

GLIDE ANGLE

MIDLAND GLIDING CLUB · NEWSLETTER
SUMMER EDITION

JUNE 2022

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NOTES FROM THE EDITOR

Welcome to the June edition of *Glide Angle*, the third in its new format. Thank you for all the positive comments you have made. This issue continues the policy of incorporating useful, I would even say essential, articles relaying information that helps with the smooth running of our club, together with not so urgent but enjoyable reads about our shared passion (gliding that is). Safety is a key theme this time - something that is explored in both these types of articles, with comment and advice on how to bring improvements across our field activities and in our own flying, everything from ground handling and incident reporting to airmanship and field landing. With the club hosting Competition Enterprise next month (see the CFI's appeal in

announcements below) there is also a timely introduction to how competitions work, which is especially useful for all those newly minted Bronze pilots thinking about what comes next after their silver flights. So, as we all try to make the most of the busiest time of year in the gliding calendar, take a few minutes time out, get a coffee and enjoy *Glide Angle*. Of course, the newsletter would not be possible without the brilliant contributions from members (with some encouragement from the editor!), so if you enjoyed the content please do get in touch with your own ideas for the next issue.

Rob Kronenburg

Editor

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CHAIRMAN'S BIT

by JON HALL

“The years when the club was operating under restrictions proved to be not so bad. This year though is shaping up to be much more of a challenge.”



Since the last edition of this newsletter, we have taken ownership of a replacement K21, a welcome addition to the fleet. However, it is disappointing that only two months after, we must spend £750 on repairs that could, and should, have been avoided. Remember this is your cash and every penny we spend on careless damage to the fleet is money we cannot spend on essential things like maintenance. That said, it is good to see another K21 in the fleet.

As I write this work has started on improvements to the trailer line. We have been aware for some time that as our membership increases, and commensurately the level of private ownership, we need to find space for more gliders. Dominic Haughton bravely took on the challenge of sorting out this problem, along with Charles Carter lots of help from members, and his solution extends the rail to the south, moves some trailers that do not contain flyable gliders to the south end, and rationalises the positions of other trailers so that the longer trailers are all positioned together. I suspect that this will be an ongoing challenge. Indeed, I hope it will as we attract more new members. Growing the membership is the single most important issue for the club and it will continue to bring up new

challenges. I am confident that future management will rise to meet them.

As we have the heavy plant on site to do the trailer line, we are also taking measures to improve the access road. Laura is leading this initiative and I hope that by the time you read this the road will once again be serviceable. Many thanks to her and her band of helpers. A project long overdue.

Back at the outbreak of Covid, your committee was already looking ahead to what happens when things get back to normal. Some of us expected that the really difficult time would be the year after we fully reopened. And so it has proved. The years when the club was operating under restrictions proved to be not so bad. Government grants helped us to survive and 2021 was a particularly good year. This year though is shaping up to be much more of a challenge. Lack of public confidence, the removal of travel restrictions and the effects of the Ukraine war on the economy have seen marked reductions in our operations, particularly course bookings. This has put pressure on our finances, our volunteers, and our staff. If you can help by promoting all club activities, especially courses this year, it will be much appreciated. More

importantly you can help by offering one day a week to help run the courses on the ground.

Finally, I want to mention Competition Enterprise. The Mynd has been fortunate to host the competition three times in our history. This year we host them again. It is very different from almost all other competitions, encouraging enterprising flying and making the most of the conditions on the day. There have been some remarkable flights during Enterprise in the past and I'm sure that this year will be no different. Our CFI, Rose Johnson, is directing and there is much help from many of the members. But there is never enough, so if you have time to spare, even for a day, between the 2nd and the 9th of July, please let Rose know and come up to the club to help.

We have a reputation to defend of providing a slick operation for launching so the more people we have on the ground the better. If you are interested in reading the handbook to find out more, it is obtainable from the club website: midlandgliding.club/wp-content/uploads/2015/05/Competition-Handbook-2022.pdf

chairman@midlandgliding.club



CFI'S MUSINGS

by ROSEMARY JOHNSON

Are you guilty of poor airmanship?

If someone accused you of poor airmanship, I suspect many of you would either be angry or in denial. Well, I confess to having been guilty of poor airmanship at times!

To understand poor airmanship, it helps to understand what good airmanship is. It certainly amounts to more than expert flying skills. The BGA seem to align the concept of threat and error management, with good airmanship, however, it goes deeper than that. ICAO define it as; 'the consistent use of good judgment and well-developed knowledge, skills and attitudes to accomplish flight objectives' - undoubtedly accurate, but a little boring. My preferred definition used to be on the wall of our bar. Attributed to US test pilot and astronaut Frank Borman, he said: 'A superior pilot uses his superior judgment to avoid situations which require the use of his superior skill.' Trust the Australians to put it a little more bluntly. They have a saying: 'If you teach a pig to fly, it will still be a pig'.

No-one would disagree with these statements, so why do I keep seeing examples of poor airmanship both on the ground and in the air? My personal belief is that poor attitudes are much more often to blame than poor flying skills, and the American FAA seem to share this view. They have a scheme for analysing factors that contribute to poor airmanship that is summarised below: If I think about the people that

into one of these categories!

