

Wind in the Wires

Magazine of the Cambridge Flying Group

June 2008



Vintage Wings of Canada

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Editorial

On looking at the Hours Flown one might get the impression that we are heading for disaster but Bill assures me that May was a good month and the next time the graphs appear they will be looking a lot healthier. However, recent times have seen a lot of expenses associated with the rebuild of EI, and income from flying has been down, partly because of bad weather and partly because of the lack of one aeroplane. We certainly do need to start building up our cash reserves again. For this reason we are appealing to our members to take part in the various flying activities detailed in the

Diary Dates. The Lobster Run, Vintage Air Tour and Tour de France are all great fun and not only that they can help with the vital cash flow. So there we are, that is the simple message of this Editorial.

Ed

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Diary Dates

3-5 July CFG Lobster Run. Contact Mike Webster Janiceanmike@aol.com
21-25 July Flying Week
15-16 Aug DH Moth Club Vintage Air Tour.
 Both CFG aircraft to participate. Likely to be airfields in North Eastern
 England and Midlands. Contact Mike Webster Janiceanmike@aol.com
1-5 Sep CFG Tour de France - See Ian Oliver ioliver@nimr.mrc.ac.uk
15-19 Sep Flying Week

Group News

Vintage Air Tour

Members' attention is drawn to this item in Diary Dates and it can be thoroughly recommended as great fun. It also provides excellent experience at flying in conditions far removed from the local area. Please do think about taking part and make early contact with Mike W.

Rebuild of EI

The latest word on this long saga can be found in our CFI's Notes. We will get there in the end and have the best Tiger Moth on the U.K. Register.

CFI's Notes

Unfortunately, with effect from 30 May 2008 IZ will be out of action for its annual service. This will take X days, depending on what is required to bring it back on line. AOEI is unlikely to be with us until mid June at the earliest and will require a weighing and flight test once rigged. Flying members are therefore asked to bear with us until we have something to fly – although the Fuji is available for some basic instrument training should one so desire. AOEI has proved to be a long job, mostly due to the radio installation involving new

radios and transponder. The radios are of the latest type. We can only hope that they prove easily perceptible and 100% better than the existing sets. The aircraft itself is without doubt going to be the best on the register. For handling who can tell in the CFG? It cannot be over-emphasised that such valuable assets as aeroplanes over 60 years of age and doing they job they do should receive as much TLC as possible. I am told on many occasions that I am fussy about oil and cleanliness. So be it. As the saying goes “you pays yer money and takes

yer choice". Our machines get a lot of publicity. They must be kept up to a high

standard. Instructors must see that students appreciate this.

BILL ISON, CFI

Range and Endurance

I have listened to a lot of discussion within the Flying Group on the above subject and have therefore decided, if possible, to ease the mystery which some members are making on this subject.

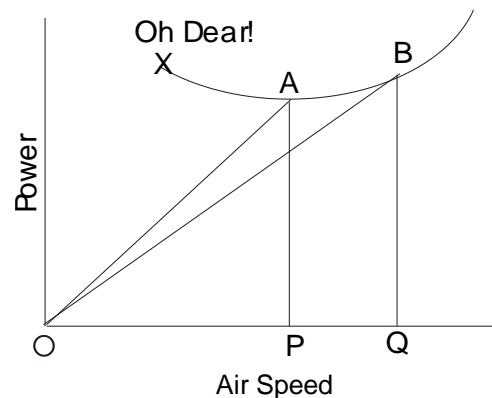
In both cases it is obviously a case of how much fuel is carried – and it's a rate of consumption. A lot of fuel and you are able to go a long way or are able to stay in the air longer. In general the manufacturer builds an aeroplane so that when flying level at its best lift/drag ratio it is at a reasonably economical speed ideal for range. If one thinks about this it should be obvious – e.g. at a lower speed and perhaps more lift due to angle of attack (and therefore more drag) the airspeed will be lower. A higher speed means more drag because drag will increase with the square of the speed – e.g double the speed means 4 times the drag. Let us look at the drag curve. At the very back of the curve the speed is very low, on the stalling point. To maintain height at such a low speed full throttle may be used, and that is uneconomical.

