

BRISBANE VALLEY FLYER

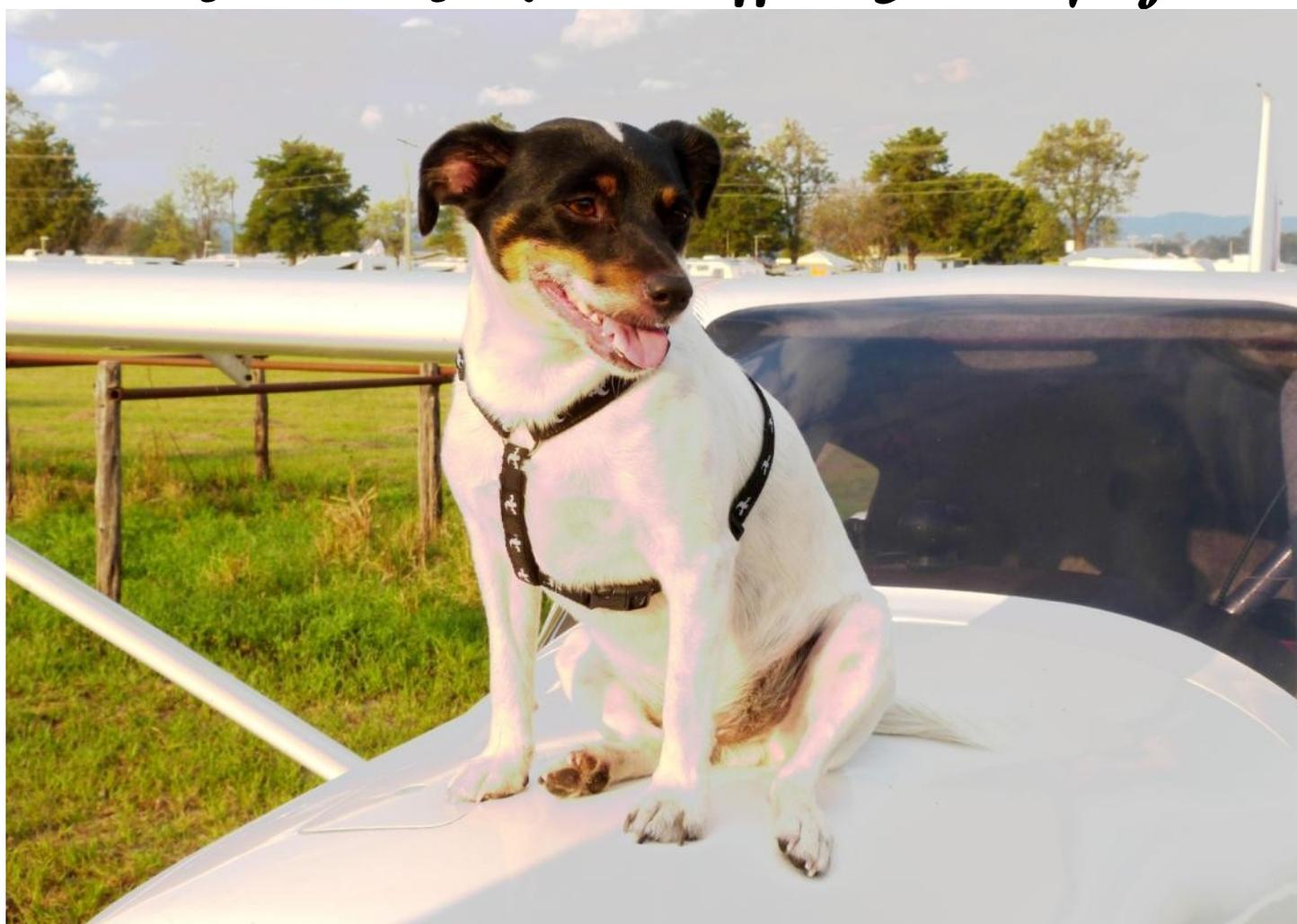
NOVEMBER 2012



**Watts Bridge
Memorial Airfield,
Silverleaves Road
via Toogoolawah,
Qld**

*www.wattsbridge.com.au
www.qua.org.au*

Planes and Pets (meet 3rd Officer Bill on page 9)



Bill Oates' Pocket Rocket Renovation

Brisbane Valley Sport Aviation Club member Bill Oates is a Watts Bridge regular. A retired LAME with over 40 years experience in General Aviation, his qualifications cover every type of airframe maintenance except composite ones. He's also qualified for engines and instrument systems. The first plane Bill ever worked on was a De Havilland Leopard Moth and he has worked on an extensive variety of GA types since commencing his career.

More than that, even though these days he only flies on his RA-Aus pilot's qualification, he has an Australian Commercial Pilot's Licence with about 600 hours total flying time. Upon retirement about five years ago, he moved to the nearby town of Esk and just loves being a Brisbane Valley resident.

Behind the bushy beard and broad smile, there is a heart of gold. Bill is liked by everyone who knows him. This is because he is always ready to stop what he is doing and get involved in other people's aviation problems, giving freely of his immense experience and knowledge. I can remember the day I first met Bill, in fact, when he was up to his elbows in the motor of Sandy Walker's soon to be sold Starduster.



Some time ago, Bill started the search for a plane of his own. He didn't necessarily want anything in pristine condition, but then he didn't want to have to rebuild a wreck either. He began by looking for a pre-loved wire-braced Drifter. I remember a couple of times Bill telling me about this or that aircraft, usually Drifters, that he had heard about or seen an ad for. Each time though, he saw reasons not to go ahead with the purchase.



One day, however, another type of aircraft came on the market. This was an early Hughes Pocket Rocket (two-seat tandem) Lightwing that belonged to a local pilot. This plane was in reasonable shape despite having had numerous forced landings due to engine failure and, its owner having lost confidence in it, it was going for a song. Bill soon handed over the readies and the little yellow and white high-winger was his.



Then, in his usual professional manner, Bill began analysing the problem. He soon realised that the arrangement of the fuel line pick-ups was far from satisfactory. There were also some less than ideal features with the VW motor that the previous owner had replaced the original Rotax with. It didn't take Bill long to re-design and build a new fuel system along standard GA lines, as well as improve the powerplant.

On the 27th July, the little ship took to the air again for a test flight with its new owner at the controls and the results were entirely acceptable. The Pocket Rocket flew very well indeed and Bill was pleased. He still has some fine tuning to do on the motor and a few minor finishing touches to the airframe, but basically the little Pocket Rocket is now ready to go. Well done, BVSAC member, Bill Oates!



Scott Hendry: soon to be reading you five!

Scott Hendry is a member of the Brisbane Valley Sport Aviation Club. Regular readers of Sport Aviation will remember an article about Scott's new Skyranger Nynja, "the Spirit of Kitty Hawk" in the June edition. Scott is a school teacher by trade and not short on innovative ideas, particularly in relation to aircraft. Lately, he has been thinking about communication radios and, in particular, how pilots can have a better idea of whether or not their plane's radio is transmitting properly.