So, my plea to you is this - if you ever have an accident (and flying is a dangerous sport), do you want to be the person that people think; "well it was always going to happen one day", or do you want to be the pilot that follows Frank Borman's mantra and uses their superior skills to avoid the situation that requires them? Think about it.

POOR AIRMANSHIP	
Hazardous Attitude	Antidote
Anti-authority: 'the regulations are for someone else'	Follow the rules. They are that way for a reason
Impulsiveness: 'I must act now. There is no time'	Not so fast. Think first
In vulnerability: 'It won't happen to me'	It could happen to me
	Taking chances is foolish
Resignation: 'What's the use?'	Never give up. There is always something I can do

are most likely to have an accident, I could probably place them into one of the attitude categories listed above. Actually, on any given day, I might be able to place myself

cfi@midlandgliding.club



TREASURER'S BEAN COUNTING

by JAMES MOORE

Online access to your flying and membership records

Have you ever wanted access to details of your flights and the office is closed? If you have, you may now access your flying and membership records online. Simply go to datamodusaerolog.co.uk/MGC and login.

If it's your first time, start with the email address you have given the club and once entered press the button: 'Click here if this is the first time you are accessing Aerolog Cloud'. There is lots of functionality – explore! You can view your flights as far back as 1996 including flight statistics, personal details, address, and emergency contact. There is also an option to upload documents such as your medical. You can help the club by ensuring all the details it holds are correct, including your next of kin, or emergency contact details.

To keep the costs down and therefore fees, one piece of information would be magic - your occupation. Knowing your occupation helps us identify people with the skills we need.

Keeping membership costs low

As all businesses (and club members) know, we are faced with a great increase in the cost of energy. Can you help minimise our club use, control costs, and avoid a consequent 10% increase in membership fees?

Last year our energy (electricity, propane diesel and petrol) accounted for approaching 10% of our costs. For example, the price of propane, which we use for heating the building and powering the airfield vehicles and winches, has increased by 40%.

If our electricity supplier goes out of business, we could see that price more than double. So, it is feasible increasing energy costs alone could result in our membership fees needing to rise by up to 10% next year. Energy costs have long been an issue for the club. Neal Clements is leading an

energy project with the first objective of getting a better understanding of our consumption – we need to know what is happening rather than what we think is happening. However, that complex project is not going to conclude for some time.

In the meantime, you can help by pro-actively turning off lights and heating that is not needed as you walk around our building. When did you last go into the briefing room and the radiator is furnace hot, the lights are on, and no one is in there? Is the room warm enough? Does that light need to be on? Turn them off.

Would you treat your Aston Martin, Golf or Porsche like our gliders?

There has recently been discussion on the WhatsApp Chat group about damage to our gliders. Firstly, safety is absolutely the priority. You will be applauded for reporting damage, never criticised. By understanding the cause of an accident or incident we can maximise the chances of preventing it happening again in

the future. By reporting an incident, you might prevent something worse, even save a life. As part of the safety culture, the club will never charge the person responsible as that could discourage people from declaring damage, which might lead to even worse consequences.

We club members have a responsibility to each other and so we accept damage will happen and has a cost. Let's put that in context with a few examples. We are now tying down gliders instead of using tyres because if you overload the wing, it can cause damage, and to repair tyre-tower damage to a K13 wing costs £500.

How about canopies? A typical canopy repair is £300 and replacing it with a new one could be £5,000.

We don't perform acrobatics in cold conditions because the gel coat is brittle and cracks. Repairing the cracks, emanating from the corners of the new K21's airbrakes is about £100 per centimetre, so £500. Repairing the hanger rash on the nose of the new K21, is in the order of £250. The repairs to the new K21 in its first two months will be £750. Can that continue?

Every penny we spend repairing damage, is money taken away from improving the fleet so minimising damage by looking after the kit is

absolutely imperative. Let's look at this another way. Assuming the value of the K23 is £25,000, this would buy a new Volkswagen Golf 1.5 TSI 150 Life. The K21 (JGE) at £65,000 is a new Porsche Cayman GTS 4.0. Today, a new K21 comes in at £140,000 – that is the price of a fresh out of the wrapper Aston Martin DB11. If one of those was your cherished chariot, how would you look after it?

Exclusive use of a single seater

If you are looking for exclusive use of a single seater glider for the whole day, you can book CJM or FZP for the equivalent of just three hours flying - £99.00 (keep in mind that just one tacho hour in a powered aircraft is likely to cost up to double this amount). Only one single seater can be booked exclusively on any one day. Details are in the price list. In May, average flight times in FZP were 14.6% longer than in LUV. Pilot or glider?

Glider workshop/Old MT Shed charges

There has been a modest charge in the price list for using the members glider workshop or the old MT shed for some time. These buildings cost money to run and need investment. So, if you use them to work on your glider or trailer, please let the office know and pay the appropriate fee.

treasurer@midlandgliding.club





AIRFIELD SAFETY

by MIKE GREENWOOD

Incident reporting

As there are many new members in the club (and the old ones need reminding from time to time) here's a timely reminder about incident reporting.

