

FLYING FARMERS ASSOCIATION

Newsletter No. 93

December 2006

Opening Thoughts

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Cover photograph;

Taken by Roz Stephens somewhere over the Alps.

Chairman's Message

This little space gives me the opportunity of wishing you all a happy Christmas and a prosperous new year. Talking of prosperity .... if you are an arable farmer things are certainly looking brighter, especially if you still have product to sell. Our malting barley which is due to go in January is worth some 76% more than last year – but then last year's price was bank-breakingly low, wasn't it?

We had a very successful AGM, one of the best ever – good venue, good weather and well-supported. Thanks to all who contributed to an excellent day. It was good to have the chance to chat with so many of you.

The successes of 2006 are now behind us and we look forward to 2007 in the hope of making it even better than last year. You will see that our events secretary and his helpers have been hard at work and the programme for 2007 looks very promising.

My last flight to France was very much extended time-wise by a fierce headwind. I mention this as a reminder to us all of the effects of wind and weather and the necessity of making sure that we load enough fuel to cater for 'eventualities'. The forecast was bad with low cloud, most of it at 1000 feet, some lower. The wind at 1000 feet was given as 180 deg 25 gusting 45. Our heading if we could have routed through the Bournemouth CTZ would have been 180 deg. but a SVFR through the zone was not available so we chose to head some 20 miles due east before turning onto a heading of 190 deg. The turbulence over the New Forest and the Isle of Wight was like a fairground ride, but we don't mind it bumpy and our passenger in the rear seat even said through gritted teeth that she "trusted us". Over the sea the turbulence decreased and the cloud base rose but our forward speed was at times as low as 65 knots (our economy cruise at 1500 feet should return 135 knots in nil wind conditions). With CBs around us we progressed slowly towards our destination, where we were faced with a very strong crosswind – once on the runway full opposite aileron was needed to keep the wing from lifting. A journey which normally takes an hour, give or take ten minutes, took one hour 45 minutes. I was grateful to have loaded full fuel. The club's aircraft were hangared, and a club member spoke of 65 knot winds which had frightened him when flying earlier.

John Golden

Editor's Notes

Although there are only three newsletter a year, they seem to come round very quickly. I have had a good response from you with little snippets of information making interesting reading. Foreign tours always take quite a bit of space in the newsletters, but then a lot does tend to happen on them. Myself, I always find them very interesting and you may find that it just sparks off an idea to do something similar yourself.

Within our FFA membership, there are some extremely well travelled members. I know one member who recently flew his Arrow to the southern tip of South America, one thinks nothing of flying himself to Australia, another who commutes to South Africa and one in his 'Red Bird' who goes to the most extraordinary and dangerous places. Don't forget our own Earthrounder, Polly Vacher who has recently released her book 'Wings Around the World'. It is truly written from the heart and a must for your Christmas list. Others, in conjunction with the Air Squadron, have done some amazing flights to far away places, whilst a number are hiring aeroplanes in Australia, New Zealand, South Africa and this coming year, one member is touring Central America. (*report!*). Let's not forget the intrepid FFA European Tourer's who are now running out of countries to visit. This year, they will tour Romania as they begin entry into the EU.

And then they say that farmers sit on the gate with a bit of straw in their mouths!

Get educated in this issue with a masterclass from Hugh Thompson and David Corbett's reports from the CAA, GACC & GASCo.

Paul Stephens

Committee Members

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David Corbett's Presentation

I would like to take this opportunity to thank all members of the Association for the wonderful present that I have been given to mark my 32 years on the Committee. As you can see from the photograph (*on the right*), taken when the presentation was made by Dick Walgate, our President, at his home Cuxwold Hall, on 1st November, the model of my Europa is a real gem, and it is accurate in every respect including the colour scheme, the cowling joints, and the fact that when it is taken off its stand and put onto a table, it rocks gently from one outrigger to the other, as does the original!

Thank you all again – it has been a real pleasure to have been part of the team for such a long time, and to have seen the Association go from strength to strength.

David Corbett



Airstrip Maintenance.

Having sown my 800m grass airstrip in September 2005 using Pro 65 Gallop seed, I had all winter to purchase the relevant equipment to maintain it. The flat roller made by Fleming came from a local machinery dealer. Water filled it can be emptied and carried on the three point linkage - handy when mud makes it impossible to move it and at 8 ft wide my MF35X tractor manages to pull it - mind you it is flat in Cambridgeshire.

Next item I looked for was a grass mower. After looking at second-hand mowers, a Farmers Weekly advert caught my eye; a new Bomford model RS18 single rotor topper for £1200, deal done this was delivered just in time for the first cut of the season 2006. Oh dear big mistake it only had one rotor and left the grass in a swath every 6ft along the length of the runway. This swath, if not removed started to kill the grass underneath and jam the wheels of aircraft fitted with spats. On a visit to Duxford airfield, I asked Frank, the airport manager what they used and discovered www.major-grasscare.com A quick phone call to them (tel: 01524 850501) advised me to purchase the Major 8400GR MODEL, a four blade 8 ft wide all shaft and gearbox driven mower with front and back rollers which control the cutting height - the results are an even cut, no scalping and the grass cuttings left evenly over the whole width. Note I may fit the optional double chop blade system to cope with a heavy spring growth of grass but at the moment it seems ok without it. Having given my Bomford mower to my brother for cutting headlands on the farm I decided to treat the tractor to new turf tyres front and back from Fieldens (tel: 01449 675071). These make all the difference when the strip is soft especially on our heavy clay soil.

Charlie Papworth

FFA and the BBC

Peter Pilch has sent me a 7 minute video of the Countryfile programme from 1995, when they flew with Dick Walgate and interviewed several members. I am hoping to find a way of making it available on the FFA website, so watch out.

Propeller Balancing

Christopher Moore emailed saying - I have just had a propeller balanced by Brian Arthurs of CFS at Coventry. It has made a significant difference. Propellers are statically balanced at the factory, but they need to be balanced dynamically i.e. in operation. Apparently this is a normal procedure in America. See the article in September Pilot 2006. Brian's telephone number is 02476 505873. He is very helpful and his charges are not unreasonable.

Sky Watch

David Watt from Kirby Stephen in Cumbria, reports that he and his son Andrew spent 2 hours carrying out a 'Sky Watch' search for a missing man. He was a grouse-beater and therefore knew the moors around his home at Barnard Castle.

Neither they nor the Police aircraft spotted anything, and the man was found dead a good week later in dense woodland.

He flew in a RANS S6 which was an excellent, slow aerial platform.

Insurance Matters

Jim Gale in Devon says that they are in danger of loosing some of their venues for PFA Strut fly-ins due to increasing insurance costs for their strips. Some of them belong to FFA members; but he has found that the FFA insurance scheme covers FFA events, and movements as long as they aren't fly-ins!

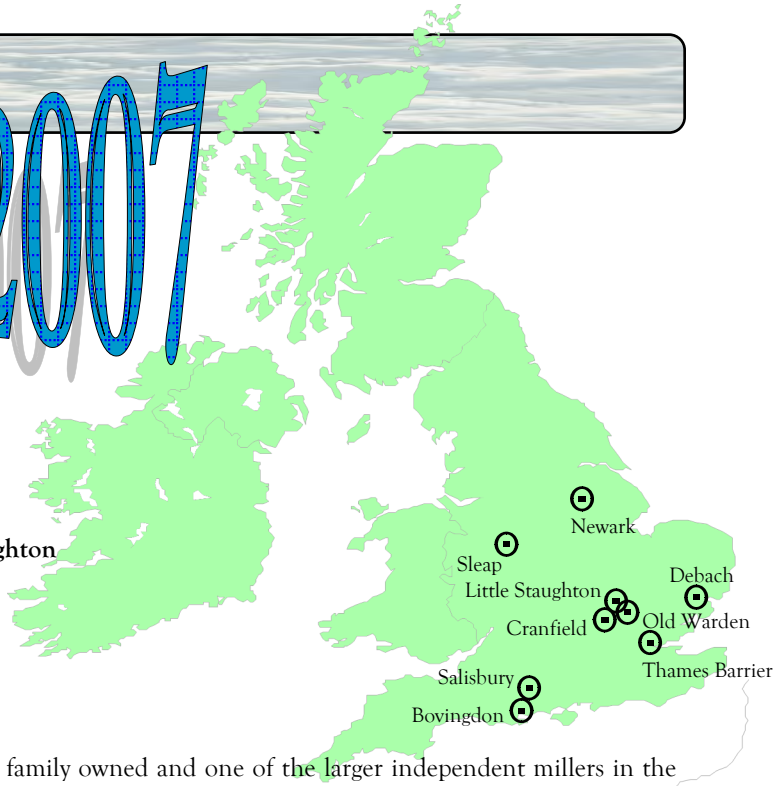
Welcome to New Members

Since 1st August 2006, the following have joined

40	James Freeman, Headcorn, Kent (rejoined)
412	Bob Akehurst, Canterbury, Kent (rejoined)
672	Mark Weatherlake, Taunton (rejoined)
793	Brian Henley, Gouldhurst, Kent
794	Ashwin Hill, Fareham, Hampshire
795	Trevor Kellett, Naban, Eire
796	Mark Johnston, Middleham, North Yorkshire
797	Simon Burrow, Wentbridge, West Yorkshire
798	Mark Badminton, Thirsk, North Yorkshire
799	Winston Bailey, Lincoln
800	Peter Ligertwood, Oxford
801	Jonathon Down, Buxton, Derbyshire

The total membership now stands at 383

Programme 2007



January 20th	LAMMA, Newark Showground (non FFA)
February 6th	Thames Barrier, London
March 21st	Flour Mills, Cranfield
April 3rd	North Shropshire Agricultural College, Sleap
April 25th	William Mumford's farm, GPS etc, Little Staughton
May 9th	Shuttleworth Collection, Old Warden
End of May/June	Tour of Romania (dates to be confirmed)
June ?	Helton's Hellcats control tower, Debach
June ?	Agricultural visit in the Salisbury area
July 18th	The Tank Museum, Bovingdon

From the Events Secretary

In December, we have two groups visiting the AAIB at Farnborough. From a slow start, it ultimately transpired that I had almost 60 applications for 40 places. I will ask if we may run another visit next Autumn for those who missed this one.

