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*For recreational pilots* FEBRUARY 2014 VOL 31 (13)



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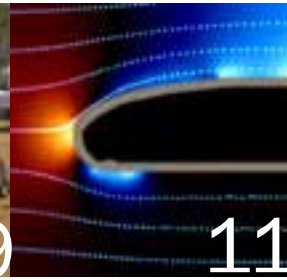
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>> Cover Photo: A perfect way to spend a perfect day. Take off from Temora NATFLY 2013. Photo: Steve Kimpton



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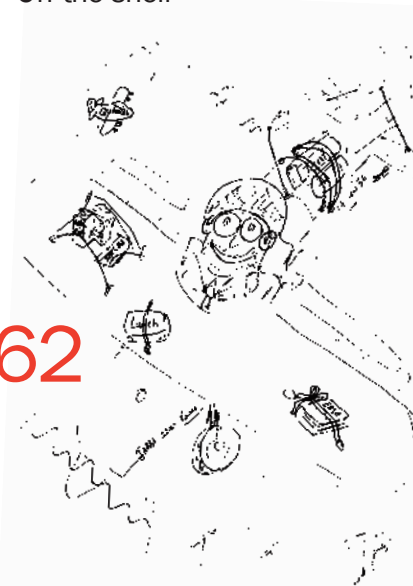
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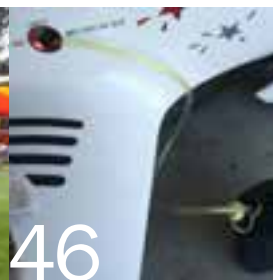
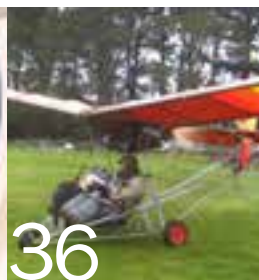
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## STAMPILS PUBLISHING

All Enquiries Ph: 1300 838 416  
7/1 Grandview St, East Ballina NSW 2478

## EDITOR

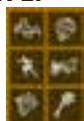
Brian Bigg [editor@sportpilot.net.au](mailto:editor@sportpilot.net.au)

ADVERTISING SALES [admin@stampils.com.au](mailto:admin@stampils.com.au)

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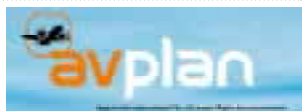
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national: (02) 6280 4700  
fax: +61 2 6280 4775  
Email: [admin@raa.asn.au](mailto:admin@raa.asn.au)  
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**ASIC:**  
[asic@raa.asn.au](mailto:asic@raa.asn.au)

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ABN 40 070 931 645

## RA-AUS BOARD ELECTED STATE REPRESENTATIVES

### TASMANIA

Eugene Reid  
0428 824 700  
[tas1@raa.asn.au](mailto:tas1@raa.asn.au)

### NEW SOUTH WALES

Paul Middleton  
0428 625 818  
[nsw1@raa.asn.au](mailto:nsw1@raa.asn.au)

Michael Apps  
0412 435 198  
[nsw2@raa.asn.au](mailto:nsw2@raa.asn.au)

Michael Monck  
0419 244 794  
[nsw3@raa.asn.au](mailto:nsw3@raa.asn.au)

### NORTHERN TERRITORY Election Pending

### SOUTH AUSTRALIA

Ed Herring 0408 787 018  
[sa1@raa.asn.au](mailto:sa1@raa.asn.au)

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## General Manager

Mark Clayton  
(02) 6280 4700  
[gm@raa.asn.au](mailto:gm@raa.asn.au)

## Administration Coordinator

Maxine Picker [admin@raa.asn.au](mailto:admin@raa.asn.au)

## Operations Manager

Jill Bailey 0400 280 087  
[ops@raa.asn.au](mailto:ops@raa.asn.au)

## Technical Manager

Darren Barnfield 0417 942 977  
[techmgr@raa.asn.au](mailto:techmgr@raa.asn.au)

## Assistant Technical Manager

Dean Tompkins 0428 868 418  
[techa@raa.asn.au](mailto:techa@raa.asn.au)

## National Safety Manager

Katie Jenkins 0418 445 652  
[safety@raa.asn.au](mailto:safety@raa.asn.au)

## NORTH QUEENSLAND

Ross Millard 0422 119 051  
[nqld@raa.asn.au](mailto:nqld@raa.asn.au)

## SOUTH QUEENSLAND

Trevor Bange 0429 378 370  
[sqld1@raa.asn.au](mailto:sqld1@raa.asn.au)

Mike Smith 0418 735 785  
[sqld@raa.asn.au](mailto:sqld@raa.asn.au)

Tony King 0400 226 275  
[sqld2@raa.asn.au](mailto:sqld2@raa.asn.au)

## VICTORIA

Rod Birrell (President)  
(03) 9744 1305 [vic1@raa.asn.au](mailto:vic1@raa.asn.au)

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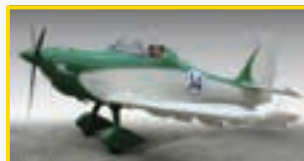
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Please do not submit articles regarding events that are the subject of a current official investigation.  
Submissions may be edited for clarity, length and reader focus.



# President's Report

**ROD BIRRELL**

## *An impressive standard*

THE AUF/RA-Aus has grown to become Australia's largest sport aviation administration organisation. Uniquely, we have our own pilot training system with certificate issue, aircraft administration with our own registration system, an accident investigation program, a well-supported magazine and our GYFTS scholarship fund. By world standards it's impressive.

Where do we go from here? The cost of maintaining a system acceptable to CASA is ever increasing, yet the funding available to us has stayed virtually static in real terms over many years. We constantly need to look for ways to become economically more efficient.

The Board is aware of the need for reform, even of itself - the size and make-up of the Board is under consideration as is our plan for the future. Most Board members agree that the current level of 13 should be reduced, but most expect their own seat should be the one to stay. We could adopt a business model and not have regional representation at all. The problem with that is that the Board is not solely a business entity - designed and structured to make money. Rather it's also about making policy decisions to determine where we will be in the future.

In order to put through the correct constitutional changes we need to know where we are going and this takes time. RA-Aus has two major functions - we act as a representative organisation, looking after the interests of pilots and aircraft owners. In addition we carry

out office functions, issue of pilot certificates, aircraft registration, ASIC card management, magazine production, insurance, and a raft of other duties.

We have grown large enough to consider using our capabilities to support other organisations. There are nine sport and recreational aviation bodies in Australia at the moment and

services managed along normal commercial lines. And a second section, managed much as it is now following our own goals, including managing special projects and developing policies. We would all benefit from sharing the load and the cost savings of an efficient back end service provider.

For your consideration, in regard to a Board restructuring, my recommendation would be three members elected by all RA-Aus members nationally and four others selected by region, based on current electorate member numbers: Qld, NSW, Vic & Tas, WA SA & NT.

On another matter - and this is important - current CASA proposals include compulsory biennial aircraft inspections and exams/checking for all Level 1 maintenance certificate holders. The initial proposals did not fit well with RA-Aus. We hope to come up with a mutually agreed solution. More on this next month.

I would also like to introduce and welcome the new team of managers. Jill Bailey is well known to you. She has taken over the role as Operations Manager after Zane Tully left to take up a position with CASA. Darren Barnfield has taken up the position of the Technical Manager and Katie Jenkins has taking up the position as our National Safety Manager. She will be responsible for introducing and maintaining the RA-Aus Safety Management System. Please give all of them the support they need to do their jobs looking after RA-Aus and its members. 🍷



*We constantly need to look for ways to become economically more efficient*

we don't all need duplicated versions of basically the same office functions. If we can offer that service to the other organisations at the right price we can increase the economies of scale for our organisation and theirs.

If we proceed this way, our own constitutional reforms become much clearer. We would have a service provider section (perhaps in time it could even have a different name), with



## Notice of General Meeting

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

In accordance with Rule 24 and By-Law 2, notice of this meeting is being published in *Sport Pilot*.

**Time:** 11a.m.

**Date:** Saturday 20th April 2014

**Location:** Temora Airpark, 22 Tenefts Street, Temora NSW 2666

Michael Monck  
Secretary

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0429 639 770  
smokeysmail@bigpond.com  
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# Calendar of events

WHAT'S ON



## Second Saturday of each month

### Burnett Flyers Brekky

The flyers at Historic Angelfield, south west of Murgon, QLD, put on a large hearty 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](http://www.burnettflyers.org), email [burnettflyers@yahoo.com.au](mailto:burnettflyers@yahoo.com.au) or Ralph or Deb on (07) 4168 6248.



## 15-16 February

### Cobden Aero Club Fly-in

BBQ lunch available. Camp under wing or explore accommodation options on our Facebook page which will also provide updates. Avgas available. For more information, Warren 0428 024 633 or email: [cobdenaeroclub@gmail.com](mailto:cobdenaeroclub@gmail.com)



## 2 March

### Busselton Aero Club Aerofest

Arrivals Sat March 1 and Sunday March 2 (Sun before 10am preferred)  
Sat evening BBQ and live music. Big family day. Inspection of emergency services aircraft and helicopters, hangar displays, model aircraft, classic cars, food and drinks. Supports Royal Flying Doctor and local groups. For more information, Will Owen 0429 098 032, Ken Manton 0429 967 172 [ken.manton@bigpond.com](mailto:ken.manton@bigpond.com) or visit [www.busseltonaeroclub.com.au/aerofest2.html](http://www.busseltonaeroclub.com.au/aerofest2.html)



## 9 March

### Darling Downs Sport Aircraft Assn. Inc. annual Fly-in at Clifton Airfield (Bange's)

This fly-in has become an iconic event in the region and is the premier attraction for all types of aviation in southern Queensland. See various recreational, ultralight and homebuilt aircraft. Come late pm Saturday 8 for BBQ and drinks. On-field camping, bring your swag. Advise for catering. For more information, Trevor Bange 0429 378 370 or (07) 4695 8541. Email [trevorbange@bigpond.com](mailto:trevorbange@bigpond.com)



## 4 May

### Isis Flying Club

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# LETTERS TO THE EDITOR



## Fully sick

I flew in New Guinea for about 20 years during the 1970's and 80's. After reading the article entitled 'In Sickness and in Health' (*Sport Pilot* June 2013), I dug out a poem I wrote during my time as a missionary pilot.

"I Wish They Wouldn't Always Throw Up In My Plane".

I really love my flying  
I sometimes feel like an ace;  
That's until my passengers  
Start chucking up all over the place.  
I've had people throw up on the floor,  
Some the seats do soak.  
Others flood the seat belts,  
Which are hard to clean and that's no joke.  
A neighbour's feet or father's lap  
Or hands, which work like a funnel;  
I even had one little missionary kid  
Throw up on the panel.  
One local out of Gimi  
A seasoned flyer he was not.  
When he couldn't hold it any longer  
Used his T shirt to catch the sloppy lot  
His T shirt did a splendid job  
I must give him credit where it's due  
That is until the solids stayed  
And the yuk came sieving through.  
If you think you're going to lose your lunch  
Try to be a little bit neat  
Please use the sick sacs provided  
In the pocket behind my seat  
And when we get back on the ground  
Throw the bag down the drain  
I really don't care where you put it  
Just get it out of my plane.  
I hate it when I'm unloading  
When shoes, socks are all in a bunch  
I reach under a seat  
And bring out a bag of someone's bought up lunch.  
One of these days I'm going to get even  
I'm going to get my own back  
Yeah, I know, I think I'll  
Cut a hole in the bottom of their sack.

David Rowe

## Myths examined

To Mr Bisshop (The myth of curved wing surfaces creating lift - *Sport Pilot* October 2013)

Thank you for your note on whether or not curved wing surfaces are necessary for the creation of lift, but I fear your explanation may have muddied the waters on this topic. You have failed to give sufficient credit to the critical factor of Angle of Attack.

The Angle of Attack is part of the definition of the shape of the aerofoil, so if the AOA changes, the flap is lowered (or raised) or a slat is extended, aerodynamically it becomes a different shape, which will generate a different point on the

graphs of CL, CD, and Cm against AOA.

The lift from a real three dimensional wing being used to support (and manoeuvre) an aircraft in the real sky depends on a number of other factors as well - wing tip effects, aspect ratio, taper, wash-out, change of Reynolds Number, surface smoothness etc. The lift force can be measured on the aerofoil in the wind tunnel by integrating (summing) the varying pressures all around the aerofoil. These all change in proportion to the free-stream dynamic pressure which was first defined ( $\frac{1}{2}\rho v^2$ ) by Mr Bernoulli when he identified the two parts (static and dynamic) of the total pressure in an airstream, so the total lift force is the summation of all the little bits of 'Pressure x Area' all round the aerofoil. If you see a pressure plot round an aerofoil (which is creating lift), you will find the drop in static pressure (suction) round the top surface of the leading edge is far greater than the change of static pressure anywhere else. Think, if the upward pressure distribution was triangular between leading edge (LE) and trailing edge (TE), the centre of lift would be at 1/3 of the wing chord, but it is not. For a lifting aerofoil, it is usually at about a quarter of the chord back from the LE. This is because of the high suction peak at the LE. If the AOA is changed, the pressure pattern changes, if the AOA goes negative, negative lift may well result. This is how aircraft can fly upside down.

The curvature also has the function of streamlining the wing section; often the streamlining is added about a curved chord line. A flat plate used as an aerofoil has a very small tolerance for variation of AOA, in fact it can suffer separation behind the LE at an AOA of only two degrees to the free stream, compared with over 12 degrees for a typical 12% thick lifting aerofoil, (say Clark Y or NACA 4412).

The way you propose to think about the performance of the wing is quite valid. Go to Newton's Laws and equate the Lift and Drag to the 'Change of Momentum of the air' due to the circulation of the air passing round the wing. The mass of air (all the molecules) passing the wing is deflected by the circulation and given a downwards momentum, and the change of momentum times the mass of air equals the lift; hence the increasing downwash (and turbulence) behind a slowing real wing, generating constant lift, as the airspeed (and affected air mass) decreases.

There is no conflict, the two methods are really the two sides of the same coin!

(But please forget about the little molecules bumping into each other).

The Coanda effect just explains why the airflow round the leading edge stays attached to the aerofoil as the AOA is increased, and the breakdown of this effect (due to insufficient

energy in the boundary layer), precipitates the stall. If the boundary layer is re-energised by the use of slats or vortex generators, the stall will be delayed, but it will still happen eventually.

I am sure you were wise to leave Joukowski and the Navier Stokes equation out of it, as they are unnecessary to explain the basics of lift.

David Houston

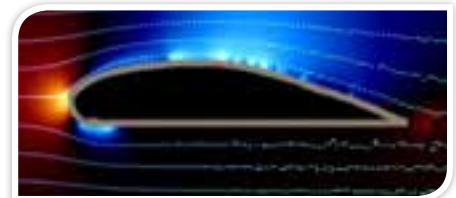
## More on myths

I'm not convinced after having read Thomas Bisshop's part two of his Three Aviation Myths (*Sport Pilot* October 2013).

But the idea that it's ALL Newton, 'Nothing to do with curvature' and that 'the curve on top isn't to create faster flow' leaves me wondering what you think is going on with an airfoil that's underwing is presented parallel to the relative airflow?

With no downward deflection of air (and therefore no reaction), the airfoil still produces a very significant amount of lift, solely due the curvature.

Cory Jeacocke



## More myth

The argument discredited the Bernoulli Principle as a myth (*Sport Pilot* October 2013).

The topic discredited the Bernoulli principle used to explain that air flowing over the curved upper surface of an aerofoil has static pressure energy converted to kinetic energy: the pressure component of its energy is reduced while the velocity component increases. Hence the reduced pressure gives Lift. Bernoulli embodies **streamline flow** and streamline shapes.

The article correctly claimed that Lift is the opposite reaction that is given whenever the direction of airflow is changed; it gave, as I recall, the example of a wing comprising a flat piece of Balsa generating Lift. Indeed one only has to try holding a piece of roofing steel at an angle to oncoming wind to realise that there is a significant reaction against any object that changes the direction of the oncoming

air. Lift is indeed the reaction when oncoming relative airflow is deflected **upwards** and over the leading edge of a streamline shape then aft and **downwards** to the trailing edge: yes the pressure is reduced in accord with Bernoulli as it passes over the curved surface in its downwards trajectory.

There are any number of ways to deflect airflow downwards to get an upward reaction ; but to do it most efficiently is through controlling streamline flow and that is by aerofoil shapes. In terms of the manifestation of the forces involved, lift is the reaction to the effect of any force that has given airflow a change to its direction. Bernoulli is still valid in explaining the source of those forces.

**Sam Todhunter**

## Avius slap down

I was incredibly disappointed to read Professor Avius's article (*Sport Pilot* October 2013).

The Professor made several statements of concern.

First of all, he makes the pretentious statement that he expects only one thing from students... perfection. Wow, what a ridiculous thing to say. I'm yet to meet a perfect pilot, let alone a perfect student or perfect human being for that matter.

As a CFI myself I don't expect perfection but rather solid flying skills, a good attitude and above all, an ability to operate the aeroplane safely in a variety of conditions. Perfection?

Secondly, he makes the statement '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).'

So, the perfection expected by the professor is only related to what others are doing? It's ok to fly a wide dangerous circuit if someone else is doing so?

Professor, I'm reminded of my old mum's favourite line 'if everybody else jumped off the harbor bridge, would you do it too?'

Fly your own circuit and if that means overtaking a wide aircraft, then so be it. Don't ever let another aircraft force you into an unsafe position.

**Andrew Campbell**

## Cheap GPS

I've heard a lot of talk recently about people using iPads, phones, and Android tablets as a cheap GPS solution.

This worries me for many reasons. First the obvious issue of reliability and not being designed for aviation (Apple doesn't care that you need to find an airport), but mainly because the GPS receivers aren't anywhere near accurate enough.

There is a good study on the internet [http://www.paulzandbergen.com/PUBLICATIONS\\_files/Zandbergen\\_TGIS\\_2009.pdf](http://www.paulzandbergen.com/PUBLICATIONS_files/Zandbergen_TGIS_2009.pdf) which goes into a lot of detail, even though

it doesn't look at aviation specifically.

Basically, your phone/tablet has very limited GPS with only a small number of receivers. To make it more accurate it uses triangulation from mobile towers, and a database via the internet to find more info on the satellites to interpret the signal more accurately, etc.

The problem is that it's still nowhere near as fast or accurate as a dedicated GPS even in optimum conditions. Throw in a altitude variation it wasn't designed for, a fast moving aircraft, possibly no phone signal for internet connection, and it's reliability is even less.

I have no doubt it does work and if I was lost I would certainly turn on my phone for a backup, but if you want to narrowly avoid controlled airspace and reliably get where you're going every time, the cost of a dedicated GPS no longer seems so high.

You can add on a Bluetooth GPS receiver to improve your phone/tablet's performance (also available for Android), but the more things you have, the more links which can play up.

If you can't afford to do it properly, don't do it at all.

**Joshua Schuessler**

## Flying online

What next? Reading Editor's Choice (*Sport Pilot* October 2013) a cold shiver went up my spine. Is the Editor working for CASA, AFP or CIA?

Isn't it enough we get filmed when we go shopping, go to the bank, get photographed by police every time we pass them in our car, or just drive through traffic lights that track our phones as we go about our business?

We have to pay ridiculous amounts of money for our ASIC card (which is a scam) that only lasts two years, where a passport lasts for 10 for the same money.

Come on Editor this is Australia. It used to be the land of the free. Now you're suggesting we give that away. Not impressed.

**Anonymous (So you can't tell them where I'll be this weekend)**

## Zero fatal goal

I offer the following to start a discussion among RA-Aus members.

Around twenty years ago, the RAAF senior leadership made a serious commitment to achieve a zero fatality rate across all of its peace-time operations. While this was met initially with some scepticism there has not been an operational fatality in nearly 15 years. This extraordinary safety outcome was achieved through a substantial change in organisational culture and leadership behaviour. It required a concerted change in attitude and behaviour from all members of the RAAF. The results are a credit to everyone involved.

What if the entire RA-Aus management and membership made a similar commitment? All fatal accidents should be analysed and promulgated in a detailed and methodical way with a view to redressing any systemic or training shortfalls. It will take time and some money, but if a zero fatality rate was agreed and finally reached, it would add immeasurably to the future of light sport aviation.

RA-Aus is a principal path for young people into aviation and a great way for older people to realise their aviation dreams. In many ways it could be argued it is our collective aviation duty to embrace and live out a zero fatality rate culture. It will take time and plenty of effort but it is definitely achievable and more than worthwhile.