An important part of our safety culture is a 'no blame' reporting system. Accidents and incidents rarely happen out of the blue, so if we can see a pattern emerging that may eventually lead to something more serious, we can use this experience to nip it in the bud and prevent future problems.

This isn't about blaming anyone or getting people into trouble, it's about trying to see the unwanted patterns emerging and changing them. The objective is to prevent a situation where we narrowly get away with something a few times, then we don't – with dangerous or expensive consequences.

What we would prefer not to do is learn from our mistakes after we have made them. It's much cheaper and less time consuming to avoid the mistake in the first place because we have seen it coming and already carried out preventative action. We can only do this with feedback from members about incidents that have

“This isn't about blaming anyone or getting people into trouble, it's about trying to see the unwanted patterns emerging and changing them.”

happened on the field that might have led to an accident, although in that instance we got away with.

If you see anything that gives you cause for concern it's very easy to report using the club's internal system: on the website, click on 'Members Area', then 'Incident Reporting', and fill in the form. You don't even have to give your name if you don't want to.

If someone gets hurt or an aircraft is substantially damaged, then this must be reported to the BGA: just type 'BGA report form' in your browser and the link appears. The initial form must be filled in and sent to the BGA within 24 hours, so you should do it with the Number One on the day it happened.

The rest of the form must be completed within 28 days, but this should come to the Safety Officer and CFI first as we have to describe what actions the club is taking in response. If a person is

hurt you should also fill out the HSE accident book in the office, this includes anything that happens on site even if it is not part of flying operations.

Remember that safety is everyone's responsibility. We operate in an environment surrounded by complex powerful machinery, with moving cables, heavy vehicles, and fast-moving flying machines. We need a good safety culture to keep everyone safe and avoid unnecessary expenses for the club from damage to aircraft or equipment. If you see or experience an incident where you or someone else 'just got away with it' then you should report it. It is in all our best interests, and you will be thanked for your diligence

safety@midlandgliding.club

ANNOUNCEMENTS

Competition Enterprise.

This major event in the club calendar is fast approaching (2nd to 9th July) and we still need some volunteers during the week. If you can help on the Friday to get set up, anytime during the week on the ground, or in the evenings to staff the bar please let me know.

For those of you that have never been to a competition, Enterprise is a great introduction to see how a gliding comp works. A fair few of the competitors are staying on site and there are social events planned, including a quiz night and scrapheap challenge event.

If that isn't enough to encourage you to volunteer, then perhaps the promise of a two-seater coaching flight, either hors concours during the week or after the comp, will encourage you to volunteer? If you can help at all, please email the CFI at CFI@midlandgliding.club and I will put you on the Enterprise rota for the week. Hope to see you there.

MGC Task Week

Task Week is an informal competition that gives those who have never taken part in a comp the chance to try it out, and to test yourself against all the other pilots at the Mynd. Daily prizes and a trophy for the winner make for a competitive but fun week.

We provide daily met briefings and set the tasks. Variable barrel tasks for different handicaps means anyone can win no matter what they are flying.

It's a great introduction to competition flying and highly recommended. Even if you aren't flying it's a really social event and there are usually several performance two seaters willing to take P2s to try it out.

This year it will be 20th to 29th August.

FLY PAST

This regular column invites members to tell a story about a significant flight from their career aloft. It could be a first or a last, a longest or a shortest, or one they will just never forget for the excitement or (anxiety!) it caused. This time Sohrab Noshirwani recalls that special moment we all remember so well.



Date: 1st September 2021
Aircraft: Schleicher ASK13
Location: Long Mynd

Chatting away to the instructor who's just had me self-critique my previous circuit, I ask if I can go again for another round to which he replies: "Hop in". As I'm doing up my harness straps, I hear the click of his buckles behind me although he's not in his seat. He begins removing the backrest as well, to which I remark, "Are you not getting in?"

"Not this time" he says, "you don't need me now. Just keep her at sixty and you'll be okay. Remember there's a cross wind, so don't blow over the ridge, and steer away from the clouds, as they're a bit low."

I'm strapped in and run through my checks. Controls, free and unrestricted. Ballast: okay, half than it was before, so should be more agile. Straps: on and secure. Instruments, all set to zero, none seem to be damaged. Flaps: not equipped to this aircraft. Airbrakes, complete and unhindered movement, locked in their forward position. Eventualities: high cross wind, so if I break low, land ahead and finally, canopy. I close the Perspex bubble over my head, accepting I'm ready to fly. I'm latched onto the winch, cable on. Signal to the wing walker, I'm ready.

I deep breathe. Calm. I repeat my mantra: fly the aircraft.

The cable ahead of me begins to snake away, and I'm suddenly thrown back into my seat, as the aircraft accelerates forward. Faster than I'm used to, this must be the effect of the missing pilot. I lift off but keep my attitude as the airspeed increases. Pull back on the stick and roll out, forty-five degrees. Check the speed, bang on sixty. The wind rushing over the canopy creates a harsh envelope of noise that eradicates my thoughts and forces me to focus. I climb, nervous for a cable break, but I'm past 450 feet so I'm okay. I continue to climb, and watch the airfield disappear from my peripheral vision. Pulling back on the stick I feel the pressure, I know I'm nearing the end of this launch.

