

GENERAL MEETING REPORT MEMBER'S ONLY NATFLY BROCHURE INSERT

CAN KEN BOWL A HATTRICK?

ISSN 1839-0501





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NAVIGATION

















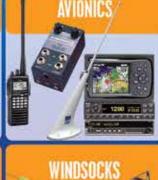
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a Jabiru 230 engine. Photo Anderson Aviation

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Sport Pilot Magazine is an official publication of Recreational Aviation Australia Inc. and is published 11 times a year by Stampils Publishing.

STAMPILS PUBLISHING

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President's Report

STEVE RUNCIMAN



The main event since my column in the February edition of Sport Pilot magazine was the General Meeting held on February 9 in Queanbeyan.

The meeting was very well attended with all board members (two, Dave Caban and Gavin Thobaven, sent proxies to represent them), which was a great result and an indication that there are a great number of members interested in their organisation. I am sure there would have been many more who wanted to attend, but couldn't for one reason or another.

Thank you to all those who were able to attend to air their views, concerns and discuss matters with the board. I can say with confidence all board members got a great deal out of the meeting. I realised communication (or lack of) was a main sticking point and, of course, the recent CASA audits and the events which followed.

Work on the issues brought up at the meeting began the following day during the board meeting which took place on the Sunday and Monday. Work has continued on the registration issues, the tech staff can see the

situation improving on a daily basis; we will keep you updated via the website.

There were also a number of members who offered assistance. We have been quick to take up some of these offers by engaging people to assist in the restructure review, which was voted on at the meeting, and appointed a member to sit on the interview panel for the recruitment of the General Manager. There have been other offers of assistance and I have no doubt we will accept these in some form in the near future.

The next General Meeting will be held on the Saturday at NATFLY at 1100 am, location to be decided. We hope to see many of you there.

Unfortunately, it has not been possible to get the minutes of the meeting or the synopsis of the board meeting completed prior to the deadline for this magazine. The aim will now be to get these documents included in the next edition of the magazine and probably on the website before that.

The review of the Operations and Technical Manuals are well underway and we are keen to get these distributed to members. There have been discussions about how

these will be distributed to members and the current thinking is that they will be distributed via the magazine, either on a CD or memory stick, with a downloadable version on the website and a number of copies printed and available free to members.

Please get in contact with your local board member and let him know your thoughts, not only on how it should be distributed, but also what you think of the manuals. All comments will be passed on to the review committee for consideration.

We are about to conduct the interviews for the positions of the General Manager (replacing the CEO) and the Technical Manager.

The transfer of the member database, reported in my last column, hasn't yet been completed. Work on the website continues and you will see a number of improvements in the next few weeks.

Finally, it upset me greatly to report that the year has not started well with regards to accidents. We really do need to work hard on safety matters. We need to check and recheck prior to taking off and we all need to commit to remaining safe while enjoying our passion for aviation.



calendar of events

Clifton Fly-In 10 March

The Darling Downs Sport Aircraft Assn. Inc. annual fly-In has become an iconic event in the region and is the premier attraction for all types of aviation in southern Queensland. Come late PM Saturday 9th for BBO and drinks. Fly or drive in, see ERSA. On field camping, bring your swag. Advise for catering. For more information Trevor Bange 0429 378 370, (07) 4695 8541 or trevorbange@bigpond.com.

Loxton Aero Club Fly-in 13 April

At YLOX in South Australia. Hangar dinner on the night. For info and bookings Kerrie (08) 8584 7790.

Barossa Airshow 14 April

The Fly-In at Rowland Flat in the Barossa Valley will be a full day of things to do for the aviation enthusiast. Aerobatic displays, joy rides, amusements, static displays, stalls, food and wine. If you are not familiar with the 600m strip, contact Steve Ahrens 0427 244 930.

Esperance Aero Club Fly In 13-14 April

At Myrup Fly-In Estate (YMYU) [33 47.2S 121 57.4E] BBQ Saturday evening. Saturday lunch and Sunday breakfast available with notice. Limited billet accommodation (first come first served). No formal flying program, but plenty of opportunity for sight-seeing and flying. For information Ph Dick 0438 179 088 rwelbon@ bigpond.com, Shane 0419 198 438 shane@ oneillsheds.com.au or David 0407 036 173.

Childers Fly-in Drive-In Walk-In Breakfast 5 May

This annual event is run by the Isis Flying Club Inc. and is the premier attraction for all types of aviation in the Childers area. All types of recreational, GA and home built aircraft. Come late pm Saturday 4th for BBO and drinks. On field camping, bring your swag. RSVP for catering. Ph Bill Brown 0418 724 645, Ian Laing 0428 714 690 or isisflyingclub@gmail.com

NATFLY 28-30 March





Temora will come alive to the sound of recreational aviation again this Easter. Fly or drive in. Camp on the field or in town. Official dinner, seats will be limited so book early. More aircraft, displays and forums than ever before. RA-Aus has made a number of changes and improvements to NATFLY for this year so, if you haven't been for a while, come along to see for yourself.

For more information www.natfly.com.au

Barossa Birdmen Fly-in 18-19 May

At Truro Flats Airpark (check ERSA). Limited accommodation, dinner on Saturday night. Avgas and Mogas by prior arrangement. Pilots should be aware of restrictions regarding overflying neighbouring properties, particularly to the SW of the airfield. For further information Dennis Martin (08) 8263 0553, Roy 0408 802 667 or email royp@phillipsperformance.com.au

Megafauna Flyaway 18-25 May

This year the destination is Bathurst.

- 19th Sunday Yarrawonga to Wagga.
- 20th Monday Wagga to Cowra.
- 21st Tuesday- Cowra to Bathurst.
- 22nd Wednesday Lay day.
- 23rd Thursday- Bathurst to Parkes.
- 24th Friday- Parkes to Narrandera.
- 25th Saturday- Narrandera to Yarrawonga.

All welcome, places are limited. Contact Peter or Anne (03) 5744 1466 or email yft@yarrawongaflighttraining.com.au.

Watts Bridge Memorial Airfield Inc. All-In Fly-In **25 May**

The Watts Bridge Open Day celebrates the rich diversity of all forms of recreational aviation. The airfield is situated in the Brisbane Valley and is the home base for a wide range of aircraft, including vintage, aerobatic, recreational, gyroplanes and Warbirds. On-field catering and coffee available. Entry is free with no landing fees. For more information Richard Faint 0412 317 754 or visit www.wattsbridge.com.au

Casino Beef Week Muster 26 May

Casino Aero Club and Beef Week welcome all aviators to Casino Airport in northern NSW. Saturday Beef Week parade; Sunday family fun day; Both days joy flights and lots of Beef Week activities. For more information www.casinobeefweek. com.au or contact Bryan Low 0414 722 740 or Debbie Kennedy 0438 627 607

Snowy River Aviators Open Day 27 April



See you at Temora Natfly 2013

LETTERS TO THE EDITOR

THE AIRCRAFT OPERATING INSTRUCTIONS SHALL BE CARRIED WITH THE AIRCRAFT. OCCUPANTS MUST BE FAMILIAR WITH INFORMATION NECESSARY FOR SAFE OPERATION.

A bird that goes cheap A sore thumb

When learning the basics of flying, the recreational avenue was not available to me. The flight instructor had only GA aircraft. I purchased a Thruster in which to build my hours. Two years on, after doing all the Commercial theory and almost finishing the Commercial licence, I am left with a choice.

A cheaper GA aircraft or a recreational one? Recreational aircraft are getting too expensive. I have spent many hours researching a single seat kit to build to give a faster cruise speed for longer trips, but information is limited.

I would love to see options for less complicated, cheaper build aircraft be made available again. As the lines between recreational and GA blur, cheap flying is something that can only be offered by RA-Aus, so let's embrace it. Sure we all love flying something fast and sophisticated and I would love to buy a Cessna Cutlass, but because I can't afford it, I fly my Thruster as often as possible, and hire when necessary.

Sure, move towards increased privileges for the faster flashy aircraft that are great to fly - if you can afford them. But involve everyone, because we all fly and have something to offer to keep aviation moving forward.

-Matthew Allen.

Ed- Matthew, check out the ads on almost every page of this magazine if you are looking for a great, cheap mode of transport.

I guess RA-Aus has grown beyond the original 'club' type atmosphere and the recent CASA audit and subsequent changes are an indication we have 'come of age' and really do need to dot our I's and cross our T's.

I am sure once the dust has settled, this can only be a good thing and I commend the staff for undertaking the changes under what would be considered trying times (I certainly wouldn't want to be on the receiving end of some of the phone calls and emails).

It may be worth noting that while the members are being asked to be more diligent with paperwork, it is also a time when we need to look more closely at what is being asked of us.

CASA has rules and it has taken me guite some time to understand and come to terms with them. I can honestly say I feel confident explaining them to my students. They make sense and I can see where the spirit of the rule originates. However, there is one rule which has me perplexed. It is the requirement for a weight shift microlight to carry its aircraft operation instructions and provide RA-Aus with a signed and dated photo of it, possibly to prove the sticker is on the aircraft.

There is in actual fact, nowhere on this CASA approved aircraft to carry the CASA approved operating instructions. (I know of one person who has them on a thumb drive attached to the aircraft).

Even if I could manage to shove them somewhere securely, I would find it near impossible to get access to them during flight.

You see, the weight shift microlight is an open cockpit aircraft - very open cockpit!. The only storage space on mine is under the seat, so if the smelly stuff hits the fan, I would need to unbuckle, stand up, lift the seat, unzip the compartment, remove the instructions then sit down, buckle up, quickly refresh my memory on the complexity of weight shift controls, then apply them appropriately. I would be just as well off if I had them on a thumb drive.

The other part of the sticker states that the "occupants must be familiar with information necessary for safe operation". I assumed that qualifying for and being current with the appropriate RA-Aus pilot certificate and relevant endorsements would satisfy this criteria.

So while the RA-Aus is under scrutiny, maybe CASA needs to look at some of the requirements it imposes, so that they do not appear altogether unreasonable.

-Gordon Marshall

Operations team-

We will look into Gordon's concerns but, as CAR 138 is not on the list of Exemptions shown in CAO 95.32, it may be that appropriate information contained on placards (visible to the pilot) may be used in lieu of flight manual information. We will get back to you if this is not the case.





Don't wait too long

I refer to my earlier letter regarding the best way to conduct a controlled landing into trees (Sport Pilot October 2012). Also to Norm Sanders' excellent article about forced landings (Sport Pilot December 2012).

But first I'd like to extend my deepest sympathy to all affected by the VH-UXG accident and don't want my comments below to reflect in any way on what occurred to that aircraft.

Second, I'd like to say that at the age of nine in September 1946, I witnessed a De Havilland Dragon crash into trees just after becoming airborne, at the 1100m long Hermannsburg Mission airstrip in Central Australia.

Horrified, my father quickly drove us all to the end of the strip, expecting to see flames. Instead, we were greeted by shaken and bruised passengers. The pilot, Sam Calder, an experienced WWII aviator, had put the Dragon's nose between two mulga trees, damaging the aircraft's wings but saving lives.

It had four UN personnel, their cameras and recording gear on board, plus the pilot, so it seems the aircraft was underpowered for the prevailing meteorological conditions.

Incredibly, many years later, as a licenced engineer and private pilot, I was in a Connellan's Cessna 180 which would have crashed during a test flight in exactly the same spot if I had not

The point I want to make is that, having seen and lifted many wrecks out of trees, I believe if you have to, put your aircraft into a small paddock or timber at low speed, while still in control. You will probably walk away afterwards. Don't wait till it's too late.

And now I'll confess to destroying a chopper on top of Ayers Rock in 1968 and walking down with just a scratch.

-Phil Latz

Ed-Phil's memoir is at www.phillatz.com.

Doing it the hard way

I wrote an anonymous letter to Sport Pilot once before about my ongoing quest to gain my RA-Aus pilot's certificate. After reading the most recent edition, I felt the need to do so again.

There are nearly always letters or articles in the magazine waxing lyrical about the joys of flying and the wonderful experiences students have learning to fly.

I would agree with the joys of flying bit, but not about the experiences of learning to fly.

My journey had its moments, but it turned into a disaster, finished with a whimper and I am no longer flying.

Having flown with no less than eight instructors and six different aircraft, I came to the conclusion that reaching my goal was not as easy as all the stories I kept reading about.

Perhaps it was me and I am the idiot (although my academic record would suggest otherwise). Perhaps it was just not meant to be - it is a very expensive pasttime and I have never had a great deal of money. And before anyone says it isn't that expensive, trust me, I have been at the bottom end. Aspiring to fly a plane, let alone owning one, is a long way away.

The biggest problem is consistency. In my experience, some instructors want you to simply fly the plane, some want near perfect use of instrumentation and precision, while others are somewhere in between.

What is right for one is wrong for another and you get on this conveyor going round in circles and getting nowhere.

You sit down at the end of a training flight, go over what you need to focus on next time, book with a particular instructor to do that, only to find you get a different instructor and do something completely different to what you had dis-

And so it goes. The goal posts never stood still for me.

The other thing I rarely hear mentioned are the joys of flying at a busy airfield. I work at least five, and often six days, a week. The only time I had for flying was usually Sunday and every man and his dog was up.

There were faster planes, slower planes, gliders obviously committed to their descent and even on occasions a parachutist landing on the airfield. It felt like trying to fly a nicely constructed circuit while dodging bullets.

This is not fun or particularly enjoyable flying and I am very envious of your readers who truly enjoyed their learning experience.

Even the exam process was different from one school to another. Some saw it as just another way of making lots of extra cash off me by running each part as a paid lesson with an exam at the end. Others let me study at home and take the exam. I favoured the latter, as I didn't want to sit in a class room for ages at more expense to learn something I was quite capable of reading for myself.

Over a period of about 18 months I flew about 48hrs under various instruction at a cost of nearly \$10,000 and did not get my certificate. I certainly never intended to spend even half that much but was hooked on flying and determined to succeed.

Unfortunately, reality bit me and I couldn't spend any more.

Do I regret trying? In a way, yes. I hate being beaten by anything and feel as though I failed myself. Was it worth it? Yes. To me it is a big deal to fly a plane and for that time I did and bits of it I enjoyed. I would still love to complete my task, but unless Lotto is good to me, there is no chance.

So to all of you still flying, or learning to fly, good luck and enjoy a wonderful experience. I will at least be able to watch knowing a bit more about what is involved and what it is like.

-Name withheld

Longhaul a good read

I enjoyed the review of Bill Anderson's book A Lifetime in Longhaul (Sport Pilot November 2012) and I look forward to reading it.

I was also an applicant for a Qantas cadetship in 1967, very aware of the forthcoming 747 opportunity. I didn't make the short list, but Qantas paid for my first ride in an aeroplane (an F27 from Broken Hill to Sydney) to attend the interview at Mascot in the old Qantas office block.

My second flight was with an uncle in a Piper Cub from Bankstown the same weekend, with the bonus of observing a 'loss of comms' procedure when the transmitter failed. I went on to an engineering cadetship with a mining company, where I won a flying scholarship set up by the company during World War 2.

So I have enjoyed more than 40 years of private flying and a career which took me all over the world, although I wasn't one of the 19 lucky Qantas cadets. I sometimes wonder what it might have been like -- now I can find out by reading Anderson's book.

