



November 2009 Newsletter

Startup - James Mason

As mentioned previously there is certainly quite a bit of diversity in the club, last month we had experiences on flying a Fw190 replica and this month Duncan Barlow has been dog fighting over the countryside around Kemble. I know that Duncan had been planning this trip for a long time but had been weathered out on numerous occasions. However patience pays off and it sounds as if Duncan had a great time from his report below!

I am also indebted to John Akerman for more of his airfield reports, John is definitely our most prolific contributor this year and I know that there are flyers inside and outside the club who have been interested in John's destinations. I have collected together several of John's recent contributions since he has been flying more frequently than I have been publishing!

'How do you make a small fortune in aviation?...start off with a large one', an old saying but one that rang true for me, and other club members, recently when the flying organisation of which we were members went into administration. That day I had agreed to fly the aeroplane to the maintenance organisation, on turning up at the airfield, I just found the tie downs where the aeroplane should have been. I know that a few of us have suffered from this over the years and flying does truly have its ups and downs. On a more positive note, I recently did a renewal flight with Dave Sawdon (see September newsletter) so hopefully will be back when my flying funds have recovered. I also would like to thank Dave for his crosswind article in this newsletter.

Happy and safe flying.

James S Mason
Email: jsbmason@yahoo.co.uk



Guns, Guns, Guns. (Duncan 'Top Gun' Barlow)

There I was, in a clear sky with the red and white aircraft 100 yards ahead in the centre of my windscreen screaming, "Guns, Guns, Guns" over the RT. The next thing that happened was a stream of smoke poured from my victim, another kill to my list.



I have always been a frustrated fighter pilot, which was made worse by being an RAF air traffic controller listening into the RT while our F3s mixed it with F15s and the like. Well I guess I got as close as I ever will to the feeling they have when I went flying with Ultimate High at Kemble. This was my Christmas present from Nikki last year, I am always difficult to buy for but she outdid herself when she bought me the ultimate top gun experience.

It took me 5 aborted attempts to use my present, but persistence prevailed and although it was 10 months after receiving the gift I went flying; the following is my version of events leading up to the day.

I was booked in for Saturday October the 3rd, it was my week with GBHXC, so I was all planned to fly to Kemble. If you can remember, the weekdays before Saturday the 3rd were glorious a real Indian summer. Part of the brief is to check in on the day before your flight to confirm the weather was going to be good. 2PM on the Friday and I get a call from Martine at Ultimate High, sorry Duncan the forecast is not good so we need to rebook; the 17th was available so I took that option.

A bit of week swapping and G-XK was available for me to use, would it be 6th time lucky. As I planned for the flight I found out that Thruxton was racing so I would have to drive to Kemble; the omens were just not good. However, on the Friday I spoke to Martine and she said all looks well

see you tomorrow; it would be on when I could not fly there. The drive to Kemble took about 1.5 hours and I arrived in good time; this meant I was going to be in the first sortie. By now I was getting excited as the Extra 300s were parked out on the grass waiting to go.

We were kitted out in flying suits and I got the name badge of 'Screwball' (possibly quite apt). There followed a short briefing about what was going to happen, formation take-off fly out and do some basic aeros before one on one. We were also told how to lead and lag our opponent so we could close or move further away as required. As you might expect safety was paramount and we were given clear instructions on what to do in specific circumstances. During the brief I found out that my opponent had never flown in a light aircraft before; that will help me shoot the buggger down I thought. Finally, we were asked if we wanted to purchase a DVD of our flight and we both said yes immediately. Although not cheap at £45 you don't get this opportunity very often.

My instructor was Bill, ex RAF and current airlines captain. Bill was great company talking me through everything he was doing as we got strapped into a parachute and then into the Extra. As we started the engine and taxied out I found out he arrived at RAF Leeming to fly F3s on 11 Squadron just as I left for West Drayton. He also let slip that he regularly flies a Spitfire out of Filton. Eventually, we were lined up in echelon port on the runway; I could see the instructors hand signals in the other Extra. A pat on his head was the signal to go and both aircraft leapt forward in unison. The acceleration was strong but not quite as I expected it might be, but we were airborne quickly with Bill positioning us very close to the lead aircraft. As we climbed out I asked what references he was using and he manoeuvred forward and back to show me. Every now and again he would say I am just going to do some engine adjustments and move further away first. We seemed very close at times and Bill said this was about the distance the Red Arrows use.