My stick hits the backboard as I pull the handle towards my stomach.

Kadunk! Release. Break away, pull on the cable release, pitch the nose forward, claim the horizon, keep the wings level, let the aircraft settle. Silence. Breathe. I smile. I'm flying.

Directly ahead of me, I see a towering grey cloud, being blown to the left by the crosswind, leaving behind a lovely trailing tail for me to skirt around. I bank to the right, and to the left, around the cloud and into a pocket of space in between. Bliss. I exclaim, I sing! I'm at 1200 feet above the ground, and I'm on top of the world. I circle the main winch below and look out. I've done this all before, but this time it's different. I'm in control.

I engage in some coordinated turns, a forty-degree banked turn to the left, straighten up, and bank to the right. I'm back on course. Check the altimeter: eleven hundred feet above ground. I look over my right shoulder and down at the airfield. I notice the wind is blowing me closer to the ridge, no good. I point my nose into wind, push the stick forward and bring my speed up to sixty knots. Nine hundred feet now, and I'm where I need to be to begin my circuit. I look ahead and over my shoulders to make sure there are no other gliders in the circuit, and begin my downwind leg, flying parallel to my landing strip.

I adjust the green lever on my right, trimming the aircraft to its approach speed of sixty knots. Wings level, I keep my eye on my reference point, waiting for it to reach over my right shoulder. Left hand on the airbrake lever, bank

hard to the right, keeping the speed under control at sixty knots. Six hundred feet. I'm okay. I fly my diagonal leg over the forest, my eyes flipping between my airspeed and where I want to land. The airplane is now where I want it to be for me to turn onto my final leg: three fifty feet.

I'm lined up with my landing spot, and level the wings. Sixty knots. I pull on the airbrake lever, and lurch forward as the aircraft pitches up and slows. I correct my attitude by pointing the nose forward and regain my airspeed. Airbrakes at half mast, I'm confident on my approach. I adjust the speed by pitching the nose up gently, keeping it at a

wind itself back to fifty, forty, thirty-five and thump! My tail and main wheel hit the ground at the same time – two-point landing. Keep the stick back, don't let the nose drop. Keep the wings level, don't let the wing drop. I roll on the ground for a moment, then push the stick forward, bringing the nose down onto the skid. The airplane vibrates and judders to a grinding stop. The left wing drops. I lock the airbrakes, pull on the latch to lift open the canopy, undo my harness and breathe a sigh of relief.

I'm beaming. Smile from ear to ear. I've done it. My first solo flight.



controlled sixty knots. I'm no longer looking at the altimeter, I haven't since I turned base. I'm focused on the picture ahead of me... and it looks good.

The horizon disappears. Ahead of me is a large green field, whose ground features have become more detailed. I notice the walkers' path and clear it by about fifteen feet. Time to land this ship. I look ahead, and gently begin my round-out by pulling back on the stick and notice the Air Speed Indicator

I climb out of the aircraft, dust myself off, and close the canopy. I grab a winch and turn the aircraft to face the launch point. I notice the tow vehicle come to get me, and my instructor sat in the passenger seat

"How was it?"

"Great! Especially without you in it!"

"Good, you did well. So, ready to do it again?"

"Yes." Let's do that again. And again. And again...

MY GLIDING INSPIRATION



This regular column asks members to contribute a short piece on something that has inspired them in their gliding career. Andrew Rands describes here how his experience with the wide-body jets he pilots in his day job have more in common with our lightweight single seaters than you would imagine.

A Tale of Two Diversions

Recently I executed two diversions, one was in a Boeing 787 airliner and the other was a land out in an LS4 glider. Chalk and cheese you might think, and in some ways you would be correct, however, in many ways the decision-making process was remarkably similar. In November last year I commanded the VS127 from Manchester to New York Kennedy airport (JFK). Due to high density traffic levels, multiple simultaneous approaches, quick-fire ATC RT (in a language that is similar to English!), JFK can be a challenge getting into at the best of times. Winter in New York can be brutal and due to JFK operating at near full capacity (as does Heathrow), weather that slows the rate of arrivals and departures can lead to long delays. Therefore, when I saw in the terminal aerodrome forecast (TAF), that JFK was expecting high winds, intermittently over 40 kts, inconveniently across the expected landing runway (787-9 max crosswind limit is 40kts on a dry runway), I bought myself holding time by loading extra fuel. On the day that I launched forth in the LS4, in the hope of

getting to Hereford and back, the Mynd weather was more benign than my JFK forecast had been but mainly blue. With a cross country endorsement and having made use of the excellent instruction and online teaching aids on landing out available at MGC, I felt well equipped to do so if necessary.

A diversion messes up travel plans and costs the airline money. If the crew run out of duty hours resulting in a night stop, the cost can be astronomical. Therefore, there are commercial pressures to think about. However, the mantra 'Safe, Legal, Commercial', in that order, informs airline pilots' decision making. Whilst flying the LS4 I did not have any commercial pressures, however, how often do we create personal pressures? It was my last day's flying of the soaring season and my wedding anniversary, and I sooo wanted to get a 50K flight in and tick off the requirements for silver, whilst being home in time for dinner!