I hope that you approve of the 2007 events programme. As always the early months are difficult to fill with flying events due to day length, but without something we loose touch over the winter months.

I would like to prepare a stop gap list of members who, with due notice, would have facilities whereby we could land, have lunch whilst we chat and then depart. It would be easy enough to nominate an airfield for this, but more interesting at members' strips. There would of course be a charge for lunch and if there was anything to see locally, it would be a bonus. I am only looking for perhaps one per year.

If you have any other ideas for venues, particularly farming / fishing / forestry. Please contact me. What have you got in your area?

The now standard routine of supplying a SAE with entry forms has reduced the event organizer's workload enormously. Thank you for your cooperation.

Finally, I would like to thank all those who have provided me with ideas or assistance over the past year.

Mike Cuttell

Saturday, 20th January - LAMMA, Newark

This is a large machinery exhibition held at the Newark Showground. Not an FFA event, but ring Richard Howard on 01777 248239 re landing site details.

Tuesday, 6th February - Thames Barrier

An opportunity for 30 members to have a 2 hour visit to see one of the greatest construction achievements of the 20th century. Cost £12. SAE to Mike Cuttell immediately with the slip.

Wednesday, 21st March - Two Flour Mills

Visit Bowmans Flour Mills at Hitchin in Hertfordshire - a family owned and one of the larger independent millers in the country. Then, at the other end of the technology spectrum visit the recently restored Stotfold Mill in Bedfordshire. Standing by the river Ivel, a water mill has existed on this site for 1000 years.

Cost £20 to Tim Franklin with the tear off slip, to include a buffet lunch, but not the landing at Cranfield Airfield, meeting at 10.00 to 10.30.

Tuesday, 3rd April - Harris Centre, North Shropshire Agricultural College

This new £2.7 million facility specializes in more than 500 examples of animal life. It is an eco friendly centre of teaching. £350,000 has been invested in sustainable technology including biomass, geothermic energy and photovoltaic cells plus an anaerobic digester.

Landing at Sleap, cost will be £18 with SAE to James Holt with two 2nd class stamps for the detailed briefing, to include lunch and transport but not the landing fee.

Wednesday, 25th April - GPS Systems

William Mumford has invited us to his farm for a personal demonstration of GPS and variable rate application systems, including auto-steer. There will be a chance to try tractors yourself after lunch.

Landing will be at Little Staughton. SAE to William with the tear off slip.

Wednesday, 9th May - Old Warden

No introduction needed here. Party split in two, each with a guide. Landing fees have been waived, restaurant on site. Cost £10 for the entry and guide to Mike Cuttell with SAE and slip.

Date TBA - NATS, West Drayton

An opportunity for maximum 6 members who have joined in the last 4 years to visit this fascinating centre incorporating the D & D cell. SAE to Mike Cuttell if interested.

Events such as these set above are arranged by FFA members on a voluntary basis. It is accepted by those who participate that nothing undertaken by the FFA collectively or members individually shall be construed as establishing a duty of care nor in any way removing or modifying the duties, responsibilities or obligations of pilots or land owners in relation to any event and attendance thereat. All information provided in these programmes is purely advisory and should ALWAYS be verified from official sources.

John Boyd's Farm and National Motor Museum 21st June 2006

This was a day arranged and organised by our chairman, John Golden. The morning would be taken up with a visit to one of Britain's largest soft fruit growers. John had arranged the use of a strip at Lymington for those flying in. There were eleven arrivals including one helicopter, so with the use of a minibus driven by Gerald Corbin everyone was transported to Newhouse Farm where John Boyd gave us a briefing before we set off on foot to tour his growing operation.

He employs around 350 eastern European workers to harvest something in the order of 1250 tons of soft fruit per year. It is, without doubt, a highly specialised business with supermarkets demanding consistent quality and continuity. Only one or two varieties of strawberry are acceptable to buyers.

The strawberries are planted in December into cocoa fibre bags produced in Sri Lanka and India. Picking begins in April and ends in June. Each plant needs to produce 1400 g of fruit. The ideal temperature is 8 deg at night and 20 deg by day. The biggest threat to the crop is fungal infection called botrytis and strangely grazing by deer who have to be fenced against. Eighty per cent of the fruit produced is class1 with the remaining 20% classed as waste due to being over large or split. Interestingly Waitrose are now testing the market with some of the over large fruit.

Strawberries sell for £3.00 per kilo and the pickers are paid 42p per kilo. Each picker has a roll of bar coded labels specific to him or her. If he doesn't put his label on he is not paid. The very best pickers can achieve 170 kg per day and the average is 120 kg so some pick even less than that. They pick from 0600 until 1200 and then 1700 – 2100 (a 10 hour day). From their pay is deducted cost of cleaning their billets, recreation, laundry and visits to town by coach. They provide their own food.

Raspberries were started 4 years ago at Newhouse Farm. When plants are 2 years old they should produce berries each weighing 7.5gms.

Blackberries are a more recent addition. Loch Ness and Chester varieties are grown with berries weighing an astonishing 17 gms.

Water availability may soon be a limiting factor for Boyd Farms. They do not have any boreholes and rely on their own 10 million gallon reservoir, but they consume it at a rate of 300,000 gallons per day.

Another problem on the horizon will be whether there will be any restrictions placed by planners upon polytunnels. Would you be surprised if all this expertise is lost to foreign growers for whom rules are for breaking, not enforcing?

We adjourned for lunch to discover how hard Claire Golden had worked in preparing for us back at our meeting room. John Boyd was thanked on our behalf by Roger Bell who presented our host with some wine . With lunch over we were off to the National Motor Museum at Beaulieu. As we entered the gardens our eyes were drawn to an enormous rhubarb like plant with giant leaves. One of our members, (no names of course), remarked that it was one of the grandest specimens of gonorrhoea that he had ever come across. I hesitate to interject that I had a better one in my garden.

The museum contained an impressive collection of 250 rare sporting, racing and touring cars including one that looked more like a wingless aeroplane with a shrouded propeller. Why, I wondered, would anyone buy a Jaguar 220 costing circa £250,000 and then loan it to a museum?

All in all, another super FFA visit with special thanks to Claire, John and Gerald.

Mike Cuttell



Visit to Air Atlantique, Coventry Airport 20th July 2006

Ian Bonham–Smith suggested that we should re-visit this interesting collection of mainly serviceable aircraft but sadly only a short time before our visit he succumbed to a fatal heart attack. It was at this point that his close friend John Milne agreed to step in and complete the job that Ian had begun.

It was decided that we would initially assemble at Wellesbourne Mountford whereupon a bus would transport us to Coventry. Eleven aircraft arrived including one twin and one helicopter with another heli going direct to Coventry.

Wellesbourne has always been one of the most welcoming airfields to visit and a photographer from Todays Pilot was on hand to record the event. We did not ask for any group landing discount on the basis that these small airfields need our financial support just as we need them.

We arrived on time at Coventry where we were met by our tour guide Will who stayed with us the whole day. Stewart Powney outlined the background to the collection which began with the acquisition of their Percival Prentice in 1989. Their collection now includes 2 Rapides, Twin Pioneer, 2 Canberras, 2 Shackletons, Venom, Vampire, Auster Autocrat, Meteor NF.11, DC3, 2 DC6's, Percival Pembroke, Percival Prentice, D.H. Devon, Chipmunk.

We were introduced to John Cubberley, one of the retired enthusiasts upon whom A.A. depend so heavily, who suggested that we split into 2 groups. Whilst the second group stood a safe distance away, the first all climbed aboard the Shackleton for a full engine run. John Cubberley took the captains seat whilst his lady assistant took the co-pilots position in order to call out the pre start check list. The flight engineer, a man with 1000 hrs on the Shack was in his position controlling the start, and I was next to him. We all had headsets but no mic, so we all could hear as the checklist progressed. One of the externally positioned ground crew was heard to call over i/c "should we use the blue steps or the yellow ones to get these people aboard?" The response from the lady co-pilot was "use the blue ones 'cos some of these people are quite elderly" I was glad I hadn't got a working mic!

The start progressed until all were running sweetly. The sound of 4 engines capable of providing 10,000hp filled the fuselage and was the nearest any of us were going to get to the feeling all those Lancaster aircrews experienced night after night. Both our groups had 15 minutes under these conditions. The exercise consumed about 100 gallons of avgas we were told.

Lunch had been arranged at The Oak, a fine country public house just outside the main gate. The food was faultless and efficiently and courteously served – one of the best lunches that I can recall.

We returned to the airfield afterwards and again splitting into groups flew both in the Rapide, with its comfortable seating and décor, and the ex transport command Devon VP891.

The Rapide carried 8 of us at a time plus pilot. The view from its large windows was excellent and it was easy to converse during flight. This immaculate aircraft was a joy to fly in and an enormous tribute to DeHavilland and those early flying days.

Three classics in one day. My feelings were that we were given exceptional value for money, great courtesy and I would commend a visit to anyone who missed this one.

Air Atlantique are in need of funds to restore the Shackleton to flying condition. If you are able to assist contact them direct.

Our thanks meanwhile to John Milne and his able assistant Lionel Newman for another memorable day.

Mike Cuttell



The 2006 AGM, Sywell October 12th

For once the sun shone on the Flying Farmers at the 32nd AGM. In fact for around a week either side of the event, it was the only flyable day due to persistent fog. The venue was organised by Mike Ashmole and was absolutely ideal, being fairly central for the biggest majority of members. This was reflected in probably the biggest turnout for an AGM with 79 members present in 36 aeroplanes plus some cars.