**Paul Tyrrell**

**GM** - *We may lack ADF resourcing, but the current Board, management and staff are nonetheless wholly committed to this same aspiration. While the recent appointment of the National Safety Manager is the most potent expression of this commitment, there is much more already occurring – and planned – to substantiate this cultural change and commitment ( e.g. the Association's ever improving accountability and transparency; an increased emphasis on accident and incident (A&I) analysis; the real-time publication of A&I notifications (on the website); the planned recruitment and training of Regional Safety Officers (more on this soon); and even the inclusion (with this magazine issue) of ramp check lists and explanatory materials). We may still have a long road to travel but importantly, our course has been steadfastly set.*

## RPL Anomaly

I am 73 and have a CPL/PPL licence. In my former life I was an Air Traffic Controller for 35 years. In 2009, rather than renew my medical I decided to take the RA-Aus option and use my driver's licence to continue flying. However in spite of my previous experience, the RA-Aus pilot certificate did not allow me to enter controlled airspace (CTA). The restriction appeared to be based solely on medical grounds.

However now CASA has introduced the RPL that also only requires a current driver's licence, and subject to cross country and CTA training, the holder of an RPL can, subject to an airways clearance, enter and fly in CTA. Is this not an anomaly?

Surely CASA can no longer maintain the restriction on RA-Aus pilot certificate holders, with the appropriate training or previous experience and flying RA-Aus registered aircraft which meets the appropriate CTA altimeter and transponder requirements, from operating in CTA.

I trust the Board have this on their to-do list.

**Neil Bradley**

**OPS** - *Operations is aware of this looming anomaly with the implementation of Part 61*

in September this year. *Controlled Airspace transit approval as a minimum for RA-Aus members, with appropriate training, is on the list of tasks for Operations along with possible CTA endorsements.*

## Consultant feelings

I read *Sport Pilot* with ever more conflicted emotions (alternating from hysterical laughter to smoking anger each month) but now I have reached a threshold where I cannot resist having a go - so I hope this is constructive.

To the dear chap who wrote a couple of editions ago of the virtues of consultants, let me give you a consultant's perspective. I am a consultant in the sustainability and energy efficiency field.

I have three basic types of client:

A) The lazy - Highly profitable. They pay heaps to have the blindingly obvious explained to them in detail with suitable corporate jargon speak so as to facilitate them leveraging their position moving forward. Boring but pays the rent, guaranteed return custom as they retain nothing of the knowledge and skills I attempt to impart to them;

B) The mildly interested - They wish to tick the boxes to attain say a gold star rating but not really interested in understanding why or if it is even worth the effort. Good turnover dollars and the possibility that some of a lifetime's accumulated knowledge might get passed on. This client's main agenda is to have someone else point the finger if there has been a stuff up;

(C) The knowledge thirsty - They want to try and hand on a better world to the next generation.

Low profit, high satisfaction, there are too few of these folk in my client list. They want to understand and learn how to learn, so I will make myself obsolete by the time our professional association matures. So into which of these categories would RA-Aus fit?

Consultants are the leaches of the corporate system, people who couldn't make CEO status and that seven figure salary package. They will bleed you dry and add minimal value. What value has been achieved by the advice that RA-Aus pilots should accept the unjustifiable multi-million dollar expense of carrying EPIRB's, WAC charts and En Route Supplements? Find one study that shows globally that one life has been saved in the past two decades by recreational pilots carrying these devices.

Such devices were useless ballast before the mobile phone and the advent of GPS in nearly every device except the microwave oven. In the 21st century they are even more redundant

Didn't your consultant tell you this type of regulation was purely aimed at CASA employees meeting their KPI's (Key Performance Indicators) for the year? The

question is what ludicrous legislative inspired regulation will we have to tolerate in the coming years? RA-Aus get a pair before you become totally emasculated.

**Paul Woods**

## More on Yaw

I'm sure you'll get a mountain of similar emails and letters, but I'm going to throw in my two cents worth.

I read with interest Thomas Bisshops' Aviation Myths Part 3, (*Sport Pilot* October 2013) and being the pedantic sort, immediately disagreed. The argument that dihedral causes roll when an aircraft is yawed is certainly true, but the assertion that a difference in relative air speeds over the wings due to rudder induced yaw doesn't also cause a rolling moment, is not.

Part of the problem stems from how yaw is defined. If yaw is simply the angle between the aircraft's plane of symmetry and the relative wind, then yes, being yawed clearly doesn't make one wing go faster than the other, so there can be no resulting roll due to this effect. However, if you consider the other more common definition of yaw, i.e. the act of rotating around the aircraft's vertical axis. Then this does result in one wing seeing slightly increased air speed and one seeing slightly less, and will result in a small rolling effect. This is not just the opinion of a well-meaning amateur but comes from Perkins & Hauge's *Airplane Performance - Stability and Control*, first published in 1949 and arguably the seminal work on the subject:

"The rolling moment due to yawing arises because of the increased velocity of the outside wing over the inside wing, thereby introducing a rolling moment tending to raise the outside wing. A positive yawing velocity will therefore introduce a positive rolling moment."

There are also other forces at play. For most of our craft, the bulk of the rudder area is located above the aeroplane's Centre of Mass. This offset means that when the rudder is initially deflected you don't only get yaw, but also some rolling moment as well. This rolling moment is quite small and is in the opposite direction to the 'one wing moving faster than the other' effect discussed above, so the two presumably cancel to a great extent.

That all sounds a lot like an aeronautical engineering lecture, but I hope it helps.

**David Daniel**

## RPL reaction

Regarding the letter from Luke Burnard regarding the Recreational Pilot's Licence (*Sport Pilot* November 2013).

I, too, was somewhat confused with the privileges of the RPL as the CASA brochures

available provided limited information.

I contacted CASA and was advised to peruse the following website; <http://www.comlaw.gov.au/Details/F2013L00218/Download>

It took me some time wading through the maze and deciphering the gobbledegook, but I got there eventually.

Pages 98 to 104 are the main ones to read, however in a nutshell the following applies to an RPL;

1. One passenger with a Recreational Aviation Medical Certificate;
2. Two or more passengers with a Class 1 or Class 2 Medical Certificate;
3. Single engine piston aircraft up to 1,500kg MTOW;
4. Cross country endorsement available;
5. Controlled airspace/airport endorsement available;
6. NVFR not available.

It seems to me that a holder of a Recreational Pilot Certificate would have little trouble obtaining an RPL and the document has information in this regard.

**Edward Rees**

## 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 certain times of the year.**

**[editor@sportpilot.net.au](mailto: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).

## Insurance update

RA-AUS Members' Liability Insurance was renewed on October 30, 2013 for another 12 months, with a slight reduction in the premium renewal cost.

The policy provides Third Party Liability cover of \$10,000,000, and includes \$250,000 Passenger Liability cover.

**This Policy covers...** accidental bodily injury and accidental loss of or damage to the property of others, caused by an accident occurring during the period of insurance stated on the Certificate and arising out of a Recreational Aviation Australia Inc. activity including the operation by an Insured member of an aircraft and/or their occupation of a building for the specific purpose of housing and maintaining an aircraft.

**The Policy defines a financial member as...** one who within 30 days after the renewal date of their membership or in the case of a new member, within 30 days of their application being accepted by RA-Aus, has paid all subscription fees and dues to RA-Aus and has no restrictions applied to their pilot certificate that would prevent them from operating the aircraft they were in command of at the time of the accident.

The cover is portable since it applies to the member, rather than the aircraft (regardless of whether (s)he owns the aircraft). Members are urged to familiarise themselves with the entire policy document, particularly the Inclusions (Section 1), Limits (Section 2) and Exclusions (Section 3).

It is important to note in relation to the latter that only Flying Members (i.e. Student and Pilot Certificate holders), Overseas Flying Members and Affiliated Clubs (i.e. not Flying Training Facilities) are covered by the policy, these being the only flying member categories paying full annual subscriptions (and premium contributions). The following membership categories are not covered.

ACFT	Aircraft owner
CLFT	Affiliated Club with Flying Training Facility
CORP	Corporate
FREE	Complimentary
FREO	Overseas complimentary
FTF	Flying Training Facility
HON	Honorary members
TEMP	Three month temporary members
HOLD	FTFs currently on hold
NMEO	Non-flying member
MAGO	Overseas magazine subscriber
MAG	Magazine subscriber

Access the complete Policy document at: <http://www.raa.asn.au/wp-content/uploads/2014/01/RA-Aus-Members-Liability-Policy-wording-2013-2014.pdf>

## JAPANESE FRIEND

**RA-Aus General Manager, Mark Clayton, received this correspondence just before Christmas.**

Dear Mr Clayton

My wife and I recently visited Japan and were introduced to a man who owns an ultralight aircraft (photo enclosed) and is keen to make contact with a similar enthusiast in Australia (preferably Sydney area). This man, whose name is Masujir Hane, simply wants to swap notes with an Australian ultralight owner and ultimately would like to come to Australia to see how things are done here. If the Australian flyer wanted to visit Japan, Mr Hane would be happy to assist him. I would appreciate any advice or assistance you can provide.

Sincerely  
Michael Batten

If you want to make contact with Mr Batten, email Mark at [gm@raa.asn.au](mailto:gm@raa.asn.au) for details.



## NATFLY 2014 Fly market

NOW is the time to start rummaging through your hangar or shed for all those unwanted aeronautical bits and pieces.

Those pre-loved items can be turned into cash at the Fly Market hangar at NATFLY 2014 at Temora.

Anything of an aeronautical nature is welcome - from a washer to an entire aircraft - we

will do our best to sell it for you.

There are always plenty of buyers looking for the bits you no longer need. You'd be surprised at just what people want to buy.

And remember, this is a voluntary service to RA-Aus members by RA-Aus members.

So get going now and clean out the shed. We look forward to seeing you at NATFLY.



# Darren steps up

**A**FTER more than six years in the role of assisting the RA-Aus Technical Manager, Darren Barnfield has stepped up to the top job.

The RA-Aus Board announced recently that Darren has been officially appointed as the Technical Manager for the organisation.

Darren has been Assistant to three Technical Managers since 2007 as both a consultant and as a CASA approved delegate. He has had a lengthy professional involvement with warbirds, military, commercial, general, sport and recreational aviation.

As the SAAA's former Technical Manager, Darren co-authored its Authorised Persons Procedure Manual and recently finished the first revision of the RA-Aus *Technical Manual*.

He is the holder of several CASA authorisations which allow him to certify a broad range of aircraft from single seat amateur-built through to jet warbirds.

Darren is supported by RA-Aus' part time Assistant Technical Manager, Dean Tomkins.



## AIRHEAD NEEDS YOUR HELP



STEVEN Pam, AirSports Storch pilot and avid film buff, needs to get some help to get his new film 'Air Heads' off the ground.

It's a Kickstarted project, however you will need to be quick if you want to assist visit <http://www.kickstarter.com/projects/stevenpam/airheads-documentary-film> for more information.

If you can help, and to get yourself a free copy of the DVD, click through on the above link and pledge some dollars. You don't need to give very much to get the project up and flying.

For more information:  
[www.airsports.net](http://www.airsports.net).





## **Another** by Brian Bigg **great show**

### ***Storyteller wanted***

***Sport Pilot* is looking for someone to write regular articles on technical subjects. You don't have to be the world's most qualified engineer, nor do you need to write like Shakespeare.**

**You just have to be able to put together 500-800 words each month to help inform, educate and entertain *Sport Pilot* readers.**

**Subjects like 'how to build a wing', 'tips on pop riveting' and 'how do you know if your battery is healthy'.**

**If you think this might be you, please email [editor@sportpilot.net.au](mailto:editor@sportpilot.net.au)**



# GREAT EASTERN FLY-IN



>> Photos: Halden Boyd

## Another great show

**T**HEY'VE done it again. The rejuvenated Great Eastern Fly-in at Evans Head in January was absolutely spectacular.

The organisers obviously paid off the weather gods. Heavy cloud and storms early in the week cleared miraculously on the Friday and conditions over the weekend were about as good as it gets on the NSW North Coast.

This year, for the first time, the event was staged in the second week of January, rather than the first. Perhaps because of that, slightly fewer pilots flew in for the weekend - 200 this year compared to 240 last year - many people had reportedly gone back to work.

But the public numbers broke all records. Organisers say nearly 20,000 people strolled around Evans Head aerodrome over the weekend, double the number who attended last year.

The new Heritage Museum proved to be a drawcard. About 2,500 people went to see the museum displays, including the F-111, over the course of the weekend. The entry fees they paid will cover a lot of the bills for the museum this year.

The market section outside the fence was twice as big as normal. Local traders have obviously worked out where the crowds will be that weekend and the stalls were all busy.

As usual, the warbirds and the aerobatic daredevils were highlights. Paul Bennet continues to defy gravity and the crowds love to watch him do it. As well as Paul's Pitts and Yak, the crowds got to see the Mustang and Avenger in action. The Avenger will now go on display in Evans Head for three months.


There was a Flypast in honour of local World War Two fighter pilot, Ted Sly, who died in November at the age of 95. Ted had 600 hours in Spitfires and four German kills to his credit. There was also a Drifter Memorial Flypast for Wayne Fisher, a local ultralight pioneer who died last year.

The organisers of the Great Eastern Fly-In are yet to decide if next year they'll keep the event in the second week of January or the first. Either way, it's clear the event really has traction. It's getting bigger and better every time. And that's got to be a good thing for aviation in northern NSW. For pictures and stories from the fly-in visit the Great Eastern facebook page. 📷



# GREAT EASTERN FLY-IN



 *The  
organisers  
obviously  
paid off the  
weather  
gods*



# Straddie fly-in by David Huett



**B**ALLINA Aero Club was represented at the Straddie Fly-in breakfast held at the airstrip at Dunwich in December.

The weather was fine with a light-moderate northerly wind, very favourable for aviation. As a consequence, 41 aircraft arrived during the course of the morning for the late morning two course breakfast feast.

The flight up from the NSW Northern Rivers is hard to beat for scenery. We travelled coastal to Hastings Point, west to Condong and on to Mudgeeraba, then across to Surfer's Paradise to continue along the eastern shore of North Stradbroke Island to Dunwich at the designated 500ft. An early morning arrival and little wind allowed the favoured southerly landing to be used.

About 80 people attended, a remarkable feat considering that the breakfasts are held each month.

By mid-morning the wind had swung to the north and the steady departure of aircraft from Runway 33 became a competition for who could become airborne in the shortest distance. There was a clear cut winner (photo).

The Ballina crew returned by a western route past Mount Warning, another equally scenic

route with OzRunways used as a secondary means of navigation and the Gold Coast VTC as the primary means.

Dunwich is only a little over an hour from Ballina and therefore a very good navigation exercise length. 📍

**W** *The flight up from the Northern Rivers is hard to beat*

**Editor's Note** – Two weeks after this fly-in, many people on North Stradbroke Island had to be evacuated as a bushfire consumed much of the vegetation on the island, right up to the edge of the airstrip. Several mobile homes on the airstrip perimeter were destroyed.



>> I think we had eight planes in our tiedown area. There are more out of sight round the back of the hanger



# Christmas in the Whitsundays

by Julie Hands

## CHRISTMAS at our property 'Heathrow' is becoming popular with RA-Aus pilots.

It began a week early with a request from our neighbors in Lethebrook to fly over the village hall and wave to the children having their Christmas party.

Donning his red Santa hat, Ross Millard (North Qld Rep for RA-Aus) hopped in the Cab Sav with Ian, the Christmas Elf at the controls. They circled above the hall (above 1,000ft AGL, of course) and waved to the children. I was on the ground with the radio so the kids could hear Santa as he flew over calling out HO, HO, HO. One little boy shouted out "I can actually see him". Isn't that cute?

Next day Ian and I, along with Ross and Rogin, flew up the coast in company to Bowen where the Whitsunday Aero Club was having a BBQ lunch and we watched the model aircraft guys give an impressive display.

The first to arrive at Heathrow on Christmas Eve was Mangrove Murray in his Xair at 6am! He became our wakeup call each day because he is an insomniac and likes to fly at first light.

On Christmas morning, Rogin and Linda 'the Eagle' flew in bearing gifts and Barrie Burgess in his Jabiru from Bowen dropped in. Next was John Kennedy 'Tassie the Titan Tornado 2' who had just arrived home from the mines at Dysart. Several other good friends and neighbours came over throughout the day bringing enough food for us all.

On Boxing Day the HRW squadron decided

on an early morning flight over Proserpine dam. We were up anyway thanks to Murray. Then we flew on to Rogin and Linda's 'Taylorwood Resort' for breakfast. Lunch was leftovers and, when Ivan arrived with Ian Bishop, we had prawns on the BBQ too.

On the 27th Ross and Murray flew to Palmyra to view Hongies' new Zenair 601. On the 28th the paramotor and trike guys arrived. It was a photo opportunity too good to miss, so we strapped on our planes and flew with them over the coast in the smooth golden evening air. On Sunday the 29th the sound of two strokes filled the air at 5:30am. Murray was joined by Bob, Dave and Ivan. Thank God we have understanding neighbours.

Ross and Miss Adventure headed back to Montpellier, Townsville; Rogin and Murray in The Eagle and Ian and I in Cab Sav set off for a social circuit of local air fields. First to Marian where Geoff had just landed his Xair and was shooing stray cows off the runway, then over Kinchant dam (dreaming of seaplanes) to Palmyra again to see Hongie. Next was Ball Bay where Rogin produced a picnic of coffee and mince pies. Then a wonderful flight up the coast back to Heathrow. Lovely to see so many people out on their boats. We waved and so did they.

New Year's resolution? More of the same, of course, and getting our little cottage ready for the fly-in visitors we hope to have through the tropical winter. 🍷



>> "Taylorwood Resort" for breakfast



>> Paramotor landing



# *Something for everyone*

by Tony King

**Planning for Natfly 2014 is well underway. The Easter program will provide something for everyone. Here are a few of the activities that will be on offer:**



**FOR CHILDREN:** Two days of activities which will include a scavenger hunt for stickers, face painting, paper airplane building and flying competitions, ropework, compass activities, performances by children's groups and other surprises to keep the little ones engaged.

**FOR NON-PILOTS:** A market, a display of recreational vehicles, vintage cars, historical tours of Temora and its environs, trial instructional flights, performances at night.

**FOR PILOTS:** Simulators, forums on maintenance, aircraft building, hands-

on metal working workshops, seminars and forums by CASA, Airservices, AMSA, OZRunways, and many more activities.

**FOR EXHIBITORS:** Showcase your aviation related business and products at Australia's premiere recreational aviation gathering.

**FOR EVERYONE:** Food stalls, entertainment, air displays, walk among the (parked) aircraft, relax with friends, make new friends.

More information will be appearing regularly on the NATFLY website [www.natfly.com.au](http://www.natfly.com.au). Keep checking to see what is in store. 🇺🇸



>> Picture: Brenna Matthews

# POSITION REPORT

MARK CLAYTON



## Finding a new home?

IN his February 1989 editorial, the AUF President announced “that the Federal Government had promised that Mangalore Airfield will be handed over free of charge (through the local shire councils) to Australia’s Sport Aviation bodies for use as a National Sports Aviation Centre....we will have an airport made available to us with a wide range of excellent facilities already in place”.

This was barely five years after the Federation’s formation, and already the notion of a permanent home had taken root – and been embraced – both by the membership and its elected Council. The benefits of having a permanent home on an airfield were – and still are – so overwhelming and self-evident that the idea probably would have self-seeded back then in any event, without the urging of returning Oshkosh Express passengers. The operational, financial, access and staffing arguments that would have applied back then seem even more compelling now, especially given the diminishing value of our Fyshwick property investment, our comparatively higher (i.e. capital city) operating costs, our vastly increased fleet and membership numbers, our enhanced capacity for conducting online business, and the fact that CASA Operations (and SASAO) have also long since left Canberra.

For many it would seem the need to find a home airfield has since been overlaid with another meaning...the need to get away from Canberra.

That the Federal Government never came good with its promise back then, will come as little surprise. What does confound me however is why this organisation, a quarter of a century later, still hasn’t been able to realise one of its most enduring ambitions? From my vantage point, the idea of a permanent airfield home recurs as one of the membership’s most often discussed issues, second only to Board matters. General meetings invariably bring forth related questions, and sub-committees have been formed to progress the matter. And still there is no traction for the idea, long after our colleagues in the S.A.A.A. have established their own permanent home airfield (at Narromine).