Crossing the Atlantic I had been monitoring JFK's weather and it was looking like I was going to have to earn my salary, as the wind

forecast was accurate. Due to airspace congestion around JFK with aeroplanes holding for long periods, we initially held near Boston, MA. The projected holding time exceeded our remaining endurance, so we were about to divert to Boston for fuel when ATC informed us we could continue.

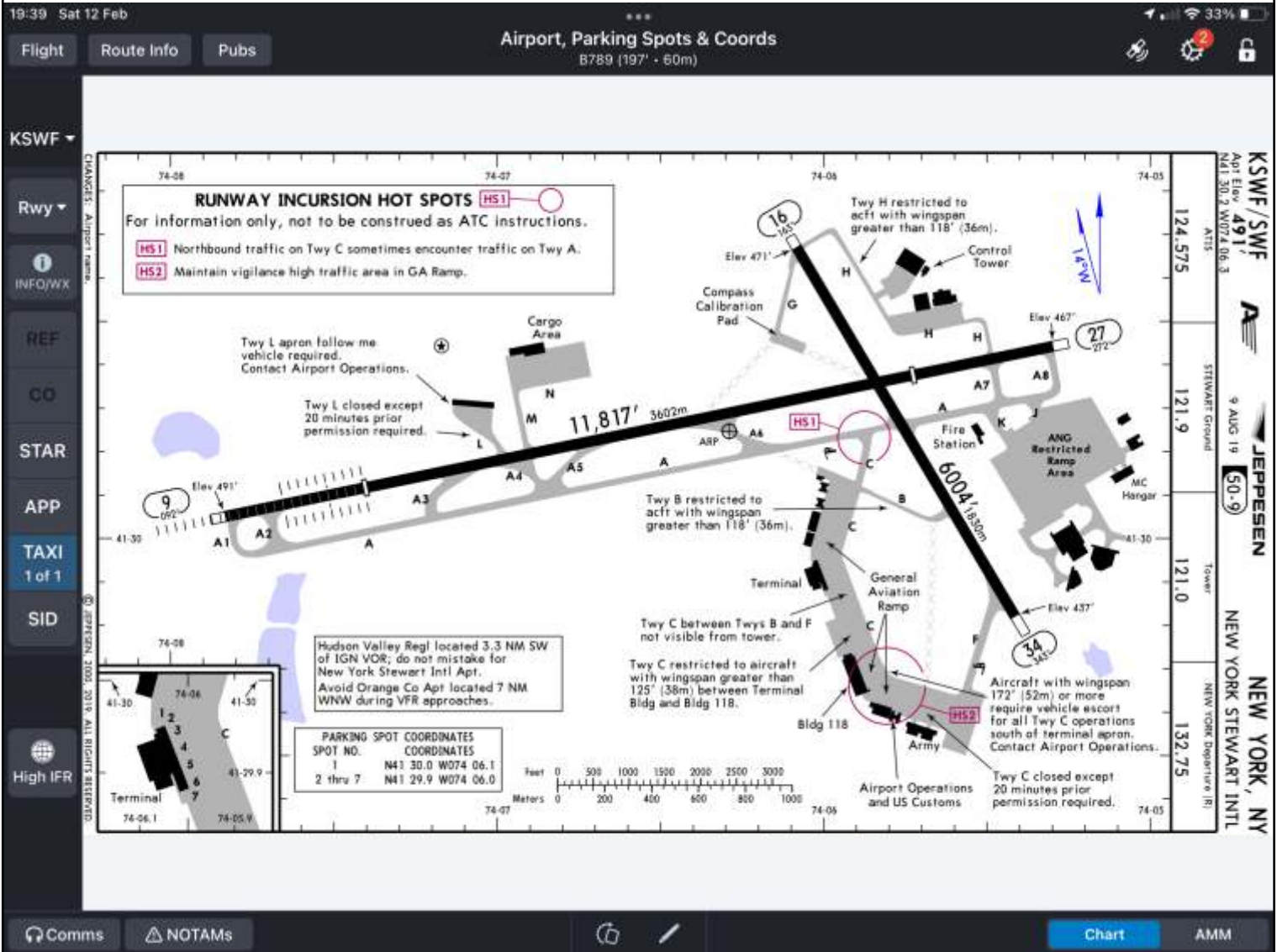
As we got lower and closer to JFK we were again told to hold, as JFK had closed due to a fierce storm. On a nice weather day, it is acceptable to land with, but not below, what is known as final reserve fuel, which equates to 30 minutes flying at holding speed, at 1500' above the airport. If an airliner is likely to land below final reserve fuel it is an emergency, and a mayday must be declared. On this particular day there was no way I was arriving at JFK without enough fuel to divert if necessary. The First Officer (FO) and I had been working hard, constantly updating our fuel requirements for different possible diversion airports. We had also been given a re-route, which made the planned routing's fuel plan useless, so we had to calculate a new minimum fuel to leave the hold, carry out an approach to JFK and have

enough fuel to divert if necessary. As the fuel reached that point and we turned away towards our diversion airport, ATC announced that JFK would accept us for an approach - the temptation to turn and 'go for it' was immense.

