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For recreational pilots AUGUST 2012 VOL 15 (8)



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Regulars

- 07 President's report
- 08 Calendar of events
- 24 Reader's stories
- 38 Fly-ins **North Straddie**
- 47 Pilot notes
- 66 Happy landings

Members' info

- 51 Board elections
- 53 Notice of AGM
- 54 Proposed constitution amendments
Don Ramsay & Steve Runciman
- 55 Resolutions

News

- 11 Letters to the editor
- 14 Eaglet becomes eagle eye
- 15 RA-Aus WESTFLY fly-in
- 15 Runway HD for iPad
- 48 Win! Pilot



Features

- 17 Monto countdown
Miles Breitreutz & Tom Abell
- 22 Making a movie of your aircraft
Robert Shaw
- 30 Buying an aircraft
John Blackburn
- 36 Mark Grey's savannah
Arthur Marcel
- 44 Three state trike odyssey
David Jones



Columnists

- 21 Editor's choice
Brian Bigg
- 29 Tech talk
Adam Finn
- 41 Pilot talk
Zane Tully & Jill Bailey
- 50 Flying instructor's forum
Professor Avius
- 57 Learning to fly
Dr Gerry Considine

You are placing your life in the hands of the designer

Poster

- 34 BRM Aero Bristell by Anderson Aviation
- 58 Member's market



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Call RA-Aus head office in Fyshwick in Canberra. The staff can help by telling you what's required and point you in the direction of the nearest flying school or club to where you live. Or you can call one of the board members listed here, who represent different Australian regions. They can answer all your questions.

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President's Report

STEVE RUNCIMAN



I AM conscious of a number of comments being directed at the Board and staff of RA-Aus and a number of discussions being held; you only need to look at the letters to the editor and various websites to realise this. The majority of the criticism and negative comment is not warranted because, as with every organisation, we are not always going to get it right and mistakes will be made. However, I feel positive that no board member or member of staff set out to deliberately get it wrong. With RA-Aus you have a small number of staff and a number of board representatives doing what they can for a very large number of people. I have absolutely no doubt that all of these people have the best interest of the organisation at heart and they work towards keeping our flying safe, affordable and with no more rules and regulations than any other organisations. However, during our discussions on how best to proceed, it is inevitable that there will be disagreements as different people see things in different ways. But we have a democratic process in place. I am sure that whatever decision is made, in the end it is for the benefit of the organisation and the majority of its members, even though some may disagree with it.

I notice in the July edition of the magazine an article titled 'And another thing' in which the author makes a few comments on the running of the organisation and expresses his concern over its stability. The letter is, indeed, taken in the context it was written and it is always important to hear from members. You all, of course, have the right to say what you think. I concur

with the editor, in his reply, that the letters are not edited by any member of the board. In reference to the NATFLY Survey, this was a survey created by a few members of the board and the author of the letter is absolutely right in that it was not professionally done and was only specific to NATFLY. When I first took over as a board member, I created a survey and sent it to all the North Queensland members for whom I had an e-mail address. I received less than a 5% return to this survey; however, the results were analysed and discussed at the next board meeting. I will take the idea of a general survey to the board at the September board meeting with a view to sending it to all members in a future edition of the magazine.

Another article which caught my eye was one titled 'Why not look younger?' It mentions the volunteers at NATFLY and was very complimentary of the younger volunteer group at another event. The letter suggested that we may like to look at the younger age group for future events. I would like to mention that we have created a volunteer database where we intend to keep details of all volunteers to enable us to inform these members of upcoming events they may be able to attend and assist with. If you are interested in being a volunteer, contact the Admin Manager and have your name added to the list. In the past, we did little to encourage the younger members to attend NATFLY and this was a point made after NATFLY 2012. I am sure that if we attract families with younger members, maybe the young ones attending will be interested in volunteering, which may, in turn, spark an interest in RA-Aus.

I have also seen a number of discussions and 'arguments' on how far the organisation should go and asking if we have forgotten our roots by leaving 'rag and tube' and moving on to the 'plastic fantastic'. We should keep in mind this discussion has two sides and I see both sides as positive. It is important to remember our roots, but it is equally important to move with the times and continue to progress. The great thing about our organisation is the diversity of aircraft still available. Because of this, we are all able to make the choice of what we fly and we should respect the decision being made by the individual. There is no pressure on anyone to choose one or the other.

The point I am trying to make with all these comments is that you have a board representative to represent you and your views. They are also there to answer your concerns and help in any way they can. This has been pointed out before, but I feel it is important to remind everyone we are here to assist where possible. There may well be an occasion where we will not be able to answer because of confidentiality, but you can rest assured your questions will be answered honestly and openly. If ever we say we cannot comment at the time you ask, there will be a valid reason. In my humble opinion, the organisation is in very good shape and we will continue to go from strength to strength.

This time of year sees many events and fly-ins and I encourage you to attend one.

I will finish by reminding everyone to commit to remaining safe while enjoying your passion for aviation. 🛩️

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calendar of events



Wings of Life Fly-in Drive-in

25-26 August

Archer Falls Airfield, Mount Archer. Fun for young and old. Paul Bennet in his Pitts Special, Replica warbirds, joyflights – helicopter and fixed wing. Light Horse Brigade displays, Marshall fine art exhibition, family friendly activities. Camping, great food, two course catered dinner Saturday night, booking required. Supporting the Royal Flying Doctor Service. For airfield information www.archerfalls.com.au. Dinner and camping bookings Alayne Olson 0404 602 648 or bookingswol@gmail.com.

Tumut Valley Fly-in

25-26 August

The Tumut Aero Club will once again hold its biggest annual event. The fly-in last year was the biggest weekend of flying ever held in Tumut with gyrocopters, ultralights, hot air balloons, trikes, Warbirds - plus a lot more. The Club is actively promoting recreational aviation in the community and the 2012 event is shaping up to be yet another fantastic social weekend of flying at the home of 'Flying for Fun'. For more details visit www.tumutaeroclub.org.au, email president@tumutaeroclub.org.au or phone Simon 0428 472 349.

A poster for AUSFLY 2012. The word 'AUSFLY' is written in large, blue, stylized letters. Below it, the text reads 'Australia's private & sport aviators together under the one sky'. The poster features images of various aircraft, including a biplane, a glider, and a hot air balloon. A list of activities is provided: Warbirds, Homebuilt, Vintage aircraft, Ultralights, Aerobatic displays, Gliders, Hang Gliders, Helicopters, Skydivers, Gyros, Model Aircraft, Joy Flights, and Ground exhibitors. The event is held at Narromine Airport from 13th-16th September 2012. The website www.ausfly.com.au is also mentioned.

Ausfly

13-15 September

Narromine airport. All things that fly are invited to the first ever event in Australia which unifies our vibrant and diverse aviation organisations. Seminars, workshops, air displays, entertainment. Fly-in, camp on site. For more information www.ausfly.com.au

McIntyre Aero Club annual Fly-in

8-9 September

At Goondiwindi, Qld. Dinner Saturday - Meet the pilots and drinks at the club house, bookings essential. Sunday fly-in breakfast starting at 7am. In conjunction with the Gourmet in Gundy Festival which starts at 10am Sunday. For Goondiwindi accommodation www.goondiwindi.qld.au. For more information Marg Scells (07) 4677 5186 or email PSS@bigpond.com.au.

A poster for the Gathering of Eagles Australia. The top text reads 'Gathering of Eagles Australia SATURDAY 25TH AUGUST 2012'. Below this, it says 'Open invitation to ALL Aviators Enjoy the Freedom of Flight at Picturesque Watts Bridge'. The main image is a close-up of a pilot wearing goggles. At the bottom, there is a logo for 'WATTS BRIDGE MEMORIAL AIRFIELD INC.' and contact information: 'Contact John 0417 643 610 Ron 0428 747 737 www.wattsbridge.com.au'.

Wings over Warwick

8 September

Queensland Recreational Aircraft Association incorporating Warwick Aero Club (www.qraa.info) hosts the event at Warwick Aerodrome (YWCK) - 1600m, all bitumen, no landing fees. (www.warwickaerodrome.com) All aircraft welcome. Classic cars, motorcycles and model planes. Food and drinks available from 7am. Avgas available. Fundraising for Royal Flying Doctor Service. For more information Kelvin Hutchinson 0407 733 836, Phil Goyne (07) 4666 1676 or Graham Hawthorne 0427 377 603.

Battle of Britain memorial weekend

15-16 September

Superlight Aircraft Club of WA hosts the event at the Bindoon "abandoned" airfield, Dewars Pool Rd, Bindoon, WA. The event will pay tribute to the bravery and sacrifices of the men Winston Churchill described as "The Few". Flying activities on Saturday followed by a Battle of Britain mess party theme night in the club house. Come along in your period costume. Dawn Patrol on Sunday morning before breakfast. All aircraft welcome. For more information secretary@slacwa.org.au

6th Catalina Festival Fly-in

3 November

Ex RAAF Flying Boat Base Rathmines - Lake Macquarie NSW. The spiritual home of marine aviation. Flying boats, floatplanes. All welcome. Many attractions. Will commemorate the aircrew who served at the base during World War 2 with a building housing a Catalina and Museum. For more information: Bill Hitchcock (02) 4944 8189, 0438 448 115 Wildbill1928@bigpond.com or Mike Usher (02) 4975 2257, 0402 460 285 mikeandlyn@southernphone.com.au



Gloucester Aero Club annual Fly-In and bonfire

10-11 November

Now in its fourth year. Benefits both the club and the Westpac Rescue Helicopter. Lunch and dinner Saturday. Breakfast Sunday. Model helicopter display, Paul Bennet from MaxxG Aerobatics will perform in his Pitts. A relaxed, friendly event in a lovely part of NSW. Camping available. More information www.gloucesteraeroclub.org.au or contact Andy Edwards 0416 240 949 or at eddybecs@optusnet.com.au

Norra-Aus Fly-in

29 September-1 October

Monto will be the place for all RA-Aus aircraft to gather. For more information see elsewhere in this edition.

Back to Holbrook Fly-in and JabFest

3-4 November

Holbrook Ultralight Club will host its annual Rag & Tube ultralight fly-in and Jabiru Festival (JabFest) at Holbrook Airpark. Interesting forums on Saturday afternoon, a three course dinner among the aircraft on Saturday night and a hot breakfast Sunday morning. Trophies awarded at the dinner. Underwing camping and transport to and from town for accommodation and fuel available. All aircraft welcome. For full details visit www.holbrookultralightclub.asn.au or Bryan Gabriel (02) 6036 2601.





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Tear down the fences

What a brilliant man! (Editor's Choice Sport Pilot July)

Tear all fences down (under supervision) and allow all the mums, dads and kids touch feel, see and do.

Why would anyone drive a long distance to sit in a pad-dock behind a fence to watch parked cars with wings? Why?

What a brilliant man!

-Paul Kelly

Ed- Thanks Paul and I'm still looking for more ideas about how we can get the public more involved in what we do.

A gift horse down in the mouth

The problems a birthday present can cause.

At the start of 2011, as a result of a gift, I took an introductory flight in a light aircraft. It was the first time I had been up in such a plane. It was enough and I was hooked. It would be a financial stretch, but we agreed I could try to gain my Pilot Certificate.

Now 18 months on, I am giving serious thought to giving up. I could write a book on the inconsistencies I've found in my flying journey. As with anything governed by numerous rules, everything in aviation appears open to individual interpretation - not just by flying schools, but even to the instructors who operate in them.

It's human nature to put one's own twist on things, but as a student it feels like you are banging your head against a wall when you do what you have been taught by one instructor, only to be told by another it is wrong.

My own path has included eight instructors and three different types of aircraft. Confusing? You bet.

I still can't see an easy end to the process because the goal posts seem to have moved so often, I don't think they are even on the pitch any more. I hang in there hoping that my turn at goal must come eventually, but my hopes are waning fast.

When I started, everything was laid out in such a clear sequence, it looked great and fairly uncomplicated. It has turned out to be exactly the opposite.

Perhaps for my next birthday I would be better

off with a subscription to Reader's Digest.

- (No name or location please because my quest for the Holy Grail continues)

Ed- Hang in there, Anonymous. The good feeling you get when it's all done will more than make up for early trouble. Also, if you think the school/instructor/s involved have not done their job professionally, you should contact RA-Aus so moves can be taken to help other students avoid your cobbled road.

Editor's choice
Brian Bigg

OUR SIDE OF THE FENCE

Biggs writes about the joys and frustrations of flying. He discusses the challenges of finding a good instructor and the importance of staying motivated. He also shares his own experiences and offers advice to other pilots.



RAMBO saves lives

The article, 'RA-Aus Health Standards' by the Assistant Operations Manager, Jill Bailey, (Sport Pilot June 2012) offered us conclusive, concise direction in Airmanship and the requirements to the medical relationship of 'Fitness to Fly'.

Jill's clarification of the Human Factor issues which affect our ability/legal-ity to command an aircraft in 2012 and beyond, give us firm reason to consider the facts:

During the past four decades of my flying career, too many flying friends and associates have lost their lives to poor decision skills, structural failure or a combination of both.

On every flight of my choice, the priority to returning back to earth with a dream is always - RAMBO.

R - Rested. Has my body/mind achieved sound sleep & rest?

A - Attitude. Do I feel good and do I have sound body, health & mind?

M - Medication. Any medical additives to my diet?

B - Bottle. Have I had at least eight hours between alcohol and the throttle?

O - Organised. Are my flight plan, NOTAMS and everything else to do with my machine and airspace prepared.

RAMBO has



been my best friend in flight.

Jill's closing statement of I.M.S.A.F.E. is also good. No matter your choice, the most critical element of flight is you!

The aircraft is just a dumb machine we command.

- Chris Brandon

PS. During Natfly 2012, I attempted the RA-Aus Human Factors examination, but failed due to certain anomalies in my answers to the basic questionnaire. I wish to thank Peter McLean of Yarrowonga Flight Training, for his professional presentation in his Human Factors instructional video presentation, examination and critique, which allowed me to pass on my second attempt.

More about GPS

I refer to the article (Sport Pilot June 2012), "Let's Get Real" by Arthur Marcel.

I completely agree with the sentiment in his article.

I trained in the days before GPS, but have been using the devices for the last five years or so.

Regardless of what any authority says, I will not go back to dead reckoning. It is not as safe.

GPS is so demonstrably superior as a navigation tool, that any authority which does not acknowledge that fact is, frankly, incompetent.

Of course, it is possible to argue the batteries might simultaneously fail in my three devices (and their internal batteries fail too) at the same time, or that 11 GPS satellites might simultaneously fail, but I think this is somewhat less

likely than the needle falling out of my compass.

The logical approach for our aviation authorities is to acknowledge the reality of the situation and tailor their requirements around the realities.

Pilots need to be able to do more than follow the purple line, but their training and operational requirements need to take into account the environment in which they will inevitably operate.

- David Edmunds
Operations - RA-Aus Pilot Certificate holders are not exempt from complying with the requirements for navigation in accordance with the RA-Aus Operations Manual which precludes GPS being used as a primary means of navigation. Non-compliance with the Ops Manual may result in suspension or cancellation of privileges as per Section 2.14

LET'S GET REAL
Why the emperor has no clothes
by Arthur Marcel



The latest GPS update has caused a lot of concern among pilots. The update has changed the way GPS calculates distance and time to the next waypoint. This has led to some pilots reporting that their GPS is showing a shorter distance to the next waypoint than what they know to be true. This is a common problem with GPS and is caused by the way the GPS calculates distance. The GPS uses a straight line between two points, but the actual distance is often longer due to terrain and other factors. This can be a dangerous situation if a pilot is relying on the GPS for navigation. Pilots should always use a backup method of navigation, such as a map or a compass, and should be aware of the limitations of GPS.

One ring to bind them all

I suppose you ran the article "Facing up to CASA" (Sport Pilot June 2012) to show that we shouldn't be afraid to come to Natfly if we are properly prepared. Unfortunately, you have just taken what was previously a rumor about CASA inspections at fly-ins and shown it to be true. The Civil Aviation Safety Authority, despite its grandiose name, is only a bunch of public servants. Every public servant is aware that advancement (or even continued employment) depends on having nothing happening on their watch.

CASA employees know the best way to have a perfect record is to keep airplanes out of the air. CASA has done an admirable job in this regard with GA. (CASA can't touch the airlines, of course, because they have political clout.) To CASA's horror, many GA pilots didn't stay on the ground, but escaped to RA-Aus. Just like in the Lord of the Rings, the malevolent Eye of



Sauron is now upon us. Might as well change the name of Natfly to Natdrive.