As we climbed I could just make out the Severn estuary so I knew we were heading west, but the only gauge I had in front of me was an ASI. As we progressed to our combat area we flew over Prince Charles's pad, but there were so many big estates it could have been anyone of them. We now were shown some basic aerobatic moves, a wing over followed by a flick roll followed by a loop and so on. Before I knew it I was in control and getting used to the controls; we were not in formation at that time. We spent a couple of minutes doing our own thing before it was time to commence battle.

We knew roughly where the other Extra would be so we turned towards them, we could not see them and they could not see us so the other Extra went smoke on for a second. That was all we needed to spot them and we went head on, Bill had the controls to turn us hard and end up a couple of hundred yards behind the lead aircraft. "You have control" he said and I responded "I have control" and the battle began. The lead aircraft was being flown by the other instructor, he started turning remaining fairly level initially and I was on him all the time. His manoeuvres got more aggressive doing wing overs and loops that made things somewhat more challenging. All of the time I was trying to keep him in the central zone of my windscreen, to get closer I positioned him lower towards the coaming and vice versa.

I was concentrating hard and starting to feel the effects of the aeros, which meant on one occasion I lost sight of him while we were upside down after he rolled out of a loop. Immediately Bill took control, ensured we remained clear and then we were back to war. The way we closed on him and then lost ground was a bit like you see in car racing, catching up in the corners and then losing ground accelerating out. I would catch him as he pulled up and then he would accelerate away out of the loop. All the time Bill was saying watch what he does and then count two before doing the same. Time flew by and I am sure the video when it arrives will have pictures of me grinning like a fool whilst I was shouting guns.

It was now time for us to become the target, but over the radio the request to keep it gentle was heard. That was a slight relief as a slight queasy feeling was coming over me; my opponent obviously felt the same. We flew away from the area we had been in so as not to continue to annoy the neighbours in one place. Bill found a nice gap in the clouds and then headed for them; we flew through the gaps doing gentle turns as we brushed the tops. This was almost as much fun as flying the tail chase, like a rollercoaster ride on the clouds.



Eventually we started to make our way back to Kemble, Bill checked that the other crew were OK to do a run in formation loop and then break to land. We dived at the runway speed at 200MPH before pulling hard back, as we approached the top of the loop I looked back to spot the ground before the onset of the 'G' force, just as we rounded out through the smoke trail we went hard left. We were now downwind in a tight circuit with a short leg onto a curving finals before touching down and ending the flight.

It was such a long wait for this Christmas present but absolutely worth it. Good news if you are interested is the price has come down slightly, but it is still close to £500 for 45 minutes of flying. If you mention it to someone special you never know they may surprise you. If they do I hope you enjoy it as much as I did, Screwball over and out.

Odd Airfields (Parts 3-6) - John Akerman

Perranporth

Perranporth is just down the coast from Newquay. The approach to 09 over the cliffs must be one of the most dramatic in England. Last time I was there it was extremely quiet. Now it seems to be full of home-based aircraft and has an excellent little café on the ground floor of the tower. It's just a 10 min walk round the old western taxiway to the cliffs where there is a good path and superb views. On the way you can visit some of the WW2 fighter pens that have unusual air raid shelters built into the revetments.



The photo, on base for 09, is rubbish but it was into sun and it was blowing 20G30 at the time.

Halfpenny Green

In case you have not visited, it is just to the west of Wolverhampton. Fortunately once you are on the ground you can't see any sign of Wolverhampton. It is a really smashing airfield – three good tarmac runways, good and plentiful taxiways, and many of the original WW2 buildings have been retained and are still in use. It has a new manager (Alastair, ex-Goodwood and Lasham) and he is determined to make it a friendly place for GA. He is certainly succeeding. And all that nonsense about it becoming Wolverhampton Business Airport with runway extension and ILS, etc is now gone for good. However Alastair does now have a nice complete and unused ILS for sale. The café on the first floor of the tower is open 7 days a week. Highly recommended.



Another iffy photo, but it was taken into sun, through the windscreen (without catching a prop blade, fortunately) and at quite a distance.