Back in Shropshire, scratching around in the LS4 for lift and not finding any, one option was to land back and have another launch, however, there was a big queue at the launch point, and I could see another higher glider that was thermalling in the valley to the west. If I had landed and had another launch I might have got away, instead, I ended up setting up to land in the Horse's Head field. As I was heading downwind for the land out, I encountered lift - the temptation to turn and 'go for it' was immense....

In deciding to land out a glider or divert an airliner, I look for very similar things in a landing field:

- **Wind:** The strong winds in the New York area had been an issue so we selected an airport with an into wind runway. The





Horse's Head field is big enough, and the wind was light enough on the day for a downwind landing, which would have put me nearer the gate, however, I am old fashioned and decided to land into wind.

- **Size:** The Horse's Head is a fantastic land out field (probably big enough to land a 787, however, it would remain on permanent display, and I would lose my job!). Stewart International, which is where we landed after diverting from JFK was also large enough for our needs. At first glance it looks as though the landing runway is plenty long enough at 11,817', however, the threshold is displaced, and a wide-body airliner aims to land c. 1500' beyond the threshold, so that 11,817' is reduced to 8728' of usable runway. This was still plenty given the strong wind and our light weight (having burnt most of our fuel).
- **Slope:** Both choices are fairly flat. If necessary, consideration should be given to landing uphill in a glider, even accepting a tail wind to do so. Some airport runways have noticeable topographical features. Manchester's 23R has a large bump at the touchdown point that has resulted in a few firm arrivals (just sayin'). Just in case you are ever tempted to land at Ulaanbaatar's old airport (ZMUB), the slope is outside the limits for most wide-bodied airliners,

resulting in a much-reduced usable runway length.

- **Surface:** Horse's Head is grass, perfect for gliders. Stewart on that day was damp tarmac. Airports will, when necessary, report the condition of the runway, which affects the braking action. An icy runway reduces the crosswind limit to 15kts and increases the stopping distance markedly – best to stay in the hotel. There are emergency diversion airports in very remote areas that have gravel runways. A diversion to one of these is a very serious affair (only to be used when there is no other choice, i.e., an uncontrollable fire).
- **Obstructions:** None landing north into Horse's Head. It is the obstructions on the approach to Stewart that result in the displaced thresholds.

Just in case you were wondering – we spent four hours on the ground at Stewart before we could continue to JFK. I went straight to bed when we eventually arrived at the hotel. The FO and a lot of the crew went carousing, however, we met up for breakfast and talked *cojones*. My wife joined me unexpectedly at the Mynd with a picnic (after a couple of kind souls recovered me), so I was released from the dinner obligation and stayed at the club to enjoy a steak. We talked *cojones*.

AN INTRODUCTION TO RATED GLIDING COMPETITIONS

by JULIAN FACK



“Competitions are one way of enjoying lots of cross country flying without having to work for it. In exchange for a small fee the organizer will take care of everything you need”

This article is about rated competitions, such as Regionals. 'Rated' means your personal results will be used to give you a rating (top 300 UK pilots) which can be used to qualify for competitions at National level, all of which will be completely irrelevant to most pilots. Regional level competitions accept all pilots with a Silver and any glider and typically have a large entry and are usually very well run. Below rated comps in the pecking order we have Inter Club League (Rockpolishers, etc.) and Club Task weeks, as well as other very well supported non-rated comps such as Enterprise (running at the Mynd in July this year). These aim for the longest possible flights with interesting goals (such as 'go to the

seaside' or 'photograph as many castles' as you can) rather than racing. Others include the UKMSC held in Aboyne in September, which is about mountain soaring and wave tasks, and comprises a height gain competition as well as a cross country element, and the Pocklington Two-Seater Comp in late August.

Competitions are one way of enjoying lots of cross country flying without having to work for it. In exchange for a small fee the organizer will take care of everything you need, for example Met, NOTAMS, task planning, launch queue, scoring, launch time, launch method, relights if needed, and even coordinating retrieves, so all you have to do is

put your glider on-line and fly when asked.

The first thing to understand is that all comps below National level are handicapped, which means that you do not need a high-performance glider, the handicaps are carefully calculated to even out the differences. For example, we may have a K6CR (76 handicap) competing against a JS1-21 (118 handicap). In crude terms this means the JS1 pilot must fly 55% faster than the K6 pilot, although the actual calculations are rather more involved than that. Another way to look at it is the K6 pilot can take almost two hours to complete a task which takes the JS1 pilot an hour and a quarter, and still score the same points.

With a few exceptions, comps consist of racing against the clock around a more-or-less fixed course but what does 'more-or-less' mean? There are a number of variations, all designed to get as close as possible to that elusive 'level playing field'.

