



An official publication of Recreational Aviation Australia Inc.

**WIN**  
pilot gear

# SPORT



# pilot

SEPTEMBER 2011 - VOLUME 4 (8)

**+ WIN  
A SIM  
RIDE**



**FEATURE STORY**

## **FOUR STROKE ENGINES**

**CHANGING THE  
WAY WE FLY**

**ELECTION  
RESULT**  
2011 board winners

**TOUCH  
AND GOES**  
Avoiding danger

**DEFECT  
REPORTING**  
Why it makes us safe

ISSN 1839-0500  
RRP \$7.70 inc GST



9 771839 050030

	<b>AIRCRAFT ACCESSORIES</b> 	<b>AIRCRAFT INSTRUMENTS</b> 	<b>AVIATION GPS &amp; PAGES</b> 	<b>BOOKS</b> 
	<b>AIRSERVICES CHARTS, MAPS &amp; ACCESSORIES</b> 	<b>GPS SYSTEMS &amp; VIDEO REC. GEAR</b> 	<b>HEADSETS, HELMETS &amp; ACCESSORIES</b> 	<b>PILOT GEAR</b> 
	<b>MAINTENANCE</b> 	<b>SAFETY EQUIPMENT</b> 	<b>AIRCRAFT PARTS</b> 	<b>STAINING PRODUCTS</b> 
	<b>GIFTS &amp; TRIFLES</b> 	<b>WAXES</b> 	<b>TRAINING BOOKS &amp; TESTS</b> 	<b>AVIONICS</b> 
	<b>FLIGHT GEAR</b> 	<b>TOOLS</b> 	<b>ENGINE PARTS &amp; HARDWARE</b> 	<b>WHEELS</b> 

Check out the SkyShop pro version CD-ROMS & HEADSETS

After heads at pilot seat phone interface for SIVS

**FEATURED PRODUCTS...**

<b>COMM AND VEH USE KIT</b> 	<b>WINGSPAN PLANE</b> 	<b>FM-USER - WIRELESS</b> 	<b>PARTURE FUEL SYSTEM</b> 
--	--	---	---

THE NEW BENCHMARK



LIFT THE LID.  
EXPERIENCE THE EXCITEMENT.



**ERM Aero Bristol**  
 Its advanced, proven light engine is built for low cost, standard maintenance and performance. All in a surprisingly low cost.  
 Aerosport Australia Pty Ltd  
 8/100-110/118-121 Bremer Rd.  
 Leitchfield QLD 4054  
 info@aerosport.com.au



aerosport.com.au

**The power and the passion**



High torque, direct drive, fuel efficient engine ranging from 97hp to 130hp.  
**AEROSPORT AUSTRALIA** are proud to be the exclusive Australian distributor for UL Power.

UL Power  
and your passion



aerosport.com.au/ul-power



## HEAD OFFICE

PO Box 1265  
Fyshwick 2609

## ACT. AUSTRALIA

ARBN 070 931 645  
ABN 40 070 931 645  
international: +61 2 6280 4700  
national: 02 6280 4700  
fax: +61 2 6280 4775

## CEO

Steve Tizzard: 0488 236 222  
ceo@raa.asn.au

## Administration Manager

Sue Perakovic: admin@raa.asn.au

## Acting Operations Manager

Zane Tully: 0428 282 870  
ops@raa.asn.au

## Technical Manager

Steve Bell: 0428 868 418  
(ring office first)  
tech@raa.asn.au

## RA-Aus BOARD

Elected State Representatives

### Tasmania

Eugene Reid (President):  
0428 824 700  
freedomflight@bigpond.com

### Northern Territory

Mark Christie: 0412 345 111  
nt1@raa.asn.au

### South Australia

Lynn Jarvis (Secretary):  
02 6280 4700  
sa1@raa.asn.au

### New South Wales

Paul Middleton:  
02 6454 2347  
nsw1@raa.asn.au

David Caban:

0413 603 783  
nsw3@raa.asn.au

### North Queensland

Steve Runciman (Treasurer):  
0405 640 689  
nqld@raa.asn.au

### South Queensland

John McKeown:  
0438 728 311  
johnmck47@yahoo.com

Myles Breitkreutz:

0418 198 016  
mylesb@bigpond.com

Nick Sigley - 0421 821 654  
info@flyapa.com.au

### Victoria

Rod Birrell: (W) 03 9744 1305  
(H) 03 9431 2131  
mail@goflying.com.au

Ian Baker: 0425 702 333  
ibaker@jackaroo.com.au

### Western Australia

Ed Smith: 0409 962 050  
wa1@raa.asn.au

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

## STAMPILS PUBLISHING

All Enquiries Ph: 1300 838 416  
433/1 Searay Close, Chiswick, Sydney, N.S.W 2046

## EDITOR - Brian Bigg

editor@sportpilot.net.au

## DEPUTY EDITOR - Kreisha Ballantyne

kreisha@sportpilot.net.au

## ADVERTISING SALES - Peter Orr

sales@sportpilot.net.au

## MEMBER CONTRIBUTIONS

Get Involved! Have Your Say! Send in stories, articles letters and photographs. Let everyone know what your club/school/group is up to. Make sure we all know when your fly-in is coming up. And don't forget to send us photos of the big day. All contributions welcome. Contact editor@sportpilot.net.au

## WHAT IS RA-AUS?

Recreational Aviation Australia Inc is an association of recreational aircraft owners and pilots. It exists to look after the interests of more than 9,200 members across Australia. The members fly a variety of aircraft under 600Kg, some factory built, others built from kits, and some home built.

## WHAT QUALIFICATIONS DO I NEED TO LEARN TO FLY?

If you are medically fit and physically capable, and you are above the age of 15, you can earn a pilot's certificate. You can actually learn to fly before then, but you can't go solo or get your certificate until your 15th birthday. And if you are under 18 years old, you will require written parental consent. Flying a recreational aircraft is not as complex or demanding as other types of aircraft. And once you have become a recreational pilot, it's a reasonably easy step to progress to more complex types, if you are looking for a career as a pilot. Holders of PPL, CPL or ATPL licences who want to obtain an RA-Aus Pilot Certificate can undertake conversion training at an RA-Aus flight training facility. Every applicant must complete such dual training as deemed necessary by a CFI and, in any case, shall have not less than 5 hours experience, in an aeroplane registerable with RA-Aus, which shall include a minimum of one hour solo.

## WHERE DO I START?

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.

## FINDING YOUR NEAREST FLIGHT TRAINING FACILITY (SCHOOL)/CLUB

Email ops@raa.asn.au



>> Featured aircraft is a Quicksilver XT912 Tundra. The aircraft was placed on a beach for photographic purposes.



08

32

15

## Regulars

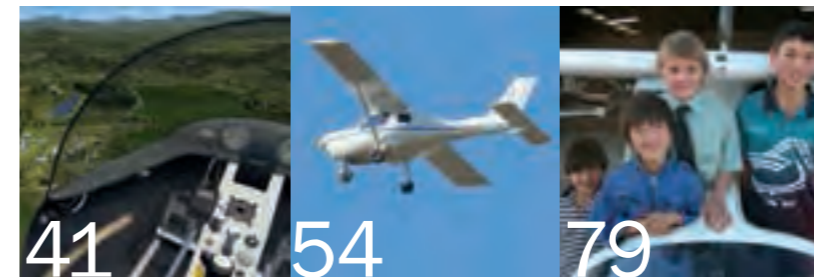
- 07 President's Column
- 08 Calendar of Events
- 19 App of the Month
- 32 Readers' Stories
- 51 Pilot Notes
- 58 Member's Market
- 67 Products
- 70 Happy Landings

## News

- 10 Letters to the Editor
- 12 16 Year Old Builds Aircraft
- 15 Dave Sykes Comes to Oz
- 16 Prince of Wales Awards

## Columnists

- 20 **Zane Tully**  
Pilot talk
- 31 **Steve Tizzard**  
A word from the CEO
- 46 **Steve Bell**  
Tech talk
- 48 **Professor Avius**  
Instructor's forum



41

54

79

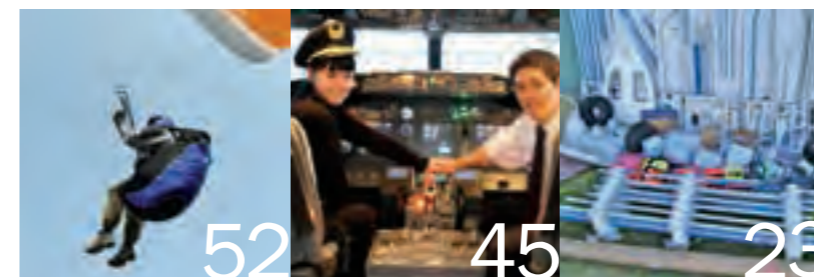
**41** it's the cheapest aviation insurance you're ever likely to find

## Features

- 23 Oh, for the rag and tube days
- 41 Flight sim
- 45 Captain for a day
- 52 Plan B emergencies
- 54 How far have we travelled

35 **Cover story:**  
**How the four stroke changed the way we fly**

65 **Election results**



52

45

23





## Ever wanted to fly Tailwheel?

Come to the Tailwheel specialists at Aldinga in the heart of the beautiful McLaren Vale wine region. Recreational and GA endorsements in our fantastic new Sport Cubs or the venerable Piper Super Cub. Sharpen your skills, broaden your horizons.

Fly a Classic, Fly a Cub... with Adelaide Biplanes.

www.adelaidebiplanes.com.au | Aldinga Airfield Tel 08 8556 5404



The No #1 World leader in its class.  
The most successful 2 place Amphibian for performance, fun and value for money.

SeaRey LSX Amphibian - Don't take our word for it - Just ask a SeaRey owner.

AMAZING from land - EXTRAORDINARY on water

"forget landing fees forever"

- ✓ Outstanding performance
- ✓ Easy to fly - less \$30 p/hr
- ✓ Rugged design, safe & reliable
- ✓ Over 40 in Australia
- ✓ Full Local support
- ✓ Easy assembly - quick build kit
- ✓ Active Australian owners group
- ✓ Endorsement training program
- ✓ Guaranteed - once flown, irresistible
- ✓ Comprehensive e-mail info pack

SeaRey<sub>LSX</sub> Amphibian



For SeaRey e-mail info pack, inspection or demonstration flight, contact Rob Loneragan, SeaRey Australia, Distributor for Australia, NZ & SE Asia



SeaRey Australia, Hangar 273, Bankstown Airport, NSW  
PO Box 5010, Greenwich NSW 2065 Australia

e: rob@searey.com.au  
www.searey.com.au

Mob: 0411 816 300 Ph: (02) 8003 3130  
International: +61 2 8003 3130

# President's Report

Eugene Reid



SPRING is in the air again and as I always write - be careful, most years there are more accidents in spring for three reasons. First, many of us haven't flown over winter; second, spring weather can be stormy or at least windy; and third, your aircraft can develop more problems from lack of use than it does being flown regularly. We have just come through a wetter than normal winter (at least in Victoria and Tasmania), along with hail, low cloud and poor visibility. All those weather variables which don't make flying enjoyable, or at times, safe.

It is now getting warmer and the days are getting longer, so you will no doubt feel like taking your trusty aircraft into the air. Do yourself a favour - pick a nice day, inspect and service your trusty steed, especially if the engine hasn't been started for months and if you haven't flown for ninety days or more, you must do at least three landings solo (no passenger). If you feel the need for the company or comfort of another person then take an instructor, who will be more helpful if you have any problems than a non flying friend or pilot who may not be able to help you from the right hand seat.

**Don't forget regulations have changed to make your flying safer at all times, especially in windy spring weather.**

You can now fly up to, but not above, ten thousand feet AMSL. This will allow you to fly above most of the mechanical (terrain induced) or thermal turbulence. Access through Military Airspace with approval and direct crossings of Bass Strait if the weather is not favourable via the islands is also now allowed.