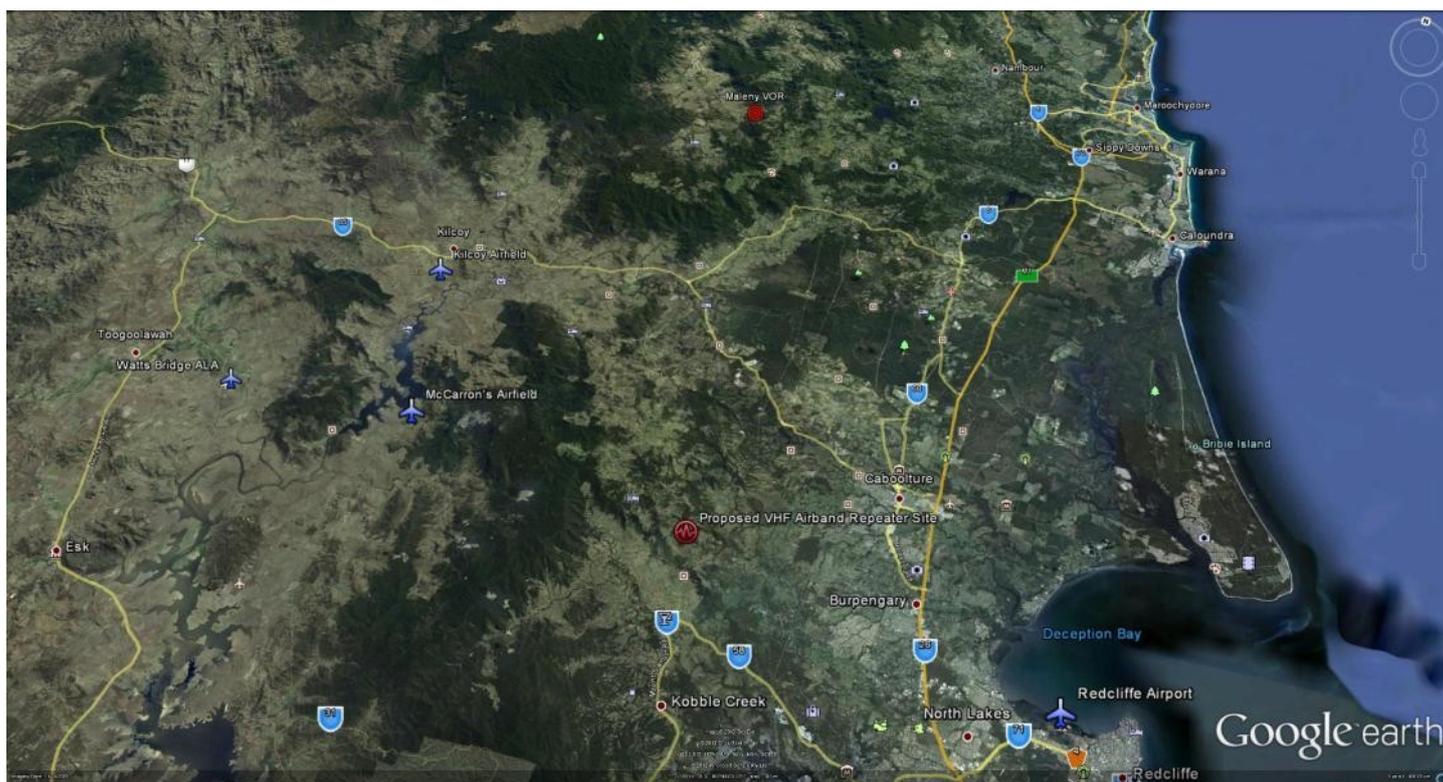


Most pilots would agree that VHF radios add safety to aircraft operations, especially close to airfields. What is not perhaps realised is that an aircraft with a malfunctioning radio can be far less safe than an aircraft with no radio at all. This is because the pilot of an aircraft with a poorly transmitting radio often assumes he is being heard when he is not. As anyone who has installed a VHF radio in an aircraft and experimented with aerial positions will know, satisfactory transmission is much more difficult to achieve than satisfactory reception, and good reception can lead to false assumptions about transmission.

Scott's brilliant idea is to have a ground repeater station placed at a known position and operating on a published frequency. This station will automatically respond to VHF transmissions in much the same way as the automatically responding radio facilities found at many regional country airports. However, instead of transmitting airport identification, the repeater station will wait until the pilot's transmission ends (until the carrier wave is terminated, that is) and then send it straight back to him. He will then be able to make a completely accurate assessment of the transmission qualities of his aircraft's radio by listening to his own voice. Also, because the position of the repeater station is known, the pilot will also be able to test his radio at different distances.

Normally, pilots wanting radio checks ask other radio operators to rate one of their transmissions on a scale from one to five. This system has been with us for a long time and is OK in most respects. However, as Scott pointed out, listening to your own transmission is obviously superior. He also said that carrying out a radio check before takeoff is not always feasible. For instance, there may not be anyone in the air or on the ground at that time to respond to a request for a radio check. As well, he made the comment that there can be many causes for an under-strength transmission, ranging from cockpit noise, ignition noise, microphone performance, not enough power going up the spout, or even a mismatched or faulty aerial. Having an independent ability to test your radio at a known distance from anywhere within range for as long as it is necessary to establish and improve its performance will be an invaluable tool for any pilot.

Scott recently posted his idea on a pilot's web forum and was immediately contacted by electronics guru Mark Kyle of Kyle Communications. Mark, who is also a pilot (and not long ago built a Savannah), was extremely keen on the idea. Moreover, he has the knowledge and expertise to put it into practice. He has already worked out what equipment to use and what licensing is required. He has approached Air Services and been given in-principle approval for a dedicated frequency. He plans to set up a radio test repeater station at Ocean View [27° 8'43.31"S, 152° 49'16.08"E]. The map below shows this site to be in the mountains just north of Brisbane with line-of-sight ground coverage of the eastern coastal strip from the mouth of the Brisbane River north to Maroochydore, and across the reaches of the upper Brisbane River Valley to the west. Of course, range will be significantly increased when aircraft use the facility from altitude.



Scott said that once this first repeater is up and going, he and Mark would assess the response from the local aviation community. Scott hopes that the proposed facility will be used by pilots to generally improve radio communications in the area. He is also hoping that the idea will be picked up elsewhere across the country, and that maybe in the future it could be implemented on a more formal basis by relevant government authorities.

I have two comments to make about Scott's innovative idea. Firstly, the ideal frequency for this kind of facility would be in the middle of the VHF aviation communication band as most aircraft aerals are matched to this centre point in order to optimise transmission across the band. My second comment is that this is another example of absolute brilliance from a member of the Brisbane Valley Sport Aviation Club. Scott Hendry, you are to be thoroughly congratulated. Well done!

Monto: good times, but sad memories

The runway at Monto is 1300 metres of very smooth asphalt, but you wouldn't know that by reading the ERSA, which has no information about the strip at all (except its orientation). This outstanding runway is set on one side of a large grassy reserve, which, besides the terminal area, is also the home of a local polo cross club, but unfortunately one that has lately fallen on hard times. The local council has put out a big welcome mat to RA-Aus, seeing NORRA-AUS as an ongoing partnership, one with huge future potential, and, with the imminent demise of the polo cross club, has actually offered us an exclusive lease on the place. RA-Aus Board member for SQ, Myles Breitretz, is very enthusiastic about the offer. He told me the lease would cost us \$400 for the first year and then \$40 for every subsequent year. The catch, however, is that the deal would also involve a financial commitment to maintain the facilities. But Myles sees all kinds of future possibilities for this ideally situated facility and has presented the council's offer to the Board. It is being considered.

At least ten BVSAC members were at Monto for the 2012 biennial fly-in. The first to arrive was Steve Donald with wife Lesley in their caravan towing Range Rover. They were on their way back to Brisbane after touring outback Queensland. Mark Gray and wife Jenny also arrived with their caravan before the event. I arrived early on Saturday morning as passenger in Frank Francis' nifty blue and white Sport Cruiser. Mike and Priscilla Smith arrived mid-afternoon in their Jabiru J230, and Helena Houghton and Werner Leist arrived by car on Saturday evening. Bob and Robyn Dennis also flew in but I missed them. There were about 100 aircraft on the field by nightfall Saturday along with what seemed to be an equal number of caravans. It seems that Monto is becoming a big event on the grey nomad circuit.

On Friday afternoon, Priscilla finally came face to face with the bloke who has been copying her original Jabiru insignia from the old Jab SPT she and Mike used to own. The culprit is none other than Jabiru builder (serial offender having built at least three J230s), Rob Pavan, from Nambour. Not only did he admit to stealing her design, but when he was told it was Priscilla's work, he was so elated that he stole a hug from her as well! Rob latest Jabiru J230 has eight cylinders under the bonnet and cruises at 140 knots. It is a beautiful machine. Rob does excellent work. Notice the clean lines:



There were two big marquee tents for aviation-oriented seminars. CASA representatives Kevin Scrimshaw and Mick Poole provided RA-Aus members with loads of valuable information. I was particularly captured by Jabiru's Sue Woods, daughter of Rod Stiff, who talked for an hour about the history of the company and the challenges they are currently facing with the high Australian dollar and our own domestic downturn. Sue was also quite open about problems Jabiru are having with their engines and talked freely about everything from cold starting to incorrectly installed gudgeon pin circlips.