But let’s put that behind us, and imagine that we’d been tasked with defining the selection criteria and process(es) for identifying an optimum airfield home for our Association. Following are some of my initial thoughts, which I’d invite you to demolish or extend, as you see fit:

### PROCESS

Because of its profound and lasting implications, I feel that the tasks of researching, analysing, reporting, consulting, and deciding on a possible new home must be timely, professional, inclusive, transparent and, possibly, independent. While the consultation and decision mechanisms are already defined by the *Constitution* there is latitude, and possibly merit, in having someone other than the Board (e.g. management, or an independent consultant) undertake the other tasks.

The need for objectivity is critically important here, given that we

already have pre-existing relationships (e.g. Mangalore, Narromine and Temora), and given too that other municipalities and business interests have also since made representations. The Association’s business is substantial, desirable, and prestigious enough, such that we should instead be inviting final contenders (who meet our criteria) to convince us that they can best serve our long-term interests. Almost everyone I speak with has a strong view of this subject, which is as you would want it to be. It’s only by adhering strictly to an agreed process – and criteria – however, that we’ll be able to assimilate and synthesise these many opinions into consensus recommendations.

### SELECTION CRITERIA

The following is not intended to be an exhaustive list of selection criteria. Instead, I distinguish that these might be just some of the more important considerations (unprioritised) which might be used to inform a home airfield selection process.

**CLIMATE** – Rain, wind, temperature and cloud cover metrics, both historical and forecast, would each need to be analysed in order to identify

the most climactically benign locations offering the most number of suitable flying days (p.a.). It is clear from the Bureau of Meteorology’s published historical data that this is not as simple as choosing between the east or western slopes of the range, much of the latter only averages 10 fewer wet days than the former ([http://www.bom.gov.au/jsp/ncc/climate\\_averages/raindays/index.jsp](http://www.bom.gov.au/jsp/ncc/climate_averages/raindays/index.jsp)).

**AIRSPACE** – Here again, current restrictions and future projections, military and civil, would each need to be analysed in order to identify locations that present the best prospect for unrestricted flying.

**TRAFFIC** – Military airspace restrictions are forecast to diminish slightly on the Darling Downs (from whence I hale), as a consequence of the current

Brisbane West Wellcamp Airport (YBWW) development. Despite this, air traffic volumes in the area have increased markedly in recent years because of the ongoing oil and gas field developments in the State’s south-west. This is expected to further increase once YBWW opens in September this year. I cite this local example, simply to highlight that Air Traffic and Airspace need to be examined separately.

**POPULATION** – The accompanying map (Figure 1) charts the post-codes of all 9,529 currently financial members (you can also access this interactive map at <http://www.raa.asn.au/join/>). Although this is the first time we’ve ever been able to see graphically the geographical distribution of our membership, its clear message will not be surprising. As you might expect the bulk of our members live on the east Australian seaboard (i.e. in Queensland, Victoria and New South Wales), east of



FIGURE 1



# It would seem the need to find a home airfield has since been overlaid with another meaning...the need to get away from Canberra

the range. The ABS's (Australian Bureau of Statistics) future forecasts continue to closely mirror this unchanging pattern. If the objective is to try and serve the optimum number of members then, logically, our Shangri-La, should also be somewhere – east of the range – within this seaboard footprint. Population projections should also inform this home airfield selection process by identifying possible future development pressures (and operating limitations). A number of municipalities in north-eastern New South Wales, for example, are not projecting any significant (short-term) net growth.

**ACCESSIBILITY** – This can be expressed most simplistically as a FIFO (fly-in, fly-out) capability, the important distinction here being that members want to be able to fly themselves in and out. For our thirteen Board members however, this has always meant something different, namely, convenient access to regular public (air) transport. Reconciling the latter with all the other criteria could remain problematic whilesoever we have a *Constitution* which requires thirteen elected members to meet at least twice each year.

**AFFORDABILITY** – This is the single most important criteria. The business case for relocation has to be comprehensive, compelling, and able to demonstrate an enhanced prospect of sustainability. While a number of previous propositions have been predicated on the model of a council-owned airfield, there are other lease and purchase options which may also warrant our further consideration.

**TENURE** – Long-term tenure security would perhaps rank second only to financial sustainability as the most important criterion. Here, as in the UK and the US, municipal governments are steadily divesting their airfield assets via closures and sales. The Australian Airports Association recently reported that 50% of our municipal airports operate at a loss each year. This is largely why the Richmond Valley Shire decided a few years ago to sell its Evans Head airfield to a Waratah Coal consortium. As privately owned airfields present similar risks, contractual terms and guarantees would become critically important.

**POLICY ALIGNMENT** – A decision of this moment should be informed at least by local, state and federal policy directions, if only to ensure that it isn't at odds with these. Given that our activities intersect with several areas of government planning and policy responsibility (e.g. regional development, education, training, sport and recreation), there could even be advantage in our choosing a location which aligned with stated government policy.

That this notion of finding a new home has survived intact for so long would seem to indicate it is fundamentally sound and meritorious, and deserving of our further consideration. From here, the process could easily be completed in time for recommendations to be presented at the next AGM.

And even if it is decided in the end to stay put, we'll have the comfort of knowing at least that it was the best decision, derived from a thorough, transparent, and rigorous process. 🇦🇺



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# A 1770 by Cory Jeacocke adventure



**L**IKE many fellow aviators, I struggle to find a balance between work and play. If, by chance, there is enough light to go for a quick scoot in the afternoon, it's often quickly consumed by driving to the airfield, unpacking the aircraft, refueling, preflighting - the list goes on.

This summer I made a resolution to devote more time to our much loved sport. A quick fix - I purchased an Evektor Sportstar and moved into a house right across the road from the GA apron.

Working a six day week, I only really have Sunday to go anywhere. What I didn't realise is that there's a beautiful strip at the popular tourist town of 1770, only a quick hop south-east of my home town, Gladstone.

When my partner suggested a flight down there after work on a recent Saturday, my ears pricked up. A quick look on OzRunways confirmed it would only take 30 minutes and there

was still plenty of light.

I drafted up a plan, found a contact on the net, got some info about the private strip, along with permission to land there.

The short flight took us over some of Central Queensland's amazing coastline. We enjoyed the view of the beautiful estuaries and waterways.

The strip at 1770 isn't one for the squeamish, even though it's obviously well looked after. Most aircraft wouldn't have a problem getting in or out of the 1,200m, but it's not the widest grass strip I've ever landed on. The gable markers are a corridor of 10m high trees and on the south eastern end you are greeted by a wall of forest.

A couple of skippies kindly moved to one side of the runway for us as we travelled down short final. They were expected, as briefed by the airfield owner.

There is accommodation within walking distance of the airfield, however it would pay to

book ahead because we found ourselves hotel hopping in a taxi looking for a place not fully booked in the popular tourist town.

A dinner of freshly caught seafood that night at a laid-back restaurant, brekky at the beach cafe the next morning, a swim and paddle board, then it was back to the airfield ready for the flight home.

A deviation from the direct route to YGLA took us along the beach toward Bustard Head, and the wide stretch of sand at low tide is far more inviting than the 1770 airstrip.

The water was glassy and if air was visible, you can be sure it would have looked the same. Trimmed for the cruise, the trip back to Gladstone made me feel like a passenger doing radio calls.

I can see the weekend escape from the industry town becoming a regular event for us. It was up there with one of the best times I've had in an aircraft. 🇺🇸

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**I**T was a beautiful Saturday morning when I took off in my Fisher FP202 Koala from my home strip at Forest Hill in the Lockyer Valley headed for a weekend fly-in at Archer Falls.

After climbing out and levelling off at 1,800ft, I called Brisbane Centre to confirm Amberley airspace was inactive. It was, so I started the climb to 3,500ft, my planned altitude for the trip. Right away I knew there was something wrong. The engine seemed fine at cruise power but wouldn't give any more. After a couple of attempts I decided to land. I clearly had a fuel problem.

The nearest airstrip was Kevin Walters' place, so that's where I went. Kevin picked the problem straight away – a blocked fuel filter. I removed it and cleaned it, then did a few strip runs to test and it all seemed OK. So I took off and continued uneventfully to Archer Falls.

On the way home the next day, I saw a friend's plane outside its hangar at Coominya so I decided to stop for a chat. Shortly after leaving Coominya, at about 1,000ft AGL, the engine gave a quick splutter and picked up again. I started turning back to Coominya but the engine seemed to have recovered so, knowing there were several strips between me and home, and knowing Amberley airspace was in-

# An Eventful Weekend

by Tony King



active, I decided to continue and to climb to a more comfortable altitude.

I climbed to 2,800ft and flew past Kevin Walters' place with no further indication of a problem. Just a few miles from home the engine started running rough - intermittently at first, but getting worse. I kept trying to nurse it home, knowing I was well within gliding distance to Ripcord - the local skydiving club. As power reduced, I slowed rather than lose altitude.

About two miles short of where I could comfortably glide home, the engine stopped altogether. I setup a glide towards Ripcord and attempted a restart - no joy. I had plenty of height so I was under no real pressure. I made a landing call for Ripcord and put out a Mayday just in case. But I had neglected to switch to the emergency frequency and had broadcast the Mayday on the unicom frequency. Luckily a friend flying near Archer Falls picked it up and relayed it to Brisbane Centre.

Preparing for landing, I shut off the fuel but left the electrical master on so I could use the radio. I flew an extended downwind and side-slipped to lose height. Halfway down final it crossed my mind I was only going to get one go at this, but the landing was uneventful - not my best ever but far from my worst. Only problem

after landing was I couldn't raise anyone on the radio to cancel the Mayday.

My wife came to get me and we went to my hangar to get some tools. I cleaned the filter (again), did a couple of strip runs (again) then flew the three or four minutes home to Forest Hill, staying over clear paddocks the whole way.

In 120 hours of operation since I purchased the aircraft, the fuel filter had not caused any problems. It's a regular service item and gets cleaned every 25 hours. So what was wrong?

I had a strong suspicion the cause would be a float decomposing in the tank. It had become detached a couple of months earlier but I had been unable to get it out without removing the tank. Since it was made of fuel resistant material, I had decided it shouldn't be a problem to leave it there. I clearly needed to get serious about getting it out. I drained the fuel and removed the tank. Interestingly, the float wasn't the only thing I found. There were two other floats, of a different material, both badly decomposed in the tank. Seems a previous owner had made the same decision I had, to leave 'fuel resistant' objects floating in the tank.

So, what did I learn from this eventful weekend?

Even though I've done 120 largely trouble

free hours in this aircraft, including trips as far as Temora, as a pilot of a single ignition two stroke aircraft (neither of which were factors on this occasion), I've always been conscious of the need to continuously identify potential landing sites. I was able to perform a precautionary landing and a forced landing with no dramas because I had good landing sites available and enough height to get to them. This weekend has strongly reinforced the habit of always ensuring there's somewhere to land.

My approach to maintenance has also changed. Leaving something, because it shouldn't be a problem and is a lot of work to fix properly, clearly was the wrong call. That won't be happening again.

I should have switched to 121.5 MHz to make the Mayday. I had time. I just didn't think of it. I also should have phoned ATC and/or AMSAR when I couldn't get them on the radio to cancel the Mayday. AMSAR later called the skydiving club to confirm all was OK.

Perhaps I should have turned back to Coominya when the engine first spluttered. I also probably should have landed as soon as it started losing power near Ripcord. Instead I chose to press on for home. Even though I had landing places and altitude available, I think most people would consider landing with the engine still making some power is a safer proposition than landing with no power. This event certainly will inform my decision making in the future.

Thanks to those who responded to my Mayday - Neil, Vern and a couple of others I don't know. It's good to know there are people who will help in times of need. A word of thanks also to the instructors I've had along the way, particularly John Walmsley from Coominya Flight Training who, at my BFR early last year (after having flown about eight hours in eight years), put me through several hours of emergency procedures training. It all came together when I needed it.

The challenge now, having survived my first real engine failure (which no doubt most pilots do), is to contain the confidence boost it's given me so I don't do something dumb in the future. 🙏

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# What price courtesy?

Name withheld by request

**I FLY my Microlight trike from a private airfield in Northern Victoria and have been prompted to write to *Sport Pilot* because of a recent incident.**

It was the second time in the past 15 months I have been totally ignored by another aircraft in my vicinity. Both times I only realised I was not alone in the air when the other aircraft came very close to me.

The first incident took place in September 2012 when I was taking my 18 year old niece for her second flight. We had just left the circuit and were climbing to altitude when I radioed our location and height. I received no reply.

Immediately afterwards, my niece spotted an aircraft which had come from our left and behind. It was heading in a similar direction to us with a flight path which would converge with us.

Because it carried more speed than my trike, it passed in front of us by 200 – 300 metres, still at the same height, continuing on to the south east. I made two attempts to contact the aircraft but received no reply. A few minutes later, as we approached the southern edge of the township, we again noticed the aircraft, this time heading towards us from the south and again at a similar height. I again radioed the aircraft but again received no reply. However it appears the pilot heard me because he or she changed direction to the south west and departed.

I believed I knew the aircraft to be local but, because I was not completely sure, I did not follow up the incident. And, although it did put the wind up my niece, it has not stopped her from flying with me.

The more recent event took place in December 2013, again in our local area.

My passenger this time was my wife, who flies with me more for company than the pleasure of flying and is still somewhat of a low hours passenger. We were returning to the airfield after a local flight when two miles north of the field, I radioed our position, height, direction and my inten-

tion to join a long final for a touch and go. I received no reply. As we headed south my wife noticed an aircraft low and to the right of us. By the time she pointed it out, it had passed across below the front of us and sped away to the east - I believe it may have just departed our airfield.

I suspected I knew who it was and radioed him by name. At first I received no reply but a bit later heard a very hesitant, distorted "hello" and nothing more.

We continued to the airfield, completed the touch and go and went around to join downwind for a full stop. As we landed, we heard further radio calls which we could not understand due to static and the transmission being made too quickly. As we left the runway, we realised the other aircraft had joined the circuit and intended to land.


After he landed and greetings were exchanged, I queried the pilot as to why he hadn't acknowledged my radio calls to let us know he was in the area. He stated that because I was at 1,500ft and he was at 800ft, we had a clearance of 700ft so he didn't feel he needed to.


He then pointed out that I was, in fact, flying at the wrong height for my direction, which I guess I was, however as I was on descent into the airfield and had indicated such.

I told him I felt that his lack of radio usage was of more a concern, because he knew where we were, but we had no idea he was even in the air anywhere near us.

He had made no calls either on landing or take off other than the garbled message we had heard as he approached.

Far be it for me to criticise others. I have only about 130 hours flying time and I know I still make mistakes and have a lot to learn. But I do know that for every pilot to be safe in the air (and my instructor drummed this into me), not only do you need to know where I am and what I am doing, but letting me know where you are and what your intentions are - especially when we are in the same airspace - will make a huge difference to all concerned.

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*For every pilot to be safe you need to know where I am and what I am doing*

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# 1936 ~ 2013

## Vale Barry Hughes

by Alan Clarke

**M**Y mate, Baz, was the son of an RAAF officer and was raised in Adelaide. After the war, his father bought the remote Birdsville pub and Baz had the enviable adventure of travelling the infamous Birdsville Track on the early mail and cargo service driven by Tom Kruse. On one occasion, he even travelled part of the Track with the Afghan camel train.

Baz joined the RAAF as an apprentice tool-maker as soon as he was able and quickly became the base larrikin, a condition he maintained for the rest of his life. It was during these years he got his first taste of what became a lifelong passion with flying. The base had the usual modellers' club and Baz won many a prize for his fine scale flyers. As a result of his very evident craftsmanship, he was coerced into the arduous task of fabricating the fiddly wing ribs when the base commander decided they would build a glider. No sooner was the glider completed than the commander crashed it on the first flight, so Baz built the ribs again. It was an early example of his immense patience, persistence and determination.

He later joined the General Electric Company and then set up his own business to manufacture a large variety of engineered items.

Baz also discovered autogyros, learning to fly one of the early Benson car-towed gyro-glid-ers by trial and plenty of error.

On one of his trips to the US, Baz came across the Rotec series of ultralights and he established an Australian distributorship for



them. He taught himself to fly them and became one of the founder members of the AUF. He then went on to teach many others to fly safely, all conducted using single seat aircraft by running up and down the strip.

By the mid 1980s, Baz had been appointed as the first Queensland ultralight CFI. He helped many of the early flying schools get established and develop their training standards. He also took on the unenviable task of producing the AUF magazine for two years and followed that with a number of years as AUF Technical Manager. Also in the mid 1980s Baz and son, Tony, had a gorgeous Rotax 503 powered single seat biplane and Tony learned to fly it with Baz's coaching. In the late 1980s and 1990s Baz flew untold happy hours in the Rotec Rally, in Drifters, his

Osprey seaplane and Tony's biplane, as well as helping dozens of people by test-flying their new aircraft.

One such test-flight nearly cost Baz his life. He was testing a newly re-rigged Wheeler Skycraft Scout near Cairns. The wing-warping cables were adjusted unevenly and it wanted to roll all the time. When the engine power was reduced for landing it became much worse and threatened to invert. At the last moment, Baz hauled on the slack cable - but he should have pulled the tight one. He ended up with broken legs, arm, wrist and ribs.

From 2003 to 2009, Baz and I established a workshop together to develop some recently invented products and I have been extremely privileged to have learned a small amount of the vast store of knowledge that Baz possessed. It was often said by those who knew him that he was the most learned person they had ever come across and his clever humour and kind nature was the stuff of legend. Baz leaves a fabulous legacy in the form of his exceptionally high achieving children and grandchildren. His children, Tony and Tracy, have lovely partners and have excelled in their professions and Baz's grandchildren top their school in their academic, as well as their sporting, prowess.

Extremely generous in all things and no matter how busy he was, Baz always had time to help anyone who asked.

Much loved by all who knew him, Baz will be sorely missed. 🍷





# Savannah keeps getting better

by Reg Brost of AeroKits

**T**HERE are now more than 200 Savannah aircraft of various models in Australia and well over 1000 worldwide.

To its credit, the manufacturer of Savannah kits and factory built aircraft, ICP srl in Italy, is constantly innovating and changing to improve the aircraft.

The venerable classic Savannah of the early 2000s morphed from a capable, but a little slow in the cruise, work horse to the VG version, which had a changed wing leading edge profile and added vortex generators. They allowed the aircraft to cruise 90kts at 70% power with a three knot increase in the stall speed to 26kts.

The cabin width and leg room was a bit of an issue for Aussies so the factory introduced the Savannah XL. This new aircraft almost had it all. A wider and longer cabin, more sloping windscreen, a longer more streamlined nose, a clear roof, more Lexan in the doors to improve all round visibility, and a ring mount for the Rotax 912ULS which freed up the engine bay and subdued the Rotax knock at start-up and shutdown.

The standard aircraft could still weigh in empty around 300kg even with the long range 150L tanks. That's up to eight hours in the air, a long way at a TAS of 90kts. A further bonus arrived when RA-Aus accepted the 560kg MTOW the factory had certified, rather than the arbitrary 544kg imposed under Australian rules.

The XL was really getting Savannah owners to faraway places in comfort and style and still



needed only a very short bit of dirt and a suitably well trained and practiced pilot.

And it keeps getting better. The factory released the 'S' model which incorporates a rounded rear fuselage and improved empennage fairings. The same performance and a bit more work to build, but for some, the eye candy factor is irresistible.

Most owner builders are surprised when they open the box to see just how complete the kit is.

A little daunting when you first open the box and see the hundreds of bits. But seeing all those bits converted into a living aircraft is a great feeling

Everything they need to build their own airframe masterpiece is in there with the exception of exterior paint. Builders only need a radio, engine and a propeller to complete the standard aircraft.

The wiring harness is pre-made, all necessary forming is done and even an air-over-oil pop riveter is supplied. You will need more Clecos, some hose and clamps for the extra tanks, and about 400 hours of your best creative time (plus painting) to fashion your own 19 category Savannah.

And the factory has just completed proof testing in Germany to allow the MTOW of the XL and S models to be increased to 600kg with a small modification to the strut attachment points. This means the Savannah is legally capable of carrying its own weight into the sky. Not bad for a conventional, all metal, easy to repair and maintain aircraft. ICP also has a new lighter engine in the pipeline.

Factory built Savannahs now come with the option of full internal painting for extra corrosion protection for people who operate in harsher conditions. Even so, if you operate on or near the coast, proper maintenance is still essential if you expect a long life from your pride and joy.

For more information visit [www.aerokits.net.au](http://www.aerokits.net.au) or [www.icp.it](http://www.icp.it).

# OVERSEEING SAFETY

by CASA Safety Promotions

**S**PORT aviation, a term which encompasses a variety of light aviation from fixed wing to flex wing to gyros, gliders to ballooning, hang gliding, parachuting, warbirds and models, represents almost half of all aviation activity in Australia.

