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For recreational pilots OCTOBER 2013 VOL 28 (10)

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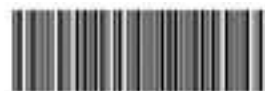
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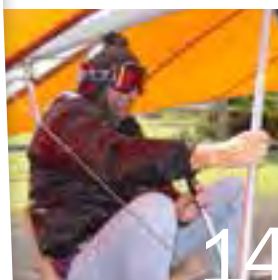


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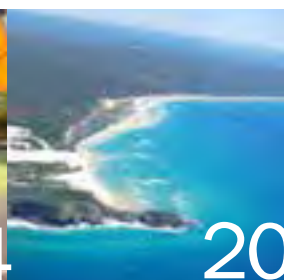




>> Cover Photo: From humble beginnings to Australia's most successful light aircraft company. Photo Jabiru aircraft.



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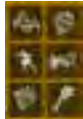
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President's Report

ROD BIRRELL

AGM AND ABM - The RA-Aus Annual General Meeting and Annual Board Meeting were held concurrently with the AUSFLY fly-In event at Narromine this year. RA-Aus decided to show some support for our other 'like minded' sport aviation organisations and give an increased number of RA-Aus members the chance to attend the AGM. A lot was discussed as usual, three days were spent inside without one fly past or one display being seen. In any case, some updates from the meetings.

AIRCRAFT REGISTRATION AND RENEWAL

The current system of an aircraft registration – which is effectively cancellation at the time of a renewal - continues to cause us great harm. RA-Aus has therefore introduced more effective registration renewal procedures. The compliance requests are being met and the efficiency of the CASA audit system has improved. We have a new Acting Technical Manager who, together with the Board, will introduce further reforms. Some additional reforms:

- The fitting of inflight adjustable propellers to new LSA aircraft has largely been resolved;
- The reduction in MTOW limits for earlier LSA type aircraft is on its way to being resolved;
- The introduction of an optional two year renewal system will improve the effectiveness of the renewal system and will also reduce the workload and cost of the current system.

A fair fee increase will be needed

CONSTITUTIONAL REVIEW

Constitutional reform and review is ongoing. The current list on constitutional change was voted on at the AGM. Full results will be posted on the RA-Aus website.

LEGAL MATTERS

The longest standing and largest legal claim against RA-Aus has been resolved favourably. The majority of RA-Aus costs in this case were paid for by RA-Aus insurance.

RECREATIONAL PILOT LICENCE

The RPL is a pilots' licence to be introduced by CASA. Unfortunately the RPL has the potential to cause long term difficulties for RA-Aus. The RA-Aus Board will remain a strong advocate for RA-Aus pilots and aircraft owners in this area.

WEBSITE

We will move as fast as contractors and funding will allow to introduce members' electronic membership renewal, aircraft owner renewal and CFI functions, such as BRF recording.

SAFETY MANAGEMENT SYSTEM

It's coming, a holistic approach for RA-Aus to manage its safety program. The Board has accepted the CASA prepared model, it's simple, practical, acceptable to CASA and to be honest is one we can afford. More details will be available on the RA-Aus website.

MEMBERSHIP FEES

As a result of a number of one off fees and extra costs associated with the aircraft registration audits, we have a deficit budget. A fair fee increase will be needed if our organisation is to remain solvent. Further details on this matter will be posted on the RA-Aus website.

THE FUTURE

We have a resilient, highly skilled membership base which loves flying. The choice of new aircraft has never been better and the demand for training at RA-Aus flying schools continues to grow. We have always needed to work hard to maintain and increase our freedoms. If we work at it our future is bright as Australia's premier sport aviation organisation. 🇦🇺



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2nd Saturday each month Burnett Flyers Brekky

The flyers at historic Angelfield, south west of Murgon, QLD, put on a large breakfast at their rustic Ops centre. Free underwing camping and friendly country atmosphere around the campfire. The Burnett region is worth seeing from the air. For more information, www.burnettflyers.org, email burnettflyers@yahoo.com.au or Ralph or Deb on (07) 4168 6248.

5-6 October Wings of Life Fly-In Drive-In

Ron Field will open up the private Archer Falls airfield again for the event which sets out to raise \$10,000 for the Royal Flying Doctor Service Queensland section and continue to inspire Youth in Aviation through Wings of Life. Arrivals from Friday 4 and departures as late as Monday 7. Camping underwing available. Caravans and tents also welcome. For more information, www.archerfalls.com.au.

18-20 October

Tamworth Festival of Flight

Tamworth Aero Club is one of Australia's oldest. The site was used for training 600 pilots during WW2. The Festival is about celebrating that heritage and creating a future. For more information, Adele Mazoudier (02) 6761 5104, 0419 978 011 or tamworthaero@sctelco.net.au.

18-20 October

Broken Hill Aero Club Fly-In

The club's 75th anniversary celebration will be held in conjunction with the RFDS 85th anniversary. The aero club will provide aviators from all over Australia a unique outback cultural experience with a very distinct country aviation theme. Hangar get-together Friday 18. Saturday 19 static displays of modern and vintage aircraft, joyrides in an Extra 300, display of vintage Drover, one of the first aircraft used by the Australian Aerial Medical Service. All funds to the Royal Flying Doctor Service. For more information, Bruce Nevill 0428 349 143 or bneville6@bigpond.com.



Jacaranda Muster

The Grafton Aero Club invites aviation enthusiasts to join them for the annual celebration of the region's famous Jacaranda Festival, a world renowned event held since 1935. This is an informal fly-in with preferential treatment provided to pilots prepared to take one of the Jacaranda Queen contestants for a flight over the city on Sunday morning. No landing fees. Ample parking/tie down, under wing camping and great facilities at the club house. For more information, Kevin Wilson (02) 6649 1853 or Col Redding 0428 664 985. Email graftonaeroclub@gmail.com.

26
-27
October



Hastings District Flying Club Open Day

Port Macquarie

Static displays including club history and activities. Trial flights available in our Foxbat, Eurofox and CTLS aircraft. Food and drink available. For more information, Rod Davison 0419 632 477 or roddi194@yahoo.com.au Club website www.hdfc.com.au.

27
October

2

November

Motors in Motion

Kingaroy Aerodrome. Planes, cars, motorbikes, tractors, trucks and anything else propelled by an engine will be on display. Trade displays, entertainment for children, food and lots of other activities. Prizes for best aircraft. For more information, Kevin Krosch 0428 622 749. www.sbmotorsinmotion.com.

2-3 November

Back to Holbrook Fly-in and JabFest

Holbrook Ultralight Club will again host the its annual fly-in and Jabiru Festival at Holbrook Airpark. A special invitation this year to Jabiru flyers to celebrate the 25th anniversary of Jabiru Aircraft. Forums Saturday afternoon, three course dinner among the aircraft Saturday night and hot breakfast Sunday morning. Trophies awarded at the dinner. Underwing camping and transport to and from town for accommodation and fuel. For more information www.holbrookultralightclub.asn.au or Bryan Gabriel (02) 6036 2601.

CALENDAR OF EVENTS

7-9 Nov

Catalina Festival

Australia's first seaplane convention will take place at Rathmines, Lake Macquarie ex-RAAF flying boat base on Thursday 7 and Friday 8, leading up to the 7th Catalina Festival on Saturday 9. Festival goals are a museum and hangar saluting the crews who served there during wartime. Last year's attendance was over 15,000. There will be bands, historic military vehicles, children's rides, a memorial fly past of seaplanes, flying displays, aerobatics and warbirds.

For more information, Malcolm Burns 0448 744 763 or mal.767@hotmail.com.



11-12
Jan 2014

Great Eastern Fly-In

The fly-in at Evans Head Memorial Aerodrome in northern New South Wales will be bigger and better than ever. The Great Eastern will celebrate its 22nd year with a refurbished Bellman hangar, a display of an RAAF F-111 and other warbirds. There will also be the usual aerial displays, events, catering and camping on site. For more information, Gai Taylor 0427 825 202, (02) 6621 5592, gaitaylor@exemail.com.au. Facebook or website www.greasternflyin.com.

2 March 2014

Busselton Aero Club Aerofest

Arrivals Saturday March 1 and Sunday March 2 - before 10am (preferred). Limited billets available. Saturday night BBQ. Big family day. Inspection of emergency services aircraft and helicopters, hangar displays, model aircraft, car club, food and drinks. YBLN is the gateway to the Margaret River wine region. No landing fees. For more information, Will Owen 0429 098 032, Ken Manton 0429 967 172 or ken.manton@bigpond.com.



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LETTERS TO THE EDITOR



Ops normal

I write with regard to your story about Tim Howes' attempt at the record for take-offs and landings in a day (*Sport Pilot* June 2013).

It reminded me of conversations with airline pilot friends when we lived in Singapore during the 1980s.

I'd ask the long-haul guys how many landings they had done the previous month. It seemed that eight or 10 (apart from sim sessions) was a good tally, considering the co-pilot had to have his share.

"Guess you manage a lot more than that in your chopper, Phil?"

"Yes, I do around 120 sometimes."

"In a month?"

"No."

"A week?" – a headshake here – "What, in a day?"

"No", I replied. "In an hour!"

They found this hard to believe, so I explained that some mineral drilling rig moves were only flown for a distance of as little as 100 metres. The slippery, muddy terrain was often so steep between drill-sites that airborne sling lifts were the only safe way to move heavy metal parts.

It meant flying a constant rotation – pick up a load, fly it a few metres, put it down gently, move sideways, release the sling, hover as an empty net or sling was hooked on, take-off, circle, drop the empty sling and pick up another load etc.

Average time taken between landings with a good crew on the ground was 30 seconds. In a turbo-charged Bell 47 this meant virtually constant movement of the stick, pedals and collective lever, with the engine going from full power to idle and continuous throttle twisting adjustments to maintain accurate rotor RPM. Non-stop, full on concentration to avoid crashing.

The refuelling break was a welcome relief.

Rig moves in Fiji raised another issue. Being the first commercial helicopter operator there, I found the Civil Aviation Regulations required me to make a call for every landing and take-off. Their rules only catered for fixed wing airline type flights, with no possibility for regularly reporting ops normal.

After my first short rig move, the airlines screamed loudly for change. By following the rules, I had caused chaos, jamming the HF

radio for the best part of an hour.

Domestic aircraft could not call landings or take-offs, apart from flights between the towered airports at Nadi or Nausory, Fiji's capital city airport. I had wrecked their schedules for the whole day.

Subsequently, rules were changed and I was allowed to call ops normal.

Phil Latz

Cool man

In the June issue of *Sport Pilot*, Norm Sanders wrote of his approach to engine overheating problems. The article highlighted a number of areas where aircraft builders do not get things quite right.

Some key issues to consider in air cooled engines in aircraft are:

Bigger is not necessarily better for air inlets;

Air outlets must be bigger than inlets to allow for the exit of slower moving, expanded hot air volumes;

Careful treatment of the opening edge shape of air inlet openings cut into cowls is very important. Holes simply cut in the cowl are inefficient;

The baffles must be tight to the cylinder cooling fins, otherwise the air does not flow between the fins and hence there is no cooling;

Cowl openings should not allow air to flow into the cowl below the engine (unless using updraft cooling as do the Vari Eze and Long Eze). If this happens there will be no cooling airflow through the cylinder fins.

Overall, engine cooling requires thought and care. Essential information can be found here:

http://www.n91cz.net/Interesting_Technical_Reports/Technical_Papers.htm

In particular, the following papers are useful:

NASA CR 3405 – An Experimental Investigation of the Aerodynamics and Cooling of a Horizontally-Opposed Air Cooled Aircraft Engine;

AIAA 80-1242 Cooling Air Inlet and Exit Geometries on Aircraft Engine Installations;

Cooling Drag, Making the air work for you; *Sport Aviation* December, 2007, Nuts and Bolts, Building Basics.

If you get it right, the engine will be better cooled, the aeroplane will have less drag and hence be a little faster or use less fuel.

Kim Jones



Kudos is due

The last issue of *Sport Pilot* (June 2013) has some negative comments in regards to the current registration process.

I have just imported two aircraft that are not the general run of the mill RA-Aus types. My friend and I applied for our registration numbers early and did our research to be sure what paperwork was required, so when the time came, we could send in the desired paperwork and photos and reduce communications to a minimum.

I sent mine first and discovered I had missed one minor piece. I fixed that and had my case dealt with in a few weeks. After my lesson, my friend sent his in completely correct and it took just 15 days.

Let me repeat, these aircraft were not the normal, easy-to-assess beasts, but yet with all the information, photos and supporting material sent, the RA-AUS team obviously had it easy and CASA left with no need to hassle them. It's great that people share their opinions, positive or negative. However in the case of criticism, it should be constructive and accurate. If people feel so strongly the system is failing, volunteer to do better or at least provide a detailed analysis of how you think it can be fixed.

Dan Compton

Food for thought

It was with absolute horror I read in recent *Sport Pilot* magazines the articles about inadvertent IFR flying. Having been a professional instrument instructor, I know from considerable experience that most students will get very wobbly and quite often lose control the first time they fly into real cloud, regardless of how good they were under a hood.

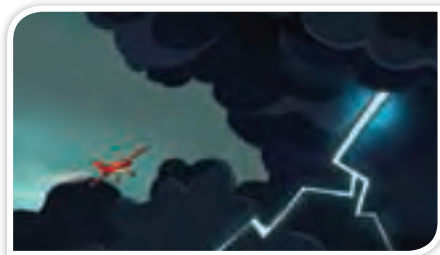
I have often pointed out to my sons that we regularly hear people recounting terrifying stories and then muttering "It's amazing we lived through it". But you never hear the opposite..."It's not amazing because we didn't live through it". So I thought I would invent a story that must be all too common, if rather less frequently heard.

"My mate Bob had bought a little property a few kilometres east of town and wanted me to take him up to check it out from the air. As soon as we had a free afternoon we jumped in the club aircraft and off we went. The weather was pretty ordinary, but I had been out in worse and people do it all the time. It was only a half hour

local flight so I hadn't bothered to check the forecast. No worries.

'We made it over to Bob's new block, although I think I gave that bloke on the 4-wheeler a bit of a fright. (The weather was a bit lower than I expected.) Bob just took a few quick snaps with his iPhone then we headed back. (I had a date booked and I did not want to be late.)

'I knew this area like the back of my hand, but at low altitude, with the day getting darker by the second and with the mist and drizzle on the windshield, it was a bit of a challenge. By this time the clouds were down to the tops of the hills, so we weaved around a bit looking for a hole, but eventually I decided to just pop up and over. Not really legal I know but who was going to know? I had spent plenty of time on my flight sim at home and never had a problem, although, now that I think about it, the reset key did get quite a lot of use. So I poured on the coals and into the soup we ploughed. No problem.



All was fine for a few seconds, but then that bloody attitude indicator decided to fail. Wouldn't you believe it? I had the wings perfectly level but the indicator was steadily falling over. We must also have hit some sort of magnetic anomaly because the compass had started spinning like a top too. What the hell was going on? 'Now, in spite of climb power and holding the nose up, our altitude was starting to unwind and I could hear the RPM and airspeed increase so I raised the nose some more. Up draught? Down draught? The engine went past the red line so I yanked on the throttle and hauled on the stick. How did we get into a dive? VSI was pegged. How high up was I anyway? The attitude indicator had obviously failed. The blue side was on the bottom now - did that mean we were over the ocean? What the hell was going on?'

'Right about then, the ground came into view, except that it was not underneath us where it should have been. It was a vertical wall right in front of us just a few meters away! There were even a few sheep somehow wandering across that cliff face.

'I guess the next thing to go through my head was the rudder. Now I am sitting outside these big pearl-coloured gates and there's a bloke in a dressing gown coming towards me to chat. He seems to have a worried expression on his face and is flipping through a small note book...'

Food for thought perhaps.

James Gresham

Give a gyro a break

I am a 73 year old male aviator, dating back many years. Over these years, I have turned my interest from gliders initially at the London Gliding Club, Dunstable UK, to ultralights, GA and gyrocopters, hence my letter.

Over the years I confess to meeting a tremendous lot of keen and enthusiastic flyers and non-flyers, all with aviation as the common interest. It wasn't until recently while talking to a friend, I suggested that some of our gyro enthusiasts would fly-in for breakfast at his club. I was promptly informed in no uncertain terms that gyros were not welcome.

This came as somewhat of a shock and prompted me to make further enquiries of clubs and airfields across not only Queensland, but across Australia.

Generally speaking the reply was the same in almost all places - if it flies it is welcome - with exception maybe of one percent, which were indifferent.

We fly out of Caboolture, Watts Bridge and Wondai regularly, so it's a shame a club such as my friend's should be so narrow minded, as to not see we are all flyers and even welcome the non-flyers who are keen on aviation.

Looking through the magazine, I think you would agree the gyro movement has moved forward in leaps and bounds in the past few years.

I, for one, supported the categories 95-10 for many years and still do. These aircraft can be found the length and breadth of the country - why can't we be accepted?

I would be interested to learn the views of other members. Let's not forget, we are not the only home builders in this sport.

Terry Emsden

More ASIC madness

Recently two friends and our wives flew our RVs north for a fishing trip. We overnighted at Cloncurry and the next day when we arrived at the airport and rang the number to get into the airport, we were asked to come through the small terminal. After walking around the corner, we were greeted by five security officers and a luggage X-ray machine, metal detector and residue wand. I produced my ASIC card and asked the first security person, if the card was of any use at all? He told me no. He said the only way to get to our own aircraft, was through all the security. We told him, that because we were going on a fishing trip there were knives etc in our luggage. He replied, that because we were private fliers it did not matter. So what was the point of us having to go through all of the devices?

The following Saturday, on our return, we landed there for fuel. This time the terminal was locked and we had to go behind the sheds because

there was no access to toilets.

I have since had a meeting with federal member for Groom, Ian Macfarlane, to tell him about the ASIC card cost and that it was not of any value at Cloncurry. He told me to get used to having a ASIC card, because it was not going to go away and that, as a pilot, I was considered a terrorist threat because of the pilots who flew into the buildings in US.

When I suggested a van full of explosives would do far more damage than a light aircraft with a few bags, why weren't drivers required to also have a DSIC (drivers security identification card)? His answer was that it would be too hard.

He asked me to get a list of airports, where there is a problem getting access to toilets, planes etc.

What is the best way to change the perception of these people, that pilots and aircraft owners are not a terrorist threat to this country and why are we singled out for this cost and inconvenience when the rest of the public is not?

Can you ask all members to let me know at which airports they have had security problems. I am happy for them to email me direct or whatever is the best way to get this message to the relevant politicians.

My phone number is (07) 4692 4265. My email is norwin@bigpond.com.