- Norm Sanders

Ed- Norm, ever wondered why the hobbits had to spend weeks walking all the way to Mordor but rode eagles for the quick trip home?

Moving the Office

When I raised the prospect at the Natfly 'Meet the Board' forum earlier this year of relocating our office, I prefaced my remarks with a congratulatory vote of thanks to those that serve on the board for their tireless efforts. Past and present incumbents have done a great job.

However, the work never ceases.

Prudent financial management dictates we always examine ways to maximise the return on our investments. This includes our head office. It may be that it is not feasible to move anywhere. The acquisition of the current office building may have been a great deal. We will know how much when it is professionally appraised. During the forum, I didn't mention any particular new location for an office, although I noticed that others have since mooted Temora. I would expect there would be a tidy profit if the relocation were to a cheaper, regional site such as this. Recurrent costs (rates, etc) would also be lower.

Yes, we are blessed with great staff and we would not want to lose their experience. These key staff would not be lost lightly. Members would want to offer incentives to entice these crucial staff to relocate. There will always be staff turnover, but in the regional areas where employment opportunities are in shorter supply, turnover is less. In terms of quality, are we suggesting that country workers are in some way inferior to city folks? I hope not.

A move to a regional location with an attached RA-Aus friendly airfield would make face-to-face meeting with members significantly easier. Members with computer, communications, audit and other special skills would find it easier to fly in to volunteer their expertise, realising further savings. For other formal meetings, there is a thing called video conferencing and it is used by large corporations very successfully. We in RA-Aus are equally capable.

If we were a boating organisation, we would expect our head office to be located in a seaside town. It's only logical. We are an aviation organisation which is nowhere near an RA-Aus friendly airfield.

We can do this. With over 10,000 members, we need to.

- Mark Pearce

A fuel shortage

With the growing number of Rotax 912 ULS (and like) powered aircraft, which favour premium unleaded fuel, I am intrigued to find out why this fuel is not being made available on-field?

I note that, even at NATFLY, pilots needed to resort to taking jerry cans to town. Seems to me to be a no brainer that less risk would be the outcome if there were bulk outlets on-field. Do I detect a political roadblock?

Always looking for safer methods,

- Andy

Ed- Anyone know why we don't get motor fuel onfield? Is it just a matter of no one asking for it? Please write in if you know.

Heading into the trees

Re Prof. Avius' excellent treatise on stalls (Sport Pilot June 2012).

I had an aerobatic rating years ago and I loved spinning, looping and rolling in Tigers and Chipmunks for fun.

However, I have also flown single engine fixed wing aircraft over secondary (three layered) jungle and rescued or recovered many unfortunates in rotary wing aircraft from amid tall timber.

So my question is this.

If I was forced to land a fixed wing in tall trees or jungle would I:

1. Flattish stall it just above the leaves/branches?
2. Do an exaggerated nose high stall to hopefully slide in tail first?
3. Spin in with zero forward speed and the gear down or up - if retractable?

Your thoughts please. Perhaps there is a simulator program to test this?

By the way, I was knocked out after crashing a Bell 47 on Ayers Rock with a 1000+ ft/min ROD, (incipient vortex ring state due 180° wind change) but with virtually no forward speed. I received only a scratch on my knee but the chopper was wrecked. Two weeks later, I was back in the Territory (after paperwork in Sydney) flying charters without even having to do a medical or check flight. Things were different back in 1968.

- Phil Latz

Ed- I'll open this up to discussion. Who knows the right way to land in the trees? By the way, after a year's sterling column writing, Professor Avius has hung up his quill for a well-earned rest. Any candidates out there to take over the column? Email editor@sportpilot.net.au

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Keeping the wheels on the ground

I note the recent enthusiasm for flying cars/roadable aeroplanes (Sport Pilot June 2012). Having successfully built and flown two aeroplanes and registered a road going sports car from scratch, I have some doubts about the reality in Australia; and before the CASA knockers launch into the usual diatribe, let me assure you that they are not likely to be the obstacle.

CASA is a pleasure to deal with in comparison to the process and regulatory requirements for registering home built motor cars. There are Australian Design Rules for motor vehicles, issued by the Commonwealth Department of Transport, but every state has its own approach to interpretation and application.

Unless a major vehicle manufacturer goes through the certification process, getting a 'flying car' registered will be a serious challenge and every individual vehicle will be treated separately. The various state registration bodies have no regard for aircraft standards and are primarily focused on their own interpretation of the Australian Design Rules and they seem to vary randomly over time.

- Kim Jones

Ed- Kim, the bigger problem for me will be deciding who gets to use such a device. Imagine if some of the idiots now driving cars are allowed in the air? No thanks.

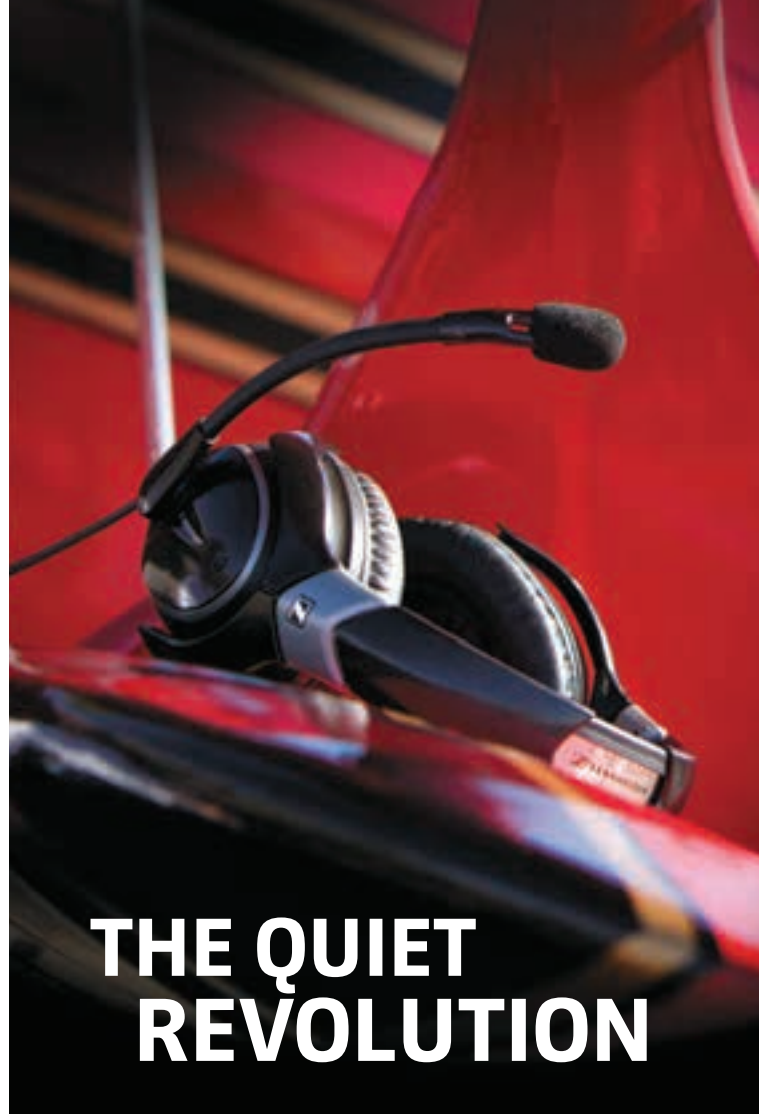


Something to say?

Email editor@sportpilot.net.au

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Eaglet becomes Eagle Eye



TECNAM has partnered with UAV Vision to offer a complete aerial surveillance and survey package for the P92 Eaglet.

UAV Vision specialises in Gyro Stabilised Camera Gimbal systems used for geographical mapping and surveillance; fire monitoring; shark patrol; border security; tactical surveillance; law

enforcement; environmental monitoring; power-line, pipe-line and other infrastructure inspection, coast watch and stock monitoring.

At AERO 2012, UAV Vision demonstrated a full end-to-end system. Included was a full broadcast quality multi-sensor gimbal. The scenarios demonstrated the ability of the UAV Vision system to

collect and deliver critical information in an accurate and timely manner. Many of the missions included the use of a GEOLock function. Once enabled, GEOLock allows the operator freedom to relax while the system automatically moves the camera to keep the selected area in frame.

For more information www.tecnam.com.



Wings of Life takes off again

WINGS of Life will hold a fundraising Fly-in Drive-in on August 25 and 26 at Archer Falls airfield in the Sunshine Coast hinterland.

The Griffith University club was founded in 2010 to raise funds and awareness for the Royal Flying Doctor Service and to promote youth involvement in aviation.

Already this year, the club has held a fundraising trivia night and an air experience day, both of which were big successes.

The Fly-in Drive-in will feature craft, games and sport for the young and the young at heart, aerial displays for the aviation

enthusiasts, food, coffee and wine from the Kilcoy region, overnight camping, live entertainment, and a variety of display aircraft and trade stalls.

Some of the main attractions will include Paul Bennet Aerobatics, the Australian Light Horse Association, helicopter and trial introductory flights and some replica warbird displays.

On Saturday night there will be a sit down, two course dinner. The organisers say they still have a number of sponsorship and trade site opportunities available. For more information wingsoflife.com.au or on Facebook.



STOP PRESS

RA-Aus WESTFLY fly-in set to shine 29 September-1 October Whitegum Farm

WEST Australia's own RA-Aus Fly-in event looks like being a winner. The pilots in the west love their aviation and Westfly is about to take its place in the list of WA's very successful flying events. It's going to be the first RA-Aus event in the west and the organisers have pulled out all stops to make sure pilots of all ages get something to see and do over the weekend. And not just RA-Aus pilots either. They don't mind if you fly GA, GFA, HGFA, ASRA or even if you don't fly at all.

Whitegum Farm is a wonderful aviation jewel just east of York and only about 1.5 hours drive from Perth. It has on its own grounds no fewer than four runways to suit any landing requirement. It has entertainment, hangar, workshop and accommodation facilities all in the one venue. The owners and operators of

Whitegum Farm, Gordon and Gary, are among the most dedicated aviators in the state and have leapt at the opportunity to be the hosts of the event.

Underwing camping will be allowed and encouraged. There are facilities to bring a caravan or camper and, if you are really quick, you might be able to book one of the accommodation units on the venue.

Local community groups will provide all meals. There is nothing like country hospitality after all. If you plan on staying overnight, an evening meal on the field will be provided.

For more information www.westfly.com.au. The September edition of Sport pilot will have fly-in procedures for pilots intending to drop in on what's going to be the best flying weekend in the west.

Runway HD for ipad

AIRBOX has launched an upgraded version of its flight and navigation software for Apple iPad. It's called Runway HD and is now available for free download via iTunes.

Runway HD is a powerful tool for pilots.

It features seamless and intelligent panning and zooming of maps, pilots can plan and fly with the chart they are most familiar with or use multiple charts together.

Runway HD has live free weather and NOTAM feeds (with 3G or Wifi), Geo-referenced flight guides and approach plates, top down and side profile views, the ability to file flight plans direct from the software and charts and other essential data can be downloaded direct to the software.

To use as a fully functioning GPS, users need to create a subscription account. The App comes with ABX Vector mapping for Australia and New Zealand as standard.

Other global charts are available including Brazil, US, Europe, South Africa and UK.

For more information visit www.airboxaero.com.



Historic flyover

2013 will be the bicentenary of the first European crossing of the Blue Mountains by Gregory Blaxland, William Charles Wentworth and William Lawson.

The Bicentenary Crossings Committee (BCC) is planning an exciting calendar of events to mark the event.

A highlight will be a commemorative flypast on the weekend 12-13 May, 2013. The exact day and time is to be determined. The planned flying route will follow the path

taken by the explorers in 1813: Commence at Emu Crossing 33 44 11.11S , 150 41 02.87E, follow the Great Western Highway to Mt. York 33 33 11.94S , 150 13 10.79E, then to Mt Blaxland 33 33 50.81S , 150 06 22.51E.

As many different aircraft types as possible are being encouraged to participate, both fixed and rotary wing, and especially historic aircraft.

An Operational Plan will be developed

for the day in order to safely coordinate all aircraft along the route. Depending on CASA requirements, it is intended that the flyover will be at the lowest level safety considerations will allow to maximise the aircraft exposure to the anticipated 30,000 spectators gathered along the flyover path.

For more information: Ian Scott 0402 217 915, email ian@scottadr.com

- Philip Hammon
Businesses Supporting Bicentenary

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Monto

Countdown is on

by Myles Breitreutz Event Manager

NORRA-AUS 2012 Monto Fly-in is on track to being the best event yet. Our organising team along with the staff, has worked tirelessly to make this an event with a difference.

We have combined a fly-in, a country show atmosphere and Sunday markets all in one. For the kids there will be a side show alley provided by Ridesnslides as well as stuff to satisfy the hardest to please elder kids.

We have two major sponsors.

Tom Abell with his Savannah line is one. Tom will unveil his new aircraft at the fly-in. Until then it's top secret. The second major sponsor is Jabiru, one of the pioneering manufacturers in Australia. Jabiru is still taking it to the world with its fleet of demonstrator aircraft.

We still have sponsor sites and lots of room in the aircraft vendor sites waiting for you to join us in this history changing weekend. It's not too late to book through the RA-Aus office.

Remember how cold it was in 2010? Well this time the weather is going to be perfect and the field, after its second manicure, is picture perfect. It will also be a fitting place to house the Gladstone Vintage MG Car Club.

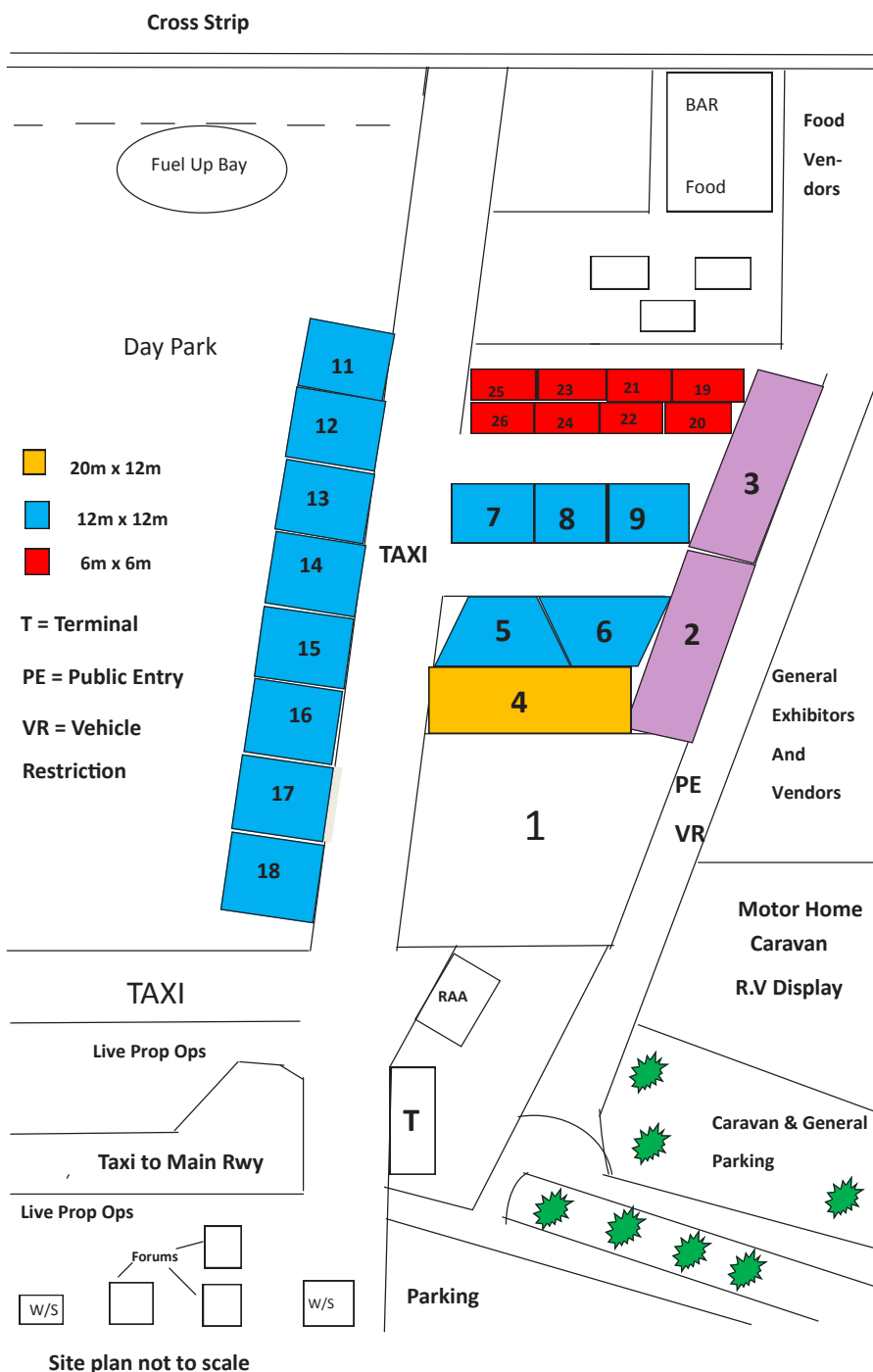
The helicopter will be operating, thanks to Jack Hewitt. Des Porter will show off his beautiful vintage Dragon. We received criticism in 2010 for not having RA-Aus schools conducting TIFs, so this time local schools and one from Emerald, Fly CQ, will get your dream off the ground.