If you haven't flown and used these regulations, which were only approved just before Easter, study them or talk to an instructor. Make sure you are following correct procedures with radio, flight levels and stay out of CTA (Controlled Airspace).

### The new RA-Aus Website

This should be in place by the time you read this magazine. I have said 'should have', because I can use a computer but I certainly can't design websites and I am relying on "Infinite" the company based in Canberra which has the contract for our new website.

Ours was the best aviation website I had seen when it was first designed. But times change and so must we.

At the most recent Board meeting we looked at quotes for a new website. The Board made a decision and, although it has taken longer than expected, when you log onto the new site, you

will have a new experience.

As I write this, I have seen the Home Page which has room for pictures and videos along with all the other usual features - aircraft and pilot notices, news articles, members log in section and most importantly, a document library. Many of them are still empty awaiting content to be moved over from the current site.

The result of the elections are elsewhere in the magazine. I look forward to meeting all of the Board members both new and old at the September AGM and Board meeting.

Finally, I am sad we have lost Julie Roll (Administration Manager). I have certainly enjoyed working with her for the more than six years she has been with us. I am sure members who called her in the office, or met her and husband, Kevin at NATFLY would have found the same. If you have an ASIC you can thank Julie, who, along with managing the office, did almost all of the work on those endless forms you all had to fill out to get one. I am sure that she will be a great asset to her new employer and I wish her all the best.

Times change, as do the regulations we fly under. The Board and staff are here to keep you flying with minimum cost, regulations and maximum safety.

## TBI FUEL INJECTION



- 1,000 Units Sold!
- Simple & Reliable
- Makes More Power
- Easy Set up 65-250HP
- Throat Sizes 34, 40, 48mm
- Metered Fuel Delivery
- Fully Aerobatic
- Pilot Mixture Control
- Jabiru, Lycoming, Continental...
- Subaru EA81, VW, Rotax & many more



Rotec Engineering: Ph:(03) 9587 9530 Email: RotecAdmin@bigpond.com Web: www.RotecTBI.com



# calendar of events



## Wings Over Warwick 10 September

Queensland Recreational Aircraft Assn incorporating Warwick Aero Club ([www.qraa.info](http://www.qraa.info)) invites all pilots and enthusiasts to Warwick Aerodrome (YWCK) - 1600m, all bitumen, no landing fees. ([www.warwickaerodrome.com](http://www.warwickaerodrome.com)) All aircraft welcome. BBQ with hot and cold drinks from 8.00 am. 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.



## Goondiwindi Fly In 10-11 September

Dinner Saturday night. RSVP Margaret Scells (07) 467751865 or 0439 775 184. Sunday breakfast \$15 per adult. The Gundy Food, Wine and Music Festival is also on at the Cultural Centre. For more information Don Armstrong 0428 714 772.

## Gathering of Eagles 17 September

Watts Bridge Memorial Airfield. SE Qld  
Host: Watts Bridge Airfield  
Cost: Nil  
Food and drink available all day  
Avgas available  
All aircraft types welcome.  
Contact John 0417 643 610 Ron 0428 747 737

## Gloucester Aero Club Fly In 5-6 November

Now in its third year. Gloucester is west of Taree. Lunch Saturday. Dinner Saturday night with a bonfire. Brekkie Sunday morning.

## White Gum Farm Fly-In 24-25 September

All aviators are welcome to fly in or drive (check out location/maps in the web). BYO swag. Some food and refreshments and live entertainment available. For more information [www.skysports.com.au](http://www.skysports.com.au) or Gordon 0419 942 645.

## Horsham Aero Club rescheduled Fly In and 50th club anniversary celebrations 22-23 October

Camping available under wing. Food available Saturday. 50th anniversary celebrations and hangar dinner Saturday night. Breakfast Sunday. Ph Garry Jelly 0408 519 956, John Barber 0427 810 236.

## Cervantes Fly In 28,29,30 October

In association with the Pearce Flying Club. Includes dinner Saturday night with guest speaker and Pinnacle tour. Accommodation available. For more information Brian White 0427 084 313 or John Bartle 0418 944 302.

Clubhouse and camping facilities available (shower, toilets, kitchen). Motels in town (book early). Nominal landing charge for, camping and meals. RSVP if possible by 20 October for catering. For more information - [gloucesteraeroclub@gmail.com](mailto:gloucesteraeroclub@gmail.com).

## AAAA Tiger-Moth 80th anniversary Fly In 29-30 October

Leeton Aviator's Club. Contact Bob Rankin 0427 552 846.



## 5th Catalina Festival 5 November

10 am to 4 pm. Ex-RAAF Flying Boat Base, Rathmines, Lake Macquarie, NSW. Float Planes, Flying Boats, Amphibian. All welcome Goal is to erect a Commemorative Museum and Hangar saluting all the gallant Airmen of World War 2 who served at the Base and display the Catalina Flying Memorial.

For more information, Bill Hitchcock 0438 448 115 [wildbill@bravo.net.au](mailto:wildbill@bravo.net.au), Mike Usher [mikeandlyn3@bigpond.com](mailto:mikeandlyn3@bigpond.com)



## Back to Holbrook Fly In and Jab Fest 5-6 November

Holbrook Ultralight Club will host the 6th Annual Rag & Tube fly-in and Jabiru Festival at Holbrook Airpark. Forums Saturday afternoon. 'Dinner among the aircraft' Saturday night. Hot breakfast Sunday morning. Underwing camping available. For more information [www.holbrookultralightclub.asn.au](http://www.holbrookultralightclub.asn.au) or Bryan Gabriel 02 6036 2601.

# Seaplane FUN on a budget



Colyaer FreedomUP



Not one, but three proven low maintenance seaplanes from Colyaer, the only fully composite long range, full 650 Kg seaplanes in series production, with full 55 gear. All have the outstanding 20:1 glide ratio for your safety and soaring fun and with removable wings, are simply trailered home.

**GANNET** pure seaplane/trailer - fun on a budget, lightweight high performance

**Freedom Classic** - Amphibious seaplane with fully enclosed low drag 55 gear

**FreedomUP** - Amphibious seaplane with enclosed, side stowed gear

A range designed from the start for saltwater operation with removable all composite wet wings as standard, evolving from the Gannet seaplane in 2004 through the Freedom Classic in 2008 with fully stowed gear and now the new FreedomUP, with side stowed gear. All available from production now and all supplied as standard with fully composite wings that detach quickly and simply.

Freedom to travel more than 2000 Km, or trailer anywhere at highway speeds on a Colyaer supplied road & water launching trailer. Enquire now, costs have never been lower with our great exchange rate.



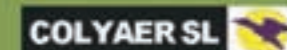
Gannet seaplane/trailer \$123,677 Incl GST



Freedom Classic Amphibian \$156,500 Incl GST



FreedomUP Amphibian \$153,684 Incl GST



a new concept in high performance aircraft

phone (02) 43 6900 43 | [www.colyaer.com.au](http://www.colyaer.com.au)



# September star letter



Each month the editor chooses one of the Letters to the Editor to win a great prize. This edition, the Star letter writer will receive some a ride in a flight sim. See page 45 for details.

## \* Specific Sport Pilot improvements

IT IS regrettable there seems to be so much negative comment on the magazine's new 'style' – or was it your choice to respond to the critical comments? (July Sport Pilot "The Good, the Bad and the Ugly")

I like the magazine because I feel it is an improvement. While beauty is indeed in the eye of the beholder, here are some specific and more objective observations.

- If one of the aims is to attract non flyers to the fold, the new name – Sport and Pilot – and the bigger and bolder style is more likely to do it than the old one;
- The teasers at the bottom of the cover are more eye catching than before;
- The contents page is clearer and more legible. The adjacent page (p4) is also in a better location.
- More white, especially on the editorial pages, makes for easier reading;
- Page layout and graphic style generally is better and more consistent;
- The narrower columns as well as font also make reading easier and faster;
- The photographs with the editorial material are more interesting and better quality;
- The content is more varied and better written;
- Spreading the items from RA-Aus office bearers through the magazine adds inter-

est and variety. They did not all have to be bunched up right in the front;

- Items focusing on people are welcome;
- A series of stories on the numerous clubs and schools around the country would make interesting reading. I guess there are not enough writers.

Keep the improvements coming.

- **Juris Greste**

*Ed- Juris, it was our choice to include all the comments, both good and bad to make the point that this is your magazine. We want you to 'own' it and that means making contributions both good and um, not so good. That said, the comments have been primarily positive. And funny you should ask for stories about clubs and schools. We have started doing that already. The first are in this edition. If you have a school or club doing something everyone needs to know about, take a photo and send in some words. After all, it is your magazine.*

## What about aircraft battles?

I BELIEVE the new magazine is a great improvement on the old one. It is much more attractive and the features are entertaining, relevant and educational. Anyone who complains about the volume of advertising content should compare it to any of the GA magazines! They would soon shut up.



I am an experienced pilot, trained by the RAF and only retired from commercial aviation 6 years ago with a little over 17,000 hours; I have an ATPL (H) and have held a full IR for the past 35 years. Having said that, I have been totally re-educated by several of your recent articles, especially the ones on Rough Air Flying and Wheelbarrow Landings, and the ones in the July edition on Carburettor Heat and Attitude Flying – great stuff. It is quite a change from having two gas turbines supplying the power to relying on a

## Something to say?

Email editor@sportpilot.net.au

DON'T hold it in and give yourself a headache.

Share it with the members and not only will you get it off your chest. But you could win some great pilot gear. Every month, one Letter to the Editor will be chosen for a special prize.

Maybe it's you and your completely reasonable opinion about the world of

recreational aviation that no one else will listen to.

Email editor@sportpilot.net.au and have your say. (By the way - the editor reserves the right to edit Letters to the Editor to shorten them to fit the space available or in case of libel.

We don't want your completely reasonable opinion to land you in court.)

little piston engine no larger than the one in my car.

If I can make a suggestion. I love your flight reviews but is it possible to do comparisons? For instance, if you do a review of the new Cessna 162 can you compare it with, say a Jabiru or a Tecnam? You could use comparison headings such as flight characteristics, comfort, running costs and initial purchase price. You are probably unwilling to make recommendations but if you supply the data the reader can draw his/her own conclusions.

Keep up the good work.

- **Ron Anderson**  
Central West Flying Club

*Ed- Great idea, Ron. Give us a few suggestions which aircraft you'd like to see pitched against each other. And we'll get our own Test Pilot Stig to put them through their paces.*

## Young Uncle Ted

I RECEIVED my copy of the second edition of "Sport Pilot" and was surprised to see people criticising it in the letters section. Frankly, I think it looks great. I'm probably younger than "Uncle Ted" which may contribute to my opinion. We don't fear change in the younger generations ;)

- **Shane Dagleish**

*Ed- LOL Shane*

## An Attitude problem



JUST a late comment on Steve Tizzard's article - Back to the future.

It seems to me some accidents could be attributed to an attitude problem rather than a lack of proper training.

Pilots are intelligent people, but in some cases the more intelligence a person has can mean the less common sense they show.

I have seen some close calls which can be directly attributed to an attitude of:

I'm more intelligent than the next guy. I don't make mistakes. I know what I'm doing. I know how to fly.

Silly self-centredness that can cost lives.

It's a bit harsh pointing the finger at one person for another person's poor decision making.

Maybe a little education of a humbling kind incorporated within human factors might be of help rather than trying to lay blame.

- **Jeff Bailey, ACT**

## Too many trips, not enough repair

I READ with interest the numerous comments in the last edition about the new look sports pilot magazine. I think the change is a very positive one and I am finding the magazine considerably more interesting. Some ads are a bit "glossy" but generally they contain useful information and are all part of it.

I did agree with one comment there had previously been far too many articles about people's trips (fun for the participants but they get a bit repetitive after a while). As a suggestion, I would like to see more technical articles and if possible some about peoples building/repair experiences & getting their planes airborne.