Basically, the whole subject is not so difficult to understand. For maximum range – i.e. for the greatest distance on fuel available – or to use least fuel to cover a distance one must fly at a speed giving the greatest number of miles per gallon. For endurance – remaining in the air as long as possible – the speed should be that which uses the least consumption. These speeds are not the same. The lowest possible speed at which AHIZ will fly is around 40 mph, requiring full throttle to keep it level – not economical. However, at full throttle in level flight it will bowl along at around 100-105 mph if one adjusts attitude. At 75% of this speed it will fly at 60-65 mph using less fuel, whereas at normal cruise 1950/2000 it

will fly at 85 mph and obviously be able to go a long way.

The best solution is to adhere to the figures from the POH (if you have one). For light uncomplicated aircraft fly at best cruise speed for range and fly at 75% of that speed for endurance. You will find this fairly accurate. More complex aircraft have other data to help – e.g c/s airscrews, supercharging and weight. Don't dig too deep, you don't need to. You will find a lot of facts and figures, and most likely forget them as soon as you have read them. See the sketch below.

DRAG CURVE



Reference AP129
Endurance Speed OP
Range Speed OQ

Further back on the drag curve than point A you obviously need a lot of power to keep level at stalling speed!

BILL ISON

Vintage Wings of Canada

In May 2006 **Vintage Wings of Canada**, a private foundation devoted to preserving and operating the largest collection of

airworthy privately owned aircraft in Canada, officially opened its new hangar at Gatineau Airport. The airport is just across

the Ontario-Quebec border close to the Canadian capital city of Ottawa.

Ottawa-based entrepreneur Michael Potter created the foundation in 2005 out of his love of flying, a great affection for civilian and military aircraft and his desire to share this passion. Mike was previously best-known outside of Canada for his owning and operating of Spitfire Mk.XVI SL721 and has over 4,000 hours flying time, a great deal of it in historic types.

Vintage Wings is based in a \$5 million 22,740 square foot hangar. It is so clean you can eat off of the floor. You can do this in a number of airfields of my acquaintance although that is usually the result of the crisps and peanuts and other detritus on the floor! As Mike Webster can testify from his visit there the hangar is always kept in a constantly immaculate condition by the collection's aircraft finisher Anna Regogna. Have you ever seen anyone clean a radial engine with Q Tips before!

A fully equipped maintenance workshop, flight operations centre, offices and a research library are also in the building to support their operation. The Vintage Wings hangar is self-contained on its own apron to enable easy access to Gatineau Airport's 27/09 runway.

Vintage Wings has grown rapidly and is now one of the premier flying collections in the world. The collection currently consists of:

WACO Taperwing, Beech D17S Staggerwing, De Havilland DHC-2 Beaver Floatplane, de Havilland 82C Tiger Moth, de Havilland 83 Fox Moth, North American Harvard Mk.IV, Vickers-Supermarine Spitfire Mk.XVI, North American Mustang Mk.IV, Hawker Hurricane Mk.IV, Vought FG1 Corsair and a North American F86 Sabre.

The foundation also has a number of aeroplanes in various stages of restoration to fly. The Fairey Swordfish is airworthy and will be flying when its Bristol Pegasus returns from its overhaul which is currently taking place in the UK. The Westland Lysander – an aeroplane well-known to Bill *“looking out for cannon-armed Messerschmitts with a Lewis pop gun whilst sitting on a bl**dy fuel tank”* - is also nearly airworthy and it too is having its engine, in

this instance a Bristol Mercury, being overhauled in the UK.

The foundation has a second Hawker Hurricane, a Mk.XII, which is under restoration and due to fly in 2009 and also a rare two-seat dual control Curtiss P40 Kittyhawk which is nearing completion in New Zealand and should be flying in 2008.