Reg Brost, Australian agent for Savannah aircraft, also conducted a very well attended presentation, discussing, among other things, the extraordinary STOL capability of this popular aircraft. I didn't actually count them but there seemed to be as many Savannahs at Monto as there were Jabirus. These two types of aircraft were easily the most numerous by far.

The crowd's favourite, though, was clearly the De Havilland Dragon 'Riama' from Caboolture. "Porter Airlines" were doing joy rides at \$40 per head with proceeds being donated to charity. As everyone now knows, but as no one even dreamed of then, the plane was to tragically crash on the way home to Caboolture on Monday afternoon taking six lives with it. This has been a terrible loss to the SEQ aviation community (in every sense), and a loss to aviation heritage the world over.



Frank and I flew back to Gatton on Sunday morning without difficulty, although we had to bypass a few showers on the way. I noticed RA-Aus Technical Manager Adam Finn taking our photo as we rather naughtily started up in the display area, so Frank may have already heard more about that. In conclusion, it has to be said that Monto is such a perfect location for a fly-in that many of us hope it will become an annual event. A big thank you to Myles Breitreutz and his hard-working team for putting so much effort into making the 2012 NORRA-Aus event so successful and enjoyable. Overall, however, it is an event which will be very sadly remembered by just about everyone who attended.

RA-Aus AGM at Heck Field on 22nd September (report by Don Ramsay)

Don Ramsay graduated from the University of Newcastle NSW in 1973 with a Bachelor of Commerce (Accounting). He has over thirty years experience as a Certified Practising Accountant working exclusively in the corporate domain. He is a former finance executive with BHP and Rio Tinto, and the only qualified Treasurer that RA-Aus has ever had.

RA-Aus AGM

Staging the AGM away from Canberra was an outstanding success going by the number of enthusiastic members attending. Paul Brooks and the GCSFC were great hosts and, between them and the always helpful and cheery RA-Aus staff, we were all very well looked after. Let's hope the Board again takes the AGM out of Canberra to the members next year..

The meeting was ably chaired by Paul Middleton in what were, at times, difficult circumstances. An AGM that would normally be expected to be much of a formality and concluded within an hour in fact ran for around six hours.

The President's report was not well received by the Meeting and there was considerable debate as to whether it should be accepted or not. The objections related, in part, to the absence of strategic vision for the medium to long term future and the lack of reporting on major issues from the last 12 months.

The Treasurer's report was particularly disappointing. The report included only raw numbers and was missing the formal "Notes to the Accounts" and the "Auditor's Report" which are a vital part of the Annual Financial Report. There was no useful analysis nor commentary provided to explain the changes from last year. While the Treasurer excused himself on the grounds that he has not been in the job very long, it's now more than six months since he put himself up for the position of Treasurer. He was offered help by the previous Treasurer but this offer was effectively declined.

The Treasurer's failure to present a proper Financial Report represents a clear breach of the requirement of Rule 15 (iv) of the Constitution which requires reporting to the members "... not more than 30 days after the end of financial year". At the time of despatch of this letter, that requirement has still not been met. In future we must get the full Financial Report with the Notice of Meeting for the AGM.

In my view, the response by the Board to the questions on notice from David Isaac was not far short of contemptuous. Neither the questions nor the answers were handed out and it was then quite difficult for all to follow. The Board's response sounded like a whitewash to me. The questions were on notice and the member was entitled to a full and frank reply being provided at the AGM without being criticised for simply asking questions. Many questions were not answered at

all and none of the answers were open to question or debate due to time restraints.

There was a presentation from Mr. Rob Viney representing the Insurance broker for RA-Aus. The picture revealed was not one of comfort for RA-Aus. The Board declined to make virtually any comment about current litigation faced by RA-Aus. While we would not expect the Board to provide information that could weaken the strength of the RA-Aus legal position, there is much that could have been said to inform the members that would not in any way affect the litigation.

Most RA-Aus affiliated Clubs have a general meeting either monthly or quarterly. RA-Aus itself has zero scheduled general meetings each year other than the AGM. The format of the AGM is very restrictive with the Agenda hard coded into the Constitution. With the passing of the amendments to the Constitution RA-Aus now has just one scheduled General Meeting per year where the Agenda is open to the members. I don't think that is excessive and apparently neither does the bulk of the membership who voted overwhelmingly in favour of having a General Meeting in conjunction with NATFLY. Incidentally, quite a number of people asked me why the AGM itself isn't at NATFLY considering that that would give the biggest number of members the opportunity to participate.

Due to the massive support given to the Constitution amendments, members now have the right to call for a General Meeting if 100 members consider matters serious and urgent enough to warrant it. The dissatisfaction with the Board's performance and with regard to a number of issues raised in the questions from Mr Isaac, has sparked a move to call for a General Meeting to be held concurrently with the February 2013 Board Meeting. The Agenda for this meeting will be established to ensure that all significant issues plaguing RA-Aus can be dealt with and the Board held to account based on their responses. Please feel free to email or ring me in regard to this development.

Don Ramsay
dramsay47@westnet.com.au 0418 257 793

Insurance Questions from the AGM

Several of David Isaac's questions on notice concerned insurance. The RA-Aus insurance broker was at the meeting and presented a report to the effect that late renewal of RA-Aus insurances was a perfectly normal situation and that putting our insurance needs out to tender well in advance of the renewal date was not necessary because no one really wanted our business and it was better to stick to the one provider who would always look after us. I have to say that he was fairly convincing. Apparently, he gave a similar presentation at the Board meeting later that evening and one new Board member later assured me quite confidently that RA-Aus were in good hands. However, a week or so later I received the following letter from a member who had been one of the few dissenting voices at the meeting when the insurance issue was being discussed. Peter Bugg, RA-Aus member 005223 has over 35 years in the insurance broking industry:

From: Peter Bugg <pbugg@onthenet.com.au> **Date:** 24 September 2012 **Subject:** Insurance and RA-Aus

Without prejudice.

At the RA-Aust AGM held at Heck Field on Saturday 22nd September, I was disappointed with the answer to my question: "As insurance cost is our second largest expense item (after wages), does the board have any intention of calling a tender for the organisation's insurance services (broker for group)?" The answer was: no they had no intention of calling the position of insurance broker open to tender despite the incumbent having been appointed for only a twelve month period back in 2007. I repeated the question just in case they were confused and had misunderstood me. The chairman confirmed that they had no intentions of calling the broker appointment to tender.

In 2007, after the incumbent had been appointed, I told the then CEO and two sitting board members that the insurances held were inadequate and needed urgent action. I pleaded with them to take out a Management Liability style policy to protect the interests of myself and every other member, as well as the Board and staff. At the time, I worked for the world's largest insurance broker, one who had a specialty in Aviation Insurance. As I understand it, it was a further 18 months before the incumbent broker offered this cover. This is what he told us on Saturday 22nd.

After my question at the AGM, the incumbent broker took to the stage and told the members how they had not dropped the ball this year. He also advised us that neither had the CEO dropped the ball in delaying the return of the signed declaration covering known circumstances to be advised to the market for renewal terms. The broker also advised that he had had adequate time (with only a week or so available) to canvass the market. Nor had it been a problem to ask the holding underwriter to extend cover for a period post the renewal date. We were led to believe that the whole thing had been a storm in a teacup and that we should not worry.

After over 35 years in the insurance broking industry, it is my opinion we deserve a better service, and a more adequate report from the broker. I would have expected that, with an account the size of RA-Aus, the tender document would have been out to the market at least five weeks before renewal date, not five days! From my experience, with an account of this complexity and size, a detailed submission should have been made many weeks before. The expected result of only giving a week's notice for new terms would be a decline from every underwriter approached at the last minute, which is exactly what they got. (We were told 18 insurance companies declined to offer terms.)