David Holding has managed, in a short time, to put together presentations and workshops which would be the envy of Oshkosh organisers. Graeme Hutchinson has his Go Team and his marshals all sorted and ready to go.

Committee member, Dave See, a well-connected musician, has something special up his sleeve for entertainment, while Liz See has all the clubs and food vendors sorted (with the assistance of John Mackelroy, a colourful local lark). Expect to be well fed and watered.

We will have raffles of aircraft tools and clubs will have their own raffles also. Members will man the gold coin donation boxes again. Our charities are Bundaberg Rescue Helicopter, RFDS and Angel Flight, so dig deep.

And last but not least, Avgas will only be available at Bundaberg, Gladstone, Emerald and Old Station with a maybe at Thangool. So please plan safe with the AVGAS refuelling stops in your plan.



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Monto

has everything

by Tom Abell

THE event will be centred round the display area, between the Polo Cross Club buildings and the hangers, close to the active runway.

It will give the best possible close up view of aircraft landing and taking off and give the event the feeling of activity, because time taken to taxi will be almost zero.

As a result, exhibitors will be more willing to conduct demo flights, adding momentum to the event. Potential buyers usually do not like leaving their family or friends for long periods, nor are they keen to taxi to the horizon for a demo flight. Exhibitors are also reluctant to waste that much time.

The under wing camping area

will be at the other side of the pony club buildings where food and drink will be available; a bar and entertainment will be available in the evening.

A highlight of MONTO will be the first appearance in Australia of the Spirit aircraft from the World Aircraft Company; for more information on this aircraft www.worldaircraftco.com

The caravan club will be there: caravans and boats on display, as well as an area with old agricultural machinery and stalls selling small items.

With places to go and things to see, in a compact area where we meet all of our friends, I can't wait to see you there. 🍷



Len Neale snapped up

ACCLAIMED writer and photographer, Len Neale, has agreed to act as honorary official photographer of the MONTO fly-in.

Len started flying in a C150 with Pheonix Aviation Gladstone in the early 1970's and

completed his Pilot Certificate with Balantree Aviation in 1990.

He began writing and taking photographs in the 1970's and his work has been seen by thousands at the "Betsy Memorial Site

Kroombit Tops National Park".

Len is also no slouch when it comes to aircraft building. He recently completed his J6 Karatoo from plans. Welcome aboard, Len.

- Myles Breikreutz, NORRA-Aus Event Manager

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Editor's choice

Brian Bigg

DON'T BITE ME

I'VE been thinking about installing an auto pilot. And it's not a small decision for me. I had a deliberate philosophy when I built my aircraft that I wanted to keep it very simple and as a result, hopefully, very safe.

In my pre RA-Aus era, I used to do all my flying in fast and complex aircraft, with checklists that went most of the way down the page. I was taught that each one was a potential killer if I missed it. Obviously, the more I flew a particular aircraft, the more comfortable I was with its systems, the safer I felt. Because I flew sporadically and in a variety of hired machines, I learned the discipline of checking, double-checking and triple checking.

But I also came to realise that I had the tendency to push my own personal safety envelope when I became comfortable in an aircraft which had the more complex systems which allowed me to do just that.

So I developed a policy of listening with my gut. I do my walk around, check everything is right to go, then I move to the front of the aircraft and spend a few minutes just staring at it, thinking of nothing specifically. I am a believer that even if my conscious mind says I have checked everything is okay, I know my sub-conscious mind will warn me if I have felt something is not right. If I get a tickle of uneasiness, I won't go, even if I have passengers standing there waiting to fly, even if I can't work out what specifically is wrong. The gut feeling has kept me out the trees so far (touch wood). It is also a realisation that a complex and potentially dangerous machine needs to be treated with respect and that I might not always be up to the task. I fly for fun. I don't want to die doing it. (I want to die peacefully in my sleep like my dad did. Not screaming in terror like his passengers).

The difficulty for me, when I came to installing my panel, was the realisation (from my log book) that I can go ages between flights at certain times of the year.

The temptation, and the attraction, of having my own aircraft is being able to skip out of work an hour or so before dark and get off the ground.

But if it's been a while since I had the chance, I run the risk of missing or forgetting about things which might bite me. In a complex aircraft that risk gets too high.

Becoming familiar with my own aircraft over the months and years ahead might also tempt

me to take my personal envelope further and further out that limb.

So I wanted to keep my potential risk as low as possible. If I don't have an electrical system, I can't be tempted to fly at dusk. No AH? Then no scud running. No retractable undercarriage? No chance of a wheels up landing. A basic GPS (a pointing arrow, not a moving map)? Less chance of being led into a dangerous place. You get the picture.

Keep it simple.

But I have been thinking of bending my own rules and investing in an auto pilot. The problem

is my very light aircraft is very light and has tendency to think for itself when I am not paying attention. I can be flying along straight and level trimmed, look down at a map for a few seconds, look up and discover I am in a steep turn and heading at the ground. In seconds.

Same when ATC tells me to navigate via a particular point or squawk a particular transponder code. While looking down to change the frequency, I can be up or down 80 feet in a flash. ATC hates it when you don't keep your assigned altitude accurately. It is unprofessional too.

And even on a long flight when I want to reach

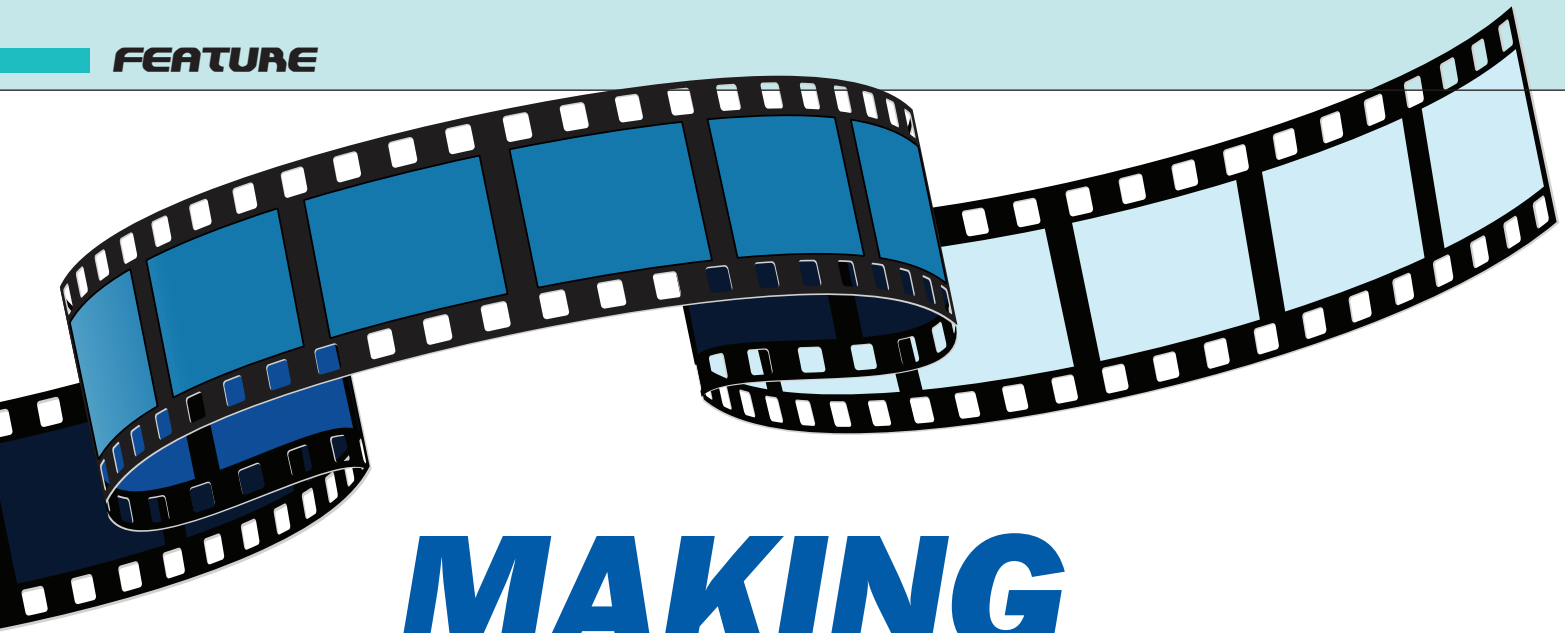


The gut feeling has kept me out of the trees so far (touch wood)

over to the other side of the cockpit for a drink or sandwich. By the time I straighten up, I'm often going the wrong way.

It's been growingly irritating for a while now but I have been reluctant, mainly because it will add a layer of complexity to my simple and safe system. My pre-flight and pre-landing checklist is now only three items long. Fuel pump on/off, fuel bypass on/off and check the brakes.

I'm not sure I want to add more. But if it means I can look away from the aircraft for a few seconds without it biting me, it might not be such a bad thing. After all, how much trouble can I get into using an auto pilot, right? 🐞



MAKING A MOVIE *of your aeroplane*

by Robert
Shaw

I READ with interest Evan Hart's article 'Putting A Camera On Your Aeroplane' (Sport Pilot June 2012) because I had recently been through the process of buying a suitable camera, mounting it out on the starboard wing strut of my 95.10 Tyro aircraft. After editing the raw video, I posted the resulting movie on YouTube.

I would like to offer some hints and tips, as well as point out some of the pitfalls involved.

My motivation for making a YouTube video was to be able to share the flying experience with family and friends - around Australia and overseas - who had never seen me fly. Also, in the back of my mind was the opportunity to promote 95.10 aircraft here in Australia because it's been a bit sad to see registrations dropping off every year.

First thing to do was find a suitable camera.

Having viewed (on YouTube) lots of open cockpit, single-seat ultralight aircraft videos (mostly based in the US) depicting wing mounted cameras, I noticed two things:

First, the quality of the videos was generally pretty poor. Second, the field of view was very narrow, showing only the pilot and nose of the aircraft and not much else. I decided I needed a camera with HD (high definition) wide screen and a wide-angle (fish eye) lens to squeeze a lot more into the picture.

I searched the Internet under the description of "Sports Action" cameras. Evan mentioned two models with prices starting at \$500 under the heading of "Hand Held Cameras". However, these are hands free types, designed to be fixed to a special mount during recording; many do not even have a viewfinder. They have loads of features (too many to go into here) making them per-

fect for fast sport action shooting like skydiving, skiing, motorcycle and car racing, flying etc. from a fixed position (helmet, handlebars and race car roll cage bars for example).

I eventually settled on a Drift HD170 with long life battery (\$259 online). I already had an 8GB SDHC memory card from another still camera which slotted straight into the Drift. The camera comes with a range of mounts, but I purchased a double ball-mounting arm which allows flexible positioning of the camera in any direction. The Drift ticked all my boxes: light weight, 170 degree wide angle rotatable lens, long recording time, high definition picture, wireless remote control and heaps of other great features. One thing on my "must have" list was a built-in viewfinder because it is vital to be able to frame your camera view very accurately before you tighten up the mount and take off, otherwise you don't know what you are going to get.

Some of the more expensive cameras, like the ones featured in Evan's article, don't have a built in viewfinder, but instead use wireless technology which enables your smartphone to be the viewfinder. How clever is that? The problem for me is that I only have a dumbphone way past its use by date.

Check with your aircraft manufacturer before mounting a camera where it may have a negative effect on the airflow. I did some test flights first with only the mount clamped to the wing strut. Then, a second trial with the camera attached to the mount in record mode to check its performance. I positioned the camera slightly behind the wing strut where it appeared to be quite stable in flight. On replay later, I did notice some image wobble which can be caused by vibration in cameras which use the rolling

shutter method of recording each frame. You can get unwanted effects when movement of the image occurs faster than the frame scan. You may also have seen flying videos where the prop looks like it is shedding blades. This is also a rolling shutter problem where the prop is spinning too fast for the frame scan to handle. The Drift HD170 records at a basic frame rate of 30 frames per second, but you have the option of changing it to 60fps reducing the rolling shutter effects. I used this setting.

Also during the tests, I found the wind noise was overriding the engine sound. I improved this by repositioning the camera so the microphone was not directly in the path of the oncoming air-

▶ *The viewers are drawn from a world-wide audience*

flow, and by sticking a bit of gaffer tape over the opening housing the microphone. You can get an external mic for the Drift HD170 but that would involve running a long cable to a better location out of the wind, so I put that in the too hard basket and stuck with the built in mic.

Now that I had the hardware sorted out, it was time to turn to the production side of things. I noticed that in many YouTube flying videos the pilot simply flies more or less in a straight line from A to B. There is even a trike



video on YouTube in which the pilot flies in a straight line for 40 minutes at the same altitude and nothing changes. How could a viewer sit through that? I decided to create a storyline for my video to make it a bit more interesting. My home base is Nanango QLD (grass strip) which is only 10 nm from Kingaroy airport. Kingaroy is non-towered and the Tyro is radio equipped. This allowed me to film a short trip from Nanango to Kingaroy and return, documenting the contrasting operations from both a grass strip and an airport sealed runway.

Because I had a lot of material and a storyline in mind, my video was going to be longer than average, and would definitely need editing. Fortunately I had taught myself to use Windows Movie Maker. It has three sets of controls - video, sound and text - and I was surprised just how powerful it is for home level software.

If you have used YouTube you will know that viewers can post comments against a video. I noticed on the flying videos, a lot of comments were actually questions about the aircraft, engine, training requirements and so on. They required the person who posted the video to respond with the information. I decided that the first two minutes of the video would be "walk around" ground shots of the Tyro and its features with captions answering some frequently asked questions. After designing the title screen, the next part of the editing process was to load up all the video of the ground shots into Movie Maker, decide on the sequence

of the scenes, and add the music and captions.

A word of warning about comments on YouTube. If you post a video which displays poor airmanship or, worse, rule breaking, other pilots will not hesitate to get on there and serve you up some pretty harsh criticism for the world to see.

After the intro came the flying segment. I kept in mind that the viewers are drawn from a world-wide audience. Some of them will be experienced pilots, some will know nothing about aviation and the rest will fall somewhere in between. My approach was to show how a single seat recreational aircraft operating in Australian uncontrolled airspace arrives and departs a non-towered airfield, with emphasis on how a circuit join, approach and landing is conducted. With this in mind I edited out all the flying in a straight line (boring) stuff and concentrated on operations in the two circuits. I also made extensive use of captions to create and maintain interest and provide information to untrained viewers.

Next up, the sound track. Pilots like the engine noise, other people prefer music. I wanted music on the introduction, but engine only on the flying segments. Music is now a big issue with YouTube, which has a strict policy of NO copyright music on videos. If you attempt it they can mute your video or delete the whole thing. I found a web site which provides themed music for home-made videos. It's still copyrighted but for a small fee I could purchase a licence to use it on the Internet - and it's legal on YouTube.

Finally, to upload my completed movie, I went to YouTube, created an account then followed the on-screen upload instructions.

Realistically, making a video of yourself flying your aircraft does require some time and effort, but I found it very rewarding. My view count is slowly rising and it's nice to see people all over the world showing an interest in it.

Your flying video can range from the short and simple, right up to a Hollywood style production. YouTube welcomes all types of creations.

If you would like to view the video, the easiest way is to go to YouTube and simply type TYRO ULTRALIGHT in the search box. My video should appear at the top of the search list. The title is FLYING THE TYRO RECREATIONAL (ULTRALIGHT) AIRCRAFT. YouTube offers quality settings of 240, 360, 480 and 720. I would recommend a minimum of 360, with 720 HD at full screen if your computer and internet connection are up to it. Feel free to post a comment. (Don't be too hard on me.)