Walton Wood



It's about 15 miles SSW of Sherburn-in-Elmet. Although marked on the half mil with an H in a blue circle, in fact it has 650M of nice smooth grass with a slight dip just after the 24 threshold. We flew in there a few days ago. Having dropped into Tatenhill for fuel and to meet up with friends in a Europa, we all headed north for some aerial photography at half a dozen sites in the lower Peak District before heading NE for Walton Wood (it being the most convenient airfield for RV co-owner Barry to visit a nearby purveyor of exotic bicycles). The Walton Wood operator and helicopter maintenance outfit manager was extremely helpful and friendly. He arranged a taxi for us and supplied coffee and interesting chat while we waited. Highly recommended as a low-cost alternative to Doncaster Sheffield Robin Hood Finningley International, but do please phone for PPR (details in the AFE Flight Guide). In the photo the helicopter is hovering over the taxiway, at the end of which a left turn puts you on the 24 threshold.

Great Massingham

Blenheims, Beaufighters, Bostons and Mosquitos operated from this Norfolk airfield during WW2. Originally an all-grass satellite to West Raynham, concrete surfaces were laid in late 1943 and most, including about 90% of the peri track, are still there. The concrete is in very good condition considering its age. Although slightly bumpy in places there is no loose gravel, and with 3 good runways wind direction isn't an issue. This was just as well since the day we flew in it was 20KT

gusting 30. There is nothing there bar a WW2 hangar and a tiny corrugated iron caravan with a big C on it. However the pretty village right next door to the airfield has a pub, a restaurant and a shop. About 4 miles north is splendid Houghton Hall, 18th century home of Sir Robert Walpole. And 4 miles south is Castle Acre Priory, one of the biggest and best-preserved monastic sites in the UK. Actually it is more of a fortified monastic settlement than the word 'priory' suggests. Great Massingham is strictly PPR, a landing donation of £8 is requested, and it is important to work Marham both in- and outbound due to fast jet traffic.



Shenington

This very friendly glider site is attractively located about 8 miles NW of Banbury, on the western end of Edge Hill. As RAF Edgehill, during WW2 it was primarily a Wellington base but is perhaps best-known for hosting the early flights of the first two British jets, the Gloster E28/39s. There are plenty of old WW2 buildings on the west side, including the unusual but very dilapidated control tower. There are 3 unmarked but easily-identifiable runways on grass and tarmac. However you can land almost anywhere on the substantial grass triangle in the middle. No landing fee but donations welcome. A thorough briefing is absolutely essential, via both website (see www.shenington-gliding.co.uk/ Members Area, Power Ops) and phone, since they operate SLMGs, aerotows and winch launches with variable circuits. If you have never flown in a glider, why not book a flight? In my view it is an exceptionally instructive and useful experience.



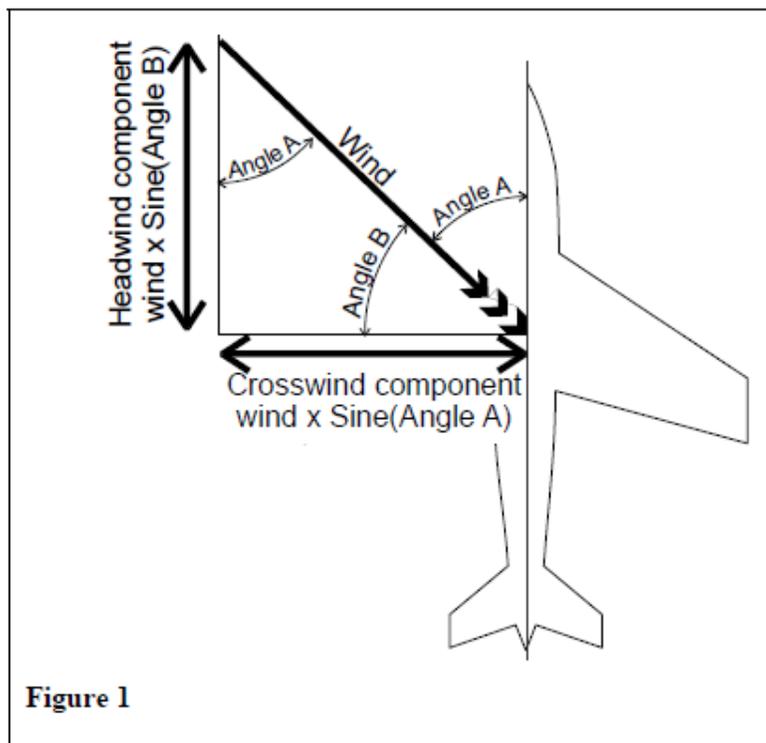
Crosswind Calculations Made Easy - Dave Sawdon