The team of pilots at Vintage Wings have all been personally invited to join what is a highly experienced and professional team, in the main of test pilots, operating to very high standards in the air and on the ground. In developing the operation procedures of Vintage Wings, Chief Pilot Tim Leslie looked at a number of historic aircraft operations around the world. The aim was to see what works - and what doesn't - and take the best examples of good practice. This is how I started working with Vintage Wings and in 2006 I was invited to join the team. I am in the very privileged position of being the only non-Canadian Vintage Wings pilot.

Vintage Wings has a couple of aircraft of particular interest to Mothists. Last year a Fox Moth, formerly owned by the Prince of Wales (later King Edward VIII) was acquired from New Zealand.

De Havilland 82C Tiger Moth

Of more interest perhaps to CFG members is the DH82C Tiger Moth. CF-DHQ is marked in the appropriate British Commonwealth Air Training Plan all yellow scheme. Canadian Tiger Moths trained thousands upon thousands of allied aircrew in World War II. Different from our Tigers in that the C has brakes and a tailwheel – and a canopy to cope with training in freezing cold Canadian winters.

I had previously flown a C model in Australia. This had the same open cockpit that we all know and love at the CFG although it had a tailwheel and quite effective toe brakes. The Aussie C still had the same undercarriage as the A which was quite comfortable technique-wise to wheel land wing down in a crosswind on to an asphalt runway.

In the Canadian version, there are no side-doors, and you are exposed from just above the elbows. The most distinctive feature, visually at least, is the canopy. When I first went to Canada to fly in 2006 the groundcrew removed the canopy as it was

very warm. I asked them to put it back on as I wanted to fly a Canadian Tiger and hence the canopy should be on! It is a bit of an encumbrance but it does keep the breeze off you. I have also flown it a number of times with the canopy off. As previously mentioned it is open from the elbows up and has no cockpit hatches. It is nice on a hot day – but sideslip and all the blast comes over the side like a wave! Sideslipping with the canopy on and you can really feel the increased keel area compared to the A model.

Starting the A is by the same good old CFG “Armstrong” method of course but with brakes ON and chocks in if available. Although it is a Tiger the handling is quite different on the ground. The brakes are rudimentary with a Chipmunk-type brake lever on the left side where we are all used to having the trim. Rather than run up on the chocks you can taxi to the hold, Brakes ON and run up there for your checks. Taxiing can require three hands: one for the throttle, one for the stick, and one for the brake handle although I try to stay off it as they do not have much “feel” and can suddenly bite.

The standout for me handling-wise is that the undercarriage is moved 8 inches forward. DHQ also feels “toed-in” somewhat like a Messerschmitt 109 and although having a tenth of the power the potential slewing in a crosswind on the hard runway can be the same – oh and the brakes bind a touch.

The aircraft is far happier on the grass although most of the time when I am flying in Canada at airfields like Rockcliffe and Gatineau that is exactly what you do not have. There are no slats to lock. I presume that the Canadians thought that the massive safety factor of 3mph on the stalling speed with the A model did not warrant the bother of making them.

Take off technique is similar except that with the change in undercarriage geometry it takes longer to get the tail up. Off in no time but mind how the tyres bite if you have a crosswind on the hard runway. Climb at 70mph, cruise at 80mph, 1950 rpm, radio difficult to see (!) Usual CFG numbers – but with a canopy.

I have flown a number of displays in the C this year, mostly in formation with my

Vintage Wings colleague Dave Hadfield in the Fox Moth. The only difference in station keeping is if you try to adjust the trim. This is positioned on the starboard side of the cockpit where our slats are fitted so it can be a bit problematic changing hands to retrim in close formation although it is a simple back and forth motion.

Flying in Canada, particularly in Ottawa, is very different airspace-wise to what we’re used to here. You first phone to book out with Ottawa Terminal (TCA) for a VFR flight code, Squawking Mode C from the moment of taxiing out to take off- may have something to do with three overlapping zones and a Prime Minister living nearby! You can fly through controlled airspace and over the city. The greatest difference is that Vintage Wings operates in Quebec and although English is the International language of aviation try telling the *Quebecois* that! You therefore rely strongly on the Mk.1 eyeball despite squawking.