For more information:

Drift HD170

www.driftnnovation.com

www.youtube.com

Movie maker tutorial

www.windows.microsoft.com

Legal music

<http://mashable.com/2010/12/08/ind-music-for-youtube-videos/>



Story of the month

In the air, the gauge told us it was warmer than on the ground, but the wind made it so cold we froze

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

The aerochute adventures of the Mountjoy family on holiday by Alex, 18 and his sister, Nakeya, 11

At the end of June, we packed our bags, our Jayco off road caravan, our aerochute, ourselves and off we went.

Our plan was to drive up to Wilpena Pound, out to Arkaroola, and further up to Lake Eyre.

We set up camp at Rawnley Station Caravan Park, eager to do some flying from the local airstrip. The mountain ranges were very beautiful. The thing was, dad decided to go at 7:00am. The temperature gauge was telling us it was minus 1.8°C. Mum and the girls stayed in the car with the heater going. In the air, the Pound was really awesome.

It was even worth the early morning start and the freezing temperature! In the air, the gauge told us it was warmer than on the ground, but the wind made it so cold we froze. By the time we got back, we could hardly move. I couldn't even undo the Velcro on my gloves, my fingers were that stiff.

Dad defrosted, put on extra clothes then took mum flying. I drove back to the caravan park, with the heater full on, for breakfast.

At morning tea time, I went back to collect mum and dad. The temperature had climbed to 9°C, almost like a summer day.

Next it was off to Arkaroola. It's

a popular research spot for geologists, and it just so happened that a geologist was scheduled to give a talk there on the history of the region (from 500 million years ago to the present). It was a very interesting and informative presentation.

The road from Arkaroola to Lake Eyre took us through Maree. Every other week, no more than a handful of people can be found in the town at any one time. But this day Maree was holding its once a year "Camel Cup", the outback equivalent of the Melbourne Cup. What a fun race.

After camel walkers exhausted energy making the camels stay behind the starting line, the gun went and the jockeys whipped the camels into a gallop. All the jockeys were female. Men would not be able to take the punishment on a galloping camel.

The next day we rattled up to the Lake Eyre south lookout - salt as far as we could see.

Even though the sun was only an hour away from setting, we did a fast set up of the aerochute so dad and mum could fly back to the campground.

It is a time consuming process to get the various bits out of the car, take out the ramps and set them up, and attach the bar which keeps

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the strings out of the prop. Then we set up the parachute and untangled the lines. I reckon we posted a time of around 10 minutes (including warm up and pre-flight checks).

Mum and dad did a couple of circles overhead so we could get some happy snaps, but dad uses a dinosaur (film) camera, which I didn't know how to use, so they weren't the best photos. They flew out a short way over the water then headed towards the campsite.

When they arrived, we had the aerochute packed away just as the sun set.

The next day, we headed back down to Lake Eyre for some more flying.

Setting up for dad and Amy's flight took around 20 minutes. It's funny; when we are under no obligation to get the job done quickly, we make no effort to work fast.

Dad and Amy flew off in search of the water which was 7 kms further away than yesterday. Even though Lake Eyre was 60% full, the water was only about 10cm deep. Because of that, the wind pushes the water around. One day it can be against the western bank, the next it can be against the northern bank.

It was getting late by the time I went up, but there was plenty of time for a fly. With an expanse of unbroken water as large as this was, it is very hard to judge where sky meets water. Watching the sunset over Lake Eyre was very beautiful.

Next morning we packed up our caravan for the last time, and headed home.

A Short History of the Joystick by Geoff Raebel

IT was strange to read Jill Bailey's article about the Wright Brothers contribution to cultural force, then flipping the page to Evan Hart's article on joysticks (Sport Pilot May 2012). It leads me into the history of why Wright Brothers aircraft were a dead end.

I wondered for a long time why their only real development of the Wright Flyer was to

add a set of wheels. So much effort to develop "The Flying Machine" and go no further. The Wrights tied up all their developments with US patents, including the two axis joystick. Rather than develop further, they spent their time licencing patent use and suing anyone who infringed their patents.

Their nemesis was Glen Curtiss who



>> Glenn Curtiss in the Rheims Flyer-1909 - the cushions against his shoulders are the aileron control yoke.

Photo provided by Adam Newitt, one of Geoff's students who didn't show up for a lesson. He had been run over and killed the day before. His sister graciously donated his flying books to Sydney Recreational Flying Club Inc.

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was on the leading edge of aviation advancement before 1914. The whole development of aircraft was largely blocked by the Wrights, including their patent on the joystick. Curtis had to try and get around the joystick. He could legally have a joystick control the elevator, but could not link it to the ailerons, which had taken over from the Wright's wing warping. Curtis developed a yoke to fit sideways to his shoulders. So he could control attitude with the joystick and literally lean into turns by using his shoulders to work the ailerons. (Evan may have some issues with the yoke's potential to interfere with exit and entry from the aircraft).

I haven't been able to source quite how this state of affairs came to an end, but it appears that as the US was poised to enter WW1, they saw how the Europeans had eclipsed America in aircraft development. Faced with the prospect of having to buy European aircraft, the US government knocked the Wright and Curtiss heads together and US aircraft could suddenly use a combined elevator-aileron joystick.

Evan is right (not Wright) when he claims centre control columns seem to be the most manageable control system. I learned on a Victa with its rectangular topped stick where the student and instructor could each have control. Later, on the Hughes Lightwing, the centre stick was good but hard to share. Now instructing on the Foxbat with the Y stick, I

can't imagine a better system. Taking over is just so easy. I've done a lot of time in a Cessna, with one hand on the yoke and one on the throttle and I have wondered why someone doesn't saw off the spare, centre-most yoke handle. They are not an aircraft where you need to put both feet on the dash and haul back with both hands to pull out.

A follow up Kevin Osborne's CX4

IN the February edition of Sport Pilot we met Kevin Osborne, retired electrical technician originally from Ireland, who had almost completed the construction of a canary yellow Thatcher CX4. The Thatcher CX4 is definitely one of the most exciting single-seat designs to hit the market in recent years. This was Kevin's second aircraft build. He had chosen this particular design because it had a similar configuration to his first build, a Corby Starlet, but with longer dimensions, particular in regard to the yaw moment, which he felt would make it a very controllable, stable aircraft, both on the ground and in flight.

Kevin's little bird has now left the nest and a very sweet flyer it is too. Brisbane Valley Sport Aviation Club member, CFI Kevin Walters had the privilege of the first flight in May, and test pilot Kev's report was overflowing with praise for the little plane. These photos were

taken at the Watts Bridge Memorial Airfield "All-in, Fly-in" later in May. The diminutive aircraft is powered by a 1915cc, 65hp VW motor and cruises at over 100kts. The 1000 hours TBO engine is fully modified for aviation use with dual ignition (magneto and CDI), and sits in front of a 50 litre fuel tank which, at 15 litres per hour, should give the plane over two and a half hours endurance with normal reserves. The motor drives an efficient, lightweight and fatigue stress free, 56" x 42" Richard Sweetapple laminated mountain ash propeller.

Fitted inside the CX-4's streamlined wheel fairings are toe operated hydraulic disc brakes. Both the main and tail undercarriage assemblies are impressively substantial without appearing out of proportion to the airframe. The wings have full span ailerons and there are no flaps (the aircraft's stalling speed being just under 40kts). There are two separate luggage lockers behind the pilot's seat, an upper one for smaller items and a very capacious lower one in which a complete camping set would fit.

As can be seen from the photos, Kevin has done such a good job with this Thatcher CX4 that it can fly at 180kts without the motor even running. And it should also be pointed out that those pesky Brisbane Valley mud wasps have absolutely no chance at getting past that perfectly fitted pitot cover. Well done, Kevin Osborne for putting together a truly beautiful little aeroplane. 🇦🇺



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A busy start

BY the time you read this, I will have been in the job three months and a busy three months it's been too - a CASA audit, LSA paperwork issues, seminars, new aircraft registrations, aircraft transfers and new members from the HGFA.

Among all this, the incident/accidents and defect reports still land on my desk each day. Believe it or not, this is a good thing. It helps us track problems, provides information to Operations for possible changes to training and procedures, allows aircraft manufacturers to initiate Service Bulletins (SB's) or Airworthiness Directives (AD's) and for technical observations for common causes to component/airframe failures.

Among the most common occurrences I keep seeing are post propeller strike inspections and maintenance.

Propeller Strikes

Post propeller strike maintenance on a Jabiru direct drive engine is required to address possible internal damage to rotational components, for example the crank shaft, bent con-rods, flywheel and alternator assemblies.

The Jabiru engines which use a wooden propeller require you to check the crankshaft and propeller flange for run-out at the front seal surface. If run-out is found, the engine needs to be stripped and crankshaft checked for cracks. The flywheel bolts will also need to be replaced.

Jabiru engines using a non-Jabiru propeller (composite/wood composite) must have the flywheel bolts checked for security.

I would suggest changing the flywheel bolts in this situation while you are checking the engine. My second suggestion would be to remove the spark plugs and turn the engine over by hand with the propeller fitted. If you feel any tightness during a complete revolution, especially in one area, have the engine stripped for internal component inspection by an authorised technician.

This seems dramatic but in the long run it is a lot cheaper and safer than rebuilding your aircraft if the engine fails while flying.

The next post propeller strike inspections to consider are engines with a gearbox. Rotax two and four strokes are the most common and the types which, I believe, are not getting the full inspection as per the Rotax manuals. I speak to members weekly about what type of inspection they carry out on their engine after a propeller

strike and it concerns me that the full inspection is being missed every time.

Definition of propeller strike from Rotax:

1. Any cases in which the engine is operating and the propeller impacts an object which causes a considerable drop in engine RPM. Propeller strikes on ground or contact with objects can result in engine and/or component damage, even if the propeller continues to rotate. Such damage may lead to engine failure.

2. Any incident, whether or not the engine is operating (e.g. damage due to contact with foreign objects, landing gear failure etc), which requires a removal of the propeller for repair.

3. An incident with a sudden RPM drop while impacting water, tall grass, or similar medium where damage on the propeller structure is not incurred.

Propeller construction should be taken into account. Aluminium or composite propellers are more solid and do more internal damage than a wooden propeller.

The first major step is to remove the fuel pump and gearbox and perform a crankshaft out-of-roundness inspection on the PTO side. Also perform a crankshaft distortion inspection, because the crankshaft is a split one. This distortion check is paramount to the airworthiness of the engine's future, and the inspection everyone seems to miss.

It is not the same check as the crankshaft out-of-round check and special tools are required. Remove and replace roller bearing in crankcase for propeller shaft. Remove crankshaft gear for an NDT inspection. Inspect, repair and perform overhaul of the whole gearbox. All the inspections and overhaul requirements must be carried out by authorised Rotax technicians (only two locations in Australia).

This all seems like a lot of effort, but remember the cost of a new engine and airframe repairs if the engine self-destructs 200, 100 or 50 hours after the propeller strike.

Vibration and Airworthiness

I've found in 24 years of maintaining aircraft of various types and designs, vibration is the most common cause of airworthiness incidents involving aircraft, equipment and their components.

Vibration is not something you would automatically associate with airworthiness incidents.

Engine failures, structural failure and pilot error are more likely causes.

Vibration:

The act of vibrating.

The state of being vibrated.

Physics:

The oscillating, reciprocating, or other periodic motion of a rigid or elastic body or medium forced from a position or state of equilibrium.

Vibration in aircraft is a major cause of airworthiness incidents. If ignored, it can lead to serious damage or failure to aircraft, equipment and components and even accidents in extreme circumstances.

The three stages I use to access and rectify vibration unserviceability's associated with aircraft are:

Initial signs of a vibration problem;

Major outcomes from excessive vibration;

The causes and how to reduce vibration.

Signs of a potential vibration problem can be noticed in the cockpit during flight and ground operation in the way of:

instruments becoming harder to read because of vibration;

regular electrical failures in instruments/avionics and switches;

Engine, airframe and propeller component failures.

The signs of vibration can be varied and change in intensity well before manufacturers recommended time schedules, such as propeller bolts requiring regular re-torque, excessive free play in rod ends, bolts and control surface hinges. Metal airframes can show signs of skin cracking, rivets missing or coming loose and black abrasive grease around skin joints.

Outcomes of vibration include:

Firstly and foremost is pilot fatigue, in the form of headaches and tiredness from the vibration even on short leg flights, numbness in feet, hands and legs from vibration transferring through the flight controls into the control stick and rudder pedals.

The second and most noticeable is the damage it does to the aircraft and your hip pocket. Airframe and engine components wear prematurely because of vibration. It can be expensive and a major airworthiness problem in all forms of aviation and on all types of airframes. I've seen bolts vibrating in hinges on the rudder and

Buying an aircraft

by John Blackburn

>> Milan's small but professional factory



OVER the past 18 months I have been involved in the purchase of two aircraft - an LSA and an ultralight - the first for a relative and the second for myself. In the process, I dealt with a number of companies and their agents. The experience has taught me a lot about the process of buying an aircraft and has revealed a number of traps for new players I would have liked to have known about before I started the journey.

My most recent purchase, that of the BRM Aero Bristell through Anderson Aviation was a positive experience. I first saw the Bristell at NATFLY 2011 and, subsequently, flew to Melbourne to test fly the aircraft. I was impressed with what I saw. I decided to visit the manufacturer in the Czech Republic to determine if I should have faith in the designer and in the aircraft itself.

Milan Bristella and his small manufacturing facility impressed me. Milan is a professional aircraft design engineer with extensive experience in metal aircraft design and construction. The design approach, manufacturing standards and quality control all appeared excellent. My second flight in the aircraft at his test facility confirmed my opinion of the aircraft.

I placed an order for the Bristell but then made a

W
You are placing your life in the hands of the designer

basic mistake. I was tempted by the options of a retractable undercarriage and a higher-powered engine and ordered a configuration that had yet to be built and tested. In hindsight, I should have remembered the lessons I learned in my defence career - developmental systems always take longer to deliver than scheduled and take time to debug once built. Nine months after I signed the contract, I realised I would likely have to wait a further six months before delivery and that there would likely still be a number of systems issues to be resolved.

At that point I cancelled the order and purchased the demonstrator aircraft which Anderson Aviation had just imported and displayed at NATFLY 2012. The lesson was that, unless you like long delays, buy a configuration that has already been delivered and tested.

Throughout this process Brett Anderson of Anderson Aviation provided outstanding support. He expended a significant amount of effort to address my concerns and changed my order expeditiously. The support following delivery has also been excellent. I now have a top notch aircraft which has met all of my expectations.



>> Final engine and instrumentation fit out

PHOTOS: DENNIS WISKEN

So, what did I learn from my dealings with other companies and the purchase of the first aircraft for my relative? The following checklist summarises the lessons from those experiences and will hopefully assist readers who are contemplating buying their own aircraft.

A BUYER'S CHECKLIST

Identify the characteristics and capabilities you want and spend a lot of time researching the market. Read the RA-Aus website and learn about the design limitations / restrictions on LSA and ultralight aircraft. If you understand the limitations, you will be far better placed to make a well-informed decision regarding your choice.

Be very cautious about claims about aircraft or configurations which have not yet built or which are still under development; brochures are tempting, but in some cases they stretch performance or capability numbers. Ask not only where the aircraft is designed, but where it will be built. You must satisfy yourself that the design and manufacturing standards are excellent; remember you are placing your life in the

hands of the designer/manufacturer. It is important to ensure the aircraft being advertised, and the configurations offered for sale, comply with RA-Aus regulations and standards and can be registered in Australia.

Research the designer's background and the history of the aircraft - it doesn't take long to identify fundamental design flaws when you search accident records.

It is important to check, where possible, the financial viability of the manufacturer and of the importer /agent - a number have gone out of business.

Once you identify an aircraft which appears to meet your needs, you need to read the flight and maintenance manuals and then test fly it. If you are not experienced get someone to assist you. Talk to the folks at RA-Aus - I found their advice invaluable.

Conduct your own "assessment" and look for possible design flaws, safety risks and systems limitations. In my research, I went as far as calling aeronautical engineers to discuss aspects of the design of the aircraft I was assessing. Going

through this process and asking questions of the importer/agent and the designer can be revealing. For example, fuel injected engines with ECUs are growing in popularity - ensure that the designer understands the specific requirements for a fuel injected engine and the associated fuel system and that the ECU redundancy modes are fully analysed.