Rob Bellert

Which E6-B?

On page 64 of the magazine (*Sport Pilot* August 2013), a story about an app for a new E6-B is mentioned.

Which one? When visiting the App Store there are quite a number. Which particular one were you mentioning?

Jim Bowling

Ed - Jim, the app can be found at <https://itunes.apple.com/au/app/the-flight-computer-free/id554596807?mt=8>

The killing zone

As a GA pilot of over 50 years experience, I was interested in the review of Paul Craig's book 'The Killing Zone' (*Sport Pilot* July 2013).

As one trained on Tiger Moths, (not all that far distant from today's ultralights in weight and performance), I have long maintained that the current crop of student pilots does not receive sufficient training for flight near the ground.

Your readers may be interested in obtaining a copy of 'Flight at Lower Levels' by John Freeman (ISBN 1 86254 366 6). John was a long-time low-level specialist with (the old) Australian Civil Aviation Authority. His little book is a gem, being the distilled wisdom of his over 40 years' experience in low level flight.

John refers to the air below 500ft as 'the

death zone'. Bearing in mind we all pass through this zone twice on every flight, I believe every pilot should have a copy of John's book on his or her shelf.

Ivan G. Wainwright

A plan for the future

We are in the unenviable position of having a system which elects passengers to run the Titanic.

We must have paid professionals at our helm, and professionals to help revise our constitution, to quickly allow us to restructure our organisation to meet the future. We have progressed far beyond what our voluntary club type structure can cope with, and we have to act now to avoid the inevitable.

At NATFLY we received a very comprehensive report from consultants indicating that if we don't re-organise ourselves to a fully professional business basis, RA-Aus will not survive. Many vital recommendations were made, which have not yet been implemented.

The problem lies with our outdated structure and constitution, which is working against us. The sheer size of our organisation has swamped us, right up to the board itself. Our board members and volunteers, who have to earn a living elsewhere, have worked their hearts out doing tasks that paid experts could have resolved much faster. Our board has been so busy fighting off crocodiles, that they really haven't had time to drain the swamp.

First we have to change the constitution, because this is inhibiting reform. Members have been beaver away at this since NATFLY, but only clubs do this, not large businesses as we now are. The complexity of regulations which govern this are such that hired professionals can do a faster and more secure job. This will help protect our multimillion dollar business better, with its 10,000+ shareholders and their investments.

What are the problems?

We need to expand and professionalise our organisation to cope with the exponential expansion of its size. To do this we have to change the constitution first to allow us to make the steps necessary.

We are using part time volunteers to help this upgrade, instead of paid professionals. This is false economy and introduces delays that we cannot afford. The board members are not qualified experts familiar with large businesses. There are too many individuals on the board. Smaller numbers allow for better and faster decision making. The positions of Secretary and Treasurer on the board are diverting its function. These are office positions. The structure now has 13 alternate general managers separately taking up valuable office time. We have not yet seen a forward plan, and it is doubtful that we have

the means to act upon it. We have limited finances and need plans to boost them.

We urgently need professional aid to remodel our constitution, to allow the changes for our future needs, to approach CASA, appealing for funding to help carry the costs involved with our changes.

Then we need to quickly reduce the current board numbers to seven for efficiency based upon their business skills; Appoint seven professional directors only, to replace the current board. They will need to have Governance 101 training qualifications, experience in directing large businesses and be a mix of aviation and non-aviation expertise. They are to be paid fees relevant to their position and must not have a conflict of interest with RA-Aus. The positions of Secretary and Treasurer are not board functions, and have to be transferred to administration. We need an interim forward strategic plan within the next three months, with actions, who does it, and deadlines for the next 12 months. Contact between the board and management is to be through a single person by appointment. Contact between RA-Aus and CASA is to be only through a single appointed person. The interim board will need to reorganise itself to cater for the changes that have been made.

Barry Wrenford

Got something to say?

The state of the organisation is reflected in the Letters to the Editor columns.

The more letters – the healthier the organisation. So don't just sit there – get involved. Your contributions are always welcome, even if no one else agrees with your opinion.

The Editor makes every effort to run all letters, even if the queue gets long at times of the year.

editor@sportpilot.net.au

(By the way – the Editor reserves the right to edit Letters to the Editor to shorten them to fit the space available, to improve the clarity of the letter or to prevent libel. The opinions and views expressed in the Letters to the Editor are those of the individual writer and neither RA-Aus or *Sport Pilot* magazine endorses or supports the views expressed within them).

Important news about the North Qld by-election voting

18th September 2013

Dear RA-Aus. member,

We've recently been made aware that some pre-paid voting envelopes sent to North Queensland members were only printed on the one (i.e. obverse) side, thereby potentially rendering invalid any By-election votes returned inside one of these misprinted envelopes.

Sport Pilot's mailing house has accepted responsibility for this error, and undertaken to re-issue – via first-class mail – replacement voting forms and corrected reply-paid envelopes.

Based on Constitutional advice, and with the consent of the two nominees (Messrs. Martene and Millard), it has been decided to re-run the N.Q. by-election voting round, and also extend the closing date. All financial North Queensland members are now asked to resubmit their votes, being sure to include your membership number on the reverse side of the envelope.

Please note that previously submitted 2013 N.Q. By-election votes will not be counted, and that those members who have already submitted ballot papers are required to do so again (using the resupplied form and envelope).

Completed ballot forms must be received by head office before 4 p.m. (E.S.T.) on Friday, November 1st, 2013.

We apologise for any inconvenience caused by this error.

Yours sincerely,

Mark Clayton, General Manager

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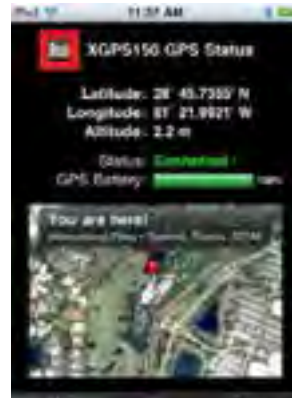


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>> The late Andrew Harrington with the Scout rebuilt by him and below, students from the Evans River School at Evans Head in 2003. Photo by Richard Gates, President Evans Head Memorial Aerodrome Committee.

by Halden Boyd

THE hard working committee of the Evans Head Memorial Aerodrome officially opened their new museum in August.

The big drawcard for the crowds on opening day was the awesome looking F1-11, presented to the aerodrome in recognition of the role played by Evans Head in aviation both in WW2 and since.

Another drawcard was a Wheeler Scout, loaned to the museum by local, Bob Maiden. The Scout was the first ultralight approved for flight in Australia in the early 1970's. This particular aircraft was rebuilt by students of the Evans River School with the late Andrew Harrington, who piloted it in 2003 to mark the Wright Brothers first powered flight a century before.

The Evans Head Memorial Aerodrome Heritage Aviation Association Museum will be a major drawcard for the 2014 Great Eastern Fly-In, January 11-12.



VALE Ian Douglas Black

8.5.1939 - 1.5.2013

by Neil Black

IAN was my younger brother and lived with us in Townsville and Innisfail for the past 30 years. He was not just a brother, but my best mate. I have flown all my life (60 years) and Ian had always wanted to fly, even though he spent 18 years in the Australian Navy.

After I bought my J230 Jabiru in 2007 and took Ian for a spin, he was hooked. He desperately wanted to get his pilot's licence. There was no stopping him even at 68 years of age and with two heart operations under his belt. His determination was an inspiration to all of us.

He accomplished this feat with flying colours and then was keen to own and fly his own aeroplane. In 2010, he bought a J120 which became his pride and joy. Many weekends were spent with him flying from Ayr to Ingham where we would either go flying together or we would pick him up so he could stay with us at Lucinda.

We had so much in common and spent many pleasurable hours talking planes as well as flying them. He always wanted to learn more and more to improve himself.

Ian was kind-hearted and caring and touched the hearts of everyone who knew him. He was quick to joke around and have a good laugh. He loved his music and spending time with family and friends. His smiling face will be sadly missed by all.

Fly free, Ian.

TECH MANAGER CHANGE

THE RA-Aus Executive, which has supervisory oversight of all management positions, carried out a personnel review during the probationary period of the RA-Aus Technical Manager.

After receiving considered advice from the General Manager, the Executive decided not to confirm the ongoing appointment of Wayne Mathews as the Technical Manager. This decision was arrived at reluctantly. The Executive and Board acknowledge and thank Wayne for his dedication, commitment and the time he invested in helping to clear the RA-Aus aircraft registration backlog.

Technical Consultant, Darren Barnfield, will take over as Acting Technical Manager pending the recruitment of a permanent appointee.

These changes are not expected to adversely impact RA-Aus Technical operations or its CASA assurance obligations, the latter having been kept informed of these developments.

Rod Birrell, President

AGM Results

A TOTAL of 48 members attended the AGM at AUSFLY in Narromine in September.

Fifteen special resolutions were proposed. Eleven were approved.

Among those which got the nod were changes to the duties of President and Treasurer and an amendment governing the timing of future AGMs.

A resolution was also passed clarifying the regulations governing conflicts of interest for the Executive and a change was approved governing the way important notices must be mailed to members. From now on, they can also be emailed.

A proposal to limit a board member's term to six years was defeated, as were two resolutions proposing changes to the Secretary's duties and the timing of the issuing of reports for the annual General Meeting.

See the website for further details. 🌐



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When you put on a weather dependent event, you have to accept that sometimes the best laid plans can be thwarted by the weather.

>> Pictures: Phil Buckley



>> Picture: Alix Rowe



>> Former RA-Aus student, Ryan Campbell, was special guest at AUSFLY after becoming the youngest person to fly around the world



by Brian Bigg

A BIG southerly change throughout South eastern Australia in the days leading up to AUSFLY is being touted as the reason the number of attending pilots was down this year.

I can also report a number of pilots in the north (including me) were prevented from flying in by bad weather across the mountains on the Friday. The smart ones from the north headed off to Narromine during the cloudless Thursday, although everyone who landed that afternoon reported that 25-40kt wind gusts along the Narromine strip made getting the aeroplane onto the ground an adventure for all.

If you didn't make it, you missed perfect days on Saturday and Sunday. You also missed a fun fly-in which has grown in confidence since its first go round last year. It's not as big as NATFLY in my estimation, but give it time - in any event, it's a welcome addition to the flying calendar. The S.A.A.A. (Sport Aircraft Association of Australia) has to be congratulated for its big effort. They want to see it eventually become Oshkosh in Australia, which is a worthy goal and their organisational skills were top

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notch. The RA-Aus was well represented by both trade exhibitors and by aircraft. And we had the entire RA-Aus board there for the AGM and subsequent board meeting in the Narromine Council Chambers. Very swanky digs (and thanks to Shire General Manager Greg Lamont for providing these).

The flying displays during the weekend drew a big crowd of locals from Narromine, Dubbo and surrounds. They loved the warbirds and Paul Bennet and Matt Hall's crazy aerobatics. The aeromodellers had their remote control wonders up and around as well. The F16 model wowed everyone. I was told it can do 300kmph. I heard one bystander ask another as it flew past noisily 'is that a real F16?' It looked and flew like one.

The official dinner on Saturday night was well attended and the food was outstanding. You normally don't expect wonders at a hangar dinner, but this meal was restaurant quality. Guest speaker was the outstanding teenager, Ryan Campbell, just back from his record breaking round-the-world flight. Ryan was confident and relaxed this year and had the large crowd eating out of his hand. What a difference to his speech at AUSFLY last year when he was a naïve and gangly youth, not sure if he would ever reach his goal. Ryan, who has become the youngest person ever to fly around the world, is an inspiration to every young person in Australia. 🇦🇺



A new experience



by Keren Gillespie

MY HUSBAND, Peter, had a dream. Actually he has lots of dreams, so I don't usually take them seriously. This one was a dream to get his pilot's licence and buy an aircraft. He talked about building a kit plane. I have no doubt about his ability to build one, but at the time we already had a few unfinished projects. So I said to him that if he was set on getting a plane, a factory built one might be better. Somehow, he missed the 'if' and went round telling everyone that I told him he could buy a plane.

So we became owners of a Savannah S.

For me, if you sit in an aircraft and can touch both sides at the same time....it's a tad small. Flying is not my dream, but I thought I should at least give it a go. I have no ambition to be a pilot, but I do enjoy looking out the window when I fly commercially.

I booked a holiday on the Gold Coast and wanted to drive up from Bendigo. Peter, of course, wanted to fly. He wanted to take the Savannah to Reg Brost for some after sales service on the way. So it turned out that my maiden flight with Peter wasn't a short flight around Bendigo – nooo. It was to Gympie and back.

I was not comfortable at all. Terrified might be a better description. We took off after lunch and I spent the next 45 minutes frozen in my seat with tears streaming down my face. Peter said later that when he saw me, he was sure we would have to go back home. Then our oldest



Flying is not my dream, but I thought I should at least give it a go



son phoned me to ask how I was doing. This was the turning point for me - talking to him settled my nerves.

I had lived in Berrigan as a child, so I asked Peter if we could fly over it so I could have a look. He added it into his flight plan. This was the next milestone for me. I was so engrossed in finding the house, I didn't even notice the steep turns he was doing, so I could take photos.

We decided that we didn't have time to get to Narromine so landed at Narrandera for the night. Landing was not fun for me. I was thinking 'Too slow...Too high...Too fast....Oh, we're on the ground! That wasn't so bad.'

The next morning came with a heavy frost, so we turned the aircraft into the sun and had a coffee while we waited. After take-off, I was much better until we had to go to 5,500ft to cross the end of the Warumbungles. I looked out the window and thought 's**t, we're a long way up!' Peter wanted to go to 7,500ft. My response was 'I don't think so!' Apparently he did go to that height, while I was busy looking at the mountains. We had lunch and filled up with fuel at Narromine, then took off to find Reg's place. By this time I was following our progress on my map and checking we were going where we were meant to go. Peter had the co-ordinates of the private airstrip marked on the map and I was picking out the landmarks on the way. I was making progress.

We arrived in Gympie to a sunny afternoon and feeling brave by now, I suggested we fly

over Fraser Island before we went home. Our uncle, Charles, who also has a Savannah and is a member of the aero club at Gympie, came with us to Orchid Beach, on Fraser Island, for lunch.

We had our holiday and then headed towards home.

Now I was feeling better about flying, I suggested we visit my aunt who lives near Wodonga. Poor Peter had just redone his navigation plan when I piped up 'Oh and while we are in the area, what about we fly via Temora and Holbrook?' I was starting to really take to this sport. We could come and go as we pleased, even if it meant more chart work for Peter. And so we made it home after a fantastic holiday.

My advice to the pilots with nervous passengers is this: when you decide to descend, do not use the phrase 'we're going down!' This had me scrambling for my phone to say goodbye to my loved ones. 'I'm changing height' or 'I'm descending' are much better.

My advice to the wives who feel like I did is this: go on a longer trip the first time you fly. I think having time to settle down and enjoy the scenery before we landed was the key. If Peter had taken me up, done a couple of circuits then landed, I probably wouldn't have been keen to get back in.

Peter is also very happy I am keen to plan our next big trip, which will be from Bendigo to Gympie, Dysart, Mt Isa, Arnhem Land, Kakadu Melville Is, Kununurra, and wherever else takes our fancy in between.

Building my RV12

by Brian Howard

I HAVE always admired Vans aircraft and while at Oshkosh I booked a ride with Vans in an RV12.

I loved the plane, but not the glass cockpit, so mine was built with the old fashioned gauges which I could read more easily. I also went for a ride in a B17 bomber which was a present from my wife. Unforgettable.

I had to wait six months for the kit to arrive, so I built tables and ordered the special tools which I would need to complete the aircraft. It took about two years, four days a week to build the aircraft. The painting alone took months, so it does require a lot of thought and time to finish the aircraft. Never having worked on an all metal aircraft before, I found this kit outstanding and, thinking back, I don't think I found one thing wrong. Probably the fibreglass around the canopy was the hardest to fit, but if you take your time it works out.

I did the first flights and it flew very well, except for some heating problems which took a while to fix. Unfortunately, I had an out landing after three hours of flying (blocked oil line). The engine was removed and sent to Bert Flood and completely overhauled. The oil lines are now all copper. I replaced the nose wheel and firewall to new condition.

I now have flown it for 40 hours and although it will go faster, I enjoy flying at about 90kts using about 12 litres an hour, which makes for cheap flying. I am so glad I fitted the old style gauges, what with bright summers we have here on the Gold Coast making it so much easier to read.

For the past 19 years, I have been a member of the Gold Coast Sports Club travelling out of Heck Field and have thoroughly enjoyed flying with a great bunch of people. 🇺🇸

It requires a lot of thought and time to finish the aircraft



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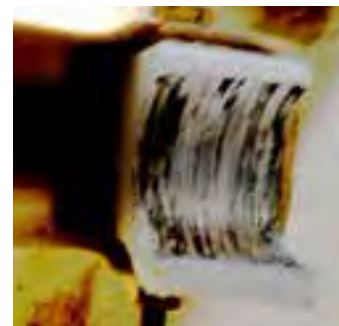
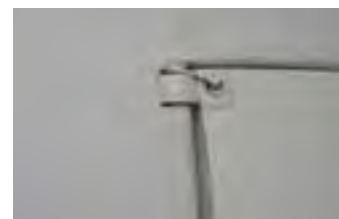
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A rudder problem

by Arthur Marcel

IFIRST met Wayne Beattie at NATFLY in 2010. We arrived in the only two Sapphires to turn up that year, mine traditional white and his canary yellow. Camped underwing opposite each other, we quickly struck up a friendship. Wayne had flown in from La Trobe airfield near Traralgon in Victoria where he kept his aircraft.

Early this year, he reluctantly decided to sell his Sapphire in order to concentrate on the final stages of building a new Sonerai low-wing Stretch. He advertised the Sapphire on the Members' Market and found a buyer. However, before parting with the plane, he arranged to first take it to NATFLY 2013 and back.

So, late in the morning of March 29, he loaded the Sap up for the last time and headed for Temora about 300nm to the north. He had only travelled ten miles from the airfield, however, when the rudder suddenly detached from the aircraft and began flapping around at the end of its cables.

Wayne said it seemed the aircraft had developed a mind of its own. Although he could not see the tail, he quickly realised the problem was rudder related. The pedals weren't working, and he could only keep directional control in a sideslip. The aircraft was losing height and, for all he knew, was about to fall out of the sky. Under pressure, he decided to put the aircraft on the ground ASAP. He made for the only clear patch of ground he could see. He picked the wind direction, but under-estimated its strength, landed short and hit an embankment and a fence. The plane was wrecked but Wayne climbed out, shaken but otherwise unhurt.