The easiest variation to understand is the so called 'racing task' where the competitors all complete the same course, which is defined by BGA listed turn points: Mynd (MYN), Bishops Castle (BCS), Craven Arms (CVN) or Ludlow (LUD), are nearby examples. The simplest task will be an out and return, where a single turn point is defined, for example Newport Pagnell (NPT), which is a 305km task from MYN and back; or a triangle, for instance Nympsfield (NYM) - Bidford Gliding Club (BID), a 236km task from MYN.

Note that in competition you are not required to actually fly round the turn points, you only have to get a single logged point in a 1km diameter circle centred on the point so obviously you have to get a bit closer than 1/2km to the point. This is a safety feature so that gliders do not all converge on the same point. For the same reason, the start line can be a 10km line with the start point (e.g., MYN) at its centre, and the finish can be a 5km circle centred on the finish point, often with a minimum height restriction. Because of these

variations you may not actually fly the stated distance on a racing task. This can be awkward if you successfully complete a 300km race and try to claim a Gold Distance, only to find your actual distance is 298km.

Getting popular now is the so called 'Variable Barrel' task, more properly defined as a Distance Handicapped Task, neatly summed up by Andy Holmes as 'we handicap the task not the results'. This works by defining the turn point circles in terms of the glider not the task, so the highest handicapped glider (for example a JS1-21, 118 handicap) will use the standard 1/2km radius as for a racing task, but the K6CR might have a 20k radius at the turn points (depending on the size of the task). So, for the NYM - BID task mentioned above, taking the barrels into account, the JS1 would fly the 236km minus 2km = 234, and the K6 might fly roughly 160km. The advantage of this sort of task is all the fleet compete at the same time and more or less in the same weather, unlike the racing task were, given the same

level of skill, the JS1 will arrive back long before the K6, who might run out of soaring time. The disadvantage is the organisers have much more work to do in calculating the correct barrel size for every glider (and every task) in the comp, but for the competitors it is a breeze, and the scoring is simply based on time taken.

Another type of task, which is a bit tricky to understand and to fly is the so-called Area Task, where large areas (circles or quadrants of circles) are designated round some turn points, and you score by getting a logged point in each circle. The task is time designated, so for instance it might be a 2.5-hour task. Scoring is based purely on speed, which will usually be handicapped. The clever bit is the pilot must decide how far to penetrate the zones, it being possible to do say a 100km task or a 300km task using the same course. If you get back before the designated time you are scored as if you took the 2.5 hours designated, so if you completed the minimum 100km task taking two hours you would be scored at