I presume you are reading this in a comfortable arm chair, or on a train, or maybe even in a flying school with the rain pounding on the windows. Possibly there's a favourite tipple in one hand and some gentle music in the air. Under these conditions, if I asked you to do some mental sums (and you were aged over 25), it would probably take you less than five seconds to work out "2/3 of 25". But now imagine the situation when you are at the holding point for runway 24: you call "ready for departure" and the tower replies with "cleared take-off; wind 280, 25 knots". What's the crosswind component? What's the headwind component if the performance is a bit tight? – is it the same as you used in your performance calculations? Not as easy as when you were on the train, is it? Or maybe you are at the end of a long flight, typically slightly longer than the comfortable endurance of your bladder. You are flying an approach which is a bit more turbulent than part of your anatomy would prefer when, at five hundred feet, you call "final" for runway 35 and the tower replies "cleared to land; wind 030, 25 knots". What is the crosswind component? Would you agree that it would not be as easy now as in your armchair?

Let's be honest with each other. Do you actually calculate the crosswind component every time you are told the wind strength and direction after a call of "ready for departure" or "final"? Do you always think about the wind direction and make an appropriate aileron input? Honestly? During my time as an instructor and examiner it has been VERY rare that a pilot has volunteered the crosswind or headwind components on an approach or before take-off. If I ask them, the answer is usually (with some honourable exceptions, e.g. the CF!!) "errr" followed by a semi-random number.

Frequently they don't even know whether the wind will be from the left or the right without looking at the windsock!

It's an unfortunate aspect of aviation that we all lose a significant proportion of our intellectual capacity when we have an aircraft strapped to our back. I can not tell you why it happens but I can show you a way around the problem when it comes to crosswinds and headwinds. The purpose of this article is to present a simple method which will allow you to assess the crosswind and headwind components with as much accuracy as you like, without any sums, without any gadgets, in less than 5 seconds, and whilst flying an aeroplane.



We will start by going back to basic geometry – but, if that idea doesn't appeal, you could just skip to the description of the method. **Error! Reference source not found.** shows an aircraft lined-up on runway 36 and a wind arrow from approximately 310°. We can see from the drawing that the crosswind component is simply the wind speed multiplied by the sine of the angle between the nose of the aircraft and the wind direction (called the relative wind angle). We can also see how the headwind component could be calculated, either as the wind speed multiplied by the cosine of the relative wind angle, or as the wind speed multiplied by the sine of the angle between the beam of the aircraft and the wind direction.

People don't usually like to memorise sine tables so students are traditionally taught the "rule of sixths", or the "clock face" rule, for crosswind assessment and nothing at all (except the wiz wheel) for the head or tail wind.

The "rule of sixths" makes use of the happy coincidence that the sine of 10 degrees is very close to $1/6^{\text{th}}$, sine 20 degrees is very close to $2/6^{\text{ths}}$ and so on. Table 1 shows the full story. This method

Relative Wind angle	Rule of sixths	Sine of wind angle	Error
10°	1/6	0.17	1%
20°	2/6	0.34	1%
30°	3/6	0.50	0%
40°	4/6	0.64	-2%
50°	5/6	0.77	-7%
60°	6/6	0.87	13%
70°	6/6	0.94	6%
80°	6/6	0.98	2%
90°	6/6	1.00	0%

is a fairly accurate approximation for most relative wind angles but we can see that there is a significant error at 60 degrees. Because of this some pilots modify the rule for 60 degrees and use 0.9 rather than $6/6^{\text{ths}}$, in order to get the error down from 13% to 3%.

To use this "rule" you first determine the relative wind angle, and then multiply the reported wind strength by the appropriate fraction. So, if the reported wind is 350/25 and you are using runway 03:

the wind angle is 40 degrees

40 degrees gives $4/6^{\text{ths}}$

the crosswind component is therefore $4/6^{\text{ths}}$ of 25: 17kts'ish.

If a second table were produced, with the wind angle column turned upside down, this same method could be used to calculate the head/tail wind component.

So why don't people use it in practise?