One last minute hitch for the organiser was that due to a considerable amount of rain on the grass airfield, at the last minute, in fact when most pilots had already set off, they decided to close the airfield, which would have necessitated a diversion and caused complications. With Mike's sledgehammer diplomacy, the airfield manager saw sense and realised that we were Flying Farmers after all and used to wet grass.

Another hitch was that there was going to be a raffle to collect money for the RAF Benevolent Fund, with the first four drawn out of a hat being taken for an aerobatic sortie in 2excel Aviation's formation of Extra 300's, based at Sywell. The pilots are mainly ex Red Arrow and had offered this short experience as a freebie. But on the morning before the AGM, they had to cancel. The draw was carried out anyway, raising £280 and the lucky four - George Sly, Adrian Hatton, Jane Procter and Bob Beard will have their day on another occasion.

The business part of the AGM was dealt with (see the Minutes elsewhere in this issue), after which was a general discussion. Subjects raised where:-

- Bill Burton reported that in Germany, pilots are now required to have a 'reliability' reference in order to maintain their licence.
- A question was raised about arranging landing sites at events like Cereals. The Events Secretary will look into it.
- Overhead wires and their removal was discussed with two members saying that they had had their's put underground at no cost - after a bit of haggling with the respective electric companies.
- Robin Humphries suggested that FFA donations should be made to AOPA alone rather than supporting four different bodies. This has been discussed at length at Committee meetings, usually ending in the fact that the ones that we do support fulfil differing roles that all concern FFA members.
- Wind farms were mentioned with the usual differing opinions as to whether they are destined for your own land or your neighbour's.

It was then time for our guest speaker, Terry Lober. He gave his paper on the state of general aviation in the UK. Commissioned by the GAAC, which he did in order to gain his PhD. He found out that no organisation, whether it be the CAA or local councils, know a great deal about strips and even local airfields (*long may that last. Ed.*) so it was difficult to collate the full picture of how many airfields, aircraft and pilots there are. Even the CAA don't have a definitive list of PPLs because of the way their records are kept. However, by gathering information from all sources including questionnaires, Terry has pulled together a summary of the state of GA in the UK. You can find his full paper on the GAAC website www.gaac.co.uk and click on the GASAR (General Aviation Small Aerodrome Research Study) link. It makes some interesting reading, but rather than trawl through the full paper, there is a summary and conclusions at the bottom, which on its own makes some comprehensive reading.

After Terry had displayed countless graphs and figures on the screen, some were on the point of dosing a bit in the full room, so the lunch break was very welcome.

This was followed with the group being split into two to visit Flylight (who are the agents for the Skyranger microlights) or Sloane Helicopters, owned by David George, an FFA member). Those that went to Sloane were fascinated with the range of aircraft that Sloane sell, from the small economic Robinsons to the large and luxurious Agusta range. They are also distributors for the Piaggio Avanti twin engined fixed wing business aircraft. Sloane carry out servicing, training and run a Flight Operations department which amongst other things, provide helicopters for many events such as the British Grand Prix and Cheltenham Gold Cup.

Another Sloane operation is Sloane Mallorca, where you can gain your PPL on a Robinson R22. I know from experience, this must be an idyllic place to learn as you have the advantage of more reliable weather, you have fantastic scenery, mountain flying and far cheaper running costs.

The day was a great success, attendance was good and the weather was perfect. Thanks to Mike Ashmole for bringing it all together.

Paul Stephens



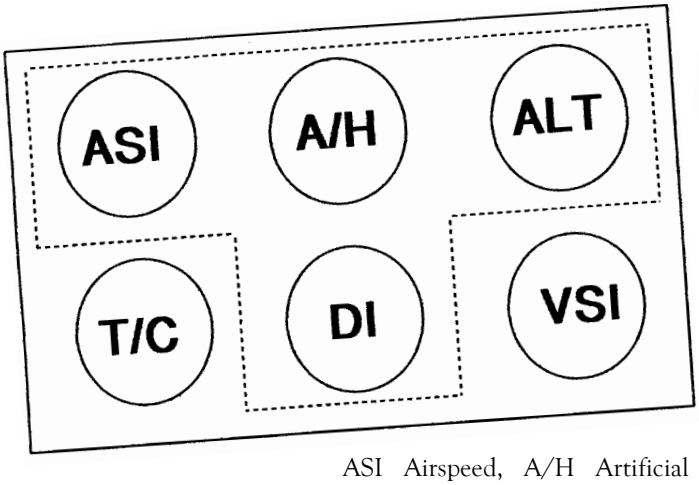
Instrument Flying Summary (an article by Hugh Thompson)

The purpose of this article is to summarise how to fly a light aircraft on instruments, both using a full and limited panel. The information has been obtained from many flying training manuals, and personal experience but cannot be guaranteed to be correct and the only way to fly an aircraft on instruments safely. You cannot beat experience and practice, so even if you knew all this by heart, proper training and constant practice is a must if flying IMC or "Under the Hood" is to become natural.

The first thing to be said about flying on instruments is that it is exactly the same as flying visually with a good natural horizon, the only difference being that you cannot see it due to cloud, heavy rain, or haze; and the natural horizon has, on a full panel, been replaced with an artificial horizon (A/H) or an attitude indicator (A/I) as it is now more commonly known. The problem is that the pilot is usually more tensed up (naturally if in bad weather conditions), and has a tendency to overcontrol the aircraft; i.e. he/she is not relaxed and in trim.

When first experiencing the need to fly on instruments, the complexity of the instrument panel in front of you might feel daunting. However, as we shall see, there is no need to try and look at all the instruments at the same time. In fact the key is to establish the correct radial scan of a selected number of instruments depending on what stage of the flight you are carrying out; whether climbing, turning, descending, or indeed flying straight and level. These may of course be combined in which the appropriate scan of the instruments will be different.

The Instrument panel of modern light aircraft can vary markedly due to the types of instruments and equipment fitted; such as a GPS moving map display etc. However, all must have an airspeed indicator, altimeter, some kind of turn and/or balance indicator, compass, and engine rpm or power output. Those intended for instrument flying also have other instruments fitted such as an attitude/artificial and directional indicators. In a normal light aircraft used for training, these instruments are normally laid out in a standard manner to give what is called a full “T” panel. This is illustrated below:-



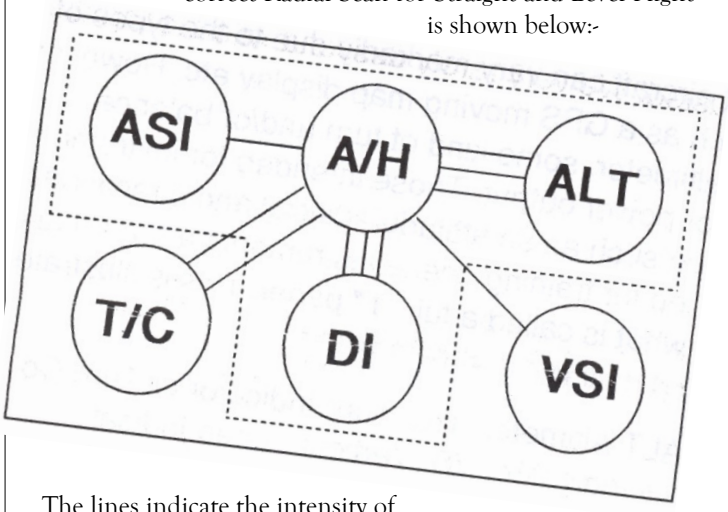
ASI Airspeed, A/H Artificial Horizon, ALT Altimeter, T/C Turn Indicator or Turn Co-ordinator & Balance Ball, D1 Directional Indicator, VSI Vertical Speed Indicator

The Compass and Engine power instruments are elsewhere on the aircraft, as are the Flaps which change the wing shape .

The layout shown is the one used on all small training aircraft. In the military the "T" is prominently shown by a white outline and they only use a turn indicator. The reason for not using a turn co-ordinator is that that instrument shows both a rate of roll and turn which is not acceptable for flying aerobatics. Note that I mention the flaps; this is because if lowered slightly they change the characteristic of the aircraft's wing, producing slightly more lift and much more drag at lower speeds. This will change the amount of engine power required to maintain a particular pitch attitude and airspeed.

When flying on a full panel of instruments, only three of the six instruments are needed at anyone time but all should be scanned from time to time. The important thing is to know which are more important depending on what stage of the flight you are flying. Also, I have always found it helpful to remember that "Power plus Attitude gives Performance!" The directional indicator (D/1) is also dependent on being set to read the correct compass heading; otherwise you could be flying in the wrong direction. I recall a student landing at an airfield once having flown 50 miles in the opposite direction to that intended; and he was flying VFR as well!

It is best to start by examining which instruments are needed to fly Straight and Level, something you will do for most of the time if going somewhere. The three main instruments of importance are the Attitude indicator, Altimeter and Directional Indicator. Note the Airspeed is not one of the primary instruments as the speed flown will depend on the power selected and attitude being flown; with or without any flap selected. The correct Radial Scan for Straight and Level Flight is shown below:-

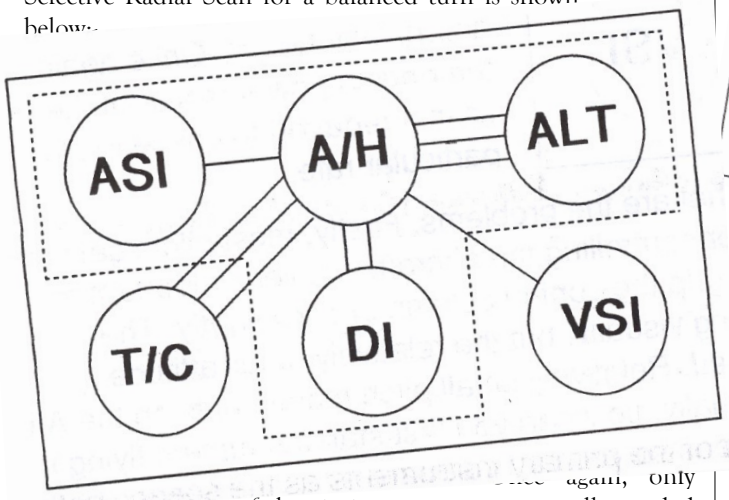


The lines indicate the intensity of the scan required; all to/from the primary attitude indicator. You must not get fixed on any one instrument; scan them all. The Power and Flap setting will result in a different performance.