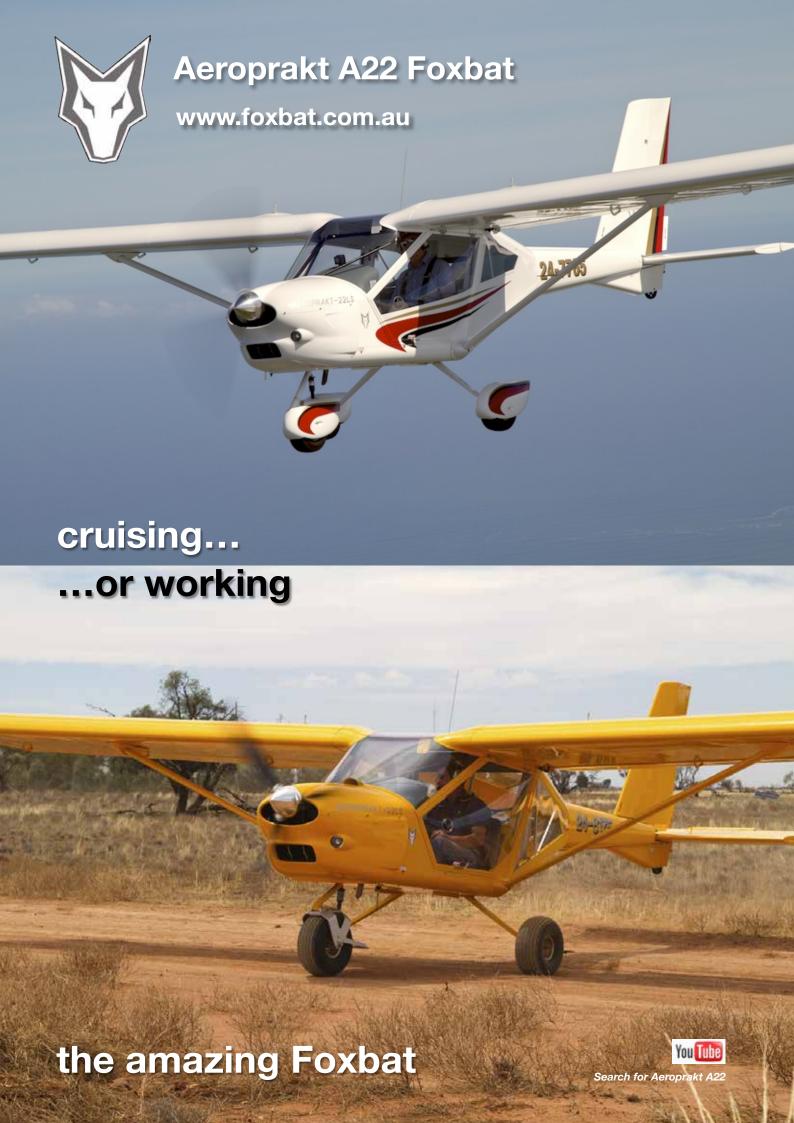
-Peter McCarthy

Stepping it up

Yes Duane, There is a 'step'. (Sport Pilot Letters to the Editor December 2012) Let's climb our aircraft at the recommended speed of, say, 65kts. We get to cruise altitude then lower the nose and reduce power to cruise speed. The aircraft is now sludging along at a speed well below cruise figures. Why?

Because we haven't allowed the aircraft to accelerate to cruise speed before reducing power. Forget the boat analogy. Aircraft need to be set up for cruise, that is, 'on the step'.

-Phil Evans



More on Mogas

Even though I am not a recreational aeroplane pilot, I have flown GA light aircraft on Mogas for 30 years without fuel quality problems.

My interest started when Avgas shortages occurred after the Altona refinery facility closed for two years in 1978. When recommissioned, they eliminated low lead Avgas 80. Agricultural pilots wanted to use Mogas during the shutdown to maintain their businesses. Then they found Mogas gave less trouble with plug fouling than Avgas 100. It took me about 10 years of ground studies trials and permits-to-fly before the CAA granted an STC for Mogas for my Beech 23 (Sport 150). This required cooling modifications to the fuel line and pump to be demonstrated safe with volatile winter grade Mogas on hot summer days.

In the meantime, Petersen Aviation developed a wide range of USA STCs for Ag and GA planes and engines for use of unleaded petrol. From 1989, these became approved (a few need modifications) by CASA in Australia. Some engines approved have higher compression and require premium unleaded petrol. Approvals do not include ethanol blends, because alcohol will separate with any water present.

Mogas became less attractive economically about 1998 when the fuel excise on Avgas was reduced from about 38 to 3 c/L. Since July 2012, for all organisations with an ABN, the federal government allows 100% rebate of Mogas excise for all off-road use, making petrol typically 50% cheaper than Avgas.

Mobil closed the Altona Avgas facility when EDA (ethylene diamine) contamination grounded many light aircraft in 1999-2000. Since then

a number of refineries around Australia have closed or may close soon (including the Geelong Shell refinery which makes Avgas 100LL). In outback Australia, availability of Avgas has been declining for years and on many Pacific islands, it is no longer sold. Indonesia has been purchasing C172s approved for Mogas for their pilot training. An essential ingredient for Avgas 100, now banned from petrol around the world, is TEL (tetra ethyl lead).

In western countries, this is made by a batch process at only one place (Associated Octel UK). Avgas specifications were developed for maximum performance to high altitude for World War II needs. With the phasing out of Caribou aircraft, our military no longer uses Avgas. Aviation fuel sold is now >99.9% Avtur, and the sunset for Avgas is looming.

Mogas is the closest widely available fuel for spark ignition piston engines. Compared with any alternative, planes not yet approved for Mogas require the least costly modification, if any. Lycoming designs its latest engines for Mogas use but there is still a stigma about petrol quality. It is not sold with a 'best use by date' and a spin statement "the quality of petrol is such that it is a notably variable product" was designed to mislead. Petrol is deliberately varied between summer and winter and pointof-sale for ease of starting in cold weather. To minimise vapour or gum formation, it should be used within a month or so of purchase and

Avgas handling standards kept. Common sense needs to prevail. Oil companies need to make availability a priority as this is a key for safe cross-country flying.

-Ray Hodges



Something to say?

DON'T hold it in and give youself a headache. Share it with the members and get it off your chest.

Maybe it's you and your completely reasonable opinion about the world of recreational aviation that no one else will listen to.

Email editor@sportpilot.net.au and have your say.

(By the way - the editor reserves the right to edit Letters to the Editor to shorten them to fit the space available or in case of libel. We don't want your completely reasonable opinion to land you in court.)



Record crowd for general

By Brian Bigg

A record crowd of 166 people took part in what is believed to be RA-Aus first Extraordinary General Meeting, which was held in Queanbeyan on Saturday 9 February 2013.

The meeting had been called to ask the board to discuss a number of issues which have been bubbling through the organisation since the Annual General Meeting in September last year. It was to have been held in the RA-Aus headquarters office in Fyshwick, but was moved at the last minute to a community hall when it became apparent the numbers were going to be as high as they were.

The meeting was a boisterous event from the outset. Even before discussions began, member David Isaacs, proposed an independent chairman should be appointed to conduct the meeting. David argued that because, in the lead up to the meeting, President Steve Runciman, had tendered his resignation as both president and board member, but then withdrawn the resignation, Steve was ineligible to

However Steve pointed out the organisation's constitution was clear that the President must run such a meeting and, as President, he intended to do so.

The first issue discussed was the confusion over the cancellation of Junior memberships. Steve explained it had been a genuine misunderstanding involving himself and former CEO,





meeting

Steve Tizzard. He explained that when it was discovered, the mistake was immediately rectified.

The members also wanted to know more about a pending legal case involving RA-Aus. The President explained that the legal advice the board had received was consistent - nothing should be said about the matter in public because it could jeopardise the case. There was a question from member, Don Ramsay, about whether or not the board members themselves knew everything about the case. The President explained the relevant documents had recently been made available to the wider board.

There was also a lengthy explanation from the President about the failure by RA-Aus in a series of CASA safety audits. Steve explained how the failures led to the organisation having its ability to issue registrations removed by CASA for a short period. He also went through the steps which had been taken to rectify the

Steve explained that the issue had created a

backlog of 450 registrations, but that the office, with the assistance of volunteers and a specially hired consultant, had now reduced that to under 100.

There followed a wide ranging discussion on whether or not the problems had come about because of the current structure of the organisation. A motion from the floor, which was approved by the meeting, called for the board to seek external advice on restructuring RA-Aus to ensure it was structured like a modern com-

The President also dealt with the issue of the perception of secrecy surrounding the board. He pointed out that in every business there was a need for some matters to remain confidential. He explained that Sport Pilot magazine and the new website remained the best places to learn about what was going on in RA-Aus on a day to day basis.

Member, Don Ramsay, pointed out RA-Aus was not keeping up with its obligations regarding the publishing of financial reports. He asked for there to be accountability, because the system was not working. (At the board meeting the day after the general meeting, Treasurer, Eugene Reid, resigned for personal reasons. Board member, Michael Apps, has taken on the role until a permanent Treasurer can be appointed.)

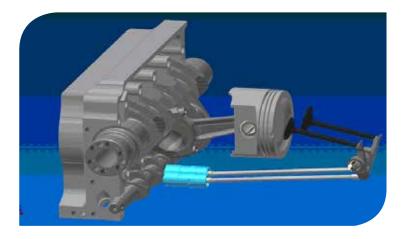
At the conclusion of the six hour general meeting, the President thanked the members who had turned up and taken part. He said, as a result of the discussions the board would undertake a major review of its activities and practices. The board is due to report again to the members at Natfly at the end of March.

The minutes from the General Meeting held on 9th February 2013 are available on our website

www.raa.asn.au

Paul Middleton Secretary

Jab cam followers: Roll as well as Rock Jabiru has begun releasing engines with roller cam followers.



Used in automotive applications for many years, roller followers reduce friction in the engine, resulting in lower heat generation, less wear and lower fuel consumption.

In the case of the Jabiru engine, the roller followers also forced a re-design of the cam profile which in turn, reduced peak valve acceleration to improve valve train longevity. To accommodate the new parts, there have been changes to the crankcase, new pushrods and pushrod cover tubes. The hollow pushrod (incorporating oil feed to the rockers) configuration has been retained, as have the forged steel valve rocker arms. Prototypes of Jabiru engines using roller cams have been operating for several years now with some test engines already exceeding 1,000 hours TIS in the new configuration. Compared with its predecessors, the roller engine produces the same power output and similar performance. The engines tend to run somewhat more smoothly and valve wear has been reduced.

For more information www.jabiru.net.au

RECREATIONAL **AVIATION AUSTRALIA** NOTICE OF GENERAL MEETING

TIME: 11.00AM DATE: SATURDAY 30TH MARCH 2013 VENUE: TEMORA AIRPARK 22 TENEFTS STREET TEMORA NSW 2666

A General meeting has been called in accordance with Rule 23 (iv) of the **Constitution and Rules of** Recreational Aviation Australia Incorporated.

Rule 23 (iv): "The Board shall convene a General Meeting each year in conjunction with the annual National Fly-in, 'NATFLY'. The NATFLY General Meeting is to be held on the Saturday of NATFLY commencing at 11 a.m. local time."

Paul Middleton Secretary

In accordance with Rule 24 and By-Law 2, notice of this meeting is published in Sport Pilot, Volume 21 (3).

Story of the month

I am certain I am not the first person to take photos of the area and I won't be the last

> Send in your stories and photos in. Email editor@sportpilot.net.au

Come See What I See

By Peter Beeby

I very much enjoyed reading the Story of the month (Sport Pilot November 2012) called 'It's why I fly'.

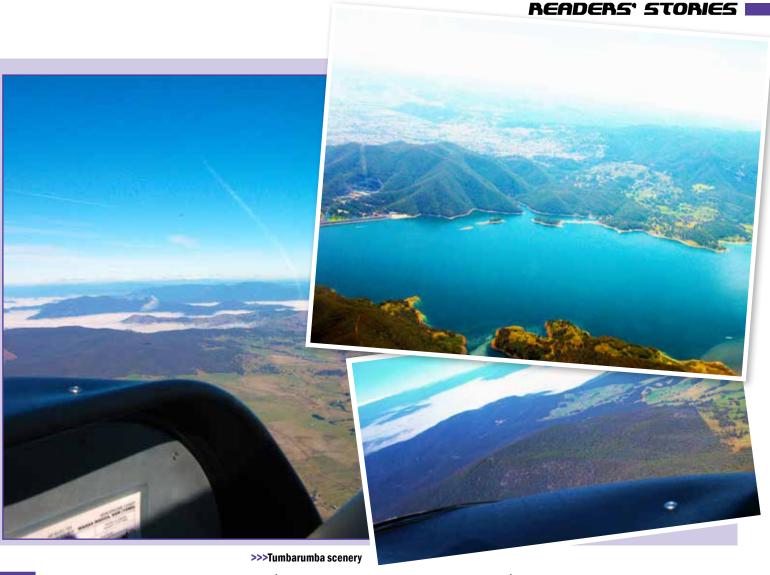
I am a newbie with about 85 hours including training. I trained and fly out of Wagga Wagga in a hired Tecnam and, as I am originally from a small village called Rosewood, near Tumbarumba, I found the story to be of great interest.

Most of my flying since getting my navs behind me has been around Tumbarumba and Tumut. The scenery around the area is spectacular with Blowering and Talbingo Dams backed by the seemingly endless snowcapped mountains (in winter anyway) and, on the odd occasion, valleys filled with fog.

On one flight a friend and pilot, Russel Walker, and I headed for Khancoban with the plan to return via Tumba and Tumut. However, as we passed Tumba, all we could see ahead were the peaks of the foothills protruding from fog filled valleys. So we cut the flight short and tracked along Blowering Dam to Tumut and then headed for Wagga Wagga.

I am certain I am not the first person to take photos of the area and I won't be the last, but since joining RA-Aus, I haven't seen many in the magazine, so I have included a couple with this in the hope it entices others to visit our region and come see what I see.





cott Hendry is a member of the Brisbane Valley Sport Aviation Club. Lately, he has been thinking about communication radios and, in particular, how pilots can have a better idea of whether or not their aircraft radio is transmitting properly.

Most pilots would agree 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) 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 okay in most respects. However, as Scott points out, listening to your own transmission is obviously better. He also says 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, 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 way 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 Savannah owner/builder Mark Kyle, of Kyle Communications. Mark, who lives not far north of Caboolture airfield, 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 licencing 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].

Scott says that once this first repeater is up and going, he and Mark will assess the response from the local aviation community. Scott hopes the facility will be used by pilots to improve radio communications in the area. He is also hoping 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.

THE FIRST 95:10 FLIGHT in Victoria?

As a self-taught hang glider and ultralight pilot, my first encounter with an ultralight aircraft came late one afternoon in January 1978, after the Victorian Hang Gliding Championships.



by Brian Gane

<<<Benson

A large crowd of hang glider pilots, town locals, kids and their dogs were drawn to the Derrinallum football field at the base of Mt Elephant in western Victoria to watch a young Sydney hang glider pilot called Larry assemble his foot launch EasyRiser tailless tandem-wing flying machine.