Talk to other owners and get their honest views regarding the aircraft, its performance and above all, the experience they had with the importer/agent. There do not appear to be any regulations or standards for importers/agents. Take the time to check out his or her reputation before you sign a contract. Find out how much experience they have importing and delivering RA-Aus aircraft. While I am sure most agents are good, there are incompetent and disreputable characters out there. I have had the misfortune to meet some of them. I subsequently learned their reputations usually precede them - if you take the time to ask around.

Read the contract very carefully; some agents try to place conditions on the purchaser but not on themselves. If it is an imported aircraft, be

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cautious about having all payments except the GST made before the aircraft arrives in country. Such an arrangement leaves the purchaser with little leverage if problems arise during the delivery process.

Ensure the contract specifies that the purchaser can test fly the aircraft at the time of delivery, before the final payments is made. I had the experience of one agent telling me I was not “qualified” to conduct a pre delivery test flight. I have a few thousand hours and am a graduate of the Empire Test Pilot’s School in the UK. In that case, the agent refused to permit a check flight before delivery, and threatened to on-sell the aircraft to another customer if the final payment was not made and the aircraft accepted without a check flight. As I subsequently found out, it was because he had not rectified some known faults with the avionics.

You may have little success in contracting for a specific delivery date if the aircraft is ordered from overseas, but you should consider specifying the maximum time from arrival in country to delivery to you. If the agent prioritises other income producing business once they have your funds, you may wait for a long period of time to take delivery. If the manufacturer is in Australia you may want to ensure that delivery schedules and associated contract exit options are clearly specified.

Ensure that any installation works are quoted and checked before asking the agent to fit any customer supplied equipments. I know of a case where the agent charged almost \$1800 to fit a \$600 GPS in the instrument panel - a surprise for the buyer when the bill was presented.

THE BOTTOM LINE

Buying your own aircraft can be a rewarding experience. But, in a small number of cases it can also be a frustrating and aggravating one. Be prepared, do your research and your background checks before you sign any contract.

In buying an aircraft, as in other areas of aviation Prior Preparation Prevents Piss Poor Performance.

John Blackburn is a retired RAAF Fighter Pilot and Test Pilot who now flies a BRM Bristell UL aircraft and an ASG-29E glider. 🍷



>> Brett Anderson’s “after sales service”



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PHOTO: DENNIS WISKEN



Mark Gray's Savannah 'S'

by Arthur Marcel

Not only is the Savannah a no-nonsense, go just about anywhere STOL aircraft, it looks rugged as well. Step by step, these robustly functional high wing aircraft are becoming more and more stylish. Mark Gray from the Brisbane Valley Sport Aviation Club has not long finished building the latest model, known as the Savannah S, easily identifiable because it has rounded edges on the rear fuselage.

The company marketing these kits, AeroKits, insists the rounded edges are more than just cosmetic. On their company website they say the rounded fuselage corners lessen the side area to crosswind and are quieter at full power.

They also claim the S model has had changes made to the aileron hinges, and a different fairing around the empennage. Furthermore, "internal framing has been beefed up with nice transitions between panels".

Mark's background is in oil and gas drilling, where he says it's often "rip, tear and bust" with heavy gear to get the job done. He found working with aircraft aluminium just 1/2mm thick rather different. He discovered he had to be very careful with it. Furthermore, he was dismayed at first with the kit because there was a lot of detail to get his head around.

He had started with the idea he would just bolt the bits together and fly off. In fact, it took

Mark nearly a year to complete the construction and obtain his RA-Aus Pilot Certificate. His only previous flying experience had been flying gyros in the 1990s.

Mark says before deciding to build a Savannah, he had looked at other interesting designs. He said his initial impression of the Savannah was that it was definitely not a pretty aircraft, but he could not ignore the hardy practicality of the design. He also wanted a metal aircraft. Further, the aircraft had a wide operating range and the kit was reasonably priced. The idea grew on him and he just couldn't get the design out of his mind. So, by the time Savannah agent, Reg Brost, showed him over the new S model with its





>> Savannah pilots are not short on rudder authority

new curves, he was ready to sign on the dotted line.

Then, for most of 2011, his first year of retirement, he became totally involved with interpreting the ICP Savannah construction manual and conducting his flying training.

Mark was lucky because, in his neighbourhood near Caboolture airfield, there were two other Savannah builders also trying to get their heads around the construction manual. Virgin Australia senior LAME, Steve Donald, was one and Mark Kyle the other. Mark (Gray) made many trips to Steve and Mark to confirm many of the small details he couldn't fathom. He found both men unfailingly patient and helpful. Mark found Steve, in particular, to be a careful thinker and because he had "been there and done that" not long before, usually had a solution to his latest problem.

Mark was also helped by Reg, the agent, who gave him construction photos on CD. Mark remembers being impressed, firstly by the amazing accuracy of the material as cut and punched by the manufacturer, and by the precise work being done secondly by the other two Savannah kit builders.

He learnt about light metal work, fibre-glassing (he decided he had to alter the engine cowl) and painting (more particularly what you need to do *before* painting).

He remembers thinking that it was all about careful attention to detail. Building this aircraft made him realise just how much he hadn't known before he'd started about attention to detail. The realisation that his life would one day depend on him paying such attention to detail motivated him more than anything else.

At one time he found he had broken off the lower pin of the fastener which holds on the airbox top. He had simply handled it too roughly. Later, he began to wonder where the missing pin was. He began to think it may have rolled into the air intake - but no, it wasn't there. He lay awake that night, unable to get the missing pin out of his mind. The next day, he swept the floor and went through the rubbish with a fine tooth comb.



He lay awake that night, unable to get the missing pin out of his mind

It wasn't there either. So he took off the carburettors and the manifolds, he searched everywhere, but could not find it. He lay awake for many nights. But to this day, he hasn't found it.

Missing pin or no missing pin, Mark's Savannah 19-8181 is up and flying. Recently, he went with Steve Donald in Savannah 19-7966 (see Sport Pilot June 2012) from Caboolture to the Old Station fly-in. With the optional extra fuel tanks, they both found they could have easily flown the round trip without refuelling.

As it was, they tanked up at Bundaberg on the return leg in anticipation of headwinds. Most of the 500nm trip was flown at around 85kts IAS, between 3000 and 7500ft. Mark found that 19-8181 will do 98kt at wide open throttle (straight and level), and cruise at 90kt in still air.

Although it is not fast by LSA standards, in the right conditions it will pull up and out of amazingly short strips at under 30kt. He finds the plane easy to fly, even with his limited experience. Apart from a recalcitrant tachometer, he has had no issues with it, except for his discovery that rear draining fuel tanks significantly increase the quantity of unusable fuel on a long descent from 8000ft.

And sometimes even now when he's flying, he still thinks about where that bloody little 1/2" stainless pin got to! 🐞



North Straddie

by Arthur Marcel

NORTH Stradbroke is a wonderful destination for holidays. Dunwich, Amity and Point Lookout are the three main holiday centres. The weather is usually excellent and, indeed, it could not have been better on Saturday, June 16, for the monthly morning fly-in at Dunwich airfield. Forty-two GA and RA-Aus aircraft of all shapes and sizes turned up for breakfast under the shade cloth outside the Straddie Aero Club, where Pat Bowden and other club members were perfect hosts. Aircraft came in from both ends of the island. Those from the north had to island hop from Bribie Island to Moreton Island and then to North Stradbroke; those from the west (me included) crossed the waterway just behind Jacobs Well, while Gold Coast pilots simply flew up the length of South Stradbroke Island and across the Jumpinpin channel. Whichever way they came, it made for a busy circuit area between 8.30 and 9am on the day of the fly-in. A perfect day for aviators. 🛩️



CORRESPONDENCE HERE



>> Tevor Mills' RV8 from Caboolture, and below, Peter Pretorius' Wittman Tailwin and Sierra Storm 300 Special

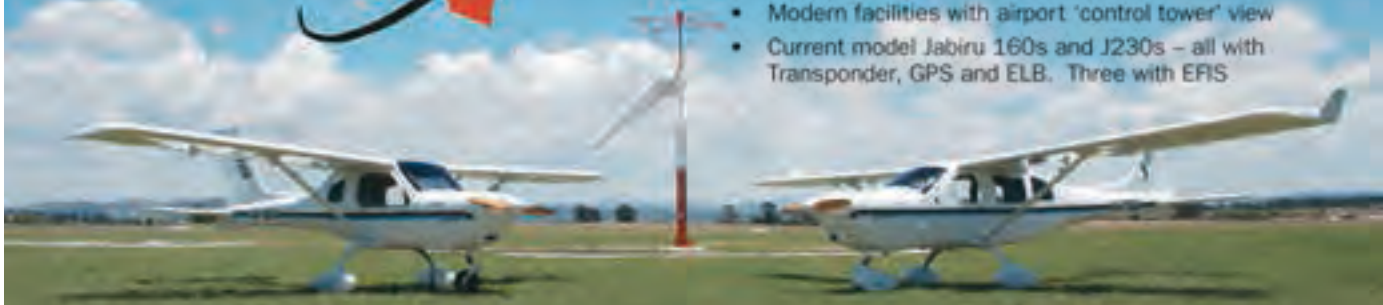


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PILOT TALK

Zane Tully & Jill Bailey
RA-Aus Operations team

GPS not to be used as the primary means of navigation

The rule of common sense

Flight Planning

There are several very important points which need to be remembered about the practical use of GPS and other electronic devices for navigation by RA-Aus pilots.

Firstly, GPS will only tell you a part of the picture; and as any pilot knows, the whole picture is vital if we are to safely and successfully navigate our aircraft. By creating a plan, pilots are creating a 'big picture' of where they are, where they should be, what they expect to see, and how long it should take to get there. A pilot must positively fix the aircraft position by visual reference to features shown on topographical charts at intervals not exceeding 30 minutes. Not only is this a requirement of the regulations, it just makes common sense.

Secondly, we must remember that electronic devices like GPS may only be used to provide primary navigational information when the GPS is compliant with a Technical Standard Order (TSO). What does this mean? From a RA-Aus pilot's point of view it means additional cost because a TSO'd GPS is far more expensive. Using your ground based GPS or a non TSO GPS is not acceptable as a primary means of navigation. Are your electronic devices (GPS, iPad, etc) TSO'd? Is the software approved and included with the TSO? Is the TSO valid? Non-TSO electronic devices most certainly should not be used to 'skirt' closely around CTA steps because, being non-TSO, they are a guide to the step being there, NOT the certified, approved (TSO) position of the step.

Furthermore, a quick look at the steps on a VTC reveals the step distances detailed in regard to Distance Measuring Equipment (DME), not Nautical Miles (NM). This means that your non-TSO GPS may be measuring your distance from the CTA airport from a different reference point to the DME. Therefore, by using your non-TSO GPS to skirt the CTA step you could actually be within the step 'buffer' or worse, inside the CTA. Have you heard of anyone experiencing this? The pilot thinks they are outside the 'buffer', and are then called up by Air Traffic Control

(ATC) and asked if they intend to remain clear of the zone? The mere fact ATC asked the question is a clue that you are not in the right place.

Thirdly, while GPS may provide accurate groundspeeds, and ETA's, there is an often quoted phrase in the computer industry... 'Garbage in, garbage out'. A GPS is only as good as the information installed or programmed. If the device has not been TSO'd, the information it provides cannot be relied upon, particularly in

take into account vastly increased fuel use on full power climb to 8500'? Are you operating at a slightly higher RPM than usual? Does the GPS consider a circuit pattern and the potential need for a go-around because of parachutes landing, or an aircraft dawdling on the threshold? Does the GPS consider anything other than arrival overhead your destination? This is all the responsibility of the PIC prior to takeoff. Knowing your equipment is the key here; some GPS communicate with fuel flow meters and management devices and amend fuel remaining in the event of a go-around or touch and go, most don't.

Use Google Earth and other resources to check out the 'tiger country', and airspace steps. Don't forget you can fly around nasty areas, mountainous terrain and other parts which your GPS will boldly and blissfully take you over in its quest to go straight to the destination. Most importantly of all, don't wait for your GPS to tell you that a CTA is ahead. By the time it alerts you (if the feature is turned on) you will be bogged down with working out where to go, how high to be, staring at the screen and fiddling with knobs and buttons until...it's time to write a



situations of tight tolerances and narrow maneuvering. On the other hand, a map purchased from Airservices is accurate, and has been provided to pilots for just that purpose.

In regard to end of daylight (a concern for all Day VFR pilots), some GPS may only indicate end of daylight for where the GPS is now, not the programmed destination. Know your equipment and find out if this is the case, it may just save your life. The GPS cannot take into account geographical features which will dramatically affect visibility when east of a mountain range close to last light or in conditions of poor weather, low cloud or smoke. This is the responsibility of the Pilot in Command.

Finally, and possibly most importantly, fuel planning is the most critical area for a pilot and yet, we still see regular accidents caused by aircraft running out of, or running low on, fuel. Why is it happening? Perhaps the GPS does not

report about a Violation of Controlled Airspace (VCA). Look at the big picture on an adequately scaled map and ask yourself, does this show common sense? Is this safe?

Controlled Airspace (avoiding)

When reviewing the big picture; a pilot's aim should not be to clear a CTA boundary by the minimum distance for separation (+/- 2NM when between 2000ft and 4999ft for example). A pilot demonstrating professional behavior and airmanship should plan a buffer from the buffer. A margin for error should be applied in order not to infringe the 2nm minimum distance for separation (as in this example). To use a car as an analogy, no-one drives right next to the centre line on the road, as there will be no safe buffer between you and the oncoming truck doing the same thing. We allow a buffer zone away from the centre line in order to as



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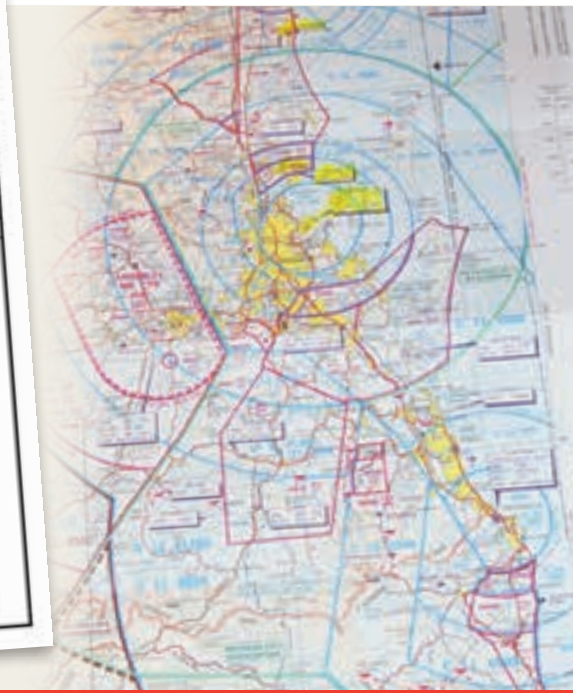
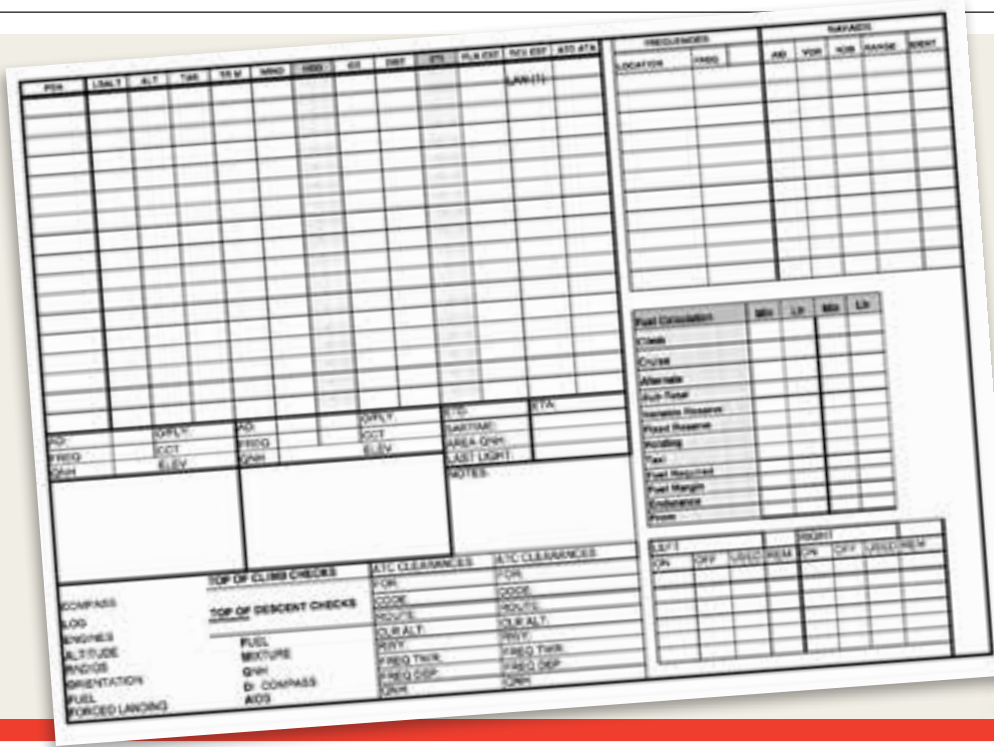
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sure maximum safety. Common sense.