As they say, a good landing is one you walk

away from. Walking to the tail end of his plane, Wayne understood immediately what had occurred. The top hinge rudder bushing had broken across the centre. The bushing was made from high density polyethylene similar to cutting board material. While that may sound perhaps not quite the best material for such a vital part, it should be noted this was the first ever recorded occurrence of the bush failing in more than 25 years of Sapphire operations.

Wayne immediately realised the importance of notifying other Sapphire operators, so he phoned RA-Aus Head Office in Canberra. There

It seemed the aircraft had developed a mind of its own

were more calls over nearly a month before the system finally kicked in.


The Tech Manager, Wayne Mathews, then acted quickly and resolutely. First, he sent out an immediate grounding notice to all Sapphire operators by email. This was the first I knew of the problem. Wayne followed this up a day later by issuing Airworthiness Notice RA-Aus 240413-1. Then he contacted the owner of the Sapphire manufacturing business, Steve Dumesny, asking him to design a modification. Wayne's grounding email became the basis of a contact list of Sapphire owners who immedi-

ately got enthusiastic about finding their own solution.

Anthony Gerard from Canberra suggested a stainless steel strap around the hinge. Such a modification would not require the rudder to be stripped of its fabric. This was the same fix Steve Dumesny eventually came up with. I decided to reinforce my HD polyethylene hinge with twelve layers of epoxied glass ribbon and add a 3mm Spectra (400kg breaking strain) safety cord for good luck.

The beauty of operating a 19 category aircraft, especially a single seater, is that you more or less have carte blanche with regard to any modification you choose to make. As Wayne Mathews told me when I submitted photos of my finished rudder and asked him if I could go flying again, "You sure can, Arthur! You're the owner maintainer."

I was very impressed with the way this situation was handled by the Tech Manager. It is now highly unlikely a rudder will ever again fall off a Sapphire. I was not so impressed with the communication breakdown at the office. My plane was out of registration at the time, but it might not have been. I could have been on my way to Temora, seven hours each way; six or more landings and take-offs. That's a lot of rudder work. I can understand, though, RA-Aus office staff were under enormous stress with the registration situation at the time.

I would like to think, however, that the next pilot who calls in to report a serious airworthiness issue won't need to spend a month on the phone. I suggest also that operators of other aircraft pay close attention to their control hinges when doing pre-flight inspections. 

POSITION REPORT

MARK CLAYTON



Who are you?

COULD be a RockWiz question, but that's not my intent. Nor is it intended here to be a rhetorical question. As a membership organisation the staff, management and Board really do need a detailed and current understanding of who you are, in a literal sense. In order to meet your expectations we need to be able to record and monitor such metrics as where you come from; your age; your membership term; your reason(s) for joining (e.g. flying or non-flying), and even your gender.

Just as importantly from a planning viewpoint, is the trend-type data that can – and should – be used to inform the Board's longer-term strategic planning. An overall decline in financial memberships and aircraft registrations can, for example, each have profound impacts well beyond the following year's budget.

Most of this information is captured in the Association's database and although some of it still needs cleansing, it's proven adequate for our initial data mining purposes. With the generous help of local member Ross Glare (a veteran I.T. professional) we've been able to cut and dice this information to provide a range of comprehensive, and up-to-date insights (both historical and contemporary) into the Association's makeup. In some respects, it's been like shining a torch into an as-yet unexplored cavern.

Memberships

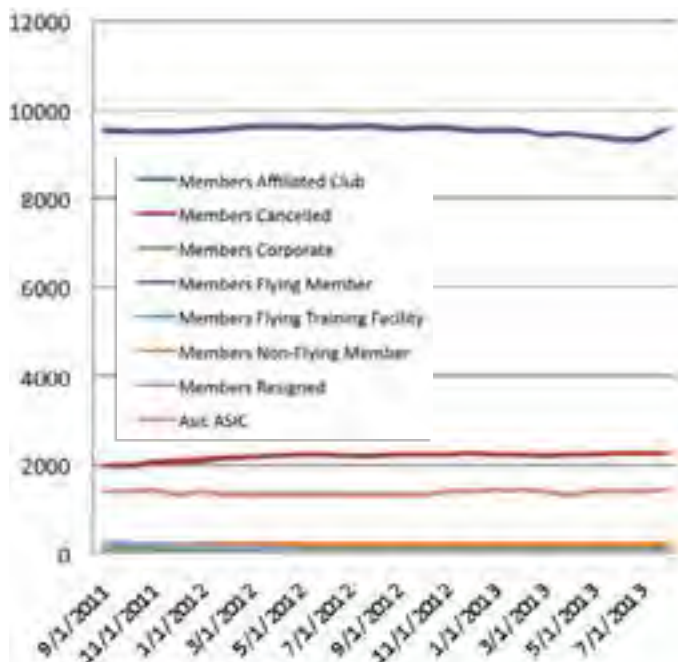


FIGURE 1

Contrary to some anecdotal wisdom, data from the preceding two years (Fig.1) would seem to indicate that the Association's membership base remains unwaveringly stable across a broad range of metrics.

While the picture presented here is certainly encouraging, it does need – and will receive – closer analysis. It wouldn't be unreasonable to assume for instance that membership non-renewals would be weighted towards the top end of the age demographic when in fact, the data (2010 – 2012) would seem to indicate otherwise (Fig.2).

Age Profile of Non-Renewals



FIGURE 2

If, as seems the case, the non-renewals are coming from those members who still have many years of flying ahead of them, then we really do need to better understand why it is that members from such a broad age spectrum are choosing not to remain with the organisation.

Full M'ships

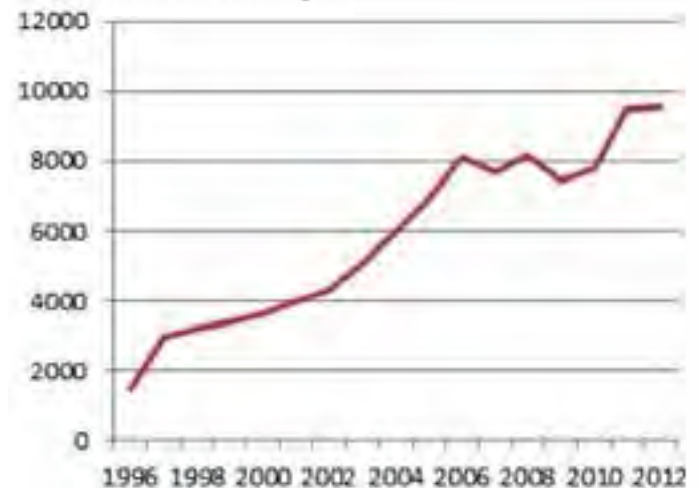


FIGURE 3

It's been like shining a torch into an as-yet unexplored cavern

Circumspection also needs to be used when interpreting full-membership trend data (Fig.3) which, together with aircraft registration data, provides the basis for our future income projections. After more than a decade of sustained growth, there are early indications that this may be plateauing. Leaving aside the obvious financial implications, my own view is that this trend – if confirmed – may in fact deliver us an opportunity in which to repair, catch-up and consolidate after years of struggling with unstable structures and inadequate systems.

While the Association doesn't as yet have a dedicated business analyst capability, there's much here in the way of business intelligence which we can still usefully analyse and apply ourselves. Consider for instance the ASIC metric in Figure 1, which compellingly demonstrates that the number of members buying ASIC cards from RA-Aus has remained virtually unchanged for the past two years (viz. 1,412 in August 2013). We can glean from this that the Association's apparatus, and membership, are providing a subsidised service which benefits just 15% of our flying membership. Knowing that this is a duplicated service available from other providers, and knowing also that the service incurs an operating loss, provides an objective and informed basis for any future Board decision (vis-à-vis the ASIC service).

It's the geographic data mining however which is least understood, and could yet yield us the most useful information. We've always known for example that most of our members came from New South Wales, Queensland and Victoria. But has it always been in that order and just how, if at all, might that order be changing? An understanding of these trends could – and perhaps should – have bearing on many aspects of the Association's planning, including the deployment of our limited

Flying Members

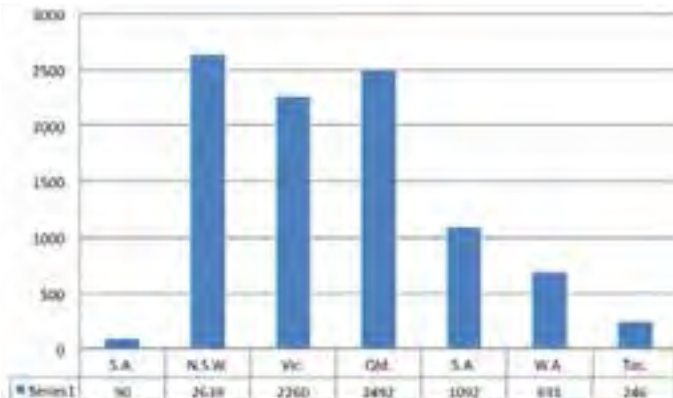


FIGURE 4

Operational, Technical, event management and marketing resources.

And just to illustrate the value of our vast, untapped data lode I'll leave you with this little gem...there are by far (twice as many) more of our financial members in Bundaberg than any other Australian postcode region. Wagga Wagga is a distant second (with 70 members), followed by Orange (57), then the Sunshine Coast with 52.

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Three Aviation Myths

PART 2

by Thomas Bisshop

OVER our flying careers, from our first instructor to well-meaning amateurs in discussion groups, we collect a lot of aeronautical 'facts'. Many of these are wrong, and some are downright dangerous. This series of articles debunks three of the more common myths.

Myth One - Aircraft overbank in a turn because the outside wing is going faster, generating more lift was discussed in *Sport Pilot* (September 2013).

Myth Two

The top surface of an airfoil is curved, so the air at the top has further to go. This means it goes faster and Bernoulli's Principle says higher velocity means lower pressure, thus generating lift on the top surface.

Sanity Check

Try this experiment, but only in your head or simulator (you've already done it for real if you have an aerobatics endorsement).

Fly straight and level, then do a quick 180° snap roll, and push the stick forward far enough to maintain inverted level flight.

The curved bit is on the bottom! Shouldn't you be plummeting to the ground?

Or, if you want to get hands-on, get one of those balsa gliders where the wing is perfectly flat. It flies, so the wing generates lift. Nothing to do with curvature.

The Reality

You can get completely lost in the physics and maths and argue all day about Bernoulli's Principle and the Coanda Effect and many other such ideas, but the basic principle is really simple and based on Newton's Second and Third laws of motion: when a fluid is deflected (accelerated) by an object, it needs a force to be applied to it, and an equal and opposite force is therefore applied to the object doing the deflecting. In other words, a wing generates lift by throwing air in the opposite direction of the lift.

As it turns out, the air below the wing is pushed forward and so appears to go slower than the air above, but you don't need Bernoulli's principle to understand what that has to do with lift. Just imagine a single molecule of air racing toward the wing at the current airspeed. Suddenly it hits the bottom surface of the wing and is slowed and bounced downwards.

That change of momentum imparts a force on the wing, upwards and backwards. We usually break this into the vertical and horizontal components, calling them lift and induced drag.



Air is slower below the wing, faster above it

We can also extend this to explain the lower pressure above the wing, even for a flat airfoil – i.e. one having no curve at the top. Air molecules are bouncing off each other all the time, with the bounces all averaging out. However, when an air molecule passes over the top of an angled wing, the molecules below it have already been bounced out of the way by the wing's bottom surface. With no other molecules below it to bounce it back up, the molecule will be bounced down by the molecules above it. The measurable outcome of this acceleration of air molecules is lower pressure.

The purpose of the curve on the top of the wing is not to create a faster flow. Its purpose is to direct the air above the wing so that it smoothly joins the deflected air below the wing.

This greatly reduces drag and also helps improve behaviour near the critical angle of attack.

If you insist on using Bernoulli's Principle to

explain lift, then you have to apply it to both the top and bottom surfaces of the wing.

The velocity decrease below the wing is greater than the velocity increase above the wing, so the pressure increase below the wing is greater than the pressure reduction above the wing. So the bottom surface provides a majority of the lift.

To sum up: the myth is that "...air at the top has further to go. This means it goes faster..."

That is simply not true. Air above a flat airfoil is faster than the air below it, so it has nothing to do with the curvature.

NEXT TIME Rudder causes roll because yawing makes the outside wing go faster, generating more lift.

References See *Flow Visualization at the National Committee for Fluid Mechanics Films*, <http://web.mit.edu/hml/ncfmf.html>

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EDITOR'S CHOICE

BRIAN BIGG

Flying online

THE concept of multiple discovery is well known in science. In the 1700s Isaac Newton was about to announce he'd invented calculus when he discovered a German bloke called Leibniz was about to do the same thing. Charles Darwin was three quarters of the way through writing up his bold new theory of evolution when he learned another bloke had just gazumped him. There are dozens of well documented cases of multiple discovery happening through history.

While it's fair to say Mark Clayton and I aren't at those lofty Darwinian heights, we appear to have just hit on similar thoughts at the same time.

I was midway through mulling on an editorial about data mining information about RA-Aus members when Mark's Position Report column for this edition lobbed into my in-tray dealing with the same concept.

Mark reports on Ross Glare's great work slicing and dicing membership information to show who we are and how many there are of us.

My idea goes a step further.

Can we agree that the more information RA-Aus has about us and our flying habits, the better it will be able to spot safety trends and possibly reduce our insurance premiums? Can we also agree that the way we provide information to RA-Aus now, by filling out a form once a year (which is out of date by the time they get it and possibly also not accurate anyway), is not the most effective way to provide information to the organisation? Can we also agree that there is very little about our flying activities which need to be secret? Sure, it's no one's business that I went flying at the weekend, but everyone in the air in my neck of the woods at the time knows I did it and there's no reason it should be a state secret.

After the flight, I went to fill in my log book and discovered the total hours did not tally up properly – again. Just about every page in my log book, going back 26 years, has scribbles on it where I've had to try and correct the hourly totals. I appear to have a long term problem adding up units of 60 minutes.

So, I asked myself, where is the computer program which can add it up correctly for me? As I went to close my log book, a slip of paper fell out of it. It was the yearly request from RA-Aus asking for my updated flying hours and number of landings etc.

Then an idea struck me. Why not kill a number of birds with one stone? (I'm not advocating killing birds however) Why not have, as a con-



dition of membership of RA-Aus, that we keep an electronic log book on the RA-Aus website or an App, which we are required to fill out at the end of each flight, as we do now with our paper logbooks?

That way, the computer could keep my hours correctly tallied and my flying activity could be known to RA-Aus immediately and comprehensively. The organisation could tell at a glance an enormous number of things they need to know about all of us – how often we fly; how many landings we do; maybe even the most popular trips people make. None of that information is secret or sensitive (at least it shouldn't be).

Such a system could also automatically generate an email to me to remind me to fill out my paper logbook, which I often forget to do.

I have few or no secrets from RA-Aus and the value to the organisation of accurate and up-to-the-minute information about the membership would be enormous, on a business sense and as part of safety education. The people at Google or Amazon will tell you about the incredible value of knowing everything there is to know about your customers.

And, bear with me, once we accept the idea of putting our log books at the service of the organisation, why not talk about the next step?

Making it a requirement that all our flight planning be done on an RA-Aus app or website? Submitting our flight plans to NAIPS through RA-Aus itself.

That way RA-Aus would know at a glance where we are all going and whether or not we are doing it safely and legally. For statistics and safety education planning, it would be a goldmine.

The organisation could tell at a glance if we received the latest weather forecast and NOTAMS and whether or not, for example, we have planned the flight at the appropriate heights.

Such an App (maybe RA-Aus should buy out one of the existing App providers) could even value add flight planning for members by prompting us with safety information - 'Warning, the amount of fuel you have listed may not cover the intended distance', 'Warning, the departure time you have listed will not allow you to complete the flight before last light', 'Warning, the intended flight path may be compromised by forecast bad weather'.

I bet Operations would love pilots to have that sort of information.

An RA-Aus flight plan App could even show us where all the approved schools and flight training facilities are, where the nearest Mogas is to the airstrip at any particular location or where the friendliest holiday destinations in Australia are for RA-Aus members.

Once you get over the instinctive reaction (bought about by years of CASA inspired heavy handedness) to 'tell them nothing', then a lot of positive ideas become possible by taking our flying online.

All but the oldest and fuddiest of us is migrating to doing everything online anyway. Even my 78 year old mother has an iPad and has discovered the joys of email and keeping up with her pals on Facebook. The internet and mobile worlds are just a more convenient and time effective way of doing things. Why not all the paperwork about our flying too? Both Newton and Darwin would have approved 🍷

Fresh breeze XCitor

by Robin Lowe

HAVING flown Powered Parachutes since 2008, I was looking for a change, primarily because I couldn't load up my aircraft with everything I wanted and take a passenger as well. It was time to check out what was available.

Safety rates high on my list of priorities. Being a paramedic, I'm acutely aware of what can happen when things go horribly wrong. I'm also aware that life can change in a heartbeat. And that good health isn't forever, so you need to seize the moment and not put things off, because you may lose your opportunity.

Given that I was looking to purchase a new 'Gravity Defying Machine'(GDM) and I was now into my forties, I convinced myself and my wife that I had worked hard and earned the right to go for gold. In addition to flying safely and being able to take a heavier payload, my GDM needed to tick other boxes.

GDM MUST HAVE LIST:

- ✓ Factory built /certified aircraft
- ✓ Ability to stay in the air longer
- ✓ Economical fuel injected engine 4x stroke with a TBO of greater than 300hrs
- ✓ Faster
- ✓ More agile
- ✓ Lighter steering input
- ✓ Quieter
- ✓ Side by side seating
- ✓ Sturdy construction with frontal protection
- ✓ Instrumentation
- ✓ Ground steering
- ✓ Suspension
- ✓ Modern
- ✓ STOL capability
- ✓ Ability to store in my garage
- ✓ Readily transportable
- ✓ And it must look good

So the search was on to find that all-in-one package. It must have it all because if it was to be a certified aircraft, I wouldn't be able to modify it.'

Few aircraft were off limits; except maybe the Boeing Dreamliner (wouldn't fit in the garage). Come to think of it, the new Joint Strike Fighter also failed to make the short list for the same reason.

I was beginning to think I had out grown Powered Parachutes. Perhaps I should look at a Trike or Gyrocopter?

After many months poring over the internet, I found myself coming back to this one particular PPC known as the Fresh Breeze 'XCitor'.

Fresh Breeze is a Germany company which has, for some time, developed aircraft which fly under ram air wings. The XCitor (XC) was DULV





certified in 2005 and hit the market soon afterwards. DULV Certification required the XC to meet stringent standards including noise emission and it needed to be safe. It's been tried, proven and improved over time.