So what is the solution? I believe we should have a transparent tender process for the broking services for this organisation. I do not want to tender for these services myself; however, I would like to assist the Board in drawing up the tender document, be present to advise the Board during the selection process and also be present each year to oversee the renewal process. If the Board has a problem with me, which I suspect they do as they know I know they have no skill in this area, I suggest they appoint another consultant who has aviation experience to do the consulting work as above. There are several good people out there who could provide the service, and I could assist in suggesting some names if they saw fit to ask me.

If the incumbent wins the tender and proves they have the best package for our group, that would be fine. We would have proved we have had the best arrangement all this time. If we select another because they are better able to solve our insurance problems that would be even better. The truth is, however, that we do have a problem despite the Board's inability (or unwillingness) to see it, and despite our incumbent broker's wish not to admit it.

I am happy to discuss the matter with the Board, and I hope they take up that offer before things get out of hand.

Footnote: I heard from my industry contacts today that RA-Aus have gone through their present cover. That is to say that they have already spent or incurred over \$500,000 including known but unpaid legal accounts to date without even going to court yet. If this is true, the answer we received from the Board to one member's AGM question, "How much has been spent to date and will we exceed our cover?" may have been in error.

Regards,

Peter Bugg
Member 005223

Knowing which way the wind blows

In politics (and in life generally), this is an important skill to acquire. In aviation it can be a matter of life and death. The good news is that with modern GPS equipment it is a relatively easy task. Pilots should get into the habit of assessing the wind as soon as they are airborne so that they can make decisions about their best cruising level as they climb. The habit of assessing wind strength and direction should also be practised on local flights. In the event of an emergency landing, the wind direction (if blowing hard) can be more important than the surface on which the landing is made, with survivability being proportional to the square of the groundspeed. Using a typical LSA as an example, a 10 knot wind increases the aircraft's energy by a factor of 2.5 if the pilot gets the direction wrong. For 20 knots the difference is nearly 7 times as much, and 30 knots of wind just doesn't bear thinking about (25x). Remember too (as Mike Smith's old instructor used to say) that gravity is more dangerous than inertia, so don't flare too high. The ground is far more solid than anything you are likely to hit going forward and there is a lot of potential energy in 50ft of altitude.

BVSAC meetings all at Watts Bridge from now on

Yes, that is right! **All** club meetings will be in the clubhouse. The next meeting is on 3rd November at the unusual time of 12.30pm (BBQ 11.30 to 12.30pm). Normally, all meetings will be at 10am on the first Saturday of the month. The BVSAC Christmas Party will be in early December also at the clubhouse.

This really is one of my wife's planes!

The photo below is from Texas rancher, Don Pellegrino, who with his fellow ranching mate Bill Hughes asked to be added to the Flyer mail out earlier this year. Don told me that this is his wife's plane. I double checked. Don said, "Yep, my boss, the wife. She has more ratings than this old guy." The aircraft is a Fairchild XNQ-1. Don says that only three were ever made and this is the only one left. It took ten years to rebuild, and this is the 20th year for flying it. Don and his wife have just sold a Rearwin Cloudster 8090 to make room for the restoration of a 1936 Rose Parakeet. They also have a J-3 Cub and a Piper PA-28R Arrow. Don says they live on an airstrip and are totally incurable "airplane junkies."



Funflight cancelled

The FunFlight event that was scheduled for this Sunday, Nov 4th at Watts Bridge has been cancelled. This has been due to the difficulty FunFlight Australia had in obtaining the passengers required to make the day viable. The Funflight committee wishes to thank those people from BVSAC who volunteered.

Hangar space available at Forest Hill (near Gatton), not expensive, contact BVF editor

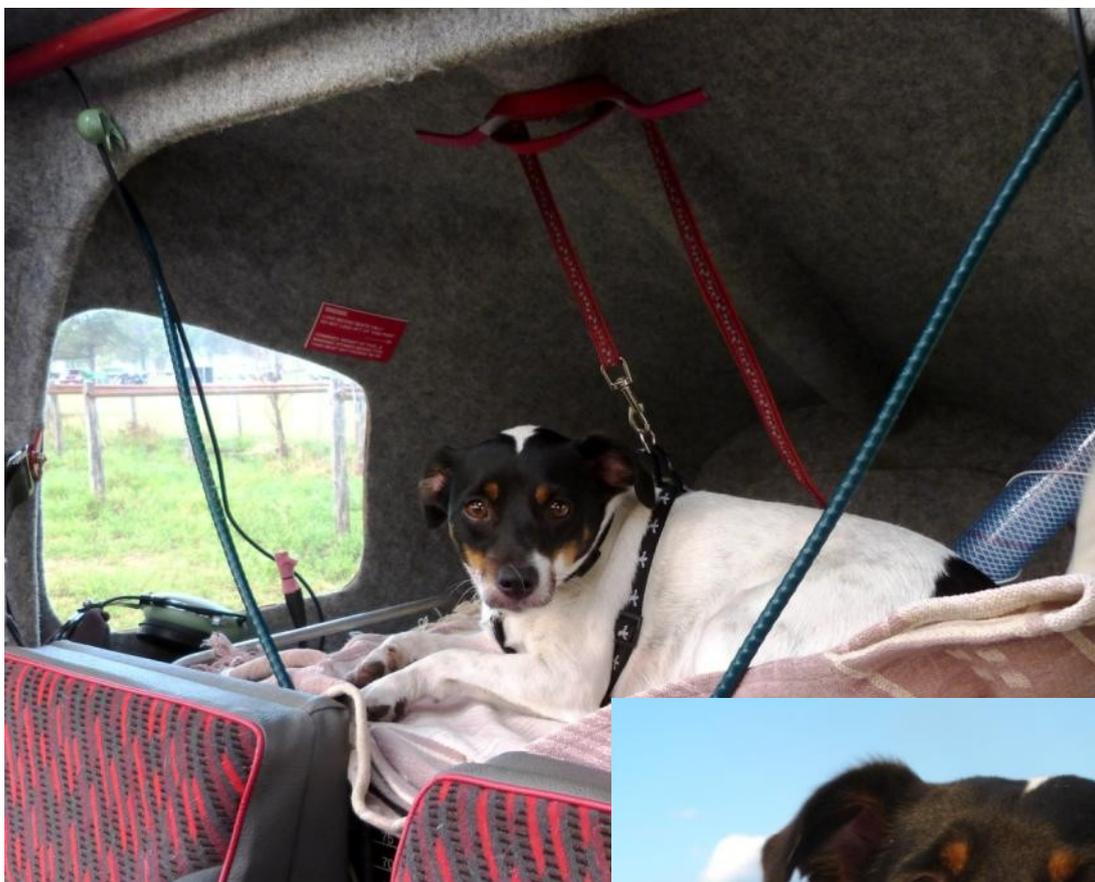
ORATEX UL600 (Will Miller found this on the Web)

ORATEX is an iron-on type polyester fabric covering, ideal for aircraft. Its main advantage over existing systems (according to its advertising) is that the glue is water-based, so there is no smell, and no solvents are required (unless you count water as one). Also, it comes pre-coloured, meaning no paint, primer, sealer or UV coating are needed. Tools are washed out with water. As well, the adhesive has no time limitations (within reason). It can be applied today and the fabric can go on tomorrow or next year. Basically, the fabric is finished when you apply it, so there are no thick paint coats and therefore no extra weight. It sounds too good to be true.