Maps, such as VTCs, provide a lot of information in relation to busy airspace. To assist with CTA avoidance they provide detail about VFR lanes. These lanes are designed to provide a visual means for VFR traffic to transit certain areas. In some instances, the VFR lanes are designed to assist VFR traffic to avoid CTA. These lanes are drawn through Class G airspace and are available to all VFR traffic.

But not all VFR lanes transit Class G airspace only. Some pass through CTA and Military zones. These lanes are not available to all VFR traffic. If a VFR lane crosses a boundary into CTA or Military airspace, a clearance is required. Therefore, as we have written about in previous articles, a clearance can only be requested by a pilot who (among other requirements listed in CAO 95.55) holds a valid PPL (or higher licence) endorsed for the airspace type. Even so, a request for clearance does not guarantee a clearance will be granted and thus, the VFR lane must be avoided if a clearance is not given.

So, use and follow VFR lanes for transit around CTA and Military airspace in Class G and use your map to follow the visual clues. Avoid VFR lanes which transit CTA and Military airspace and be aware of other traffic which might be using it.

There is another type of airspace we also need to take into consideration. Since the introduction of our new and current CAOs we have been granted access to airspace above 5000ft (with compliance of the requirements). Have you ever stopped to think about the fact that the higher we fly, the less Class G airspace there is available for us? This is what is meant by considering the big picture. Flights above 5000ft may be restricted by Class E airspace. If the aircraft is not properly equipped, a pilot may be limited to flying below 8500ft (in some cases) to avoid a violation of that type of airspace.

How much importance should we place on controlled airspace avoidance? What does each violation mean to our organisation? Do we care?

As mentioned previously, relying on the GPS does not absolve the PIC from the responsibility of knowing where they are at all times. Every time a Violation of Controlled Airspace (VCA) is perpetrated for whatever reason, it blemishes our organisation's image and creates a perception that our pilots do not adhere to proper protocols. It is important to dispel these perceptions, particularly if we are ever to be granted controlled airspace endorsement privileges in the future. So, of course we care.

PIC Responsibilities

It comes back to airmanship in the form of respect for other pilots and airspace users and appreciation for the exemptions under which we are now privileged to be operating. Hence, we should always treat controlled airspace with the utmost respect and completely avoid all forms of it with more than the minimum margins.

Instructors go to great lengths to provide the correct training (as per the syllabus) for the issue of a cross country endorsement. Disappointingly, some pilots drop these skills in preference to navigating solely with a GPS. How do we know this? There is the grapevine, of course, and ramp checks but, ultimately the evidence comes from the exhaustive process of following up on reports of Violation of Controlled Airspace (VCA).

The RA-Aus Operations Manual details the requirements of knowledge and practical application required to obtain a cross country endorsement. The endorsement remains valid on the premise that the holder will continue to exercise those privileges in accordance with the regulations. The requirements for navigation are outlined in the Operations Manual and mirror the requirements of the regulations. Does it come as a surprise that the regulations do not mention the use of a GPS as the primary means

of finding your way?

Resources Online

A good resource is the latest version of the Visual Flight Guide, available to download from the CASA website for free. It is full of useful information based on the Civil Aviation Regulations (CAR) and Aviation Information Publication (AIP). You can even download it to your iPad or tablet as a handy reference for flight planning when away.

The AIP is the best resource to explain flight planning requirements. For CTA avoidance refer to page ENR 1.1 - 40, paragraph 19.12. You will read in this section that for flight planning purposes, certain tolerances should be applied for avoiding controlled airspace. You will immediately observe that when using TSO'd instruments the tolerance is less. You may even notice the complete absence of reference to a GPS as a device to use for controlled airspace avoidance. For us, using Dead Reckoning (DR) (and remember, even if we have a GPS fitted to our aircraft we are still required to DR) the tolerance required to be applied is the greatest, providing plenty of margins for error.

Good old Common Sense

Our organisation, and the industry as a whole, will benefit from pilots taking a healthy attitude toward CTA avoidance on every flight. This can be achieved, dare we say it? Plan your flight and fly your plan. Plan to transit well around the steps by taking a different route inland: Plan to transit Class D outside of tower hours: Plan to arrive with sufficient fuel margins: Plan to arrive well before last light. There is no limit to how well a flight can be planned.

Can we expect to gain further privileges if we aren't acting responsibly with those we have now? Sometimes the most rewarding tasks are those which take more effort to complete.

Or to paraphrase from a great movie (see if you can pick it), "With great privileges, come great responsibilities."



STATE TRIKE ODYSSEY

by David Jones

THE Southern Districts Flying Club, based at the Strathalbyn Airfield (YSYN) in South Australia, is an active club of mostly microlight pilots. This May, eleven trikes joined the annual week-long flyaway. As usual, the itinerary changed because the weather wasn't always obliging, but the intention was to visit Kingston SE, Naracoorte, Stawell, Swan Hill, Balranald, Lake Mungo, Wentworth, Waikerie and Truro Flats.

» There is a lot of exploring to be done

THE PILOTS

Di in her 2 stroke Wizard wing with Peter in the back seat was the slowest. Damien's 503 trike is very swift for a 2 stroke. David, Gerry and Sandy were in 582s, while the remainder of the guys - Dragan, Mike, Tony, John, Moose and Barry - flew 4 stroke trikes. Sue and Lisa had the really important jobs of driving the support mini bus and keeping us organised.

DAY ONE

In contrast to previous trips, this one started with occasional light showers drifting across the landscape. Strathalbyn is close to the Murray mouth so the first step was to dodge the small cumulus cotton balls and cross the lower lakes to Meningie, where the 2 stroke trikes topped up their tanks for the two hour leg along the Coorong to Kingston. The 2010 trip was during the drought, but the views this time were of the lower lakes full of water - a fantastic sight. With the weather improving, we stopped off at Kingston before heading to Naracoorte.

Naracoorte Flying Club members were great hosts, putting us up for the night. On these trips some people like to camp out in tents, others to put a sleeping bag down under a roof, while the oldies in particular like the comfort of a hotel to get a good night's sleep, safe from stentorian snorers or to avoid inflicting others with their own.

DAY TWO

Day two's goal was originally Stawell, but the lure of the chalet accommodation at the Grampians (Woodstock) Airfield on the western side of the Grampians was too strong to resist. For several of the high fliers in the group, the flight via Edenhope was a highlight because they enjoyed the views above the patchy cloud layer and a steep descent through the many holes into Edenhope.

Late afternoon wasn't to be wasted, with Damien exploring the fringes of the western Grampians, while others enjoyed local flights or were content to mellow out in the bushland setting. There was discussion about returning to Grampians on a future

>> Damien exploring the western Grampians



>> Line up at the Grampians airfield

trip because it's a lovely setting and there is a lot of exploring to be done around the region.

DAY THREE

The Woodstock strip is lined by bush so it's prone to rotor in a crosswind. Those who left early had it easy, but some were slow departing, by which time the wind had picked up at ground level, giving them firsthand experience of rotor.

Fortunately the air above was smooth and, after rounding the rugged northern tip of the Grampians, exploring at different altitudes and after a lot of radio chatter, a tail wind was discovered at 5500ft. We headed to St Arnaud (Swan Hill was not doable so we chose a less ambitious goal).

Having previously made contact, we were met at the airfield by Les and Peter, trikers from the Latrobe Valley. Because of the limited amount of flying done in that area, they were keen to see how other trikers did it. The next day, Les went backseat with Moose as we flew the 70nm leg to Swan Hill.

DAY FOUR

With a strong northerly headwind predicted for Day four, we got our act together and departed St Arnaud soon after sunrise, taking advantage of the still conditions below 1500ft. The slowest trikes flew directly to Swan Hill while

the faster trikes detoured to explore the Kerang lakes and Mystic Park. Everyone arrived at Swan Hill buzzing about their various experiences, even if it was just the simple pleasure of a relaxing and warmer flight compared to the previous really cold days.

Trike flying is highly weather dependent and is safest and most comfortable in still or light wind, before the heat thermals build up during the day.

This pilot, lulled into a false sense of expectation by good weather on the previous two annual trips, was peeved to be holed up in Swan Hill for a day waiting for a front to pass through. However we couldn't have chosen a better place as the Mid Murray Flying Club generously gave us the use of its facilities and, with the town close by, our stay was very pleasant.

DAY SIX

Losing a day meant the Balranald/Lake Munro section was abandoned in favour of heading back home via Lameroo. The area forecast for Day six was for a 20kt headwind at 2000ft, which would have made the 150nm trip to Lameroo via Patchewollock tedious. However, a sunrise start in still air saw a 7kt tailwind at 1000ft, which meant that even Di, in the slowest trike, made Lameroo in 4 hours. The diaphanous, patchy ground mist and early morning colours added interesting dimensions to the bare paddocks of the flat wheat and mallee country.

For Moose, based at Lameroo, this was his last day, but he finished his social duty by hosting the group for the remainder of the day. With the weather deteriorating, the window of opportunity was the next morning. The following scene must have been enacted many times since the beginning of aviation: fully kitted-out pilots, standing in the dawn light, hoping the overnight drizzle was just that, anxiously waiting for the low cloud to lift and the gloomy western horizon to lighten. Luck was on our side and despite the 10-15kt headwind, the bumpy 72nm leg back to Strathalbyn was completed by mid morning.

REFLECTIONS

This trip marked a new development in navigation. Six of the group used OzRunways on iPads to replace a conventional GPS and to supplement the paper maps we carried. Because trikes don't have cockpits, we have been experimenting with ways to secure the iPad: the iPad in a dock strapped to the left thigh and a plastic map case on the right thigh; the iPad in a protective map case; the iPad mounted on a central bracket below the instrument panel. To use the iPad in flight can be tricky because you first have to remove your glove, which in a trike can be risky. However, the unanimous opinion is that OzRunways is easy to use and a comprehensive, reliable tool suited to our style of flying, while the iPad screen is readable and fairly easy to control in flight.

Special thanks to the instructors on the trip, Gerry Golden, Peter Brand (BrandAir Microlights) and Moose (Matthew Walter, Mallee Microlights).

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PILOT NOTES

Jabiru LSA 55

Engine: Jabiru 2200, 1700 hrs ttis.

The engine failed while the aircraft was on cruise and the pilot attempted a restart which was unsuccessful. A forced landing was attempted onto a road but as the aircraft touched down it was struck by a wind gust from one side which moved it sideways off the road. The port side main wheel sunk into the ground and the aircraft came to an abrupt stop on its nose.

The pilot suffered bruising and the aircraft sustained damage to its wing, windscreen and one undercarriage leg. The engine failure was caused by a failed cam drive gear.

Drifter 582

Conditions: Strong wind and moderate turbulence.

Pilot experience: 60 hrs, all on type.

As the pilot was attempting to land the aircraft in strong wind conditions it was affected by a gust which moved it a considerable distance sideways. The aircraft contacted a single wire power line and remained attached to it. The pilot shut the engine down just before the aircraft struck the ground, dragging the line down with it.

The pilot exited the aircraft without injury but the aircraft sustained a broken undercarriage leg and damage to one wing, a brake line and some electrical wiring.

Evektor Sportstar

Pilot experience: 28 hrs, all on type

Conditions: Light wind, nil turbulence.

The student pilot touched the aircraft down on the nose wheel and it oscillated several times before power was applied for a go-round. An instructor in another aircraft spoke to the student by radio and after another attempt, which also resulted in a go-round, the aircraft was landed successfully.

It was suggested that as there were other aircraft lined up and waiting to depart the student may have been distracted by thinking that there was a need for the aircraft to "get out of the way" of the waiting aircraft. An inspection revealed that the nose wheel had damage in the form of a small split and some deformation of its rim.

Jabiru J170C

Engine: Jabiru 2200B, 15 hrs since rebuild.

The aircraft was on base leg when the engine ran roughly and then stopped. The student pilot, who was returning from a solo navex,

landed the aircraft without incident.

An inspection revealed that the No. 3 conrod had failed and detached from the piston.

Pulsar XP

Engine: Subaru EA 81, 12 hrs ttis.

The pilot was performing a wide circuit on the aircraft's initial flight when the engine failed without warning. The pilot carried out a forced landing into a paddock short of the airfield. The aircraft rolled for approximately 125 m before the nose wheel collapsed as it encountered cultivated ground. The aircraft then slewed sideways and the port axle failed causing the main gear to dig into the ground and be torn from its mounting. The pilot exited uninjured but the aircraft sustained additional damage to the propeller, fuselage and starboard flap. A later inspection found evidence of water contamination in a fuel filter and the carburettor bowl.

Morgan Cheetah Mk2

Pilot experience: 500 hrs, 350 on type.

The pilot offered a friend a ride in his aircraft and transferred a 7.5Kg flight bag from its normal position on the passenger seat to the storage shelf behind the seats to accommodate the passenger.

As the aircraft became airborne, it adopted a nose high attitude and the pilot had to force the nose down to maintain flying speed and to stop the aircraft from porpoising.

Realising that the aircraft was being affected by an aft CofG situation, the pilot took the flight bag and placed it on the passenger's knees and full control of the aircraft was regained.

Later analysis of the incident revealed that there was a tool kit weighing 7kg behind the seat and that this had been omitted from the CofG calculations.

Jabiru J230

Conditions: Light wind, nil turbulence.

The aircraft ran off the end of the runway on landing and became bogged. It was removed with the help of airport staff and sustained no damage.

The reporter stated that he had not set the aircraft up properly for the landing as the approach was too fast, leaving insufficient runway to stop the aircraft after touchdown.

Titan T51

Conditions: Light winds, nil turbulence.

Pilot experience: 150 hrs, 10 on type.

As the aircraft began to roll on take-off the pilot applied liberal right rudder as was his normal

technique. Realising that he had applied too much rudder he over corrected with left rudder which caused the aircraft to veer off the runway. As he tried to correct the situation the left wing tip struck the ground and at the same time the tail of the aircraft swung and impacted the ground, jamming the elevator in the up position.

Although the aircraft had become airborne the pilot managed to bring it to rest on the grass adjacent to the runway with damage to the left hand elevator and wing tip only.

Savannah S

Pilot experience: 2450 hrs, 115 on type.

While taxiing the pilot failed to observe a tyre which was being used as an unserviceable taxiway marker and the aircraft propeller struck the marker, stopping the engine. The reporter believes that the combination of early morning sun, distraction by a passenger and the fact that the marker was in a blind spot under the aircraft's nose may all have contributed to the incident.

The propeller sustained damage to one blade.

EDRA Super Petrel

Pilot experience: 163 hrs, 30 on type.

The pilot was receiving instruction on waterborne operations in the amphibious aircraft. After touching down on the third landing the aircraft had run smoothly on the water for approximately 30 metres when the undercarriage lever suddenly slammed forward and the nose wheel dug into the water. The aircraft pitched forward and came to an abrupt halt with damage to the windshield and further damage to the hull adjacent to the instrument panel. Both crew members are certain that the gear was retracted prior to the landing.

None of the crew was injured but a lateral crack under the hull allowed water to enter the craft and it had to be towed ashore.

Defect

Lightwing GR 582

Airframe: 1413 hrs ttis.

A rod end joint on the lower undercarriage bungee strut failed as the aircraft touched down on a normal landing resulting in moderate damage to the aircraft. The failure was in the outer ring of the rod end and although it appears to have been an isolated incident owners and pilots are advised to inspect these components on a regular basis where they are used in these applications.

Pilots Touring Guide 3

THE third edition of the successful *Pilots Touring Guide* is now available and *Sport Pilot* has three to give away to readers.

This edition includes 15 new destinations, as well as increasing the total number of places to explore to 285.

Because most of the destinations are recommended by touring pilots who use the guide, readers can be assured of a warm welcome at all listed locations.

The information provided for each destination includes the attractions and places of interest in the area, fuel and accommodation availability, the owners' names and contact details and an outline of the destination's history.