Keep up the good work

- **James Burbury,**  
Pipers River, Tasmania

*Ed- Thanks, James. Even though we haven't published a story yet about someone's journey, we still like to hear about them. After all, travelling this big, brown land is one of the things for which flying is perfect. Your other suggestion re technical articles has already been happening. We have several building/repair stories in the pipeline and we want to hear from other pilot/builders who have been doing it.*

## No Buses with Wings please

AS promised, the August edition was a big improvement, with more grass roots member information. Please don't do stories about big people movers – buses with wings. Any member who flies a bus would probably rather leave work behind when they read Sport Pilot.

Fun, interesting and informative is what the members are looking for. Please ask the writers to not lecture the readers, merely inform them. A number of articles in the past were aimed at the 1% of rogue operators and tended to lump everyone into the mix, most annoying. No Whinging Walrus stories please.

Tell us about the good things that are happening. The idiots will fall on their own swords in time.

I would like to see the flying clubs and flying

schools listings re-introduced. We should consider this as essential to the growth of Recreational Aviation. This organisation is supposed to be about supporting members' interests. Local club membership and training schools are critical to the future growth of RA-Aus.

In the past, it was decided to split the Club and Schools lists. I think this was a mistake. If a club is also a school, say so on the listing and cut out the duplication. Perhaps this can be added to the magazine's total page expansion you mentioned.

Thanks to you and your team - it's a tough job! I am sure you can handle it.

- **Jim Crocker**

*Ed- Great suggestions as always, Jim. Re the Club listings. It used to take up a lot of space in a magazine without a lot of it to start with. It was felt that providing the email address (ops@raa.asn.au) where people could get Club and School listings (Page 4) rather than list them all in the magazine, would help drive traffic to the new look RA-Aus website (coming soon) and free up those pages for more stories. But as the magazine grows, we'll look at it again.*



## Winners!

Who says there is no such thing as free pilot gear

### July Sport Pilot

• **Letter to the Editor: John Williams**  
Won a two night stay at Russellee Bed and Breakfast, Tumut, including dinner (provided by Sport Pilot), bed and breakfast. www.russellee.com.au

• **Happy Landings: Martin Hones**  
Won an assortment of RA-Aus branded gear.

### August Sport Pilot

• **Letter to the Editor: Arthur Marcel**  
Won one night's dinner, bed and breakfast at Adel's Grove, outback Queensland www.adelsgrove.com.au

• **Happy Landings: Zachary Cadalbert**  
Won an assortment of RA-Aus branded gear.

• **Story of the Month: Elias Smith**  
Won an assortment of RA-Aus branded gear.

If any of these names happen to be yours, contact editor@sportpilot.net.au so we put you and your prize together.



**FLIGHT TRAINING MANUAL**  
WITH/WITHOUT CD-ROM  
INCLUDES CURRENT CASA CHANGES  
Retail: \$95 with CD & \$90 no CD  
W/sale: \$80 with CD & \$75 no CD  
BULK BUY AVAILABLE & PAYPAL All prices + P&H  
www.sportairtheory.com  
e: sportairtheory@gmail.com  
Mobile: 0402755642  
DELTA RECREATIONAL FLYING SERVICES



Tiny Flyer .com.au

For kids that love to fly



Clothing Toys Gifts  
Books DVDs  
Safety

Shop securely online at  
www.tinyflyer.com.au

# 16-year-old builds aircraft in family garage



>> Solomon at the controls of the Tesfaye 1, he built himself.



**E**THIOPIAN born refugee Solomon Tesfaye, who moved to New Zealand at the age of five, spent his childhood gazing at the sky. Without the financial resources of some other families, Solomon tried his hand at building an ultralight in his family garage.

"I fell in love with flying on my way to New Zealand. I knew it was something I wanted to do in the future. I've always been fascinated by them and I knew I wanted to build one and fly it. But I didn't actually think it would be this soon," says Solomon in an online interview from Melbourne.

"What really inspired me was when I saw a French homebuilt aircraft, the Cri-Cri - known as the smallest twin engine aircraft. Its performance was outstanding for its size so it really made me want to build my own. I started when I was 14. I've been working on it for a year and half now with just over 800 hours on it. So far it has only taken just over \$800 to make.

"The aircraft has a 5.4m wingspan, 8.2hp with both engines together and weighs 75kg empty. This project has proven to be tough because I don't have all the tools and materials I need, but I still had a blast making it."

Solomon's story was picked up by the ABC via Twitter and has inspired generosity from the aviation community. Ian Baker of Recreational Flying.com.au commented.

"The Forum has organised for Solomon a donation from Aviation Theory Centre - a Student Pilot Kit so he can start reading up on the BAK, The Flying Training Manual, Flight Radio for Pilots and the all important first Log Book. A member on the site who flies for an Australian

**I hope to build more complex and larger aircraft**

commercial airline has donated a headset. RA-Aus is donating a student Pilot Certificate to Solomon, as well as his first year RA-Aus membership.

"Another member, Motzartmerv, who is one of our Student Mentors on the site, will fly down to Melbourne in a Jabiru J170 to pick Solomon up during the school holidays and take him up to Jaspers Brush where accommodation has been organised as well as flying lessons up to Solomon going solo.

"The Jabiru J170 has also been donated for the training."

Solomon will also speak with several aircraft builders who are putting together their own machines, to get some help to bring his own project to a successful completion.

"When it's done I'm really looking forward to flying it, despite all the odds, and prove this can lift off the ground. In the future, I hope to build more complex and larger aircraft with the right materials and tools."

Sport Pilot will be following Solomon's progress.

## Maintenance Log Books

By Steve Bell, RA-Aus Technical Manager

HAVE you seen the yellow covered book, with white, pink and blue pages?

It was designed so a consistent history of an aircraft could be accumulated. And to make it easier for an owner to keep good aircraft records.

An aircraft without good, complete records may be unsafe and unfit to fly. But even this publication has limitations, since it was never designed to be in daily use.

Knowing this, RA-Aus also developed an equivalent to GA Maintenance Release, (called the Maintenance record form, which is available from the RA-Aus web site).

This form has been designed for daily use. It has provision for writing defects, signing inspections and the daily (which

should be done before the first flight each day an aircraft flies).

It also has provision to write down hours and landings. A new form is filled out and issued each time the periodic or 100 hourly inspection is performed. The old one is then included in the aircraft records with the Aircraft Maintenance Log Book.

Even though using this form isn't compulsory, I would thoroughly recommend it in all RA-Aus aircraft.

Or, if you find a problem with it, design your own or use the Aircraft Maintenance Log book. That choice is yours. But remember all maintenance and aircraft time in service must be recorded, so why not use this simple easy-to-use form, which is easy and convenient to use?

**MENDELSSOHN PILOT SUPPLIES**



**HIGH NOISE COMMUNICATION**

Headsets ..... \$440

Radio Interface for 2 radios or 1 radio and mobile phone plus music input ..... \$425

Helmet with visors and air dams ..... \$350

Call Alex or Cassie on 03 9537 3848

www.ozpilot.com.au

**M760 TRANSCEIVER**



2 1/4" Standard Instrument Panel  
Internal VOX Intercom  
Dual Monitoring  
4.5 Watts Carrier  
Receiver 108-136Mhz  
99 Programmable Memory Channels

64" x 62" x 135mm - 515gms (1.04oz)

**T2000SFL TRANSPONDER**



750 Approved (C74c Class 1A)  
2 1/4" Standard Instrument Hole  
Mode A & C Operation  
Backlit Dual Line LCD Display  
Encoder Altitude can be Displayed  
Assigned Altitude with HI/LO Alarms

61" x 61" x 160mm 750gms (26.5oz)



Ph +61 7 4155 3048  
Fax +61 7 4155 3049  
sales@microair.com.au  
www.microair.com.au





## MAGIC GS700

Rotax 912-100Hp

Full VFR Instruments

Respectable Cruise 100Kts

Exceptional Low Speed Performance

Short Take-off and Landing Roll

Leather Seats & Matching Trim

Large Carpeted Cockpit

Full Range of Options

Stick or Yoke

Cruise Speed 100 Kts

Stall Speed No Flaps 42Kts

Stall Speed With Flaps 31kts

Stall Speed with Stoll 24Kts

Rate of Climb 1000 Fpm

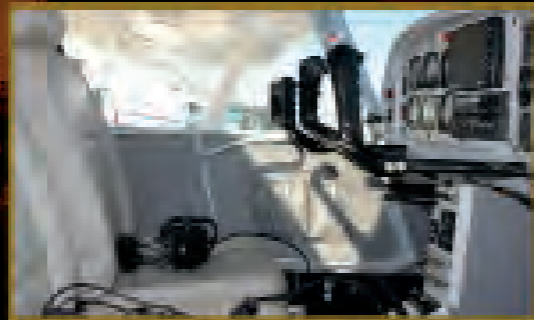
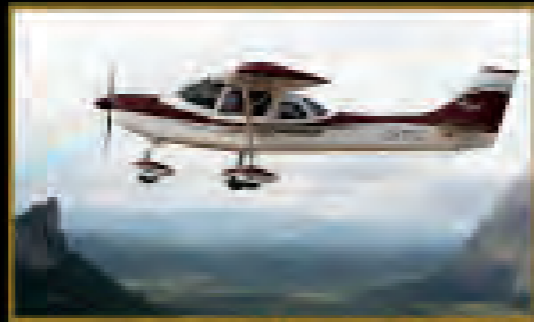
Empty Weight 320Kg

MTOW 600Kg

Standard Endurance 6 hrs 30min

Fuel Consumption 70% pw 18 Lts Ph

[www.pacificibis.com.au](http://www.pacificibis.com.au)



EXPERIENCE THE MAGIC

# Pacific Haven Airpark has new owner



THE Airpark, located 5 miles north of Howard on the Fraser Coast of Queensland is one of the finest private airfields in the country. It is centred around a 1000m all-weather bitumen sealed strip and taxiways with PAL lighting and 'roo-shoo. (see article RA-Aus magazine August 2010).

The aim of the sale was to extend the life of the airpark for the benefit of its residents and other locals, long after the current stakeholders are gone. Due to the vision of the previous owner, Matthew Cheung,

a deal was struck with a consortium of like-minded existing residents. With the same philanthropic ethos, the new consortium members, through their Trust, have reaffirmed that nothing operationally will change - same community service, same quality, same everything, really.

So often people are drawn to country life while still wanting the "security blanket" offered by an airfield which can accommodate flood, fire, and rescue aircraft up to C130 Hercules. The sight of the Royal Flying

Doctor Service Kingair and the local Medical Practitioner flying his Jabiru in to do regular house calls gives many families wanting to build their dream house in the area, a warm feeling. It is ironic this can sometimes lead to an airfield being loved to death with property developers keenly aware of the potential for establishing a housing estate in its place.

This seamless transition in ownership should see the airpark secured in its current form for the foreseeable future  
- Mark Pearce

## Microlight Pilot Comes to Oz

ON April 28, paraplegic pilot Dave Sykes set off on his epic solo microlight journey from England to Australia, which will mark the 80th Anniversary of Amy Johnson's first-ever flight between the two countries. It will cover a distance of 21,809 kilometres and will take in 20 countries.

Dave started flying microlights in 2000 after a motorcycle accident in 1993 left him unable to use his legs. Since then, he has flown extensively in Europe, using specially-adapted aircraft and clocking up nearly 50,000 kilo-



metres in the air.

Dave will also raise funds for the Yorkshire Air Ambulance, a British charity which provides emergency services to remote and inaccessible areas in the north of England.

"I am now looking forward to reaching New South Wales and claiming the world record for a microlight flight from the UK to Australia by a paraplegic pilot."

Look out for a full interview with Dave in the next issue of Sport Pilot.

## Newcastle catches a Skycatcher

MEMEBERS of the Royal Newcastle Aero Club are excited about being the first flying school in Australia to offer the Skycatcher to students and have invited everyone to come and share the experience. The Club has a long and proud history since its beginnings in 1928.