If we think about our requirements for a moment we will see that the ASI is useful but not essential as we are trying to fly Straight i.e. DI and Level i.e. Altimeter. The Turn indicator is needed to ensure fine balance but remembering basic flying, provided the wings are level and the aircraft is on a constant heading, the aircraft will be in balance. The Vertical speed indicator is not required but is useful to see if there is a trend developing in which case the attitude and/or power should be adjusted slightly. However, flying on instruments will be made much more difficult if the aircraft is not in Trim. It is essential

to get the aircraft in trim, particularly in pitch but if you can trim out the aileron and rudder as well so much the better.

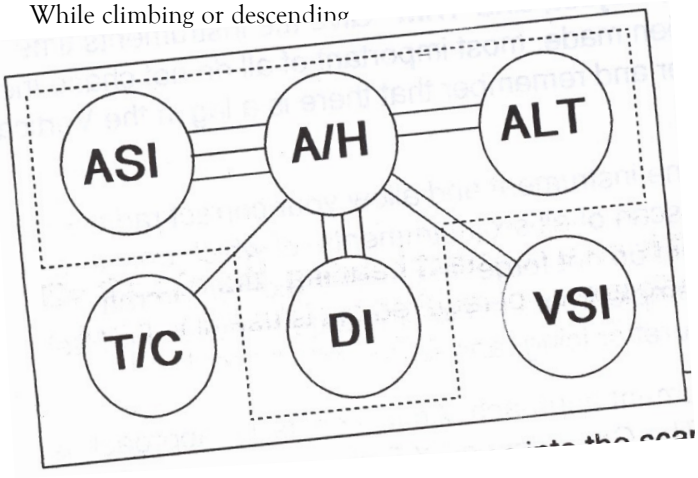
When carrying out a constant turn, surprisingly the DI is not required as we know we are turning; it is only needed when you are required to roll out on a particular heading! Having the aircraft in Balance is important so the Turn Indicator or Turn Coordinator become one of the primary instruments. Also, most instrument flying turns are limited to about 15 degrees of bank angle (or a maximum of 25 degrees) depending on the true airspeed; giving a Rate One turn. That is three degrees per second or 180 degrees in one minute. For most light aircraft, 15 degrees is the accepted bank angle and the turn indicator is designed to accurately show a "Rate One" turn. The correct Selective Radial Scan for a balanced turn is shown below:-



Once again, only three of the six instruments are actually needed when in a turn. The DI becomes important when you are required to roll out on a particular heading. The turn indicator becomes important to maintain balance

When climbing or descending the Airspeed does become important as a way of confirming the correct pitch attitude is being maintained on the A/H. Also the VSI will have to come into the scan if a particular Rate of Descent is required in which case the engine power may need to be adjusted. We very rarely descend with the throttle fully closed these days unless in a pure glide as slow powered descents are often made during a cross county flight, hence the need to consider the engine power during a descent on instruments. It is assumed that any normal climb will be made on full or climbing power and any rate of climb which results is accepted. Like a turn, the Altimeter is not required until we are required to level oft at a particular level, altitude or height (depending on the datum setting being used) The desired selective radial scan for both a straight climb and descent is shown below.

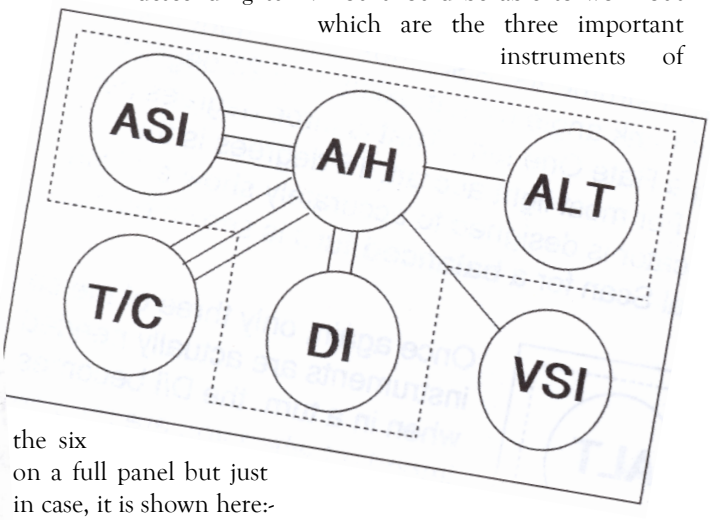
While climbing or descending



the ASI does become one of the three primary instruments. The Altimeter and Vertical Speed Indicator become important if a particular height is required on completion or a specific rate of descent is required.

Note that the engine power comes into the scan this time!

The final scan scenario is that for carrying out a climbing or descending turn. You should be able to work out which are the three important instruments of the six on a full panel but just in case, it is shown here:-



When in a climbing or descending turn, the Altimeter and Direction indicator assume equal secondary importance if you are required to roll out on a particular heading or level off at a particular height. Once again the engine power is part of the scan if required to descend at a particular rate

Now we know the required scans, what are the problems. Firstly, most pilots get very tensed up and try too hard, often over controlling the aircraft. It is very important to get the aircraft in trim, relax, and not grip the control column or stick tightly. The actual flying is the same as when flying visually, but the relatively small attitude indicator has to be trusted and believed. Relatively small pitch movements on the A/H reflect rather larger movements externally, so when you first start instrument flying it should be done in good visual conditions so you can compare attitude changes both inside and outside the cockpit. For whatever reasons, pilots often suffer from false illusions of movement when flying on instruments until it becomes second nature. You must believe the instruments. One common feeling is that of turning when in fact you are flying straight.

You should know your aircraft performance criteria well before trying to fly on instruments. For example, a particular Cessna 152 might fly straight and level at 85 Knots with a power setting of 2300 rpm. Small Airspeed reduction changes are acceptable when turning, so concentrate on the attitude indications rather than get fixed on the ASI or any other instrument. A good helpful phrase which is more suited for limited panel flying (more later) but which applies just as much when flying with a full panel is "Change, Check, Hold, Adjust, and Trim". Give the instruments time to settle down after a change has been made, most important of all do not chase the needles like the Airspeed or Altimeter and remember that there is a lag in the Vertical Speed Indicator in particular.

It is a common fault to get fixed on one instrument and allow your correct radial scan to fail. You must keep up a constant scan of all six instruments, of which only three are important ones at anyone time but do not forget to check the other aircraft instruments, compass and DI for example from time to time together with the fuel gauges, oil pressure, ammeter, Car-

burettor icing, and so on.

One final useful tip if making an instrument approach. An ILS or Radar approach is based on a nominal 3 degree slope. The Groundspeed X 5 gives the correct Rate of Descent, so the VSI can be a useful aid when carrying out an IIR approach.

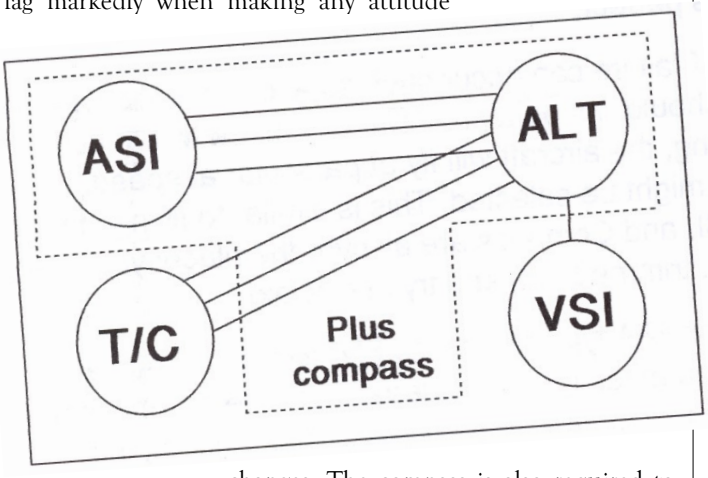
Unfortunately, instruments can fail in flight. that is why we also have to consider flying on what is commonly known as a "Limited Panel". This is obviously harder to accomplish and lots of practice is required to avoid over controlling the aircraft. There are various types of failure possible.

In most light aircraft the Airspeed, Altimeter, and Vertical Speed indicators are all pressure operated instruments needing a reading of the "static" outside atmospheric pressure. As this can become blocked, there are usually two external static source sensors or alternatively an Alternate Static source which can be selected if required. In addition, the ASI also requires a reading of the dynamic pressure through a Pitot head; caused by the forward movement of the aircraft. This too can become blocked either by ice if there is no Pitot heater fitted or debris such as insects during the summer months.

The Attitude Indicator (or Artificial Horizon) and directional gyro are normally operated by suction, either from an engine driven vacuum pump or an external venturi tube; in which case they will NOT work until you have been airborne for about 5 minutes. Although electrical ones are now available, the usual assumption is that they are vacuum driven and limited panel flying training is usually based on a failure of these important two instruments.