All we have to do, at 500 feet on a bumpy day, having drunk too much coffee three hours ago, with someone in the back asking why something-or-other is happening and with ATC talking on the radio, is work out the wind angle and then multiply the wind speed by the appropriate fraction! The honest truth is that the sums are too complicated for many people to perform whilst flying an aeroplane. It's no surprise that most pilots don't bother to calculate the crosswind and that even some multi-crew aircraft have reportedly come to grief, partially because they were outside limits and didn't realise it.

What we need is a simple technique for accurately estimating the crosswind component; a technique which requires virtually NO brain power for those days when the remaining brain cell has had enough. Something visual and easy that doesn't require sums or a gadget; here it is.

In virtually every aircraft there is a Direction Indicator that looks vaguely like the one shown in

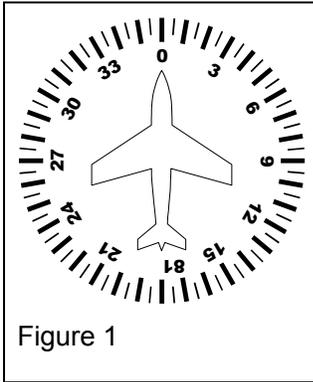


Figure 1

Figure 1 and we can use this as a form of analogue computer (those of you who have an older style ribbon DI need not despair, I'll discuss how you can use the same techniques a little later).

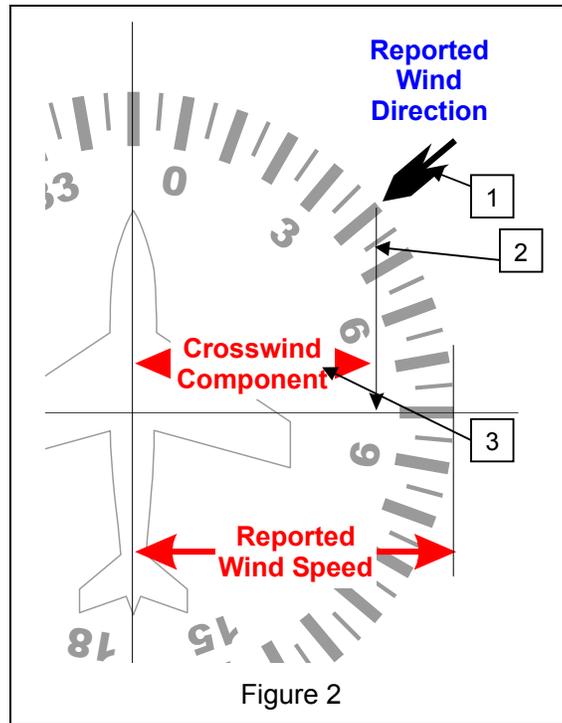
At first reading this may sound complicated but believe me, with a little practise it is VERY easy.

You are going to mentally draw the vector triangle on the face of the DI.

The distance from the centre of the DI to the edge represents the reported wind speed. Once you are lined up on final approach, simply

find the reported wind direction on the outside of the DI scale and mentally drop a vertical line down on to the horizontal centre line. The proportion of the centre line that lies between the vertical line and the centre line is the proportion of the wind speed that is at right angles to your direction; in other words, the crosswind.

Let's look at that more slowly.



Look at Figure 2. You are either lined-up for take off, or on final approach, for runway 35 and the wind is reported as 040/25. Imagine the DI being a picture of the horizontal situation, drawn with a radius that represents the wind strength in some scale or other. In other words, if the wind is 25 knots the radius of the DI represents 25 knots.

The first step is to find the reported wind direction on the outside of the DI (shown as a large black arrow). You now have the first piece of information; the wind is from the right.