It's operated a range of aircraft over the years. At the moment it has Cessna 152s, Cessna 172s, a Cessna 182, a Piper Archer, a De Havilland Tiger Moth, a Trike and a Gazelle.

The club is also expanding its

fleet with the addition of a Cessna 152, and two Cessna 172's.

What's all the fuss about the Skycatcher? Its features include outstanding visibility and impressive handling - it's like a 152 on steroids. The Skycatcher is a great "starter plane" for a new generation of recreational pilots. It is simple to operate and easy to fly.

Cessna has fixed the seats in position and added fore and aft adjustment of the rudder pedals. The SkyCatcher has a flat-glass display instrument panel is as modern as any new aircraft. There are no conventional gauges or instruments, and all flight and engine information is presented on dual Garmin G300s.

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



# Flying instructor receives Prince of Wales Award

GERALDTON pilot and RAAF Reservist, Geoffrey McDougall, has received the prestigious Prince of Wales Award to help extend his flying instructor qualifications.

The award scheme rewards selected Australian Defence Force Reservists for their dedication and commitment to Reserve service by providing an opportunity to undertake a training or development activity related to their civilian occupation or profession, with recipients receiving up to \$8000 to undertake an agreed activity.

Geoffrey, and his wife, Carla, own and operate Kelmac Aviation, which offers RA-Aus flight training and aircraft sales (Kelmac is the Western Australian representative for Tecnam) and maintenance support. Geoffrey

plans to use his winnings to complete training and testing to become a CASA certified Grade 1 flying instructor.

Flt. Lt McDougall is also a part-time RAAF flying instructor, flying BAe Hawk jet lead-in fighter aircraft with 79 Squadron at RAAF Pearce, Bullsbrook, WA.

He has more than 30 years experience flying military and civilian aircraft in Australia and overseas. Before becoming an Air Force Reservist, he flew CT-4, PC-9 and Macchi trainers, Caribou transport and F/A-18 fighter aircraft as a full-time officer in the RAAF.

The award, presented at a DRSC-WA state council meeting at Leeuwin Barracks in East Fremantle, also recognised Kelmac Aviation as a supportive employer of Reservists.



**Carbon Cub SS**  
**LSA**

*Purchase this 2011 Aircraft Available NOW in Melbourne*

**CUBCRAFTERS**  
Certified Sales Center  
[www.cubcrafters.com](http://www.cubcrafters.com)

Looking for an LSA - CLASSIC Aircraft that has been reborn into the modern era....  
An icon that is amazing to fly.  
More power than any other LSA Aircraft.  
Strong and Safe.  
Engineered by Craftsmen.

**Cub Aircraft Australia Pty. Ltd.**



[www.cubaircraftaustralia.com.au](http://www.cubaircraftaustralia.com.au) - call Steve 0414 444 971  
Search YouTube : Cub Aircraft Australia + Carbon Cub + Cub Crafters

LEARN TO FLY TODAY AT  
**BENDIGO**  
*Come & have a go at flying*  
Trial Instructional Flight  
Recreational Flying Licence approved from 15 to over 95 years of age.  
No extra medicals for an RA Licence  
No excuse-it's never too late!  
Fly into Bendigo Flying Club for a rest, snacks, tea & coffee.

Aircraft Hire:  
RA- Tecnam P32 Echo Super (PDA)  
GA-Piper Archer 11 S180 solo p/h

Ph: 03 5443 8395  
E: [bfc@bendigoflyingclub.org](mailto:bfc@bendigoflyingclub.org)  
Vista Rd, Bendigo East, (Airport)  
[www.bendigoflyingclub.org](http://www.bendigoflyingclub.org)

**Warnervale Welcomes Microlights**  
*Just 40 mins out the P33 from Sydney*  
**Scenic Central Coast Flying**  
Fun - Safe - Affordable

Flight Training - Full Maintenance  
582 & 912 Aircraft Shares  
Microlight Hangar Space  
3 axis conversions  
RAA Member Discounts

**Skywise Microlights**  
**0408 446 771**  
Over 30 years in Weightshift, C.F.I. - Level 2

**For Sale**  
We have a couple of low hour Trikes that students have traded in. They have been totally stripped down and rebuilt, now like new. If your looking for a good Classic or Outback with Streak or Wizard Wing, then feel free to call for a chat. - Thinking of upgrading to a new machine, were happy to look at your trade in.

**Sport Pilot wants YOUR stories**

We want them so much, we're prepared to bribe you. We have an office bursting full of great pilot gear and we want you to win it by sending us:

- ▶ Tales of your adventures
- ▶ Stories of your first solos
- ▶ The history of your aerodrome
- ▶ Pictures of your kids flying
- ▶ snaps of fly-ins, weekend barbies and air shows.
- ▶ Letters to the editor about anything that gets your goat/moves you

**Please send all photos in jpeg format**

**We'll be waiting at**  
[editor@sportpilot.net.au](mailto:editor@sportpilot.net.au)





**ZENAIR AUSTRALIA NOW BUILDING ZENITH AIRCRAFT IN BENDIGO**



**THE CH 750  
THE LARGEST STOL AIRCRAFT  
IN ITS CLASS**

Zenair Australia your one-stop shop for everything from Zenith Aircraft Company USA. Call Allan on 0417 121 111 or visit [www.zenairaustralia.com.au](http://www.zenairaustralia.com.au)

Speed, Strength & Safety in this unique American-Built aircraft

# LIGHTNING




**LSA is now here**

Agent: Dennis Borchardt  
Kingston SE  
South Australia 5275

Phone 08 8767 2145  
Mobile 04 0881 3501

[lightningaustralia@bigpond.com](mailto:lightningaustralia@bigpond.com)  
[www.lightningaircraft.com.au](http://www.lightningaircraft.com.au)



Priced like a Recreational - Built like a G.A.

## Brumby Aircraft

for serious fun

The Australian made Brumby is arguably the toughest LSA around

Powered by  
**Lycoming  
116hp Engine**

Brumby Aircraft Australia  
112 Airport Rd, Cowra NSW 2794  
Ph: 02 6341 1635  
Email: [info@brumbyaircraft.com.au](mailto:info@brumbyaircraft.com.au)  
Website: [www.brumbyaircraft.com.au](http://www.brumbyaircraft.com.au)

**AUSTRALIAN AIRCRAFT KITS**  
Short take off, utility Aircraft

Factory built AC  
Airframe Kits  
Engine Kits  
Service



**HORNET STOL 2 seat+ XL cargo**  
**Bushman 2 seat+XL cargo**  
**WASP GT 2 seat + cargo**

Superior Service & On site support  
Australia & New Zealand wide

Alan Sattler WA ph: 08 96 46 15 69  
M.Trowbridge NZ ph: (64)03 3221408  
Ole @ AAK-Factory ph: 02 65 53 81 00

[aircraftkits.com.au](http://aircraftkits.com.au)



# AirspaceAVOID

by PocketFMS  
Foundation



PILOTS, You don't expect to stall on approach, but you have a stall warning device just in case. You don't expect to be overcome by fumes, but you have a CO detector in case. You don't expect to bust controlled airspace, so you should have AirspaceAVOID just in case. AirspaceAVOID provides insurance against an airspace infringement, and it's the cheapest aviation insurance you're ever likely to find. AirspaceAVOID knows your position, altitude, speed and heading, and it knows where all the controlled, prohibited and restricted airspace is located in your vicinity. If you get within 2 minutes of potentially losing your licence, AirspaceAVOID will alert you by sight and sound, giving you the opportunity to change track and avoid the embarrassing radio call no pilot wants to hear. To further help you keep

on track, AirspaceAVOID provides easy and simple point-to-point GPS navigation - keep the plane as close to the GPS track line while avoiding the places you shouldn't go, and you'll arrive in the shortest time with the least stress. AirspaceAVOID provides a radar-like display of your location, airports and airspace boundaries, against a stark black background for maximum focus on the most important aspects of VFR navigation using GPS. Current charts and approach plates may be purchased as backgrounds for selected regions. That's what AirspaceAVOID offers - it takes care of the most important tasks with a minimum of fuss. It uses quality data and is reliable, simple and easy to use.

An iPhone 3GS is the minimum requirement.

• \$16.99 from the iTunes store



## your best friend in the sky



The next time you take off, make sure you have your best mate by your side.

Wingmate is a simple yet powerful data and tracking device. Best described as a black box for light aircraft, Wingmate records flight data directly onto an SD card. It is designed to monitor the airplane's usage and to improve the flying experience for both experienced and novice private pilots.

Each Wingmate comes with a data viewer and a Google Earth export feature that tells you where the plane has been and also gives a summary report of the landing.

Wingmate is perfect for flight instruction, rental companies, aerobatics and, of course, private pilots.




Wingmate Data Manager

[WWW.WINGMATEAVIONICS.COM](http://WWW.WINGMATEAVIONICS.COM)



# Pilot talk

Zane Tully  
Acting Operations Manager

 *Let's avoid that perennial excuse, "Oh, I didn't know!"*

## Homage To Those Moving On

I do not know about you, but I am still shell shocked over the news Mick Poole (Operations Manager) and Julie Roll (Administration Officer) are leaving RA-Aus. However, I would like to start by congratulating them on behalf of us all and to wish them well for the future. I am sure everyone would like to thank them for their time and dedication to the betterment of RA-Aus. I would personally like to thank Mick for the time and effort he has dedicated to the development of the Assistant Operations Manager's role over the past eight (short) months.

Also, I would like to thank Julie for her commitment, support and contribution to the morale of the staff.

## New Staff

With the appointment of new staff and the subsequent training which follows, added pressures are placed on the existing staff to keep the standard of service to which we have become accustomed. Please be patient and supportive of the staff, and be aware of their added workload over the coming months.

You can help to reduce their workload by making sure all your details are correct when lodging your membership renewal forms or aircraft registration renewal forms. As part of the renewal process, each member is required to provide detailed figures of hours flown etc. Your renewal will be delayed if this information is not provided. So please read your renewal forms thoroughly and complete them as accurately as possible in order to expedite the process.

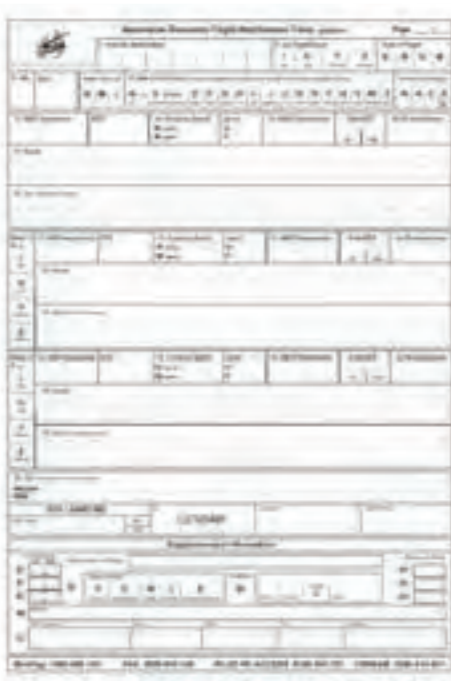
*Why do we collect this information?* The information you provide enables us to collectively collate statistical data. Some of the data is mandatory and is required to be provided to CASA on a regular basis. Overall, it provides us with information on how to better serve our members. Most importantly, the data may help us to provide a 'safety case' to CASA when applying for future privileges. Needless to say, all information is treated confidentially and in accordance with our privacy policy. Effectively, each member is contributing to secure the future of RA-Aus by taking the time to correctly provide the information required at each renewal.

## Feedback

Your feedback on controlled airspace has

been welcomed and is encouraging. Only through a clear and thorough understanding of our regulations can we set and maintain a high standard of airmanship and avoid that perennial excuse, "Oh, I didn't know!"

A part of the recent feedback was to do with the lodging of flight plans. Electronically submitted flight plans are being rejected because the current system does not accept our registration numbers and format. Airservices is aware of the situation and I believe is working on correcting it. Until then, complete your flight plan manually, then phone or fax it in. By having it written down and lodging it manu-



ally, it can be accepted. If more pilots follow the correct procedure, we may be able to bring about change in this area.