I applied the checklist and started ticking boxes. There were a couple of boxes which hadn't been ticked. It wasn't a four stroke and it didn't have side by side seating.

I wanted a four stroke because I was looking for a quieter engine with a TBO greater than 300hrs and an engine with an economical fuel burn. But the XCitor's two stroke (Hirth 3503) engine did come standard with both electric and manual starting options. It was also fuel injected and the TBO was 1000hrs. How could this be? It produced 70hp. After a bit of digging, I satisfied myself the two stroke engine would do the job and it would be a lot cheaper to replace than a four stroke should the need arise. I could probably buy three of these motors for the cost of one four stroke and still be ahead. It might even allow a person of my IQ to do some of the servicing as well. Bonus.

I wanted side by side seating because I felt it was more social when flying with a passenger. It was also what I was more familiar with, but I don't fly with passengers all the time anyway and I've discovered that the view from the fore/aft seating arrangement is unmatched. No need to bank in order to see what's happening on the other side, just look down. The side-by-side seating also meant extra drag and I wanted speed to go places and get home when the wind picked up.

So my perceived shortfalls became positives.

The XC comes standard with a ballistic parachute and my research pointed to the XCitor's custom made wing as being extremely safe and reliable.

I could option the XCitor with tundra tires and the aircraft itself could be towed directly behind a car as a trailer. Saved me the cost of buying a separate trailer (\$6,500 last time I did it) and it could even be insured as a trailer.

I had found my Gravity Defying Machine. But it wasn't just a matter of clicking a few boxes on the computer screen, punching in my credit card details and waiting for my XCitor to be delivered to my front door.

I found myself having to make application to

I felt it was more social while flying




have the XCitor placed on the Australian aircraft register. It needed first to be classified to determine what category it fell under. Was it a Powered Para Glider (PPG) or a Powered Parachute (PPC)? I needed to have the German documentation converted to English. I found myself having to check out every chemical compound in the ballistic parachute to ensure it didn't breach Australian dangerous goods laws and that all chemicals were on the Australian register.

But I did all that and a year later my XCitor arrived just in time for the Australian International Air Show at Avalon.

On arrival at the air show, I was advised there was a social function I should attend but I had

other plans. The next morning I was embarrassed to learn that, at the function, my XCitor had taken out 'Best Weight Shift Aircraft'.

Several months later I was sick of sitting in my XCitor making 'brrroooooommm' noises while parked in the shed. My XCitor was finally assigned a 95-32 registration and I went flying. I was apprehensive prior to take-off but I'd done my homework and the first flight went like clockwork. They were right. Flying the XCitor was exciting.

The skills I developed flying my previous PPC held me in good stead. The wing was easy to launch, fast, agile and stable in flight. The XCitor flew like the aircraft I hoped it was. I'm still smiling! 



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PILOT TALK

Zane Tully & Jill Bailey - RA-Aus Operations Team

Restricted airspace traffic lights?



DID you know there is a traffic light system intended to assist pilots to determine the status - active or otherwise - of all restricted areas in Australia? In previous issues we discussed how easy it is to create a login and password so you can get aviation weather from Airservices Australia. If you haven't done this already, here is another reason why you should. It's free, it's easy and it is the only legally recognised way you can ensure the weather and NOTAM information you get for flight planning is correct.

Members should be aware using flight planning software which provides weather as part of the planning options may not include NOTAM information for restricted areas near aerodromes. This has the potential to lead an unprepared pilot into assuming a particular Restricted airspace is not active when it might be.

If you do breach a Restricted or Danger area, an Electronic Safety Incident Report (ESIR) is sent to Operations, which has an obligation to contact you, the pilot in command, to compile a report about the incident. The reporting system is not about blame; it is more about identifying what can be done to assist all pilots from repeating the errors. The traffic light system is a concept born from years of analysing restricted airspace violations.

Take Temora aerodrome as an example.

Because many pilots fly into Temora for NAT-FLY, the Sydney VNC depicts Restricted area R406 around the aerodrome, but it does not appear in the OzRunways NOTAM information for Temora.

However, on the Airservices Australia website www.airservicesaustralia.com there are a number of ways you can request the status of Restricted or Danger areas.

Pilots will be aware of Location Briefings which can be used to obtain a specific briefing about an aerodrome by inputting the ERSA code (YTEM as an example for Temora). Pilots can also input specific Restricted areas into this section for the status of airspace, such as R406 around Temora.

The Area Briefing provides an overview of an entire region, such as Area 22 for Central West NSW. Restricted airspace information for the area/s selected is also provided here, however the NOTAM information for an aerodrome is accessed by scrolling down to the end of the briefing. Again NOTAM information for Restricted airspace near or around an aerodrome may not be included.

By far the easiest way to confirm if a particular airspace is active or restricted is via a discrete Restricted Area Briefing. This is available in the same area where you get aviation

weather via Location or Area Briefings.

Pilots can input the location code into the ARFOR area box or boxes, and receive information about all Restricted areas in that region.

This makes a quick and easy reference for the status of all restricted airspace in a specified area, where green is good and red is not. It can be requested for up to 168 hours (one week) ahead. It also provides information about how the Restricted area is activated (permanently, via NOTAM or on specific days), along with height information and the type of restricted airspace (RA1 planning available, RA2 planning not available unless in accordance with ERSA or conditionally, RA3 do not plan when active).

If you want to access specific information for airspace which has a number of Restricted areas, such as the military restricted airspace around Amberley, you can reference Restricted areas in the PRD section of ERSA and obtain the Group code for restricted airspace (for example Amberley R620A to R620E is designated as AMX).

So, set up an account and password and start using the traffic light facilities provided to all pilots, which may also help you avoid infringing an active restricted area and lighten all our paperwork load. 🛫

WHAT'S ON

Operations confirms that invitations have been emailed to those members who have applied to attend the next Accident Investigation course. The course is scheduled to be held on October 29-31, 2013. Thanks to all who have volunteered for this approval.



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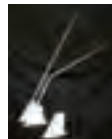
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Pitch/Power The Great Debate

Norm Sanders in a Letter to the Editor (Sport Pilot August 2013) took issue with the Professor over powered and glide approaches. Avius took issue with Norm calling him a wannabee A380 captain and asked for a right of reply while doling out this week's lesson.

FOR starters, Norm, I don't consider myself a wannabee. I have worked damned hard to earn the right to wear with pride, the gold bar and epaulettes you mock in jest. A has been maybe, but never a wannabee.

A number of years ago, I made a conscientious decision to be involved in RA-Aus. I volunteer up to 10 hours a month to ensure the information in this forum is of interest, accurate and relevant to improving the safety of today's recreational pilot. The aim is to provoke discussion, generate knowledge and promote different ideas and ways of thinking.

A380s were just a distant dream of an engineer's imagination, back in the day, but I do recall similar principles apply to most aircraft (even the Tiger Moth I flew).

As an instructor, I ask only one thing of my students - perfection.

My students would never dream of flying a wide circuit (except, if in the name of safety, they are forced to follow some numbskull who is flying too wide). My students know a great landing is set up from the time they turn base.

In the circuit, at the correct height, at the correct airspeed and on the correct heading, the aircraft will turn onto final, again at the correct height, correct airspeed and on the correct heading. If this is the case, corrections made on final approach will require only minor adjustments.

Older pilots had an adage drummed into us to make minor adjustments in the order of;

USE POWER FOR ALTITUDE: i.e. if too high, reduce the power. If too low, increase the power.

USE ATTITUDE FOR AIRSPEED: i.e. too fast, slightly pitch up. If too slow, lower the nose (This is a vital first action).

This classic view of pitch and power are likely to be at odds with more recent graduates. In the same situation, more recently trained pilots would reduce power on discovering the airspeed is too high, then raise the nose as necessary to counter the degrading descent path.

Pitch vs Power is a subject guaranteed to light fires in the hearts of the faithful.

Let's return to another adage: 'Power plus attitude determines performance'.

This phrase, borrowed from 'Aerodynamics for Naval Aviators' is more than sufficiently precise. It tells you everything you need to know to analyse any given flight situation: examine the aircraft attitude, factor in the power being developed and predict the resulting performance.

'The two primary factors, pitch and power, are inseparably linked and neither can be omitted in an analysis or prediction of flight performance'. Hence the controversy is somewhat meaningless.

Keep flying for a long while and you come to the conclusion that pitch and power affect both speed and altitude; change either and you will inevitably experience an effect in both.

Not too much difference whether you're flying a Chipmunk, Cub, Tiger Moth or even the A380 - Or even the 'Land-O-Matic' C172. The principle

is basically the same. Fly an accurate circuit, maintain correct height, heading and airspeeds and the landing will fall into place. If by chance it doesn't and you are not stabilised and established by 200-300ft above your aiming point, swallow your pride - go around and try it again.

Not asking for too much. Only perfection.

References:

www.sunrisaviation.com/art-pitch_power_trime1.html

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Tigers

RACE AGAIN

Words and pictures by Darren Mottram



THE Great Tiger Moth Air Race is to take to the skies again. Many people will remember the race was a regular fixture on the Australian aviation calendar for nearly 26 years until the last one in 2003. It was a wonderful opportunity for Tiger pilots and enthusiasts to gather, test their flying skills and celebrate all things deHavilland.

Organisers have announced the race is to relaunch next year over the ANZAC weekend, April 25-26. The race will be flown in memory of James Strong who was well known for his connection to Australian aviation and for his charity work. In keeping with that memory, the race will support two charities, LIFT Youth Development and Soldier On. The first activity of the weekend will be a memorial flypast on ANZAC Day. Aircraft will leave Rutherford airport on an initial leg overhead Rathmines (home of the Catalina) to Warnervale, then coastal before heading up Sydney Harbour at 500ft. The flight will pass over the South pylon of the Harbour Bridge for





It looks set to be a remarkable event and a lot of fun



a landing at Camden. This leg will be flown as a salute to all veterans and in acknowledgement of the role of the Tiger Moth in the training of air crew during WWII. Honoured guests will gather along the harbour and on the bridge to witness the flypast.

Taking pride of place in the lead aircraft will be 91 year old, Bill Purdy, DFC. Bill was an RAF Lancaster pilot and member of the elite Pathfinder Force who completed 38 sorties over Europe. It was an incredible feat, given the losses suffered by Australian airmen in Bomber Command during that campaign. It is hoped other veterans may also be able to participate in the flypast. The first race leg will be the return flight from Camden to Rutherford on the same afternoon. The following day there will be two more legs from Rutherford to Port Macquarie, then Port Macquarie to Luskintyre (the home of the Tiger Moth in Australia).

Contestants will be judged on speed, observations made and fuel consumption, so it will be a test of flying skills and tuning of the aircraft rigging and engine, not just a case of who gets there first. A presentation dinner will be held at Luskintyre after the Port Macquarie legs.

As a wrap up, a fly-in open to all aviators will be held at either Rutherford or Luskintyre the following day.

Blackmores and Webber Aviation are already on board as race sponsors and organisers are hoping for more than 50 Tiger Moths at the starting line. One person has already promised to bring his machine all the way from the US. It looks set to be a remarkable event and a lot of fun for anyone with even the slightest involvement with the great Tiger Moth. For more information, www.tigerairrace.com or contact Richard Brougham at richard.brougham@milskil.com or 0432 017 617. 📍

Meet the FOKKERS

by Arthur Marcel

THE Australian Vintage Aircraft Society has put on a promotional event with a difference. The theme of the afternoon was 'Meet the Fokkers', with four full-sized World War One Fokker reproduction aircraft unveiled for public viewing - one in flying condition only awaiting final approval and the other three well on the way toward completion. The venue was Caboolture airfield, 40 minutes drive north of Brisbane, and the cool weather was made pleasant by a German beer garden atmosphere with genuine German white lager on tap, pretzels, bratwurst and sauerkraut.

Eight highly disciplined German soldiers in WW1 uniforms, complete with genuine Mauser 98 rifles in full working condition, kept the more than one hundred guests under firm control. The Pine Rivers Shire Brass Band, entertained the crowd with military music and renditions of appropriate aviation favourites such as 'Those Magnificent Men in their Flying Machines'.

It seemed as if everyone who is

anyone on the local recreational aviation scene was there.

When I say the Fokkers were unveiled, I really mean unveiled. This event had the tone of an up-market art show. At precisely 1630 hours, a vintage air raid siren signalled it was time for the crowd to leave the garden. We were ushered into an adjacent hangar, where the four aircraft, temporarily roped off, sat behind their screens. TAVAS founder, Andrew Carter, then spoke for about 20 minutes on the activities and aims of the society.

Basically, TAVAS wants to bring the first twenty-five years of aviation back to life. They want to gather as many actual airworthy aircraft, from this era as possible. Their immediate goal is to encourage home builders to construct authentic replicas of WW1 aeroplanes for the centenary of the 1918 Armistice (on November 11, 2018). TAVAS member, Bruce Clarke, from Watts Bridge Memorial Airfield was one of the guests. He has





already built a full-scale replica of a Sopwith Pup, which has just had its maiden flight.

Each aircraft was individually unveiled and wheeled forward into the spotlight by the soldiers. One of the planes, an E3 Eindekker, actually has a reproduction 100hp, Gnome 9 cylinder rotary engine, reverse engineered from an original museum example by Tony Wytenburg in Blenheim NZ. Tony is the first engineer in more than 90 years to do a production run of these historic motors (as opposed to one-off reproductions).

Finally, the rope was lowered and the audience was allowed to examine each aircraft in detail. It was immediately apparent that the aircraft are beautifully built. Every effort has been made to achieve authenticity. No doubt modern glues and metals have been used, but where possible, without compromising safety, original methods and materials have been retained. On the D.VIII, for instance, the fabric is pre-camouflaged linen. The Eindekker uses wing warping for roll control (instead of ailerons). Airframe components like wooden ribs, wire bracing, turn buckles and the like are absolutely faithful to the original designs.

My particular favourite, though, was the DR1 Triplane, an exact reproduction of the type flown by the famous Red Baron. This aircraft is the only one of the collection not built in Germany. It was recently imported from the US and will soon be flying in Australia. It was constructed from plans prepared in the 1950s by Walt Redfern in association with Reinhold Platz, the original designer. There are no surviving original DR1 aircraft in the world. The last known example was bombed to smithereens in a Berlin museum during WW2.

TAVAS is hoping to raise funds from donations and by selling various levels of sponsorship. For more information, info@tavas.com.au. Their website is www.tavas.com.au. Membership is free, and they are looking for volunteers and family memorabilia as well. 🇺🇸



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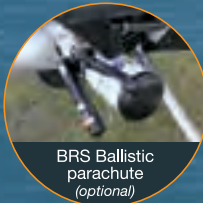
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LEARNING TO FLY



DR GERRY CONSIDINE

Late final

AFTER days of flying and ground theory, I could finally sense some light at the end of the tunnel. The previous week had been my second long navigation exercise with my instructor, Earl. Today I was going to fly the same route in reverse - and by myself. Although there had been opportunity for solo flying around Port Pirie, this would be the first time I ventured more than 25nm from my home base alone. As mentioned previously, my instructor had made sure I was comfortable interpreting weather reports, planning the flight and using the radio.

I gathered my kneeboard, filled with pencilled scribbles of wind, tracks, frequencies and altitudes, a bunch of maps, my headset and a bottle of water. If I was stranded somewhere hopefully there'd be a few sheep to cook up. We estimated a search and rescue return time to Pirie, filled up the tanks and I was ready to go. There's a lot more planning involved when you go on a flying, rather than driving, road trip. Obviously it's not as easy to pull up at the local petrol station and ask for directions or extra fuel.

Sooner than I imagined (or wanted), the little Jabiru was rolling down runway 26 to begin the reverse trip. The weather on this particular day was perfect for the long nav - some broken cumulus about 10,000ft and hardly any wind. I wasn't so much thinking of tail/headwinds for the effect on groundspeed as the inevitable crosswinds at some of the single runway airfields. Such a strip was my first destination at Clare Valley. Unlike my previous visit, there was no crop spraying traffic to negotiate during my quick touch and go visit. It wasn't until I was enroute from Clare to Maitland that I felt an incredible sense of adventure. Flying all alone on a beautiful day in a nice little aircraft made me feel on top of the world, not just literally. I'm not sure whether this is a common thing among pilots or just my incredible and incurable aviation bug. All I hope is that it doesn't fade. The rest of the



journey was a joy, with no issues on landing or flying. When I got back to Pirie, you couldn't wipe the smile off my face. All I had to do now was pass the cross-country flight test and I was finished.

What had built up in my mind to be the final hurdle to my full RA-Aus certificate didn't actually seem any different to the previous flights. The planning was the same and so was the aircraft handling. It was obviously just a combination of that initial flight test and a long navigation exercise with a sprinkling of diversions, engine failures and precautionary search and landings. The flight took Earl and I east of Port Pirie, over some countryside I hadn't flown across before. This proved to be a good test of my map reading skills. The degree of difficulty was raised by the distinct lack of ground features to navigate by. However, after 2.9 hours of flying, we were back on solid ground and I was done (Although anyone who believes a pilot who says that surely needs a head scan). We are never just 'done.' For I am currently pursuing my PPL and at the time of publication, should (fingers crossed) be finished with it and my country GP training.

I'm looking forward to flying around rural Australia as a doctor and hope to meet some of you in the future...hopefully not as sick patients.

As this is the last of my regular columns in *Sport Pilot*, I'd like to finish with a few thank yous. Firstly to Earl, for putting up with me in the cockpit and for guiding me on my first few steps in my flying career. To Steve, Col and Craig for being friendly faces around the flying school and never being short of a joke or story. And to Brian Bigg for being very patient with my often last minute and late submissions. And finally to you, for reading and, hopefully, not skipping my page too often. I hope it has either inspired you to continue your RA-Aus training or perhaps reflect on how you felt during your own training. Again, I look forward to meeting some of you in person and until then, happy and safe flying. Gerry.

ED - Now Gerry has flown the coop, *Sport Pilot* is on the lookout for another pilot just starting on their flying journey to take over the regular Learn To Fly column. If that is you, contact editor@sportpilot.net.au.



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25 YEARS OF Jabiru aircraft

by Leigh Cooper



>> Three staff members - John Farmer, Jamie Cook and Don Richter

RODNEY Stiff formed Jabiru Aircraft in early 1988 and invited Phil Ainsworth to be his business partner. Their aim was to develop a highly efficient, composite, affordable light aircraft. 25 years later Jabiru is still going strong and has developed into both a leading aircraft and leading light aircraft engine manufacturer – one of few companies in the world which designs and manufactures both aircraft and engines.

