Lessons from my best year of flying since 1979

By Dave Thomas

Some statistics

My longest hang-glider flight was a defined goal 20 mile out and return from aero tow. Other than that I'd done a few XCs with a maximum of 25 miles – so I have no expert XC credentials. I have a few hundred hours flying sailplanes, and am pretty good at navigation from various powered excursions on various types of aircraft. I was taught to paraglide by Mark Dann in 2004, as something to do when it was too light to launch the hang-glider. My previous best PG distance was 49.7km from Long Mountain.

I set myself a few goals for this year:

- 300Km on the national XC PG league which would force me to improve my PB distance and double my previous score.
- Not embarrass myself at the BPC my first ever real try at competitions.

What I achieved:

- 326Km in the XC league (best six flights) and over 550km in 14 XCs, logging something on the XC league every month from February through to October.
- First place in BPC for sports class wings and 4th overall.
- Flew in 3 Airwave BCC tasks got to goal in the first one which had a loosely defined goal (M1 motorway), and got the longest distance on the next two events which were open XC.
- Spent more than 50% of all my flying time from January to October away from the ridge – either on actual XCs or just well away from it, attempting triangles and the like. I even managed over two hours thermalling in January (in the UK!).

As part of my decision to fly in the BPC comps this year I said that I would do family stuff on every other weekend and use holidays for XC days in the week – which has meant that I have missed most of the really big XC days this year as unusually they have been at the weekend.

Late last year I started to prepare for a good year. I decided that I was ready for a slightly better performing wing, so sorted that in December and made sure that I flew it over the winter to be 100% happy on it once it was XC weather. Rather than go for the very best performing glider, I chose one that made me feel comfortable in very turbulent air – this was confirmed at Much Marcle which is almost always dog rough, but on an especially rough day I was totally convinced which wing I had to buy.

I then went through all the flying XC books that I've read before, but went through them until I had them virtually memorised. I listened to the talks on Judith Mole's podcast page about mental preparation. I was already aware that self confidence would play an important role.

So, down to my lessons – and these are the things I've learnt which may not be applicable to everyone else. Some of them are fairly standard and obvious but worth fixing into my mind for the future.

Don't give up

The flight hasn't ended until you are on the ground – by that I don't mean trying to find or work a thermal until you are in an impossible and dangerous location, but don't give up when things don't seem to be working. A perfect couple of examples:

- First BPC task in Scotland and I was half way to cloud base and saw someone dodging about really low along a ridge below me and the next thing I knew they were climbing past me. I later realised it was Richard Chaffe, but I had written that pilot off as on the way to the ground, and he had pretty well the same thought at the time too before he flew into his hoped for trigger and got a rocket powered climb.
- My longest XC to date could have ended after the first thermal over the back of the Mynd, but I got my thinking cap on and determined where I thought the most likely triggers were, and keeping away from Wenlock Edge. This worked and I spent the next hour slowly crawling my way back to cloud base.

Thinking

This really is the most important one. XCs are not places to float about lingering in the pleasure of the sensation. You have to be looking around, watching others at every moment and trying to see what's happening to the weather, where the sun is on the ground, what's likely to be a thermal source or a trigger. Where is the drift taking you and is it the way you need to go to get the next climb? A good example of this was a little later in my longest XC - I glided over the Severn just above Bridgnorth, pleased to have crossed the river for the first time – but getting desperate for a thermal. If I stayed on an easterly track I would miss Cosford airspace, but it didn't look promising as it was in full cloud shadow, so I went NE to a group of likely looking cropped wheat fields – it worked, but not very strong and I was drifting towards airspace. I lost it and headed further north, but the wind was now more NW so I was really heading fully crosswind. I saw what looked like a good location near a village for a retrieve but more importantly a couple of wheat fields, a large set of glasshouses and then a small brook with a line of trees at 90 degrees to the wind -Bingo! But the drift was taking me directly to Cosford and the climb slow. I was looking at the airman every couple of turns and knew I'd hit Cosford within a few hundred yards, so pulled out and went back upwind to the same trigger – this time hit a corker and screamed up and over Cosford completely missing the airspace to top out at over 6000ASL.