Also, I would like to highlight that active restricted airspace is to be considered the same as class 'C' airspace for the purpose of complying with the regulations.

## BFRs

For some time now the RA-Aus has accepted a pilot as having successfully completed a BFR for high performance RA-Aus aircraft by virtue


of completing a CASA AFR (aeroplane flight review). The section reads as follows...*If a Certificate holder has within a period of two years immediately preceding the flight, passed a flight check for the renewal or initial issue of a CASA approved Private Pilot Licence, then the pilot is taken to have sufficiently completed a review on high performance aircraft only. This will only be accepted upon receipt of a copy of the log book entry validated by an instructor.*

This section was introduced because flying a high performance RA-Aus aircraft is no different to flying as a private pilot. This was to allow a person who may hold a PPL as well as an RA-Aus Pilot Certificate to undergo one BFR not two, in keeping with RA-Aus' policy of helping members keep their flying costs to a minimum.

This is fine if the pilot only holds a HP endorsement. But, if the pilot also holds a LP endorsement, each alternate BFR should involve a review in a LP Recreational Aircraft. For example, the holder of HP, LP, NW, TW endorsements should plan to conduct a BFR in a HP, NW aircraft (or use their PPL AFR) during one cycle and then on the next cycle plan to conduct a BFR in a LP, TW aircraft. Furthermore, the more endorsements you have, the more you should try and mix them up to include as many permutations as possible at each review.

As mentioned above, for a GA AFR to be acceptable to RA-Aus it must be for the initial issue of a CASA PPL or CPL (Aeroplane) and subsequent AFRs. Command Instrument Rating renewals and airline checks and renewals (and Military equivalents), are not considered as having satisfactorily completed the requirement for a RA-Aus BFR. The reason for this is that such renewals are frequently unrelated to RA-Aus operations.

Remember a BFR is not a pass/fail scenario; it is a review of your current skills and knowledge and also an opportunity to gain extra knowledge and to review skills along the way. If you have not flown for quite some time or have not kept up to date with regulatory changes, the BFR is an opportunity for your examiner to provide you with some remedial instruction and knowledge as required.

Safety is our highest priority and something that we all need to work on together. If you think of a BFR as a safety review, then any extra time an examiner spends with you is time well spent, don't you think? 



**SPARVIERO**  
\$90,000 including GST ex Brisbane

Carbon 2 seat  
Empty 300 kg  
Max LSA 600 kg  
Cruise 115 kt  
Climb 1150 fpm  
Reliability 100hp Rotax

**OUTBACK AIRCRAFT**  
**Savannah**

FACTORY BUILT  
INCLUDING GST EX BRISBANE  
Stall 26kts Take off 35m  
Savannah XL Quick build kits  
Kit 1 \$20,500  
Kit 2 (without engine) \$29,500  
Kit 3 (With ROTAX 100hp ENGINE) \$50,000  
PRICES INCLUDING GST EX BRISBANE  
PRICES MAY CHANGE WITHOUT NOTICE  
PHOTO INCLUDES EXTRAS

ROTAX 100HP RELIABILITY  
XL VG FROM \$77,950  
S VG FROM \$80,950

For Savannah Kits and Aircraft  
WA Rick 08 9757 9109 0409 778 021  
Visit our website [www.outbackaircraft.com](http://www.outbackaircraft.com) Phone: 07 4092 5507 Email: [lea.7@bigpond.com](mailto:lea.7@bigpond.com) PO BOX 513 MAREEBA QLD 4880

EA Reg 02 6729 9202 0418 157 044  
SA Richard 08 8641 0066 0418 805 390

For Savannah Kits, Aircraft and Parts  
Ian 02 6689 1501 0429 891 501



LSA Certified  
2 & 4 Seat  
Glass Cockpit  
VIP Propellor  
Kit & Fully Built

**Australian Lightwing**

Contact:  
Ph: 02 6686 8658  
e: [al@spot.com.au](mailto:al@spot.com.au)

[www.lightwing.com.au](http://www.lightwing.com.au) [www.lightwing.com.au](http://www.lightwing.com.au) [www.lightwing.com.au](http://www.lightwing.com.au)

Aircraft in stock  
for immediate delivery





# HUSH POWER

German quality and design  
with Mercedes Ecofly and ROTAX power



FK-Lightplanes has a design pedigree over 40 years and is now one of Europe's most popular range of Sports aircraft. With the new factory now in full production, exports to USA and Aust/NZ have started and prices are...hush!

The full range of ready to fly and kit aircraft is now available with the very quiet Ecofly 102 hp turbo injected engine, as well as the well proven Rotax 912UL 80hp and 100hp engines. Truly affordable low cost trainers with Rotax reliability! Aircraft can be tri-gear or tail dragger (some cost) can have folding or quick release wings and can be fitted with floats. UL and LSA versions available in kits and RTF.

**FK9-Mk4** Ideal high wing trainer, (912UL). Fly-away price \$A87,000 incl GST

**FK9-ELA** (MK5) a perfect high wing private aircraft, range & comfort A\$97,000

**FK-12** a low cost bi-plane fun ship for aerobatics. Fits on a budget! A\$106,000

**FK-14B** a low wing, 135 knot 75% power personal cruiser, killer looks. A\$116,000

All prices are at your airfield GST paid & RTF. Details - [www.fk-lightplanes.com](http://www.fk-lightplanes.com)

Chose the reliable Rotax engines or Mercedes power. Ecofly engines are based on the proven Mercedes SMART fuel injected; turbo boosted twin spark petrol engines and are available in 82 and 102 Hp versions with 1500hrs initial TBO. Radiated noise is only 25% of the stringent German noise specifications. An identically sized 60Hp diesel engine is available for Experimental aircraft and at 1500 hrs proven, will be available in the FK9 Mk4 and Mk5 factory built German certified aircraft. Full firewall forward kits and engine monitoring panel.

For details - [www.ecofly.de](http://www.ecofly.de)

[www.silentwingsaviation.com.au](http://www.silentwingsaviation.com.au)

FK9-Mk4 -A \$ 87,000



FK9 -A \$ 97,000



FK12 -A \$ 106,000



FK14B -A \$ 116,000



>> The shipment arrives after spending a few weeks on the ocean from LA. In theory these 4 boxes and a tube (plus some basic tools) could be dropped into the middle of Australia, and around 100 man (or woman) hours later, after adding some oil and fuel, you could fly away.

## Oh, for the *rag* and *tube* days

by Bert Moonan

**T**HE Quicksilver GT400 has been around since 1991.

There are around 1500 of them flying (80 of them in Australia) all with an impeccable safety record.

The GT400 was originally designed to appeal to GA pilots, who for economic or medical reasons, could not continue with their flying (hence the flaps and the yoke).

Quicksilver kits are ideal for the "average Joe".

You don't need an engineering degree. The assembly manual is easy to

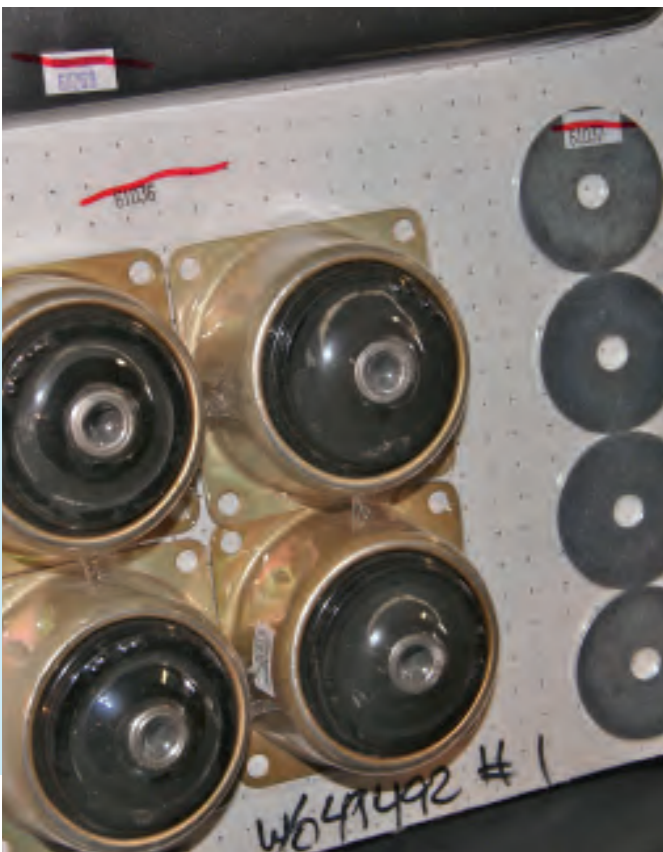
follow, and straight forward. It's not unlike the old Meccano set.

Some sections are already pre-assembled. In fact, the main tools are a 7/16 and a 3/8 socket and spanner and it should be around a 100 hour experience. With the help of a friend or a spouse it will get done quickly.

When you are finished, you will have the satisfaction of having built your own aircraft. And more importantly, you will know every last nut and bolt that keeps you in the air.

Here's one we prepared earlier.





>> **Top** These are the boxes all unpacked ready to start assembly.  
 >> **Left** Most of the parts are on blister packs and are all numbered, so you don't get lost. Most parts are pre-drilled.



**STAGE 1** Assembly of the forward tube, axles, brake and wheel assembly. (This has the optional Black Max brake system and optional tundra tyres)



**STAGE 2** Assembly of the seat and seat track, control wheel, extra fuel tank bracket, front wheel assembly and rudder pedals. (This has the optional Quicksilver GT500 front wheel assembly)

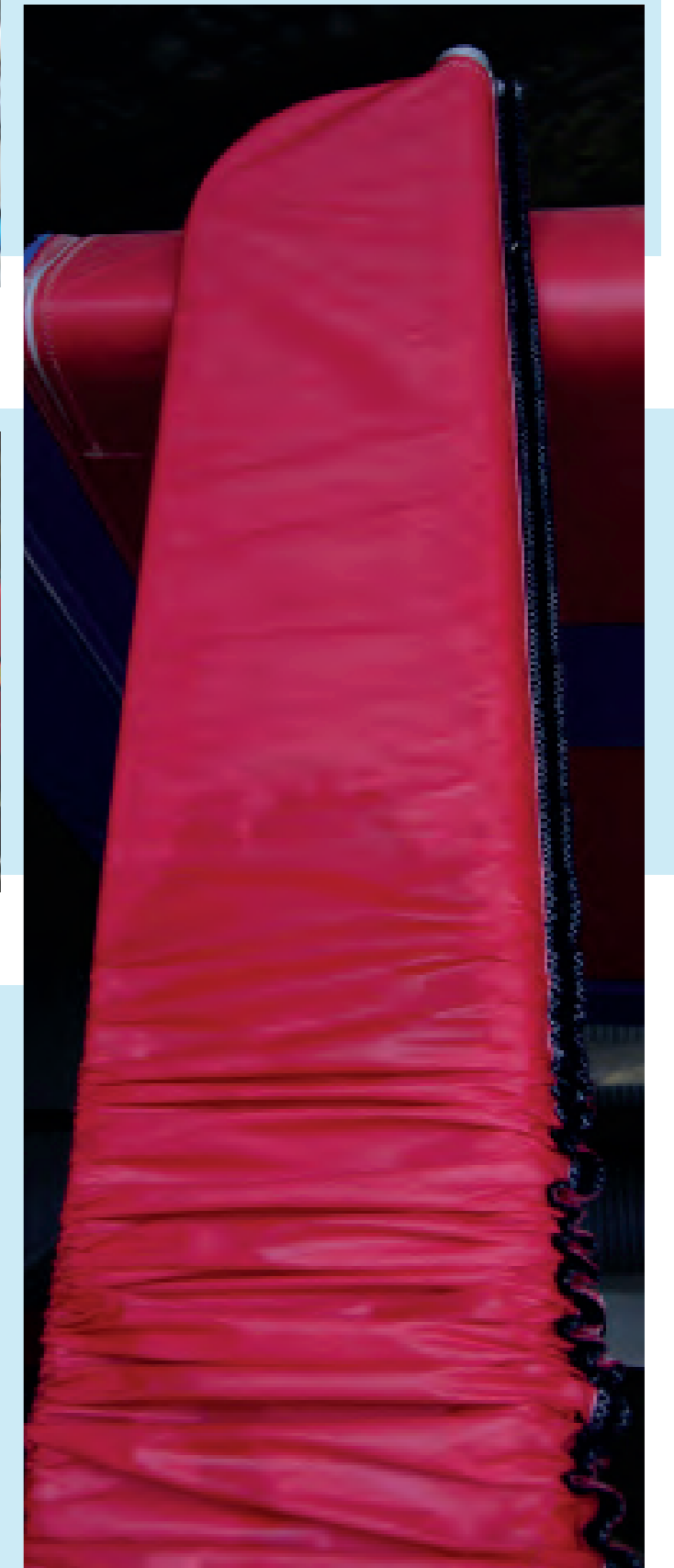


**STAGE 3** Assembly of the root tube, aileron control and cabin frame.



**STAGE 5** Attachment of the rear tube to the main body. Align, measure and check it is square to the front tube. Attach and adjust elevator controls. Also attach fuel tank straps and the flap handle controls, which will be on the main tube (like the GT500) instead of the root tube, due to the option of the wing tank.