Rejoining into Gatineau tests the lookout and the listen out. The controllers there are now used to my curved approaches – which helps as I need to do them for the Harvard and Hurri. Approach at 65mph – unless your ASI is under reading considerably as mine has twice – “*sounds a bit quiet!*” - but fortunately there is the paddle-blade-on-a-spring ASI on the left strut which I now use as the primary instrument of airspeed.

Wheel landing is usually the way on to the hard runway. Unlike the Aussie C model which tracks nicely straight wing down into wind the Canadian C toe-in bites just when you don’t need it as do its brakes which come on suddenly. I was happy putting the Aussie C down in 12 knots across – the Canadian, more than 5 on the hard runway and you are in for a very interesting time. When the tail comes down the rudder effectiveness drops to almost zero and if you are not careful with the free-castering tailwheel, and you have a recipe for ground-loops.

So – it’s a Tiger but a very different one and a privilege to fly. But don’t assume anything about the handling if you get the chance to fly one – this Tiger likes to test its teeth!

A Flying Collection

I have flown a couple of other of Vintage Wings fantastic collection of aeroplanes.

My remit is the “Brit types” in the collection although all of us flying fighters fly the Harvard to maintain proficiency and I have made about 20 flights in the VWoC Harvard in 2007. I have also flown what is the world’s only Hurricane Mk.IV – the “Flying Tin Opener” Hurri tankbuster based at Gatineau, my very favourite aeroplane of any that I have flown – but that is another story.

Vintage Wings of Canada is a flying collection rather than a museum and its operation is not set up for casual visits. Tours of the foundation’s magnificent

facility can be arranged via the eminently professional Hangar Manager Carolyn Leslie. If you get a chance to visit, as historic aircraft devotees you will be very welcome.

Vintage Wings of Canada Foundation
La Fondation Des Ailes D’Epoque Du Canada

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HOWARD COOK

A Troopship’s just leaving Bombay...

Bound for old Blighty’s shore
Heavily laden with time expired men
Bound for the land they adore
There’s many an airman who’s finished his time
There’s many a PRAT signing on
They’ll get no promotion
This side of the ocean
So cheer up my lads, bless ‘em all!

So the story goes. This is an abridged version for the benefit of those less familiar with the more earthy parlance of wartime service types.

At the end of 1940, a freezing cold winter not a bit like the nationalised ones of today, I clambered out of an Anson Mark I having been over the North Sea for over 2 hours, and feeling as if my testicles were reduced to the size of peanuts (if I could find them shortly after), having imbibed some very hot sugary tea I learnt that I had been posted “to warmer climes”. My car, an MG and my pride and joy, would not be much good to me so I had to get DVE 414 back to Dad – for how long? Maybe forever. I have no idea where we are going. It certainly won’t be a picnic. Will I survive this war? People are killing each other. Some nasty bastard had already tried to “do me in” over Hunstanton of all places. So Dad must have the car back. No passes allowed. We are leaving in three days. So I went AWOL and took my MG home.

A really wonderful time. Plenty of grub, goodbyes to girlfriends, and seen off at Cambridge Station by a solemn Dad and a

very tearful Mum and sister. I wasn’t overwhelmingly joyful myself. It was goodbye, even Adieu, and snowing like hell. Sit back with a fag for Kings Lynn. The idea was to catch the bus at Lynn for Bircham – good idea but not on this occasion. No buses due to weather. So I found a taxi who offered to get me “as far as I can”, snow having blocked out half the road to Bircham Newton. The driver got me to within 4 miles, so I had to walk the rest, carrying a few “goodies” from home (Xmas overflow) and my gear. After an hour of walking through very wet snow I saw a large milk tanker on its side in a ditch. The driver was waiting for dawn and a towing vehicle to get him. He wasn’t very pleased either. I arrived at the Guard Room soaked to the skin and absolutely knackered. The MP greeted me with “‘Ere, airman, where do you fink yer going’?” I replied that I hoped to get to my billet and bed. He countered this with “Where’s yer pass? What, no pass? You are on a charge!” I remained calm and advised him to go ahead – I would rather be confined to barracks or whatever than endure a posting to foreign climes. He spluttered a bit, but could do nothing about it. So there we are. A fling of defiance in the face of military ignorance! I went to bed in the barrack room for the last time at Bircham.