Don't always blindly follow others

I left the Malverns late, with one other experienced pilot after most had already gone XC. Got to cloud base and then had the choice to follow the other pilot under the large cloud which was roughly downwind and sort of streeting – or dive to the north to a new fresher looking cloud. The trip north seemed more risky in case I didn't reach it, so I followed the other guy along and under the cloud – all the way to the ground. However the lesson didn't end there; as he had persevered when I found a reduced sink at about 600ft AGL and he came to join me, whereas I then shot off to another potential thermal source. Checking his track log afterwards, it showed him slowly sinking for 20 minutes then slowly climbing and getting another 25Km. That day affected me really badly mentally for the following reasons and took a number of weeks to come to terms with:

- I failed on a day when so many did massive distances.
- I faffed around on launch chatting and not ready to take off waiting for others to stop scratching and get high – but when they did I couldn't launch and missed a number of cycles.
- When I did get in the air I was a bit too late for the best climbs. Half a dozen
 or more pilots did well over 100Km and they said that after 40Km it was easy
 straight lining and no thermalling required. I knew I should have been with
 them.
- I probably should have gone with my first option for the better cloud, but wanted to benefit from another wing nearby marking thermals. I marked a thermal but the other pilot (Graham Steel) used it better than me.
- I was impatient in very weak lift low down, and that ended my day.

Patience is a virtue unless it's a race to goal

So many times this year I have seen other pilots rush off and leave a thermal and then watched them land as I circle over them, as they hadn't got high enough or waited for a suitable alternative to present itself before that headlong dash downwind. Conversely, I was late in the BPC Dales round as I climbed out in the first gaggle, and had pre-planned that I would drift with the thermal until well over the back as locals had said it was a sink hole. Most shot off as they got near base. I was higher than them and happy, until my cloud suddenly vanished (wave influence I think), and that left me in badly sinking air and on my own. I eventually got to where I needed to, but 15 minutes after the leaders got into goal. This also highlighted the need to amend your plans in the air – I hadn't anticipated the wave and nearly got downed after about 1 km as cloud base was quite low over the hill. Back to that business of watching and thinking.

Keep away from airspace

Shame on me, I had a cracking 47km flight in March, which was disallowed on the XC league because I went into airspace by 300ft. I was flying a site I'd never flown before (Devils Dyke), climbed out on my own and left everyone else scratching whilst I hung around for nearly an hour waiting for some other pilots to climb up to me. During this time I drifted to the east by a mile and that put me under the airspace, which I climbed into once I decided to go downwind. I hadn't looked at the map in the air as I was sure that I had memorised it from the night before (bedtime reading). Doh! What a mistake.

Thermalling

The best thing about the glider I fly is it is great for climbing, as I have often outclimbed a number of pilots in gaggles this year, and I'm sure it's not just my abilities. However I often watch pilots in the gaggles and wonder what they are looking at or thinking about – you never see their head move and I usually find they come too close to others or go in and out of lift a lot. The best way of climbing well is to watch everyone else like a hawk – if they go up in a particular part of the 360, then try to position yourself to spend more time in that area, and be ready to tighten the turn as you reach the expected better lift. The guys who are apparently flying blind soon drop away beneath you, but it is pretty frightening whilst you are near them. Most pilots seem to fly too large a 360° turn, although the only times I've been caught out are when I'm tightening a bit too much in weak lift and can then more easily feel like I sideslip into even weaker air.

Don't make decisions when you are having a no brain moment

Expert teachers say that you can only concentrate for relatively short periods of time and need to switch off every now and then. From Devils Dyke I was doing well, and gradually catching up on another pilot one cloud in front, who was slightly further inland and I didn't want to get flushed in the sea breeze, so during a no brain moment in a decent but turbulent thermal, I decided to glide north towards the other pilot when I was only about 2000 ft above the ground. I knew I'd made a big mistake after a minute but it was too late to turn back — I reached his thermal trigger but by then I was walking and he was at cloud base 5km away. Not sure how to avoid this in future, I guess I'll just have to be aware that I might not be analysing things fully all the time.

Ground handling

A few times this year the BPC launch window has been closed because some pilots poor ground handling (draggings) made it appear that conditions were unsafe to launch. The organisers have a duty to ensure safety for all pilots and not just the brave or highly skilled, but my opinion as well as many others, was that it was just poor skills and not specifically the conditions being too windy. Also just as relevant is the ability to get in the air on light wind days. It has become very apparent to me not just for competitions, but on any thermic day, that the right launch window can be a matter of a few seconds or minutes. It could be strong, light or just take off at the wrong time in the thermal cycle time and down you go, therefore you can see that the pilots who can get the wing in the air quickly and cleanly in any conditions are the winners.

Be ready

If you want to fly XC then you can't do it unless you are ready to go, clipped in and watching. Conditions in the Snowdonia BPC were difficult (actually apparently at the time impossible) then Mark Leavesley, who was not competing, took off, went 50 yards and started climbing. I was on the hill chatting about 100 yards away, and by the time I had run to my wing and successfully launched a dozen pilots had got up. I managed 15 minutes of weak thermalling before the sea breeze killed it all. I didn't notice, but Nigel, who was trying to launch behind me, couldn't because the windsock did a 180 degree reversal as I took off, stopping everyone else immediately. The first few to launch went XC, activating the task and all I got was minimum distance.