The Turn Coordinator usually found in light aircraft these days is electrical and senses both Roll and Yaw but a Turn Indicator which only shows Yaw can be either electrical or suction operated. The basic magnetic compass is the only instrument not reliant on any external power source and is self contained but it can be affected by deviation errors, either known and tabulated on a Deviation Card; or unintentional as when a metal object is placed close to it, or the radio transmitter is radiating! In effect if all else fails the basic compass despite all its errors should find you a way home and can be used to descend through cloud on a southerly heading in the northern hemisphere.

This is the basic Limited Panel Scan used when the A/H and DI have been lost. Note the equal importance of nearly all, the VSI being useful as a trend instrument only due to its ability to lag markedly when making any attitude



changes. The compass is also required to ascertain your heading.

As the Turn Co-ordinator senses both Roll, Yaw and Balance, it is the primary instrument for maintaining the wings level, and hence a constant direction. It is also used when making Rate One turns (3 Degrees per second) in conjunction with a stopwatch as it is not reliable to scan the basic compass while in the turn due to its inherent errors particularly during turns to/from North or South.

Remembering that "Power plus Attitude gives Performance" when flying on limited panel, gentle movements are required allowing the instruments to settle down. There is often a lag on both the Altimeter and Vertical Speed Indicators so in effect the Airspeed probably gives the first indication of a pitch attitude change. When changing pitch move the Control Column or Stick enough to get a 5 Knots change of speed then hold it, let it settle down, and trim. Do not over control or try and chase any of the instruments as a PIA or Pilot Induced Oscillation will begin. The "Change, Check, Hold, Adjust, Trim" method of control applies!

As far as turning is concerned, no more than a Rate One turn should be attempted. Knowing that this is 3 degrees per second, time any turns, i.e., 30 seconds for 90 Degrees, 10 Seconds for 30 Degrees and so on, keep the turn co-ordinator or turn indicator showing a rate one and ensure the balance ball is centred. It is possible after a prolonged turn to feel as if you are still turning when flying level again; you must trust your instruments!

Particularly when flying on a limited panel, it is possible to loose control especially if you have been distracted by the radio, looking at a chart, trying to read the compass etc. If this happens, then we have to consider a "Recovery from Unusual Attitudes" scenario. These are characterized by a reducing or increasing airspeed, and usually a high rate of turn, the spiral dive being the most probable result.

To recover, you must follow the following procedure, power on or off, needle, ball and airspeed; in that order! Firstly, if the airspeed is increasing, reduce power; if it is reducing, increase power. Then looking at the Turn co-ordinator (or turn indicator) roll the aircraft until the needle centralizes, and check the balance ball is central using rudder to do this. Finally, make a pitch change to either increase or decrease the airspeed by about 5-10 knots only. Then let it all settle down, otherwise you will be over controlling the aircraft and making matters worse. It is surprising that just a small paragraph explains it all, but only good training with an experienced instrument instructor will suffice. Practise makes perfect.

As I have already said, other types of failure can occur such as a loss of airspeed but if you have the Attitude Indicator, it should not be a problem as you know that at a certain pitch attitude and power setting, the aircraft will fly at particular airspeed, depending on any flap setting which might be selected. This is similar to flying in very rough air when the ASI, Altimeter VSI, and Compass are all over the place; you must just fly attitude with a sensible power, trimmed out, and try and relax!

Finally an important note of caution for PFA type "Permit to Fly" aircraft. These are NOT to be flown in IMC or at night, you must fly VFR so legal instrument flying is not allowed. However as many types are now fitted with a full set of instruments, it is wise to have some instrument flying training and knowledge; just in case. Also, some aircraft have instrument panels which are not laid out in the standard "T" pattern so you would have to modify your scan to suit your own aircraft. Please note this has only been a summary of instrument flying so other reading material is recommended.

Hugh Thompson

The CAA's GA Conference – 21st November 2006

During 2004 and the early part of 2005, considerable friction arose between the CAA and the General Aviation community, principally because the CAA chose not to include any representative of GA on their Joint Review Team and its subsequent report of the Safety Regulation Group's costs and charges. The JRT report set the scale of charges for various CAA activities for the next five years, and it was clear that the airlines – who had put pressure on the CAA to launch JRT – had achieved their objective, which was to get a greater proportion of the CAA's income recovered from the GA community, and less from the 'heavy' side.

As a result of the extensive protest pressure directed at the CAA by GA following publication of the JRT report, the chairman and board of the CAA decided to launch two GA reviews – the GA Strategic Review and the GA Regulatory Review. These two reviews were set up in June 2005, with the objectives of completing their reports by early 2006. Each Review team was led by a CAA staff member, but each had a significant number of GA representatives on the team. By dint of good leadership and very hard work by all concerned, the objectives were achieved and the reports were published on time – July and June 2006 respectively.

The reports are extremely detailed, and can be accessed on the CAA website through this link:
www.caa.co.uk/default.aspx?categoryid=1&pagetype=90&pageid=5270
On that page you will find the introduction to the 2 reviews, and the text of the two reviews in full – by clicking on "here" in the two appropriate places. Each report has a 5 page Executive Summary and Recommendations.

The purpose of the GA conference on 21 November was to publicise the results of the two Reviews, and other topical matters – to GA; the conference was open to anyone who applied for tickets (up to a limit of 150 for reasons of space), and will be covered in the GA press. FFA member Lord Robin Rotherwick – who is a member of the Parliamentary Aviation Group – and myself were the only two FFA members at the conference.

I can only summarise the content of the two reports in this newsletter (see below); but the message that came across at the conference, which was opened and closed by the CAA chairman himself, can be summarised as follows:

- the reports have been well received by GA
- the reports have the support of the CAA board
- the reports were considered and positively referred to by the Parliamentary Transport Committee in their Review of the Civil Aviation Authority, which was published on 8 November 2006

The Parliamentary Transport Committee report makes interesting reading, and can be accessed via www.parliament.uk/transcom and then scroll down the home page to "Publication of reports".

The Press Release on 8 November contained the following sentence: "In particular, the Committee questioned the continued appropriateness of:

- (4 non relevant bullet points)
- "**the limited attention given by the CAA to** environmental issues and **the concerns of the general aviation community**"

The GA section of the PTC report is Chapter 8, on pp 55-58, and the GA recommendations are on p 65 (if you print through Acrobat Reader, select pp 57-60, and 67, because of 2 un-numbered cover pages).

The following principal aspects of the reports were highlighted at the GA Conference:

- Understanding of GA within CAA and DfT is UP – relationships are improved, & good team spirit.
- Ann Godfrey, Head of Aviation Airspace Division DfT, spoke, and confirmed DfT support.
- There is support for the Reviews' findings from the CAA Board – and within DfT (see above).
- A new body, the GA Strategic Forum, has been created to keep up the momentum of improvements
- This is a joint CAA/GA body, and will keep under constant review an "Issues Log".
- Terry Lober's research project was fully supported by the Reviews, and shows that GA provides 8% of economic size of the overall aviation sector.
- Government will consider making a policy statement on the value of maintaining a network of airfields within UK.
- Government will reconsider the policy regarding VAT on flight training, to maintain UK competitiveness within EU.
- CAA will take note of the disadvantage to UK GA compared to other regulatory regimes that do not seek to recover the total GA regulatory cost from the industry.
- Safety Sense leaflets are likely to come out in printed format again.
- CAA and GA will seek to influence EU bodies to ensure that handover to EASA of various responsibilities do not take place until EASA is competent in the relevant discipline (my words).
- For the purposes of the Regulatory Review, GA was defined as "Civil aircraft operation other than Commercial Air Transport (CAT)".
- There are 27000 UK aircraft – only 4% of those are CAT.

Following the various papers arising from the two CAA Reviews, sessions were set aside for "Hot Topics" and "Europe and GA", and "Light Aviation Airports Studygroup"(LAASG).

LAASG - Feedback from industry to this consultation was such that the CAA are going to move forward with the proposal to review the need for licensed airfields for flying training, and review the level of RFSS cover needed at small airfields. This could have positive benefits for some FFA members' airstrips.

Hot Topic 1 – Airspace. The Air Transport White Paper had highlighted increasing demands for the use of airspace; the current rate of 2.3m CAT flights pa is expected to rise to 3.3m pa by 2015; the low cost operators are driving this demand, and currently there are proposals under consideration for increased controlled airspace around the following 7 regional airports –

Coventry, Doncaster, Exeter, Humberside, Inverness, Norwich, and Southend. As far as SES is concerned, it has now been confirmed that there will be an exemption from en route charges for all <2000 kg aircraft; Class C airspace will operate from FL 195 from March 2007. There is increasing concern in UK about infringements into controlled airspace; of the 523 reported to date in 2006 (517 in all of 2005), 70-75% are GA, and 11-13% are unidentified, so GA is under pressure in this respect. Class D is the most infringed airspace at 50-60%; Terminal CTR/ATZ/CTA have been 65% in 2005, 68% to August 2006. All pilots are urged to look at the new FlyOnTrack website: www.flyontrack.co.uk/tips

Two A5 handouts were made available at the conference – NATS Website User Guide, and a CAA/FlyOnTrack "before you fly" checklist. I hope that one of each of these will be included with this newsletter – but if they are not, they will come with the March newsletter.

Hot Topic 2 – Mode S. The partial RIA consultation that took place from June to August this year produced 3500 responses, 500 of which were duplicates. Of the 3000 genuine responses, 2500 had been analysed at the time the 21/22 November reports were prepared, and the expectation is that an analysis of the responses will have been finished in the near future, and that a detailed report of the results will be published by the end of 2006. Consultation will then take place with Government as to whether to open a second period of consultation prior to publishing a final RIA. To date the key issues raised by respondents have been – cost, equipment availability, is there really a safety problem in UK, glider vs glider problems, and why not ADS-B.