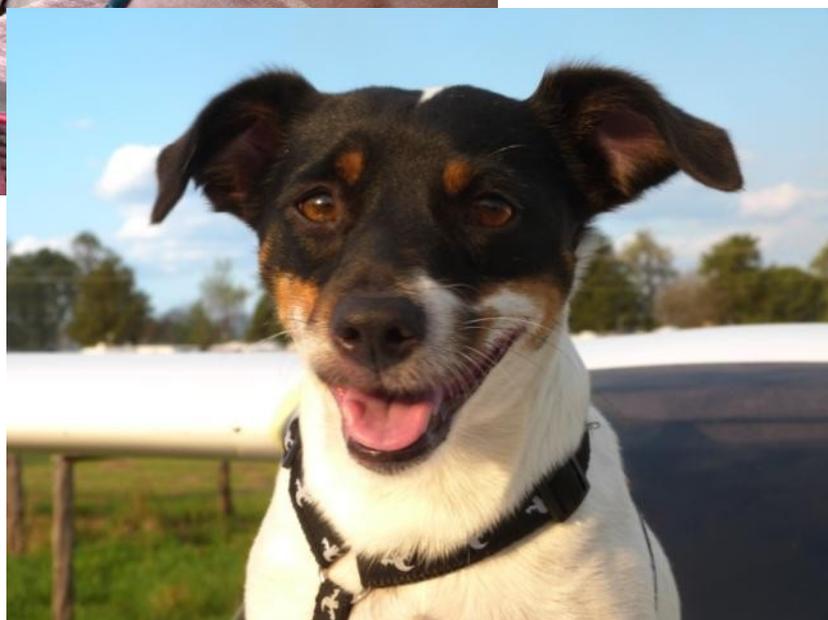
Planes and Pets (quadrupedal type)

Except when planning to land in a national park, Stephen Cummins and his co-pilot/partner Biserka never go flying without the third member of their flight crew, and that third member is Bill, the fox terrier. Bill knows the inside of the Cummins' Jabiru like the back of his paw. He has his own station in the centre of the back baggage shelf where he can keep a wary look out up front as well as monitor the instruments. Like the front seat crew, Bill wears a harness. This keeps him from becoming too enthusiastically involved in the piloting tasks because it is securely attached to an airframe cleat above his head. Bill can stand up, scratch himself, even do a 360° turn; however, he cannot in any way interfere with the safe operation of the aircraft.



Pets are part of our lives. It is very common to see dogs travelling in cars, often sitting up next to the driver on the front seat. Less common but still seen reasonably often are dogs in boats. It seems perfectly reasonable that we should also take them with us when we go flying. It is just a matter of common sense that we should restrain them inside the aircraft. A travelling arrangement like Bill's seems pretty foolproof. These photos were taken at Monto, by the way, where I observed Bill making contact with some other four-footed, furred flying fanatics.

Stephen, Biserka and Bill are often to be seen together at flying events around South East Queensland. They are a Gympie family and have a half share in a hangar at Gympie airport. Stephen built his plane in 2003. It is a Jabiru UL with a 2.2 motor and has done 800 hours so far without any problems whatsoever. Third officer Bill was born only three years ago. Actually, Bill had a twin brother for a while, but unfortunately this brother came to grief after being hit by the neighbour's car. So, if Bill could only talk instead of bark, he would no doubt tell us that flying is a much safer way of getting around than taking one's chances on Queensland roads.



Flying the new Jabiru J170-D

During October, I took a trip up to Yeppoon to check out Rob Dawson's Jabiru LSA 55 (see BVF Sept) and to also have a short holiday. On the way up (and back), I called in on Sue Woods at Jabiru's manufacturing facility at Bundaberg Airport. Sue is the eldest daughter of Rod Stiff and is easing herself into the CEO's position. Rod is in Northern Queensland "practising" retirement. I had met Sue a few weeks before at Monto and found her to be a warm and engaging person. Even though the light aircraft business is rather slow at the moment, I knew there were a lot of exciting things happening at Jabiru, and Sue had kindly offered to show me around and even take me for a ride in the very latest Jab aircraft.



I spent about four hours with them altogether, and saw every facet of their operation from the initial cutting of the cloth to the final assembly line (photo above). They were totally open with me and answered my every question. I was extremely impressed with their quality control system and plan to write a separate article on that in the future. The most exciting part of my visit, though, was flying with Sue in the new Jabiru J170-D.



The J170 was conceived with hotter climates in mind, but, ironically, in January 2005 the first kits were shipped to Norway. Local deliveries (of the C model) commenced in April 2007. Basically, the J170 is a J160 with the longer wings of the J230 and a bigger elevator. The longer wings allow it to climb faster in hot conditions. They also provide more float on landing, a feature that is especially helpful for students. Amazingly, the two metres of extra wing span take a whole 8 knots off the stalling speed. However, even though VSO is down to 40knots, the J160's 100 knot TAS cruise speed is still easily achievable at 2850 rpm. With its very wet Jabiru wing, the J170 has over 1000nm of still air range!

The D model is a significant development on the C model. Jabiru has taken an aircraft already regarded as one of the most stable and easy to fly, and have made it even better. This has been done by using a longer engine mount to extend the nose, thereby moving the empty C of G forward, and increasing the size of the vertical fin. In a J170, the entire payload (crew, fuel and baggage) all are positioned aft of the C of G, so by moving the empty C of G forward the aircraft is, in theory, able to carry more payload without running into C of G issues.

There were significant technical issues to sort out, however, and development and testing of the new design took twelve months. Like all Jabirus, the plane underwent extensive structural analysis and flight testing. The spin recovery program alone involved at least 250 individual spins during over 40 separate flights.

Flying the new Jabiru J170-D (continued)

The plane we used for the demonstration flight was the actual test aircraft, registration 24-7289. Upon entering the cockpit, I remember thinking that it was rather large inside. However, this was probably due to my normally flying a Sapphire and also due to have been sitting in Rob's LSA only a few days before. Sue assured me that the 170-D has the same internal dimensions as all J160s and J170s, but it really is quite a roomy aircraft nonetheless. This particular aircraft was also very well appointed with an upgraded instrument panel.



Bundaberg Airport is security controlled, but Jabiru are outside the airside secure area. There are massive, remotely controlled, electrically actuated security gates at the end of the light aircraft parking area on the southern side of the terminal. Anyone visiting Jabiru should take their mobile phones with them to call for the gates to be opened on arrival. We had a remote control in our aircraft so it was easy for us to enter the airport proper.

I found Sue a smooth and polished pilot. I had expected no less from the CEO of an aircraft company, but she obviously does quite a few hours in her new position. She is especially careful about noting the call signs and intentions of other traffic. As it turned out, there were only two other aircraft in our area that day and they were well clear. Sue told me, though, that Bundy Airport can be a very busy place at times.

Like all Jabirus, the J170 does not have differential brakes. It does, however, have a very effective steerable nose wheel, and taxiing is a simple affair. Soon we were lined up on the main sealed runway (R14) and ready to go. As the throttle opened, I was conscious that the engine was not particularly noisy, but perhaps it was because I was wearing one of the very comfortable headsets that Jabiru have especially made for their aircraft. We accelerated briskly and were quickly airborne and climbing out south of Bundaberg township heading for the coast. After some initial turbulence near the ground, it was soon very smooth and clear with the plane climbing at about 700 feet per minute. Sue handed over control, but it was hardly necessary. The J170 just climbed effortlessly on course hands off. It did not deviate or drop a wing in the slightest. It just sat there, perfectly stable. I was quite amazed really. It is a very stable aircraft indeed, but also one that responds very lightly and positively to pilot input.



We levelled out at 3500ft south of the Burnett River mouth not too far from Bagara. I decided to try a few clearing turns before doing some stalls. Firstly turning left and then right, I again took my hands off the controls. The aircraft just sat in the turn with absolutely no tendency to steepen the turn or to flatten it out. It was a very impressive demonstration of the plane's aerodynamic balance.

The flaps are electrically actuated. The indicator is on the pillar in front of the pilot and very easy to see. Firstly, I stalled the plane with half flap and then in the fully flapped landing configuration. The stall warning sounded loudly in the cockpit as the airspeed fell. There was no wing drop in either of the stalled conditions, but neither was there any nose drop. The plane just hung there and slowly started to lose altitude. Easing forward on the centre stick quickly got us flying again. We did not lose much height. The best words to describe the plane's stalling characteristics would be "docile" and "safe".