An Australian Transport Safety Bureau study (AR-2013-067) released in late October 2013, states that in the years 2003–2012, reporting of safety incidents in this sector grew tenfold, largely reflecting significant change in Australian recreational aviation.

'More pilots are taking up the opportunities offered by recreational aviation as opposed to using VH-registered aircraft', the reports says, based on factors such as aircraft purchase and operating cost, maintenance, access to training, and licensing requirements.

Sadly, this growth is reflected in a corresponding increase in sport aviation accidents and incidents, including 21 fatalities in 2013 (as at October 2013).

The greatest number of incidents involving recreational aviation in reports to the ATSB involved incursions in controlled airspace, generally reported by air traffic control; with the remaining incidents involving restricted airspace in Western Australia; Edinburgh, South Australia; and Amberley, Queensland.

In 2013, CASA's sport aviation office, SASAO (or more accurately, the Self-Administering Sport Aviation Organisations' section), doubled its efforts to improve sport aviation's safety performance.

The sport aviation team is now a regular sight

at the many recreational aviation fly-ins around the country, such as the annual Easter NATFLY; the September 2013 AusFly at Narromine; as well as the many smaller gatherings of sport aviation enthusiasts. At these events, the sport aviation team works with the various organisations to raise awareness of safety issues such as aircraft airworthiness, being appropriately qualified and certified, and well prepared for a flight by checking weather and Notams.

## More pilots are taking up the opportunities offered

Kevin Scrimshaw, CASA safety assurance officer in the sport aviation office, says "when we first started doing ramp checks at these events, we were treated with scepticism, but now we have a lot of support.


"It's turning people's thinking around and they see ramp checks for what they are: a way of educating pilots, of giving us assurance that they are meeting safety requirements. If they deliberately break the rules, we'll enforce them. If pilots do the right thing, it won't be an issue."

Ramp checks are an important element of every aviation regulator's surveillance func-

tions, and the multi-disciplinary sport aviation team also takes the opportunity of these gatherings to give presentations. They have talked to pilot groups on topics such as 'Demystifying ramp checks' and the range of safety resources CASA produces for pilots and engineers, such as Out-n-Back, OnTrack and the flight planning kit, and to talk one-on-one with sport aviation participants.

Where pilots, who have been ramp checked, are members of one of the sport aviation organisations such as RA-Aus; the Australian Sports Rotorcraft Association or the Hang Gliding Federation of Australia, CASA provides a synopsis to the respective organisation, in the interests of highlighting such issues and communicating them to their members.

"While, for example," Kevin explains, "the majority of pilots who have been ramp checked have been carrying electronic flight bags (EFBs) and also carrying charts as a redundancy if their EFB fails, some pilots are still not adequately prepared, either carrying no charts, or ones which are out of date."

SASAO is also taking a holistic approach to sport aviation safety, encouraging the uptake of safety management systems in the various sport aviation organisations in anticipation of the requirements expected to be reflected in CASR Part 149. 



Australian Government

Civil Aviation Safety Authority



# Slow plane to Holbrook

by Derek Dyer

**Five minutes later the same silence happened again, so I switched tanks and nervously flew on**

**I** HAVE owned a QuickSilver MX2 for the past 19 years and decided that because it was not being flown very often, I would donate it to the Holbrook Ultralight Museum. And because it and myself were still in serviceable condition, I would fly it there. Holbrook is 320nm from my home strip in Digby in far south west Victoria, 45km west of Hamilton, 70km north of Portland.

This probably does not sound much of a challenge to those who have joined the ultralight scene in the past ten years, but I should explain that the MX2 was made in 1983. It has a cruise speed of just 34kts and a range of one and a half hours to empty. The pilot sits out front totally exposed to the elements. So a bit of planning, some modifications and perfect weather were required.

## THE AIRCRAFT

The QuickSilver MX2 is part of a large family derived from a motorised hang glider in the mid 1970's by Bob Lovejoy and marketed by Dick Eipper. There were one and two seat versions initially with single surface wings, no ailerons, and unusual control systems of which mine is an example. The stick works the rudder and elevator, the pedals work differential brakes and wing spoilers. It has tricycle undercarriage but no steerable wheels. Steering is by full back stick, a lot of power, rudder and differential braking. Otherwise it is flown as a normal three axis plane, the spoilers being near useless for roll control, but good for very steep approaches.

Mine is a 1983 two seat model with a 46hp Rotax 503, 32ft span, 136kg empty weight, 327kg MTOW, 40kt maximum speed, 34kt cruise, 18kt stall. Take-off and landing distance is 30 metres or far less with wind. Cross wind capability is 4kts maximum. Variants were marketed on floats, as crop sprayers and even a police interceptor, which came with lights, siren, radio and search light (It could have intercepted a pensioner riding a gopher maybe). All together, more than 11,000 were built. QuickSilver claimed to be the world's largest aircraft

manufacturer and is still going strong. They were probably the first well-made mass produced ultralights and have been copied by many others, including the Chinese.

I bought my plane for \$4,500 with a new engine from a chap living on a small property on a hillside near Ballarat. He had a hanger and airstrip on his block and took me for an impressive demonstration flight.

## THE PLANNING

I have no radio and a handheld is useless with the Rotax 503 at 5500rpm only 20cms from my head. Therefore I planned a two day trip refuelling at private strips and avoiding CTAfs. I installed a 60 litre drum in the passenger seat with a squeeze bulb primer to prevent starvation problems when switching from the overhead 25 litre tank. I also carried extra oil, toolkit, tie downs and a back pack of clothes all strapped on.

Navigation was by GPS and map strapped to a kneeboard. Because I was to spend long hours in the cold, I wore a padded flying suit, leather helmet and gloves.

Test flying of my long range setup was restricted by the continuous rain and gale force winds which southern Victoria experienced most of September and October, but a few brief flights proved it worked OK. My back up plan was to dismantle the plane and trailer it, but because Holbrook was having its annual fly-in on November 2 and 3, I set October 30 as my departure date to allow three days for the flight.

My family was apprehensive because the plane has been notoriously unreliable. It's experienced two engine seizures and a few other forced landings, all on short flights around our farm. Also the preceding three weeks had been bad for aviation with two local GA fatalities and the news that two Thruster crew had been forced into Bass Strait the day before my planned departure.

But on the big day, the weather was good with tailwinds forecast for the next two days for the whole route to Holbrook.

>> Leaving  
for Holbrook

## THE FLIGHT

I departed at 8.45am. It was cloudy, a 10kt tailwind, and all went well for the first 20 minutes when suddenly the fuel line which connects both sides of the fuel tank mounted over the main fuselage tube, cracked. Because it is directly above my head it was hard to miss, so forced landing number one took place in a nearby paddock. Forced landings are something the MX does best. It only needs one hundred metres of clear ground. It does not have to be smooth or hard ground, just as long as there is no long grass or soft mud.

The problem was quickly fixed with some spare fuel line from the toolkit. But because the fuel cannot be turned off during repairs, about five litres was lost, most of which ran out onto my seat. I gave it a while to evaporate but it had soaked through into the foam padding, making things rather uncomfortable. 10 minutes after take-off, I had a hot and burning bum, which led me to forced landing number two at a friend's place at Dunkeld. It was a very rough paddock and there was no one home, so I borrowed a plastic tree guard which fixed the problem.

The third landing was in a paddock at Buangor for lunch with my cousin and a top up of 20 litres of fuel. So far half a day had passed and I'd travelled 70 miles.

Ten miles west of Kyneton I needed another forced landing to fix an elevator trim line which had broken, then I finally arrived at my overnight stop at Peter White's farm north east of Kyneton.

The next day started with a 12kt south easterly wind. I was heading north for Heathcote to avoid the restricted area around Puckapunyal army base, followed by a cross wind leg to Locksley. The MX2 does not appreciate a strong cross wind and tries to weathercock into it. Airspeed dropped as low as 19kts on that leg. I put in 15 litres of fuel at a private strip at Locksley, thanks to John Nissan and his friend Peter, which was enough to get me to Holbrook, now only about



120 miles away.

Flying conditions were superb, sunny and warm with a 5kt tail wind all the way and a magnificent view at 500 - 1000ft. I stopped for lunch and a chat at the Bunn brothers' strip away from the home property, about 40 miles from Holbrook.

The last leg was going well until 20 miles out, when a sudden two second silence followed by a restart, cut short my thoughts of how easy it had been up to then. Five minutes later the same silence happened again, so I switched tanks and nervously flew on. At 3:15pm I landed at Holbrook and taxied up to be congratulated by Bryan Gabriel and Max Brown of the Holbrook Ultralight Club.

On the Saturday I gave a talk about my flight to the people attending the fly-in. The next day I left the MX with about 30 other ultralights in the club's magnificent collection and headed home by car. With me, I had the trophy for the longest distance flown, although I am not sure what the message is there.

Thanks to Peter White for ground support, Graeme John for advice on carburettor tuning and my wife, Mary, for keeping fairly quiet about her doubts. 🍷

>> Arriving at Holbrook,  
congratulations from  
Bryan Gabriel

# final homily

## Zane Tully

**Y**OU may have already heard I have submitted my resignation as Operations Manager of RA-Aus. If not, then I wish to confirm that I have reluctantly resigned from the position effective from January 10.

In early December last year I accepted an operational role with the Sport Aviation Section of CASA.

It's hard to believe that more than three years has passed since I stepped into the Operations role with RA-Aus. Where does the time go? It goes without saying that time passes quickly when you are participating in an activity you're passionate about.

My departure in no way diminishes my passion for our organisation. My resolve to support and enhance recreational flying is as strong as ever.

Accepting a role with CASA is a significant career opportunity for me, one which will continue to allow me to assist and enhance recreational aviation in all its forms. I look forward to the new challenges ahead and the opportunity to further enrich my knowledge and skills.

It goes without saying that the success of an individual is unlikely without the support of others. Accordingly, I would like to take this opportunity to thank the RA-Aus Board for appointing me.

Also, I would also like to thank Jill Bailey and Janelle Wayling for their patience, motivation and friendship. Your contribution has been (and will continue to be) significant to the ongoing success of RA-Aus Ops.

During my term I have witnessed our staff achieve extraordinary results by working tirelessly to uphold the integrity and professionalism of the organisation. It has been my privilege to work closely with such a dedicated group of people. I leave with the knowledge that our organisation is well represented and poised to move on to greater and improved milestones.

I continue to look forward to meeting members and aviation enthusiasts alike out in the field.

All the best for the future. 🍷



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# PILOT TALK

Jill Bailey - Operations Manager

## Farewell Zane

BECAUSE Zane has made his own farewell homily, I can only add that I would like to wish him all the best in his new role with the Operations department of the Self Administering Sport Aviation Section within CASA. Our loss is CASA's gain. He will be missed.

I learned a tremendous amount from Zane over the years he was Operations Manager and I found him not only thoroughly professional and easy to work with, but generous in sharing his knowledge about Operations and other areas.

I have since been appointed Operations Manager.

### Overdue SARtime has a great outcome

As a follow up to our December Pilot Talk about pilot responsibilities and the benefits of Search and Rescue Time (SARtime), Operations is pleased to provide an example of how the process of SARtime, activated appropriately, can assist the Rescue Co-ordination Centre.

As you may have read in previous articles, Operations recommends that prior to any flight, pilots leave a flight note or flight plan with a responsible person, who would be tasked to contact the RCC in the event the SARtime is not cancelled or becomes overdue.

Recently, the RCC was advised by a pilot's wife that her husband was overdue according to the SARtime he had left with her. She provided the RCC with a copy of his flight plan.

Fortunately, the pilot was simply a few minutes late reporting his safe arrival. Once advised, the RCC stood down without beginning a full scale search.

And to the pilot's credit, the RCC says that based on the flight plan his wife provided, it would have had a high likelihood of success retracing his flight, including the frequencies he would be likely monitoring at each stage of the flight.

The RCC was so impressed with the thoroughness of the pilot's flight plan they contacted Operations specifically to pass on their compliments to him. Operations also congratulates the pilot, his CFI and his wife.

### ADSB changes

Members may be aware of recent changes to transponder requirements as outlined in Civil Aviation Order CAO20.18 which from our perspective specifically relate to Mode S transponder carriage in Class E airspace. In order to operate in Class E airspace from February 6 2014, new RA-Aus aircraft will be required to be fitted with ADSB Mode S transponders. Additional information was also provided to members on the RA-Aus website on October 10, 2013 under News - New Mode S Transponders.

There is no current requirement for Mode

S transponders in VFR aircraft with existing transponders, however those who intend to fit a new transponder or replace a transponder should consider installing a Mode S.

Below is a link to the Airservices website with a Frequently Asked Questions section, which may assist your decision-making.

<http://www.airservicesaustralia.com/wp-content/uploads/FAQ-ADS-B-Final-18MAR12.pdf>

As well, Airservices has requested that members using Mode S transponders program the Flight ID field in the following format (which should also be used for Aircraft Identification when lodging a flight plan):

'RXXXX' where XXXX are the last four digits of the aircraft registration, example 'R1234'.

The 'R' advises an Air Traffic controller that the aircraft on their screen is being operated under the auspices of RA-Aus. However, the aircraft call sign remains the same (e.g. As per Section 4.02 of the *Operations Manual*, aircraft type and last four digits of registration number).

It is likely that if ATC attempts to make first contact with one of our aircraft fitted with a Mode 'S' transponder, it may use the Flight ID call sign (e.g. Romeo 1-2-3-4). However, when replying to ATC, use the normal call sign (as described above) clearly stating your aircraft type.

Before using a transponder in the Mode 'S' function, a registered HEX code must be obtained from by emailing CASA at [aircraft.register@casa.gov.au](mailto:aircraft.register@casa.gov.au).

Once issued with a HEX Address from CASA, email the number to [ops@raa.asn.au](mailto:ops@raa.asn.au). This will allow RA-Aus to maintain its own register of HEX codes.

### Proposed Operations changes

Acting on a Board request, Operations has proposed changes to some Endorsements detailed in the next *Operations Manual* (Issue 7).

Presently, members receive a High or Low Performance endorsement on their Pilot Certificate based on the aircraft type in which they have trained or converted to. The endorsement was intended to provide understanding of the different flight characteristics and possibly limited manoeuvring envelopes of different aeroplane types. However, the High and Low Performance endorsement may not provide sufficient assurance that a pilot can safely operate a new aeroplane type. Experienced instructors, CFIs, glider pilots and commercial pilots all agree that it can take between 5 - 50 hours to become competent on a new type, no matter how many hours a pilot may have. Obviously this figure varies on factors including currency, recency, competency, total experience and hours on a

similar type.

A typical scenario where incidents or accidents may occur include members who train on and gain a Pilot Certificate on one type of aircraft, then purchase a different type intended for use at an airfield different to their local aerodrome.

An incident or accident generally occurs during take-off or landing. Aircraft types which figure prominently in this occurrence include types with Short Take-off and Landing characteristics being flown by pilots who have been converted from a high performance (trainer) type. In this scenario, pilots generally require additional training in short field operations, decision making and setting of personal minimums.

All of which is an explanation for why a change is proposed from the High/Low Performance category to simply - Type Training. Type training will involve the Pilot Certificate holder undertaking appropriate training in an aircraft type with an instructor, who then makes a logbook entry to state that the pilot has been assessed as competent on type. No notification to RA-Aus is required, simply a logbook entry noting the aircraft type for which training has been completed.


We anticipate the new *Operations Manual* should be approved and distributed to members in the near future.

### On the subject of STOL

Pilots should consider whether a short field take-off or landing is really necessary at an airport where a 1,000 or 1,500m runway is available. We have all seen the pilot who takes off, hauls the nose into the best angle of climb and staggers away, having used 150m of a 1,000m strip.

While best angle of climb will allow the aircraft to achieve the greatest height in the shortest distance, there are several important reasons why this is not the most appropriate technique for every take-off.

A best angle climb is at a slower airspeed, with a correspondingly higher nose attitude. In the event of gusty or turbulent conditions, an emergency involving the engine or mechanical turbulence from trees, hills or hangars, the envelope between stall speed and best angle of climb is correspondingly narrower, leaving a smaller margin for error. Best angle of climb is intended to be used in order to clear obstacles, and once obstacles are cleared, best rate of climb should then be adopted.

Further detail regarding other Operation Manual changes will be available in future *Sport Pilot* articles. 

# FLIGHT INSTRUCTOR'S FORUM



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## Seeing not believing

ALMOST every pilot will experience illusions during their flying. At one end of the spectrum a botched landing may have been caused by a sensory illusion on final. At the other end of the spectrum is the possibility of total disorientation and loss of aircraft control.

No one is immune to the effect. Understanding and recognising the many different types of illusions and reasons why they occur is a valuable lesson.

To correctly sense the orientation of the body in space, the brain must process information from various sources. This information is generated by three different mechanisms:

1. The eyes;
2. The inner ear (vestibular apparatus);
3. Skeletal muscles and joints (postural or proprioceptive cues).

The highest priority is placed on the information provided by the eyes.

A state of confusion and conflict occurs when the brain receives ambiguous messages from the senses.

### THE LEANS

During a flight, the pilot looks down to study a map. When he looks up he discovers his heading has changed but hasn't noticed his left wing has dropped ever so slightly. The balance mechanism in his ears has not sensed the turn. His brain's message is that he is maintaining level flight. But noticing he has banked the plane, the pilot turns back onto the correct heading. The inner ear now reacts to the rapid change in balance. And although back on heading with wings now actually straight and level, the brain's message is strong and demanding. It believes that the aircraft is now banked to the right.

An experienced pilot will know to override the message. An inexperienced pilot could be confused and re-bank in response to the brain's insistence. This could lead to continued disorientation.

### THE CORIOLIS ILLUSION

The semi-circular canals of the inner ear are filled with fluid. Within the fluid are hair-like cells. The flowing sway of the fluid moves the hairs. They send messages to the brain when sensing motion in pitch, roll or yaw. Certain combinations of head movements

in a turn (e.g. the pilot leans over to pick up a pen or map) can result in a confused message reaching the brain. The brain's response is a tumbling sensation. This can result in an unpleasant feeling of nausea.

So it is always best to restrict head movements, especially when turning.

*Messages received by the brain from both the inner ear and posture strongly compete with the messages coming from the eyes*

### SOMATOGRATIC ILLUSION

The messages received by the brain from both the inner ear and body's posture strongly compete with the messages coming from the eyes. This illusion occurs when the brain confuses the sensations it is receiving from the ears. For example it can mistake forward acceleration with that of a rapid climb. In low light or during times of restricted visibility, it can lead the pilot to believe he is climbing excessively and lead to mistakenly lowering the nose of the aircraft.

During acceleration, the fluid in the inner ear flows rearwards, as do the hair-like cells within the fluid and the pilot's body is pushed back into the seat. This feeling also happens in a climb so without confirmation from the eyes, the brain can come to a wrong conclusion about what is happening.

This illusion commonly occurs at take-off. Any aircraft which accelerates to 130kts over

a 10 sec period just after take-off generates an increase of 0.16g on the pilot. This signifies the illusion of a nose-up pitch of nine degrees. Most aircraft climb out at a six-degree pitch or less – therefore an unwary pilot could correct pitch downwards in response.

In the absence of a distinct horizon on a hazy day, departing over a shore line, into a rising sun or over hills or tree line, the temptation to push the nose down can be overwhelming.

### REPEATING PATTERN ILLUSION

When an aircraft is moving over a surface which has a regular or repeating pattern, (e.g over a sandy desert or ripples on water) the pilot's eyes can easily misinterpret the attitude of the aircraft if each eye lines up with different parts of the pattern. This can lead to a large error in altitude perception.

Any descent over a pattern texture can result in premature impact.

### FALSE VISUAL ILLUSIONS

The availability of a horizon is of the highest importance for orientation. With the lack of an actual horizon, the eyes will latch onto any continuous surface. This could create a false horizon. (e.g a banked cloud in the distance) which can then cause the leans.

### SLANT ILLUSION

This commonly occurs in fog. A runway may be clearly visible through fog when viewed directly from above. However, on an approach, the runway can disappear.

A bank of fog is over twenty times thicker when viewed at a three degree descent (or climb) angle.

No one is immune to the effects of illusions in flight. Know and learn as much as you can about them and why they occur. Your instructor is the best source of information about illusions and how to recognise and avoid them.

Remember that seeing is not always believing.