New destinations include:

- Angorichina station, a property in the Flinders Ranges;
- Wildman Wilderness Lodge in the Arnhem Land wetlands; this was the former Wrotham Park station moved from far North Queensland to Wildman River station;
- Echo Creek, formally known as Tully River station and part of the enormous King Ranch station;

- Mt Ive, a sheep station in the heart of the Gawler Ranges, 200 km west of Port Augusta - the only property within the Gawler Ranges which has fly-in visitor accommodation;

- Bulloo River station in NT, made famous by best selling author, Sara Henderson, and now run by her daughter, Marlee and her husband, Franz Ranachen;

- Turlee Station Stay, just south of Lake Mungo, which now has its own airstrip.

The map inside the back cover has also been updated and now includes the major routes flown by touring pilots. The map can also be viewed on the *Pilots Touring Guide* website where brief details of each destination 'pop up' when selected. In addition, copies of the map can be purchased through the website.

The website itself has been updated to reflect the changes.

The Guide can be obtained directly through www.pilotstouringguide.com.au, from AOPA (02) 9791 9099 and soon as an iBook from the Apple Bookstore.



The best three outback flying stories (400 words max) will win the writer a copy of the guide, valued at \$40 (postage included). Email kreisha@sportpilot.net.au

TECH TALK Continued from Page 29

elevators on a Thruster T500. The end result was flutter to the point of loss of control in flight (safely landed). Composite aircraft don't miss out either. Excessive vibration caused a composite nose wheel spat to depart in flight, again (safely landed), but both of these pilots were lucky.

Vibration is a day-to-day issue; reciprocating components such as propellers and engines naturally cause vibration. Airflow over airframes also causes vibration.

Vibration to a certain point is acceptable and aircraft components are designed with this in mind. Vibration limits are calculated by manufac-

turers and engineers and mitigated by maintenance and servicing schedules.

Testing is carried out in accordance with stringent government regulations throughout the world, such as our own CAO 95-55, to help reduce premature failure of aircraft and components.

Remember

Stick to the maintenance and servicing schedules set by the manufacturers of your aircraft or components, so if you fly an amateur built aircraft registered 19-xxxx or 28-xxxx, use the servicing schedule in the Tech Manual SECTION 4.2.2 as a guide.

Repairs to any propeller, engine, airframe and components must be carried out by an authorised technician, eg Level 2 or LAME, and in accordance with the manufacturer's recommendations. If you maintain your own aircraft, make sure you know what you're doing and have the work checked by a second set of eyes.

Some final personal advice is to have your propeller dynamically balanced after any repair, original fitment on a new aircraft and at least every 100 hourly/yearly inspection. Make it safe to keep it up!

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Pitfalls for the unwary



IT is cold and dreary as a lone aircraft approaches the airfield. The pilot, the only person on board, joins downwind and turns a close base. To the sombre group gathered near the clubhouse at the top of the airfield, the aircraft is seen to overshoot the turn onto final and appears to be very low. As the pilot turns back towards final, the bank angle continues to steepen and the aircraft flies into the ground, well short of the airstrip. Fortunately, the wing hits first and takes the major part of the impact force, probably saving the pilot from saying "G'day" to St. Peter.

So what went wrong? What caused the destruction of an aircraft and nearly the life of a pilot?

Investigation indicates three factors can contribute to such a crash: visual illusion, lack of currency and faulty proprioceptive interpretation.

VISUAL ILLUSION

If an airstrip slopes up from the threshold, the pilot is given the illusion he or she is too high; he reacts by reducing the power. While in the turn and realising he is too low, he increases the power and pulls back on the stick.

LACK OF CURRENCY

The pilot's lack of recent experience may prevent him from recognising that when turning back to final, the aircraft is in a spiral dive and that by pulling back on the stick he only increases the bank angle. Increasing the power has the effect of momentarily increasing the downward acceleration. A crash is now inevitable.

PROPRIOCEPTIVE INTERPRETATION

(Interpreting sensations from muscles, joints, etc.)

The pilot would feel the increasing 'g' in the turn and this would add to the overall disorientation and lack of a suitable response.

HUMAN FACTORS

In our study of human factors, we learn about the pitfalls and traps of visual illusions on the approach which can lead us into dan-

gerous territory. Rather than explain each of these in detail, it is possible just to summarise them, thus:

The pilot has the illusion of being high on the approach to land, and undershoots perhaps critically, if-

- The runway slopes up from the threshold;
- The terrain is lower and sloping up towards the threshold;
- The runway is narrower than the pilot is accustomed to;
- The runway is longer than the pilot is accustomed to;
- There is heavy rain on the windshield;
- The approach is over water or featureless terrain.

The pilot has the illusion of being low on the approach, if-

- The runway slopes down away from the threshold;
- The terrain is higher and slopes down to the threshold;
- The runway is wider or shorter than the pilot is accustomed to;
- Visibility is poor.

SITUATIONAL AWARENESS - THE PITFALLS

A recreational pilot is landing at an airfield with a sealed runway which has a permanently displaced threshold. The thing about displaced thresholds is that you can generally use the full length for take-off, however, usually due to obstructions on the approach, the beginning of the runway is not available for landing. The aircraft is seen to hit an embankment on the approach and flip upside down.

It can be assumed that during the approach, the pilot was looking at the beginning of the runway and not at the displaced threshold markings.

'BLACK HOLE' ILLUSION

After a busy and tiring day, a pilot departs, in an RA-Aus registered aircraft, for his destination with barely sufficient time to arrive before last light. As it turns out, the flight time was longer than expected and the aircraft approaches the destination in near dark conditions. Being

a rural airport, the approach path is featureless and so devoid of lights, it looks like a black hole. In contrast, the lights of the town are very bright, as are the lights of the runway. These conditions can lead to the 'black hole' effect where the pilot has the illusion of being closer to the destination airport and higher than he really is. For this pilot, not having any night flying experience and flying an aircraft not equipped for night flight, disorientation can easily occur. Fatigue, anxiety stress and a desire to get down as quickly as possible will only exacerbate an already critical situation.

The wreckage of the aircraft is found short of the destination.

'KNOWLEDGE ITSELF IS POWER' (Francis Bacon, 1597)

In each of the situations shown, the pilots might have avoided the accident if they had had the knowledge of the effects of the mental and physiological factors of human performance.

Such things as mental and physical fatigue, influence of medications, colds and influenza, anxiety arising from fear, home and business worries and more, can all exacerbate disorientation and misjudgement.

There are many airfields in Australia which offer access to fantastic and scenic areas. Some of these airfields can be quite challenging. We, as flight instructors, would do well to discuss these challenges with pilots intending to use them. In fact, why not take it upon yourselves to organise a Pilot's Night, with appropriate refreshments, and revise human factors and pitfalls for the unwary?

References: Human Performance & Limitations - Wilson 1993; Human Performance & Limitations - Tait 2009; Human Performance & Limitations - Dyson-Holland 2008

The prof is taking some well earned leave from his column after this edition. Just like the Stig, few people know of his true identity. We would like to thank him for his valuable contribution. If you think you might be able to fill his shoes we'd like to hear from you. 🐦

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



New South Wales/ACT & Victoria Recreational Aviation Australia Inc.

Due to the resignation of the current NSW/ACT and Victorian Board Representatives early term, there is now a requirement for a by-election to fill the vacancy and nominations are now being called.

NOMINATION FOR BOARD MEMBER FOR NSW/ACT REGION OR VICTORIA

Please circle relevant state

NOMINATIONS CLOSE - 4.00 PM EST 7 September 2012

Proposer:

I nominate..... RA-Aus Membership No.....
for election as Board Member representing the Region detailed above

Proposer..... RA-Aus Membership No.....
(Printed name & signature)

Seconder..... RA-Aus Membership No.....
(Printed name & signature)

Candidate:

I consent to this nomination for the position of Board Member of the Recreational Aviation Australia Incorporated.

Candidate's Signature.....date: / / 2012

Candidate's Electoral Statement: Please read the statement conditions in By-Law 4

Notes:

In accordance with by-law 4 a member standing for office must state their commercial interests and involvement in the aviation industry for the information of voters.

BY-LAW 4: Election Statements by Candidates

Candidates for positions as Board Members of the Association shall be entitled to submit an election statement of their own choice for insertion in "Sport Pilot" magazine at no cost to the candidate.

The statement must be prepared as equivalent size of A4 size paper and shall be forwarded by email with the candidates nomination paper and passport size photo to admin@raa.asn.au prior to the nomination close at 4pm EST -7 September 2012.

The statement must include a statement of all positions of income, remuneration or honorarium in an organisation with aviation related interests. Such organisations shall include those of sole trader, partnership, unincorporated association, incorporated association or limited liability company.

After close of nominations, all statements received shall be printed in "Sport Pilot" magazine in alphabetical order by surname.

BOARD MEMBER DUTY STATEMENT

Notice under Rule 20 (vi) of the Recreational Aviation Australia Inc. Constitution and rules.

BY-LAW No 10

Represent the Members of RA-Aus as a whole and the Members of the Region specifically.

Actively promote and encourage the recreational aviation movement through liaison with government and other organisations in the Region, on behalf of RA-Aus.

Attend all Board meetings or arrange alternate delegate or proxy.

Perform all tasks and duties agreed by the Board, as far as possible within the Member's power.

Delegate tasks as required but remain responsible for all actions and decisions of delegates.

Act on matters as directed by the Board.

Carry out all duties described in the Constitution & Rules.

Forward reports on all matters of relevance to the Recreational Aviation Australia Inc. office in a timely manner.

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Recreational Aviation Australia Notice of 2012 Annual General Meeting

The 2012 Annual General Meeting has been called in accordance with rule 21 of the Constitution and Rules of Recreational Aviation Australia Incorporated.

In Accordance with Rule 24 and By-Law 2, notice of this meeting is published in Sport Pilot, Volume 15 (8).

Time: 10.30am

Date: Saturday 22nd September

Venue: Gold Coast Sports Flying Club
Jacobs Well Airfield-JCW or Heck Field
1638 Stapylton-Jacobs Well Road, Norwell QLD 4208

Agenda

- Opening of the meeting, receipt of apologies and proxies, confirmation of quorum.
- Declaration of the result of the Board Elections.
- Minutes of the last Annual General Meeting.
- Business arising out of the Minutes of the last Annual General Meeting.
- Presentation of Annual Reports by the President, Secretary and Treasurer.
- Business arising from Annual Reports.
- Any Motions on Notice including Special Resolutions.
- Questions from the floor
- Close of the Annual General Meeting.

A BBQ lunch will be provided after the Annual General Meeting to RA- Aus members.

The Recreational Aviation Australia Inc. Board Meeting will follow the Annual General Meeting. 🍷

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RA-Aus Constitution - TBO expired by Don Ramsay

A FAIR number of members have expressed to me, both before and since I became a member of the Board, their concerns regarding what they saw as serious deficiencies in the RA-Aus Constitution. As their representative, I presented a paper to the Board at our last meeting recommending the formation of a Constitution Review Committee (CRC). The paper named the members of the CRC and myself as Chair. The Board, accepting the clear need for an overhaul, voted unanimously in favour of establishing the CRC. We then commenced this very large and complex task with a good feeling we were doing something worthwhile.

Even though few members will have read the Constitution, it is still a very important document, underpinning as it does, everything the Board and management may or may not do. It contains the rules by which the Board and the management are bound to operate RA-Aus on behalf of the members. You can find a copy on the RA-Aus website under the "About" tab.

Why re-write the Constitution – isn't it working now? The short answer is no. Aspects of the Constitution which no longer make sense are simply ignored by the Board, especially the Executive. That is not the way RA-Aus should operate.

Many of the problems with the rules as they exist now result from the changes in RA-Aus since the rules were originally adapted from the "Model Rules" prescribed by the Associations Act. As we know, RA-Aus has grown very rapidly over the years and is now a much larger organisation. With 11,000 members, a staff of 12 under the direction of a full-time CEO and annual revenue around \$2.75 million, RA-Aus is a sizeable business. Simply put, RA-Aus has outgrown its Constitution. It reads as if all the work of RA-Aus is still done by just the Board Members, much as would happen in a small aero club or local school P&C.

The size of the Board itself has become an issue. RA-Aus rules currently require a Board of 13 members' representatives. Having 13 on the Board may have been handy when the Board did most of the work of the association, before we had a sizeable full-time workforce. In the days before mobile phones, email and the internet, it may have been beneficial to have many Board Members spread across the continent. But now, having so many on the Board, increases exponentially the duration of Board meetings (three days) and the cost of flying all those Board members to and from Canberra and accommodating them.

Our representatives are now elected on a state by state basis - where they live is more important than what special skills and experience they bring. For the Board to be most effective, it needs to have a good spread of skills and experience - not just aviation but business, law and finance. I doubt anyone would suggest we have the diversity we need on the Board at the moment.

The Constitution calls for the Board to be elected "on a one member - one vote system". This is unfortunate and possibly deceptive wording because it does not result in "one vote - one value". For example, the member for North Queensland or the NT can be elected by a handful of votes, but a Victorian or NSW/ACT member could need a thousand votes.

The composition of the Board and how it is elected are very big issues for RA-Aus but the termination of the CRC by the Board has prevented us from coming to grips with these important and pressing issues.

After my resignation from the Board in May, the CRC continued with the Constitution review project. However, on 26 June I was notified by the President that the Board had decided, by a less than unanimous vote, to stop the CRC and disband it. The reason given to me by the President was that the Board would not allow the CRC to operate without a current Board member leading the committee and since none of the current Board members was prepared to do the work, the CRC must down tools. The President added that, after the elections in September, "I am hopeful that we will have a volunteer to take this on once we have a full compliment (sic) of board members" and then offered that if/ when the CRC was reformed, I could apply to join.

Since we currently have only one General Meeting scheduled per year (the AGM), stopping the CRC now effectively delays fixes for the Constitution by more than one full year.

At the next AGM, members of the former CRC will put formal proposals to the members for changes to the rules. These special resolutions

are based on work done by the CRC members before the CRC was officially disbanded. The proposals are for:

- A call for a second general meeting each year to be held in conjunction with Natfly;
- Plans to make it practically possible for ordinary members to requisition a general meeting;
- Improve the proxy voting system; and,
- Clarify an issue relating to how the Board can make, amend and delete by-laws.

PROPOSAL 1 A General Meeting at Natfly

At Natfly each year we get the greatest number of RA-Aus members in one place, at the one time, and many more than have ever made it to an AGM in Canberra. A second general meeting each year would present an opportunity for the greatest number of members to put proposals for changes to the Constitution and have them decided by the membership. It would also offer the best opportunity for ordinary members to formally question their Board on their handling of the affairs of RA-Aus. The special resolution calls for a general meeting to be held at Natfly at 11 a.m. on the Saturday. The specific timing is to allow for the maximum attendance by members.

PROPOSAL 2 Number of Ordinary Members required for calling a General Meeting

The RA-Aus Constitution stipulates that the Board may call a General Meeting "whenever it thinks fit". However, if members want to call a General Meeting they need a petition from 5% of the membership. When RA-Aus (AUF) started, this would have meant something fewer than 50 members and been quite reasonable to avoid nuisance calls for a GM. However, with 11,000 members you would need the signatures of 550 members and I think most people would agree, that is not reasonable. By law, to call a General Meeting for large public companies like Woolworths or Telstra, the signatures of only 100 shareholders are required. Considering these big corporations have millions of shareholders, our requirement of over 500 is way over the top. Our proposed amendment is for the lesser of 5% or 100 members. This would restore a balance of equitable access for the members.

PROPOSAL 3 Proxy Voting

At the last AGM there was considerable confusion around proxy voting. The current proxy form appears to unnecessarily limit how members may delegate their proxy. This is a departure from the "Model Rules" under which members may give their proxy the right to vote how they choose on the day or bind them to vote in a particular way on particular proposals. The proposed revised proxy form would restore the rights of the members to appoint a proxy.

PROPOSAL 4 By-Law creation, amendment and deletion

The Board is empowered to make by-laws under the Constitution. When a by-law is created, it does not come into force until 30 days after the by-law has been notified to the membership. While this requirement clearly applies to new by-laws, it is not crystal clear that the same notification requirement applies to amendments to, or deletions of, existing by-laws. The proposed amendment rectifies that situation and prevents an abuse of process by the Board.

The precise wording of each of the special resolutions is included with the formal notice for the holding of the AGM. I trust that you will see value in these proposals and, if you can get to the AGM, cast your vote in favour. Alternatively, if you can't make the AGM, provide your proxy so that your view counts.