Sue told me that the new engine mount uses more engine thrust offset than the previous version. She said that this has made the aircraft quite neutral with different power settings. On takeoff, for instance, just a tiny amount of right rudder will keep the aircraft straight, while on landing (low power) a small amount of left rudder is needed. She stressed that this is a real plus in a go-around situation where the pilot needs to go from very low to full power quickly and at low speed. Previously, when the power was applied, the torque reaction tried to drag the aircraft off to the left, but now this new plane stays straight with much smaller pilot control inputs. Sue thought that instructors and students would particularly appreciate this feature.

Flying the new Jabiru J170-D (continued)



After a little more general flying around, we headed back up river, joining left base for R14. Forward visibility is very good in this aircraft. Even though I was sitting quite high, I could barely see the nose cowl as we turned onto final (see photo). The air got a little rougher as we came close to the ground but Sue sat the plane very carefully on its main wheels just past the threshold. We reported clear of the runway and, as we rolled in along the taxiways, I noticed that there were numerous Jabirus parked all over the airport. In fact, I only saw two light aircraft that were not Jabirus! Obviously, the local pilots appreciate and support the local product. And why shouldn't they?

Soon we were back through those big sliding gates and under the trees at the rear of the Jabiru hangars. Sue asked me if I was impressed and I had to admit that I was. She said that the new design had turned out to be a bigger job than they had expected, but she believed the end result was well worth it. She said that the J170-D is an aircraft which is significantly improved in many areas and should make an excellent trainer for years to come. I could only agree with her.



Footnote: The instrument panel in the test aircraft is not the one that will eventually go into production J170-D aircraft. The latest instrument panel design (photo right) has more room at the bottom of the panel above the knee, as well as a contoured shape at the top to cater for the larger Dynon Skyview (if this up-market EFIS option is chosen). In this photo, the GPS has yet to be installed. Even so, it's a neat panel.



“178 seconds to live” – a dangerous aviation myth

On Monday 1st October 2012, vintage De Havilland DH84 Dragon VH-UXG crashed after encountering poor visibility over rugged terrain north of Brisbane on the way home from the Monto fly-in. All six occupants were killed. The pilot is reported to have radioed for assistance, apparently disoriented and cut off under the cloud base.

The media coverage of the VH-UXG tragedy made headlines out of the “178 seconds to live” conviction held by many pilots about VFR pilots inadvertently flying into cloud. This belief has its origins in a University of Illinois study that was done back in 1954. There appears to be information on the Internet about a subsequent 1991 study; however, the numbers quoted are identical to those from the 1954 study, so it can be assumed that there was no 1991 follow up study.

A common problem in academia is for original research to be quoted out of context. There can then be a tendency for this out-of-context information to become a consensual norm, especially if it contains an emotively appealing element that complies with prevailing culturally-conferred logic. This tendency is often reinforced by coverage in the popular media.

Many older Australian pilots remember the Bureau of Air Safety Investigation (now the Australian Transport Safety Board) during the 70s, in issue after issue of the Aviation Safety Digest, drumming it into pilots' heads that if they accidentally flew into cloud they were as good as dead. The BASI writers repeatedly quoted the numbers from the 1954 study. These numbers continue to be quoted in highly emotive and dramatic style today. Witness this current article from the FAA:

http://www.faa.gov/about/office_org/field_offices/fsdo/fai/local_more/alaskan_articles/media/178%20Seconds%20to%20Live.pdf
(DOT pamphlet)

If you are ever tempted to take off in marginal weather and have no instrument training, read this article first before you go. How long can a pilot who has no instrument training expect to live after he flies into bad weather and loses visual contact? Researchers at the University of Illinois found the answer to this question. Twenty student "guinea pigs" flew into simulated instrument weather, and all went into graveyard spirals or roller coasters. The outcome differed in only one respect: the time it took to lose control. The interval ranged from 480 seconds to 20 seconds.

The average time was 178 seconds – 2 seconds short of three minutes.

Here is the fatal scenario: The sky is overcast and the visibility poor. That reported 5 mile visibility looks more like two, and you can't judge the height of the overcast. Your altimeter says you are at 1500, but your map tells you there is local terrain as high as 1200 feet. There might even be a tower nearby because you are not sure just how far off course you are. But you have flown into worse weather than this, so you press on. You find yourself unconsciously easing back just a bit on the controls to clear those none-too-imaginary towers. With no warning you are in the soup! You fight the feeling in your stomach. You swallow, only to find your mouth dry. Now you realize you should have waited for better weather. The appointment was important - but not that important.

Somewhere a voice is saying, "You've had it - it's all over!"

You now have 178 seconds to live. Your aircraft feels on an even keel, but your compass turns slowly. You push a little rudder and add a little pressure on the controls to stop the turn, but this feels unnatural and you return the controls to their original position. This feels better, but your compass is now turning a little faster and your airspeed is increasing slightly. You scan your instrument panel for help, but what you see is just a bad spot. You will break out in a few minutes. (But you don't have a few minutes left.) You now have 100 seconds to live. You glance at your altimeter and are shocked to see it unwinding. You are already down to 1200 feet. Instinctively, you pull back on the controls, but the altimeter still unwinds. The engine is into the red, and the airspeed nearly so. You have 45 seconds to live. Now you're sweating and shaking. There must be something wrong with the controls; pulling back only moves that airspeed indicator further into the red. You can hear the wind tearing at the aircraft. You have 10 seconds to live. Suddenly, you see the ground. The trees rush up at you. You can see the horizon if you turn your head far enough, but it's at an unusual angle -- you're almost inverted.

You open your mouth to scream, but ...you have no seconds left!

As can readily be seen above, the logic behind the “178 seconds to live” scare campaign is to frighten the living daylight out of VFR pilots in the hope they will never go near cloud. Such logic is reminiscent of the 1980s Australian Grim Reaper AIDS prevention campaign, referred to by many health professionals as the paradigm of ineffective public health campaigns. The idea is also similar to telling teenage girls not to have sex or they will immediately fall pregnant.

There are strong arguments to say that education and skill development are far more effective at improving outcomes than scaring people. That is not to say that VFR pilots should not be educated about the dangers of losing visual reference, but they should also be encouraged to prepare for such hopefully avoidable situations instead of developing a paralyzing fear of them.

However, the “178 seconds to live” scenario is flawed for other reasons.

Some instrument rated pilots have always had difficulty believing the oft-quoted “3 minutes to graveyard spiral” scenario. After all, we are not talking here about instrument departures, ILS approaches, holding patterns, the operation of radio-navigation aids, special radio procedures and all those other complications associated with instrument flying. We are simply talking about holding the wings straight and level while climbing up and out of trouble, executing a gradual 180 degree turn and going back the way we came. The only extra (non-VFR only) instrument required is an Artificial Horizon, and many General Aviation aircraft (and quite a few recreationally registered aircraft) have this instrument. VH-UXG had an AH (and given the high level of maintenance on that aircraft, it was probably quite serviceable).

Let us now go back to the original 1954 paper and examine the conditions from which the “178 seconds to live” conclusions emerged. This study was done by the University of Illinois Institute of Aviation. It is entitled “180-Degree Turn Experiment” and a scan of the original paper is available from:

<http://www.humanfactors.illinois.edu/Reports&PapersPDFs/JournalPubs/180%20Degree%20Turn.pdf>

The task the researchers set themselves was to develop an optimal technique for teaching a non-instrument rated pilot in a VFR-only instrument equipped aircraft to execute a 180 degree turn after entering cloud and then head safely back to where they had come from. Twenty VFR pilots who had had absolutely no previous instrument flying experience (neither simulated nor actual) were initially tested in worst case conditions, and all of them quickly put their aircraft into “incipient dangerous flight conditions”, the average time taken being 178 seconds.

However, there are at least three features of this study which indicate seemingly without doubt that for almost sixty years its findings have been taken completely out of context:

Firstly, the aircraft chosen for the study was a Beechcraft Bonanza. Researchers chose this aircraft for two reasons, these being that it was thought to be the most difficult to fly of all the light aircraft available at the time, and also because none of the test pilots had had any solo experience in this type of aircraft.