**References:** *Human Performance and Limitations: Bob Tait, Pilots Being Human: David Robson, [www.pilotfriend/spatialdisorientationandsensoryillusions.com](http://www.pilotfriend/spatialdisorientationandsensoryillusions.com), [www.mzero.com](http://www.mzero.com), [www.retroyou.com](http://www.retroyou.com)*



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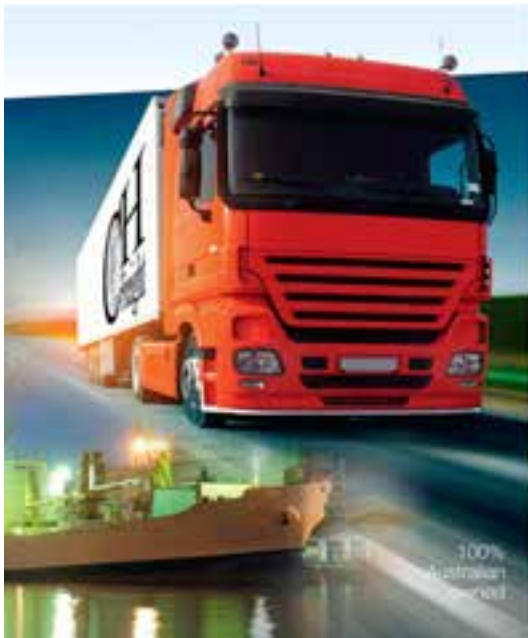
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# LEARNING TO FLY

We had a big reaction to our call for a new Learn to Fly columnist. And rather than disappoint so many good writers, we will run the good ones each month and see who goes the distance.

**SHANNON LEGUISE**

## *The right side of the fence*

**L**OG completed, maintenance release checked, pre-flight inspection done, all I had to do was complete the run up check list and I was ready to go. I was off on a solo training area flight to perform some practice forced landings, steep turns and CTAF entry and exit.

After checking there was no other aircraft on final on any of the runways I lined my Jabiru J170 up on 06 at Jaspers Brush, talked myself through what I would do if the engine failed on take-off, and away I went. Full throttle, increasing airspeed, 50kts, rotate, and I was off.

Before I left, my instructor told me the wind was picking up and the gusts were getting stronger. I was also warned the circuit was fairly bumpy and, if at any point I felt uncomfortable, I should call it a day. Let me tell you now, she wasn't wrong. I hit a fair few 'potholes' on upwind and crosswind, so I decided to depart crosswind and head out to the training area where the air was smoother.

The majority of the flight went without an issue at all. I went up and down, and up and down, in my attempts to perfect my forced landings. I then went around and around, trying to perfect my steep turns. After about 45 minutes I decided it was time to head home. That's when the fun started.

I started to descend on the dead side of 06 to join midfield crosswind in the hopes of doing a touch and go or two before calling it quits. I changed my mind fairly quickly. Looking at the windsock, I could see the wind was fairly strong

and gusting pretty bad. I turned downwind and turbulence hit me from every direction. I remained calm - I knew help was only a radio call away. There was really no need to panic at all.

After completing my pre-landing checks and reaching 45 degrees from the aiming point I turned base. Power to idle, carby heat on, only one stage of flap due to the strong wind. I descended at a good rate and avoided most of the turbulence on the base leg. I was feeling good about this landing.

I then turned onto final. Then the fun really kicked into high gear. I decided it would be best to land with a little bit of power just to be on the safe side. What a bumpy ride it was, the entire leg. My poor little Jab was blown around like a leaf. It was challenging to keep it lined up with the centre line.

I thought I was doing well, then the wind suddenly dropped - oh no. I didn't have enough power applied to counteract the wind drop. The plane dropped 200ft in no time at all. One minute I had a nice predictable descent rate and would make the runway without an issue. The next I was 100ft above the ground and still a fair distance short of the runway.

I had to think quick. I kicked in a fair bit of power and increased my pitch to decrease my descent rate. I was careful not to pull too far back on the stick, there was no room here to stall.

The descent profile recovered. Then it was

carby heat off, slowly bringing the power back as I crossed the threshold and started the flare. My landing was a little bouncy but I made it, on the runway I was aiming for, and not in the paddock before it.

When I got back, I was greeted by the smiling faces of my instructor and CFI who had watched the entire approach and landing. I was shocked at first to see they were happy about me almost landing in a paddock instead of the runway. They asked me what happened and wanted to know what I had learnt from the situation.

Being a pilot isn't just about flying the plane perfectly. I will always face issues and challenges. But I have learned not to dwell on these challenges, but to learn from them and then apply that knowledge to how I fly.

From this experience I have learnt the weather can be unpredictable and I have to be prepared for whatever it throws at me. Making the right call is important, instead of being stubborn and continuing to fly. I realised I had reached the edge of my comfort zone. I have also learnt in strong, gusting winds it's better to land the aeroplane with power and roll a little bit further down the runway than missing the runway completely. After all, the runways there for a reason, why shouldn't I use it.

**NEXT MONTH**

**Anthony Sibary gets into the left seat** 🚀

>> Shannon and his instructor, Liz Fox





**A Steve Cohen Mustang.  
Now located in the Australian Ultralight Aircraft Museum at Holbrook  
Photo: Max & Isabel Brown**



# Celebrating



# 30 YEARS

## Accountable, deliverable, measurable

WHAT a year we have planned.

I have been involved with many different areas of RA-Aus, each of which has presented unique problems and issues. This has provided me with insights to organisation's good and bad points. Working through these during the CASA audits has exposed the compliance issues which have arisen due to differing management styles, work practices and personal interpretations. As the Technical Manager, I intend the performance of both the Technical team – and myself – should remain measurable and demonstrable.

The rules and exemptions under which the RA-Aus operates are clear and set out in both the Civil Aviation Orders and our own Operations and Technical Manuals. Pleasingly, we have made substantial progress with remedying the previously high rates of non-compliance. Since late last year we have been allowed to operate without the oversight of an Independent Technical Consultant (approved by CASA). As members are aware, we are auditing all of the 3,500 (approx) registered aircraft files. During 2013 non-compliant files were not processed until the missing information was supplied. With CASA's agreement, this restriction has since also been removed. If we now find a file missing documentation, we can still register the aircraft (providing there are no safety implications). Both CASA and the owner are notified of the aircraft's documentary shortcomings, the owner receiving a reminder after six months. Registration is suspended if the missing documentation still hasn't been provided after twelve months. This process is working well. Members are supplying information and the Tech team is sending out requirement letters with renewals. We are still finding files are missing, so please be understanding if the Tech team asks you for information. As I have mentioned, the role of Technical Manager is rewarding but very time consuming and the workload at times is overwhelming. My small team has grown and learned a lot over the past 18 months and we are continually looking to improve processes. We are an organisation of like-minded aviation enthusiasts, with a largely untapped pool of member resources. I will shortly contact all the L3s to invite them to assist me clearing the very substantial backlog of Accident and Incident reports.

### HGFA

I have recently been involved with our Operations team on the development of an updated Hang Gliding Federation of Australia Memorandum of Understanding.

As a result, I was invited to observe one of HGFA's WM/Rotax Maintenance courses. It's hoped eventually that our respective organisations will recognise and accept each other's processes and qualifications.

### TECHNICAL MANUAL

The Technical Manual is now in its final draft stage. During a marathon six hour meeting in January, CASA requested - and suggested - further refinements. The new Manual will provide much clearer and concise information now most ambiguities have been removed. There are also a lot of new items in the Manual that the membership will be happy to see. The Technical Manual hasn't seen a change like this for about ten years.

During the CASA audits, it was identified that LSA Special Certificates of Airworthiness (SCoA) had been issued with incorrect operational categories. CASA has worked with us to redress the problem by giving me the limited ability to re-issue corrected LSA SCoAs (sans Aerial work under 11.115). This is another strong indication of CASA's growing confidence in our ability to self-administer and self-regulate. I will notify via the website and upcoming Tech Talks when this instrument has been issued.

### L1 MAINTENANCE

There has been much discussion recently about the L1 training and confusion about what you can and cannot do. There is also a lot of speculation on forums about what maintenance RA-Aus members will be permitted to undertake. In the last quarter of 2013, CASA directed the Association implement 'training requirements for all new applicants for Level 1 or pilot maintenance privileges' and introduce 'a corresponding syllabus of competency-based training' (the latter to be incorporated into the revised Technical Manual). Furthermore, 'current holders of RA-Aus pilot certificates, who wish to continue to conduct Level 1 or pilot maintenance, will (now) be required to have completed appropriate training by July 1, 2014.'

The Board is discussing with CASA both the need and the impact of these changes. It is concerned the hastiness demanded by these restrictive timelines could compromise the planning, delivery and integrity of any new training and assessment requirements.

As things stand, any new Pilot Certificates issued after November 27, 2013 will be limited to what the Technical Manual refers to as Line Maintenance. This is in keeping with the current CASA Schedule 8 Pilot Maintenance and will include items such as changing oil, spark plug cleaning and replacement, changing tyres etc. If you already maintain your aircraft there may be a CASA requirement for all existing L1s to have training by July, 1 2014. RA-Aus is investigating the option of becoming a Registered Training Organisation, however there may need to be an interim training and assessment solution. We have approached CASA for a 12 month stay to have

these introduced. We will advise all members of developments in regards to the current maintenance privileges and or changes.

An on-line knowledge assessment facility has recently been developed (you'll be advised when this goes live), and we are meeting with CASA again this month to refine the timeline, standards and syllabus content requirements for maintenance training and assessment. Here again, I'd be interested to hear from members involved professionally with RTOs and TAFES.

Further details will be published to the website (and *Sport Pilot*) as they come to hand.

### L2 MAINTENANCE

L2 reaccreditations will also resume this year. Although the requirement for biennial renewals has always existed (see s 4.1, Technical Manual), it would appear this hasn't been enforced for many years. Having L2s current and involved is very important and in order to maintain this privilege members may be required soon to have completed (and evidenced) at least four annual inspections every two years. While this last matter is still under discussion, the process of L2 reaccreditations will proceed nonetheless.

### PROPOSED L2 MAINTENANCE CATEGORIES TO TAKE EFFECT (ONCE CASA GIVES US A GREEN LIGHT FOR THE REVISED TECHNICAL MANUAL)

#### 1. Levels of maintenance

**LM** - Allows line maintenance as set out in the current Technical Manual under 4.1.1 Annex B (on any aircraft);

**SM** - Allows scheduled maintenance plus Aircraft Condition Reports on specified aircraft types;

**SMR** - Allows scheduled maintenance, Aircraft Condition Reports and minor repairs on specified aircraft types;

**UL** - Allows unlimited maintenance, repair and Aircraft Condition Reports on any aircraft type.

#### 2. Aircraft types

**W** (Wood and fabric) / **RT** (Rag and tube) / **M** (Metal) / **C** (Composite) / **AT** (Any aircraft type) / **WS** (Weight shift) / **PP** (Powered parachute) / **Individual type** (e.g. Jab, Tecnam etc.)

#### 3. Systems

**E** (Engine) / **A** (Airframe) / **AV** (Avionics/ Electrics)

Thus a L2 approved to carry out scheduled maintenance on metal and composite airframes but not engines would be accredited L2 - SM, M, C, A.

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# Don't give me

by Murray Bridge



**S**TATIC electricity is caused by friction between dissimilar materials, specifically at the molecular level. When molecules rub together there can be an exchange of protons (a plus charge) and electrons (a negative charge).

An uneven exchange of particles can lead to an increase in the electrical potential between the objects - a build-up of static electricity. The imbalance needs to be rectified. The electrical potential may bleed away slowly or it might, under certain conditions, discharge suddenly as a relatively small spark (although still several thousand volts) or as lightning (billions of volts.)

How much static electricity builds up depends on a number of factors, particularly what type of materials are in contact, what types of containers they are stored in, how much friction is generated and prevailing weather conditions. Static electricity becomes more prevalent with decreasing humidity because humid air allows any build-up to dissipate quickly. For example, rubbing fabrics containing nylon can produce a dangerous electrical potential in air with a relative humidity below 35%. Even cotton can produce enough charge potential to ignite petrol vapours be-

low 20% relative humidity.

This is relevant because in a US study of fires caused by static electricity while refuelling at service stations, it was found that in well over half of all incidents, the static electricity built up because people got back into their cars while refuelling was taking place, rubbed against seats etc. then returned to the fuel nozzle and touched it, causing a spark to ignite the fuel.

Non-conductive materials, including petrol, and the plastic containers in which it may be stored, can cause a problem because when a static charge builds up it can take some time to dissipate and even bonding or grounding/earthing will be ineffective. Putting a metal fuel container on the ground, or even just touching it, will probably release the electrical potential. Humans are good electrical conductors, damp bare ground is an excellent conductor, dry ground is a good conductor and concrete and bitumen are reasonable conductors.

However most plastic fuel containers are very poor conductors and if there is an electrical potential inside the plastic container or within the fuel it contains, grounding will probably be ineffective. For this reason, if

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# static



there is a possibility of a static charge build-up within these containers, for example if the container has just been filled or has been bouncing around in the boot of a car, it would be prudent to wait a while before using it to refuel. How long do you wait? Your guess is as good as mine, but I would think half an hour would be sufficient.

However, it is still recommended plastic fuel containers be placed on the ground when they are being filled. There is still likely to be some earthing effect and studies have shown that the ability of fuel to retain 'capacitance' (store an electrical charge) increases with distance from earth.

Isn't physics mysterious and wonderful?

So, what conditions are likely to lead to a build-up of static electricity?

1) Low relative humidity. This is most likely to be experienced during very cold, dry conditions overseas but in Australia it is most likely to occur in very hot weather.

2) The presence of spilled fuel and/or fuel vapour. We've all seen fuel vapour rising from open containers, fuel nozzles etc. on hot days.

3) Friction. Fuel which has been sloshing around in its container has been subjected to friction. Fuel which has been pumped has also been subjected to a large amount of friction. It has travelled along pipes and tubes, through filters, triggers and metering devices and through numerous curves. The longer the hose and the more bends there are in it, the more friction there will be.

4) This friction also relates to the aircraft. As it travels through the air, friction creates a static charge build-up within the airframe. With glass reinforced plastic (a very poor conductor) aircraft, grounding the airframe is unlikely to release this electrical potential. It will need time to dissipate. Even wind blowing over a parked aircraft may build up a static charge.

5) Using unearthed/unbonded metal containers and pouring devices.

6) People rubbing against things during the refuelling process.

7) Allowing the possibility of an explosive fuel / air mixture to come in contact with an ignition source. For fuel to ignite, it needs a very specific ratio of fuel to air. A saturated fuel / air mixture will not ignite. Since the most common source of a spark during refuelling is from the nozzle, by placing the nozzle well into the tank or container where there is going to be a saturated fuel / air mixture, any potential spark is unlikely to cause a problem.

Let's look at a possible scenario. It's a hot, dry, blue thermal day. The aircraft has been flying for a couple of hours and has just landed. It needs

to be refuelled. The pilot has just returned from town where he refilled a jerrycan with unleaded petrol. He pulls it out of the boot and takes it over to the aircraft where his pilot friend is waiting with a plastic funnel. The funnel goes into the neck of the tank and without earthing the tank or bonding the tank to the jerrycan, the pilot starts pouring the fuel into the funnel. A strong breeze laden with dust particles whips across the parked aircraft, causing some of the fuel to spill, so the pilot pours faster in an attempt to cut down spillage. Meanwhile the friend, who has been crawling around in the back seat of his car looking for his water bottle and cap, returns to the aircraft just as the pilot finishes refuelling. He helpfully reaches out to take the plastic funnel from the filler and...spark.

## REFUELLING

1) Use the earthing wire when refuelling from the jerrycans. This will earth the aircraft fuel tank, the metal jerrycan and also bond the jerrycan to the tank.

2) Earth and bond the tank and the jerrycan before opening them.

3) Use the jiggler syphon hose in preference to the funnel. This will cut down on spillage and the hose will be well into both the tank and the jerrycan.

4) Pour slowly. Studies have shown that a flow rate of less than one metre / second, or dispensing 20 litres over a two minute period is unlikely to build up any significant static charge. The jiggler syphon hose is therefore ideal.

5) Maintain physical contact with the jerrycan and the syphoning hose to equalise any electrical potential. Wherever possible one person only should do the entire refuelling operation.

6) If a tingling sensation is felt, e.g hair standing up on arms, slow the dispensing and leave the nozzle inside the vapour space for at least 30 seconds after the fuel flow stops. The risk of static electrical discharge is greatest when the nozzle is being removed from the tank being filled.

7) In the event there is a fire while refuelling, leave the hose or nozzle in the tank and back away.

There are millions of uneventful refuellings every year. But static electricity is a hazard which needs to be dealt with. If you understand what causes it and what conditions make it worse, and take sensible precautions to minimise them, you are unlikely to ever have a problem. 🚫

FEATURE

# *Crossing the strait*

by Eugene Reid



>> A Thruster similar to the one which was lost in Bass Strait.  
Photo: Scott Richardson



# 'TWO SURVIVE ULTRALIGHT CRASH IN BASS STRAIT'

**F**ront page headlines like this one late last year are good news because both pilot and passenger survived. But it doesn't encourage anybody to fly across Bass Strait.

I live in Tasmania and have crossed the Strait more than 350 times. At one stage I had flying schools on both sides of the water.

I spoke to this particular pilot before his crossing and advised him to cross via Flinders Island. And, because he was flying a Thruster, I advised him to place air mattresses in the wings. I have crossed the Strait in these aircraft and always carried air mattresses in the wings. That way, if the two stroke engine fails, the aircraft itself becomes your life raft.

That's because it's better to stay out of the water as long as possible. Even in moderately cool water, hypothermia can take hold in less than an hour. This crew also wore lifejackets and carried a Personal Locator Beacon. Without a PLB you will be effectively invisible in the water.

On this crossing, the two pilots didn't put air mattresses in the wings, but they did have them in the cockpit. When the engine failed and they glided into the water, they inflated the air mattresses and tied them together, which helped keep them out of the water, made them easier to see and the PLB gave the search aircraft a signal to hone in on.

## IT'S NOT THAT SCARY

When properly prepared and on the right day, crossing the 'Pond' is not the drama most pilots expect.

Tiger Moths, Austers and earlier model aircraft, many of which were slower and less reliable than today's recreational aircraft, regularly crossed without a radio, any sort of safety transmitter or nav aids. The pilots only had a compass and the islands to follow.

It is not the endless expanse of water most pilots imagine. Sure, if you fly direct it's a long way.

From the bottom of Victoria at Wilson's Promontory to Devonport is 120nm, or the top of Westernport bay, Tooradin Airport to the centre of northern Tasmania George Town is 180nm.

But if you go via Flinders Island, the longest distance over water is only 20nm. If you fly via Clifly Isle it's only 10nm (18.52km) when midway, or 27nm from the southernmost point of Wilson's Promontory. Recreational aircraft under the flight conditions of both CAO 95.10 and 95.55 are approved to fly up to 25nm from land and, when crossing Bass Strait, can fly direct due to weather if the occupants wear life jackets and carry a working radio.

The reason for this is that there is a moist air

mass generally flowing west to east over Bass Strait and when it flows over warm landmasses like King Island, and even more so over Flinders, the moist warm air causes cloud, rain and, at times, thunderstorms. Flying direct often keeps you in sunshine. A nice flight, only 20 miles west of Flinders Island, is usually out of the cloud and in clear air.

But most pilots feel safer on their first crossing to go via the islands. You need to remember 'Go by air if you have time to spare', because if the weather isn't perfect, you don't have to go today. Especially don't go late in the day, because if you have a problem, you probably won't be found in the dark.



Recreational pilots can fly up to 10,000ft which gives you a maximum altitude of 9,500ft flying to Tasmania via Flinders to be able to glide to land. When flying at or above 5,000ft you must have a radio and make broadcasts, a minimum of 2,000ft is required for continuous VHF Communications. If you fly an aircraft with an average glide ratio of 7 to 1, you need to be at 8,500ft or higher to be able to glide to land during the flight. With 12 to 1 you need to be at least 5,000ft. The longest overwater gaps only take 25 minutes in a slow ultralight or 12 minutes or less in a faster plane.

## ON THE WAY

After passing the first three groups of islands, which in most aircraft takes less than one hour, you will reach Flinders Island and feel like you are across. There are no more 20nm gaps. Flinders Island is 35nm long with large areas of open flat country and airfields.

After Flinders, there are many small islets and islands surrounded by shallow water where the colours have to be seen to be believed. The first one, Anderson Island, is only 1nm south of Flinders, then it's just 2nm to Cape Barren Island, 1nm to Preservation Island, 2nm to Clark Island,

8nm to Swan Island (most of these islands have airstrips), then 2nm to Cape Portland and you really are across.

This is followed by a nice flight along some of Tasmania's flattest coastline to George Town via Bridport.

## TECHNICAL DETAILS

You must have a weather forecast, and although it sounds so easy following the stepping stones across, you will need to plan carefully in case visibility is not as good as expected and to allow you a safe margin with fuel and last light.