Next day a roll call and buses to Kings Lynn. It is snowing and windy and not warm in the train. After hours of travel and various changes we arrived at St Athan in Wales. This was a collection centre for

RAF people prior to overseas posting, and a dismal hole if ever there was. I learned that we were not leaving for three days, so walked out of camp (AWOL again) and caught a train to Bristol and then London in order to see a girlfriend. I was developing a rather laissez faire attitude to life and trying to enjoy what I thought could be a one way trip!

I headed back to Wales a day later and luckily had not been missed. We were herded onto trains for Liverpool. It was sleet, snow, cold and very wet as we stood in our greatcoats on the dockside at Liverpool, nowhere to go until we were told to board ship. This contrivance appeared to be a reddish brown with occasional black and white colouring, but the red proved to be rust. A horrible decaying hulk with doubtful floating ability crewed by a gang of Lascars and of Belgian origin. The captain, a bearded ruffian, spoke not a word of English and seemed to be perpetually drunk. My confidence in ever reaching civilisation was waning rapidly as we set sail. We were still on deck in pouring rain, issued with two hard tack biscuits and a tin of M and V (meat and veg of very doubtful origin). This is the first food we have seen for 24 hours. Then at last came the order to get below onto our living deck.

Most troop ships in World War II were ships that had been ready to scrap and suddenly called back to serve as troop carriers. They were terrible at that time. Minor repairs to get them seaworthy and then a lot of carpentry below decks so that hammocks could be slung over mess tables. So one either got into a hammock or sat at the table. There was little room for anything else unless climbing up to top deck. One knew one was well down by the sloping walls of the deck in which one had to live. How to get out in the event of a submarine attack or something like was not a happy thought. Once underway, the ship headed out round Ireland into the Atlantic. There was no short route to the Suez Canal (the Germans were winning the war) so the route was designed to avoid subs as much as possible.

There were 14 ships in our convoy, all heading for the Middle East. Royal Navy escort destroyers darted in and out 'whooping' away as subs nosed in

occasionally. We were lucky to get to our first stop, Freetown, West Africa, without any real attacks. During one night we managed to collide with another rust bucket in the convoy and an odd bit fell of our tub. Whilst at Freetown (no one was allowed ashore) we changed ships to a much larger scrap heap (ex Cunard) and found out that one of the Lascar crew had murdered the cook. I am not surprised – the food was probably the worst I ever encountered after leaving England. Sometimes breakfast was a doughy sort of porridge, grey and lumpy, usually cold. At midday this was mixed with any vegetables and called "soup" accompanied with hard tack biscuits. Never anything really fresh. Fruit from the natives in bumboats was ill-advised, could, and did, lead to dysentery. After a time one got hardened, and thinner, on this diet. Officers lived in luxury, even on troopships, but other ranks certainly did not.

After many weeks at sea we pulled into Cape Town and were allowed ashore for a day. It was customary for Cape Towners (and people at Durban) to give the troops a trip inland for tea and cakes, or whatever, picking up airman and soldiers as we walked off the boat. I, with shipmates, was taken to a beautiful country restaurant in a huge rose garden. We had chicken sandwiches and cream scones with fresh strawberries. One cannot realise the luxury of this after rationed Britain and the ghastly food at sea. Whilst lounging in the roses something flew past me, narrowly missing my ear. It landed with a crash in the bushes. It was a grasshopper, over 8 inches long and as big as a pigeon. We were in Africa!