Excitement built as the motive power was installed between the tandem wings, located just 10cm from the pilot's head. A gallon of 25:1 fuel was added to the gravity fed tank and a brief pre-flight undertaken before the McCulloch chainsaw engine was primed. After a number of pulls, the un-muffled engine burst into life, startling all assembled and sending the local dogs into a state of uncontrolled delirium. Larry crawled into the pilot harness, careful not to spit out the kill switch firmly held between his teeth. He then heaved the pulsating flying machine off the cricket pitch, pointed the nose into a gentle breeze and opened the throttle. What happened next changed my life forever. Larry's initial strides were clumsy and laboured as he tried to balance the forces of powered aviation, 254lbs of ungainly superstructure and the snapping of a multitude of canine interlopers, hell bent on impeding his progress.

By the time he'd reached the end of the cricket pitch, the wings were flying and Larry's strides were as dainty as a ballerina in slow motion. The McCulloch was bellowing louder than a Formula One race car. The crowd was pumped, literally willing Larry into the air. Larry had a heavier cockpit workload than a Qantas captain, tucking up his undercarriage (legs), preventing his harness straps from entering the prop, keeping the throttle wide open, and the kill switch from falling out of his clenched teeth,

all this while trying to navigate the looming AFL goal posts threatening his forward progress. But he flew, to everyone's amazement.

The Gods were smiling on Larry that afternoon. Not only had he flown his flying machine from a flat piece of ground (and not from a cliff) he'd created ultralight history. Nobody cared that the take-off was life threatening, the performance barely marginal, control authority a lottery and the noise level hellish. He was flying in a contraption he'd cobbled together from a hang glider kit, he was teaching himself how to fly it, and there was not a rule, regulation or bureaucratic Nuf Nuf anywhere near to dull the unbridled joy he had visited upon himself and the assembled witnesses.

Not everyone was happy, though. When Larry planted down the EasyRiser on his size 9 Reeboks and spat out the kill switch of the



McCulloch, the excitement turned to puzzlement as we tried to figure out how a .22 calibre size hole had entered the lower wing and exited just 5cms behind Larry's head. The local cop knew the culprit, a bloke who had been shooting up crop dusting aircraft for years, only this time he'd found one slow and low enough to score a hit.

While I'd flown hang gliders for many years, the sight of Larry leaving the ground for the first time has never been eclipsed by anything I've witnessed in aviation since. I didn't take up ultralight flying because I couldn't afford GA, I took it up because it was not GA.

I didn't care that the aircraft were unconventional; I liked weight shift, rag and tubes, spoilers, canards and lots of dihedral. I didn't take up ultralights because I wanted to fly into Tullamarine or cross Bass Strait - flying slow and low under 300ft was a cherished privilege, not a burden. Deciding my flight plan once I was airborne did not seem a problem at the time. Best of all, I was flying my own aircraft, created from my own labours. We early 95:10 flyers were more obsessed with pure flying than procedures, experimentation rather than compliance, adventure rather than conformity and we must have had something going for us, because we nourished the biggest influx of new pilots into the wider world of aviation, outside times of war.

GA tragics will wring their hands and dismiss 95:10 as a boil on the bum of aviation history, citing the high death toll. However I was an AUF rep at the time of the peak in ultralight fatalities and the brutal truth was that many of those tragedies were GA pilots trying to convert to low inertia aircraft, which was not an issue with the bulk of 95:10 flyers recruited from hang gliding and other adventure sports.

I'm realistic enough to know turning back the clock is not going to happen and GA orientated pilots like the prestige and practicality of flying GA type aircraft, but I do believe we can re-engage with basic 95:10 aircraft like the classic Quicksilver Sport / Sprint, Flightstar and EAA award winning Aeroilte 103 at a price under \$15,000 in complete kit form (inc. engine) which can be built and serviced by the pilot, provide reasonable range, safety and rough weather capability, can be disassembled to hangar at home, yet have running costs less than \$15 per hour. The pure joy of flying a slow and low 95:10 aircraft on a crisp autumn morning with the wind in your face, the smell of hay on the ground and the hum of a 2-stroke Rotax propelling your magic carpet ride, is a pleasure few will ever experience. And that's a pity.

is too old?

I have flown
with three
generations
of the
family and
wonder if that
could be some
sort of a
record.

was 21 years old when I started to learn to fly at Toowoomba. I would travel 1.5 to 2 hours from our property to fly for an hour in a Tiger Moth with the Darling Downs Aero Club. However, with 10 hours in my logbook, I met a beautiful young lady and I could not afford both.

Ten years or so later, John Bange, of Clifton, took us both up in his two seat Porterfield, now a rare antique and still flyable. I was happily married, with four children and successful in business. I chartered light aircraft for business and my younger son, David begged that day off college, so he could act as co-pilot and clock up hours and experience while I sat up the back and reminisced. David was with the Air Cadets and Trevor Bange, son of John, was his instructor. David became a very young glider pilot and then a tug pilot.

Eventually we sold our businesses, I retired, and one day I celebrated my 80th birthday. My children asked me what I would like as a gift. I announced I would

like to learn to fly. The family was delighted.

They presented me with a gift voucher for six hours of lessons at the Lone Eagle Flying School, Clifton (Bange) airstrip.

My first flight was at the Clifton Fly-in. The pilot was James Bange, grandson of John and son of Trevor, the C.F.I. at Clifton. So I have flown with three generations of the family and wonder if that could be some sort of a record.

Flying lessons were harder than I remembered. Trevor took me on a flight to reference ground features. Just how many bends can there be in a couple of kilometres of stream? Too many is the answer.

Then I tried flying straight and level at 1000ft. The only time I was at 1000ft was when passing it on the way up and again on the way down.

The airstrip is 45 minutes drive from Toowoomba and during the Queensland floods, almost every week when I phoned to book a lesson I was told 'No, we've had rain, no the strip is boggy, no there is silt on the strip, no there is flood water flowing over the strip'.



So after the odd month or so, I'd forgotten anything I had learned, so it was back to basics.

I got into a routine of flying for 30 minutes then taking a break and a cup of coffee with the CFI to mull over how much I didn't know. Then we would head off for another flight to practice what I had just learned.

I struggled with circuits and touch and goes. When my instructor explained the procedure, it seemed like they should have been a stroll in the park. But no.

After takeoff, I passed through 500ft then was quietly informed that I was about 30 degrees off course. What is this thing called drift? I did the 90 degree turn onto crosswind and took my instructor's hint to look over my shoulder to orientate myself with the airstrip. Funny thing. On the ground I could easily see the neatly mown 800m grass strip outlined either side by a row of white markers. From the air it must have shrunk, because I could not find it. I leveled off at 1000ft to fly downwind straight and level, parallel to and within gliding distance of the strip. Gliding distance? I was so far out, I needed to do a cross country exercise to get back to the circuit.

Then I began my pre landing checks, but how could anyone fit fifteen minutes of checking into the ten minutes it took to fly a circuit?

Then it was off with the power, a turn onto base, then onto final where Trevor informed me, in a conversational tone, that it was better to line up with the centre of the strip, not the white markers. Ultimately, I knew, it would make less noise. This time luck favoured the foolhardy and with a little help from Trevor, I made it back onto the ground. It is quite surprising how resilient the undercarriage of a Jabiru 160 really is. Had my car hit a pothole and bounced like that, it would have needed a wheel alignment and a suspension safety check.

Eventually, though, I got to thinking I was getting pretty good at circuits. I risked a quick glance at Trevor and he seemed relaxed, so I began to wonder if I would ever go solo.

I realised that he, as CFI of the school and my personal instructor, must be on the horns of a dilemma. I was probably the oldest student he had ever trained, so would he ever be confident I would not have a heart attack if he mentioned flying alone? And if that was the case, how could he gently tell me I couldn't make it? Since there was no point in two of us worrying about it, I resolved to leave it to him and I would just continue to fly.

I did hope that if he ever did let me go solo, it would be on a quiet day when there was just us at the field.

At the end of each month, the Darling Downs Sports Aircraft Association, sponsors of the Lone Eagle Flying School, puts on a BBQ On this day, I decided to go out early to get in a lesson before it started.

After practicing some emergency procedures and doing a circuit or two, I noticed Trevor checking the fuel gauges. I double checked them myself and assured him there was sufficient for a go round.

He did not seem satisfied and told me to land and put in 30 litres, while he had an urgent pit stop. He's the boss, so I landed and fueled up while he was away, then climbed in, buckled up and waited for him to return.

Eventually Trevor came back, but instead of climbing in, he reached over, buckled up his harness across an empty seat and said "Off you go and do a circuit". It had not really hit me, so I only said "Thank you for your confidence in me, see you later".

I did everything right during that circuit. I took my

time, my preflight checks and radio calls were correct and I took off. A nice gentle climbing turn and I levelled off at 1000ft, then downwind and still within gliding distance to the runway. I took my time, too, with the pre-landing checks so I didn't mess it up. Then a gentle turn to final, full flaps, a little power to play it safe and the landing felt quite normal.

As I taxied towards the hangar, I could see Trevor and a couple of other experienced pilots lining the fence and watching me. Then I looked towards the open hangar and there was a whole heap of fellows, all watching me. It appears everyone at the club knew I was going to go solo, except me.

Trevor hadn't needed a pit stop at all. He had gone to spread the word for everyone to come out and watch me. So much for a quiet debut. I shut down and climbed out and this is where it really hit me. I had flown solo at the age of 82. And a full 60 years since I first began taking flying lessons. A smiling Trevor came forward to congratulate me, followed by all the others offering their warmest regards. It was a really wonderful moment and I was on cloud nine for the rest of the day.

I hope my story will encourage others to do the things they have dreamed of.

By the way, I intend to carry on for my cross country endorsement and I am still happily married to that same girl.



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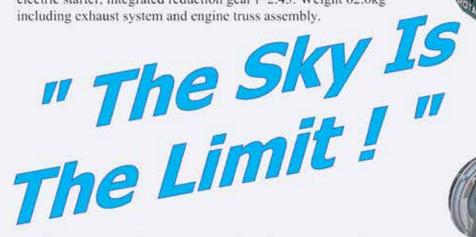
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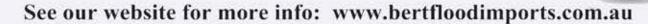
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It appears the messenger is still the most popular target. Arthur Marcel's story in Sport Pilot December 2012 called

178 SECONDS TO LIVE ' IS IT A MYTH?

continues to draw a strong reaction.

Arthur's article questioned whether or not the original study, which showed that we pilots have a very limited lifespan if we venture into clouds, was still valid. Here are more of your thoughts.

Heed the experience by Barry Wrenford

There are old pilots, and bold pilots, but no old, bold pilots. Bold pilots include those who instrument fly without proper training and currency.

It is a truism in aviation that there are three phases in a pilot's life:-

- 1. The first is when he gets his licence and thinks that he knows it all;
- 2. The second is when he gets a few hundred hours up and knows that he knows it all;
- 3. Finally, when he gets thousands of hours he realises that he will never know it all, and flies accordingly.

The first two phases are when false beliefs are fostered, and overconfidence and ill informed decisions are most likely to cause accidents. It takes time to unlearn these early preconceptions and bad habits. No pilot with thousands of hours of experience, and long years of learning from the mistakes of others, would ever suggest that a VFR pilot with a little instrument training should fly in cloud at all. His experiences and knowledge of all the deaths caused by loss of control in cloud in the past testify to

Instrument flying is something you train for as a rating, and continually practice, to remain current with its skills. GA aircraft equipped for flight under the IFR are usually heavier and more stable than our aircraft. Recreational aircraft are a different proposition altogether, as they are much lighter, twitchier on the controls, and bounce around far more in turbulence, requiring

another level of skill beyond that for GA aircraft. If you want to fly instruments stick with GA, and obtain a rating which you must keep current.

Doubters to this advice would find it educational to try instrument flying under the hood in the normal turbulent conditions which are found in cloud. Use basic instrumentation in a recreational aircraft, and try to manoeuvre. Manoeuvring on instruments in calm conditions is difficult enough, but mixing it with light recreational aircraft and normal gusting turbulence in cloud is another experience entirely.

An instrument pilot must be able to recover from unusual attitudes in cloud, when the AH has inevitably toppled, and your mind tells you one thing and the aircraft is doing another. Could you recover from your death spiral using instruments?

Doing a little instrument flying in calm conditions gives unwarranted confidence in your abilities, but experiencing the inevitable loss of control in turbulent conditions will put the healthy fear into you that you should have, and give you the future lifesaving incentive to turn back from marginal conditions before it is too late.

Most situations where pilots are forced to fly into cloud, are where the cloud and ground are near each other. When windy, rotor turbulence and lift and sink from the ridges is likely to be present. Once in cloud you can't descend, and if you muck things up, all those rocks below are waiting for you. Turbulence is not the only problem that can be found in clouds. Normal convection clouds have rising air in them as well, which in growing clouds can carry you up thousands of feet before they spit you out..

Down south in winter you will almost always get rime, or even clear ice, on the wings, which can and can freeze the controls. Outside and even inside, ice forms on the canopy, keeping you on instruments in clear air long afterwards. Clouds don't just sit there, they are moving, growing and decaying, with turbulence inside usually much greater than on the outside.

There is a tendency to fit autopilots nowadays to ease the workload for long distance flying. Some regard these as a possible life saver in emergencies. However, these can be disengaged just like an AH, by excessive attitudes that happen in turbulence with our light flying platforms. Of course the other thing is that clouds are the domain of the IFR pilot, so you may not be alone in there, and CASA tends to frown on this. Long ago, with only hundreds of hours of experience, I used to fit an AH 'just in case'. However, with thousands of hours, and being noncurrent in instrument flying, I don't bother fitting these pretty pieces of useless aircraft ballast, and in 58 years of flying have never been tempted to get into a position that I might have to use them. Good decisions in flying come from experience, and experience comes from bad decisions you survive. But the pilot who also heeds the experience of others makes the better decisions! Heed their advice, and don't cloud fly.

Operations Team -

Simulated instrument flying should not be attempted unless the PIC is an instructor and safety pilot who has an adequate field of vision - see CAR 153.

REACTION

The rest was almost history

by Chris Jelliffe

It was a delight to read Arthur Marcel's article on the mythical '178 secs to live' that has been promulgated for years to terrify and confuse VFR pilots.

I got my PPL in the UK some years ago the weather is very changeable, often bad, and we did a significant amount of time 'under the hood' so that we might have a chance to salvage an otherwise fatal situation to something survivable.

Of course VMC into IMC was taboo - but in the event it should happen, it seems crazy to have instilled into the student nothing more useful than 'you're going to die in three minutes' - what bullsh*t. As a pilot, take control, then the three C's - Climb, Call, Confess.

Steve Tizzard's comments at the end of the article are equally inaccurate - the ATSB document "GA pilots behaviour in the face of adverse weather" does NOT provide a 'contrasting opinion' at all. It provides no opinion whatsoever - it provides interesting statistics, and demonstrates that some prior knowledge of statistical analysis is very helpful in unravelling the relevance of the data presented. It then presents conclusions.