Search and Rescue times and SKEDs (Scheduled Reporting) are necessary when crossing Bass Strait.

Melbourne Centre (Flight Service) is there to help you. Don't be afraid to talk to them.

To use SKEDs when crossing the coast, call Melbourne Centre on 120.0 and start your call with 'Melbourne Centre', then your call sign and flight details.

When Melbourne Centre calls you back, give them your aircraft type, position and altitude, your route (Eg tracking Hogan, Deal, Flinders Island - if you are stopping at Flinders Island your track details would end there - Cape Portland) and the number of people on board.

You can nominate the gap between your SKEDs. (10, 15, 20 or 30 minutes depending on your aircraft speed). Start your SKEDs at a time which is easy to remember (eg. If you make 30 minute SKEDs, start on the next hour or half hour). When making your report, transmit Ops normal, preferably with a position and the time in minutes past the hour for your next SKED.

Report when crossing the opposite coast to cancel reporting. When cancelling your SKEDs, either crossing the coast at Flinders Island or in Tasmania, do so on 126.5.

Approved inflatable life jackets and PLBs are mandatory for all crossings.

If you fly a two stroke powered machine, think about adding flotation to the aircraft. For most ultralights, usually air mattresses or Styrofoam in the wings or fuselage.

You can buy or borrow life jackets. Life rafts are now the size of a briefcase and will fit into most aircraft.

Special procedures for crossing Bass Strait can be found in the ERSa (EN ROUTE SUPPLEMENT AUSTRALIA) and don't hesitate to ask for advice from someone who has already done it.

So there's no reason to be scared. These are relatively simple preparations for making a safe crossing of the Pond. It will be an unforgettable flight as a prelude to the even more breathtaking scenery of Tasmania. 🌊

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Sonex Taildragger, Aerovee 80HP, EIS 4000, Microair Radio, Dual controls, 60 Litre Fuel Tank, Approx 18 L/H Fuel Burn, Cruise 100KTS. Fast, Cheap, Metal, Fun. Would consider a trade on a classic car, boat ?? \$39,500 Phone 0412 537 730

### 3323 ZODIAC 601 XL-B



ZenairAustralia is upgrading its 601 XL-B, Rotax 912 S (100hp) MTOW 600kg, Upgraded to 650 Canopy, Crusie 105kts , Dynon D100, Mode C Transponder, Garmin 196, Wing lockers, A great aircraft for touring or just a local flights. \$60000 ONO Bendigo. Ph 0417 121 111

### 3339 LIGHTNING LSA



LIGHTNING LSA. 46 Hrs, GRT Glass cockpit, GRT Engine monitor, Auto pilot, Garmin radio, Transponder, Garmin 695 GPS, PS Intercom, Kannad ELT, Park brake, Electric trim and flap, Jabiru 3300 engine. Always hangared and in excellent condition. \$100,000 ono, make an offer. Phone 0408813501 South Australia

### 3380 SKYRANGER V- MAX U K.

Skyranger v- max u k. nil hours, rotax 912 80h.p. all instrutments. green/ white. to be completed and test flown soon. sale due to ill health \$40,000.00 o.n.o. phone 0438909665 or donlee@y7mail.com.

### 3387 JABIRU 3300 6CYL



JABIRU 3300 Build Year: 2006 Thin Fin engine (Zero Hours never been started but turned by hand regularly). Reduced to \$10,500. Also Jabiru wooden Prop, Spinner etc (all zero hours) \$1500 if purchased with engine. Phone

Greg Tucker 0439617044 email: [greg.bathurst@harveyworld.com.au](mailto: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. \$43000 + GST ONO [kjeffs@bigpond.net.au](mailto: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

### 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.

### 3416 JABIAU SP500 - 3300



TT 250hrs. This beautiful one owner aircraft has had no expense spared. Excellent GA Panel, Quality Radio + Icom with headsets. Artificial Horizon. Garmin 296. 2 Pac Paint Leather Trim, Quick release wings, Lame 2 Serviced Price Reduced \$45,000 0418573212

### 3422 ZODIAC 601XL-B FOR SALE



120HP 6cyl TT170 hrs. Magnificent built aircraft superb looks flies like a dream no expense spared like new. Glass panel Dynon D100 & D120 Avmap4 Micro air radio/ transpdr leather seats no accidents kept in hanger. Arguably the best now \$62000 must go make an offer for info and pics. 0428923250

### 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

### 3427 KR-2SX FOR SALE



KR-2SX steerable nose wheel, Matco Hyd.brakes& wheels+ p/brake, Subaru EA81 Stratus conv, dual bing carbs, dual spark, Amax PSRU, 3 blade 72" warp drive prop, 3 fuel tanks 70ltr, Mgl Flight 2 primary flight inst, T30 dig tacho, Save 1000.s HRS & \$\$ on building project. No reasonable offer refused, view more [recreationalflying.com](http://recreationalflying.com), Taree A/P, Harry 0249 971 500

### 3428 JABIRU J230C



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## MEMBERS' MARKET

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 I'm also interested in share holders the aircraft is located at northam wa min two share holders \$25k.

### 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. \$68000. ono. Located VIC Ph: 0419 727077

### 3486 SKYRANGER



First registered January 2007. Rotax 912s 100 hp Glass cockpit. Dynon EFIS and EMS. SL40 vhf, transponder, AVmap GPS. 3hr endurance. Doors and screens in perfect condition. Nil Damage 200 hrs total time. \$48000.00. Always hangared at Southport Flying club. Full maintenance history. 0414 450 015

### 3487 JABIRU SPT-6 TAILDRAGGER



New Jabiru SPT-6 Taildragger, TT 15 hrs, New 3.3 engine, 85 litre tank, STD Jabiru dash, Gloss white ready for your decals. One of only four Jab 6cyl taildraggers. Goes like a rocket, Solo ROC 1800/min, 125 kts @ 2700 RPM. YBNS airport. \$58000. 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 \$45000 O.N.O.

### 3490 JABIRU 170C



August 2008 factory built. 420 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

### 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 \$68,000

### 3496 JABIRU SK2200



Jabiru SK2200, 2.2litre solid lifter 80hp Jabiru Engine, upgraded heads and cooling ducts. Basic instrument panel Garmin AERA GPS, IPAD bracket, iphone mount, very comfortable and capable 88knot cruiser. Hangared Boonah, Queensland, Hangar available. Priced to sell, nothing to spend. REDUCED PRICE Warick 0412 115 377 \$30,000

### 3499 PELICAN PROJECT



Pelican project. Model PL, can be built as LSA. All parts included except engine & instruments. Factory made fuselage, horizontal and vertical tail feathers finished, tricycle or tailwheel options. Heavy duty windshield and prop also included. Kit valued at \$60k+, will accept \$28,000 (reduced). Contact 0403 586 085.

### 3509 AIRBORNE 912 TOURER



Airborne XT 912 Tourer 2007 Model 578 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 \$34,000 kenj@jelfor.com.au 0412512457

### 3512 ROTAX E TYPE GEARBOX & STARTER

Rotax E type Gearbox includes drive coupling and starter motor excellent condition has approx 300 hrs 3.47:1 ratio \$1100 plus freight ph 0428240192

### 3514 SONEX TD & HANGAR

Sonex TD with solid lifter Jabiru 2200J 275 hours, Patroni prop, 10" wheels, Garmin 296, 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

### 3520 WINTON CRICKET

Winton Cricket highwing single seat 42 HP. Robin direct drive with parts for 2:1 reduction, and other extras. Covered unlicensed trailer. Price - \$6,300. Located in Roleystone 30Kms from Perth. Contact Graham on 08 9397 5340 on Saturday & Wednesday's only.

### 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 maintenance log. New Battery. Always hangared & covered. Excellent condition. Peter 0402599306 \$19,500

### 3529 JABIRU SP 500/6



One owner, always hangared, 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 \$45,000 Lismore, NSW, john@jiggi.net Ph John 02 66888231

### 3531 JABIRU POWERED BOORABEE MK 2



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 Phone: 0408 690 738 Offers between \$16,500 and \$19,500

### 3532 SONEX



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## MEMBERS' MARKET

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.

### 3535 SOLD DEMONSTRATOR ALPI PIONEER 300



Alpi Pioneer 300 fixed undercarriage registered May 2013, Rotax 100HP ULS engine, 3 bladed 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, Mini EIS system, electric flaps/trim. \$115,000 neg 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

### 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

### 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

### 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, \$26K DETAILS CALL KEVIN 0448856983(QLD) (NO TEXTS PLEASE).

### 3558 2008 AIRBOURNE XT-912 TOURER



MUST SELL!!!! Streak 3 wing 412 hours, base 515 hours, included- large windscreen, bolly spinner, engine cowl, Microair M760 dual com radio, 1 near new microavionics helmet and a garmin aera 550 GPS. Trailer included. Always hangared, excellent condition.

Located in Albury NSW. 0416657705 Email heinjus1@hotmail.com Reduced \$32500

### 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 . \$30,000-00 no GST. Phone 0352338244

### 3570 TERRIER 200



TERRIER 200 Lycoming O235 740hrs mcauley all prop. 20hrs. full dash adj. seats strobe. afi fuel, Loran air map, e/trim dash & forward, 152 cesna transponder and encoder always hangared. I am 78 with heart problems this is not a toy aeroplane must sell \$65,000.00 ono 07 40669049 or 0740669166

### 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, landing light, repainted & new wing fabric some years earlier so looks good. Engine 130hrs since o/haul. Price reduced only \$12,500. 03 97441305 mail@goflying.com.au

### 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 \$11,000ono 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

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Senior Instructor for sport aviation flight training needed for our flying school located north west of Melbourne. Capable, reliable, personable senior instructor available 2-4 days pw (including min 1 weekend day). www.airsports.net AirSports Flying School (03) 9744-1305.

### 3592 NOOSA AIRSTRIP PROPERTY



NOOSA AIRSTRIP PRPROPERTY Modern 560sqm designer residence, pool on 10 acres. Aircraft hangar (15x18m ) with self contained unit, office and

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### 3600 TEXAN 600 FLYSYNTHESIS



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### 3603 AIRBORNE XT TUNDRA 912 S3



2008, 199 hrs \*Always hangered \*Excellent condition \*Skydat GX2 \*Two helmets/ headsets \*Microair transceiver \*Tall windscreen \*Maintenance log \*Reg. 26/03/14 \*Extras incl: \*Custom heavy duty trailer \*Heavy duty covers \*All cross-country

bags \*Training bars\*\* \$44,000. Test flight avail. w/qualified instructor. Contact Geoff 0409913858.

### 3606 FOR SALE SONERI PROJECT



Complete set of plans & photos,...compass, altimeter,ASI,Garmin GPS, Icom radio with VOR, Gas Colator, Flight timer, balance ball, Fuselage constructed comes with fabric, glue to complete plane. Aeropower 80hp engine, two props & spinners . all bolts,nuts,and rivets. all that's required is assembly.Contact:Barry on baajrowell@gmail.com or 0418659900 Price: \$13000.00

### 3610 MK 4 KITFOX



Mark IV Kitfox Raa Aus Reg. 19-1966 TT engine & airframe 339 hours. Basic instruments, 3 blade Bolly Prop, 90 litre wing tanks fuel 14lts/hr. P/hr 582 Rotax electric start aluminium alloy u/carriage bush tyres. always hangered \$22,000.00 ono. phone Dave 08 85222516 davchris1@bigpond.com.au

### 3612 SUPER PUP ON TRAILER

super pup single seater Jabur 2200 motor Air frame approx 500hrs engine approx 350hrs In good cond.

\$16,000 firm no offers. please contact greg on 0407750325 for more information.

### 3614 SLEPCEV STORCH



Slepcev Storch 19-3094 ,private use only 200 hrs , Rotax 912A , Bolly prop , Microair 760 vhf , gme TX 3200 uhf .Plumbed for l/r fuel . excellent condition . Always hangered. Suit property owner or short field operator. Contact Peter 0427958229 \$57500.00

### 3615 J160 YADG SYNDICATE SHARE



One syndicate share is available (Seven members total) for a factory built Jabiru 160 at Aldinga airfield. Has own hangar. LAME maintained with excellent availability. Super cheap flying in your own plane! \$8000. Contact: steven@jaglanbeta.com or 0430 464725.

### 3618 JABIRU J230D



Jabiru J230D, Rego 24-7419. Factory built May 2010, 220 hours. Factory Option 6 Panel. Dynon 180 EFIS Garmin 495 GPS, Microair Radio and Transponder Twin Strobe Lights. David Clark Headsets. always kept in Hangar. Nil damage. \$88,000 Contact Ian: 0419703926

### 3619 RV3 PROJECT

RV3 project. Empennage complete. Quick build wings. Most of kit still in the crates. \$20,000 ph Rob 0417 826 321

### 3620 SKYFOX CA21

Sky fox CA21.Stripped for rebuild, propeller wings and ailerons have been rebuilt and signed off. Rotax 912 needs overhaul. All parts complete including instrument panel and log books.2164 hrs \$10000 ONO QLD 07 33002879.

### 3621 KR2 ALMOST COMPLETE PROJECT



Registration lapsed KR2 99% complete. Needs new prop, new / repaired engine cowlings, redrive reassembly (all parts included), odd jobs and paint. Subaru ea81, flaps, tricycle u/c easily re-converted to tailwheel. Includes fitted intercom and older style GPS. Lapsed licence forces sale. \$14,000 ono. Martin 0419 333 525

### 3625 NEW US MILITARY NOMEX FLIGHT SUITS



These US military flight suits are brand new, produced from flame resistant Nomex ® fabric, thread, and zippers and manufactured to US military specification. Sage Green & Tan Only (Sizes 40R, 44L, 46L & 48L only) special sale price \$200ea Contact Mark Harris on Ph 0418 345464 or email mbhprods@optusnet.com.au

### 3627 PRIVATE AIRFIELD



600m private airstrip, Murrumbateman area, 20 mins Canberra, highway access, 12 x 12m hangar, OCTA. House 5 bed, 3 bath, tennis court, 4 car garaging, established gardens. 40ac income producing property, currently running 70 prime lamb ewes. Shearing, machinery, hay, workshop sheds, large cool room, 2 stables. \$1.3m. Phone 0402413126.

### 3631 CTSW FOR SALE



Simply the BEST CTSw available with many extras (e-mail for details) 120 kt cruise Amazing Visibility 7+hours endurance, Auto Pilot,Transponder and BR5 just serviced to 2019 Completed its MAJOR 500 hly inspection with LED Nav Lights being replaced so no real expenses looming- they've all been covered. peter@simplyspecs.com.au Price:\$98500

### 3633 WANTED ROTAX 503 DCDI

Wanted Rotax 503 DCDI, any condition considered, price negotiable. Phone 08 9446 6674 or 0434 558 038. Also Wanted gearbox parts for Rotax 503.

### 3635 GAZELLE AND TRAILER

With excellent custom built trailer and CASA required wood prop. Lots of extras, gps, spats. For photos and info phone mob. 0417492065 south australia Paul

### 3636 THE RECYCLED BEERCAN NEEDS A NEW HOME



Low hour 2007 Sportstar Plus in excellent condition. Standard VFR instrumentation complimented with a Garmin GPS286, electric T&B and solid state AI. Garmin SL40 Radio and GTX327 transponder. No dings, dents or snags, just needs someone with a bit more time available to love it. \$96,000 Phone: 0418692878

### 3640 AEROCHUTE

2 seater Reg to April 2014, 503 Rotax, Electric Start,

## MEMBERS' MARKET

Bolly ground adjustable prop with spare IVO prop. Icom radio & flightcom headsets. Open trailer, ramps, jerry can holders, large front equipment box. Many extras. Chute checked Sept 2013, and LAME check before sale. Good entry level machine. Gippsland Vic. Price: 12,500 Phone: 0412946535

### 3641 CESSNA 182 NOSE GEAR COMPLETE



REMOVED TO BUILD C182 FLOATPLANE PICTURED: COMPLETE NOSEWHEEL ASSEMBLY, INCLUDING FIREWALL BRACKETS. Removed ONLY 24 HRS after overhaul, with new piston, fork and strut. CONTROL CABLES - Replaced with Stainless Steel - all serviceable. STRUT FAIRINGS (2 good, 2 fair). GIVEAWAY PRICE. \$2500 ONO FOR THE LOT. (07) 55242144 gwsb@yahoo.com

### 3643 DRUINE D5 TURBI



French Designed, Extremely Manouverable, Light & Crisp On The Controls. Take-Off 150M, Lands Inside 300M. Stalls @ 27KTS, cruises @ 90KTS, climbs @ 700FPM, range of 3Hrs. Blackburn Cirrus Minor 2 Engine & New Invincible Airscrews Prop. (Includes Extensive Engine Spares Package) Must sell, \$25K ONO Phone: 0458763461

### 3645 FLIGHTSTAR IISC



Must sell brand new, never flown Flightstar IISC, put together with excellent attention to detail. Will part with it for less than the cost of the kit. Plane completed with a fully enclosed cabin, dual controls, custom carpet interior, Falcon instruments, in-flight trim, brakes and mylar coverings. Call 0412506242 Price: \$27,000

### 3648 SKYDART MK III



Rotax 447, 150hrs TBO. Great little aircraft for low hours pilot. Lots of fun. Sound skins, new tail feathers, all round in good condition. All instruments, ICOM radio. Reliable and ready to fly. \$6,500 ono. Hangared North Queensland. Can be dismantled for transport. Contact Volker at volkerschwerdtfege@gmail.com

### 3649 2200 JABRIU ENGINE

80HP Jabriu Motor 274 TT, serviced every 25 hours, latest spec, easy start modification, complete unit includes exhaust & oil cooler, currently in aircraft, test fly available, wonderful engine now upgrading to larger HP. \$6,980, 60x44 propeller good condition \$500 brianwalkerocanstwo@hotmail.com 0459 027 718

### 3650 JABIRU J200B



Avalon winner 2007. Best overall recreational aircraft. Excellent condition always hangared. TT 435hrs. Serviced every 25hrs. Microair radio, Garmin 296 and 95 GPS. Low fuel light, heater, 2 strobes, manual flaps. Nil accidents. Reduced to \$69000 ONO. Phone: Bevan 0428 536 338 Email: bevanlane@bigpond.com

### 3651 ALPI PIONEER 300



Factory built. Rotax 912 100HP Engine, with electric Variable Pitch Propeller and retractable undercarriage. Fitted with Pioneer "Super Wing. Comprehensive avionics systems fully factory installed. Nil accidents. Hangared since new, meticulously serviced. Deceased estate. \$110,000. Michael Bartlett, 0408 719742, mikes560@hotmail.com.

### 3658 SAVANNAH VG



Savannah VG, 100HP rotax, 250 hrs TTIS, Large main wheels, ext baggage, long range fuel tanks, Warpdrive prop, Odyssey battery, GPS, VHF and UHF. Great little aircraft. \$52000. Ph 0746232645

### 3660 JABIRU J160-C



Immaculate condition factory built october 2006, 560 TT engine and airframe. Well equipped Dynon D10A, Microair transponder and radio, PCAS, Trio autopilot, Garmin pilot 3, cabin covers and more Always hangared, regular maintenance and nil accidents. One owner Jabiru and never used for training. Located S.A. \$56,000 Contact: theo@graftedvines.com.au 0418 805204.

### 3661 INSTRUCTOR WANTED

INSTRUCTOR WANTED Rewarding flying Job/ Career.