CHOICE OF THE BEECHCRAFT BONANZA

The Beechcraft Bonanza C-35 was selected for use in these case studies upon the basis of the preliminary flight testing which indicated that the technique would be most difficult to accomplish in the Bonanza. The Bonanza was also considered representative of the most complex light single-engine airplane normally flown by the nonprofessional, noninstrument pilot. In addition, it was desirable to use an airplane with which the subject had had the least amount of experience. In short, the assumption was made that if the subjects, none of whom had soloed a Bonanza, could master the technique in this airplane, they could master it in any single-engine airplane under 3,000 pounds gross weight.

Secondly, the Bonanza test aircraft had a very limited panel. There was a Turn and Bank Indicator but no Artificial Horizon, no Directional Gyro and no Rate of Climb Indicator. The tests were also conducted in such reduced lighting that pilots “found it difficult to read the trim tab indicator.”

EQUIPMENT IN THE AIRPLANE

In the experiment it was decided to use only those instruments and equipment specified in Civil Air Regulation 43.30 for visual flight rules, plus a turn indicator. Therefore in equipping a standard Beechcraft C-35 for these case studies, the artificial horizon, the directional gyro, and the rate-of-climb indicators were covered. Amber plexiglass covered the windshield and the side glasses. The subject pilot was equipped with nonpolarizing blue goggles to simulate instrument flight conditions. The amber-blue combination reduced the cockpit visibility to an undesirable degree, however, and it was necessary to install additional cabin lights — one focused on the compass and the second spotted on the instrument panel. Even with the additional lights, most subjects found it difficult to read the trim-tab indicator. As a consequence, the instructor carried a flashlight for spotting this indicator when it was necessary for the subject to read it. Before each flight, the instructor checked the blue goggles and the amber windshield for possible spots through which the subject might have outside visibility.

Thirdly, the Bonanza test aircraft (which, remember, the test pilots had never previously flown solo) was loaded to maximum gross weight under the most rearward allowable centre of gravity conditions.

THE LOADING CONDITION

For the purposes of the case studies, the airplane was loaded in the most rearward allowable center of gravity (c.g.) condition.⁶ The airplane was loaded to maximum gross weight, 2700 pounds, with one subject and one flight instructor occupying the front seats, a full load of fuel and oil, sandbags weighing 340 pounds in the rear seat, and a 50-pound sandbag in the baggage compartment. This gave a rearward c.g. of +84.16 aft of datum for take-off; the allowable limit was calculated as +84.4.

All flights were limited to a maximum of 80-minutes duration during which time, because of fuel consumed, the gross weight became 2620 pounds, and the calculated c.g. position was +84.4 aft of datum. The allowable c.g. limit for a gross weight of 2620 pounds was calculated as being +84.43 aft of datum.

Frequently a second flight instructor occupied the right rear seat. In this case, an amount of sand equal to the weight of the instructor was removed from the rear seat.

Hard to believe

Can this really be the study from which nearly sixty years of paranoiac finger wagging have arisen? It does indeed seem to be the case. Neither has it just been a process of creating mind-numbing fear. It can be plausibly argued that the training mindset created over those 60 years has not been encouraging for VFR pilots to play with blind flying as it would only make them more likely to flirt with assured death. Rather it has been a “do the rating or don't do anything” attitude, which is, ironically, exactly the opposite outcome the original researchers appear to have been hoping for when they say (page 6) that non-professional pilots place too little emphasis on proper training in the use of instruments. In short, this iconic study seems almost as if it had been set up in a way that guaranteed those 20 subjects would fail their initial flight test. They had absolutely no prior instrument flight experience, they were flying a sophisticated aircraft in which they had had no solo experience, an aircraft loaded fully aft at MTOW and therefore in its least easy to fly condition, and they had limited instrument panels with no attitude reference! Furthermore, the emphatic (and consequently emotive) conclusiveness of this study seems to have put paid to more realistically criterioned follow-up research ever since.

To repeat: the claim being made here is not that VFR pilots should not be educated about the dangers of losing visual reference. Rather, it is that they should be encouraged to prepare for such hopefully avoidable situations instead of developing a paralysing fear of them. VFR pilots have always pushed their luck at times of marginal visibility and no amount of Grim Reaper preaching from on high is likely to ever stop them. Rather than trying to instill the fear of God with misquoted 60-year-old research, today's training information needs to be up-to-date and factual. VFR pilots should be encouraged to do an hour or two under the hood from time to time. The installation of Attitude Indicators also needs to be encouraged. The “178 seconds to live” myth needs to be dispelled; forever vanquished from pilot's minds and replaced with informed confidence in their ability to do what is a reasonably easy task. It needs to be accepted that the risks associated with a few minutes flying in cloud early on in an aircraft equipped with attitude indication are far less than those associated with trying to out-climb a mountain gully ten minutes later.

Apologies

Some people may think that the framing of this article against the Riama accident has been a little inappropriate. If so, I apologise to them. However, concern for those still with us does not mean disrespect for those so tragically taken from us. The loss, to a larger or smaller degree, has affected everyone involved with flying here in South East Queensland. Even if we hadn't known the Porters all that well, the aircraft was part of our world. Its disappearance, the search and eventual truth has been unsettling for everybody. This article has been a way of dealing with it; perhaps, even, a way forward.

A way forward

There have been eight fatalities going home from RA-Aus fly-ins this year. Apart from the immense sadness of it all, this time RA-Aus escaped media scrutiny only because of the unusual type of plane involved. The seriousness of the situation cannot be denied. There are no easy answers, but in aviation there has usually only ever been one way forward. From its very beginnings, aviation has been built on improved technology and the ability of pilots to use it to their best advantage.

Both fly-in accidents appear to have been the result of information deficit (for want of a better term). Yet we live in an age when information is more reliable and available than ever before. Even the least sophisticated GPS receivers, for example, are rich with easily accessible information, the time of local sunset being just one valuable item. Of course, GPS's main advantage is to provide every (including the most cash-strapped) pilot with state of the art positional reference at a glance. In critically confined situations of reduced visibility, these systems are especially without equal.

Attitude indication is also more readily accessible than ever before. Non-TSO'd instruments are affordable, and even some mobile phones, such as the iPhone 5 (see page 16) are fitted with micro-electro-mechanical system (SEMS) gyroscopes able to run quite functional attitude reference applications that could be used for everyday flying and possibly save lives in emergencies. Most of all, however, pilots need to be psychologically empowered to use this equipment if and when required.

These modern information technologies should not be regarded as optional extras. The place for a GPS, for instance, is front and centre, a constant “in your face” reminder both of where you are and of your temporal limitations. I have been flying in two friends' aircraft lately, both pilot/owners not knowing how to fully operate their very sophisticated GPS receivers. GPS equipment should preferably be easily removable, so that occasional pilots can play with it and become intuitively familiar with its operation at home. It should be re-installed, however, for every flight, even those over familiar territory.

Furthermore, if it is accepted that GPS is the only realistic navigational alternative in times of situational stress, then it should be seen as a primary navigational tool in all flight regimes. In this way, pilots will become more familiar with its operation and the delay in switching navigational mindsets when operationally necessary would not be an issue.