The ATSB paper is interesting and at no time was the flawed American research'178 secs' nonsense produced (it is not relevant either practically or statistically). Worthwhile reading - but the conclusions are not unexpected.

Meanwhile, learn to fly, albeit for a short time, on instruments. It's not hard, and could save your life - as it did mine eight years ago. I was flying my son and his friend to Brisbane from Bundaberg in a rented 172. I had clearly not fully factored in all the 'inters' and 'tempos' and 'probs'. They all came to fruition but as I arrogantly battled (press-on-itis) on over Noosa, I suddenly became aware that I had nowhere to go, nowhere to turn back to, and was in deep trouble. 800ft over the ocean, no visibility, and a lashing rain had started. I was on instruments for at least ten minutes. Maroochydore came to the rescue saying that they had me radar and that their runway lights should be in my 2 O'Clock. They asked me 'If you see them, do you wish to land?' The rest is history, as we had nearly

The whole thing is flawed

by Tom Grierson

Arthur Marcel wrote a story which was published in the December 2012 issue of Sport Pilot magazine for the entertainment and education of us poor, humble ultralight pilots. The title, '178 seconds to live - is it a myth', sets out to destroy an academic article written, way back in 1955, about non-instrument rated pilots flying in cloud and how short the time is (178 seconds) before they lose control and presumably, plunge to their destruction.

I have rarely read such a skilfully written work. Mr. Marcel is a persuasive writer. The only fly in the ointment is that I think the whole thing is flawed.

Aviation orthodoxy is one thing but life's experience is another.

One of the most common causes of fatal accidents in light aircraft is caused by nonrated pilots flying into cloud. That is simple

and straight forward. What should you do? That's right, stay out of...what was it? What about our professional brethren? Highly skilled and at least highly trained and equipped with the most expensive and up to date toys. That's right, they crash in cloud. It is known as CFIT. Controlled Flight Into Terrain. Does that sound familiar? In RA-Aus terms, it means that the aeroplane crashed because it was in cloud. Please read the article, but when you do read each paragraph and realise that there is some spin in each.

Finally, may I put in a good word for the Beech Bonanza. It is not the one featured, it was the much earlier V tailed 4 seater. the one shown is the grandson of the original and is bigger.

They have reputation of being easy to fly and if flown within their envelope, they are easy to fly. Very typical of light aircraft in 1950s and exactly the type a university would pick as 'normal'.

I can remember being in a small aeroplane which was supposed to be in a 270 degree left turn in heavy smoke. The pilot was actually turning to the right at 45 degrees. There was nothing wrong with the attitude indicator, the turn coordinator or the simple magnetic compass. You tell me what was wrong?

Something to say Email editor@ sportpilot. net.au



MORE REACTION

reactions cont

Get the messenger

by Robin Sidebotham

Arthur Marcel is a dangerous blow hard. He believes his spotty research has debunked a 'myth' when, in fact, he's just being a show off.

The theatrical tenor of the 178 seconds message probably did its' job. As for 'many RA-Aus aircraft have an AH'. Bunkum! Training under the hood was a standard item for me doing the PPL way back when; it is NOT in the syllabus for RA-Aus. Be honest, tell the readers they should go to a GA school as well as a RA-Aus school. As for spacial disorientation, it most certainly can strike even those who have trained on instruments. I hope it never happens to you Mr. Marcel.

Readers might like to look up an old article: "Flying on a partial panel". I can't remember other details but I could probably dig out a copy.

Safe flying, don't be arrogant. It can get you

No old, bold pilots

by Stuart Jacobs

I have just read for the second time the article "178 seconds to live - is it a myth?" and am not at all surprised the author didn't answer the question. Let me do it. IT IS NOT A MYTH and you had better believe it. The only part of the article I did agree with

was the six paragraph quotation from the FAA.

Flying in cloud without being suitably endorsed is extremely dangerous as I was taught in no uncertain circumstances when a trainee pilot in the RAF in 1952 - i.e. two years before the 1954 study quoted in the article.

Why is it so fatally dangerous? Let me acquaint you with the vital information not mentioned.

Imagine you, an experienced RA-Aus pilot, flying along and you see a nice looking cloud and think to yourself 'I could fly into that without any trouble, it will be fun and, anyway, I can always do a 180 and fly out if I don't like it'.

So you fly into the cloud, find flying into a thick fog is not all that good, so carefully maintaining altitude execute a 180 degree turn only to find the weather has closed in behind you and you are not sure which way to go, or what to do. I suggest you pray like you've never prayed before, because time is running out fast and you really are in the soup.

When flying into cloud ALL visual references disappear, you can see absolutely nothing, not even your wingtips. Not only that but, being grossly inexperienced, you quickly become totally disorientated and that's when panic begins to rear its ugly head. In desperation you rely on the only saving grace you think you've got - your remarkably positive bodily sensations. You endeavour to fly accordingly to those, become even more disorientated, more

panicked until you hit the deck almost vertically at high speed.

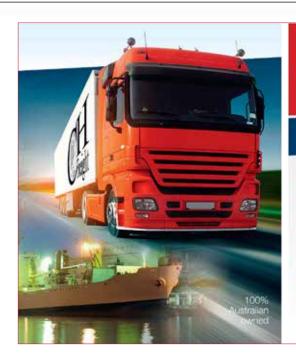
Birds have been recorded falling out of clouds in a disorientated manner.

The most important lesson learnt and the hardest to accomplish when gaining an instrument endorsement is, when in the thick fog/cloud environment, to totally disregard any bodily sensations you have. Believe your instruments, even when they are in disagreement with each other, which 90% of the time they will be. The instruments are always right and the body/brain always wrong. This has to be practiced time and time again until it becomes second nature, no mean feat. You should also bear this information in mind when flying over continuous cloud cover, because when landing, you will have to descend through it. Always err on the side of caution. There are no "Old Bold Pilots".

Ed- Thank you to all who contributed to the discussion. It has been a very widespread debate on a subject dear to all our hearts and a terrific sharing of group knowledge. As Barry Wrenford said in his letter 'pilots who heed the experience of others make better decisions' And to those readers who worried that by raising the issue we might be encouraging others to fly into cloud hands up anyone who has followed this discussion who now believes your lifespan in clouds has been extended beyond 178 seconds?

I don't see too many hands.





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Paul Bennet to star at Natfly

Paul Bennet has confirmed he will perform at Natfly this year.





Paul practices several times per week and has devoted an enormous amount of time to developing and perfecting airshow manoeuvres.

Paul's platforms are both Pitts Special S1S aeroplanes. His favourite Pitts is VH-IPB, which has a larger rudder, servo tab elevators, a racing canopy, carbon fibre removable turtle deck, precision wings with large ailerons, modified wheel spats, Wolf Cowl, Craig Catto three blade Propeller and a 250HP engine with all the tricks, and weighs just over 800 pounds. It is an animal and performs like no other 4 cylinder biplane on the planet.

maxxG

Paul's display is 10 minutes of high energy, engine screaming precision aerobatic manoeuvres taking place from the dive height of 2500ft right down to ground level, reaching speeds of more than 300km/h with G-forces reaching

In October 2008 at the RAAF Amberley Airshow in front of 50,000 spectators, Paul completed Australia's first triple ribbon cut, making him one of only two known pilots in the world to

You haven't been thrilled until you have seen

Paul Bennet aerobatic pilot will perform at Natfly 2013



rney



We live in the Whitsundays on a property called Heathrow. Our intention was to visit family in South Western Australia in our own aircraft, a Savannah XL (Cab Sav).

ach item packed was carefully considered and weighed; fuel and safety gear had priority, then the camera.

When the weather window opened we set off, accompanied by our friend, John, in his Titan Tornado2.

We climbed over the Great Dividing Range to reach Charters Towers for lunch then it was on to Hughenden for our first night's camp on the edge of the airfield. Walking into town for fuel and a meal we met the first of so many wonderful country Australia people. Have you run out of fuel? Where's your car? You're flying?

How far?



We quickly settled into a routine of a flight in the morning while the air was calm, then either a high flight onwards to avoid rough air or a midday break and a late afternoon flight to reach our night destination.

We watched as the terrain below changed shape and colour, from our tropical green to yellow grassland and onto river systems and rocky outcrops.

At Julia Creek, we borrowed an old Holden EH; at Camooweal we found a great camping spot by the river; at Daly Waters, history plus and a great pub. John left us here and returned to work, while we carried on to Mataranka and into the Kimberly.

Now the serious 'WOW! began

It was the most used word followed by "give me the camera, you take the stick".

We didn't think we could be more impressed but daily, no hourly, there were more WOWs.

The Ord River, El Questro, Emma Gorge, Argyle Diamond, The Bungles, Halls Creek, the WA coast, Port Smith, 80 Mile Beach.

I mean, wow!



READERS' STORIES

The WOW! Australian journey cont

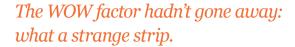
At Ningaloo Reef, we saw our first whale just after takeoff and many more as we skirted the beautiful coast Southward. The colours of the sand dunes, cliffs and patterns of creeks were amazing. The huge mining operations were impressive too.

As we ventured further, we felt the climate change and the land use returned to agriculture. We turned inland at Jurien bay, past the wind farm to Northam and arrived at Collie to enjoy family and warm comforts.

But soon it was time to pack the plane again, condense our home to the size of a large Esky and set off from Collie on the return trip to Queensland across the bottom and up the middle.

The local TV and newspaper people interviewed us - I guess we were a novelty. But travelling around in our home-built plane now seemed normal

Down to Albany, then because the weather was due to close in, as happens in the South West, we put some nautical miles behind us and made it to Norseman.



A white saltpan with a shipping container terminal building. RFDS storage, actually. Then began the roadhouses across the Nullabor, each of which had one golf hole, part of the longest course in the world, 'the Nullabor Links'.

The contrasts were dramatic. Out one side of the aircraft was endless flat scrubland. Out the other side fantastic beaches, dunes, cliffs and the Southern Ocean complete with whales. At one point we counted 25 in a group. Wow!

As we approached Ceduna, a big black cloud followed us. We landed in the rain and checked in to a cabin for the night.

Next we had to navigate our way past Woomera and through the beautiful Grawler ranges and Lake Garnier up to Coober Pedy.

That is a strange place, to put it mildly, but very welcoming. I found underground cave dwelling very interesting and strangely calming.

We flew over the Breakaways, the beginning of the painted desert. As we headed to Williams Creek and Lake Eyre South, we met a coach load of elderly travelers who were fascinated to hear of our journey in the little plane - one man gave us a bottle of wine to enjoy at our bush camp that night.



Next was Maree, lots of history there: the Ghan railway and the real Tom Kruse. Then suddenly we were in Birdsville and so was the Variety Club bash. These great fundraising people really know how to party.

We flew over Big Red - just because we could - and enjoyed our stay in

Then to Windorah, where they have fantastic solar panel dishes to power the town and an elderly blind mechanic who can fix anything.



Guess what? The Variety club and the Rotary club 4x4 rally were both in town, so it was yet another party night.

Longreach and the wonderful aviation museum is where we spent the next day before flying on to Barcaldine for the night.

As we approached Dysart, a range of peaks and flat tops impressed us; I never knew these beauties were there and so close to home.

Back over the range at Nebo, where we were getting into familiar territory. It was lovely to see the sea and the sugarcane again and our wonderful Whitsundays. A safe smooth landing and we were home again at our "Heathrow". Time now to sort out the 2800 photos.



Total distance travelled 6530nm Average fuel consumption 13 Lt per hour **Hours flown 99.8 hours** Time taken 6 weeks

For their contribution, Julie and Ian are winners of a copy of The Pilot's Touring Guide.



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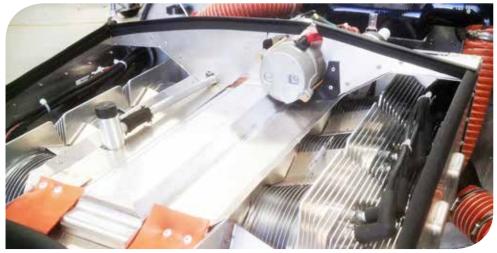
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S A NEW PUNCH

The new owner, Bathurst Recreational Aero Hire, asked for the aircraft to be fitted with a Jabiru 230 engine (120hp) instead of the usual Rotax 912 (100hp). For Joe English, owner of BRAH, the new engine means a whole lot of new performance as well.

"I have a Jabiru 230 and it's proved to be very popular online at Central West Flying School at Bathurst," says Joe.

The aircraft was designed by the famous Czech designer, Milan Bristela, the brains behind a number of light aircraft models, including the Evektor SportStar. Chris expects the all-metal Bristell to provide a fresh look in his fleet and he and Joe deliberately ticked all the boxes when deciding what should be specified in the aircraft.

"It has auto pilot, ballistic recovery system, a Dynon



"We have been very happy with it. When it came time to think about another aircraft, Chris Stott, CFI at Central West, and I went looking for a low wing aircraft Chris could use to extend the private hire side of his business."

Chris currently operates four Jabirus - J160, J170 and J230 and has clocked over 4,500 hours in them in just over three years –with another 2,000 hours in two more Jabs at Central West's sister-school in nearby Orange.

For Joe and Chris the current flock of Jabirus made the question of what should power their next aircraft a simple one to answer.

"There was one pre-requisite- it had to be powered by Jabiru, says Joe.

"Chris has four of them already, as well as all the bits and pieces and spares needed to maintain them. We know that engine back to front. Chris and two others associated with Central West are credited for maintenance on them and support from the Jabiru factory has always been fantastic" he says.

Joe and Chris saw the Bristell at the 2012 NATFLY. They took it for a test ride and when Anderson Aviation owner, Brett Anderson, told them the aircraft could easily accommodate a Jabiru 230 engine, they were sold.

Brett has been the Australian distributor for BRM aircraft since 2009. The latest model, Bristell UL, went on sale in 2011 and more than 50 have been sold in Europe already.

Skyview panel, premium interior and many minor inclusions", says Chris.

"It will be a fast, comfortable and fun touring aircraft", he says.

Joe says the new aircraft, has been fitted out like a GA aircraft with touring pilots in mind. He says it won't be offered for ab-initio training.

Pilots will need to do a short conversion course with Chris, because the avionics are advanced and the landing technique in the Bristell is different to that of a Jabiru.

"Pilots will get an 125hp aircraft capable of 130kts, a climb rate of 1400 feet a minute, capable of exploring Australia in comfort.

"We noticed during our test flying the Bristell handles the dirt strips very well", says Joe.

"It has good ventilation and an effective cabin heater, which is important in Bathurst which can often hit -5 degrees in the winter and plus 35 degrees in the summer".

Chris says he has been impressed with the support from Anderson Aviation as well.

"Brett has been very helpful throughout the purchasing process and careful to make sure we got a really special aircraft, as a result we have decided to work with him to demonstrate this aircraft to anyone in our region".

Sounds like there might be a queue at the Anderson Aviation stand at NATFLY again this year.

For more information www. and erson a viation. com. a u







Here comes the judge

By Dave King

Have you ever wondered if your pride and joy could be good enough to win one of the gongs awarded each year at Natfly? Ever wondered who the judges are or how the judging is conducted?