**STAGE 4** Assembly of the rear tube, rudder, elevators and associated hardware. This is probably one of the hardest bits to do because the Dacron has very tight tolerances (but it does fit), so it requires careful reading of the instructions and patience. This stage and the flaps and ailerons are the most challenging.







Australia  
New Zealand  
Asia

www.aerosport.co.nz



The Leading Edge in Aviation - SportCruiser

Aerosport Aviation, Anton P +64 7 8295940 M +64 21 2895999  
E anton@aerosport.co.nz



ULPOWER  
AERO ENGINES

Ask Andre at Aerosport for  
more information E andre@aerosport.co.nz

feature



**STAGE 7** The internal wing structure is assembled, then dis-assembled and slid into the wing skin. Then the skin is stretched to the right shape on the wooden rack. Wing battens are slipped into place, and aileron and flap eyebolts are attached. Internal bits are then attached to LE and TE spars. The second wing takes half the time.



**STAGE 6** The ailerons and flaps are just as difficult as the tail end, with very tight tolerances, but they do fit. I found by spraying some Inox lanolin spray liberally on the tubes before pulling the covers on, will make them slide more easily. Also make sure the tops of the rivets holding the cross pieces are smoothed with a fine file. You need to bunch up the fabric and pull down to get the top in place first, then pull down and smooth out the snag points, before slowly and carefully doing up the zips. The spray dries out in a few days.



**STAGE 8** The front pod and the backplate went to a motorcycle paint shop which did a great job with a 2 pack clear finish over red. He did a good match of the paint colour to the sails too.

**STAGE 9** The flap handle and connecting rod installed. The pod and backplate are fitted. The Rotax 503 engine installed.



Only \$150/hr Private Hire  
Only \$250/hr Dual Training  
Transponder, GPS, Autopilot, PFD  
VH Registered Aircraft

Flying just became affordable again!  
Ph: (07) 3203 1777  
Web: www.redcliffeaeroclub.com.au

**THE NEW TECNAM P2008**  
Ready for Fun, Just Add Pilot!

INSERT PILOT HERE

**REDCLIFFE AERO CLUB**  
Professional Pilot Training, Aircraft Hire & Charter Services



>> The Finished Product

www.fasterway.com.au



BOSS  
Designed and Made in Australia



SPRINT  
MADE TO ORDER



GENESIS  
PH: (03) 9716 3429

**I Say!**  
Want to really Learn How to Fly?

Stick and Rudder Flying Training with the experts.

Pilot Certificates  
Advanced Flying Training  
Instructor Ratings  
Hangarage Services  
Piper Cub - Drifter - Victa T6



The Recreational Flying Co.  
Gympie Queensland,  
PH: 0407086152 / 0431091831  
www.recreationalflyingco.com

The Quiet Revolution in the Cockpit

EQ1  
COMMUNICATIONS



A complete wireless communication solution

FULL DUPLEX WIRELESS HEADSETS

Sky Sports Innovations  
www.skysportsinnovations.com.au  
Ph 0419 942 645



Take command of your insurance with **CAI** CIVIL AVIATION INSURANCE

Your RA-AUS Insurance Specialist

AIRCRAFT HULL AND LIABILITY	PRIVATE AND COMMERCIAL COVER	AVIATION BUSINESS INSURANCE	HANGAR & REPAIRER INSURANCE
-----------------------------	------------------------------	-----------------------------	-----------------------------

CAI specialises in RA-AUS insurance Cover. So speak to a broker who knows the market and ensures clients of a professional, efficient and fast service on the best available terms and prices. Contact us today by phone or online for a no obligation quote on your Aviation Insurance Cover.  
Buying or Selling? Check out Australia's Premier online Aviation Marketplace at [www.aircraftonline.com.au](http://www.aircraftonline.com.au)

**CALL NOW 1300 620 520**

AIRCRAFT ONLINE low aviation marketplace  
www.CAI.COM.AU



**STAGE 10** The GT500 style windscreen takes a bit of customising to fit the shorter aircraft. Also the fitting for the removable nose cone goes on. The instrument panel is also fitted to the pod, I have had to re-think the wiring for this one, as the basic GT400 had only a limited wiring loom, and normally only has an ASI, a tach and a CHT and a pull start. I have had to virtually copy the GT500 loom.

By adding the VSI, EGT's, Altimeter, compass, circuit breakers, Hobbs Meter, electric start, battery etc, the aim is to basically have a single seat GT500 with all the GT500 inclusions (You can never have too many instruments). This panel is from the GT500-582, so I have had to work out an extra loom to handle all the extra bits.

Fitting the rear pilot enclosure is very tight, so cord had to be attached to the rivet holes to get it tensioned and placed right. This was a two man job, and patience was required to get the creases out. It is also an easier job with a pneumatic riveter.



**STAGE 11** Finally at the "final assembly" stage. Wing washout, aileron and flaps adjustment done. checking that all the nuts, bolts and pins are in place, with two people going over a second and a third time, we still found things to do before taking the final step of getting the Quicksilver GT400 into the air. When you get to this stage, you realise that this is the most important part of the whole equation. Your bum is going to be in this seat when you're climbing out at 1400 ft a minute, so it has to be done right. Then you get to go flying.

*This description is for information only. Any recreational aircraft you build should be registered, checked and test flown by the appropriate authorities before you try and fly the aircraft yourself. You should also have the appropriate licence.*



# Horsham Aero Club Fly-in

Join us at the Horsham Aerodrome  
for a weekend of fun and flying

- Aerobatics Display
- Aircraft Displays
- Antique Aircraft
- RAA Ultralights
- GA Warbirds
- Helicopter Rides
- Power Chutes
- Tigermoth Rides
- Skydiving
- Trial
- Introductory Flights
- Vintage Engines
- Hot Rods
- Vintage Cars



## 22nd & 23rd October 2011

For more details ph: John: 0427 810 236 or Gary: 0408 519 956

Working display on this weekend by the staff who provide the best support for the display  
Sponsored by  
Horsham Municipal City  
CELEBRATE

## greetings from Canberra

### A word from the CEO Steve Tizzard

If the wheels are not firmly on the ground - go around



and power the performance, which is, in my view, a better technique for aeroplanes much heavier than ours. I prefer students in the early learning period, be shown how to select an attitude (and therefore a set airspeed on final) with the aircraft correctly configured and trimmed. Then decide where the aircraft will touch the runway at that power setting.

Following that, power and attitude corrections are made from the appearance of the runway rising or falling in the windscreen.

All that aside, it is of the utmost importance to determine not only a minimum touchdown point, but also a maximum touchdown point, and to initiate a go around if the latter will be exceeded i.e. over flown. If the wheels are not steadily on the ground by that point, go around. No ifs, buts or giving it more time - Go around.

Many students and low time pilots, often under pressure from a poorly flown circuit or approach, relax back pressure on the control column when the aircraft is near the ground. This is often because they want the aircraft on the ground before it is ready. Worse still, is to force the aircraft onto the ground by deliberate forward movement of the control column. If you hold off (keep the aircraft off the ground) as long as you can, energy is being consumed and you are far less likely to bounce (or wheelbarrow) than if you dump the thing on the ground or force it there ungraciously.

The message is clear - if you are unhappy with the approach, go around and have another go. Remember a damaged ego will always be cheaper than a bent aeroplane.

Safe flying and call me if I can help you.

As you will have read last month, our Operations Manager Mick Poole has resigned to join CASA. Mick is a real legend in RA-Aus and I sincerely thank him for his efforts over the past four and a bit years. The staff join me in wishing him and his wife Estelle the very best for the future.

Zane Tully is acting as Operations Manager and we are actively recruiting for a new member of the operations team.

Sadly, by the time you receive this magazine Julie Roll (Administration Manager) will also have left us after six plus years of valiant service for a career progression. This is an enormous loss to RA-Aus, far more than most members will appreciate. We wish her and her husband Kevin all the very best.

The loss of four key staff in just under a year is a simple reality in the current job market - nothing more - nothing less. We simply cannot match the remunerations offered elsewhere.

RA-Aus submitted detailed comments on the proposed Civil Aviation Safety Regulation (CASR) Pt 91 - General Operating Rules. In our view the consultation draft needs a lot of tidying up. But, more particularly, it would be helpful if CASA showed the entire aviation industry their safety case for proposing to ban all single engine fixed wing operations over populated areas. The exceptions appear to be take-offs and landings,

but how this would work is uncertain. Are circuit operations a form of perpetual take-offs and landings? Anyone wishing to see our response to the above draft, please let me know.

### Wheelbarrow Landings

In our April magazine there was an article on wheelbarrow landings plus an Editor's note saying I would expand on the article in a future magazine - so here it is:

Talking about circuit operations can be an emotive issue not dissimilar to having several eminent theologians of vastly different religions on a talk show.

What, you may ask, has circuit operation to do with wheelbarrow landings or other such nasties? Well, there is general agreement that bad landings follow bad approaches and bad approaches invariably follow bad circuits.

Sadly, six years ago, there was meddling in circuit operations which were not broken. The force for change at the time appeared to be based on a ministerial press release. Disgraced spruiking of that era included delaying the turn to crosswind until within 300ft of circuit height, the half mile out on downwind and the real pearl was to have a good lookout on short final i.e. twist the head left and right immediately prior to touchdown - I don't think so.

What is often taught on final is to pole the line



P200

55,265 EUR + GST  
Price includes entry & registration



P300

78,695 EUR + GST  
Price includes entry & registration



Highlander

Kit priced from  
22,800 USD + GST

ALPINE AIRCRAFT SALES

Distributors for

Alpi Aviation

&  
Just Aircraft

www.alpineaircraft.com.au

Michael Pendergast  
0418 521 534  
michael@alpineaircraft.com.au

Bob Keen  
0429 639 770  
smokeys@mail@bigpond.com  
Northern NSW, Qld, NT

Peter Pendergast  
0416 129 222  
ppan@live.com.au

**JABIRU OWNERS**  
**WANT AN AUTOPILOT?**

Dynon EFIS based 2 axis system.  
Documents supplied for approval  
in certified aircraft.  
Installation at Mildura, Vic.  
Contact Robert Herring for details.  
Phone 0427027060

Jabiru Autopilot Installation  
ryrobert@bigpond.com



# Winner! Story of the month

Each month one readers' story will be chosen and the writer given a great prize. This month, Elias has won a selection of pilot clothing.