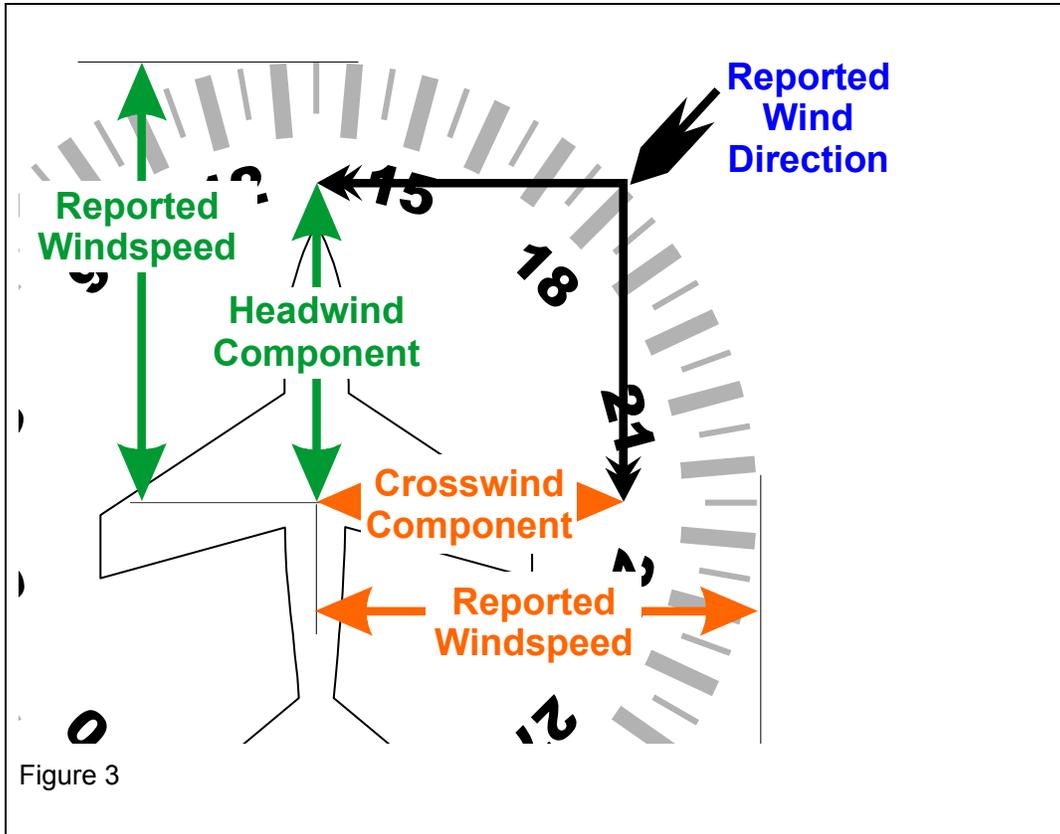
Next, mentally drop a vertical line down from the wind direction on the outside of the DI to the horizontal centre line.

The horizontal centre line represents the crosswind axis so visually scale-off the crosswind component as a proportion of the length of the crosswind axis, i.e. the wind speed. In Figure 2 it looks like the crosswind component is just less than 20 knots (mathematically the answer is 19 knots).

With a little bit of practise this is fast, and as accurate as you choose to make it. It also inherently wakes you up to whether the wind is from your left or your right – it's written on the face of the DI.

Once you are comfortable with the technique it can be used to estimate the head or tail wind component in addition to the crosswind.

Look at Figure 3. You are lined up for departure, or on final approach, or simply want to know the wind components on heading 135.



The wind is reported as 180/30; what are the headwind and crosswind components?

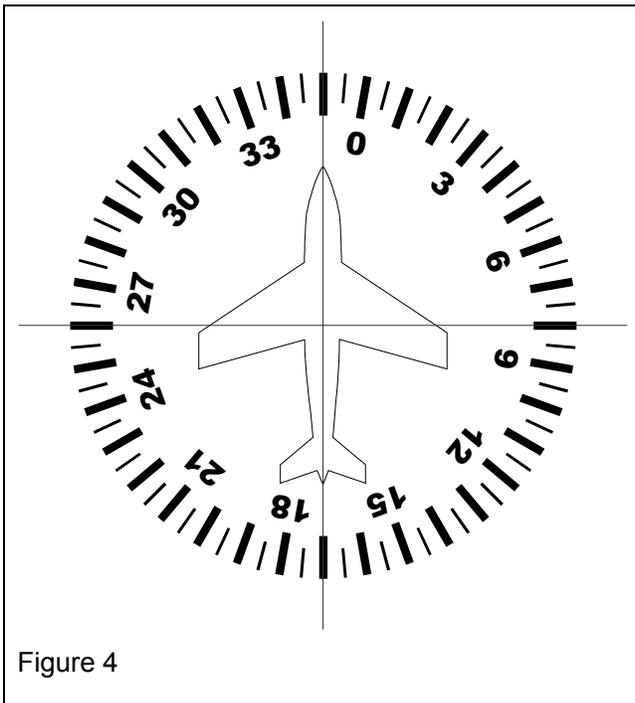
You already know how to assess the crosswind component; close to 20 knots. We can use the same technique to assess the headwind component. Just project a horizontal line from the wind direction on the outside of the DI to the vertical centre line (which represents the head or tailwind axis) and visually scale-off the headwind component as a proportion of the length of the headwind axis, i.e. the wind speed. In Figure 2 it looks like the headwind component is about 22 knots (mathematically the answer is 21 knots).