Leaving the land of luxury we proceeded weeks later to Suez, Egypt and disembarked to proceed to Ismailia on the Sweet Water Canal. So named because it was used by the Arabs for ablution, drinking and defecating – some even swimming. It reminds me of the corny joke about the chap who fell in the sewage farm. Could he swim? No, but he went through the motions! Sorry. The camp here was called Kasfareet and everyone went down with a mild form of dysentery called "Gippo gut". Welcome to Egypt!

This rambling gets me nowhere. I wanted to enlighten my public on troopships in 1941, not righteous living. After a spell (2

and a half years) in the Western Desert I was given the job of leading 20 airmen back to Suez. We were outside Tripoli and it's a long way to go. I was to go to Rhodesia for pilot training and, anxious to get out of the desert, decided to get my detachment transport by road. This would be a day or two in all. However, we could go by ship, which might be quicker, so I elected to do that. This was greeted with cries of woe since in harbour ships were getting a pasting from Gerry pretty regularly. Being on a ship when attacked by air is not funny for either side and I know because I have experienced both ends of the encounter. However, despite opposition I insisted that we go by troop ship. Unfortunately this would mean remaining in harbour with many other ships until next day, risking a night attack.

Sure enough, at dusk, in came a Heinkel torpedo carrier. He deserved the Iron Cross because the flak thrown at him from numerous ships in harbour was unbelievable. The destroyer *Derwent* was next to our ship and the torpedo hit it bang on. Still firing its pompoms, the *Derwent* started to keel over and being next to us was not a pretty sight. The gunner in the Heinkel also decided to qualify for a medal by opening up on everything, so adding to the utter chaos all round. How the Gerry kept flying was amazing, but we learned that he got chopped by Hurricanes further inland.

We reached Suez after a fairly quiet trip down the Med. Only once did a submarine have a go, but he was warned off by our escort dropping depth charges. War can be exciting. From Suez potential pilots were boarded on more junk ships for South Africa and Rhodesia. Stopping at Aden, although not allowed ashore (horrible place anyway!) I went down with severe dysentery and was dumped in the hospital section of the ship. This was temporary luxury as I had a bed and good food which I daren't eat because 25 loo times a day seemed excessive! An army doctor kindly offered to try out a new drug on me (who cared?). Penicillin he called it, and it worked although I lost 3 stone in weight. He comforted me by saying that this would be ideal for flying training. Eventually, in a different land of plenty, it was so

marvellous to have good food and a climate second to none. Life was changing rapidly for me as we eventually reached Bulawayo, Southern Rhodesia. No more troop ships until pilot training and all that.

Training in Rhodesia was such that living in a land flowing with milk and honey must have been comparable, but that is another story and I digress. I was posted back to Egypt for operational training and then saw the war from the front end of an aeroplane. Thankfully not for long. Eventually leaving the charms of North Africa I was back in Cape Town for a week or so of sheer luxury, simply because once commissioned one's life changed like a chrysalis to a butterfly. Another troop ship was sitting in the dock ready to take on some families and a horde of officers and NCOs. This ship was big, but beautiful, because we were going home. Then one discovered the real difference, for life as an officer compared to that of another lower rank was unbelievable. I shared a cabin with another chap and we had a servant to cater for us. The food was of top quality. There had to be a catch, thought I, and there was. It was a 'dry boat', so called because no alcoholic drinks were available due to it being a "family" ship. I presume authority considered alcohol made airmen randy and uncontrollable. Que sera, sera.

So, as I have already stated, one underwent a complete metamorphosis of life when conveyed away on troop ships. Some were obviously better than others. To summarise:

- a) the misery of leaving home – maybe for ever
- b) the atrocious food and living below decks
- c) the drums of rubbish (and vomit) on each deck, in a rough sea
- d) trying to sleep in a hammock side by side with dozens of others
- e) since the walls were sloping one knew that one was well below water level
- f) the noise of surveying destroyers 'whooping' through the convoy
- g) the fear of having nowhere to run when attacked

Any good points? you ask.

Yes. The knowledge that at my age it won't happen again!

BILL ISON

Hours Flown

Thanks again to Mike Holmes for the graphs showing hours flown. We are assured that things are better than they look, with good figures for May.