From humble beginnings in the shed at his home, Rod designed and built the first prototype. Needless to say the first test flight was a much anticipated and exciting affair for all involved. However, Rod did breathe a big sigh of relief when the flight went well and he landed successfully. The success of the prototype spurred them on. They decided to push ahead and build their second test aircraft and move their operations to the Bundaberg Airport. Jabiru is still located at the same site today; however from a 200sqm shed it has now grown to incorporate offices and hangars covering 2,800sqm.

A small staff was employed and what a testament it is to Jabiru that the first three employees - John Farmer, Jamie Cook and Don Richter - all still work at Jabiru to this day. There are now 16 full time staff, many of whom have worked at Jabiru for over 10 years. Jabiru aircraft components, propellers, engines and aircraft assembly are undertaken by contractors, (small to medium businesses.) This business model, developed by Rod and Phil, provides flexibility in meeting production demand and minimises Jabiru's investment in plant and equipment. The model has been widely acclaimed and is a benchmark for many other small businesses. Engine manufacturer, Camit Pty Ltd, owned by Ian and Jenny Bent, is the largest. Leisure Build, owned by Arnie Huysamen, assembles aircraft for Jabiru. In South Africa, Jabiru Southern Africa, owned by Len and Les Alford, manufactures Jabiru aircraft for the Southern African market.



CELEBRATING 25 YEARS OF JABIRU AIRCRAFT



The third Jabiru built was the first Jabiru sold to a customer. VH-LKX, powered by a KFM engine, was bought by Bundaberg resident, George Simmons. In total, 20 KFM powered Jabirus were produced. However in November 1991, just one month after being awarded a Type Certificate for the LSA-55 by CASA, KFM advised it was ceasing aircraft engine manufacturing.

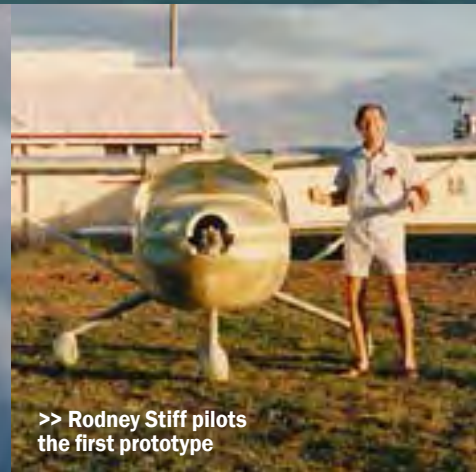
Rod and Phil decided there was a significant opportunity to develop lightweight aircraft engines of their own. After an intensive research and development program lasting 18 months, the Jabiru 1600cc engine was developed. In March, 1993, this engine was approved by the CAA for installation into Jabiru aircraft. A total of 54 1600cc powered aircraft were manufactured over the period April 1993 to March 1996. During this time, Rod realised there was also a need for a larger capacity engine. He set about designing and developing the 2200cc engine which was released in September, 1995. Many of the early 1600 and KFM powered aircraft have now been re-fitted with the 2200. Rod then went on to develop the six cylinder 3300 engine released in 1998 and the eight cylinder 5100 engine for installation into other aircraft.

In 1995, Jabiru added an amateur built kit version to the product range. An intensive program to develop a construction manual followed and in June 1995, Jabiru shipped its first kits to the US and the 'J' series was born. From these humble beginnings, Jabiru today exports aircraft to 30 countries and engines to more than 40 countries. At peak production, Jabiru produced airframes at the rate of 20 per month and engines at the rate of 70 per month.

In July 2005, Rod acquired 100% ownership of Jabiru, while Phil took ownership of Microair Avionics.

In November 2005, Jabiru passed one thousand aircraft and received Type Certification for the J160C from CASA. Since then the company has gone on to sell close to 2,000 aircraft and kits and 7,000 engines. Rod has been awarded an Order of Australia Medal for his contribution to aviation and in 2009 was awarded the Dr August Raspert Award in the US for outstanding contributions to the advancement and design of light aircraft. The Royal Aeronautical Society awarded him the Lawrence Hargrave prize for his contribution to aviation.

Jabiru is a proudly Australian company which has provided innovative design and technology to the world for 25 years with more to come. 🇦🇺



>> Rodney Stiff pilots the first prototype



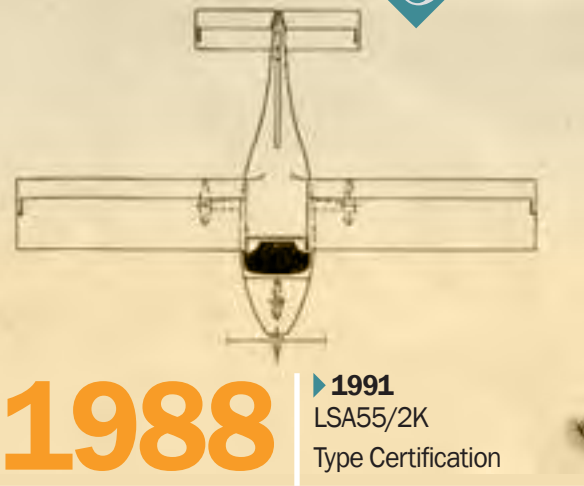
>> Rodney Stiff presents Cliff Banks with the keys to the 1000th Jabiru aircraft.



Jabiru has provided innovative design and technology to the world for 25 years



CELEBRATING 25 YEARS OF JABIRU AIRCRAFT



1988

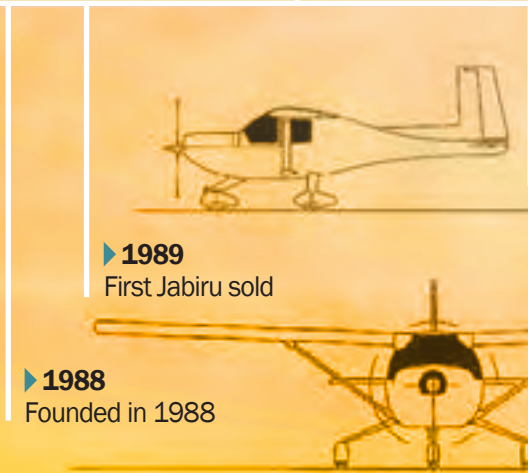
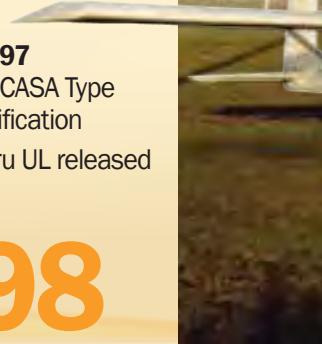
▶ **1991**
LSA55/2K
Type Certification

▶ **1993**
LSA55/2J Type Certification
Jabiru 1600cc engine released

▶ **1995**
Exports to US
Jabiru 2200cc engine released

▶ **1997**
ST3 CASA Type
Certification
Jabiru UL released

98



▶ **1989**
First Jabiru sold

▶ **1988**
Founded in 1988

▶ **1992**
Jabiru
1600cc
engine
development

93

▶ **1994**
Jabiru ST CASA
Type Certification
US Oshkosh
unveiling of the
Jabiru
Jabiru 2200cc
engine
development



▶ **1996**
FAA
acceptance
of Jabiru kits

▶ **1998**
Engine 2200J CASA
Type Certification
LSA 55/3J CASA Type
Certification
Jabiru 3300cc engine
released

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▶ **2004**
UL-C CASA Type Certification

▶ **2006**
Jabiru factory expanded
Order of Australia
Medal awarded

▶ **2001**
South African CAA LS/1
Acceptance Certificate



▶ **2008**
C000242 Propeller
CASA Type Certification
Engine 2200C CASA
Type Certification

08

▶ **2010**
J230-D South African CAA NTAC
Approval Certificate
J160-C Canadian Type Certified
2200C Canadian Type Certification
C000242 Propeller Canadian Type
Certificate

2013



▶ **2002**
Winner Queensland
Export Awards

▶ **2005**
J160-C Type
Certification
UL-D UK Microlight
Type approval
UL-D CASA Type
Certification
1000th Jabiru sold
Rod Stiff acquires
100% ownership

▶ **2007**
J160-C
Croatia Type
Certificate
approval

▶ **2009**
J160-C Indonesia Type
Certificate validation
China Validation of Type
Certificate for J160-C, 2200C
and C000242 propeller

▶ **2013**
Jabiru composite
propeller released
Jabiru twin engine
joint development
with South Africa




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NEW TWIN

by Rod Stiff Jabiru founder

JABIRU Aircraft Southern African dealers, Len and Les Alford, have embarked on an ambitious project – a Jabiru twin.

Len says there is a demand for such an aircraft in Africa where wild animals and AK47s make it preferable to fly at a great height and where pilots get nervous about outfield landings.

I had walked around the concept of a twin before Len's call, but could not face up to the complexity generated by hanging the engines off the wings. This would have meant going back to basics on wing structure and all the difficulties of fire proofing the wings etc. Another physical difficulty was that the engine pods completely obstructed the entry and exit points to the cabin.

I then struck upon the idea of mounting the engines on a short canard mounted on the firewall. Some quick calculations on the weight and balance weren't too frightening and I was able to get the propellers quite close together to reduce the amount of asymmetric thrust on one engine. I was then able to get the doors open against the engine pods and the design evolved from there.

From my sketches, John Farmer got to work making a streamlined nose for a J430 and the two engine pods. Our engineer, Tom Ferguson, was given the task of testing the supporting structure for the engines. This took quite a while to get a structure light enough and strong enough to meet the FAR Part 23 standards. As usual most of the structure was built in composite with aluminium connections to the engines.

The firewall structure of the J430 is unchanged and the nose wheel stays where it is. This is a rela-

tively simple bolt on modification.

So when the structure was finished and the moulds completed, the project was shipped to South Africa where Len had to fit all this to a new aircraft and finish the details to make it into a flying aircraft.

We have left Len a large task to bring the prototype to a production item and to negotiate with the South African CAA on its terms of public release. In due course we hope to release this kit for Australian and USA builders and other countries which accept the experimental category.

As it stands, the conversion could be offered as a kit to be fitted to an existing experimental J430 in Australia. The pilot would of course need a twin endorsement. 🛩️



▶ This would have meant going back to basics on wing structure



**ON
THE**

BLOCK



HOW HARD CAN IT BE?

Importing an aircraft from the US

by Norm Sanders

SONEX - PRICE SLASHED -

Sonex for sale. 575 hours. Needs engine work new case and maybe new crankshaft. Still runs but has play in the prop shaft. Out of annual. As is where is. Hummel engine 2400cc vw. Nikasil cylinders type 1. Prince prop. Eis instrument. Micro air panel mount radio. Cabin heat. Aileron trim. Removable right control stick. Canopy has cracks (flown as is for years) that are glued. Have second new canopy in box. Larger tailwheel. Meets LSA requirements. Will have to be trailered to new home. Email only. I work strange hours. \$20,000 obo. • Contact Barry T. Weinzirl, Owner - located Elmwood, WI USA • Posted October 4, 2010

GARY Griffin and I had been thinking of building a Sonex, or maybe a Xenos motorglider, but decided we were too old to start a project like that. Then we spotted the ad in *barnstormers.com*, the airplane candy store. *Barnstormers* offers free classified ads for experimental aircraft, homebuilt aircraft, ultralights, vintage aircraft, warbirds, jets, turbo props, and just about anything else that flies.

THE DEAL

We emailed Barry Weinzirl and found out that he did indeed work strange hours, because he spent a great deal of time wandering around the US in a DC-8 freighter. If he felt the need for any more flying he had an RV-4, so the Sonex was on the market.

The Sonex looked good in the photos and had an excellent pedigree, having been built by Scott Casler under the supervision of the EAA's Morrey Hummel. As for the engine, we knew several engine rebuilders in Australia who could fix it up.

So we offered Barry US\$19,000 if he would take the wings off and trailer the plane to somewhere it could be shipped. He agreed. Then we had to find an outfit to handle the shipping. Google revealed a firm called Koch Logistics in St. Paul, Minnesota about 120kms west of Elmwood.

Their web site said they were experienced in ocean/sea shipping from the US to Asia and



Europe. We contacted them and got a quick reply from Larry Geraghty. Yes, they could handle the job, and had in fact just shipped a plane to Germany.

We were still a bit nervous about trying to organise all this from Australia, but felt a bit better when Larry told us he had shared a lot of beers with Australian forces in Vietnam and would take a personal interest in our shipment. He got even more enthusiastic when I confessed that I was actually born in the US and that my mother came from Deer River, Minnesota.

"Deer River!" he emailed, "That's where we spend our summer vacations. You are a MINNESOTANI!" No worries!

Larry assured us his packers were the best in the business and he had a huge warehouse in which to load the plane into the container. Barry brought the plane to St. Paul and the packers went to work.

PAYING FOR IT

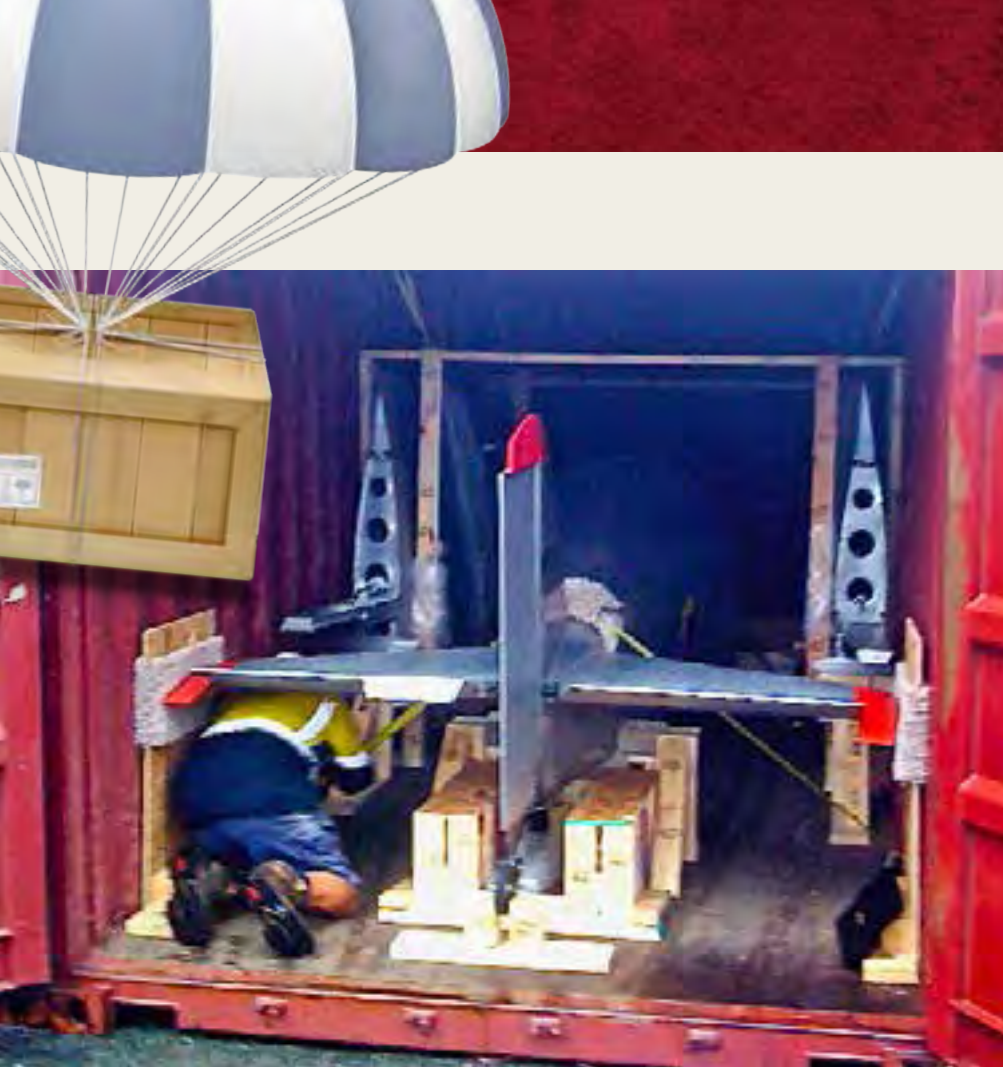
When we tried paying for all this, things started to get sticky. The bill for packing and shipping came to US\$7,345. No problem getting the money to Koch. But Barry was a different story. Turns out that in order to send money to a US bank account, you need something called a Swift Code. Barry's Elmwood bank didn't have an international Swift Code.

The container was scheduled to be loaded on a train for Los Angeles on Friday. Barry wouldn't let it go until he got his money. Miss the train, and we missed the boat. Larry threatened to go to Elmwood and personally twist Barry's arm. Barry's brother came to the rescue with his own bank which did have an international Swift Code and soon the Sonex was on its way to Australia.

THE JOURNEY

It was an epic journey. We had saved US\$1,000 in shipping costs by opting for an indirect rather than direct journey from the US, although it took several months longer. The plane went first by train to the Port of Long Beach, California, then by ship to Yantian, China and finally on to Brisbane.

While the Sonex was enjoying its extended sea voyage, we made arrangements for its arrival in Australia. Larry recommended a firm in



When we tried paying for all this, things started to get sticky



Brisbane called Vanguard Logistics. We simply couldn't have done it without them dealing with the blizzard of paperwork and organising customs and quarantine.

THE DOCKS

We were now operating in the rarefied atmosphere of the Australia-US Free Trade Agreement. We had to obtain a statement of origin from Barry to the effect that the plane was entirely a US product and then furnish something called a Harmonized Tariff Classification. The internet eventually coughed up code 8802.20 which seemed to do the trick. It was worth the effort because

under the Free Trade Agreement, there was no duty payable on the aircraft.

Eventually we received a 'Sea Import Pre-Alert' to the effect that the Sonex would arrive shortly on the *HS Mozart* which was music to our ears.

We would be able to pick up the plane on January 2, 2011. We started making preparations which included two trailers, hi-vis vests and steel capped boots (required on the wharfs).

On the appointed day, the Queensland floods had begun and water was over the road in places as we threaded our way between the mountains of containers at the P&O terminal.

Finally we were led to our container and the doors were opened. There she was! The packers had indeed done a great job and there was no damage at all.

The workers took pity on us and let us wheel the plane into the warehouse out of the rain. Only thing left was the AQIS quarantine inspection. Shock, Horror! Grass seeds on the cockpit carpet! "You will have to wait three days until we can fumigate the aircraft" (at great expense).

We came up with another suggestion: "How about you destroy the carpet?" The inspector agreed, for \$100. Good thing, too, because the floods closed the docks the next day.

