) without actually seeing the 3 green indications, and then landing wheels-up.

All checks are there for a reason, but some are definitely more important than others and it's those ones that routinely don't show counter indications that can trip us up when they do and we don't notice. Observing that something is not there (i.e. the 3-greens were not present) is much harder than seeing something that isn't right (e.g. 3 reds) and so we need self-discipline to 'say and see' important checks rather than rely on seeing (or not seeing) something to trigger a response. A well-known mitigation in this respect is to physically touch the indicator concerned, which then gives time for the brain to actually process what we are saying and prompt us to look properly.

**Comment No 2: NOTAM information** Regarding GA FEEDBACK Ed 97 report No.2 (GA1341 – NOTAM information missing or incomplete). As the author of the report I was concerned by your comment that the website involved had corrected the error I highlighted. In fact, it had not been corrected. The fault had changed but persisted. The website remained potentially misleading. Your note may give users the impression that the fault had been corrected, it had not.

**CHIRP Response:** Our thanks to the reporter for pointing out that the website concerned still had errors when we went to press. Unfortunately, *CHIRP* can't name the NOTAM information website involved due to commercial sensitivities associated with our concern that by the time this is published the website may well have been corrected and we would rightly be criticised for traducing its reputation based on outdated historical information. But we stand by our overall comments in Ed 97, people should take great care when using third-party NOTAM material because, unlike the NATS website, it is not accredited information.

Whilst many third-party providers undoubtedly provide a more user-friendly interface and interaction with planning and flight monitoring software systems than the NATS website, treat them with caution.

NOTAM accuracy and comprehensive inclusion of all information can also be affected by user settings (especially after upgrading an App or your baseline operating system because some user settings might be changed to default values), so make sure your user settings are correct before conducting a NOTAM search.

[1] 'Red' for mixture; 'Blue' for propellor; 'Green' for undercarriage.

## **I Learned About Human Factors From That (ILAHFFT)**

This article was previously published in LAA's May 2015 Light Aviation magazine and is reproduced with the author's permission.

My wife and I took a week off in 2013 to try and tour Scotland, the Orkneys and Shetland in our Europa. Following a week's planning, we set off at the start of what promised to be a great two weeks of weather early in July. We chose a leisurely three-day route to keep the flying to no more than two-hours a day, and headed up the East coast to stay away from high ground and to visit friends and family in Durham and Cumbernauld. The crossing of the Moray Firth on the third day was one of the highlights – all in very nice, calm and warm weather – and we overnighted at Wick.

The fun then started. The cloudbase at Wick came down the next day (barely 600ft I think) so we amused ourselves visiting John O'Groats (like Lands' End – a bit dour) and other stimulating local sites. An unplanned second overnight and a re-visit to Far North Aviation's hangar, where the aeroplane was parked, killed further time. By the third day, we decided to abort our Orkney, Shetland, Loch Ness and Oban plans – including three expensive hotel bookings on the islands – and head back South to Cumbernauld via Dundee for fuel.

A bit deflated, we departed Wick with a cloudbase of about 1500ft but, as we tracked south over the Moray Firth, we got lower and lower in order to maintain VFR and a clear horizon. Being in the middle of that expanse of water at 150ft and 120kt is legal, but not actually much fun. The situation gradually improved though, and as we coasted back in at Banff the cloudbase lifted to about 2200ft.

The Banff to Dundee leg was going well, assisted by a busy but polite controller, until the southerly edge of the Aberdeen Zone, where we needed to climb over some hilly ground to get to Dundee. However, the cloudbase was touching the hilltops on the route we wanted to transit. 'Press-on-itis', 'go above the cloud' or 'see what's just the other side of the ridge' thoughts can be compelling in such situations, but with mountain flying advice of 'leave yourself a way out' ringing in my ears, we turned around in the valley (without difficulty) and headed back into the Aberdeen Zone to try and get around via the coast. Before too long, it became clear that the sea fog (affectionately called the 'Haar' by locals) and low cloud blocked that route as well.

We were not low on fuel but would have been after another hour and, given the low transit we had just been through, I was not keen on a 45-minute return to Wick over the sea. Feeling increasingly tense, I called Aberdeen radar and rather apologetically asked if a weather diversion might be possible. They could not have been more helpful; the controller immediately gave me a vector towards the field, helped me identify it, and held four heavy jets on the threshold for the three minutes or so that it took us to join left-base and land on its 2km-long runway 34.

Highly embarrassed but safely on *terra firma* again, we were marshalled to the Bond Helicopters Echo apron, parked up and tied down, and considerately looked after by airport handler Signature Flight Support as we used its wi-fi to book an unplanned night in Aberdeen – which is a great city by the way – no recession there in 2013.

Because Aberdeen are party to the Strasser Scheme (see [www.aopa.co.uk](http://www.aopa.co.uk)) which encourages a policy of not charging for emergency or diversionary landings at (about 85% of) UK airfields, we were not charged for anything at Aberdeen Airport except the fuel we took onboard. The remainder of the trip (via Carlisle, very nice) was uneventful, although haze hampered much of the journey home.

On reflection, I'm sure I did the right thing in diverting. I would absolutely do it again, even if the airfield concerned was not party to the Strasser Scheme. I'm less sure about the wisdom of my low-altitude sea crossing. I remained in sight of the surface, more than 500ft from anything except the sea, Lossie radar could see my squawk, we wore lifejackets and had a PLB onboard, and I had no qualms about what to do if I had to ditch (in my surfboard technology airplane). But I am mindful of that truism, 'One of the most dangerous things you can do in GA flying is to schedule yourself to be at a certain place at a certain time'.

Diversions, I commend them to the House...



# WE NEED



# YOU!

## We need your ILAHFFT stories!

The value of ILAHFFT is that it provides insights from those who have been there, done it, and have lessons for all of us to learn. If you have any anecdotes or amusing 'there I was...' stories then please do share them with us so that we can pass on the messages and inform others (ideally in a light-hearted and engaging manner). Send any interesting tales to [mail@chirp.co.uk](mailto:mail@chirp.co.uk) and put ILAHFFT in the subject header – we promise full confidentiality to protect the innocent (and not so innocent!).