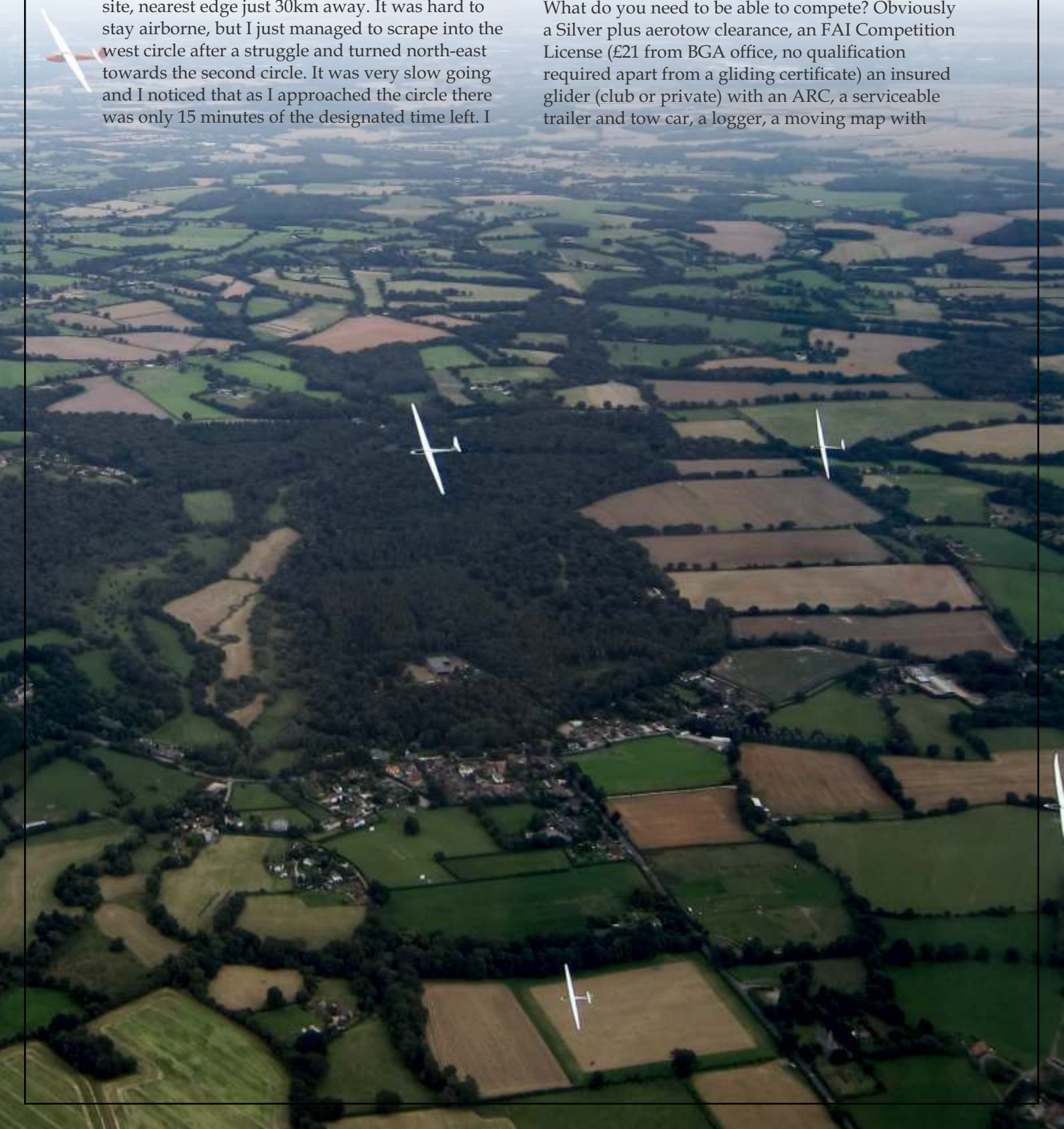


40kph, not 50. If you take more than the 2.5 hours you will be scored on your actual speed, so if you take 6 hours to complete the biggest possible distance of 300km, you would be scored at 50kph. It is quite challenging to compute the best way to fly the task whilst in the air! Do not worry if you find the explanation complicated, ask a comp pilot!

One example where I got an area task wrong was in Aboyne on a difficult day. There was a huge circle due west of the site, the nearest edge being only about 40km away, and another due North of the site, nearest edge just 30km away. It was hard to stay airborne, but I just managed to scrape into the west circle after a struggle and turned north-east towards the second circle. It was very slow going and I noticed that as I approached the circle there was only 15 minutes of the designated time left. I

climbed high enough for a final glide back to Aboyne, and would have made it, doing the minimum distance possible in the minimum time allowed. Alasdair Lewis in the back had other ideas and persuaded me to go on towards some nice-looking clouds, which proved to be poor, and we really struggled to get back at all, after several low saves out over the tiger country in the Highlands. We scored badly, and I was not happy when I calculated that the straight glide-in tactic would have won the day.

What do you need to be able to compete? Obviously a Silver plus aerotow clearance, an FAI Competition License (£21 from BGA office, no qualification required apart from a gliding certificate) an insured glider (club or private) with an ARC, a serviceable trailer and tow car, a logger, a moving map with





current airspace and turn point files installed, a current paper chart, crew who can drive the car and help rig the glider, some form of accommodation (tents or caravans are popular), money for food and drink, and enough time off for a nine day competition. FLARM is not usually a requirement but is highly desirable, not only for collision warning (you will be flying close to many more gliders than usual), but also so those on the ground can track your progress, which provides lots of interest during the day. Because of the 'held' starts, if you are at the front of the grid, you might be in the air for a very long time, maybe up to six hours if a long task is set, therefore some form of bladder relief is likely to be required. Most comps start on Saturday and finish on the following Sunday, which might with luck give 5 days tasking, but anything between zero and nine task days is possible.

So, what exactly happens at a comp? You sign in on Friday evening, or early Saturday, then attend a comprehensive morning briefing each day, where the weather and task including all the possible weather and airspace problems will be presented, along with written task sheets for each glider, as well as the results and awards for the previous day. You usually rig before briefing, as

announced by text or email, and line up on the grid, the grid order will be given to you, and it changes each day. After briefing you will have time to programme your navigation system and mark



up your chart, then be ready to launch at the time announced. Often the launch will be delayed depending on the weather, but the actual launch will often take nearly an hour for the whole fleet. You don't have to take your designated launch slot; you can pull out of the grid and wait at the back if you prefer.

Those at the front will need to soar locally for around an hour plus 15 minutes (to allow the last glider to launch and time to reach cloud base) before the start line opens. The line will be long (10km is typical) and at a right angle to the outgoing track to the first turn

point, but you must cross it (after it opens) to register a start. You must not land out off airfield (or Turbo back if you have an engine) before the start line opens or your day will be over, but you can land back as often as you like (or can afford!). On the same subject you cannot land out on task and quickly trailer back for a re-light. This used to be a fine sport (known as trailer racing) in the olden days but was banned a long time ago.

The fleet will be strung out along the course, some choose to start straight away, others play a waiting game, and some really canny ones make a start and then return for a second one later on. This is allowable under the rules, but you must announce your start time on the radio (within 30 minutes of crossing the line) and the same goes for any restarts. It is useful to have a few gliders ahead

to help mark out thermals. As you finish the task you must announce your arrival in stages by radio to inform others where you are on the glideslope. Generally, a straight in landing with no circuit is preferred as the safer option, which can be quite exciting when there are lots of gliders around you. Taxying is frowned on as you don't know who is right behind you and exactly where they are, so landing very long is much preferred. After parking the glider you immediately get your log trace to the scorer (by email generally) and retire to the bar, hopefully tired but elated. Then you do it all again the next day.



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