Many owners and builders bring their aircraft to Natfly not knowing the best category to enter or if an aircraft with simple design features would stand a chance against a more technically complex model. What exactly are the judges looking for and how can an owner/builder ensure any modifications or innovations on their aircraft are brought to the judges' attention?

Aircraft judging is conducted using six major categories: General Appearance, Cockpit, Engine, Prop and Spinner combination, Fuselage Overall, Wings Overall and Tail Overall.

All categories, with the exception of General Appearance, are scored from 1 to 15. General Appearance uses the same system, but scores from a maximum of 30. Each aircraft then achieves a total score out of a possible 105. Of paramount importance is confirmation of registration numbers under the port wing and on both sides of the fuselage. The next check is for a visible registration label showing current registration, as non-compliance will disqualify the aircraft from further judging.

Judges look for good airworthiness and maintenance practices such as bolt heads facing forward and up, with nuts to the rear showing at least 1-2 threads. Good lock-wiring practices should also be evident with wires always pulling in the correct direction. Instrument layouts should be functional with obvious thought given to positioning of switches, knobs and handles to avoid inadvertent bumping during flight. Cockpits and panels are judged by their execution and layout with conventional round instru-

ment gauges having the same scoring possibilities as a full glass panel.

The judges also recognize there are different tastes in aircraft and finishes, so the assessment is not based on the paint design or colour scheme but the execution of the finish. Marks will be deducted for any evidence of paint runs or drips, dry spots, blemishes or orange peel. Metal aircraft should look like metal aircraft. Riveting creates dimpling, whereas a composite aircraft can be completed much more smoothly and would be expected to present a better finish. It was once said to me by a dearly departed friend that you could tell a good composite builder by the number of used 'torture boards' (sanding blocks) in the workshop.



Older aircraft may score just as well as newly finished aircraft, because we have all seen extremely well maintained older aircraft at air shows. They usually stand out because of the crowd gathered around them.

Landing gear along with wheel spats, if fitted, is another critical area judges assess. The security, maintenance and condition of this area of any aircraft is paramount.

This year, revisions to the trophies have been made to ensure categories remain relevant to the RA-Aus aircraft of today. We are also trialling a different system to assist in judging the specific categories of Most Innovative Design and Best Auto Engine Conversion. If you wish to enter these specific categories, contact RA-Aus HQ for information when you arrive at Temora and register. In addition, pilots may wish to display a story board with details of the innovations or engine conversion, which would also assist judges to assess these categories.

Once we have details of these aircraft, we will make contact to arrange a suitable time to examine the engine installation or innovation design in more detail.

The Longest Distance Flown trophy has been replaced with Certificates of Recognition for any flights to Temora over 1500NM. To be eligible for these certificates, provide details of your flight, including logbook entries or flight logs to RA-Aus HQ when you register.

There will also be a change to the format for the presentation of trophies this year. Trophies (which will be pre-engraved with the category and year of achievement) will be presented to the winners at Saturday's dinner. If the winner prefers, RA-Aus will arrange for the name of the winner to be engraved onto the trophy and then posted out after Natfly.



After Natfly, a shield will be created and engraved with the category, winners' name and aircraft registration and placed on display at RA-Aus HQ. This change has come about because the previous trophies no longer have enough room for more names. However, all previous trophies remain on display at RA-Aus HQ to ensure the legacy of the pioneers of the early days of the AUF and RA-Aus will never be forgotten. The winners have earned the right to a couple of free drinks and boasting rights at their local flying club or aero club.

The categories are: Best amateur built aircraft, best factory built aircraft, best propeller and spinner combination (sponsored by Bolly Propellers), best single seat 95.10 aircraft, best Tecnam aircraft (sponsored by Tecnam), best Jabiru aircraft (sponsored by Jabiru), best auto engine conversion (sponsored by Cummins Spinners), best two seat trike, most innovative design, Concourse de Elegance (sponsored by Chamberlain Insurance) and most outstanding VH registered aircraft.

Slight changes to the rules this year - aircraft which have won in previous years will become ineligible for judging in the same category for the next year only, and the winner of the Concourse de Elegance will become ineligible for any other category in the same year.

The judges are three volunteers with experience in building or maintaining aircraft and who freely give their time to walk around the Natfly site to assess aircraft.

While the judges use the above criteria to evaluate the aircraft, even they will not know the winners in each category until it is announced. The judging results will be collated by Operations.

If you want your aircraft judged, it must be parked in specific areas with propeller covers with red writing to reduce the time judges spend walking around. In the booklet enclosed with this magazine, a map shows the specific area set aside for aircraft to be judged. It is immediately in front of the Temora Aviation Museum and marked as Aircraft Judging area.

Additionally if your aircraft is parked in under wing camping, it must display an appropriate coloured propeller cover to be eligible for judging. These propeller covers will be available from RA-Aus HQ.

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I was excited and nervous at the same time.

It's been 10 months since my last appearance in Sport Pilot magazine and a lot has happened. January 8, when my last story was published, was the first anniversary of my being granted a pilot's certificate.

So throughout the year, I studied for my PPL theory exam and began navigation training. My first nav exercise was Launceston - Sheffield - Wynyard - Devonport - Launceston. What an overwhelming flight.

It was a lot to take in at first. Keeping a heading, knowing where you are from map to ground and timing your ETA, and revised ETA. I had done two more navigation flights when I sat my PPL exam and passed on my second attempt. I think the theory did my head in more than the practical (I never knew there was so much to a cloud).

In May, I went for my first solo nav flight. The journey was Launceston - Devonport - Wynyard - Mt Roland - Launceston. I managed to get to Wynyard and said hi to the wonderful people of Wynyard Aero Club. But, due to showers towards the south, I had to miss Mt Roland and tracked back to Launceston via Devonport.

I kept studying and in August, I sat my CPL Meteorology and passed first go. How exciting. Only six exams to go.

In October, with amazing help and support from Eugene Reid at Freedom Flight, the Tasmanian Aero Club CFI Rob Sharman, Instructors Phil Evans and Rishi Dwahan, and many friends, I had gained enough hours and experience to attempt my RA-Aus cross country flight test.

I was excited and nervous at the same time. I had my flight plan all mapped out and my weather forecast for the day. My flight was to be Georgetown - Sandfly - Devonport - Georgetown, a total of 220nm. It was a clear day, but not the smoothest air.

We departed Georgetown for the 1 hour 15 minute leg to Sandfly. We tracked towards the Great Lake at an amazing 4,000ft AMSL, I got more excited the closer we got. Unfortunately, Tasmanian weather is often completely different from what's on the ARFOR, so we went off track early and I had to do what every pilot must know - the 1 in 60.

With a new heading, we got back on track and passed over the lakes. How amazing it was to be flying over such a great mass of water on top of a mountain range. With Tasmania still within its nine months of winter, there was snow about too, which made it look more spectacular. We flew along to Bothwell, where Eugene told me to divert.

Working out my new track, I turned the Jabiru onto its new heading. The diversion was actually better than my original track, because we got to come in over the river at Bridgewater and see Hobart.

CARY nav test

Looking at the enormous Mt Wellington, standing proud at 4169ft, we headed towards it and to my destination, a strip hidden behind it. Flying around the mountain was daunting, but finding the airfield turned out to be easy.

I spotted an open looking paddock. It happened to be Sandfly, the strip I had been looking for. "Phew!" I thought.

I needed to land because the turbulence, and the pressure to get it right had built up and I needed a breather.

Turning onto final, several issues arose. The trees sloped downwards to the west and the runway sloped up the same way. It looked very easy to over-

shoot and misjudging it could see me sinking onto the trees. I kept a bit of power on final and touched down on the upslope nicely. We exited the Jabiru at the hangars and munched on some biscuits for about 15 minutes before we set off again.

Correct flaps and full power for a short field take-off and we were airborne. I gave my departure call, then tracked the eastern side of Mount Wellington, this time west of Bothwell and over the western side of the lakes. Just as on the way down, it was bumpy all the way back to Devonport.

I could see Devonport in the distance and gave my 10nm inbound call. We tracked to joined midfield crosswind for runway 24 and landed nicely despite the crosswind.

We taxied to the Aero Club and climbed out for another stretch. At this point, my nerves we nearly at the max. I had only one leg more to Georgetown before Eugene would tell me if I had passed or failed. I told myself I could do it.

We departed runway 24 and tracked easterly for Georgetown. I gave my 10nm inbound call, joined long downwind for 24 and landed the plane again nicely, I felt, in the crosswind. With the sun starting to set, I helped to unpack the Jabiru and took all the gear into the office. I stood there quietly waiting for Eugene to log the flight time then to give me the answer.

"You passed," he declared.

My face lit up and my heart pounded.

I had done it

What a good feeling that was. I was so thankful that even though my wallet had been empty for a week, the next day I bought Eugene some chocolates and a Thank You card.

Flying is so truly amazing and words aren't enough to express how I feel about it and how grateful I am to everyone who has helped me.



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Editor's choice

Brian Bigg



Pilots are generally a trustworthy bunch. Compared with the wider public, there are not too many of us who overindulge in drink or drugs. We are usually conservative and dependable in our outlooks and opinions.

Our crimes, when there are any, are of the more white collar variety than blue.

We are generally community leaders, not the sort of people who appear on TV shows like Border Security, Cops or RBT.

Some of it, I'm sure, has to do with the demographics of who becomes a pilot in the first place. We are generally young and ambitious or older and more well off. The people in the middle are usually too busy with jobs, families and careers to commit the time and, definitely the money, to go flying.

You do need money to be a pilot, even if it is not much for some of us. To indulge the passion means regular costs on maintenance, charts and training. Someone not committed to spending that money, will usually wander off towards an activity not as expensive as ours.

So pilots usually have enough money to tide them over until payday, even if they aren't wealthy in the classic sense.

There is also the issue of airmanship, which is beaten into us from the very first time we strap in for the lesson on Use of Controls. Airmanship, we are told, teaches us that pilots need to be thoughtful and understanding of other pilots. We need to become, if you like, gentlemen and gentlewomen in the Downton Abbey sense of the words.

We are told to trust each other and be worthy of trust ourselves. It's a great tradition that I continually try to uphold... not always successfully I might add.

You can see a demonstration of that trust whenever you are at your local airport or at a fly-in. We let other pilots crawl all over our expensive machines because we trust them. We let them sit in the cockpit and fiddle with avionics which have cost us a pretty penny. We trust them not to break anything expensive. And we leave our precious aircraft unlocked in the hangar. Unlocked, just in case there is a fire and someone needs to get the aircraft out of there in a hurry. If your aircraft is locked up and there is a fire, it will be destroyed long before you get there with the keys. Yes, we put locks on the airport gate and on the hangar doors in case those people who feature regularly on the TV shows do try to loot or pillage the goodies inside.

But airside our guard is much lower because of the level of trust we have for each other.

Imagine my surprise then, a couple of years ago, when I went to push out my aircraft to go flying and noticed my headset was not in its usual place above and behind the pilot's seat.

It was 25 years old, a David Clark original that had been my first ever aviation purchase. Of absolutely no value to anyone else, but precious to

At first, I assumed, as you do, that I had moved it at some point and not put it back. I searched through the aircraft and around the hangar. I went home and pulled the house apart in case I had absent mindedly taken it home. It was nowhere to be found. I came to the reluctant conclusion that someone had taken it.

My hope was that the person had merely borrowed the headset for a brief period and would return it when their need was fulfilled. After all, hangar buddies regularly borrow each other's tools, air compressors, buckets and hoses.

As long as they get returned in the same condition, you never mind.

But after a few months, I had to concede the headset had been taken, never to be seen again.



LIBERTIES

And, because an aviation headset has a limited use, it was probably taken by a pilot. How disappointing

The hangar I share is left open airside most days because a small business operates from there. Everyone visiting the airport pops in and out through there all the time. There's no limit to the number of people who could have been through in the few weeks between the times I was at the airport. I put the word around to the locals, but no one has ever seen it since.

I replaced the headset and wrote off the experience as disappointing and thought no more about it. Until a couple of weeks ago, when one of my hangar buddies reported his headset had just gone missing as well.

One theft is bad luck, an opportunistic crime by someone who found the hangar empty when they walked through it.

But two thefts, both of headsets, means the same person has identified our hangar as an easy target and been back for more.

The second theft means it is likely the person is someone who regularly visits our airport and has a reason to be around the hangars, probably a

So things have tightened up around our hangar.

At the end of each flight, I now strip my aircraft of anything expensive and take it home. Inconvenient and time consuming. The doors are locked and checked more attentively, and a security camera might not go astray in the near future if it keeps happening.

It is a shame that someone we trust thinks of

us only as victims. I hope someday we find out who it is. I'm going to make sure every pilot in Australia knows he is a thief. And by the way, if you ever come across a set of David Clark headsets with the word 'Bigg" inscribed on one of the ear cups, grab them off whoever has them. They are mine and I'd like them back.







a hat trick?

By Arthur Marcel



Ken openly admits to being a perfectionist and one look at this aircraft is all that is required to know he is not joking In my hangar, there are four aircraft. Tony King's Koala, Cyril Brock's Minicab, my Sapphire and Ken Edwards' Courier. Each of the aircraft are maintained to a high standard and cleaned and polished regularly.

We each love them as much as our wives and girl-friends will allow.

Only one of these four aircraft, however, has won the RA-Aus Natfly Concours d'Elegance award two years back-toback (2011 & 2012). That aircraft is Ken's magnificent RANS S7S Courier. Ken is a professional heavy-lift helicopter pilot, usually to be found flying Chinooks in PNG. He works six weeks on and six weeks off.

When in Brisbane, he is either building or flying his own aircraft.

The Courier is actually Ken's fourth build. His previous projects had already won major awards on the Australian homebuilding scene by the time he started construction on the Courier in late 2008.

Courier 7222 is powered by a Rotax 912 ULS driving a Sensenich bladed, Airmaster AP332 constant speed feathering propeller. That gives the aircraft maximum versatility and range. Normally, a topped-up Courier will take you about 300nm, but Ken's aircraft has even longer legs thanks to its Turtle Pac "Little Buddy" auxiliary tank system.

The aircraft was finished and doing its test flying by mid 2010. Ken openly admits to being a perfectionist and one look at this aircraft is all that is required to know he is not joking. While building the Courier, he also kept a meticulous builder's log. It can be accessed at: http://www.mykitlog.com/kens7

The all-white colour scheme has been achieved using the PolyFiber process and is truly without a blemish. The instrument panel is a work of art. There is no way to describe this aircraft other than perfect. It is the envy of every pilot who sees it.

The plane has a cruising speed of just under 100kts and a useful load of 240kg. Stalling speed clean is 40kts and 36kt with full flap. There is plenty of access through a long upward lifting door on either side. Probably the most noticeable feature of the Courier is its

excellent visibility with a long transparent ceiling panel reaching well behind the rear seat. The aircraft has toe-operated differential hydraulic braking, making it as manoeuvrable on the ground as it is in the air. I've been in the back of the Courier on many occasions, and can say that it flies as well as it looks. It cruises as straight as an arrow and is a very easy aircraft to land.

Flying with the doors open at low level on a

summer's day is an amazing experience. Ken is going back to Temora at Easter and will enter the Courier in the competition once again. Tony and I are flying down with him. We think this time he'll bowl the hat trick; however, Ken won't hear of it. He's a true sportsman and knows that the real satisfaction comes from simply being there and playing the game according to the rules.