I do not propose to comment in detail on these five issues; my own personal opinion of the situation at this stage is that there is no way that the original intention to require 100% fitment of elementary Mode S could be achieved by 2008 – all parties appear to accept that. If I were re-equiping an existing aircraft to fly IFR, I would fit Mode S by the required date – but probably most private/corporate aircraft flying airways are by now Mode S equipped anyway. If I were building and equipping a new aircraft, or specifying equipment for a new aircraft intended to fly VFR only, I would not consider fitting Mode S without consulting those in the know (including the relevant CAA contact) to assess the most up-to-date situation; and if I were considering re-equiping an existing VFR aircraft, I would not consider fitting Mode S in the near future. I personally assess from what we were told – at the GA conference and by a different speaker at GACC the following day – that there never will be a requirement for 100% fitment in UK. Do not take my word for it – but do not spend your money until more detail is announced, and until there is a wider range of equipment available. The cost of equipment, and of fitting, and of the mod approval necessary, may well not be justified. (And – see comments arising from GACC below).

As far as ADS-B is concerned, I quote – "ADS-B is still immature and not interoperable with Airborne Collision Warning Systems. In addition, Mode S is the ICAO endorsed first stage towards ADS-B".

I do not intend to dwell on the Europe and GA situation in this newsletter – more next time; in the meanwhile I quote Gwyneth Dunwoody, Chairman of the Parliamentary Transport Committee, in their report; "EASA is an accident waiting to happen. Its lamentable problems of governance, management and resources must not be allowed to compromise aviation safety in the UK in any way. The UK must not transfer any further powers from the CAA to the Agency until the Government is assured that it is fit for purpose, and the UK Government and the CAA should remain at the forefront of efforts to resolve the Agency's issues".

In fairness, I should say that the CAA position at the conference on 21 November was that the EASA situation had improved significantly over the past six months. The CAA's position is that "standardisation" in Europe means levelling standards up, not down.

At the end of the Conference, the "keynote speech" was given by Gillian Merron, MP, Parliamentary Under Secretary of State for Transport; not only does Ms Merron have an extremely impressive parliamentary CV achieved since her election as member for Lincoln in 1997 – she is also an extremely elegant and sparky lady as well! She reiterated a number of points that had been made during the day, including DfT support for GA, and also made the very important announcement that DfT were no longer pursuing the issue of requiring UK based foreign registered aircraft to move onto the UK Register. This will be a very welcome announcement for a number of our members!

CAA General Aviation Consultative Committee – 22 November 2006

In addition to the points made above that arose from the conference on 21 November, additional information became available at GACC the following day.

Mode S

- Equipment availability is slow; 3 UK companies are looking at production of suitable low cost units, but are unwilling to commit to design and production until the scale of the market is known; the CAA cannot make regulations if equipment is not available. I quote – "Product will be developed in response to demand". A good chicken and egg situation!
- We understand that the proposed German rules for fitment are or will be – powered a/c only, and only above 5000'amsl or 3500' agl. The Netherlands may set their limit at above 1200'. I quote – "The UK has no intention of working in total isolation".

Research.

The CAA has commissioned research into the problem of carburettor icing; this research has now been running for a year or more. Following successful experimentation on a Lycoming engine in laboratory conditions by a private company, an R22 helicopter is being instrumented to follow up the lab work in in-flight conditions. The work is being done by Sloane Helicopters with the blessing of the manufacturer.

One liners.

- Work is ongoing to increase ATC awareness of GA needs – the younger generation of ATC staff have no flying training as did older controllers, who were trained to PPL standard.
- There is serious concern about the lack of young entries to GA aircraft maintenance.
- There is an even more serious problem for our engineers who now have major problems getting access to Airworthiness Directives through the European system.
- Members' attention is drawn to the RAeS paper "The Design, Development and Production of Light Aircraft in the UK – A case for regeneration through regulatory change".

- Members are encouraged to look at Safety Sense leaflets on the CAA website – and particularly the latest version of no 8 – Air Traffic Services Outside Controlled Airspace (ATSOCAS).
- "in focus" – a briefing from the CAA – 21 November 2006. This paper updates us all on the difference in roles and responsibilities between EASA and National Authorities; this is a well presented and clear document. Please refer to our website www.ffa.org.uk and see the file on the FORMS page.

GASCo – 15 November 2006

At the above Council meeting, we had a most interesting and instructive talk from Peter Hunt, CEO of the AirProx Board. I recommend members to look at their website www.airproxboard.org.uk

That address will default you to the AirProx Board section of the CAA website, but it is well worth viewing.

David Corbett

A Week in Poland with my Europa

In the first week of September 2006 members of the Air Squadron flew a large and varied number of their aircraft to and around Poland. This was a trip organised by three Air Squadron members – one being Bill Hall, an FFA member – and the trip was encouraged by, and partly hosted by, the Polish Air Force. The highlight of the trip was to be a ceremony at the Polish World War II Airmens' Memorial in Skaryszewski Park, Warsaw. Air Squadron aircraft were asked to arrive at Babice airfield, Warsaw – the GA airfield on the northern side of Warsaw – by 1400 local time on Monday 4th September.

I planned my outwards journey to fly direct to an airfield in the central part of Germany for the Sunday evening, thereby leaving me an easy flight to Babice on the Monday morning. However, it was not to be – when I looked at the various met charts, TAFs and METARs early on Sunday, NW Europe was covered in low cloud and heavy rain, albeit moving slowly eastwards. By late morning it was clear that I would not get anywhere useful until late afternoon – so off we went to the local pub to entertain Australian family guests, having done all my flight planning, and having loaded and refuelled my Europa ready for a quick get-away.

Back at my PC by 1415, it seemed likely that there would be sufficient clearance over Holland to enable me to get to Groningen by early evening, with an alternate of Texel, which was already in the clear. I faxed a flight plan to Manchester – and off I went; it was a glorious afternoon in UK, with a good following wind. London FIR opened my flight plan shortly after take-off, and confirmed that it had been activated; however, about 40 minutes later a different controller at the FIR desk told me that they could not trace my flight plan, so I had to refile an airborne flight plan, which again was accepted.

My route took me on an almost direct track from Shobdon to Groningen, coasting out SE of Beccles and directly across the North Sea at FL45. Once over the Dutch coast I could see a build up of cloud ahead, and by the time that I arrived in the Groningen circuit, I would not have wanted to, or been able to, go more than a further 10 Nm or so east. Groningen Eelde airport were as always helpful and efficient, but when I went into the flight office after refuelling, the duty officer told me that my flight plan had arrived after I had landed – my Europa, and the strong tailwind, had outstripped the electronic data transmission!

After an early night in the almost deserted airport hotel – part of the airport terminal buildings and really convenient in a situation such as this - I was airborne by 0555Z in a cloudless sky, but still with a strong tailwind, en route to Szczecin (the old Stetin). On arrival there, after a hold at their southern VRP of 5 mins or more, I landed after 2 hr 20mins.

Frustratingly, although I was the only aircraft being handled, and I had my own lady guide and her car, it still took me 1 hour and 40 minutes to get fuel, pay the landing and handling fees in the terminal building, go to flight ops upstairs to file my internal flight plan and pay a navigation service charge, and then get airborne again. No time to eat – but luckily I had some snacks and drink on board.

My flight plan to Warsaw gave me an arrival time of 1345 local – but Gdansk FIR, although very friendly and helpful, had other ideas and sent me the long way around causing me to be the last (but one...) AS aircraft to arrive; I landing exactly at 1400. The excellent buffet and liquid refreshment, and the company of friends from UK and our Polish hosts, were particularly welcome after a total flight time of 6 hr 50 mins from Shobdon, 898 NM at an average including holds and circuit work of 131 kts!



Robs Lamplough's Spitfire in the colours of a Polish Air Force Squadron. Five of the eight aircraft in this picture belong to FFA members.

Promptly at 1500 local, FFA member Robs Lamplough arrived overhead in his Spitfire in Polish Squadron colours – closely escorted by two Polish Air Force MIG 29's. After 3 or 4 flypasts in formation, Robs landed and the arrivals were complete. A very warm welcome was given to Robs and his Spitfire, but we were all concerned by serious streaks of oil running down the sides of the fuselage, and up onto the windscreen; maybe keeping ahead of the two Mig 29's on his wingtips had strained the system! Much cleaning, and the prospect of the



Robs thanks General Majewski for his MIG 29 escort



The Polish World War 11 Airmen's Memorial, Warsaw

cowlings having to come off, meant that some members had to stay behind whilst the main party moved by bus to our hotels in Warsaw.

The following day, Tuesday, was the first of our formal days with the PAF. We assembled at the Airmens' Memorial in Skaryszewski Park, where speeches were made by Lt General Pilot Targosz for the Polish Air Force, and Air Chief Marshal Sir Michael Graydon for the Air Squadron, followed by a formal salute by the PAF Guard of Honour, and the sounding of the Last Post by Drum Major Stephen Maher from the Central Band of the Royal Air Force. Two wreaths were then laid at the Memorial, and we then all waited for the expected low fly-past by Robs in his Spitfire. Sadly, however, the strong winds, low cloud, and occasional heavy rain squalls prevented the fly-past that morning – but the British contingent returned to the Memorial later that afternoon when the weather had cleared and Robs could get airborne; sadly, of course, all the PAF personnel had all departed after the morning ceremony, and thus missed the flypast.

On Wednesday, the "low and slow" members flew a short low -level route following the river down the east side of Warsaw to Konstancin-Obory, a privately owned grass airstrip in open countryside just south of the city. Here we landed with a round baler at work in the same field; we were marshalled onto the taxiway leading from the strip to one of the most immaculate hangars I have seen in my 40+ years in aviation – full of equally immaculate aeroplanes. The first person I spoke to, as I climbed out of my Europa, was an English business man, Stephen Stead, who had recently moved from Bucharest in Romania to a new business in Warsaw; his immaculate Yak 52 (now being converted to a tail-dragger in Lithuania) was one of the aircraft in the hangar. An interesting conversation with Stephen revealed that he had heard about "... 40 UK aircraft flying to Romania next year...", and that his informant was Stan Platt, a friend of FFA member Tim Spurge; Stan runs the charity that provides the (fixed wing only) Air Ambulance service in Romania, and who is providing good input into the FFA study tour of Romania scheduled for 2007. Stephen gave me some more useful contacts for our trip.