What could be easier?

But what, you might say, if you aren't lined-up with the runway and want to know the crosswind and head/tailwind components? Maybe you are at the holding point, at dispersal or approaching the airfield. There are two solutions; one is simply to rotate the DI so that the runway heading is at

the top, but a better answer is to use the ADF or VOR indicators in exactly the same way as described for the DI. This is also the answer for those with a ribbon DI: use one of the other compass roses in the cockpit.

Possibly you're flying a very basic aircraft with a ribbon DI and nothing else ... if you stick or draw a compass rose on your knee board you can still use the method. In fact, with a compass rose of any type, regardless of whether you are in the bath or the aeroplane, you are now able to accurately estimate wind components without doing sums. Isn't that a relief?



Going back to that bumpy approach with an uncomfortable bladder ...

Figure 4 shows the DI during the approach (wing down technique, of course); the wind is 030/25.

Estimate the crosswind component; is it inside the demonstrated crosswind capability of your aircraft?

Pave Sawthorne Spotted – Jon Butts



I snatched this picture of the first occasion in twenty years prominent IBMFC members Paul Eathorne and Dave Sawdon have ever both been at the same function, leading to much speculation about alternate identities.

Despite use of a good quality camera you can see the image of Dave Sawdon retains a shadowy/ghostly quality, so this brave and supernatural attempt to project both physical presences concurrently can only be regarded a partially convincing... :-)



Here is some feedback from club members, if you have any comments then drop me a line and I'll include in subsequent newsletters:

ATC Visit



ATC visit

Dave Sawdon to: James Mason

Default custom expiration date: 12/10/2010

12/10/2009 14:32

James,

I went on an ATC tour yesterday at Bournemouth - it was very useful and informative. I've got a contact now in ATC who would be happy to host further visits so please could you put a note in the newsletter to ask people if they would be interested in a 1 hour tour at some time in the next couple of months.

Regards,
Dave Sawdon

Lee Flying Association

Lee on Solent news at events at:

http://www.eghf.co.uk/index.php?option=com_content&view=category&id=38&Itemid=76

from Jon Butts

Comments on September Newsletter

James,

It's an interesting newsletter this time; here are a couple of comments that you might want to add to the next one:

Tailwheel flying.

From James' article it seems like the Moth day was well received by those that went. If anyone got a taste for tailwheel flying and fancies having a go in a much nicer handling aircraft than the Moth (but which also has it's third wheel at the back) give me a call and I'll set-up some sessions in the Cap10c at Old Sarum. You could even combine your 1 hour dual training flight with a bit of tailwheel and upset recovery training. I can guarantee that most people will not have flown an aircraft that is such a delight to fly as the Cap.

La Ferte Alais.

Another good write-up by James, but he's forgotten that the IBMFC flew there in the late 80s, it was organised by John Southerst. We flew to a small airfield a few miles away from La F.A. and stayed in a bar for two nights. I have vague memories of someone stopping work on a Harvard to run me from the airfield I had landed at to the village where we were staying - a very beaten-up Renault and a very scary journey. Does anyone fancy flying there next year?

Dave Sawdon

AN-2 Talk

Captain Bill (Ten Bars!) Leary will be giving his talk on operating the Popham based AN-2 (HAMKF) on Wednesday 4th November 2009 in Romsey. We are all invited. Please let me know if you wish to attend so we can give then an idea of extra numbers.

The details are:

South Hants Historical Aviation Society
Working Men`s Conservative Club (First floor)
Market Place
Romsey
Hant`s
SO51 8NA

(01794 514420)

If you could be there at approx. 7.30PM for a start about 7.45 to 8.00 that would be great. We would hope to have somebody at the door to welcome you.

Reply directly to me by Email crt@alternateair.co.uk please

Thanks, Chris Thompson

Forthcoming Events

Club AGM

Friday 29th January 2010

7pm start Osman Room, Hursley Clubhouse