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A difficult start to the year

It is no secret we have had a horrific start to 2013 with four RA-Aus aircraft accidents, in which there were five fatalities, since the start of the year. We would like to pass on our sympathies to the families and friends of those members.

As always, RA-Aus is assisting police with their investigations into these tragic events. Additionally, we would like to voice our appreciation to the RA-Aus volunteer accident investigators who dropped everything they were doing and gave up their time to assist.

As with most accidents, there is generally no one single factor identifiable as a cause. Time will be taken to analyse all the evidence in order to determine the series of events which led to each outcome. A report of the evidence uncovered will be provided to the lead police investigator who will, in turn, pass the information on to the local Coroner for final assessment. The Coroner will then publish a final report. How long this process will take cannot be quantified.

Sadly, pilots rarely find new ways of having accidents. Pushing boundaries, adding a new procedure or engaging in a method which is rarely practiced, generally form the key elements which, if not identified by the pilot and corrected, become the foundation and inevitable building of the proverbial 'links in the chain'.

The use of the acronym I.M.S.A.F.E. is designed to assist pilots to assess their physical and mental wellbeing before they get airborne. I.M.S.A.F.E. stands for Illness, Medication, Stress, Alcohol, Fatigue and Eating. Pilots are taught to use this assessment before driving to the airport. Will a lack of sleep, a big night out, a recent change in medical status, or a current job or family related stress have an impact on the safety of the proposed flight. If there is any doubt, there is no need to fly.

As recreational pilots, we fly for fun. There is no pressure on us to include 'need to', 'had to' or 'have to' in any part of our decision making. We enjoy the luxury which comes from deciding not to fly if conditions and circumstances are not right.

However, decisions by pilots to undertake a flight where factors like alcohol, fatigue, poor light or weather, get-home-itis, flight into cloud or pushing legal and structural boundaries, are becoming statistically significant in the 'chain of events' found during investigation into fatal accidents. We wish they weren't, because all of these are easily avoidable and unfortunately, create the perception that the pilot is always to

As a community of pilots, we share a responsibility to ourselves and to others to operate as safely as possible and, if required, assist each other to become aware of possible deficiencies in our decision making. The spirit of mateship which has proven successful in other types of campaigns (e.g. drinking and driving), has resulted in people consciously deciding to look out for others, in order to reduce the possibility of an accident or incident. Through clear communication we can manage risk.

Editor's Choice

We would like to pass on our compliments to those members who raised their concerns regarding the Editor's Choice article published in the February 2012 Sport Pilot magazine.

We received a number of phone calls and emails regarding the column, in particular in relation to Brian's statement "I love to show my passenger the controls and have them fly the aircraft with me. I love to see the joy they get when they feel the machine come alive in their hands."

When we took Brian to task about it, he confirmed that the words "with me" at the end of the first sentence in question, were meant to indicate that the passenger would merely 'follow him through' on the controls, not that they would control the aircraft.

But at Ops, there are no grey areas in this instance. We took the opportunity to counsel Brian, and all RA-Aus pilots, on the legal requirements regarding who may operate the controls of an aeroplane. CAR 228 states:

Unauthorised persons not to manipulate controls. (1) A person must not manipulate the controls of an aircraft in flight if the person is not either; (a) the pilot assigned for duty in the aircraft; or (b) a student pilot assigned for instruction in the aircraft.

In addition, even the action of 'following through' is not desirable. As many instructors can attest, there are risks associated with it. Accordingly, a passenger can only take the controls when the pilot in command is a qualified

Brian has assured us he will brief his pas-

sengers to keep well away from controls in fu-

Flight into IMC

In the December 2012 edition of Sport Pilot, an article was submitted regarding the "178 seconds to live" study. The intent of this study was to ascertain how difficult it would be for a non-instrument trained VFR pilot to safely control an aircraft if they inadvertently entered non

We would like to clarify (as many other members have already done) that not only is specific training required when operating in non-VMC, but recency and currency are just as important for safe operation under Instrument Flight Rules. Simply adding an attitude indicator (AI) or EFIS to your RA-Aus aircraft, and expecting this to make you safe, should you find yourself in cloud, is not only extremely foolish, but also contradicts our fundamental flying requirements of day VFR only.

If pilots want to learn the skills necessary to safely fly in IFR, they should undertake the training for a PPL, and an IFR rating (private or command). Nonetheless, undertaking the training and not following through with the recency requirements is also unsafe. Accordingly, regularly practice would be required to be conducted in an aircraft legally able to fly under IFR, which our aircraft are not.

Do not even contemplate flying into cloud in an RA-Aus aircraft, it is extremely dangerous. The suggestion that fitting an AI or having an EFIS in your RA-Aus aircraft as a safety feature. just in case a cloud inadvertently jumps out in front of you, is false. Extremely poor aeronautical decision making is what leads a pilot to fly into reducing visual conditions and ultimately, into cloud.

An AI or EFIS in the aircraft may arguably be the catalyst which leads the pilot to make a series of poor aeronautical decisions past the point of no return. These have the potential to become a series of 'links in the chain' of contributing factors which are likely to be revealed during any subsequent crash investigation.

These types of articles are always only ever intended to encourage pilots to fly as safely and thoughtfully as possible, and we encourage feedback to the magazine, because it is only as a community of like minded people that we can have the greatest impact on safety. **

Flight instructor's forum

Facilitated by the aviation guru - Professor Avius

What makes an instructor a good operator?

hen I became a grass green new instructor many years ago, the CFI of my flying club gave me a sheet or two of paper with the heading 'What makes an instructor a good operator?' I have kept those now greying, ruststapled sheets at the front of my "Instructor Notes" folder ever since. Every now and then I drag them out and remind myself of its good advice.

1.Be on time or early.

If you are on time you are late.

2.Look the part.

It does wonders from the outsiders' perception of both you and your organisation. The old saying 'an ounce of image is worth a pound of performance' is not too far off the mark (it was a very long time ago, so today you have to change it to milligram and kilogram).

3.Know what you are doing.

A student will see right through an disorganised person. Check the weather, your notes, maps and aircraft before the student arrives.

4.Know your aircraft.

A good instructor is not just one who looks like a pilot. He/she is THE pilot who knows everything there is to know about the aircraft; how to fly it properly and how to look after it, including the engine.

5.Be happy!

There is nothing worse than an instructor who has a chip on their shoulder and no smile on their face. Do you know the one? Always grumbling and mumbling about how they should be flying bigger and better aircraft and how they can't wait to get out of this place.

6.Look after your aircraft.

Having given your student an informative flying lesson, go and clean your aircraft. Get rid of all the oil stains, bugs, rubbish and litter. Clean the oleos, check the fuel and oil. Tidy up the seat belts, briefing cards and documentation. Be proud. If you look after your aircraft, then your aircraft will look after you.

7.Paperwork.

Be sure it is done. It may be a burden, but it's there for a reason. Student's records are as important as the flying itself, when it comes to progression. Trend-monitors is essential to looking after your aircraft; knowing how much fuel or oil the aircraft is using. It is also essential to both the operator's accounts and to you, so you know exactly how much fuel you have onboard at any time.

8.Be willing to learn.

There is nothing worse than a pilot who knows it all and has a ready excuse whenever something goes wrong. Take the chance to fly with other instructors. Watch them fly, listen to why they do things, and ask them questions about why they are doing something, especially if they do it differently to the way you do it. (It may be even better than the way you do it.) Take the opportunity (and investment) to do further training; spin recovery, aerobatics or a new endorsement.

9.Be keen.

Ever heard the saying 'Beats working for a living?' That is exactly the way most of us in aviation see our jobs. If that's not how you see it, then maybe it is not for you.

10. Give your student the correct amount of support.

Know when to let them push their boundaries, and know, in a timely manner, when assistance is required.

11.Gain a good reputation.

Students soon let other students know which instructors they prefer to fly with, who teaches them the most and who truly loves their job.

I drag out this old sheet from time to time and read it from top to bottom.

It takes me back to a time and reminds me all over again, of just what it is that makes an Instructor a Good Operator. 99

Email contributions to guruavius@gmail.com or editor@sportpilot.net.au

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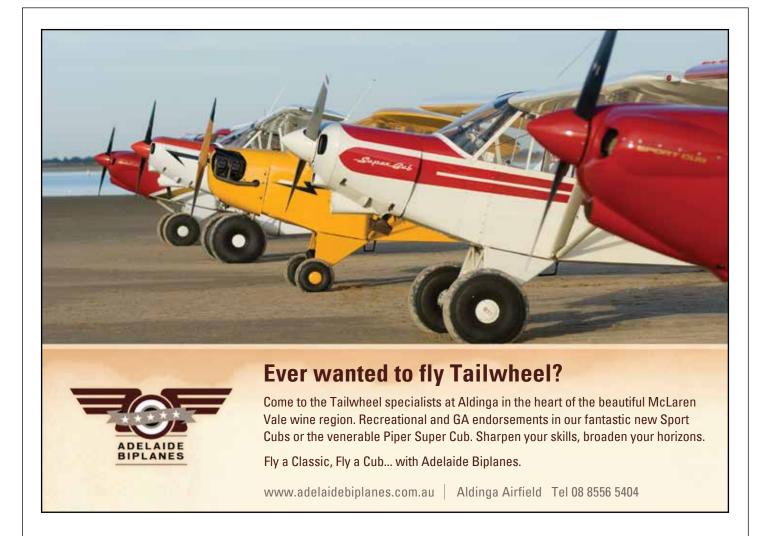
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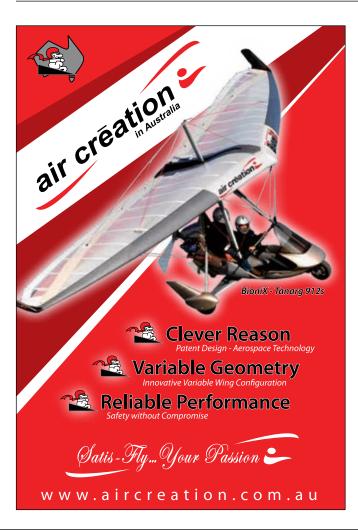
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Dr Gerry Considine

LEARNING TO FLY

nce again, the sun clambered its way up and over the southern Flinders Ranges and the day had come for my last three ground exams.

But first a quick detour to the local golden arches. I picked up a trio of coffees and hash browns for the usual suspects at the strip (every airfield has them!). Though, it did seem a little hypocritical negotiating the drive-thru at McDonalds after re-learning about the causes of heart disease as part of the Human Performance Factors (HPF) exam. The study material for this exam comprised a 132-page booklet that was, in parts, more complicated than any text I had studied for medicine. Amid the heavily worded text were some gems:

- Heart disease can lead to loss of licence (or worse!);
- Pregnant women (pilots) should check with their doctor when to cease flying;
- Fatty and other gas forming foods (e.g. cabbage, baked bean') should be avoided when flying as they can cause indigestion;
- Gastro-intestinal problems such as these are the most common cause of total pilot incapacitation.

It seemed to me gas-forming foods should be avoided in any enclosed space shared with other people, as they can produce totally incapacitating flatulence. There might well be scope for this part of the RA-Aus ground based theory to be updated. Overly complex medical questions aside, I passed the Radio, Air Legislation and HPF exams again with better marks than I had most of my medical exams. While labouring through the multiple choice questions in the office, the VHF radio crackled with radio calls from the first student of the day flying

Soon it was my turn for some more emergency procedure training. Today we would cover what to do if the engine ran rough, the weather closed in or someone on the plane became acutely ill (e.g total incapacitation due to baked bean gas). That is, the precautionary search and landing. Similar to glide approaches, precautionary searches and landings were enormously satisfying. When it came time to practice the landing, my instructor, Earl, would let me descend to a safe altitude above the paddock before saying "go around."

Straight away it was full throttle on and a quick climb

away from the hard, scary ground. When we arrived back over the airport, I filled up the fuel tanks at the bowser. The Jabiru was topped up, I popped the swipe card in my pocket and parked the plane back in the hangar.

On the long drive back to Wudinna, my car needed some petrol at Port Augusta and I thought I would fill my stomach as well. Clearly I hadn't learnt any lessons from the HPF exam because I bought a Chiko roll. However, when I pulled out my EFTPOS card to pay, I noticed an extra card in my pocket. I had forgotten to give back the Port Pirie fuel card from earlier in the day. I called Earl and offered to drive the two hour round trip to drop it off. But he suggested I put it in the mail. When I got back to Wudinna, I told Scott the other GP/pilot what had happened. With his newly renewed night VFR rating and a beautiful clear night, what else were we going to do? We jumped in the RV-6A and shot across to Port Pirie on an inky black night. Flying at night was very peaceful; 'especially having the back up GPS count down the nautical miles. Fortunately, the Chiko Roll stayed quiet in my stomach during the trip.

Next:

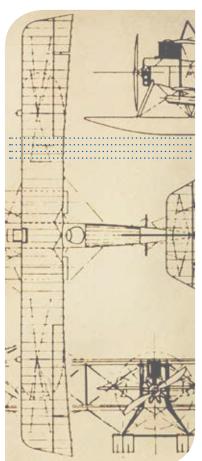
Gerry consolidates his preflight test training on home turf 💗



Why not build your own W 1 REPLICA

by Gordon Wilson





ave you ever thought about building your own World War 1 replica aircraft at reasonable cost, in a reasonably short time? And then flying it, along with other similar aircraft, to put on a show to honour the early aviators who made today's routine air travel possible?

There is exceptional interest developing worldwide in building and flying replica World War 1 aircraft. That interest is only going to get stronger as we approach the centenary of the Armistice which ended World War 1 on November 11, 1918.

Building one is not as difficult as you might think.

You can build a replica, learn to fly a tail wheel aircraft (all early aircraft were tail draggers) and be part of reviving historic aviation.

If it seems too much for you on your own, form a group and build several at the same time. WW1 replica aircraft have even been constructed by teams of high school students.

The aircraft of the time were relatively simple, designed and built as they were within just 15 years of the Wright Brother's first flight in 1903.

Aerodynamic theory, although surprisingly advanced, was in its infancy, compared with today.

They were constructed using wood or steel, braced with steel wires and covered with doped fabric. Engines were usually up to 9 cylinder air cooled rotary engines. The entire engine and propeller rotated around a fixed crankshaft, or multi cylinder water cooled in-line engine.

The Australian Vintage Aviation Society, TAVAS, was formed by Andrew Carter to build a national flying museum. The idea is for aircraft from the early era of aviation to be displayed and flown on a regular basis, to inspire, excite and educate people about one of mankind's greatest achievements.

TAVAS also wants to bring together people who share a passion for vintage aviation, to bring to life the aircraft from the first 25 years of aviation, to promote interest in building and flying these aircraft, and to support those who are doing so.

Andrew isn't just a passionate director, administrator and driver of the Society.

He recently imported, and will soon be flying, what will be the only flying Fokker Dr 1 in Australia.

The immediate requirement is to get more people building and flying, so we can have as many as possible flying WW1 aircraft for Remembrance Day, 2018.

TAVAS will conduct flybys at various locations



in each state on that date, to give people an appreciation of the flying machines in which many young people lost their lives fighting for their country.