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QLD, NSW, VIC, WA, NZ



Instructor needed to join an expanding RA Aus Flying school in Narrabri NSW. Training in Tecnam Sierra, Skycatcher and Faeta, plus opportunity to expand. Prefer SI but can train the right person if needed. Call and discuss. Ken 0457 811 627. ken.flower747@gmail.com

### 3662 CLASSIC SAVANNAH VG AIRFRAME KIT

Classic Savannah VG Airframe Kit. New, complete and still in box - has not been unpacked. Extra wing tanks. \$25,000 0419 215 514

### 3664 CORBY STARLET



A real pilots aeroplane, must go to make room for 2 seater RV4. Sweetapple prop, Jab 2.2 replaced 1.6 original, Stitts paint, Vertex radio plus headset. Easy 100 kts cruise and low engine temps. Good climb rate. Always hangared and no damage. Ian Borg 0749750209, 355yen@tpg.com.au Price: \$20000

### 3666 PILOTS PARADISE FOR SALE



FOR SALE Marian Qld 4753 25klms to Mackay HOUSE ON 60 ACRES with private airstrip. 4 bedrooms plus study. 7.5 x 9m 3 bay colourbond shed and 12 x 18m shed. Solar hot water system and solar power grid. Private air strip at back of house, fully fenced pastures for cattle. PH: 4954 3929/0447 591 105. Price: \$1,200,000.00

### 3668 SIGMATEK DIRECTIONAL GYRO VACUUM

I have a new sigmatek 4000B-30 directional gyro sitting in its foam packaged box. This is ideal for someone who wants a new directional vacuum control instrument to replace a faulty one or is working on a project. Asking price of \$600 is well below cost, contact carl 0431800348

### 3671 JABIRU SK



L2 built & maintained. Serviced 25 hrly. GA instrumentation. TT 636 hrs engine hrs 164 always hangared, big foot wheels & spats, 65 ltr tank, 95/100 kts 12/15 ltrs/hr. Nil accidents, in excellent condition. Phone: 07 4939 8431. Rob \$30,000 ONO

### 3672 JABIRU J430



4seater OR register 2seater RAA. Upgraded

engine- latest plenum, oilrelief manifolds ( no oil between changes ) 6 CHT6EGTs Fuelflow. 1mag&1electronic ignition ,Irdiumplugs , K&Nfilter. Carbon groundadj. prop. Cumminsspinner . Dynamically balanced. , StrobeLandingLight. 10plytyres. D180EFIS , IComA210radio GTX327transponder.PM501intercon Aera500gps TrioAutoPilot AltholdClimbDecend . ZAONanticollision. Always hangared inland. \$88000.00 .Gerard0267213029 its181@hotmail.com

### 3674 VIKING ENGINE 110HP HONDA JAZZ



New Viking Aircraft Engine Inline 4, Liquid cooling multi-point fuel injection, 110hp @ 5,800 (2,500 prop) Torque (lb-ft @ rpm) 247 @ 4,800, 81kg with dual FADEC, dual fuel pumps, Viking Bus & Warp Drive Prop included. phone Jon Gooding 0412091487 jgooding@chw.net.au \$17990

### 3676 ZODIAC 601XLB PROJECT

Fuselage built 80%; tail feathers on; Jabiru 3300 installed; instruments 80% installed; one wing 70%. Complete airframe including XLB wing mod. New engine not yet started. Nothing to buy to finish. \$30,000 all up. 0427 115225. didja@skymesh.com.au

### 3677 ZENITH CH 750 STOL



Zenith CH 750 STOL, the largest STOL aircraft in its Class MTOW 600 New aircraft on its way from USA , Rotax 912 ULS (100hp) Cruise 75 kts, stall 30 kts, Dynon D100, Icom 210A, Garmin GPS, 21" tyres. \$60000 ono call Allan 0417121111 Bendigo

### 3679 FOXBAT A22

Foxbat A22 Manufactured 2005. 100HP. Unregistered. Low Hours Hangared since new. Needs new Windscreen fitted. As is, where is. Reasonable offers accepted. Contact 07 5465 9154. 0427 820 721.

### 3682 TRANSPONDER AND RADIOS

Microair T2000-SFL-01(7) transponder factory rebuilt, still in the box with with release certificate etc., includes ACK A-30 encoder, antenna and wiring loom as removed. \$1000. Icom IC-A200 radio with rack. \$450. King KY-97A TSO'd radio with rack. \$800. Open to offers on all items. 0437839190 or mark@planeloopy.com.au

### 3683 DRIFTER



Drifter 25-319, Wire Brace, 582 Blue head, Icom, headsets, Good Skins, Well maintained, Flies well, Front and Rear instrumentation, cheap entry level flying, always hangared, \$ 12,900 or nearest offer Phone Mark 0418 114 546

### 3686 CESSNA 120



Cessna 120, 24-8085, 2 seat, Cont 100hp, engine to run approx. 1300hrs, dual coms, transponder, VFR instruments, always hangared, cruise 95kt @ 20lph, Avgas/Mogas, 45kg luggage, 4 point harness, 100 hourly due 07/14, int/ext very good. Suitable for training. Located East Gippsland, \$50000. ono Phone David 0419 503 157

### 3687 ROTEC FUEL BODY

Fuel mixture controller.as new,complete with regulator and mixture control cable.Suit jabiru or similar Phone 0418439620 Price: \$550

### 3689 SKYRIDER 95-10 MK 2

Award winning Australian design, best new design by FAA back in the day. Rebuilt in 1995 with a higher speed wing design. It is powered by a TA 440 Kawasaki with Ivo 3 blade prop. Price neg to a good home. Ph 0429639770 for photos.

### 3691 RPL? CESSNA 150M



Certified, proven GA aircraft, 1976, VFR, TT4630, Cont.O-200 ETR1700, 21lt/hr, McCauley PTR1500, fresh 100hr, all AD's, 2PTT/intercom, Garmin 296 in panel, KT76aTxp, MX300 Nav/Com, VOR, strobes, never damaged, always hangared, priv use only, Int & Ext 9/10, flies beaut, great recreational aircraft for RPL, \$49000 ono, Ph 0418719318

### 3693 ROTAX 912 ULS

2008, hrs2000, #5650196, \$6500. Flying school sportstar, engine still in a/c, LAME maintained, good power and comps. Rohan 0419646833 schneider4570@gmail.com

### 3694 UNFINISHED PROJECT



2 place low wing needs a new home.Tail group is finished ,needs "D" covering on the wings , tanks are done, just needs a canopy to be moulded.Originally designed for a Subaru but a 912 or Jab would be lighter.\$4500 Contact Paul at paulbck@vision.net.au or 0417 513 414

### 3695 QUADCITY CHALLENGER II SPECIAL



Eng/airframe 230hrs; Rotax 503; refurbished prop; wings current removed due to lack of hanger space.

## MEMBERS' MARKET

Created ready for transport on reasonable sized trailer. Has not flown since 2007 \$10,500 no reasonable offer refused. Grahame 0429 995 649

### 3696 AERO VW

Aero vw forsale \$2500 400hr in corby starlet Twin mag twin spark heads carby heat prop and spinner Contact matt 0439812282

### 3697 TAYLORCRAFT BL-65



Taylorcraft BL-65. Continental engine. O/H 1993. Hrs since O/H: 254. ETR 1546. Metal prop. Ceconite. New seat sling & baggage compartment. Re-assembled new nuts/bolts. Aux tank. Slick ignition. O/H 1993 at 2554 hrs T/T. T/T 2850 approx. Rego RA-Aus or VH. Inspect Bathurst. \$29,900. Rob Glenn 0427407352. robglenn@hotmail.com

### 3699 THURSTER GEMINI



Thurster gemini . See ra-aus market website for pics and details or phone wayne on 0458118939

### 3700 AIRFIELD FOR LEASE

airfield to lease in Capertee Valley just 3 hours from sydney. 100 acres, hanger house and 900m strip ideal for a real life changer. Lease \$450 per week for one or 3 years with option to purchase. Call for pictures and details 0413963438.

### 3703 PARTNERS WANTED - TECNAM TAIL DRAGGER

I am seeking three partners for a group ownership purchase of a TECNAM P92TD. Based in the S.E Qld - attractive rates to group members. Available for training - by experienced TW instructors. Sharecost envisaged \$35,000.00 - \$40,000.00. Further information call 0468333443 or 0412882639 or by email at elsewhere@optusnet.com.au

### 3704 CORBY STARLET



Corby Starlet TT 130Hrs. Jabiru 2200 86HP mesured on dyno. First Flight Nov. 2010. Built and maintained by L2. Always hangared and covered. Your resonable offer. Must sell Ph 0451517910 or 0352755372

### 3705 HANGAR SPACE REDCLIFFE AIR-FIELD

Hangar space at Redcliffe Airfield. Close to road. Suit RV6 etc. Excellent hangar doors. inc. water and electricity. \$440.00 per calendar month ic. GST. Contact: Peter Stephenson gjs2@internode.on.net 0403 151 602

### 3707 XT912 TUNDRA STREAK III WING + TRAILER



Airborne Microlight 2010 XT912 Tundra Streak III. High windscreen, training bars, heavy-duty covers, engine cover, all logbooks (186 hours TT airframe engine and wing), Microair M760 dual comms radio, Microair transponder (value \$2,880), two helmets and two headsets, always hangared. Location: Wollongong. \$46,000. Trailer also available separately. Matthew, 0403138525, m.tomlinson@dunelm.org.uk

### 3709 NEW HOUSE AND HANGAR - TEMORA NSW



Council maintained airpark, 3 runways, taxiway to hangar. 18.5m x 13m hangar, power, lighting. New brick veneer home fully serviced set in beautiful park surroundings. Four bedrooms, ensuite, modern kitchen with separate butler's pantry. Ducted heating/cooling. Great community, wonderful life style, don't wait. \$580,000 inc GST phone 0419 389 311

### 3712 EDGE RED BACK

Edge Red Back in excellent condition with many extras, call Gerald on 0439883433 Price: \$14000

### 3713 ALPI PIONEER 200 SPARROW



Factory Built. Blue / White. Rotax 912 - 100hp Engine. Electric Variable Pitch Propeller. Dual Controls. Hydraulic Brakes. Long Range Fuel Tanks. AvMap Mark IV GPS. Full GA Instruments. Excellent Short Field Capacity and Climb. Cruise 110 Knots. Excellent Condition. Regretful Sale. Only 280 hours. Contact Andrew 0428442155. toolangatta@gmail.com \$67,500

### 3714 HELICOPTER ROTOR-WAY EXEC



Helicopter Rotor-Way Exec TT101 hours 2 crew, upgrades Empty weight 442 kg Useful load 238 kg Max.takeoff 680 kg Powerplant 150 hp Performance speed: 100 knots Cruise speed:82 knots Range 180 mi Endurance: 2 hr Service ceiling: 5,000 ft hover ceiling,Rate of climb: 1,000 ft/min Price: \$55000 John libertyandassociates@gmail.com 0435802035

### 3715 HOT AIR BALLOON (RAVEN)



Hot Air Balloon (Raven) Complete with new Honda inflator Fan Flight Gages, 3 Alloy Gas tanks, log books, good basket and envelope. \$9,500 ... Liberty Alliance libertyandassociates@gmail.com 0435802035

### 3717 FK 14B2 POLARIS



FK-14 POLARIS. 24-8065. \$132,800. LSA. 80hrs. Perfect. Delivered April 2012. NATFLY winner 2013 Best Factory Built. 100HP Rotax. DUC prop. Dynon 100/120. Garmin 695, AP-74, Microair VHF, Transponder. BRS. Full covers. Digital Stratos Headphones. 5 hrs 130kts cruise, stall 39 kts@ 544kg. Bacchus Marsh VIC. 0419136069. Email xtopher@bigpond.net.au

### 3718 AIRBORNE XTC-582



2006 WITH CRUZE WING TT 100 hrs, EXCELLENT CONDITION, MICROAIR 760 VHF RADIO, XL, L and S HELMETS, LYNX INTERCOM/HEADSETS, CUSTOM COVERS, LIC TRAILER, FULL SERVICE HISTORY, \$25,000ono, Located in Perth WA, Contact Steve on 0419916032 or email Lchop11@gmail.com

### 3719 AIRBORNE TRIKE

Edge X 582 Classic,over \$22,000 spent new streak 2B wing brand new complete blue head rotax motor, new bolly prop, high windscreen, helmets [1 new]. Flying suits, radio, stone-guard many extras. All receipts log books, rego RA-Aus.Heavy duty trailer, selling for health reasons. Contact: Ron 03 5499 8277 Price: \$19,000

### 3720 SV FARMATE



Single seater. Unregistered, but these aircraft have been registered before by RAA under 95.10. There is one still registered. Engine rotax 447, I think. Wings complete. Aircraft is virtually completed also. Contact Ron Ph: 02 6682 6599 evansheadaviation@bigpond.com \$3,000 ex Evans Head aerodrome.

### 3721 SONERAI 2 L

100 hours taildragger 19-4485 aeropower 2100 twin bings 4 to 1 exhaust 120 kts @ 12ltrs hr \$35,000 ONO or swap with drifter kit fox light wing or similar cash adj. Contact Roly 0400 594 886 Yarragon Vic.

**3722 SKYFOX CA22**

First Skyfox on the Australian register. Completely rebuilt aeropower engine 65HP. Crank shaft reground, big end, mains and camshaft, 4 new conrods, new rings and valves ground, new valve guides, 5 new coils, new diaphragm, new left brake cylinder, replaced voltage rectifier. Reason for sale lack of use. Price to sell \$30,000 ONO Contact Oliver - 0413 785 265

**3725 JABIRU J250**

Jabiru J250, great aircraft, 10/10 in & out, only 80hrs TTIS. \$69k as is where is (YHML) with spares. 0407804503

**3726 VANS RV 12**

Vans RV12, 70,000 price reduced NO OFFERS. As seen in October Sport Pilot. Rotax 912 100HP. 40 hours, TT engine and airframe. Icon flip-flop, transponder, steam gauges. You cannot build it for the asking price. Ring Brian 0755462251

**3727 DECEASED ESTATE. (WESTERN AUSTRALIA)**

Deceased Estate. (Western Australia) Almost completed Taylor Monoplane including new VW engine (cost \$6,500.00). Plus instruments, propeller and most equipment to finish building. \$12,000.00 ono. Ph: 08 9419 3408 Email: chittychittybang@bigpond.com

**3728 LIGHTWING GR912S SPORT**

Nose wheeled, 550hrs TT, Rotax 912s 100hp, Flaps, Icom A200 VHF radio, Electric turn coordinator, GPS (basic non aviation type, large screen), 3 blade Brolga prop. \$42000 including delivery. Contact Gareth Lloyd on 0402845244 or blue\_sky@live.com.au

**3730 SAVANNAH VG**

Rotax 912 100hp 290 hrs both carb heat, cabin heat,

140 lt fuel, tundra tyres, strobes, GPS Airmap Xcom VHF headsets road trailer nil accident Corrosion proof. Hanger @ Sandfly Hobart with power water solar or delivery by professional pilot. pics available \$49900.00 aircraft, 19900.00 hanger 0414934750

**3731 GARMIN 695 & 2X DC H10-13.4 HEADSETS**

Garmin 695 \$1,000, new in box, carry case, dash mount & leg strap, all accessories ready 2 fly. (RRP \$2,000). David Clark H10-13.4 headsets and carry bags x2 @ \$300 for both or \$170 each in new condition. (RRP \$ 300 each). Not flying. Contact Julio 0404074311 / giulioleschi@bigpond.com

**3734 TECNAM SIERRA P2002JF**

This aircraft is in exceptional condition and has been refurbished from ground up 60hrs ago. Engine upgraded to 2000hrs. All ADs up to date including 5yr all rubber replacement. Full GA panel with 2 radios and (1 dual watch) 2 GP's and transponder. \$75,000 Phone Mike on 0408 203362

**3735 NORTHERN RIVERS NSW.**

Northern Rivers NSW. Property 228 acres. 700m airstrip. Hangar, workshop, all usual farm facilities. Runs 50 breeders. Suit retiree, club, group ownership etc. Dual river frontage. Asking \$640,000. For further details, photos etc 0427 115225.

**3736 DELIVERY PILOT**

DELIVERY PILOT Do you need your RAA or GA aircraft delivered anywhere in Australia? 18000 hr retired professional pilot and RAA aircraft owner, available, best rate going, just need to keep busy. Recent deliveries to NT, QLD, Tasmania, and Northern NSW. Ring Gus on 0414934750

**3737 FOR SALE NYNJA AIRCRAFT KIT WITH 912ULS**

Brisbane Area -- 1/5th Completed Kit - Nynja Aircraft. --Comes with Brand New Engine, Complete and Full Instrument Set, Radio, Transponder, Fuel Tank, plus all parts that have been purchased. This is for SERIOUS people who would like to purchase

it! Build Log at 10/2012 at www.markjamesallen.com \$50,000 Negotiable. Email marka@markjamesallen.com.

**3738 REVO 912 MINT CONDITION**

Magnificent Red Revo, 100HP Rotax, electric trim, Enigma colour display, every conceivable extra, strobe/Nav lights, 3 wheel disc brakes, Flycom full face

helmets with intercom, email for comprehensive features list. Replacement cost \$85,000 plus GST plus USA freight. Custom built 7 metre internal trailer package price \$99,500. gary@eldering.net.au Mobile 0411550280

**3739 HANGAR FOR RENT**

Goolwa, South Australia 18m+18m with all services 3 phase power, water, toilet etc Easy access to runways and facilities. Phone John 0420884022

**3740 AERO-CHUTE PLUS ENCLOSED TRAILER**

Aerochute, trailer, Radio, intercom, 2 helmets, spare prop GPS, lots of extras. Phone Albert for more info. 02 45 728640 Price: \$18500

**3742 AIRBORNE Outback 582**

Airborne Outback 582. Streak 1 and Wizard III wings included. Engine fully overhauled with 30 hrs. Travel gear/covers/training bars. Helmets/headsets/intercom. Unregistered \$10,000 Phone 0408 064 682

**3743 SKYFOX TAILWHEELER 912UL ROTAX**

Skyfox tailwheeler with 912UL 80hp Rotax. Airframe TT1789 and engine 430hrs since new, (not rebuilt). Hangered 30 minutes west of Mackay. Delight to fly. All AD's and annual inspection up to date. Wings fold taking about 5 to 10 minutes. Price \$27,900. Phone Mike 0749549818

**3745 TECNAM BRAVO P2004**

Good avionics, UHF, transponder, cruise @ 118kts contact billyfanning@inet.net.au 0267233456 Price: \$82500 inc

**3746 JODEL D18 ULTRALIGHT AIRCRAFT-**

Jodel D18 Sovereign Subaru EA81 engine. 132 hours engine/airframe. Like new, always hangered. Warp Drive 3 bladed ground adjustable prop, 6" balloon tyres. Comprehensive instrument panel including sat-nav. Currently hangered Gulgong, NSW. Owner of 88 years has moved and requires this aircraft to be sold. Price \$24,950 negotiable. Ph. 0429348230

## 3747 SKYFOX GAZELLE



Skyfox Gazelle. Good Condition. 912a rotax. Full GA Instruments. Vert. card Compass 1623/2223 Hrs Hangared at Lethbridge. Vic \$30000-00 David Ph - 0417 504 798



## 3749 AIRCRAFT ALUMINIUM, ZENITH PLANS, PARTS

Aircraft aluminum 6061-T6, Chrome moly, parts, tools, plans. Bruno Wright 0408966181 Price: \$1800

## 3751 HANGER RENTAL

New 18 x 14.5 meter hanger on Rylstone Airpark. All metal hanger with skylights, painted floor, solar lights, insulation. Available February 2014. Rear bay \$44 per week-Front bay at \$49 per week plus outgoings of \$10 per week. Contact 02-9622-1916

## 3753 SPEEDY PROPELLER

Speedy Wooden Propeller, suit Rand KR2 53x42. May suit any 2L VW engine. Cruise Propeller, good condition, approx. 50 hours TIS \$480 Contact Des 0438 622 680

## 3754 INSTRUCTOR REQ'D - MAROOCHYDORE

Senior Instructor (or CFI eligible) with current PPL required to operate a satellite RA-Aus flying school at Sunshine Coast Aero Club. Flexible arrangements - call Gerry on 0418 380 140 or email vp@sunshine-coastaeroclub.com.au

## 3757 SYNDICATE SHARE AVAILABLE



4th share available, in a Tecnam P2004, hangared in a quiet airfield in SE qld. Need to be a safe & conscientious pilot who will observe the spirit of the syndicates objective. Contact: Geoff Norwood 07 54967499 Price: \$25000

## 3759 REVMMASTER ENGINE

2100 cc. Revmaster VW. The engine is disassembled and consists of mostly new components with many used but serviceable items as well. Too much to list here so if you contact me I can supply full details. Dean 08 87331235 Price: \$4500

## 3760 EUROFOX 3K



2011 Eurofox 3K, ROTAX 912ULS 100HP, TT 111

hours, Dynon SkyView 10", Dynon 2 axis autopilot, Dynon Mode S transponder, Dynon SkyView navigation mapping, Garmin Aera 500 GPS coupled to autopilot, ICOM A210 Radio/Intercom, Cabin heating, Landing lights, Strobes, No damage history, Always hangared, One owner. \$96,000 Ph 0412280316 jrh@aanet.com.au

## 3761 JABIRU J230D SYNDICATE



Warnervale-based syndicate has a vacancy for a fourth partner. Factory-built in late 2009 with 365TT; equipped with transponder and Garmin 495GPS. Just finished 100-hourly service; excellent condition. Quarter share \$20,000. Contact Jack 0407 241 783, Thomas 02 4751 5507 or email jacobite2723@gmail.com

## 3764 JABIRU, LSA 55 J3



Jabiru LSA 55/3J,55-3540, 2.2Lt solid lifter,Factory built,Reg'd until July 2014.TTIS 1679hrs,263hrs since Top-end overhaul by L2.Standard Jabiru instruments,New 501 intercom,Up-graded Microair 760 UHF Microair T2000 Transponder,Odyssey battery Anderson jump start plug,Oil-air separator, Jabiru made Cold Start Ignition.All manuals,records. Hangared and covered.Price to sell \$36,000 Phone Charles -03 58252223 A/H Shepparton Area

## 3765 HANGER WANTED

Hanger wanted, Sunshine coast area, Caloundra, Caboolture, maroochydore, Gympie, Kilcoy. pay up to \$200,000 for a good investment proposition. Also LSA Taildrager, wanted, factory built suit training school. Michael Call Australia (07) 54510165 mobile 0415 623380 or Singapore 65 98934562 email mjgilsenan747@yahoo.com.sg

## 3766 SPACEWALKER II



"SPACEWALKER II" Something different for the aviation connoisseur! Dual Open Cockpit. Lycoming O-235 Built by retired engineer to better than production quality. Low airframe engine hours. VH-Reg (NOTE: This aircraft can easily be re-registered with RAA) Full history. Absolutely immaculate inside & out. A joy to fly. Ph 0428883311 \$70,000

## 3767 AIRBORNE MICROLIGHT 2002 EDGE X STREAK



Airborne 2002 EdgeX Streak. 582 Blue Head 50hrs on engine, Tundra tyres, 3 strobes, Microair M760 HGFA registered. Always hangared, meticulously maintained with log books and service history. Nil accidents. Excellent condition for age. Extended windscreens, panniers, heavy duty covers & full wing cover. \$13,500 Contact: mckaycol@gmail.com (Maitland NSW)

## 3769 AIRBORNE EDGE X SERIES AND 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, excellent condition, well maintained with maintenance history,

recently purchased through Airborne, \$15,000 ono. Ph: David 0414256246, email: bear.humphries@gmail.com

## 3770 JABIRU SP500 SIX 120BHP- \$39,900



19-3435 has a new 120 bhp 187 hour engine.This comfortable good looking pocket rocket has superb 2 pack paint finish.Five hour safe 135litre wing tanks + five litre header tank.Cruise 115 kts @ 21ph.Fly's hands off,full panel with A/H .Condition report completed. Photo's available.0423 377 771 jondevine01@gmail.com Perth.