*I didn't know what to expect or even if I would like it*

Send in your stories and you can win too.  
Email [editor@sportpilot.net.au](mailto:editor@sportpilot.net.au)

## GYFTs by Joseph Faulkner

**I**N 2009, my father asked me if I would like to learn to fly. I had always expressed a bit of interest in aviation. We often visited the local airfield because my father flew a Thruster from an old WWII airstrip in central Tasmania back in the 1980's.

I was nervous, to say the least, on the morning of my TIF. I didn't know what to expect or even if I would like it.

We went out to George Town Airfield (YGTO) where I was greeted by senior Instructor Phil Evans and Chief Flying Instructor of Freedom Flight, Eugene Reid (RA-Aus President). I spoke with Phil about what we were going to do, then we were off.

We flew a Jabiru LSA. I had never experienced anything like it. I was so nervous, but having so much fun at the same time. It was very soon after this, I realised aviation was what I wanted to do.

Six months later I went solo in the Jabiru. There is only one word to describe that day. AMAZING! To realise you can take to the skies and command an aircraft around the circuit all by yourself at the age of 15 is pretty cool, not to mention how proud Mum was.

A little over two years later, I received my RA-Aus Pilot Certificate.

Another milestone in my aviation career.

It was around this time, the RA-Aus GYFTS Scholarship was brought to my attention. I thought because I already had my Certificate I wouldn't be eligible, but after a few quick phone calls to Eugene, I found out the Scholarship could be used for endorsements as well.

I contacted Carol Richards (Chair of the GYFTS scholarship committee) and was sent the forms. I filled them out, wrote my essay and posted them off. A few weeks later, Carol rang me and told me I was to receive \$1000 from RA-Aus (in conjunction with Airservices Australia).

I immediately contacted Eugene and booked my first navigation flight. My instructor, Phil Evans and I have now completed three navigation flights around Tasmania and last weekend I did my first solo navigation flight.

My journey in aviation has only just begun. It is my long term goal to return to Tasmania as a pilot with the Royal Flying Doctor Service. My journey so far would not have been possible without the support of my family, friends, fellow pilots and instructors, Eugene Reid and Phil Evans.



>> GYFTS winner Joseph Faulkner with Freedom Flight's Jabiru, Joseph is the winner of this month's prize.



## Moree Aero Club Lake Keepit by Bruce Crosby

ON the weekend of July 16 and 17, five people loaded three planes at the Moree Airport in preparation to conduct a flights over six dams - Coolmunda, Glenlyon, Pindari, Copeton, Split Rock and Keepit. The intention was to stay overnight at Keepit and participate in some gliding and sailing using the facilities of the clubs there.

But it was drizzling and overcast so the northern leg was no-go. We were confident we could get to Lake Keepit for the second part.

So we departed at 10:15am, going around Mt Kaputar rather than take on the clouds, arriving a little after 11am on a pleasant, calm, albeit overcast, day.

We checked out the gliding facilities and equipment and made appointments for introductory flights the next morning.

We then caught up with friends at the sailing club, loaded the planes and conducted a short flight over Split Rock dam. We landed at Barraba, swapped a few seats to give our guests experience flying different aircraft.

The next day, the gliding was slow to get going but all four participants were rapt with the experience, especially the youngest, Charles Pitman and the oldest, Alan Pine from Quirindi.

The rest of the day was filled in with a quick tour of the lake and a mad dash to Moree, once again via Narrabri to avoid low cloud and terrain, to make it safely home before last light.

We all vowed we would go again.  
Participants: Andrew & Charles Pitman, Mark Davies, Mark Bagshaw, Cam Loder and Bruce Crosby.

*All four participants were rapt with the experience*



>> Lake Keepit Treasurer Mark Bagshaw and right, Hunter Jones

"TOUGH AND RUGGED AUSSIE MADE RADIAL ENGINES"

**Rotec**  
RADIAL ENGINES

12 years in production  
Powerful Dependable

7CYL 110HP      9CYL 150HP

Rotec Radial Engines: Ph:(03) 9587 9530 Email: [RotecAdmin@bigpond.com](mailto:RotecAdmin@bigpond.com) Web: [www.RotecEngines.com](http://www.RotecEngines.com)



THE **ONLY** CLUB OWNED SKYCATCHER HAS ARRIVED...



Royal Newcastle Aero Club

Available for hire and training



Bookings: P 02 4932 8888 E [macoffice@westnet.com.au](mailto:macoffice@westnet.com.au)

[www.rnac.com.au](http://www.rnac.com.au)

## Jabiru Liquid Cooled Heads

**Rotec**  
LIQUID COOLED HEADS

- HEAD TEMPS 85 -100C
- KITS AVAILABLE NOW!
- REACH EXPECTED TBO
- NO MORE RETORQING OF HEADS
- LIQUID COOLS AT 30 X THE RATE OF AIR!
- ENGINES 2200, 3300, 5100 HYDRAULIC OR SOLID LIFTER

Phone: (03) 9587 9530 Email: [RotecAdmin@bigpond.com](mailto:RotecAdmin@bigpond.com) Web: [www.RotecAeroSport.com](http://www.RotecAeroSport.com)

## AEROCHUTE

The name you can trust!

New HummerChute with 582 Rotax

Now available – call us for a flight

Let the adventure begin!!!

12 Acheson Place, North Coburg, Victoria 3058 Australia

Phone: 03 9354 2612 Fax: 03 9354 2795

Web: [www.aerochute.com.au](http://www.aerochute.com.au) Email: [info@aerochute.com.au](mailto:info@aerochute.com.au)



# How the Four Stroke changed the way we fly

by Kreisha Ballantyne

**T**HE year is 1976. Malcolm Fraser is Prime Minister. The Aussies defeat the West Indies in cricket. The Sullivans is aired for the first time. You AND your dad were wearing flares. And the world's first ultralight legislation was created.

The very first ultralight was, of course, the Scout. Pioneered by boat builder, Ron Wheeler and equipped with an 8hp 180cc engine, the Scout took flight in June 1975.

For those recent members of RA-Aus, spoilt by over-water privileges and aircraft with glass cockpits, it may seem unbelievable that a mere thirty-five years ago, pilots of ultralights were not required to hold a licence. Nor did their aircraft need to be registered. But, all flights were restricted to 300ft AGL, the aircraft were

required to have only one seat and pilots were banned from flying within 300m of a public road and five km of an airport.

Most of that had to do with the limitations of the engines which powered them.

It wasn't until 1985, the regulations were changed to allow approval for two seats.

Until 1990, our roots were firmly embedded in a two-stroke mindset. With the tendency of the engines in those days to fail, the careful pioneers put in place safety habits which are still taught today: glide approaches, wariness of 'tiger country', sensibly spaced circuits. Even the Rotax Ops Manual for the two stroke 447, 503 and 582 warns:

"This engine, by its design, is subject to sudden



### Weather Station



Wind, Rain  
Temperature  
Humidity  
Barometer  
Plus more

Australian Agent for  
Davis Instruments

## ASK FOR YOUR FREE CATALOGUE

### ECOWATCH

Unit 5, 17 Southfork Drive Kilsyth VIC 3137  
Phone: (03) 9761 7040  
Fax: (03) 9761 7050  
email: davis@ecowatch.com.au  
www.davisinstruments.com.au

### CFT L R COOMINYA FLIGHT TRAINING

**JOHN WALMSLEY CFI**

COMMITTED TO GIVING YOU THE  
CONFIDENCE TO ACHIEVE YOUR GOALS AND  
PILOT AN AIRCRAFT TO A HIGHER DEGREE OF  
SKILL - WITHOUT THE STRESS

WE WILL ADJUST THE TRAINING  
TO SUIT YOUR REQUIREMENTS

FROM PILOT CERTIFICATE  
THROUGH TO INSTRUCTOR TRAINING  
PERSONALIZED TRAINING

**LIGHTWING SR 112 Y**  
BEST TRAINING

- TRAINING 3 DAYS
- FULL TIME OR PART TIME
- YOUR AIRCRAFT OR OURS
- NOB-STEELED OR T/WHEEL
- ADVANCED TRAINING

WE LOVE FLYING AND SO WILL YOU

CALL OR EMAIL US FOR A  
TODAY EYE  
TRIAL INTRODUCTORY FLIGHT  
& INFORMATION PACKAGE

ONE HOUR DRIVE WEST OF BRISBANE  
Mobile: 041 345 2547  
Email: cftjohn@westnet.com.au

## Get Out of the Office!



## Learn to Fly!

[www.skysports.net.au](http://www.skysports.net.au)  
**0419 942 645**

Located in Western Australia  
just 1.5 hrs drive east of Perth.

On-site accommodation and  
full flight training facilities using  
the latest recreational aircraft.

stoppage. Engine stoppage can result in crash landings, forced landings or no power landings. Such crash landings can lead to serious bodily injury or death. Never fly aircraft equipped with this engine at locations, airspeeds, altitudes, or other circumstances from which a successful no-power landing cannot be made, after sudden engine stoppage." BRP-Rotax GmbH & Co. KG (2006).

**Rotax 912**  
Over 50 years, Austrian engine maker, Rotax had developed more than 350 engine models and produced more than six million engines.

It developed and manufactured both four and two stroke engines for snowmobiles, sport boats, quads, roadsters, motorcycles and go-karts so it was natural they'd find a solution for light aircraft.

Its revolutionary Model 912 A received FAA certification in 1989.

The original 80hp (60 kW) engine had a capacity of 1211cc and a compression ratio of 9.1:1. Later on, the



**it's difficult for competitors  
to enter the industry**

In 1989, Rotax, the now ubiquitous Austrian company, received FAA Type Certification for its model 912A aircraft engine. It is, perhaps no coincidence that from this point on, the ultralight movement expanded at a breakneck pace.

1990 was a pivotal year: the maximum altitude was increased to 5000ft AGL; commercial kits were approved allowing accessibility to those who lacked the time or technical skills to build their own aircraft from scratch; and factory built aircraft under CAO 101.55 could now be registered as GA aircraft (providing certain criteria were met).

One such criterion was the fitting of a certified four stroke engine. Because a two-stroke engine depends on its fuel mixture for lubrication, the fuel metering system needs constant management. The pilot must be aware of EGT at all times, which adds to the general workload. It can be argued the more reliable four-stroke also reduces human errors.

In addition, the lower emissions of the four-stroke, in an increasingly environmentally concerned society, paved the way for the engine revolution.

912S was enlarged to 1352 cc with a compression ratio of 10.4:1, which yielded 100hp (75 kW). A 100hp (75 kW) version was then developed specifically for light sport aircraft.

**What is in it?**  
Unlike GA aircraft engines, the 912 has air-cooled cylinders with water-cooled heads and uses a gearbox to reduce the engine's relative high shaft speed (5,800 rpm for 100hp versions) to a lower speed for the propeller. It has a dry sump, and two carburetors. It's not fuel injected.

Since 2009, 912 engines have had their recommended TBO raised from 1200 hours to 1500 hours, or 1500 hours to 2000 hours, depend-



>> 912 at the Bert Flood Factory

## Asia Pacific Light Flying

### 2ND GENERATION ODYSSEY

World's most advanced EFIS's with everything!  
Complete Odyssey-Voyager G2 systems  
approx. **\$6,000 delivered!**

- Extremely powerful, flexible, simple & intuitive: operation in huge 10.4" and 8.4", high quality, high resolution, sunlight readable displays (9 user designable screens).
- Odyssey-Voyager advanced features dramatically lighten pilot burden & increase safety, particularly in high workload situations (e.g. with three spoken voice - engine, flight, terrain & airspace alerts).
- Every conceivable function: all flight; VFR, IFR, ILS, GCS, GVOR, AOA, all engine; 'black box' recording; AH/Compass; GPS (m/m/p); terrain (2D/3D); integrated GPS & encoder; radio/transponder/AutoP interfaces; spoken voice alerts & much, much more!
- Integrated autopilot (just add servos)
- Free, simply installed software upgrades

**THE ENIGMA**  
All the advanced features of the Odyssey-Voyager in a smaller package (5.7" display)  
Complete Systems approx.  
**\$4,300 delivered!**

**THE XTREME MINI EFIS**  
A 4.3 colour, bright, sunlight readable display, multifunction EFIS with remarkable functionality at a remarkable price.  
With all Flight & Engine functions\*, integrated GPS & encoder; Navigation; Flight path (GPS based flight path) "altitude" indication; Artificial horizon; Auto pilot coming soon (free software upgrade); EFIS fits into standard 3.5 instrument cabinet.  
\*Requires sensors  
\*\*Requires additional module(s)

**DELTA VHF ANTENNAS**  
Exclusive Australian distributor for the highly regarded Delta Pop. A vast range of VHF and transponder antennas.