For those interested in building a WW1 replica, the simplest, cheapest and easiest way is to purchase a kit. If the complete aircraft weighs less than 600kg when ready to fly, and you build it yourself as an RA-Aus member, you can register it and fly it as an RA-Aus owner built aircraft.

Kits, and plenty of other information, for popular WW1 aircraft such as the Fokker EIII, DVI, DVII, DVIII and Dr1, Nieuport 16, 17, 23, 24, 25, 27 and 28, and Sopwith Pup and Camel are available from Airdrome Aeroplanes. Kits and other information for Nieuport 11, 12 and 17 are available from Graham Lee Nieuport. These aircraft are constructed mainly from riveted aluminium tubes and folded aluminium connecting plates.

Dope is no longer used. The aircraft are covered with long lasting synthetic material, coated with water based products. Other kits can be found by searching the internet.

Builders around the world completing these kits have created internet chat groups, where information and photographs are shared and advice from experienced builders is available to new and inexperienced builders - so there is always someone available, who has been there before, to help with anything you find difficult.

If you want to make it a little more challenging, and perhaps a little more authentic, you can build from the original plans, although you will find it difficult to find an authentic engine.

Most WW1 replica aircraft are powered by aero converted car or modern radial engines.

Air cooled VW engines are popular, with a reduction drive to bring the propeller RPM to optimum, which is well below the RPM required to produce maximum power from a modern engine.

Plans copied from the original aircraft drawings are available for Hanriot HD1, Roland DVI, Spad XIII, Thomas Morse Scout, Fokker DVII, Nieuport 27, RAF SE5a, and Sopwith Pup, Triplane, Camel, Strutter and Snipe, from Replicraft.

These plans were originally prepared for aircraft model builders to use, but are accurate and have been used to build many full size flying replicas. Plans for other aircraft can be found on the internet.

There are many blog sites where WW1 replica aircraft plans builders have logged their progress, with detailed photos and drawings of everything you could want to know. These are an invaluable resource for any plans builder.

Another two great resources for information on aircraft of this era are the Flight magazine archives, where all editions of the magazine from 1909 to 2004 have been converted to PDFs and made available free, and WW1 Aero magazine, where all editions of the magazine are available for immediate pdf download for a small fee. In these magazines, you can read articles written at the time aviation was developing, and plenty of technical information.

TAVAS has a comprehensive website with pictures of Australian projects under way and a links page to many sites and businesses which can help. If you have reasonable handyperson skills, and some free time, you can build and fly your own aircraft. I can't think of a good reason why anyone wouldn't do it.

For more information info@tavas.com.au



by Bill Dinsmore

veryone has trouble judging when to flare. Well meaning instructors invented the flare point as a means of making it easier for the student.

Unfortunately, hunting for the flare point is the same as the problem in Lewis Carroll's 'The Hunting of the Snark' – there ain't no such animal.

The Jacobson Flare

Captain David Jacobson is the acknowledged expert in the field. He did a lot of research, and wrote a well thought out paper describing a flaring technique. It has been accepted by Qantas and other airlines throughout the world.

Captain Jacobson's technique works very well if you are landing a B737 or similar aircraft at an international airport, using an ILS glideslope of three degrees.

However, as Captain Jacobson himself admits, "In this age of technical precision,

the manual landing flare has remained imprecise. Conventional flare techniques have involved an inconsistent, critical estimation of height above the landing surface and are subject to a number of variable factors, summarised as aircraft, pilot and environmental.

There has been no acceptable, quantifiable, universal landing technique in the history of aviation, nor any recognition of the need for one.

"Captain Jacobson goes on to say "We have accepted second-rate, trial-and error 'Goldilocks' techniques of too high, too low and just right! In doing so, we have been:

- Wasting valuable time and expensive resources in trying to teach landing judgement;
- Causing unnecessary stress on students, instructors, passengers and aircraft;
- Accepting the lack of consistency and predictability, even for experienced pilots:

- Using guesswork to solve the immediate problem, what about the next aircraft? And the next?
- Unable to trouble-shoot and critique sensibly and constructively;
- Suffering too many landing accidents".

The Reason for the Inconsistency

It's very simple - there is no such thing as a flare point as we have been trying to teach it.

It has come about from well-meaning instructors trying to figure out what they do.

"I think I must look down and judge my height". And I think I must then move the controls back".

Unfortunately this is wrong thinking. Any time we say 'I think I 'must' do something', we are really saying "I am not sure what I do, but I think I must do that, and it sounds good anyway."

It is nearly impossible to accurately judge your height by looking down at the ground.



Many years ago a very experienced tug pilot was landing and happened to look down. He saw his left wheel brushing the top of the grass. He thought that looked great and decided to repeat the performance on his next landing. Everything went well to start with. He touched the wheel to the top of grass, then carried on looking at the wheel until something made him look up and he realised he was three metres too high.

A hurried application of power saved him from a heavy landing. He had not realised the aircraft had risen until he looked ahead.

I was having trouble with a student who could not seem to get the idea it is necessary to look ahead when flying close to the ground. I kept telling him not to look at the ground. The student kept assuring me that he was not doing that. On the next flight, we flew through a light rain shower and the student carried out a perfect landing. I was elated and cried "you've got it!" The student confounded me by saying

"The rain collected on the canopy in front of me and I could not see down!"

As an experiment - stand up and look down between your feet. Now lower your head about four centimetres. Can you tell the difference in the height? I can't, even though I know it is happening.

Now do the same thing, except look towards the horizon. Immediately, it becomes apparent your height has altered.

Let me put you in a different situation.



You are driving a car at 80kms an hour on a country road. There are no lines marked, and the road intersects with another one by means of a fairly gentle curve and there is a fence along each side of the new road.

Could you make the turn? Of course you could. You actually do it most times you drive the car. How do you judge it? Where do you look?

I suggest you look along the new road, further and further as you start to curl around the curve, until you are looking way ahead. Would you try to judge the distance to the left hand edge of the new road? I don't think so.

When driving along the new road would you look to the side to see how far away from the fence you are?

Your thinking during landing is exactly the same. You are not trying to put it on the ground, just trying to fly the aircraft along close to the ground, using the controls normally, in order to keep the aircraft from either touching the ground or rising.

Words

Words give us a mental image of what is meant, and quite often they are not what the instructor intends.

A case in point is 'landing'. This word invokes a picture of putting the aircraft on the ground. This is the last thing you want to do, because you will often bounce straight off, usually quite high, and follow it with a heavy landing. If your mental picture is putting the aircraft on the ground and mine is flying it along the ground, then there has been no communication, even though we are both sure we know what is meant by the word 'landing'.

When teaching landings, I would tell the student we were going to have some fun by doing a 'beat-up'. I would explain we would carry a little extra speed and get down close to the ground and fly along just above the runway. I would tell them they would need to keep looking ahead because we wanted to make sure the aircraft did not touch the ground - all good

Usually they carried out a very good landing, because I had taken away from them the idea of putting the aircraft on the ground.

The big problem with trying to teach a flare point is that when the student thinks he or she has reached that point, they feel they have to do something, such as pull back on the controls. This, of course, is wrong in itself because the pilot should not think of what to do with the controls, but instead what to do with the entire aircraft.

members' market

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3.47 b type gearbox. Only 5 hours from new. The engine was purchased by Airborne from HKS direct and was used to evaluate a potential new product. The engine performed well but is better suited for a tractor installation. Comes with: HKS Tacho, Electric Fuel Pump, Type 4 muffler set, Oil Tank, Oil Cooler. See engine http://www.hks-power.co. jp/hks_aviation/products/700e/cad.html \$7500 plus shipping Australia wide. Call spares or email spares@ airborne.com.au. Airborne Australia (02) 4944 9199

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Rotax 912 - 100hp, XCOM radio/intercom, 300 hours engine and airframe. Always hangered, MOGAS used 95%, regular servicing by LAME. Fuel flow meter. \$52,000 ONO, 0417 141 542

3113 SPORTSTAR SL



Bargain low hour Sportstar SL, private use, 215 hours approx TTIS. Dynon D10A EFIS, almost new Varia 2-blade in-flight adjustable prop, Garmin GPS495 AirGizmo dock, electric t&b, Whelen LED landing light and external power socket. 600kgs MTOW. L2 maintained, RA-Aus registered. \$94,000 - no GST. Please call Mark 0414 642 340

3117 2004 EVEKTOR SPORTSTAR



Reg 24-4399 certified for 12000 hrs TT 3300Hrs, Rotax 912ULS TT920 hrs. Three blade wood comp prop. Standard instrument pack plus Bendix radio. Transponder mode A and C, Tru track GPS and horizon. Always hangared, level 2 maintained. \$65,000. John 0412 965 407

3125 BRUMBY LOW WING J600



(Experimental) Jabiru 3300 engine. TTSN 100hrs. Standard Instrumentation. Call Paul 0414 677 971 or 02 6341 1635

3126 EUROPA XS CLASSIC



Rotax 912s engine Airmaster constant speed propeller. Endurance 3 hours 2 adults and luggage. 1700 hrs to next major engine overhaul. Excellent condition only 260 hours, 130 knot cruise. Extra avionics, GPS included and custom built trailer. Offers around \$70,000. Contact David King: 0429042740 or 44212721

3143 TITAN TORNADO 2



2 seat, Rotax 912 UL, Tundra tires, Matco disc brakes (inc.small wheels spare legs and spats) radio, intercom, headsets ,EIS engine monitor. 296 hours \$27,000, 0428216754

MEMBERS' MARKET

3152 JABIRU J230



May 2011 Factory built Jabiru 230. Always hangared. professionally maintained and serviced every 25 hours. Nil accidents. Complete with, Booster seat, large instrument panel, Dynon EFIS D100, AvMap EKPIV, ICOM radio, transponder, Garmin GTX327A, keyed master switch, snap air vent 3 1/4 and 2 landing lights. Has done 145 hours, in excellent as new condition and still under factory warranty. For sale at \$95,000, originally purchased for \$111,000. For enquiries please contact Jeff on 0418 335 839

3154 JABIRU J230D



3300 Rego 24-7370. Factory Built Dec 09 TT311Hrs with fresh annual completed. Factory Option 6 Panel. Dynon 180 EFIS Garmin 495, Microair Radio and Transponder Led Navigation and Strobe Lights Always Kept in Hanger Nil damage. Full window covers included. \$85,000 ono Contact David 0407 008 896 or email davidg@fnoc.com.au

3158 10-3025 KARAONE



Reluctant sale due to ill health. Rotax 503 two stroke

electric start, Single seat, GPS, Icom Radio, Hangered at Narrogin Western Australia. Good condition. \$15,000.00 ono. For more information phone 08 9419 3408

3160 JABIRU LSA 55-3705



Factory built, good condition, always hangared. LAME maintained, TTAF ~2600hrs, TTE 18hrs brand new hydraulic lifter engine (not recon, brand new). Microair VHF & transponder. Spare propeller. All new control cables, main gear, tires, J120 brakes. \$35,000. Located YBUD contact FlyBondy@exemail.com.au 0420 750 710 or 0434 082 023

3167 STING S 4



2011 immaculate condition, only 30 hours TT, Rotax 912. Ground Adj prop, Dynon EFIS-D6, BRS (parachute) full carbon fibre, new design. Cruise 135kt, 120L fuel more than 6 hours flying, LSA 600kg, very comfortable birds eye view. POA contact Vic from Sport & Recreational Aviation Australia Ptv Ltd. M: 0408 227 269 or email vic.sraa@gmail.com

3172 PEGASUS TRIKE

32-3908 - X1-Q is 2 place microlight. Has 347 TT on Rotax 462 engine and airframe - registered to May 2013. Trike in very good condition and always hangared. Helmets intercom and base covers with sale. Full history of maintenance. \$8,000.00 - Ben on 0417 262 330. For pics bennyd@live.com.au

3176 STORM 300 SPECIAL



Level 2 owned and maintained, 912S 100hp Rotax 780 hours. In flight adjust prop, KT79 transponder, 2X VHF radios Lightspeed headsets, carb heat, AH (Vac) Garmin 196 GPS, Man pressure, ASI, ALT, CHT, fuel, oil temp and press \$65,000 no GST for quick sale 0419348288 or pbugg@onthenet.com.au

3178 JABIRU J120-C



24-7002 Factory built in December 2008. 400 hour service just completed, hydraulic lifter engine, all AD's complied with. Extras include, 6 inch wheels, cabin heater, transponder, VSI.. A great first aeroplane.. Hangared Northam WA. . Will relocate for buyer if required.. Asking Price \$45,000 ONO. Contact Steve on 0416 654 428

3181 ONE THIRD SHARE

Skyfox Gazelle located at Caloundra. Price \$10,000. Contact Peter phone 0429 144 991

3195 2010 PARADISE P1



total hours 460, beautifully finished and well instrumented including Dynon D10, AirMap EKPiv



MEMBERS' MARKET

GPS, PCAS, IC-210 radio, Garmin mode C transponder, A/P. Rotax 912 ULS engine, Airmaster constant speed propeller, cruises at 100 kts burning 17.5L/hr, 2x50L tanks, Mogas or Avgas. Plenty of luggage space. Contact 0439620158 - \$95,000

3198 TRIKE TRAILER



Trike Trailer . ACT rego. Has 4 x 20L. Wingrack. Price \$1800. Garmin GPS Model 111 \$250*. GME PLB MT410G (GPS)\$350*, Vertex Pro V1 (h/ held VHF)\$350*. plus *Postage. Canberra area. Contact Rick 02 6258 5579 Mob 0409 847 680

3201 J160C



Rotax powered J160c 24-4669 A/H TX Avmap gps \$68k one phone 0425 840 120 for further details

3202 2007 DOVA SKYLARK



Stand out in a crowd Factory Built, All metal, Rotax 912ULS, Cruise 110kts+, Stall 36kts. Electric Trim, Avmap EKP-IV GPS, Icom A-200, Garmin GTX 320, Galaxy Rescue System, Kasper Inflight Adjust Prop Approx 400hrs TT, L2 owned & maintained. Needs new paint. Must sell medical reasons. Cost to replace - \$140k, sell \$85,000 inc GST. Can deliver. Phone Mick 0419 123 933

3203 FLIGHT DESIGN CTSW



435 hrs TT engine and airframe, 7+ hrs endurance @ 18 lph, 110-120kts cruise, VHF, Dynon EFIS, Mode C, 50kg luggage. Owned & maintained by L2. \$99,950 ONO No GST. There is no better aircraft advertised here. 0419368696

3204 AEROPUP19-5174-WITH TRAILER



2 seat folding wing Built 2008 TTIS 160 hours. Jabiru 2200hydrauic engine; cruise 80 knots. Instruments include; virt card compass; fuel pressure; CHT, EGT,oil pressure & temp, Magellan315 GPS; Xcom radio; Dave Clark headset. Tandem enclosed trailer, registered & professionally built. \$45K. Always hangared, Ph Russell:0488938050 Mallacoota Vic

3205 ROTAX ULS 100HP ENGINE

TTIS 2000hrs, excellent engine that has always been LAME maintained as per log book. \$6,500 ono. For information please call Jamie 0439 708 806