The lesson was: Make sure the plane is entirely clean of dirt, mud and organic material before shipment. Even the packing material has to be treated and bug-free.

GETTING IT REGISTERED

We hauled the fuselage and wings down to Tyagarah with all the care of parents with a new baby. Next came the RA-Aus paperwork. In order to register a US aircraft, it is necessary to send RA-Aus a copy of a CASA deregistration certificate. This process starts with the US owner sending an Aircraft Bill of Sale to the FAA along with a request for deregistration for the purpose of export (forms available on the internet). Then the FAA must be asked to fax a 'Confirmation of Deregistration' to CASA which passes it along to RA-Aus, all in bureaucratic time.

RA-Aus then required data from the approved flight manual, recent photos and an Aircraft Condition Report. While we were getting the registration, we had the engine overhauled by a custom VW racing engine builder and a mate who was a LAME. We decided a heavy case would be a good idea, which drove up the cost a bit. The overhaul bill came to \$5,600. Sonex 19-7763 first tasted Australian skies on May 21, 2011, seven months after our first contact with Barry Weinzirl.

WAS IT ALL WORTH IT?

The cost of liberating the plane from the wharf came to a total of \$3,902. \$1,616 of this was for things like the terminal handling charge (\$343), unpacking (\$525, which we did ourselves anyway), and various fees including Vanguard Logistics. On top of this was \$2,286 GST. Total cost of shipping the aircraft to Australia was \$AUS11,329. Total expenditure: \$35,000 (The Aussie dollar was near parity at the time).

Shipping and associated costs were much higher than we expected, amounting to 40% of the total. The process was time consuming and required bundles of emails. But we met a whole bunch of interesting people, learned a lot and saw some amazing sights. The Brisbane docks have to be seen to be believed.

HOW HARD CAN IT BE?

A lot harder than we thought, however with patience, a sense of humour and a lot of help from new friends along the way, we did it. 🍀



THE Heath 'V' Parasol PART 3

by Len Neale
Restorer and pilot

Part three of the story of the first 95.10 category aircraft in Australia, the Heath Parasol (Parts one and two featured in *Sport Pilot* August and September 2013). It is a tale of Vladimir Slusarenko, a Russian pilot and aircraft builder who gained Russia's first aviation licence and who came to Australia to live. The first Heath, named 'Miss Sandgate', was used by pilots at Archerfield for years until it got too old and was put away.

The Heath Parasol Re-Emerges

The next reference to the Heath comes from Col Pratt, of Gympie, who discovered it was owned by a Mr. V Burton, who had a motorcycle shop in Gympie. Col Pratt and his friend, Col Byrne, later unofficially attempted to fly the Heath on a number of occasions at Glastonbury near Gympie.

Col Pratt tells of his dairy farmer neighbor's wife, who was shocked to see the Heath shoot past her kitchen window on a forced landing after yet another unsuccessful flight attempt. Apparently the power from the Henderson engine was insufficient to propel it to any great altitude.

The existence of the Heath came to the notice of Kevin Wilson of Smoky Creek, Jambin, via another local grazier, Bruce Fawkes, who was Col Pratt's brother-in-law. Kevin, along with my broth-

er Bill Neale, traveled from Jambin to Gympie to inspect the Heath. They met Col at the Royal Hotel and went on to inspect the fuselage at a Mr. C Burns' property, in Thomas St., and the wings at Mr. V Burtons in Stewart Terrace.

Kevin subsequently purchased the Heath, complete with broken undercarriage on May 14, 1960, for £136. One hundred of that was for the aeroplane, and the £36 was for a new propeller bought by Col Pratt, who insisted that 2,500rpm could be squeezed from the Henderson engine with the new prop, against the 1,900rpm it managed when the last prang occurred. Kev and Bill took a cattle truck to Gympie to bring 'Miss Sandgate' back to Smoky Creek.

I recall, as an eight year old boy, going to see the Heath at Smoky Creek, and staring at

it, wondering how anyone could possibly take to the air in such a small aeroplane. Maybe someone little like me could squirm into its tiny cockpit and fulfill the dream of flight. Kev and his brother, Ivan, restored the aeroplane using Irish linen as the wing covering and Medapolin on the fuselage. I can recall Ivan and his new bride, Judy, balloon stitching the fabric to the wings during their honeymoon.

But the Henderson engine again proved inadequate during Kev's belated attempts at flight, so the Heath was retired from service again and securely stored in the workshop at Smoky Creek. 🍷

NEXT TIME:
Miss Sandgate is reborn

DARREN BARNFIELD Acting Technical Manager

Out of the shadows

BY the time you read this, I will have been in the role of Acting Technical Manager for just a few weeks. It is certainly a very important position and I am privileged to have the opportunity to work with you all.

I have a long standing passion for all things aviation - military, warbird, general and experimental aircraft. I have been involved with Recreational Aviation Australia since the early days of the implementation of the Light category as a CASA Authorised Person. I have scratch-built my own experimental aeroplane and it is that experience which set me on my journey to where I am today. During this time, Norm Edmunds and I developed a manual for the S.A.A.A. (Sport Aircraft Association of Australia) that would allow people with appropriate qualifications to be appointed as CASA Authorised Persons. After submitting our manual, and only after a very short period, we were granted the opportunity to train and to apply to CASA to become Authorised Persons. I was fortunate to become one of the first.

With the support of my awesome and amazing wife (I know she will read this), we decided it was a propitious time for me to leave an engineering career and start on the pathway to gaining my LAME licences. I effectively started as an adult apprentice working under the direction of Bernd Heuser and Judy Pay at the Old Aeroplane Company. Throughout my aviation career, I have been very fortunate to have worked on many interesting types of aircraft, from helicopters (in the Navy), Dehavilland Vampire and Mustang, Chieftains and 737-800, all the way to Tecnams and Gazelles.

While assisting former Technical Managers, I have also worked on projects for RA-Aus which are now coming to fruition. The issue of Maximum Take Off Weights (MTOW) has long been a bone of contention. This has led to many frustrated members concerned about the continual operation, and financial implications, of an aircraft with a reduced payload. After a submission to CASA, I was provided with notification that they would not accept RA-Aus increasing the MTOW of a type certified aircraft. The Authority has now found an alternate means of compliance which would assist some, but not all, of the affected aircraft owners and manufacturers. The only provision for increasing the MTOW of a Type Certified (TC) aircraft is to have an appropriate Supplemental Type Certificate issued by Australia or another recognised National Airworthiness Authority or competent issuing authority (Part 21M). CASA Legal has recently indicated, however, that if the Type Certificate holder of an aircraft also produces an equivalent LSA version (e.g. Eurofox) and is willing to provide a Statement of Compliance for the latter (by serial number), the aircraft could be permitted to operate at a MTOW subject to the following requirements:

1. That each of the aircraft complies with the LSA requirements and is issued with a Special C of A;
2. That prior to the issue of the C of A an airworthiness audit is conducted on each of the aircraft to ensure that
 - a. No modifications have been conducted without manufacturer's approval;
 - b. The aircraft has been maintained in accordance with the manufacturer's maintenance requirements;
 - c. All other LSA requirements are met.

This will allow many of the affected aircraft a means of compliance for continued operations at the higher MTOW.

Another project currently underway is to explore a means of compliance for modified Type Certified aircraft. This will not be an experimental category, but an area within 95.55 which will allow a person with a TC aircraft not supported for parts, to have its operational designation modified. This

will preclude the aircraft from hire and reward but would allow aircraft to be fitted with non-certified items, for example, propellers. The response from CASA is along these lines:

Consideration to the introduction of an RA-Aus Experimental Category by CASA will be dependent upon the organisation having robust and accountable oversight procedures in place to administer these functions. This consideration should be viewed as a long term solution, requiring industry consultation and amendment to current exemptions and procedures with no current guarantee of implementation.

On a separate matter, I had the pleasure the other night to attend the Light Aircraft Association (LAA) as a guest speaker. I intended to discuss many items but the conversation was focused mainly on RA-Aus. Various questions were forthcoming regarding registrations, SAAA's AUSFLY and canard stall speeds, just to name a few. I was also able to introduce various maintenance concepts. When asked about instrument calibration in accordance with the Tech Manual, I was surprised that of the 20 plus members present, very few knew of the reference and the requirement. Open and frank dialogue ensued, allowing me the opportunity to identify and address some of the concerns.

I feel that communication within our organisation is an area which requires immediate improvement; an area I am committed to progressing. I have listed airworthiness bulletins and other notifications on the website and will endeavour to use this communication medium as frequently as possible. This will lead onto other web based notices and further Tech Talks.

I hope in the short term I can deliver milestones which will assist the membership in gaining the compliance required to enjoy the privileges we have been granted. 🍷

Anti-theft devices for aircraft by Jill Bailey

WITH the recent report of the theft and subsequent safe retrieval of one of our members' aircraft, it is topical to remind aircraft owners of their obligations.

In this particular instance, the aircraft was in a hangar which was open ended with no doors or means of securing the aircraft and the aircraft did not have an anti-theft device or throttle lock fitted.

While this was the first time we had heard of an RA-Aus aircraft being stolen, if the aircraft had an anti-theft device fitted, or been secured in a locked hangar, it is probable the thief would have been deterred.

Anti-theft devices are required for any aircraft not secured in a locked hangar. It can be a wheel lock or clamp, lockable control locks or owners can choose to chain the aircraft to a tie down point.

Whatever means used, it must be clearly visible (we don't want pilots starting engines with a bike chain wrapped around the spinner!) and should not compromise any component of the aircraft's critical controls.

For more information www.comlaw.gov.au and search for Aviation Transport Security Act 2004 Section 62 which provides the requirement to secure unattended aircraft and the Aviation Transport Security Regulations 2005 sub-regulation 4.72. 🍷

members' market

2671 JABIRU SP 500/6 19-3717



Well maintained hangared. 449.5 hrs. 123kts @19lhrs hr. Sweetapple cruise prop, custom extractors, 10 ply mains, 85ltr tank. STD gauges electric turn coordinator, volt meter, fuel flow meter. XCom VHF & headsets, + UHF & 2xGPS. Grim voltage regulator, Anderson jump start plug. Deliver anywhere. \$48,000 . 08 9921 8790

2760 JABIRU J230C



First to see will buy. Excellent condition, Flies hands off, genuine 120 knots, one owner, always hangared, serviced every 20hrs, TT445 hrs engine & airframe, Microair radio, transponder, JPI Fuelscan computer, couples to Garmin 296 GPS, iPad bracket, Garmin Pilot II GPS, 10 ply tyres, Low fuel light, Dual strobes, many extras, can deliver. Reduced to \$67 500 + GST. Ph 0418 930 100

2926 JABIRU SP-6 19-3627



Jabiru 3300 engine [solid lifters] 781 hours total time. Lowrance 2000 color Gps 5". Reg till 12/12. Level 2 maintained. Microair radio/intercom, 2 Blackhawk Headsets, Spats x 3,

85lt Fuel Tank, Aircraft Covers, external power supply. professionally painted 2 pack, Cruise 115 kts 19 lt hr. Asking \$33,900 . Ararat/ Geelong area. Ph. Doug 0352552971 or 0409084589. dpark221@gmail.com

3028 FLIGHTSTAR 11 SC



Brand new 2 seater. Protective covering still on doors and windscreen. Airframe 0 hours. Engine 0 hours. HKS 80 HP fuel injected turbo with intercooler. Aerolux 3 blade adjustable prop with spinner and individual blade covers. Hydraulic disc brakes. Carpeted interior. Easy clean Mylar flying surfaces ASI, VSI, Tacho, Manifold pressure, Slip indicator. \$39,500 complete or if desired, \$29,500 minus engine and prop. Ph. 0419439976. Email formefitness@bigpond.com

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 \$62,000 no GST for quick sale 0419348288 or pbugg@onthenet.com.au

3178 JABIRU J120-C



24-7002 Factory built December 2008. 450 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 \$45000. ONO Contact Steve on 0416 654 428

3182 SIERRA 100 JAB 2.2A (NEW)



Jab 2.2A. Thompson Prop. Man flaps. Matco wheels & toe op disc brakes, lcom A210 V.H.F. Flight & Engine Inst F/Glass bucket seats. Test hours only. Bargain \$35,000 (retired from flying) Gawler S.A 08 8522 2505

3195 2010 PARADISE P1



2010 Paradise P1, the Rolls Royce of LSA aircraft. Built to last. Fast, safe, comfortable with the largest baggage area of any LSA. Made for touring. Fully Instrumented with glass and convention gauges. A go anywhere aircraft capable of flying across the continent on autopilot. Phone 0412834225 Email chp@tpg.com.au

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. There is no better aircraft advertised here. Looking for sensible offers 0419368696

3209 X-AIR A1 CONDITION



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Get the Back Up Get the Best Get the Aircraft Get the Original

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3218 SKYRANGER SWIFT



240TT Always hangared, 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. \$38,000 Contact Doug 0400 737 911.

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

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, stoneguard, landing light, tall windscreen, well maintained with maintenance history. \$16 000 ono, Email bear.humphries@gmail.com,

or ph. David 0414 256 246

3249 1/6 SHARE JABIRU J230D

Jabiru j230d 1/6 syndicate share, micro air VHF x 2, transponder, avmap insured and hangared at tooradin vic, 50 hours on latest engine \$13500. ONO. \$140 PCM and \$70 per hour. Call Glenn Wattie 0418320385

3259 BANTAM 22

Spare fuselage tubes, undercarriage parts, rudder pedal, engine mount bits, cockpit pod (blue), rims & tyres and more. Contact Bert: ari@burnett.net.au

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. \$58,000 Phone 0428 988 662

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. \$38,900. Ph 0429 61 99 87 flblainey@gmail.com

3287 EUROFOX 3K



\$59,990 - 2008 EUROFOX 3K. TT:1650. L2 maintained 912ULS. Excellent touring A/C. Great condition. Solid performer. Dynon D100 EFIS, AvMAP IV GPS. Hangared since new. For sale due club fleet upgrade. Contact Peter Ford (pford@mac.com) 0438882052. Hastings District Flying Club - Port Macquarie (www.hdfc.com.au)

3290 JABIRU J120



Manufactured May 2010, 252 hours trouble free, AD's up to date, new through bolts/nuts. Nil incidents, LAME/L2 maintained, suit new aircraft buyer, Dynon EFIS, Transponder, VHF/GME UHF CB radio/intercom, Garmin 495 GPS, Leather embroidered seats, Sensenich prop, Cabin heater, booster seats, aircraft flies/runs like a dream, Always hangared, 9.5/10. \$50,000 0418614102

3301 SAVANNAH - STOL



Rotax 912 80hp. DUC bipala prop. Slats fitted. Has extra instruments and new MGL trans and coms system fitted. King transponder. wheel spats. Fully maintained and never had an accident. Ideal aircraft for low hours pilot. Always hangared. \$45,000 Situated at Mandurah, contact Garth at garth.lb@bigpond.com or 0409 599 845.

3315 JABIRU - SHARE THE DREAM



Your new Jabiru is closer than you think FLIGHTSYNDICATES.COM.AU Syndicates seeking members based at Caboolture, Cairns / Tablelands, Adelaide environs, Sydney environs, Adelaide / Parafield, Melbourne area, Rockhampton / Hedlow, Jandakot/Northam. 07 32892545 info@flightsyndicates.com.au www.flightsyndicates.com.au

3316 FOR SALE

For Sale BantamB22J Jabiru Engine with oil cooler, 89 hours, no accidents, always hangared, registered. Price \$25000 ONO Contact Gloria Armbrust Ph 0740943080 e-mail garmbrust@activ8.net.au

3317 SONEX



SWAP TRADE CASH . Sonex Aerovee 80HP for CASH, Factory built metal or composite RA-Aus aircraft, GA Aircraft with good hours to run, Classic car or boat. Give me a call if you want to put forward a proposal. \$42,000 Phone 0412537730

3329 BUSHBABY



2 Seater Rotax 582. Complete instrument panel with Icom radio, intercom, FM/CD radio and leather seats. Ideal for short field operations and touring. Always hangared. Urgent sale due to moving interstate. Price: \$ 22000.00 Neg. Call Etienne for more info or pictures on 0409 768 370

3342 HANGAR SPACE BOONAH AND MURWILLUMBAH

Aircraft hangarage available at Boonah and Murwillumbah airfields. Highly sought after locations. Price by negotiation dependant on aircraft type. Enquiries to scenicrimaviation@gmail.com or contact Mark 0413025178.

3352 WANTED

WANTED--ALL INSTRUMENTS suitable for Zodiac 601HD equipped with Lycoming 235 engine ,ALSO brake master cylinders (even to be reconditioned) and any service or operating manuals for this a/c. and exhaust system-shackleton210@gmail.com 0427194235

3380 PACIFIC HAVEN AIRPARK. NEAR HERVEY BAY

Own a share in a 3,000ft all weather bitumen runway and taxi ways with pal lighting 15/x14/ metre hangar, 3 bedroom house on 2.5 acres , established lawns and gardens. no body corp. fees. sale due to ill health. \$595,000. phone 0741290651 or donlee@y7mail.com.

3385 SKYFOX GAZELLE



MEMBERS' MARKET

T/T Airframe and Engine 1457hrs Paint and Interior 9/10 VHF radio Garmin 296 GPS with panel mount. Navman fuel monitor. 2 Headsets. Punkin Head camp cover. Original Timber Prop and Spinner both in excellent condition also included. \$35,000 Contact Harold 0433892292

3387 JABIRU 3300 6CYL

JABIRU 3300 Build Year: 2006 Thin Fin engine (Zero Hours never been started but turned by hand regularly). \$12,000 Jabiru wooden Prop, Spinner etc (all zero hours) \$1500 if purchased with engine. Phone Greg Tucker 0439617044 email: greg.bathurst@harveyworld.com.au.

3396 SKYFOX GAZELLE



Comes with fresh 100 hourly. New motor out of box just installed. Inside and outside 9/10. Very tight and tidy airframe. Icom radio, King transponder, full instrument panel. NDH. Always hangared and LAME maintained. New side and roof perspex. \$45000 + GST ONO kjeffs@bigpond.net.au 0438508576

3398 THRUSTER T500



Thruster T500 Rotax 582, 230 hours since overhaul. UHF and ICOM VHF radio. 2 seater with long range fuel tank, doors. Flies great, well maintained. Located Lockyer Valley with own hanger on private airstrip. \$14,500 Phone Paul 0427622176

3406 FOXBAT A22L



Excellent condition, white in colour, 2000 TBO, Flydat instrumentation, hangared at Scone NSW. \$68,000 ph 6545 9133.