Working together is almost always better than on your own

From Clatter, Geoff Minshull, Judith Mole, Martin Knight and I all got away, but Geoff ventured off on his own and went down. The rest of us worked well together for the next

2.5 hours, until I decided that I'd got to cloud base much quicker than the other two and could see a nice cloud forming over Oswestry. I glided off but didn't connect with anything decent and eventually landed for 60km. Martin worked the earlier thermal for longer, gliding over by where I had landed, connected with his best climb of the day and did another 20km. I should have been team orientated all through the flight.

Weather forecasting

It really makes a big difference if you have the opportunity to pick your flying days, and there are plenty of available books to help with this. However, an area I think that

is poorly documented is micro weather forecasting. By this I mean looking at the visible sky, and tying this into the area forecasts off the internet. Think about wave, which is especially important at the Mynd, but likely almost anywhere if conditions are suitable. What this can do at the Mynd is make one part of the ridge work consistently – it may not appear as classic wave (rough uncontrollable areas and then totally smooth climbing), but the wave is very often at an angle to the ridge, which means parts of it are in phase and parts are definitely not. You may have to struggle through a rough area to get into an area that is giving more reliable conditions, but you may have to get high enough to push through the sinking area first, and then when you are where you think the wave may be in phase, then hang around – the wave is affected by the thermals coming through, but when they do come through will have extra energy and consistency. Wave can also kill off apparently superb thermals as they drift in the wind – making the back of the hill a very difficult place to get past (e.g. Wether Fell BPC task).

High cloud may not make the sun seem much less intense, but can really weaken thermals in areas that are affected by it. Thermal clouds often coalesce into a very large mass which is great for easy climbs with pilots nicely spread out, however the problem is often that it sucks up all the thermals from all directions and can make the transition to the next climb difficult or non-existent (such as happened on the Long Mynd task in the BPC comp). If you want to do long XCs this kind of situation can be a real problem.

Timing is so important. At any XC or competition day you will see the experts often doing nothing but looking at the sky, and then all of a sudden they are ready to go, launch and have gone XC with the first climb. It is not luck, but observation of the micro weather situation, and knowing when to go. On many excellent XC days there are periods when it may be blown out or too light or not thermic – getting blown back in a poor thermal or going down can waste a good day, so the good pilots need to time their launch well on these occasions. Often you will see the experienced pilots on the ground and all the red streamer pilots launching. This is partly because the inexperienced will not be able to cope with the thermal conditions, but also because they don't yet have the experience of watching the weather and understanding what is happening. Sometimes if the general wind is changing direction rapidly it can form an area of convergence where everything suddenly goes up. Time the thermals on the hill. Actually use your watch and time them – you may often be surprised just how regularly timed they actually do come through and if they don't, try to work out why not.

Competitions

I haven't got much experience of them really, but so far it would appear that if you want to do really well in the national XC league, and have limited flying days available, then

the BPC is not the place to be, as tasks are generally short, with defined race to goal tasks which do not fit in well with using the whole day to go as far as you can. The BPC involves a lot of pilots and hills have to be chosen based on accommodating everyone, which often means everyone is on the wrong hill, and the task window may not be open when the conditions are actually best to go. You are allowed to overfly a goal, and then carry on, but you must get back to headquarters by a specified time to download your track log, which means to do this you must have a dedicated retrieve driver who can follow you. On a positive note, you get to fly with many highly experienced pilots and have very definite goals and routes to fly which makes decision making really interesting, and you can try to keep up with the good guys.

An area I need to work on is speed – the key is getting into the thermal quickly and leaving it quickly to go to the right place for the next climb. This year my focus has simply been on trying to stay in the air, and therefore getting more distance, but there comes a time when the day runs out, and that's the limiting factor on distance. If I want to get significantly longer distances, I know I need to spend less time struggling with poor climbs low down and less time at cloud base waiting for the perfect new cloud to form next. My flight of 81km involved being in the air for nearly 5 hours and most of that was away from the ridge, although I spent a great amount of time and mental concentration on avoiding airspace and flying crosswind to get around Birmingham airspace. That's too long for a relatively short distance.

I've had a fantastic year but it could have been better, and maybe my lessons may be of use to anyone who wants to improve their XC flying next year by avoiding my mistakes. Now is the time to start your preparation – even if it's just about getting your pilot rating and starting to read all those books.