## 3771 FOURNIER RF4D



Fournier RF4D for sale. VH-TKD. Superb aircraft. More info and Photos by email kroegert@gmail.com Price now dropped to AUD 36,000 negotiable.

## 3772 STING S3 LSA



TTIS 770hrs engine 570 hrs Excellent condition a dream to fly at110-115kn with a near new Sensenich ground adjustable prop,full set of round gauges including ADI,Zaon traffic alert,Garman 496 GPS,GTX 327 Mode C transponder,SL40 com and Greenline EMS.Based at YBNS. \$83000 neg Phone Mark on 029 390 131

**3775 AEROCHUTE DUAL \$9250**

Bargain at \$9250 Includes enclosed trailer. 503 DCDI 107 hrs. VGC Selling due to ill health. Extras incl steering sticks, front brake, headsets, solo weight, seated pull start, Agents manuals and students package, maintenance history, gauges etc. Reluctant sale. Phone Ian 07 40937490 Cairns Qld.

**3776 SAPPHIRE**

Sapphire 19 3594. 385 hours, 447 Rotax, 3 stage flaps, spats, Microair radio, new paint job, enclosed cockpit, 9 LPH, cruise 80 knots, 60 litre wing tanks. Always hangered,; currently hangered at Bendigo Victoria. \$16,000. Phone Ron 0414594022.

# SPORT PILOT

TO ADVERTISE WITH US EMAIL

[admin@stampils.com.au](mailto:admin@stampils.com.au)

**3777 EUROPA AIRCRAFT**

Unfinished kit. Forced sale due to divorce settlement. Original classic design with tri gear conversion kit. Fin, rudder, tailplanes, anti-servo/trimtab, tailplane assembly, mass balance assembly, spars are completed. The fuel tank and cockpit module including flying controls is bonded to the fuselage. See [www.europa-aircraft.com](http://www.europa-aircraft.com) for specs. \$19,000 ono [jeplayer@iprimus.com.au](mailto:jeplayer@iprimus.com.au) Mob:0408985203

**3779 JABIRU J120**

Jabiru J120 factory built in 2008. 841hrs TT, maintained by Level 2 and always hangered. 100kt cruise at 15 l/hr, latest camshaft fitted, develops lots of power. A great little aeroplane. For more information call Phil during business hours on 03 5389 1541. \$45,000.

**3780 JABIRU J230-D**

Jabiru J230-D multi purpose Glider Tug plane. Factory built in 2007 with glider towing option fitted. 761hrs TT, maintained by Level 2 and always hangered. A proven performer. For more information call Phil during business hours on 03 5389 1541. \$69,000.

**3781 STREAK SHADOW**

Streak Shadow TT950Hrs. rebuilt Jabaru 2200, Radio, GPS, Two Axis electric trim, Navman Fuel Flow, VSI. Engine Monitor. Nil Accidents. Easy to fly. Rego August 2014. \$22,000.00. Dave 0402 107 927 (shift-worker) Full details "tp21.net" Available- custom built enclosed trailer. \$3000.00. Both Together \$24,000.00.

**3782 X-AIR 602T**

Rotax 582 blue head motor. 3 blade brolga prop. 50 ltr fuel tank. Xcom radio/intercom, 2 head sets. Built 2006, registered until 13.11.14. 215 hours TT. Hangered in Colac, Victoria on private 300m strip. Excellent short field performance, easy to fly. \$19,000. Contact Rod, 0417 573 048.

**3783 FLYING INSTRUCTOR**

Narrogin Flying Club WA seeks the services of a RAAus CFI or Senior Instructor to conduct training using the club aircraft (J160). Narrogin has excellent facilities and conditions for training. Potential CFI or SIs are also encouraged to apply. Please contact Don at <[president@narroginflyingclub.org.au](mailto:president@narroginflyingclub.org.au)> or on 0417 979 611

**3784 TERRIER 200**

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Deadline is the first of the month, one before the cover date. Text - \$15 (50 words maximum - text will be edited when it exceeds maximum limit). Text and photos - \$30 (you can place 6 photos online, one photo will appear in the magazine).

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# 25 years ago

by Mark Clayton

**T**HE crippling – and game-changing – Pilot's Dispute was some months off when the January magazine appeared, featuring a cover shot of Winton Sapphire 10-0182. In his January Editorial, Allan Essery held forth the prospect of the AUF hosting a World Ultralight Championship, his February column having a somewhat more embattled tone (as he sought to dismiss allegations of a "disgraceful sacking" (of a former AUF President), "withholding information", and "constant infighting within the organisation". A full-page advertisement back then cost \$95, and the Federation's annual membership fee was \$35. Return tickets on the Oshkosh Express were being advertised – by the S.A.A.A. - for \$1,670.

Feature articles in the January and February editions covered Resurgman wing load testing; an illustrated d.i.y. description of how to make your own intercom using off-the-shelf Tandy components; human factors; carburettor icing; the recovery – by R.A.N. helicopter - of a Rally 2B which had force-landed in a swamp near Tyagarah; and the third instalment of Neil Hardiman's round-Australia trike odyssey (including his rescue from a remote North Queensland beach).

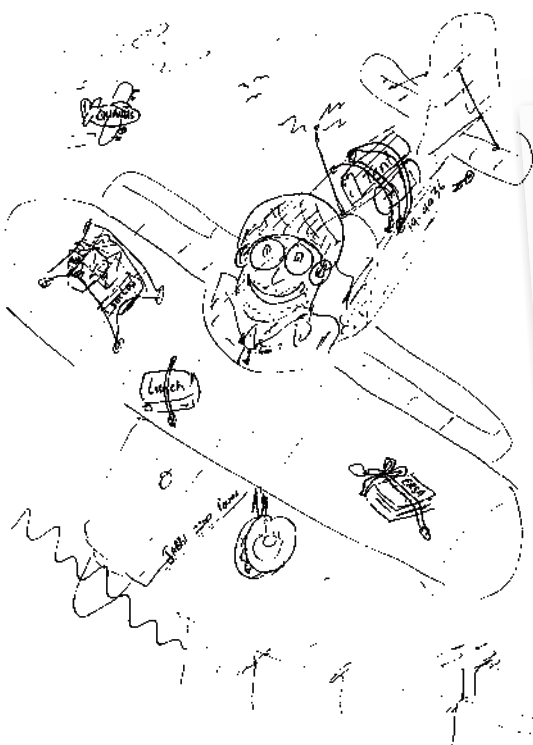
There was much teeth gnashing about the Civil Aviation Authority's (CAA) insistence that AUF aircraft carry minimum 500mm underwing registration markings, the Authority arguing this was justifiable on both reporting and identification grounds, as well as being a matter of "public interest". Members were also informed that the Flight Crew Licensing Review Committee would - again - be looking into the matter of recreational licensing (as we now know of course, it took the Authority another quarter of a century to introduce – then defer – the RPL).

BASI (Bureau of Air Safety Investigation) accident and incident reports also featured prominently in the January magazine, two of these fatalities involving solo pilots with little (i.e. less than fifteen minutes), and no type experience.

Following the recent introduction of 95.10 aircraft registration had now become a legal requirement, and the membership was reminded that it was the CAA (not the AUF) which was responsible both for issuing Flight Training Facility permits, and for also auditing these facilities. With preparations for Mangalore 1989 underway, President Rod Birrell announced that this year's gathering would be promoted as the Federation's first national fly-in.



# Saying thank you



*Thank you Ladies (and gents)  
for holding an little  
group together during the  
tough Terry times.  
Kind regards...  
for Russell*

**RA-AUS General Manager, Mark Clayton, recently received this unique thank you letter from a grateful member. Here's his reply.**

Russell

On behalf of all the Association's Head Office staff I'd like to record my gratitude, both for your kind words of support and, for your most generous gift. As you've rightly observed, the staff here are working under very difficult circumstances which leave their considerable efforts largely unnoticed – and unacknowledged - by the membership.

Without their expertise, good humour, strength and commitment we simply wouldn't have been able to accommodate CASA's considerable audit demands, while also sustaining our business-as-usual activities over such an extended period. Thankfully, there are a number of members – yourself included – who not only recognise these efforts, but have also taken the trouble – and expense – of personally demonstrating their gratitude.

Your welcome card has been added to our ever-growing collection, the chocolates having been received (with even greater enthusiasm).

Thanks again from all the Head Office team.

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Source: Amazing aviation facts

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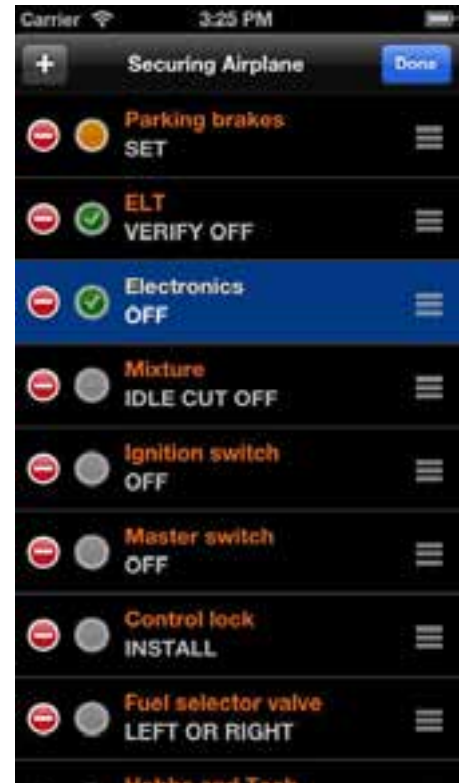
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## BAD ELF GPS RECEIVER

The BE-GPS-1008 is the first third party plug-in Lightning Connector accessory approved by Apple. The case has been improved to allow the LED to be seen in bright sunlight. Because it uses Apple's new Lightning Connector, it can plug into the iPad either way.

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**Price:** AUD\$180

**For more information:** [www.ozpilot.com.au](http://www.ozpilot.com.au).

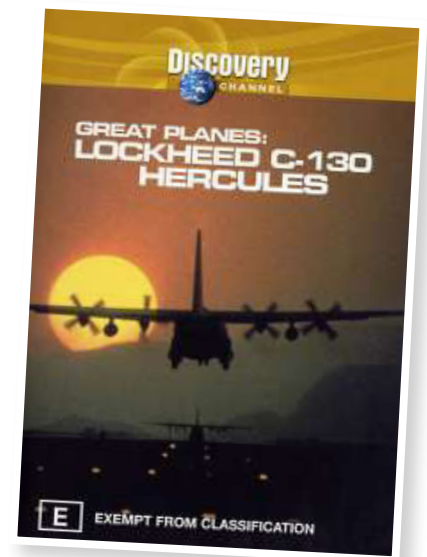
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# PILOT NOTES



## Hughes Lightwing

**Pilot experience: 29hrs, 4 on type.**

During a landing on an instructional flight, the student bounced the aircraft and pushed the stick forward causing the propeller to strike the runway. The instructor took control and completed a circuit and landing without further incident. No other damage was found apart from that caused to the propeller by the ground contact.

## Jabiru J230D

**Conditions: Light wind, nil turbulence.**

**Pilot experience: 103hrs on type.**

After a long landing run due to a probable change of wind direction, the aircraft overshot the runway and was brought to a stop in wet grass. As the pilot taxied back onto the runway the nose wheel sank into wet soil and the propeller struck the ground. The engine is to be examined to determine if any damage was caused by the propeller strike.

## Skyfox Gazelle

**Conditions: Moderate wind, nil turbulence.**

**Pilot experience: 31hrs on type.**

The pilot was attempting a cross wind landing when the aircraft landed heavily on the starboard wheel. The impact caused the wheel strut to buckle but no further damage was evident.

## Jabiru 230D

**Pilot experience: 323hrs, 135 on type.**

**Conditions: Moderate wind, nil turbulence.**

The aircraft became airborne during take-off at low speed after passing through a slight dip in the runway. It yawed to the left and the pilot immediately aborted the take-off but was unable to regain control of the aircraft. It ran off the runway and passed through a shallow drain, coming to rest with minor damage to the nose wheel spat.

## Jabiru J170C

**Engine: Jabiru 2200, 70hrs ttis.**

While in the circuit, the engine began to run roughly and the aircraft was landed without further incident. An inspection revealed a lower cylinder retaining stud had failed.

## Morgan Sierra

**Pilot experience: 158hrs, 155 on type.**

As part of a Biennial Flight Review the pilot, who had not flown for seven months, was conducting a simulated engine failure from the downwind leg. After a gentle side slip the aircraft rounded out, touched down and then lifted off the runway before landing heavily on the main wheels. It then rolled for about 20 metres and the nose gear collapsed. Neither of the crew was injured but the aircraft sustained damage to the

propeller and nose gear, with possible further damage to the engine yet to be assessed.

## SkyRanger V Max

**Engine: Rotax 912 ULS 145hrs. ttis.**

After a flight of approximately 45 minutes, the engine began to run erratically with significant power loss but did not fail completely. Activating the fuel boost pump made no difference so a forced landing was carried out into a paddock. As the aircraft touched down, the undercarriage struck a depression and sustained severe damage. Initial investigation of the fuel system has been carried out but as yet no cause has been found for the power loss.

## Taylor Tich

**Airframe: 256hrs ttis.**

The left hand brake locked as the aircraft touched down and the aircraft nosed over, causing the propeller to strike the ground. No further damage was reported and the reason for the fault was not reported.

## Jabiru J170

**Pilot experience 15hrs on type.**

**Conditions: Light wind, moderate turbulence.**

The student was carrying out a landing on the last of a series of solo circuits. The aircraft touched down on its main wheels with the nose wheel still off the ground. The starboard wing dropped momentarily and, as the nose wheel settled with the wing still down, the propeller struck the runway. Damage was confined to the propeller but the engine is to be bulk stripped to assess any further damage.

## Skyfox Gazelle

**Engine: Rotax 912A, 334hrs ttis.**

The aircraft had not been flown for approximately 12 months and the engine would not start. As part of the checks done to enable the engine to be started, the carburettor float bowls were removed to check float levels and general condition. The engine was started and the aircraft was flown, but the engine failed without warning as the aircraft approached the end of the downwind leg. The pilot realised he would not be able to clear a building at the end of the runway so elected to land alongside the building. On touchdown, the left undercarriage struck a small electrical box. The aircraft travelled for a short distance and came to rest inverted in a drain. The pilot was uninjured, but the aircraft sustained considerable damage to its undercarriage, propeller and rear fuselage assembly. A post-accident inspection by a Level 2 indicated the bowls had not been replaced correctly and were not seating properly as there was evidence of fuel (and possibly air) leakage from one of the carburettors.



*The pilot realised he would not be able to clear a building*

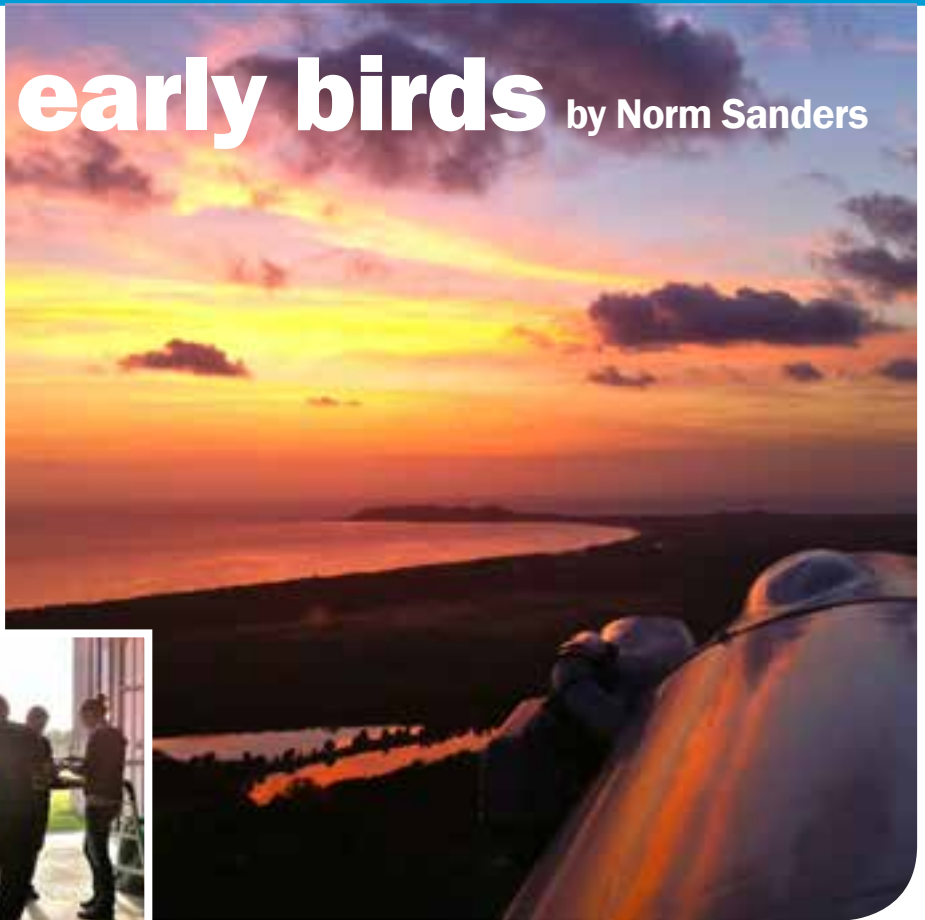
# HAPPY LANDINGS

## Tyagarah early birds by Norm Sanders

**A** TOTAL of 11 aircraft took off from Tyagarah Airfield near Byron Bay at first light on January 1 to greet 2014 from 1,000ft over Cape Byron.

The Cape is the most easterly point in Australia and the first place on the mainland to see the dawn each day. The motley fleet included a Cobram Cobra, a Fisher Classic Biplane, a Drifter, two microlights, three Tiger Moths, a Cessna 150 taildragger and two gyrocopters. A celebratory breakfast barbie back at the hangar capped off the morning.

Cobra pilot Norm Sanders said, "It was magic! Well worth the sacrifice of avoiding the bubbly on New Year's Eve."



>> A big brekky after a magic flight



Got an aviation moment you'd love to share? Your kids or maybe your club get together? Send a photo as a jpeg attachment and a short explanation to [editor@sportpilot.net.au](mailto:editor@sportpilot.net.au)



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582 UL DCDI with options

582 UL DCDI 65 H.P

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