3408 JABIRU UL 2.2



TT 790hrs A & E as at 23.07.13. Long wing with winglets & vortex generators. Excellent STOL performance. Cruise 95-100 knots @ 12 lph. Electric T & B, strobe, Garmin aera 500 GPS. Spare prop. Always hangared. Sth Aust. phone John 0400865868. Reduced to \$35,000.

3409 STREAK SHADOW 618



1999 TT 280 hrs rotax 618, L2 maintained, good condition, safe aircraft to fly, does not bite, good low hour pilot aircraft, 2 headsets, intercom, complete set of aircraft covers, spare prop, and some spare. Price reduction \$17,500 OVNO mrbadgertea@gmail.com

3417 KITFOX 3



Kitfox 3 670hrs TT engine and airframe. Lame built and maintained, it has full instrumentation, 3 blade bolly prop, 100 ltr tanks, burns 14ltr/hr and has a 75kt cruise. Fresh 100 hrlly. Always hangared, this attractive plane is an absolute joy to own and fly. \$37500 Ph. John 0359788212.

3420 SKYDART 111



197hrs. TT eng & airframe. Rotax 447. Trailer incl. Very economical at 11L/hr. Great fun a/c simulate glider with power setting. ASI., ALT., M/Comp. CHT. EGT. RPM. Hr. Meter. Cockpit similar to glider. \$8900. Bob 0749344299

3425 JABIRU



Very nice aircraft great endurance easy to fly lots of room. Working too much not enough time to fly. All work done by level two. \$80,000 0411 123 669

3426 CHEETAH XLS



Cheetah XLS 24-7072. 76 hrs airframe and engine. Jabiru 2200 PP. Single owner always hangared. Easy to fly and maintain. 110ltr tank, spacious cockpit. Digital inst with analogue backup. 75kts cruise. Based Bunbury, WA. Half share considered. \$39,500 Contact George on janspo@westnet.com.au or 0406226566

3428 JABIRU J230C



Great aircraft latest engine updates completed, too much work not enough time fly. New prop no accidents great touring aircraft, mains spats not shown in pic. \$88k 0411 123 669

3432 JABIRU LSA55



For Sale Jabiru LSA55/3J One owner , always hangared 1400 hours TT . 2.2 solid lifter engine , Garmin 495 & 195 Micro Air radio & transponder , fuel flow , landing lights , 85 litres fuel , cruise 105 kts 13 litres . \$36000 Contact Steve Lenne 0428732267

3436 X-AIR NEEDS TO FLY



Only 6 hrs total time on airframe and Rotax 582 blue top. 80L fuel tank, 5 hrs endurance. Electronic and analogue instruments. Xcom VHF radio/intercom with music and UHF radio. Wide entry doors. Hangared. \$18,500 ONO. Phone

0417612414 or email wbowkett@bigpond.com.

3439 JABIRU J230



Jabiru J230, 2008, 520hrs, A-1 condition, twin Becker radios, transponder, built-in GPS system with back-up Garmin 296, plenty of extras, \$59,000 ono must sell. Phone James 0458519296

3440 DRAGONFLY MICROLIGHT FOR SALE



Great little trike. Bailey 4 stroke engine (2.5 lts/hr), electric retracts, Brauniger Instruments, always hangared, low hours and in great condition. Selling due to other financial commitments, \$18,500 price is negotiable. Located Strathalbyn, Adelaide.

Brett 0418 747 988 bcollier_85@hotmail.com

3449 AIRBOURNE XT912 TUNDRA SST WING



Airborne XT912 Tundra, 2 Brand new Flycom Blister Helmets & Intercom, Rotax 80hp 4stroke engine, SST wing, M760 radio, Training bars, Landing light, Bar mitts, High windscreens, Engine Cover, 385hrs, Awesome trike to fly in excellent

condition. Included's a trolley, the wing can be lowered to access low hanger's and moved in any direction. Located Dixons Creek. \$40,500 Ph 0419 879 340

3451 RANS S-14

Single seat high performance ultralight. Rotax 912, full instrumentation. Fighter-like agility and performance. No vices, and will trim hands-off, probably not for the very low hour pilot. A sea change means I have no time to fly it. Inspection will not dissappoint Located near Gatton Qld. \$25,000 Ph Ian 0418880257

3460 SEAREY

Searey "C" Hull, 912 Rotax, Electric Gear, Dynon 180 instruments, GPS, Stobes, Nav Lights, 66 hours total time, VHF, VOR, Transponder. Alum fuel tank, tundra tyres and more. LAME /L2 owned and always hangared. \$78,000. ono. Located VIC Ph: 0419 727077

3461 DRIFTER W/B

W/B drifter 503 with g/box 325 hrs 3 blade brolga prop, reg 01/14 dual controls, long range tank sicanite ailerons / tailplane skins good gps, icon radio, I2 maintained, built by wayne fisher for himself, top condition and flies like a dream. \$ 17,500 ono phone 0265536325

3467 SPORTSTAR MAX

Delivered 2010, Excellent condition, leather seats, Garmin Aera 500 GPS, Icom Radio, intercom, Garmin Mode C Transponder, Toe brakes and great to fly. Currently online in Qld. \$85 000 Contact- 0402 660 077

3471 STING S3 LSA

TTIS 740Hrs engine 560Hrs Excellent condition, a dream to fly at 110-115kn with a near new Sensenich ground adjustable prop, full set of round gauges including ADI, Zoon traffic alert, Garman 496 GPS, GTX 327 Mode C transponder, SL 40 com and greenline EMS. Based at YBNS. \$97,000 Ph Mark on 0417222692 or 0429390131 AH

3480 RANS S65 COYOTE 2

Rotax 912 80HP, TT 1036 hours. Engine and airframe. One L2 owner, builder, maintainer since new. Always hangared. 2 place, 36kg luggage plus 5 hours fuel. Round Instruments, Icom radio, lowrance GPS. Offers around \$48,000 Phone Dave King 0429 042 740 for info brochure. Hangared at Holbrook, Southern NSW

3485 JABIRU J160C FACTORY BUILT

J160C factory built 2006. Option 2 Panel with Dynon EFIS, Garmin 296 GPS, Micro Radio & Transponder. 10 hours since engine overhaul & upgrade. Always hangared, beautiful to fly. \$58,550. Call Alan 0427 763 375 or more info at www.jabcor.com

3486 SKYRANGER

First registered January 2007. Rotax 912s 100 hp Glass cockpit. Dynon EFIS and EMS. SL40 vhf, transponder, AVmap GPS. Nil Damage 180 hrs total time. \$50000.00 0414 450 015

3487 JABIRU SPT-6 TAILDRAGGER

Jabiru SPT-6 Taildragger, Zero hrs, Never flown. Factory new 3.3 hydraulic fine finned engine, 85 litre tank, STD Jabiru dash, ready to register. Gloss white ready for your decals. One of only four Jab 6cyl taildraggers. YBNS airport. \$68000. Make an offer, must go. Phone Martin 0412 617110

3489 JABIRU SP6

Regd 19-3845 to 27/6/14; TTIS A/F 451 HRS Engine 20 Hours (3300/120Hp) Hydraulic Lifter. Garmin 126/8Gps, Icoma200 Radio/Intercom, ASI, ALT, RPM, EGT, Turn Co-Ord, Oil Pressure And Light, Vsi, Cht, Oil Temp, Elec Fuel Pump, Compass, Lock, Wheel Pants, Two Place, Build Books/ Extras Vne 132 Ray 0411 956734/ 03 51555181 rjwheels@gmail.com ASKING \$47000 O.N.O.

3490 JABIRU 170D

August 2008 factory built. 430 hours TTIS Option 1 panel plus Microair transponder, FC-10 fuel computer, garmin 196 GPS. 10ply front and mains. Always hangared. All AD's complied with. \$71,000 Contact Kevin 0417131816

3491 JABIRU LSA 2.2

Jabiru 550-939, 2.2. LSA. Always hangared. TT - 1110 hours. 150 hours since full engine recon. GA Panel. Vac pump. Big foot wheels. VHF & UHF radios. Lambs wool seat covers. 2Pak paint. One owner last 11 years. Renmark SA. Priced to sell \$29,500 ONO. Contact Brian 0427 840 052.

3492 HANGAR SPACE

HANGAR SPACE Available at Bacchus Marsh Airport easy access, close to fuel pump, great location, suit any low wings aircraft, GI or Recreational. Please call 0419526872

3495 FOXBAT

TT700hr Rotax 912 100hp L2 maintained Excellent condition, New Kiev prop & tyres recently fitted, Hangared near Ballina nsw Transponder, Fuel flow meter, Microair radio, Garmin 196, ALT, ASI, VSI, Flydat monitoring system, AH-TruTrack ADI pilot 2, headsets x2 plus lots of extras PH Evan 0408025381 \$70,000

3498 JAB LSA, NEW ENGINE - BARGIN!

Total Hours: 2030 Engine Hours: 17 Rego: 55-3705 Price: \$30,000 Factory built aircraft, new 2200 engine with only 17 hours on it, new control cables, new brakes (J120 units). Best value anywhere! Sweet aircraft to fly, cheap to operate. Always hangared, LAME maintained. Transponder mode C. Dave - 0434 082 023

3499 PELICAN PROJECT

Pelican project. Model PL, can be built as LSA. All parts and components included except engine & instruments. Horizontal and vertical tail feathers

MEMBERS' MARKET

finished, tricycle or tailwheel options. Heavy duty windshield and prop also included. Kit valued at \$60k+, will accept \$30,000. Contact 0403 586 085.

3502 ESQUAL VM1 EUROPA



Esqual VM1 Europa, 6cyl Jabiru 3300 engine (125hp) - 178hrs only. Excellent Condition - Leather Interior, Always hangered, Garmin GPS, Rego 19.3839, \$90,000 (No GST) Contact Jim on 0407768701.

3504 JABIRU J 250



Jabiru J 250 Rare US model with fatter wings and low stall speed. Great aircraft to fly with low approach speed but still will cruise all day at 110-115kts. Factory interior, David Clark NC headsets, 196Gps and other spares including wing and Fuselage coverings. Contact Anthony at catalpa2@wideband.net.au. Offers over \$70,000

3509 AIRBORNE 912 TOURER



Airborne Xt 912 Tourer
2007 Model 480 Hrs
Streak 3 Wing Excellent
Condition Microair 760
VHF Radio Helmets
With Lynx Headsets/
Intercom Punkinhead
Covers Full Service
History RAA Reg Exp
APR 2014 \$38,000
kenj@jelfor.com.au
0412512457

3510 JABIRU J160-C



Jabiru J160-C 24-5111 in very good condition, always

hangered at Bathurst. TT448 hours \$58,000 ono Ph 0402497671

3514 SONEX TD & HANGAR

Sonex TD with solid lifter Jabiru 2200J 275 hours, Patroni prop, 10" wheels, Garmin296, ELT, two spare canopies. Internally corrosion-proofed when built. Professional pilot owner has flown it to Tassie. \$32500. Also insulated hangar with concrete floor at Kilcoy \$36000. Or make offer on both. 07 5445 7362 arvicola.amphibius@hotmail.com

3515 STAND OUT FROM THE CROWD



Only Dova Skylark flying in Oz. Flies as good as it looks. Factory built, All Metal. Rotax 912ULS. 425hrs. Cruise 110kts+, Stall 36kts. Avmap EKP-IV colour GPS, Icom A-200 radio, Garmin GTX320 transponder. L2 owned & maintained. Cost to replace \$140k, asking \$85,000 inc GST. Can deliver. Phone Mick 0419123933

3516 WANTED AIRCRAFT TO CROSS HIRE

Syndicate in Deniliquin looking to cross hire a 24 registered RAA aircraft. All tri undercarriage types we be considered. Aircraft will be kept in a hanger in Deniliquin. Members have 100+ hours on Jabiru and Tecnam aircraft. Contact Bruce 0418599341 bscott@deni.net.au

3521 JABIRU ENGINE

3300 6 cylinder Jabiru motor - Feb 2011, Total 54 hours, Propeller and spinner included, Packaged in a Jabiru box, Reason for sale - changed out motor for another engine \$12,000 plus GST Contact Roger 0899430548

3523 JABIRU LSA



Jabiru LSA Factory built 1998; TT 765hrs; Recent paint; new windshield; Big Wheels; Basic Panel; GarminGPSMap196; I-com VHF; UHF; Located Gladstone QLD; \$30000ono; Ph 0749756790; Mob 0400317085; rdgram86@yahoo.com.au

3524 STORM 300



Ultralight Storm 300 two seater Aluminium aircraft . 7 hour endurance, Rotax 100 hp engine. Wood Comp variable pitch constant speed prop. Engine recently gone through full 100 hourly maintenance as per RAA requirements. VHF icom radio, Verticle speed & turn coordinator 2 cylinder head temps 2 exhaust temps. Bill 0428176172 \$55,000

3526 X-AIR



X-air Standard .Reg 19-3322. Rotax 618. Brolga prop. Zip up doors. Luggage compartment. Full instrumentation with digital compass. X-com radio with intercom & two headsets. Spats not fitted but included. 252 hours TT airframe & engine. Full maintainance log. New Battery. Always hangered & covered. Excellent condition. Peter 0402599306 \$19,500

3529 JABIRU SP 500/6



One owner, always hangered, nil accidents, assist built Bundaberg. Fresh from 500 hrs top-end overhaul at Jabiru. New fine-finned heads, through-bolts, engine-mounts, induction system, full airframe check. All AD's completed. Over \$10,000 spent. Microair radio, transponder, JPI fuel-flow, Avmap GPS. 10ply Tyres. Quick sale price \$47,000 Lismore, NSW, john@jiggi.net Ph John 02 66888231

3531 JABIRU POWERED BOORABEE MK 2



Fresh Breeze Xcitor
Australian Promotor

LoveFlight.com
Robin Lowe 0417 237 285

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MTOW 255kg - Payload 135kg - Engines: 23-50hp
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Cruise speed: 80-110kts depending on hp

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Email: info@horshamaviation.com.au

Good local and cross country flyer. 100 litres of fuel (in the wings) at 15 litres per hour. Would deliver to anywhere in NSW or Victoria. 2 seats and all the usual instruments. Good looking aeroplane that has been a past prize recipient at RAA events. \$19,500
Phone:0408690738

3532 SONEX



2004 SONEX \$37,500. Total Hours: 52. Engine: 119 Hours. Serial number 119. GP 2180 engine, with current Full Registration. Sensenich Prop, MicroAir, Garmin GPS, good array instruments 60 litres, 15LPH, 110 Kts. phone 02 6955 2655. Located near Naranderra NSW.

3534 JABIRU 160 IN WA



2007, always hangared, no accidents, no hard landings, vgc in/out, custom seats, LAME maintained, 890TT, 200TT on new thin finned engine, Dynon D10A EFIS, Garmin 296 GPS, Microair COM & TXP/C. Must sell due to new aircraft arriving. View and fly in Albany WA. \$55,000 incl GST. Ralph Burnett, 0427200673, burnett@comswest.net.au

3535 DEMONSTRATOR PIONEER 300 KITE



Demonstrator Pioneer 300 Kite aircraft with fixed undercarriage registered May 2013, Rotax 100HP ULS engine, 3 bladed ground adjustable DUC Prop, 112 litre fuel capacity, 115-120kts at 18 litres/hr, toe brakes, GA gauges, AvMap IV GPS, Garmin SL40 radio, Garmin GTX 327 Transponder, D10 EFIS system. \$call for price Peter 0408 444 335

3536 JABIRU 2200 ENGINE

Solid lifter motor -250 hours still in plane -always run Amsoil synthetic oil-complete installation kit (air box, cht egt -sweetapple 58d 48p propeller etc). This is a good motor, only selling to upgrade to larger motor. Phone John 0409 308 232 for more details. \$7000.00

3538 PIPER J3C-65 CUB



Built 1944, TTIS 4070 hrs, powered by a 65 hp Continental A65-8 engine. USAF designation L-4H, affectionately titled the 'Grasshopper', Genuine warbird. It is in VGC, is a delight to fly and is inexpensive to operate. Suitable for converting to RAA registration. Located Victoria, ph Dave 0402 042 015 \$53,000

3540 CORBY STARLET



Corby Starlet Total Hours: 346 Engine Hours: 346 Rego: 28-1976 Price: \$28,000 Posted: 21 Jul 2013 Mosler 1835 cc motor 65 H.P. with injector throttle body has ICOM VHF full maintenance log always hangared delight to fly located Serpentine W.A. contact Tony 0433 33 77 33 or tony.mitchell1943@bigpond.com

3545 BRUMBY 610



Brumby 610 highwing, Lycoming O233, Dynon D100 and Autopilot, Backup steam gauges, Microair radio and transponder, CHT, EGT, Fuel flow, LED lights, Large wheels, sensenich prop, Yoke not stick, 140ltrs = 6hrs endurance, 100 hour completed Price \$130000 steve; 0412621212; steve@liftrucks.net.au

3547 SKYFOX GAZELLE CA25N



Skyfox Gazelle CA25N Reg. 24-3569, Lamey maintained, 80HP Rotax, 912A powered, Bolly 3 bladed prop fitted, folding wings, Factory fitted GPS, Total hours = 1919, Engine hours = 1350. All ADs up to date. Hangared at Tyabb Victoria. Priced to sell at \$33,000.00 Contact Roger 0419 891 431.

3548 JABIRU J160



Hangared in Bundaberg has 2 x Icom radio's 1 com system Garmin transponder Efix Altimeter Airspeed VSI (vertical speed indicator) Tacho Oil pressure Oil temp CHT (cylinder head temp) Volt Cargo door call Rod 0747485502 \$50,000.

3551 JABIRU 230D



Jabiru 230D, '09, Factory, TTIS 360hrs. Reg 8/14, own hangar, immac as new, L2 LAME maint, Red leather, EFIS D100, AVMAP EKP IV GPS, 2axis AP, Microair VHF & Xponder, remote ext plug, MP3 music, full covers nose to tail, wing strobes, all updates, new prop, rotors & pads, MLG wheel bearings, many spares. \$98,000 incl GST, 0419555726

3552 JABIRU J230-D 24-5490



Factory built 2008, Airframe & engine 94hrs, Maintained every 25hrs, Nil accidents, Analogue instruments, Icom IC-200 radio, Garmin GTZ-320a transponder, Booster seats, Sensenich prop, Garmin 295 GPS. Always hangared & runs great. Contact Kevin: 02 4283 2671 or 0408 427 458 Email: kaybee@exemail.com.au \$85,000

3553 JABIRU-400 IN WA



J-400 \$76000 Built & maintain by L2 Jabiru builder. Excellent condition. No accident. No hard landing. Only 160hrs airframe and engine since new. Always hangared. Invest \$86000 include wingtip lamp king transponder, vacu system, Garmin GPS with beautiful sea oak panel. It has been 2 pack painted by professionals and upholstered Steve Hancock stevehancock10@bigpond.com 0400722035

3554 THATCHER CX4



Thatcher Cx4, - Single Place, Completed May 2012. Second Of Type To Fly In Aus, 1915Cc VW Engine, Starter, Alt, Magneto & Sec Ignition, Sweetapple Prop, Tinted Sliding Canopy, Disc Brakes, Strobe, Strong Undercarriage & Full Castoring Tailwheel, Great To Fly, Offers Invited, Details Call Kevin 0448856983 (Qld) (No Texts Please).

