Let’s tick the talk box

By Andy Aiken

THE weather has been typically appalling and, like me, I’m sure many of you will not have even bothered venturing down to the airfield, but at least that’s given a little more time to look forward and think about the challenges for 2018.

Forum membership is growing slowly: we now have 285 registered users, of which 85 are confirmed BMAA members, so again I would urge you to sign up and make the forum a place where we can exchange views and share information in real time.

Let’s try and make 2018 the year of communication.

With this in mind, I’d like to try to do some things a little differently.

Every two months the council meets to discuss progress on issues and actions. A lot of this is routine administrative stuff, but some is more strategic and relates to issues the members should know more about in a timely fashion.

In future, the minutes and actions will be published on the BMAA website within 14 days of the meeting. Hopefully the February minutes, if not already published, will be up on the website by 5 March. It’s a small change, but hopefully a step in the right direction.

There’ll be more changes and improvements coming soon. In the meantime, please contact me directly if you have ideas or suggestions to improve the way your association communicates with its members. My contact details are on the inside back page of this magazine.

And since I started with the weather, hopefully by the time you are reading this, spring will have sprung and we will all be venturing out to commit a little aviation. So take care, and remember that we may all be a little rusty.
Planning

Pilot A, only recently qualified, was told by an instructor to stay “in the local area” due to low cloudbase (1100-1200ft). This was intended to mean 4-5nm, but he interpreted it as meaning up to 13nm.

Pilot B was planning to fly home, some 200nm. The forecasts were for low cloud, broken at 1100ft after 50nm, and lowering cloud and worsening visibility later, bringing occasional light rain and drizzle, broken cloud at 700ft, then a 40% chance of 3000m visibility, light drizzle, mist and broken cloud at 300ft.

Despite this forecast, the pilot, who had another qualified pilot as passenger, set off following the coastline along with another aircraft.

The CAA Skyway Code gives excellent guidance on preflight planning, including this guidance on meteorological conditions:

“For operations in Class G airspace, the legal VFR minima allow flight in potentially very poor conditions. Clear of cloud and visibility of 1500m is all that is required if below 3000ft and less than 140kt.

In reality... in conditions approaching 1500m visibility, the cloud ceiling would likely mean flying dangerously low. The legal minima are not a good reference point for decision making because safe VFR flight normally ceases to be possible long before the visibility is that poor. They are limits, not targets.”

And: “Generally, VFR flight with a cloud ceiling of 1500ft AGL or less warrants special attention to terrain and obstacles. A 1500ft cloud ceiling could be shrouding the tops of nearby hills.”

This was very relevant to Pilot A. The code continues: “VFR flight below 1000ft AGL is generally only suitable for circuits or very local flying in areas you are familiar with. In practice, VFR flight with a surface visibility less than 5km is not recommended. You are unlikely to have a clear horizon to control the aircraft by, and navigating visually will be difficult.”

Remember that the maximum forecast visibility that will ever be given on a TAF is “greater than10km”, but 10km is only just over 5nm, or 6 miles. Personally, I like to be able to see a minimum of 10min (yes, minutes) in all directions. The distance depends on my speed. At 60kt in a microlight, 10min is, of course, 10nm. At 120kt in the Pitts I need 20nm.

I don’t send students off to fly cross-country in any less than 20nm, or nearly 40km, since 10km is rubbish for navigating. Draw a circle of radius 10km around your airfield on a chart, and you will see what I mean. Don’t even think about 1500m. Flying at 60kt, you cover 1500m in 48s!

There were other human factors involved in Pilot B’s decision. Both aircraft were taking part in Fly-UK and had encountered bad weather earlier in the trip.

They had landed successfully at an alternate, but this had resulted in the need to hire a car, and delays.

When planning the return leg home, their decision was influenced by the inconvenience of the alternative, which was to find hangarage and alternative transport home, then take time off work to return for the aircraft.

The PAVE checklist includes E for External pressures – time pressure, delays, passengers. This was relevant to Pilot B.

Situational awareness

Pilot A had flown 13nm, and because conditions were no worse, he pushed on to fly out to the coast and followed the coastline around a high headland some 19nm from base. He then turned back inland and encountered rising ground and lowering cloud-
Both pilots allowed conditions to deteriorate too far to allow a proper procedure to be carried out.

Due to inexperience, he lost situational awareness and, unable to find a field, landed in treetops.

Pilot B was a few miles short of a planned alternate when deteriorating conditions made him and the pilot of the second aircraft decide to carry out a precautionary landing.

The pilot of the second aircraft, having seen this, then chose a different field and carried out a successful precautionary landing.

Pilot B commented on the speed at which the situation deteriorated, resulting in a loss of situational awareness. They saw lowering cloud ahead, which prevented them from reaching their planned alternate.

They tried to reverse their course back to another alternate, but the cloud had lowered behind as well. They had very little time to select a field and, unable to make a proper inspection, made an error of judgement on the surface.

While en route, it is vital to maintain situational awareness. When conditions deteriorate, you must make a decision in good time. Press-on-itis only reduces the chance of a successful outcome.

If flying with other aircraft, think about the additional workload should visibility reduce. Trying to navigate or find a field while maintaining awareness of the position of the other aircraft could overload you. Have a plan prepared of what to do in this situation.

Precautionary landing procedure

Both pilots allowed conditions to deteriorate too far to allow a proper procedure to be carried out.

The precautionary landing procedure is designed to minimise risk, but needs time to carry out effectively. This procedure should be practised regularly, but flying safely close to the ground requires good handling skills. If you are unsure, have some refresher training with an instructor.

Years ago, when we flew unreliable two-stroke engines on fairly slow aircraft, the emphasis during training was on procedures for engine failure en route. These days, with reliable four-stroke engines on faster aircraft and British weather, it could be argued that you are more likely to need the precautionary landing procedure.

Conclusions

It is easy to be wise after the event, but in both cases, the forecasts were not good and gave the pilots concerned little chance of success.

When planning a flight, especially where the conditions are only marginal to begin with, you must be realistic and plan for deteriorating conditions and alternatives, as forecasts are often wrong.

It is also important not to allow factors such as inconvenience to come ahead of safety. Continuation bias, aka Press-on-itis, is an easy trap to fall into.

Another tip – don’t imagine that gadgets such as GPS or SkyDemon are going to save you if you get into IMC.

Please obtain a copy of the CAA Skyway Code, if you don’t have one already. Read the chapters on Pre-flight Preparation, Meteorology and GA Risks first, in relation to the above. Then read all of it! It really is very good.

Plan carefully, be realistic, fly cautiously and land happy!