While we have made a useful start, there is clearly a lot more to do. But that will have to wait until the next General Meeting after the September AGM. And that GM could be at Natfly if 75% of the membership wants that to happen and votes accordingly. I would be happy to receive any correspondence on this matter.

Note: The author would like to record his appreciation for the contributions especially of David Isaac and of the late David Hunt, among many others. 🍷

Proposed changes to the Constitution

Response by Steve Runciman, RA-Aus President

THE board would like to thank Mr Ramsay and his team for the effort put in to bring these proposed constitutional changes to the members. While I do not necessarily agree with everything Mr Ramsay has said in his article, I do consider it is important for members to be given the opportunity to have their say and I would encourage other members to do the same. As I have said in my monthly articles on a number of occasions, it is important for you to let us to know your thoughts.

Members of the board realise the importance of identifying problem areas within the current constitution and rectifying them. For a number of reasons it was felt, by a majority of board members, that the constitution review committee should be disbanded and the subject revisited at the September Board meeting, with a view to beginning the process of doing a review of the entire constitution and allowing adequate time for this to happen. It was also felt that, being such an important issue, it was imperative there be a board representative heading this sub-committee.

I think it important to point out that the board has not had time to fully consider these proposals. It is also important for me to inform you that, again due to time constraints, formal advice on all proposals has not yet been obtained. However, legal advice is being sought and, if received in time, will be presented in the September edition of the magazine - but certainly at the AGM.

I do not have any specific view on any of the proposals and it is for you to decide on the merits of each proposal as you see fit. However, one of the proposals will have a cost implication to the organisation - the holding of another AGM at NATFLY. I think it is important to highlight this. Mr Ramsay and his team are absolutely right in that this is normally the biggest concentration of RA-Aus members. On the face of it this would be an ideal opportunity to hold another AGM. However, NATFLY is not a 'must attend' activity for most board members. If they do attend, they do so at their own cost, both in travel and accommodation. It is, however, a 'must attend' activity for the President and the board's lead co-ordinator (and, as such, their costs are covered). If it is decided to hold a NATFLY AGM, members should realise it will then become a 'must attend' activity for all board members and so travel and accommodation will be paid for by RA-Aus. This is not a big

issue in itself but it needs to be highlighted.

Once again, the board would like to thank Mr Ramsay and his team for the work put in to present these proposals to the members of RA-Aus. 🇺🇸

HAVE YOUR SAY

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LEARNING TO FLY



Dr Gerry Considine

BEFORE my first day of flying training, I had to fly back to Adelaide from a GP conference in Canberra. I passed the flight wondering if Qantas would let me have some early hands-on experience in the Boeing 737-800. I had my headset with me, so I could at least look like a pilot.

After the connecting flight to Port Lincoln, I faced a tedious five-hour drive around the Spencer Gulf to get to Port Pirie (everywhere is far away if you live on the Eyre Peninsula).

As I got closer, my stomach started feeling antsy. Was it first lesson nerves or the dodgy Chiko roll from Port Augusta?

What I did notice was the wind buffeting the car as I closed on the destination. If it was strong enough to move a station wagon with four wheels firmly on the ground, how would an aircraft stand it? Cue further stomach turns.

Approaching Pirie, I surveyed the familiar skyline with fresh eyes. The huge lead smelter chimney looked newly menacing. I had never considered I would one day be flying through the air within three nautical miles of that thing. I pulled up at the Spencer Gulf Flight Training building and met my flight instructor, Earl. We walked over to the Jabiru 160-D in the middle of the hangar, surrounded by a rabble of RA-Aus and GA aircraft.

It was time for me to learn about the walk around, then I climbed inside to learn all about instrument checklists.

Today I was only going to practice taxiing and get a feel of flying the plane.

I remember having read that driving a car for any amount of time is a hindrance when it comes to mastering how to drive an aircraft on the ground. Whoever wrote that knew what he or she was talking about. Taxiing was the most frustrating thing about my first lesson. Yet we persevered with it. The problem boiled down to the fact that the parts of my body I use to control speed and direction are swapped. In a car we use our feet for acceleration and braking; hands for steering. In a Jabiru it's exactly the opposite.

So many times in the early stages when I wanted to slow down, I jammed

my foot on the left rudder (not the brake!) and the plane would lurch in that direction. An additional difficulty this day was the growing wind. Medium to huge sized tumbleweeds had started rolling across the runway.

When it came time for take-off, my peripheral vision caught a glimpse of the windsock flailing about like a drunk on a mechanical bull. Fantastic.

Things became a lot less scary as the ground slid away below

So into this gusting wind we faced, 15 degrees of flaps down and throttle in to a steady count of 1,2,3,4. Things became a lot less scary as the ground slid away below at 55kts and some slight back pressure on the stick - though my grip on that control was no less vice-like.

What followed was a practical look at the primary and secondary effects of the controls. After 0.9 hours of flying (and landing safely) we taxied back to the hangar and enjoyed a quiet ankle juice (as it is known out here).

It had been a long day, but a very memorable one. Driving home I wondered if the car would be all over the road given my recalibrated hand/foot co-ordination. Luckily 12 years of driving came back quickly. It was nice to only worry about steering the car in one axis and not three at once.

Next edition - Dr Gerry goes straight and level.



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Rotax 582 260TT, A great machine to fly with a short take off and low landing speed. Aircraft always hangared. Western Australia. Reason for sale building a new aircraft. VGC Including 2 X helmets with inbuilt

headsets. \$17,000 ONO. Ph: Ian 0458 727 111 or email ianclapp@bigpond.com"

2809 JABIRU J160 2200A



95% complete. Built by experienced builders. Extras include VSI, dual strobe (not fitted), upholstery kit, interior finished in speckle paint. For further info contact John (02) 9351 7137 or Duncan on (02) 9351 2459 between 8.30 AM & 5.00 PM email john.todhunter@sydney.edu.au \$49,900 or \$39,000 less engine.

2835 FLY SYNTHESIS TEXAN TOP CLASS 600



Manufactured December 2007, excellent condition, always hangared, TT 600 Hrs, 2000 TBO, Rotax 912ULS 100HP, cruise 110/115 knots, 100 litres fuel (2 x 50 litre wing tanks), L4 maintained, strengthened main undercarriage (heavy duty), ballistic parachute, wing & tail strobe plus nav light, blue tinted canopy, carby heat, cabin heating, electric trim on stick, 2 x noise cancelling headsets, cabin key lock, canopy cover, Garmin SL40 comm, Garmin GTX327 transponder, Trutrak ADI 3, Trio Avionics 2 Axis autopilot coupled to Garmin 695 GPS, toe brakes, new tyres, wheel fairings. \$123,500 Ph: 0400 888 362

2841 AIRBORNE EDGE X 582 CLASSIC



32-7815 Streak II B wing 40 hours. Engine 270 hours TT. Microair M760 Transceiver. Raptor Headsets with intercom. Custom-made trailer (Regd.). Tundra tyres

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and large windscreen. Always hangared, Free Transport within 500km radius of Melbourne. \$24,500. Phone Nigel 03 6383 9452 (Tasmania)

2861 COLYAER MARTIN 3 LSA



As seen at Natfly 2009/10. Excellent condition, 252hrs TT, Rotax 912ULS 100hp, AirMaster fully featherable CS prop, Dynon 180, Garmin 296 GPS, electric trim. Glide ratio better than 23:1. Cruise 97kt. 130L fuel, 600kg MTOW. Great visibility. \$110,000. Will deliver. Phone or email for more details. WA 08 9851 4147, jandshoward@westnet.com.au

2868 JABIRU J170



2010 Factory built Jabiru J170. Always hangared and professionally maintained. No accidents. Complete with headsets and spats. Fuselage has 1250 in service and the new factory reconditioned engine has done 250 hours. This is an ideal aircraft for a private owner and it will be available late April, 2012. The Committee of the Adelaide Soaring Club has decided to purchase a new aircraft and is offering 24-7314 for sale at a very reasonable price of \$60,000 o.n.o. For enquiries contact: Karl Faeth. kfaeth@chariot.net.au 0414 701 019.

2908 GEMINI X



Rotax 503 DCDI. Zero time after factory re-build. New wing & aileron skins. Dual EGT & CHT gauges, 3 blade

prop, B gear box. Nil accidents. Registered in 19 category. Aircraft & engine owners manual from factory delivery. TT approx 260hrs. Good original condition. Partially dismantled for inspection in carport. Genuine collector aircraft, one of only 1/2 dozen left in existence. \$7,700. Ph: 0412 751 823. Located central QLD.

2910 SABRE RVX



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2930 TERRIER 200 CAMPER



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2946 JABIRU 160



Reg 19-4780. Built 06 Air frame and engine total time 235 hours. Micro Air VHF, 2EGT. Lowrance 2000c GPG, Ground

adjustable Sensenich R64Z propeller, Cummins chrome spinner, Always hangared, \$50,000. Contact Stewart on 0427 024 969 or email zephyr01a@bigpond.com

2958 SHARE IN FLY SYNTHESIS TEXAN 600



Quarter share in a Texan 600 at Tyabb Vic. Manufactured December 2007, excellent condition, always hangared, TT600 Hrs, 2000 TBO, Rotax 912ULS 100HP, cruise 110/115 knots, 100 litres fuel (2 x 50 litre wing tanks), L4 maintained, ballistic parachute, wing & tail strobe plus nav light, blue tinted canopy, carby heat, cabin heating, electric trim on stick, 2 x noise cancelling headsets, cabin key lock, canopy cover, Garmin SL40 comm, Garmin GTX327 transponder, Trutrak ADI 3, Trio Avionics 2 Axis autopilot coupled to Garmin 695 GPS, toe brakes, new tyres. Active syndicate. \$27,500. Ph: 0417 371 871.

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2976 CFM SHADOW 25-1063



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2986 JABIRU SP6



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2987 JABIRU SK



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2988 ESQUAL VM1 EUROPA



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2996 CARBON CUB SS



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2998 VANS RV12



Still flying off hours. Comes with complete set of wheel spats, Rotax 912S. \$75,000 Firm. Phone 07 5546 2251 or 0421 025 129

3003 LIGHTWING GR582



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3010 PIPER J3



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3012 JABIRU J200B 19-4103



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3014 19-5175 REGISTERED UNTIL OCT /12



TT airframe 167 hrs . The engine blue top 582 has only 32 hrs and NEW bolly prop 3 hours. Always hangared. Foldable wings / trailerable. Reason for sale Upgrading aircraft. Asking price \$19,900 ono. Contact "Evan" on : 0409660716 or bluepece24@yahoo.com.au located in the Whitsundays QLD For photos go to: www.buyplanesforsale.com/aircraft/airplanes/1989-kitfox-1-wings-ii/1844/

3015 MAGGIE 19-7617



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3016 SAVANNAH



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3017 JABIRU J 250



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3018 CESSNA 150 H



single seat, RA -Aus rego. RR 0200 eng 760 to run. airframe TT 1710. new battery & nose wheel tyre. Full panel. inc carby ice. King ADF Narco VHF. Tidy aircraft, hangared \$30,000 o.n. o. Ph 07 49391297

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3023 TECNAM BRAVO LSA



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3024 FLIGHT DESIGN CTSW



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3025 GATTON AIRPARK (YGAS)

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3026 JABIRU SP 500 19-3615



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ads complete incl. Head bolts, 2 head sets, Pilots ANR, spares incl. \$45,000 ph 08 8383 6140 or 0407 607 180

3027 SAVANNAH



106 hours, built 2006, always hangared, professionally maintained. Bolly prop, V.G.s fitted, standard instruments, dipstick access, Garmin SL 40 radio, Garmin 296 GPS. Brakes fitted both sides. \$48,000 negotiable. Call 08 8536 3101 or losdos@optusnet.com.au

3028 FLIGHTSTAR 11 SC



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3029 BANTAM 3513 FOR SALE



This plane is in very good condition and has always been hangared. Only 212hrs on the motor. Skins in good condition. Excellent recreational aircraft. \$25,000+GST Ph: 0428 779 780

3030 T BIRD II



Two seater with excellent visibility, easy flying 130 hr TT 582 Rotax XCOM VHF radio great introduction into flying \$14,000 ONO Phone 0429003112

3031 24-7349 NEW FACTORY BUILT



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Airframe 268hrs TT new engine currently being fitted, this aircraft is in excellent condition and will be available for sale in August 2012. The aircraft is based in the West Australian wheat belt in Wickiepin. Price \$89,000 enquires welcome. Contact Keith on 0427 391 625 or rsaworks@westnet.com.au.

3032 KR2 - FAST & FUN



Jabiru 2200 engine, 110 Hrs TT, Sweetapple Propeller, Galaxy Ballistic Shute, XCom 720 Radio with Intercom, 110lt Fuel Capacity, L2 maintained, Always hangared, 110Kt Cruise, 15lt/hr, \$25000 ono, 0419 654 048, more at <http://athertonairport.com.au/atherton/forsale/kr2/>

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2161hrs Dismantled for rebuild. Wings and Ailerons rebuilt and certified. New Propeller. Rotax 912UL engine. \$12000 ph. 0733002879

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Advertisers index

AAA Fasterway Parachutes	56
Adelaide Biplanes	61
Aerochute Industries	26
Aeroplane deliveries	59
Aerosport Aviation	40
Air Warrnambool	67
Alpine Aircraft	52
Anderson Aviation Australia	5
Asia Pacific Light Flying	56
Atec Aircraft Sales - Zephyr	9
Australian Aircraft Kits	18
Australian Commercial Credit	32
Australian Powered Parachute	65
Bendigo Flying Club	56
Bert Flood Imports (Rotax)	28
Bolly Props	65
Byron Bay Microlights	26
C & H Freight	42
Caboolture Recreational	46
CAI Insurance	64
Central West Flying	40
Chieftain Recreational Aviation	46
Construe Engineers	55
Cooma Motor Lodge Motel	6
Coominya Flight Training	56
Corby Aeronautics	65
Corvus Aero	62
Foxbat Australia	49
Gofly Aviation	67
Gostner Aviation	53
GreenDot Financial	63
GT Propellers	61
Horsham Aviation	52, 59
Jabiru Aircraft	32
Lightning Australia	67
Mendelssohn Pilot Supplies	26, 68
Morgan Aero Works	16
OAMPS	49
Oasis Flight Training	67
Outback Aircraft	18
Pacific IBIS	20
Power Mate	59
Quicksilver	66
Recreational Flying Co Gympie	32
Riverland Flight Training	32
ROTEC	7, 24, 40
Seamax	46
SeaRey	10
Sennheiser	13
Skyshop	2
Skysports Innovation	65
Skysports Training	26
Skywise Micro Lights	18
Sling Aircraft Australia	42
Sport Aviation Tocumwal	12
Super Petrel	16
Sweers Island	42
True Track Flight System	64
Ultra Aviation	10
Yarrowonga Flight Training	53



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GYFTS scholarship

by Anna Millward

I'VE always had an interest in flight and have been lucky enough to have been brought up with a family which shared the same interest. My dad who has always been into aerospace technology, and my uncle, who flew GA aircraft, have always encouraged me to pursue my dream of flying.

In 2009, I was offered an air experience flight with Freedom Flight as a gift. When I arrived at the airfield, I was surprised to see how small the aircraft (Jabiru LSA) was. After Eugene Reid (CFI of Freedom Flight) explained the basics of the Jabiru, we took off for a flight around the Tamar Valley. It was fantastic! I couldn't stop talking about it for months. That year my parents bought me flying lessons for my birthday and my aviation experience took off.

When I went solo some time later, the feeling that I could now be in total command of an aeroplane was (and still is) thrilling. I couldn't believe I had done it, and I was well on my way to achieving my dream of becoming a pilot.

Last year I was also very lucky to have been able to complete my year 10 work experience with the Tasmanian Royal Flying Doctor Service and the Bureau of Meteorology. The BOM was such a learning experience and the RFDS definitely made up my mind that my ultimate goal is to become a commercial pilot.

A little under five months ago, I entered in the RA-Aus Airservices Australia GYFTS Scholarship. I sent my essay and forms in and hoped for the best.

After an anxious wait, I received a phone call saying I had been awarded \$2500. The GYFTS Scholarship will enable me to be able to achieve my RA-Aus Pilot Certificate and to go onto navigation training. I am so grateful for the support given to me by Eugene Reid, Phil Evans, fellow pilots, my family and friends.



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

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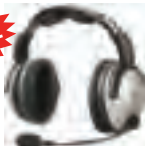
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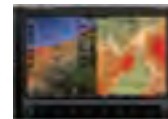
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