3208 'JENNY' THE JABIRU



Is to go to the highest bidder. She's a model SP470, situated at Strathalbyn SA. She's seen <650 hours TTIS. Features the early Jabiru 220 (push rod) engine, 85 litre tank, lamb's wool seat covers, Icom A-200 radio/intercom, Garmin GPS V, GME MT410G beacon, Garmin GTX327 transponder, and all the usual instruments. With a start point of just \$25,000 bids will be accepted until 31st March. The next day, Jenny goes to the highest bidder. So - let the bidding commence! Phone John (08) 8388 4572 or email j. schamb@bigpond.net.au

3209 X-AIR A1 CONDITION



TT 361 nil incidents, Rotax 618eng with adjustable exhaust valves (RAVE) for high altitude. 3 blade Bolly prop. Modified heavy duty undercarriage, wide wheels, always hangared, yellow and green, new tail cloth. Dual headsets, intercom, radio plus UHF. Alt, compass, IAS, slip ball, EG's, enginstruments. 0407 176 252, 07 3287 3001, rooaroo12@yahoo.com.au

3210 JABIRU JT230-D



Total service time: 595.1hrs, Last service:583hrs. Fitted with Garmin GPS 296, Microair Radio 760, Electric Turn Coordinator, Standard Flight and Engine Gauges. Serviced by L2. Registration 24-5316. Flies well. Located in Chinchilla, Queensland. \$78,000 contact Mark Murray 0429 077 010

3211 RANS S12S SUPER AIRAILE





MEMBERS' MARKET

Multi award winning, 1 owner/builder, Rotax 912, 430hrs, 2 seat side by side. Lots of extras, Nil accidents, Garmin 196, Bose X headsets, Stol performance. Great plane \$47,500. For more info & photos Phone Brian 0418 802 002

3214 FACTORY BUILT LIGHTWING



Lw1-045, 582 Two Stroke 65HP TT290hrs. Rego 25-326 July 2013, New brake linings, Frame and skin in very good condition, always Hangared, ALT, FGT. RPM, ASI, VSI, Turn Co-ord, Eng Temp, Volt, Fuel Gauges, VHF, UHF, Intercom. Currently at Ballina at Lightwing Factory. \$23000.00 Can arrange inspection. Call Sam 0427929211

3216 STOL LIGHTWING 912S



With Tundra landing gear and VGs. Great STOL performance. 1660 hrs TTIS, eng 1560 hrs. Owned and maintained by an L2, in very good condition, not used for training. Full maintenance history and manuals available. This is a very tidy well sorted aircraft that flies exceptionally well. \$36,000 or \$50,000 with a NEW 912s. Ph 0419 132 777. Dog not for sale.

3218 SKYRANGER SWIFT



240TT Always hangered, Rotax 912 ULS 100hp, XLAM Covering, 90L Tank ICOM A200 Radio, SoftCom Intercom, Precision Vertical Card Compass, Duel Magnum Strobes, adjustable carb heat, Garmin 96C GPS. \$42,000 Contact Doug 0400 737 911.

3222 1170 19-4969



2.2L hydraulic engine, 330hrsTT, built 2008, ex cond, wet wings 135L, elec T&B, Lowrance 500 GPS, all current mods done. 8ply tryes, based at Mildura. Vic \$58,000. Ph Tom on 0428 562 020

3223 AEROVEE 2.1 80HP ENGINE KIT

Kit includes Nikasil Cylinders 2 into 1 exhaust, Baffles, Air Filter Ass, Oil Temp Sender, Oil Pressure Sender, Machined oil sump plate. \$8000.00 Negotiable. Mobile 0457 193 667

3224 SYNDICATE SHARE AVAILABLE



A syndicate flying share is currently available in this factory built Jabiru J160, LAME serviced aircraft hangered at Wanervale, Central Coast NSW. For further details ring Max on 0414 508 054 or email me at max@mulligan.co

3226 RESURYAN MK III



Ultralight aircraft reg no 10-0012. Has not reached 100hrs flight time. In good condition. Phone 0408 540 721 \$4500.00 or near offer.

3227 JABIRU J120C



November 2009, 313.2 hours total time airframe and engine:- Altimeter, ASI, MicroAir radio + intercom with two headsets, Davtron chronometer, Oil pressure, Oil Temp, C.H.T, Volt meter, Slip ball, V.S.I, Tacho, landing light and strobe, Colour 296 Garmin GPS. Always hangared, perfect presentation, nil accidents never used for training. QLD \$47,750.00. Ph Owner on 0423 532 621

3229 RANS S7

Due to ill health I am selling my RANS S7 Courier, 6 cyclinder Jab engine. Aircraft in good condition and always hangered. \$55,000 O.N.O ph: (02) 4958 3658

3236 RV-12



T.T.I.S. 13 hours since new. Rotax 912 ULS. Dynon 180. Garmin 327 txpndr. Garmin SL 40 comm.

Flightcomm intercom. Two axis auto pilot fully coupled. Sensenich prop. Leather interior and carpets throughout. L.A.M.E. built. Multiple RV builder. Wheel spats. All service bulletins carried out. Fresh annual. Rego cct 13. Asking \$ 105000. Tel: 0409230416.

3238 AIRBORNE WINDSPORTS



XT 912 CRUZE wing, TT 188 hrs, two helmets & headsets, Micro-air radio. Has engine cover. Comes with roll around trolley system for easy movement - wing UP or Down. ALWAYS hangared ! & All in excellent condition. Price \$44,500 Ph 0416 041 007 for more details

3241 AIRBORNE EDGE X SERIES & TRAILER



Wizard wing, 582 Rotax 376 hrs TT, custom made registered trailer, heavy duty covers. helmets, Micro avionics, UL-200 headsets. Garmin GPS, stonegaurd, landing light, tall windscreen, well maintained with maintenance history. \$17 500 ono, Email

bear.humphries@gmail.com, or ph. David 0414 256

3242 FOXBAT A22LS



TT 750 hrs. Rotax 912 100hp. L2 maintained, always hangared. Excellent Condition. All AD's complete, incl. new legs. Warp Drive Prop. Strobes. DI. Type training by arrangement. Photos available, e-mail andrew@ thecotterells.com \$80,000 Located York, WA. Contact ph Gordon 0419 942 645

3243 SEAREY AMPHIBIAN

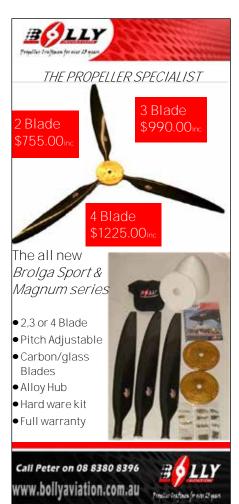


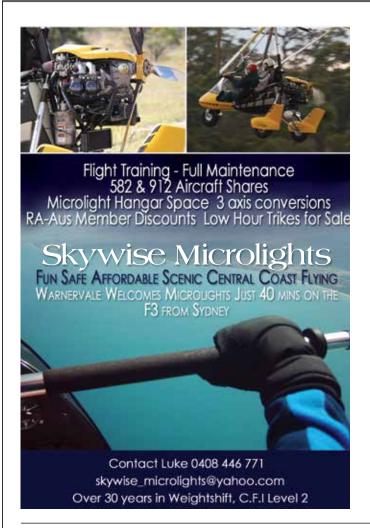
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MEMBERS' MARKET |

3244 CHINOOK WT-11



Single seat, very easy to fly. Rotax 447 engine and $\ensuremath{\mathsf{B}}$ series gearbox both with only 21 hours. 60" Ivor prop. Total air frame hours: 271. Registered until 16 July, 2013. Always hangered. Includes trailer. (unreg). Currently near Ballina, NSW. \$4,950. Phone Gerry, 02 6687 9771 or 0438 532 126

3245 EVEKTOR SPORTSTAR



Low hours and great cosmetics for its age, a joy to fly at 93 knots on 17 lph. 2005 model. Rotax 912ULS. 1200 TT, 800 engine remaining. Bendix VHF and Mode-C. Always hangared and L2/LAME maintained. Based Gawler, call me and we'll go fly! \$69,000 ono. Bas Scheffers bas@scheffers.net 0405 011 330

3248 EVEKTOR SPORTSTAR



Pristine Evektor Sportstar Plus - REDUCED TO SELL! 150 hrs TTIS Fresh 100hrly, level 2 maintained hangared 3 blade Woodcomp in-flight adjustable prop. Bendix King Xpdr and VHF Garmin Aera 500 GPS Trutrack ADI Electric trim Cover All A/Ds complete Townsville 0419 668 743 \$100,000 Neg

3249 1/6 SHARE JABIRU J230D

1/6 syndicate share, micro air VHF x 2 transponder, avmap insured and hangered at tooradin vic, zero hours on latest engine \$16000, \$140 PCM and \$70 per hour. Phone Glenn Wattie 0418 320 385

3252 FOXCON TERRIER



838 TTIS ea81 Engine New Propellor & Tyres Micro Air Radio 2 headsets Standard Instruments Garmin GPS Balistic shute Cruises 85 95 kts Hangared S E Qld Selling lack of use \$28.000 pilot00lw@hotmail. com 0466 966 259

3253 SYNDICATE MEMBERS WANTED



Flight syndicate starting Toowoomba - Resaleable share certificate issued at cost (TBA) approximately 8000-10000. Monthly contribution to cover insurance, registration and maintenance & low fixed cost wet hire hourly rate. Ring Geoff 0408 775 725 (example photo)

3254 SKYRANGER SWIFT



Rotax 912S Skyranger Swift, first registered 2008, TT 171 hours with Rotax 912S, TT 1812h with new sprag clutch, Xlam skins, Icom A200 radio, 60L aluminium tanks, Powerfin prop, includes wing fold kit. Good condition, rego till December 2013. Contact Chris 0418 493 989 or chrisoz@gmx.net

3255 1835 VW NICASIL CYL PISTON SET

New unused aluminium nicasil piston and cylinder set. Icludes pistons ,rings ,pins, circlips ,spare ring set in original packaging 07 5424 2381 or 0418 779 560

3256 EVEKTOR SPORTSTAR MAX



New Dec 2009, 400 hours, Excellent Condition, always hangared, Rotax 912ULS, In flight adjustable prop, leather seats, Dynon D100, Landing Light, Garmin GPS Mount, Icom Radio, Mode C Transponder, Additional vents, toe brakes, 115Kts TAS, superb aircraft to fly. L2 maintained. Brisbane. \$108,000 inc GST. 0421 278 580

3257 JABIRU J230



Share in Jabiru J230 hangared Murray Bridge. wingtip strobes, transponder, elect flaps, trutrak, lambswool seats. tt70hrs land lights.cabin heater. Phone Mike 0438 400 601 Graham 0400 144 28

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3258 STREAK SHADOW



TT947hrs, Immaculate Record Holder, 2-place tandem, rebuilt Jabaru-2200, Instruments inc Radio-GPS, Two-Axis elec-trim. Extend-Rear Foot-Well, Engine-Mon camera-screen, Carb-Heat, Isolateswitch. Nil-Accidents. Rego Aug-2013. Easy to Fly, \$23,500. Dave 0402107927. Also-avail Enc-trailer. \$3000. Together \$25,500.00. Full Details Photo's

3259 BANTAM 22

Spare fuselage tubes, undercarriage parts, pod. Contact Bert: ari@burnett.net.au

3262 FLIGHTSTAR SPYDER



95-10 single seater, Rotax 447, 51hrs TT, 32L fuel capacity, strobes, carby heat, disc brakes, ballistic chute, good instrumentation. Always hangared, no accidents, hangar trolley. Located at Benalla VIC. \$8500 ono. Phone Ron Cooke 03 5762 1223

3263 ROTAX G/BOX

Rotax B type G/Box 2.58 to 1 Ratio.Zero hrs since Bert Flood O/H.\$450.00 ONO Ph Ray 0412 710 344

3264 ALPI PIONEER 200XL



Factory Built. Metalic Green / White. Rotax 912S 100HP Idrovario Constant speed prop. Dual controls, Hydraulic brakes inc park. Icom radio, Avmap 1V GPS. Flybox altimeter, Hour meter/Revs, Prop control. Long range fuel tank Excellent short field capability and climb. Cruise 115 Knots Contact: Jim Rodgers ridgacre@msn.com 0457 054 123







3265 GOLD COAST SAVANNAH STOL



Amazing Gold Coast Savannah Super STOL flys hands off safe and fun 28knot stall 100hp Rotax 1000fpm, Always hangered, tundra tires, possible 1/3rd hangar subject HG Muwillumbah Paddock hopping adventure touring, southpolenorthpole@hotmail.com

3266 FOXBAT A22

24-4548 colour:- Yellow, 468 hrs, Std instruments, Garmin 296GPS, X-com radio, 2x Head sets, stobes, Aircraft cover. Location Drouin \$70,000. Ph Trevor 0438 619 116 kaydan@dcsi.net.au

3267 TRIKE BASE WANTED

Wanted - Airborne trike base. Classic, Edge or Outback preferably with 582 in reasonable condition. Josh 0439 339 130

3268 EUROPA XS



Europa XS. 170 Hrs Jabiru 120 HP. 130 Knots cruise. long range tank, 20 Cu Ft baggage. Electric trim, A-Horizon. Reg custom built trailer. \$65,000 Phone 0428 988 662

3272 LIGHTWING GR 582



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3274 FOXBAT A22L



Foxbat A-22L 24-4621, Excellent condition, 660hrs, std instruments, X-com radio, transponder, Garmin 296GPS, Fuel flow, auto pilot, BRS chute. New doors inserts. Hangared Mittagong. \$ 67,400. Ph. Victor 0400 505 451.

3275 JABIRU LSA55



Reluctant sale. This aircraft is in terrific condition and flies beautifully. 2.2Litre motor s/n 1307 (solid lifters) Engine: 552Hrs Airframe: 993Hrs New propeller. Large wheels Wheel spats included. 1 owner pilot for last 5.5 years plus 1 owner pilot for approx 5 years prior to that. Sydney 0417 781 778

3276 AIRBORNE MICROLIGHT XT



Tourer trike. Rotax 912, 4 stroke engine, Streak 3 wing, Microair M760 dual comms radio, large windscreen, log book, manuals, registered RA-Aus til 27/9/2013, always hangared, always privately owned, excellent condition, lots

of extras. \$39,900. Ph 0429 61 99 87 flblainey@gmail.com

3278 XT 912 AIRBORNE TRIKE



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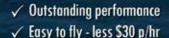
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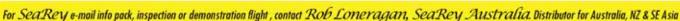
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School of FLIGHT

By John & Linda Walmsley

Coominya Flight Training in Queensland recently played host to a group of year 11 students from the Faith Lutheran College at Plainlands.

The students were studying a flight unit as part of a 'Flight for Science' course.

The visit to Coominya Flight Training allowed them to consolidate what they had learned about the theory of flight. They were given the opportunity to get up close to the aircraft, to talk about the real life effects of the theories they had learned and it gave them the chance to ask questions of us and get a pilot's point of view.

They all reported they had thoroughly enjoyed the day.

For more information contact Coominya Flight Training cftjohn@westnet.com.au





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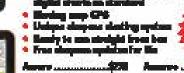
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