Jan Borowski, who rents the airstrip and who has built the hangar and provides the aircraft engineering service and club facility that operates there, arranged an excellent buffet lunch for us in the reception/club room of his hangar; as we ate, he stood with his back to two enormous black and white photos of his father standing with his early WW II aircraft, and told us about his family's long involvement with aviation. He also told us about, and then showed us, the TS-8 fighter that he and his son had rebuilt to flying condition; they have a second similar aircraft awaiting rebuild.

On Thursday we bade farewell to Warsaw and Babice airport, and flew 57 NM SSE to Deblin AF base. Deblin is the long term home of the Polish Air Force Academy. Here we assembled on the flight line that keeps and maintains a collection of historic PAF aircraft; we had plenty of time to look around these aircraft, before moving by bus to the Officers' Mess, where we were given the "Station Brief". We then visited their Hall of Fame, and watched a brief informal wreath laying ceremony at the Deblin AF Memorial, after which we were given an marching display by their PAF band.

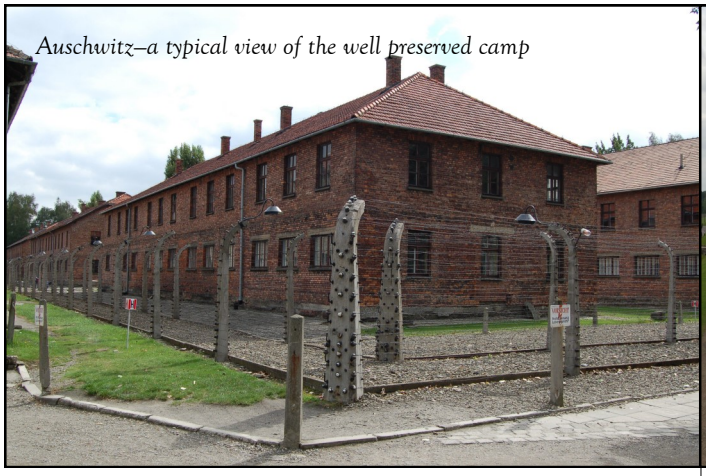
After an excellent lunch in the Mess, we returned to our aircraft and set off SSW for the 116 NM flight heading SW to Krakow – a large airport some 10 NM west of the city centre, where the PAF operate transport squadrons, and which is also the Krakow civil airport. We experienced our first and only significant problem here, where it took ages for the refuelling bowser to arrive, and even more ages for it to work its way



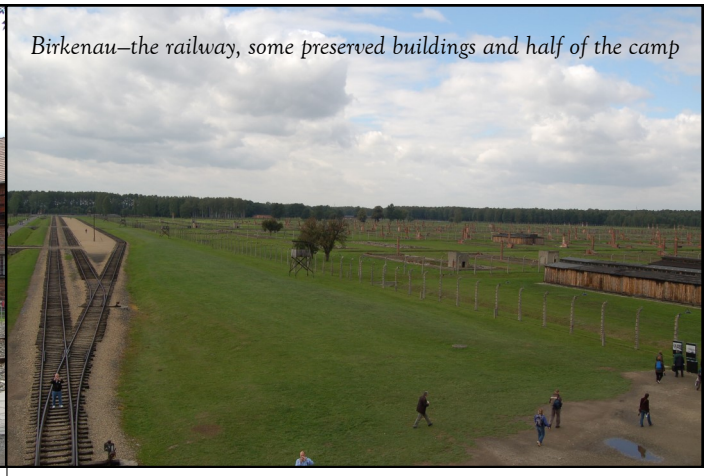
Deblin Air Force Memorial and their Air Force band



Some of the historic aircraft at Deblin AFB



Auschwitz–a typical view of the well preserved camp



Birkenau–the railway, some preserved buildings and half of the camp

down our flight line. I myself, one of the earlier arrivals, just "missed the cut" with the bowser, and had to wait on the airfield for three hours from arrival to departure by bus for our hotel; the only consolation was that it was a lovely evening!

I spent three nights in our very recently refurbished hotel, just off the main square in Krakow; on the first evening, a few FFA members and their wives gathered for a very enjoyable meal in one of the outdoor restaurants all around the square – I subsequently spent far too long in the hotel bar!.

On Friday, whilst most of the party went flying in PAF transport aircraft from Krakow AFB, I joined two others to make a private visit to Auschwitz and Birkenau. Having seen many current affairs programmes and films about Auschwitz, I was prepared to be shocked by what I was to see; in fact, I found the two sites to be less moving than I had expected. Auschwitz presented a somewhat sanitised atmosphere, with all of its very well constructed two storey brick buildings in immaculate condition. Partly because of the numbers of tourists viewing the internal displays – which were the scenes most likely to affect one – and (perhaps) partly because of the night before, I was not as affected as I had expected to be.

Birkenau, some two miles away from Auschwitz, is entirely different. It is a vastly bigger camp, much more open, now with only a few of the original accommodation buildings remaining near the main entrance, preserved to illustrate how "prisoners" lived; and the demolished gas chambers (now undisturbed heaps of rubble), with the large modern memorial close by, are at the opposite end. Running from the main entrance, almost right across the camp, the railway lines onto which arriving trainloads of Jews were brought to the camp are fully preserved.

After returning from Auschwitz, the whole party attended a reception with our Polish Air Force friends at the Polish Aviation Museum, which is situated on the old disused Krakow civil airport site, not far from the centre of the city. There are some wonderful aircraft in that museum – well worth a visit for anyone interested in aviation.

On Saturday, my final day on the tour (many were staying on for the group tour of Auschwitz and Birkenau on the Sunday, but I and others wanted to catch the excellent weather and return to UK while the fine weather lasted) we had a morning at leisure to explore the beautiful city – you really need 3/4 days to look around all its charms, undamaged by WWII activities – followed by an afternoon tour of the Wieliczka salt mine. On my last evening, a number of GAPAN members joined together to enjoy an excellent dinner in an exceptionally luxurious restaurant. We had not intended to choose such a restaurant, but were unable to find any un-booked tables in any of the open-air restaurants around the square.

Thanks to the excellent staff work of one of our members, Mark Thompson – he arranged the route out of Poland, the early Sunday morning taxis, the immigration officer, PAF staff attendance, and of course the magic weather – the crews of five aircraft left our hotel in time for me, the last of the five, to be airborne at 0630Z.

The required routing out of Poland was via a mysterious waypoint ("Barex point" did not appear on any chart) to the approved entry/exit point at Gorlitz, 20NM north of the point where the German/Polish/Czech borders all join. From there, I routed to Braunschweig – a very efficient and friendly GA airfield; before leaving, I was given the latest METARs – 41 German, Belgian and Dutch airfields, of which only 4 were not CAVOK, and they were all 9999! I then routed overhead Detmold, where I had spent 5 years in the army in the 1950's, and then through Holland; it being Sunday, "Dutch Mil" sounded pretty un-interested in what was going on over Holland. I coasted out from the HSD VOR and flew direct to Southend. After an efficient clearance and refuel at Southend, I flew on to Martin and Annette's Stones Farm airstrip but, although I had it correctly entered on my GPS, could I see it?? I could see their old airstrip a mile or so away, but could not see their present excellent strip right under me! Red face all round!

After a very relaxed evening at Stones Farm – thank you all, including Alastair – discussing Romania 2007 and many other things, I flew home next morning, arriving at Shobdon at 1030. My total flight time, Shobdon to Shobdon, had been 17 hrs 5 mins for a chart distance of 2036 NM, at an average speed of 119.2 kts and an overall fuel consumption of 16.1 litres per hour.

Finally, sincere thanks to Jonathan Elwes, Maxi Gainza, and Bill Hall, all of whom put an enormous effort over many months into making this trip such a great success.



Krakow at dusk

Huey at the Military Odyssey 2006



Over the August bank holiday weekend I was asked to help out a good friend of mine, Rob Tierney, who had acquired a Huey from the 1982 Falklands Campaign. It was used by the RAF Benevolent fund in aid of their fund raising, better known as G-HUEY that was later sold. The Huey that I was asked to crew was used in the Vietnam campaign and was imported into England in 2005, having undergone a complete restoration between November 2003 to January 2005. The brief history of the aircraft is as detailed below. It is owned privately by Phil Connally and is based near Blackpool.

Starting in the early hours of 25 August, we drove to Blackpool to start our flying. When we arrived, Rob's documentation to be able to fly the Huey had not arrived at 0945 - however, it was promised and was on it's way by special courier. By the time the paper work arrived and we had checked the aircraft over, we departed at 1245. We then went to Wolverhampton (Halfpenny

April 1972	Purchased by the US Army
July 1972	Joined 129 Assault Helicopter Company Vietnam. Indication shows 108 flights and 559 combat hours were flown, until it was returned to the US in February 1973.
1973	Army National Guard
1991	US Army Troop Support and Aviation Readiness Command
1992	USARASF
1995	Army Aviation Support Facility
1995	MSAVCRAD
1996	Army Aviation Support Facility
August 2000	Aerospace Maintenance Central for storage, Arizona
2003 - 2005	Undergone complete restoration in the United States
16 July 2005	The machine arrived at Redhill, Surrey
30 July 2005	She arrived at her new home in Blackpool, Lancashire!

The aircraft has been restored back to Vietnam combat livery as it would have appeared with the 129 Assault Helicopter Company. The owner is working to get a more complete history of the aircraft

Green) and refuelled, then on down to Rochester for our last refuel before our short leg down to the Kent show ground. The event being held there over that weekend was entitled 'Military Odyssey'.