Brisbane Valley Sport Aviation Club Office Bearers for 2012/13

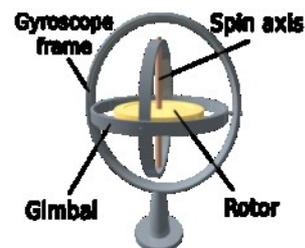
Our AGM was held on Saturday 5th October. If you are particularly desperate for reading material you will find the minutes on the last page of the Flyer. If, however, you are only interested in knowing the names of people you can complain to (or about), they are:

President: Neil Bowden	Secretary: Richard Faint	Treasurer: Priscilla Smith
Newsletter: Arthur Marcel	Social Director: Ken Hulse (maybe)	

How SEMS Gyroscopes drive Attitude Indication applications in mobile phones and tablets

Note: this article draws heavily from <http://www.ifixit.com/Teardown/iPhone+4+Gyroscope+Teardown/3156/1>

A mechanical gyroscope (as in the picture right) uses a spinning rotor to detect changes in orientation. An iPhone 5 utilises a 3-axis micro-electro-mechanical system (MEMS) that integrates electronic and mechanical components at a microscopic scale. The system is comprised of a mass plate that oscillates when a drive signal is applied to a set of drive capacitor plates beneath it. When the phone is rotated, the mass plate gets displaced in its X, Y, and Z planes. The displacement is sensed and transmitted back via the capacitor plates. These tiny signals are then converted into digital ones which feed the artificial horizon software via the phone's CPU. MEMS devices require extremely sensitive manufacturing procedures to produce the kind of accuracy needed for reliable applications, however, they seem to function extraordinarily well. I have used the application in different phones (belonging to my students) and find the iPhone 4S works perfectly. It is not influenced at all by linear accelerations. Phones without MEMS (like the Samsung Galaxy Ace), however, sometimes have applications that simulate attitude indication with accelerometers and they can be fooled by sideways movement.



The Watts Bridge Nynja Twins



The good-looking owner/pilots above are Ken Hulse (left) and Scott Hendry (right). Skyrangers continue to breed like rabbits at Watts Bridge. Below is Lone Skyranger, Mal McKenzie running up the motor on his soon to be completed Swift.



BRISBANE VALLEY SPORT AVIATION CLUB

MINUTES OF THE 2012 ANNUAL GENERAL MEETING

MEETING OPENED	10.20am 06 th October 2012																								
APOLOGIES	Arthur Marcel, Ron Dunn, Mary Clarke																								
MEMBERS PRESENT	17																								
PRESIDENT'S REPORT	<p>Mike Smith declared it had been a successful year for BVSAC mentioning the positive initiatives including the addition of solar panels and the ongoing development to the clubrooms.</p> <p>Mike also specifically thanked many people for their individual contributions including Julie, Priscillia, Helina and Caroline for their cleaning of the clubrooms, Arthur for the newsletter, the Aerobatics Club for Christmas In July, Sandy and Scott for BBQ's & drinks and Richard for organizing the Fun-Fly Poker Run and the All-In Fly-In.</p>																								
SECRETARY'S REPORT	<p>Richard Faint reported on the completion of the name change and thanked the subcommittee of Arthur, Liz and Mal for making that happen. Richard also reported on the continuation of improving the clubrooms and club hangar and promised to have the sign for the front gate at Watts completed.</p>																								
TREASURER'S REPORT	<p>Ian Ratcliffe presented and commented on the association's financial position highlighting various items of income and expenditure. Ian noted that the value of the association's assets was now \$99,841 after depreciation. A good year. Ian also made special mention that the association's financials were audited at no cost by Morton Ware Accounting and thanked them for that. The Banks account closing balance for the year is \$10,194.18.</p>																								
MINUTES FROM 2011	<table><tr><td>Proposed</td><td>Richard Faint</td></tr><tr><td>Seconded</td><td>Peter Ratcliffe</td></tr><tr><td>Minutes</td><td>Accepted by the meeting</td></tr></table>	Proposed	Richard Faint	Seconded	Peter Ratcliffe	Minutes	Accepted by the meeting																		
Proposed	Richard Faint																								
Seconded	Peter Ratcliffe																								
Minutes	Accepted by the meeting																								
BUSINESS ARISING	Nil																								
ALL POSITIONS DECLARED VACANT	<p>Nominations for all positions were called for.</p> <table><tr><td>President</td><td>Neil Bowden</td></tr><tr><td>Nominated</td><td>Mal McKenzie</td></tr><tr><td>Seconded</td><td>Mike Smith</td></tr><tr><td>Nomination</td><td>Accepted and approved by those present</td></tr><tr><td>Secretary</td><td>Richard Faint</td></tr><tr><td>Nominated</td><td>Mike Smith</td></tr><tr><td>Seconded</td><td>Liz Cook</td></tr><tr><td>Nomination</td><td>Accepted and approved by those present</td></tr><tr><td>Treasurer</td><td>Priscillia Smith</td></tr><tr><td>Nominated</td><td>Ian Ratcliffe</td></tr><tr><td>Seconded</td><td>Sandy Walker</td></tr><tr><td>Nomination</td><td>Accepted and approved by those present</td></tr></table>	President	Neil Bowden	Nominated	Mal McKenzie	Seconded	Mike Smith	Nomination	Accepted and approved by those present	Secretary	Richard Faint	Nominated	Mike Smith	Seconded	Liz Cook	Nomination	Accepted and approved by those present	Treasurer	Priscillia Smith	Nominated	Ian Ratcliffe	Seconded	Sandy Walker	Nomination	Accepted and approved by those present
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NON BOARD POSITIONS	<table><tr><td>Newsletter Editor</td><td>Arthur Marcel</td></tr><tr><td>Watts Bridge Delegate</td><td>Richard Faint</td></tr></table>	Newsletter Editor	Arthur Marcel	Watts Bridge Delegate	Richard Faint																				
Newsletter Editor	Arthur Marcel																								
Watts Bridge Delegate	Richard Faint																								
GENERAL BUSINESS	Nil																								
MEETING CLOSED	10:40am																								

BRISBANE VALLEY SPORT AVIATION CLUB Inc

MINUTES OF THE October 6th 2012 GENERAL MEETING

MEETING LOCATION: Watts Bridge Memorial Airfield
MEETING DATE: 6th October 2012
MEETING OPENED: 10:40AM

MEMBERS PRESENT: 20

APOLOGIES: Arthur Marcel, Mary Clarke, Ron Dunn

VISITORS: 0
NEW MEMBERS: 0

MINUTES: September meeting of the BVSAC Inc.
Proposed: Richard Faint Seconded: Mike Smith Acceptance motion carried.

PRESIDENT'S REPORT: Nil

SECRETARY'S REPORT: Nil

TREASURER'S REPORT: Bank Account Balance is \$9,596.71

WBMA REPORT: The WBMA Secretary Liz Cook reported that the a flying school is now conducting operations at the airfield and that Bill Oates and Peter Freeman with assistance from others planted 1000+ vetiver grass plants in the effluent treatment area.

BUSINESS ARISING: Nil

GENERAL BUSINESS: A television antenna, microwave oven and ceiling fans have been donated to the club.

Mal McKenzie reported on the proposed Fun Flight initiative and that it was looking unlikely that the event would proceed this year.

Liz Cook discussed the WBMA ANZAC Day Commemoration gaining the support of the meeting and an undertaking from BVSAC to participate in 2013.

Peter Ratcliffe offered several Aircraft Spruce T-Shirts to anyone who was interested, noting that the colour white did not suit him ☺

The BVSAC Christmas Party to be held on the 1st December was discussed.

Richard Faint moved a motion "That all BVSAC Monthly Meetings be conducted at the BVSAC Clubrooms at Watts Bridge Memorial Airfield commencing with the November 2012 Meeting"

Richard spoke to the reasons behind this motion mentioning lack of patronage for the Archerfield Meetings and that Watts Bridge is the club's home base airfield and that it is a more relevant location for club meetings. There would also be a modest saving on meeting expenses.

The motion was seconded by John Innes and approved by the membership.

Scott Meredith proposed that a floral wreath or donation to RFDS be made in honour of Des Porter, the crew and passengers who passed away as a result of the recent De Havilland Dragon accident. Priscilla Smith offered to follow up on the proposal.

NEXT MEETING: 3rd November in the BVSAC Clubrooms Watts Bridge at 10:00AM

MEETING CLOSED: There being no further business, the meeting was declared closed at 11:10AM
A BBQ lunch was held after the meeting.

**Next meeting: 12.30pm on Saturday November 3rd at
the Watts Bridge Clubhouse (BBQ at 11.30pm).**

PRESIDENT: Neil Bowden 33457203 TREASURER: Priscilla Smith 32063548

SECRETARY: Richard Faint 0412317754 Email richard@auav.org

NEWSLETTER EDITOR: Arthur Marcel Email a.marcel@optusnet.com.au