3555 WANTED TWO PLACE TRAINING AIRCRAFT

Phoenix Aero Club, Camden seeks expressions of interest from owners of 3 axis RA-Aus Approved Two Place Training Aircraft who would be interested in Cross Hiring their aircraft for use by the flying school. Please call Greg Cox on 0422 390 191

3556 CFI REQUIRED

Phoenix Aero Club, Camden seeks expressions of interest from a suitably qualified person interested in the position of RA-Aus CFI. Senior RA-Aus or GA Instructors who have the necessary experience to qualify as an RAA CFI are also encouraged to apply. Please call Greg Cox on 0422 390 191.

MEMBERS' MARKET PRICE LIST

TEXT ONLY \$15/month
TEXT AND PHOTO \$30/month

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 web: www.caboolturerecreationalaviation.com.au

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The only insurance we handle is aviation, we do it well, and we are both friendly and economical to deal with!

We can help you select appropriate cover for your needs and we will obtain competitive quotes for you from the various insurers with whom we are accredited.

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Good bank rates, normally fixed over 5 years.

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3557 WANTED - WINGS OF AMERICAN A/C CHAMPION

Wanted- Wings of American Aircraft Champion, or other models. Don't want the fuselage. Think Aeronca is the same? Advise location, price and condition of wings. Phone Ron - 02 6682 6599 has answering facility please leave message.

3558 2008 AIRBOURNE XT-912 TOURER



Streak 3 Wing 412 Hours And Base 515 Hours Included Is, Large Windscreen, Bolly Spinner, Engine Cowl, Microair M760 Dual Com Radio, 1 Near New Microavionics Helmet And A Garmin Aera 550 Gps.

Always Hangered, Excellent Condition. Registered Trailer At Extra Cost. Located In Albury Nsw. Phone 0416657705 EMAIL heinjus1@hotmail.com \$36,500

3559 WINTON SPORTSMAN 95-10



Cruises at 60 kts hands off. Easy soft landings with its low wing. Very reluctant sale by elderly owner. Registration just expired 5 August 2013. Hangared at Cobram Victoria. \$5000. Phone Ray 03 5872 2219

3561 AUSFLIGHT DRIFTER W/B CERTIFIED



ausflight Drifter w/b Certified 582 bluehead oil injected long range tanks radio eng 131 hrs good cond easy to fly contact Lindsay . boydli@inet.net.au . 0414586255 \$15,000

3563 AIRBORNE EDGE X CLASSIC



3563 airborne Edge X Classic Build Year: 2004 Total Hours: 177 Engine Hours: 177 Rego: 32-4402 Price: \$14990 Posted: 06 Aug 2013 Airborne Edge x Classic Streak 2 wing. 582 blue head with oil injection. stone guard, dust cover.

standard gauges,Maintained by level 2. Located at Redcliffe QLD PH 0427288298

3564 RANS S12S SUPER AIRALE



Reduced to Sell - Multi award winning. 1 Owner/ Builder, Rotax 912, 430 hrs, 2 seat side by side, Lots of extras, Nil accidents, Garmin 196, Stol performance. Great plane. \$40,000. For more info & photos Phone Brian 0418 802 002

3565 HANGAR FOR SALE



5 year old,12mtr by 9 mtrs, 2.4 mtr door height. Crushed rock floor. power connected. Folding doors, 4 skylights. Located Colac, 45 minutes Gelong and Surf coast, 1.5 hours West gate bridge. Only 1 hangar site remaining at Colac airfield. \$28,000-00 ono. 03 52338244

3566 SONEX



Plans built Sonex. First flight Dec 09. 95 hours engine and airframe. Stratomaster Maxi single instruments, ICOM radio, separate analogue ASI, Cruise 90-95 kts@16 l/hr. Aerovee engine. Located Colac airfield . \$35,000-00 no GST. Phone 0352338244

3567 SAVANNAH ROTEX



100 hp.TT 125 hrs.Long Range fuel tanks 150lt.Cab heat.Strobe landing lts and nav elect trim VHF,HF,UHF all engine inst 2 Garman GPS Fuel flow meter 172 tyres Lock doors Vortex generators All latest upgrades.Full service history lamee maintained.\$49000.00 ono my email 999space@gmail.com send me ur landline Alby - 0405747594

3568 JABIRU 230



Share in J 230 reg 19-7150 hangared at Murray Bridge. 85hrs TT Xcom radio, elect flaps, standard gauges, Garmin 296, full strobes, lambswool seat covers, CHT on all cyl. , cabin heater & Trutrak attitude 85 hrsTT price neg. Mike 0438 400 601 Graham 0400 144 282

3569 SUPERCAT LOOKING FOR GOOD HOME



Supercat 10-1387 for sale, new Rotax 447 engine at 196hrs with full original builders information, three blade brolga and UHF. Located in Townsville, aircraft currently unregistered but for sale, as is, where is. Good first aircraft. \$7000.00 or nearest offer. Contact Chris 0412421040 Topfun1@bigpond.com

3570 TERRIER 200



TERRIER 200 Lycoming 0235 740hrs mcauley all prop. 20hrs. full dash adj. seats strobe. afi fuel, Lorraine air map, e/trim dash & forward, 152 cesna transponder and encoder always hangered. . I am 78 with heart problems this is not a toy aeroplane must sell \$65,000,00 ono 07 40669049

3572 TECNAM EAGLET



2009 Tecnam Eaglet, \$100,000 Arriving Sydney Oct/ Nov 2013 after completing a flight from Europe. See www.ridingtheskies.com Will have approx 720 TT upon arrival in Australia. Owner/pilot is looking to sell in Australia rather than ship back to Europe. Good avionics and panel. See on-line add for more photos. Contact roberto.b@publiccolorslr.it

3573 TEXAN TOP CLASS



2006 TexanTopClass 100, \$100,000 Arriving Sydney Oct/Nov 2013 from Europe. See www.ridingtheskies.com Approx 380 TT upon arrival in Australia. Owner/pilot is looking to sell in Australia rather than ship back to Europe. Good avionics and panel. Flight controls on right hand side. See on-line ad for more photos. Contact roberto.b@publiccolorslr.it

3574 THE GREEN HORNET



The Green Hornet is a 2 seat side by side all metal aircraft. TTIS:268hrs Built 2006 Cruises 80 Knts carries 80 ltr fuel. equipped with ASI ALT Microair VHF Rotax engine gauges. powered by 100HP rotax with warpdrive prop asking \$65000 very negotiable contact Alan on 0429461569

3575 DRIFTER 582

Austflight wire braced Drifter, Royal blue with matching wings, upright engine mount, Rotax 582, Brolga propeller, "big boy" cockpit, electric prime, wheel fairings, repainted & new wing fabric some years earlier so looks good. Engine 130hrs since o/haul, new crankshaft, pistons, rings, bearings etc. Only \$13,900. mail@goflying.com.au

3577 IVO INFLITE ADJUST 3 BLADE PROP

As brand new, Ivo magnum inflite adjust, with constant speed gov as well. 74" 3 blader. Was trialled for 2 hrs max, not suited on a gyro that cruised at 60kts best. \$3300.00 neg. Contact Russ 0418 276 747

MEMBERS' MARKET

3578 REFURBISHED 503 MAXAIR DRIFTER



650hrs, 19-3443, Refurbished by Wayne fisher at start of year, new skins, new 69l fuel tank, new tail post and wheel and landing gear. New Icom radio fitted selling with new microavionics helmet with builtin headsets located dalby, good condition, great fun to fly QLD \$12000 Jamie 0448610103 jamiefbacon@hotmail.com

3579 CARBON CUB SS 180HP



Carbon Cub SS by Cubcrafters Inc, 100 hours, ready to fly away. 180 hp, optioned up, you will never get one at this price again. Tough, Safe, Powerful, and most off all FUN. Come and fly the most exciting cub ever, Tyabb Victoria. Call 0414 444 971 WWW. cubaircraftaustralia.com.au \$230,000

3581 EVEKTOR SPORTSTAR 2004

'Dimples' Certified aircraft not LSA, 24-3978, TT 1100 hours. 912 ULS 100hp, Kaspar In-flight adjustable prop, Adjustable rudder pedals, MP3 plug, Garmin 196, Tru Trak ADI, Bendix King Radio and Transponder, intercom, cabin covers, Aircraft tyres, Koger sunshade, 105kt cruise, excellent condition, SLIGHT hail damage. \$62,000 Ross 0412 484 279

3582 JABIRU 230 D 2007

190 hours, Factory Built, 24-5221 Private use, excellent condition, transponder, vertical compass, FS-450 Fuel Flow, Garmin 296, MP3 plug, External power socket, Always hangared, regular maintenance, recent new battery, 10 ply mains tyres, Spats included but not fitted. clean, faultless. Bargain Price \$72,000 Ross 0412 484 279

3583 SAVANNAH 19-4189



Rotax 912 ULS 100hp TTIS 380hrs engine and airframe. New 3 blade warp drive prop. Factory modified undercarriage. Large tundra tyres. Double wing struts. Upgraded to 560kg MTOW. L2 maintained. Standard instruments plus electric turn and bank gauge. Garmin 196 GPS. Xcom VHF radio and intercom. NIL accidents always hangared. Inspect at Euroa Airfield Vic. Phone Joe 0427941072 \$52,000 ONO

3584 AIRBORNE EDGE 582 S2B WING



reg. 26/07/14. Fitted with new Streak 2B wing (comes with original executive wing also). Ebox, ivo3bld, a/c, radio, intercom, helmets, stone guard net, saddlebags, vinyl pod, eng & prop covers

std instruments new front tyre & wheel brngs, new fuel pump & s/plugs. S2B wing has <10hrs. Full maintenance log from new. Mounts on to registered trailer, included. Phone Robert 07 4941 5411 \$12,000

3586 THRUSTER T300

NO ENGINE. Icom IC-A210, king mode C transponder, electric DI, sigtronics intercom installed 31/5/13. (Cost \$6000). Last flew 27/7/13. Needs new main springs pod repair and new windscreen. \$7500 as is, \$5000 no avionics, or \$16000 repairs done and a new rotax 582. Ring Matthew on 64962997 or 0410208111 allenmf@optusnet.com.au



3587 AIRBORNE OUTBACK TRIKE

Tundra, Year: 2004
Total Hours: 248hrs,
Price: \$20,000. Rotax 582 blue head, Streak 2B wing, new 3 blade tuff edge Bolly prop,

trailer, heaps of accessories, helmets, intercom and radio, GPS, 3 flight suits much much more. All in excellent condition Very regretful sale. Robinvale, Victoria, Trevor, phone 0457279673

3588 SKYFOX CA22 (CASA CERTIFIED)



Built - Dec 1992. Rotax 912A. CASA certified. 1272 TTIS. ADs completed. Full panel, Bendix-King VHF, Uniden UHF radio, Garmin GPS-100AVD and fuel-flow meter. Bolly ground-adjustable prop. Wings fold for storage - 10 minutes setup. Nil accidents/training. CASA certification documents. Bannockburn, Victoria. \$30,000 (negotiable). Nick 0419 305 554 or nick@vk3ty.com.

3590 INSTRUCTOR NEEDED

Senior Instructor for sport aviation flight training needed for our flying school located north west of Melbourne. We need a capable, reliable, personable senior instructor available 2-3 days pw (including min 1 weekend day). AirSports Flying School (03) 9744-1305.

3592 NOOSA AIRSTRIP PROPERTY



Noosa Airstrip Prroperty Modern 560sqm designer residence with pool on 10 acres. Aircraft hangar (15x18m) with self contained unit, office and workshop. Access (Easement) to 850m and 600m airstrip and taxiways . 35 min. drive to Noosa main beach. Contact : tschoenh@bigpond.net.au 07 5485 3034

3593 LIGHTWING TAIL DRAGGER PLUS TRAINING



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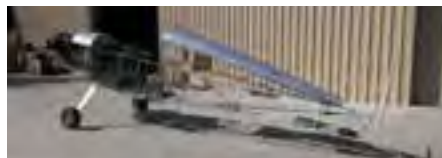
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.25.
years ago
 by Mark Clayton

1988

SEPTEMBER/OCTOBER



THE magazine had some timely advice which is relevant today.

Plug those holes

'When your plane stands idle for weeks, days or even hours, there are certain orifices that should be covered or plugged.

The Pitot Tube or the Airspeed Indicator and the overflow tubes on the carburetors are such orifices.

There have been instances where spiders have built webs over the Pitot Tube or moths have laid eggs there or a hornet her nest.

Much to the dismay of the pilot who got aloft and found the Airspeed Indicator was not working properly or working at all.

More seriously, the carby overflow tubes that allow little mites access to the carby bowl.

In one instance, an earwig found its way into the bowl and lodged in the main jet, causing an engine failure and subsequent fatal crash. Hornets and other creatures love to build nests in any unblocked structural tubes as well. Your muffler is not sacred either, although the heat will probably give the resident second thoughts. However it is better to block it and keep out any keep out any foreign matter. The Altimeter vents are other places to keep in mind.

So when your plane is parked take preventative action and in the interests of safety, your safety, plug up those holes.'

Federal Council

A report on the Federal Council meeting in Brisbane had some good news about 96.10

'Its future looks quite bright. An airworthiness standard has been adopted which will allow this type of aircraft to be tested and checked at very minimal cost, to enable the owner to sell on if he wishes. Based on type approval, this will free up the situation as we know it.

Building your own 95.10 aircraft will be made simpler for you too. It is the intention of the Federation to be able to make readily available certain components that would otherwise be extremely difficult for the average builder to construct.'

PILOT NOTES

THE FOG AND THE OIL GAUGE

by Rob England

HAVING survived one 'no-noise' incident into rough country with minor aircraft damage and no personal injury, I continue to always keep an eye out for possible forced landing sites. I'm not paranoid about it, but always feel better when unavoidable passages over tiger country, water, or ground blanketing fogs are behind me - i.e those areas where the engine invariably seems to sound different.

In the course of my business, I make two regular 1.3hr commuting flights each week - weather permitting. Straight line flight to my destination would take me about seven miles out over the sea, but being a dry feet sort of fella, I always opt for taking a little longer, and fly within gliding distance of land.

Recently my departure for one flight was delayed due to ground fog, forecast to clear by 0900 at my destination. There was no fog at my departure point, but I delayed departure until 0850 to allow clearance further south.

After gaining cruise at 3,500ft, the trip unfolded uneventfully, with rapidly clearing light fog off to the east, and a heavy blanket of ground fog becoming obvious further along my route. With expectation this would also clear, and with clear vision to at least four alternate landing grounds and a light easterly breeze causing the fog to break up while also moving the decaying blanket away from my destination, I pressed on over the fog.

Suddenly I watched the oil pressure decay, rapidly falter, and then drop to zero. This was not meant to happen to my 85 hour new Rotax.

I brought the power back to extend the life of the engine; trimmed for maximum powered glide distance; checked the gauges and noted them for reference to determine any progressive alterations; I removed one headphone ear piece to better hear any changes in the engine; turned up the smell sensor to pick up on any hot oil smells; and noted the time. Then a glance outside to determine the status of the fog - even though I was well aware of it. At least 40kms of fog in every direction,

completely blanketing many known suitable forced landing sites, but also hiding trees, fences, power lines, houses and the ground surface - landing was not an option.

Three minutes passed with no destructive noises and the gauges remained unmoved. Then suddenly the oil pressure needle rose to the top stop on the gauge, indicated maximum pressure for 30 seconds and then it dropped to nothing again.

Five minutes passed and there were no more unusual gauge changes.

After seven minutes, I was beginning to think it may have been a gauge or pressure sensor failure.

After 10 minutes, I was down to 1000ft AGL, and with no further evidence of an engine problem, I fed in a little more power and held altitude at 60kts. A look outside told me I was about half way to the edge of the fog but it appeared to have begun reforming right over my destination.

I diverted, but five minutes later could see the fog was starting to break up again, so I changed track back to my destination which remained the closest landing ground.

After 23 minutes had elapsed with no new noises or other unusual gauge movement I made a normal approach and landing.

It turned out to be a faulty oil pressure sensor. What is the lesson?

If I had opted early to take a less direct route over the eastern edge of the fog, my emergency landing options would have been available within gliding distance.

If there had been no engine problem, it would have only added an extra 10 minutes to the flight. If there had been a problem, I would have had paddock landing options available, and under this scenario, I would have shut the engine down (presuming the pressure gauge to be correct) and undertaken a forced landing - hopefully with a good outcome for plane and occupant. Definitely a better outcome than would have almost certainly been the case had the engine actually failed while I was over fog.

Source: ATSB

3

The accident rate of amateur-built VH registered aircraft is **THREE** times higher than comparable factory-built certified aircraft conducting similar flight operations.

20%

The percentage of pilots with fewer than 10 hours experience on an amateur built VH registered aircraft type which has been involved in an accident.

5

The fatal and serious injury accident rate in amateur-built VH registered aircraft is **FIVE** times higher than similar factory-built aircraft.

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HAPPY LANDINGS

A big year for Nic

by Fred Nolan

I THINK I may have something quiet unique for RA-Aus.

Nic Gartshore started with me as a 14 year old and recently achieved his Cross Country endorsement at 15 years old.

In reality, he went solo on his 15th birthday on August 20, 2012, achieved his Pilot Certificate two months later and his Cross Country endorsement in August this year.

This, I believe, is a significant achievement for RA-Aus, a triple qualification and all accomplished in Nic's 15th year.

I'm not sure how many of our young achievers have managed to do all this, but I guess it is not common.

Nic carried out his final solo Nav flight flying from Moree to Narrabri/Coonamble/Walgett/Lightning Ridge/Moree, (landing at Coonamble and the Ridge) on August 11.

He plans now to proceed towards his PPL and CPL licence using his family's Cessna 172XP.



>> Above, Nic with his parents Bernie and Fran Gartshore after landing at Moree at the completion of his solo nav exercise



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