On the first leg of the journey we had some rain. The weather promised fair for the next leg to Rochester. In practice, fair was an under-representation of what we met. As we flew over Oxford we could clearly see the jets leaving Heathrow and as we reached Guildford we could see the Isle of Wight. After refuelling at Rochester we took on board the Flying Display Director so that he could get an appreciation of the Showground and the obstacles around it. On each of the days, as well as being in overall control of us he was to be flying a display himself in a Yak. As we hover taxied along the 'out of use runway' to the intersection for departure, the controller asked if we were ready for an 'immediate departure'. After replying Yes we were given clearance for an immediate take off. Consequently, our takeoff path included a 140 degree turn to the left which left our fixed wing pilot somewhat bemused by this example of helicopter flexibility.

At the site we were welcomed by the Vietnam Re-enactment Group with some welcome liquid refreshments. We were part of the Vietnam re-enactment group and the Huey was parked in the American camp as it was used over the three days as part of the Battle scene, it caused a lot of interest as it is the only flying Huey in the U.K. It rained on only one day over the bank holiday weekend which is surprising and the rest of the time it was very good weather. The whole weekend was extremely successful. We also raised money for the Blackpool Air Ambulance with a donation tin as they too are based at Blackpool airport.

We were kept very busy all weekend showing people around the Huey, and we thoroughly enjoyed talking to so many people who had an interest in the aircraft and her history. We especially enjoyed showing the children around and telling them all about Vietnam and what the Huey would have been used for. Several groups had their photos taken with the aircraft as background. Clearly, the Vietnam re-enactors were one group but another group that invaded us came roaring over with their model 3 foot long tanks and formed up in front of the cabin door. Conflicting and confusing thoughts also occurred when one saw people dressed as Roundheads and Cavaliers or 15th Century milk-maids sitting in the cabin pretending to fire the machine guns!

Our overall impression of the Show was that 'Yesterday's high technology had become today's hobbies'. This very much summarized by a near neighbour - a 120mm artillery gun and its tractor unit. And then there were jeeps. DUKWs and a 2nd World War Fire Appliance. The significant difference was that the Huey was doing what it was designed to do – fly. The guns could not really fire, even blanks, and there was no water for the DUKWs and no fires for the Fire Appliances {fortunately}.

Neville Stops



From Our New Zealand Correspondent

G'day everyone, blimey I'm sounding like one of the locals!

Well it's been twelve months since the 'great escape' so I thought I'd better cobble together a short update.

We're still in a rental house, however it's to our advantage as we have now bought a fabulous 16 acres; woops sorry 6.5Ha and we are getting under way with a new house. River boundary and valley views, oh and a 900m sealed airstrip within walking distance.

Flying is still interesting, just after I'd got checked out in the Company Partenavia P68c we had a prospective purchaser over from Oz; well I told him it wasn't for sale unless he paid the full asking price, bugger me (NZ speak), he said he wanted it, so off it went to Tasmania for him to commute to his olive farm in Victoria. The replacement aircraft was ferried in from California, a beautiful exec Cessna C208B (Caravan). I flew the C208 on my US licence for a while, then when the NZ CAA had done their part (extracting money) for the change of registration I had to do a full type rating check so that I was 'legal' on my NZ licence. The older I get the more cynical I become, maybe we should have kept it on the US register - sound familiar?





Back to business; now that Alpha Aviation is on its feet and in production we have made a strategic withdrawal and just own a token shareholding. Next exciting step is to produce a prototype of our new SLA/VLA aircraft which we have all but finished designing, watch this space!

Living in a pastoral area I thought some of you would be interested in the following stock sales report from one of our local livestock markets. 'A full yarding of cattle saw prices remain strong at the Live-stock Mart Auctions Kumeu sale on Monday. Best steers sold for up to $1,038 and good heifers to $845. A nice line of yearling Hereford steers made $685 and white-faced yearling steers made $715. Sheep: Ewes and lambs $33-$39, light prime lambs $58-$61.' Don't forget that there are $2.85nz to £1.

Well that's it for now, if you want to look at our web site try www.izard.com. We'll be thinking of you eating mince pies in front of a roaring fire (are you still allowed to light one?) as we try to stay cool by the pool turning a juicy steak on the BBQ. Happy Christmas to you all

Tim and Carol (Harrison)

R N Culdrose - First Class

At the end of September Caroline and I were invited to join some friends who had rented a cottage on the coast just to the west of the Helford river in Cornwall. This was an ideal opportunity to fly down, but where to land? We needed an airfield with fuel as close as possible to the cottage. A quick glance at the charts soon decided us that H.M.S Seahawk was the obvious choice being only five miles away, (no I wasn't thinking of landing on an aircraft carrier) Seahawk is the local name for Culdrose (EGDR) a Royal Naval station, home to a large contingent of Sea King helicopters and around half a dozen Hawk Jets, which is available for civil use.

I rang them a couple of weeks earlier and was put in touch with Mark Vince in A T C, who could not have not been more helpful, he informed me the only thing I had to do was fax him a copy of our insurance, proving we had Crown indemnity for seven and a half million pounds and that was it.

On the day of the flight which happened to be a Monday, Mark rang me with the latest weather and local do's and don'ts. On arrival we were met by Mark himself and a driver in a minibus, who helped us with our luggage, organised refuelling, ordered a taxi, all with military precision, nothing was too much trouble. We wanted to fly out to St Mary's on the Scilly Isles weather permitting on the Thursday - this was no problem we were told, just ring when you are five minutes away and we will have the minibus pick you up at the main gate. The same red carpet treatment ensued and we were soon on our way to the Scilly's, we received the same on our return.

We finally left to return to Leeds-Bradford the following Monday and were given a cheery send off by Mark and his helpers with instructions to inform as many people as possible about Culdrose as they are keen to expand the civilian use of it.

The cottage let was from Monday to Monday which is unusual but fortunate for us, as Culdrose opening hours are somewhat unuser friendly i.e.: Mon - Thurs 08.30-1700, Fridays 0830-1400 closed Saturdays and Sundays, this will have to change if they are serious about more civilian use.

Charges for a weeks parking + two landings was £123.14, fuel £1.12 .It's not cheap but very convenient for a part of the U.K. that for us in North Yorkshire means a long and tedious car journey. We took 2hrs 25 mins in G-BFXW. The rest of the party travelling by car took between seven and a half and nine and a half hours depending on times of departure.

R.N Culdrose 01326 574121 Fax 01326 573589
P.P.R mandatory.

Gordon Bellerby

An Experience in New Zealand



This is not a day to day diary of our trip but a flavour of New Zealand Mountain flying.

Wendy and I travelled to NZ to combine traveling the North Island in a mobile home, visiting friends and seeing areas missed previously, with 11 days Mountain and Island flying in the South Island with FLYINN. They are based on a sheep station called Geordie Hill near Wanaka. This is an operation run by Mathew and Jo McCaughan. (www.flyinn.co.nz). Accommodation was to be in a very comfortable cottage 11 miles from Matt and Jo's home and similar distance from the other cottage.

Our arrangement was to be at Queenstown airport at 9.00 am on the Monday where Matt and Jo would meet us and the other two guests, who turned out to be Bob and Patty Wagner, the well known, now retired wing walking act from U.S.A.

Jimmy, our instructor/guide, was to be with us for a BFR check for an application for a NZ license. We loaded up the two bright yellow C172's (180hp conversion) and immediately the tone was set for the type of flying we would encounter. Taking off from Queenstown (itself set in a flat area sandwiched between mountain ranges), the fully loaded C172's immediately had to climb to 5000ft to cross a saddle into valleys and hills for a 30 minute flight to Geordie Hill Station, itself in a valley surrounded by high hills.

BFR's completed and then off for some of the most sensational flying of our lives, learning how to read the mountains for the ascending and sinking air and turbulence, sometimes with a capital T! which meant dropping 20 degree flap and slowing to 70k or less to minimize the bumping - Flying close (I mean close) to the correct mountainside to get the rising air to safely cross a saddle into the next valley - avoiding cloud is an absolute priority. Everyday is a new adventure, but three days were exceptional - flying into Milford Sound and landing in Fiordland surrounded by 7000ft nearly vertical rising mountains, to and around Mt. Cook (12,000ft.) and landing on the beach at Bif Bay, miles from any habitation hoping the Lycoming would start for a take-off.

Other places of interest flown to were Stewart Island, now mostly a National Park where we stayed the night and went boat fishing the next day, Wendy catching the biggest fish - a trumpeter which was duly gutted and dispatched to the pan for lunch, and Matueka - another National Park (Abel Tasman) with a two night stay and a trek in the Park.

We visited several remote strips on stations (one 300m long) where people were happy to see us, and also Dunedin, Christchurch and Wanaka.

The stay at Geordie Hill was very comfortable and homely with superb dinners with Matt and Jo in their house in the evenings.

This was some of the most demanding but rewarding flying we have ever done. It is not for the less intrepid but is an exceptional way to see an amazing country, flying a C172 in a way never envisaged before in the company of warm and friendly people.

Yes we did have guide pilots (Matt and Jimmy) with us most of the time but I can assure you they were very welcome companions in the right seat in rapidly changing situations.



Wendy's opinion !!

For wives/passengers don't be put off by not sitting in the right hand seat. For the first few flights you will be pleased a guide is with your pilot. This is new flying in a different country. Following the route on a map - taking photographs of awesome sights, amazing colours, spotting animals and of course those sheep - in high ground and way out places. Over the sea there were Albatross penguins and we saw the ice-berg off the Dunedin coast ! With headphones you are part of this awesome flying. We didn't want to leave !

This was emailed from Bill and Wendy Burton as they continue their extended holiday in the Cook Islands.

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