**MGL VHF COM RADIO**  
Advanced features & design  
3.5" large display 215 grams  
FCC approved  
**\$1,195 delivered**

Complete range of light accurate, multi-function advanced instruments - Straight wrap out for standard 2.25" & 1.5" instruments with brilliant LCD button interface & even more innovative features.

website: [www.lightflying.com.au](http://www.lightflying.com.au) phone: (02) 6259 2002 or 0419 423 286

## Jabiru Engines Power Performance Price

**2200 Aero Engine 80hp**      **3300 Aero Engine 120hp**



**AUSTRALIAN DESIGNED & MANUFACTURED**

Jabiru Aircraft   Airport Drv, Bundaberg Q 4670   Ph +61 (0)7 4155 1778   Fax +61 (0)7 4155 2669   info@jabiru.net.au   www.jabiru.net.au





**SportStar** <sup>MAX</sup>

*evektor australia*  
www.vektor.com.au

VFR/NVFR/IFR  
Superb & safe trainer/tourer  
Register VH- or RA-Aus

**East:**  
Air Warrnambool - 03 5565 9139

**West:**  
Cloud Dancer Sport Aircraft - 08 9414 1707



>> Left, John Duigan Jnr in a Skycraft Scout and above, Bert Flood Imports, Lilydale

ing on the serial number.

As well as lower fuel consumption, they are certified to run on automotive fuel (mogas) which reduces running costs even more. That, and their lower noise levels, has made them popular choices for training aircraft.

In 1998, CAO 95.55 was expanded to allow a category of 'Amateur-built (Experimental)' with an increase to 544kg MTOW for two-seat aircraft.

This created a niche for modern, more reliable, four-stroke engines; more robust airframe design; a less demanding/more trainer friendly nose wheel configuration (providing more consistently safe landings); and an increased fuel capacity (providing a longer and safer endurance plus the ability to take a friend along).

As a result, the number of new single-place aeroplanes entering the AUF register declined, while the number of two-place aircraft increased quickly.

The 912 ULS remains the best selling engine for Bert Flood Imports, the sole distributor for Rotax in Australia. The company sells around 200 a year, despite the GFC. More than 125,000 of them have been sold around the world since 1973.

"They've changed the ultralight industry completely," says Gary Flood. "Their proven reliability, impressive power to weight ratio and lengthy history, coupled with the 2000 TBO, has made it very difficult for competitors to enter the industry. Their popularity speaks for itself."

**Jabiru joins in**

In early 1988, Rodney Stiff and Phil Ainsworth formed Jabiru because they saw the changes in the sport starting to emerge and decided to develop a local version for themselves.

Their first model, the Jabiru LSA 55/2K was type certificated in 1991, but just a month later the company learned the Italian company they had lined up as an engine provider, was getting out of the business.

The 55/2k aircraft had been specifically designed around a four stroke engine, so lacking a real alternative, Rod and Phil set out to design their own.

The first engine out the door was the Jabiru 1600ccm, a 60hp engine which started going into their aircraft in 1993. Fifty four of them were installed over the next three years.

After getting encouragement in the US, the company then developed a more powerful 2200cc engine which was released in 1995.

Nowadays, Jabiru makes about 90 engines a month and sells them in 31 countries.

To make sure the entire process is smooth for the kit builder, the company also manufactures its own propellers and control system components to go with them.

Jabiru is a local success story and remains a popular home grown choice for many pilots and owner / builders.

**New kid on the block**

A new engine maker is about hit the market here hard. ULPower has six engines in its range from 97HP to 130HP including an acrobatic option.

The UL is a 4 stroke, air cooled, 4 cylinder opposed engine with dual redundant electronic spark ignition (variable timing); multipoint electronic fuel injection with automatic altitude and temperature compensation; electronic RPM limiter; direct propeller drive; wet sump forced lubrication with integrated pressure regulator and ram air cooled cylinders and cylinder heads among a host of other refinements. The engine is reported to have high fuel efficiency, no carburettor icing problems and an excellent power to weight ratio. Watch out for these engines coming to a shop near you this year.

**The future**

And the future looks bright for the engine makers. This year's amendments which allow recreational aircraft up to 9,500ft, things are on the up and up for all manufacturers.

We've come a long way since the day Mr Wheeler fitted a lawnmower engine to a modified hang glider. Because of reliable and affordable four stroke engines, we're faster, higher, and above all, safer than ever before. And, thankfully, we no longer wear flares.

**SportAviation TOCUMWAL**  
Experience the thrill of Flying

Euro Fox K2 Abinitio and X-Country Training, Solo Training, Tail Wheel Endorsement.  
Contact Eddie Madden C.F.I.

DISCOVER THE WORLD ABOVE - EUROFOX  
Onsite Caravan Park NOW OPEN

flight@sportaviation.com.au  
www.sportaviation.com.au

Unit 10, 13 Birdinglows Rd  
PO Box 44 Tocumwal NSW 2374  
Australia

Tel: 03 5874 2734 Mob: 0427 534 122

redefine your sense of freedom

**LEARN TO FLY A MICROLIGHT WITH US**

- Pilot Training
- Trial Instructional Flights
- Endorsements
- Conversions
- BFRs
- Aircraft Sales

**FULL TIME INSTRUCTORS**  
School facilities:

- AirBorne Upper Hunter  
0428 444 868  
airborneupperhunter.com.au
- Byron Bay Microlights  
0407 281 687  
byronbaymicrolights.com.au

**TEMORA FLIGHT TRAINING**  
13 Air Recreational Studies Inst. Assoc of Flight Instructors

**TECNAM Sierra**

Learn to fly in the heart of aviation territory

- Training 7 days a week
- Trial Instructional Flights (TIF)
- RA-Aus Pilot Certificate
- Biennial Flight Reviews (BFR)
- GA & Glider Conversions to RA-Aus Certificate
- Cross Country, Passenger & Radio Endorsements
- Instructor Training & Renewals
- Theory, Meteorology & Human Factors Tuition
- Partners Of Pilots Emergency course

Safe, fun, affordable training in our Tecnam Sierra with enthusiastic instructors Alan Powlay and Jill Bailey.

**TEMORA AIRPORT**  
phone Jill 23 TENEFTS ST TEMORA  
**0412 409171**  
www.temoraflighttraining.com

**POWER MATE**

Rec./Reg. for Rotax + Jabiru engines.  
Get all the impressive features by  
**Ph 07 5546 9205**, ask for Claus.  
Email: claus@powermate.com.au or visit my website at: www.powermate.com.au.  
Get **POWER MATE** for only \$243 excluding freight and enjoy clear radio communication.  
Order: 246 Stockleigh Road  
**JIMBOOMBA QLD 4280**

**NAVIGATION THEORY PACKAGE**  
CD-ROM PDF DIGITAL BOOK \$25.00  
Taken From Our Flight Training Manual  
For X-country Endorsements

E: sportairtheory@gmail.com  
www.sportairtheory.com

Ph: 0402 755 642 5 Maddigan

DELTA RECREATIONAL FLYING SERVICES



AUTHORIZED DISTRIBUTOR  
**ROTAX**  
AIRCRAFT ENGINES



# BERT FLOOD IMPORTS

## 914 SERIES 115 h.p



914 UL 3 - DCDI with options

4-cylinder, 4-stroke liquid/air cooled engine with opposed cylinders, with turbo charger with automatic waste-gate control, dry sump forced lubrication with separate 3 litre oil tank, automatic adjustment by hydraulic valve tappet, 2 CD carburettors, electronic dual ignition, airtake system, electric starter, integrated reduction gear i=2.43. Weight 70kg including exhaust system and engine truss assembly.

**2,000 hrs.  
TBO**  
**ROTAX 912/914**

## 912 S SERIES 100 h.p



912 ULS 3 - DCDI with options

4-cylinder, 4-stroke liquid/air cooled engine with opposed cylinders, dry sump forced lubrication with separate 3 litre oil tank, automatic adjustment by hydraulic valve tappet, 2 CD carburettors, mechanical fuel pump, electronic dual ignition, electric starter, integrated reduction gear i=2.43. Weight 62.6kg including exhaust system and engine truss assembly.

# "The Sky Is The Limit!"

## 582 UL DCDI 65 h.p



582 UL - DCDI with options

2-cylinder, 2-stroke liquid cooled engine with rotary valve inlet, electronic dual ignition, integrated water pump and thermostat, exhaust system, carburettors, rewind starter. Weight 47.2kg including exhaust, gearbox with integrated electric start.

Also available:

912 UL DCDI ( 80 h.p ) 503 UL DCDI ( 50 h.p )

See our website for more info: [www.bertfloodimports.com.au](http://www.bertfloodimports.com.au)

DISTRIBUTED IN AUSTRALIA, NEW ZEALAND AND SOUTH EAST ASIA BY:

**BERT FLOOD IMPORTS PTY. LTD**

17-18 CHRIS DRIVE LILYDALE VICTORIA 3140

PHONE (03) 9735 5655 FAX: (03) 9735 5699

EMAIL: [gary@bertfloodimports.com.au](mailto:gary@bertfloodimports.com.au)

feature

# Flying recreational aircraft *from your desk*

by Dave Tonks

FOR those of you who may not be aware of the amazing realism now available for home-based flight simulation, here's a short introduction to the hobby.

I have been a flightsim 'nut' for many years and have enjoyed immensely the opportunity to 'fly' a wide range of aircraft from my own study. Over the years, Microsoft Flight Simulator has continually improved, with the current (tenth) version titled FSX.

The basic (default) aircraft which come with FSX are a vast improvement on what was previously available, but as with all such things, you really have to pay for aircraft with a high degree of fidelity, particularly with respect to flight dynamics and sounds. Having said that, there are a lot of good quality freeware add ons available, and some of these are good enough to be sold as payware.

### Flying Light

For many years, recreational and ultralight aircraft were a rare commodity in FSX. That has changed, in particular due to the brilliant work done by Anthony Lynch of Ant's Airplanes.

His website is at [www.antsairplanes.com](http://www.antsairplanes.com). There you will find a Tecnam Sierra and a Drifter. And if you perhaps wonder what the writer of this article looks like, check out the bloke in the Drifter - it's me.

The reason I'm the bloke in the red helmet in the

software is because Anthony took all the photos of my Drifter (O455) during the development of the software aircraft for FSX.

He even took some pictures of the private airfield where O455 lives between flights (Roadvale) and modelled that as well, as a freeware add-on for FSX.

Anthony has also developed Boonah for FSX (also freeware, with an incredible amount of detail). The Tecnam and the Drifter will set you back \$20 each - and as a flightsim reviewer who has seen a huge amount of software, I can assure you they are both a bargain at that price.

Apart from the 'must have' joystick or yoke, there is not much else you need to end up with a basic, good performing flight simulator on your home computer. There is an amazing number of aircraft from which to choose, from trikes to the Space Shuttle. You can select simple aircraft, or those so complex it will take you hundreds of hours to get to a reasonable level of expertise.

You can practice cross country flights before you fly them (and then be astounded by the similar view you will see when you fly it in real life). You can even practice flying IFR entirely on instruments in a recreational aircraft, (something you can't do in real life don't forget), including SIDS, STARS and ILS approaches, in all types of weather day or night, and program a huge range of equipment failures during the flight to test your skills.

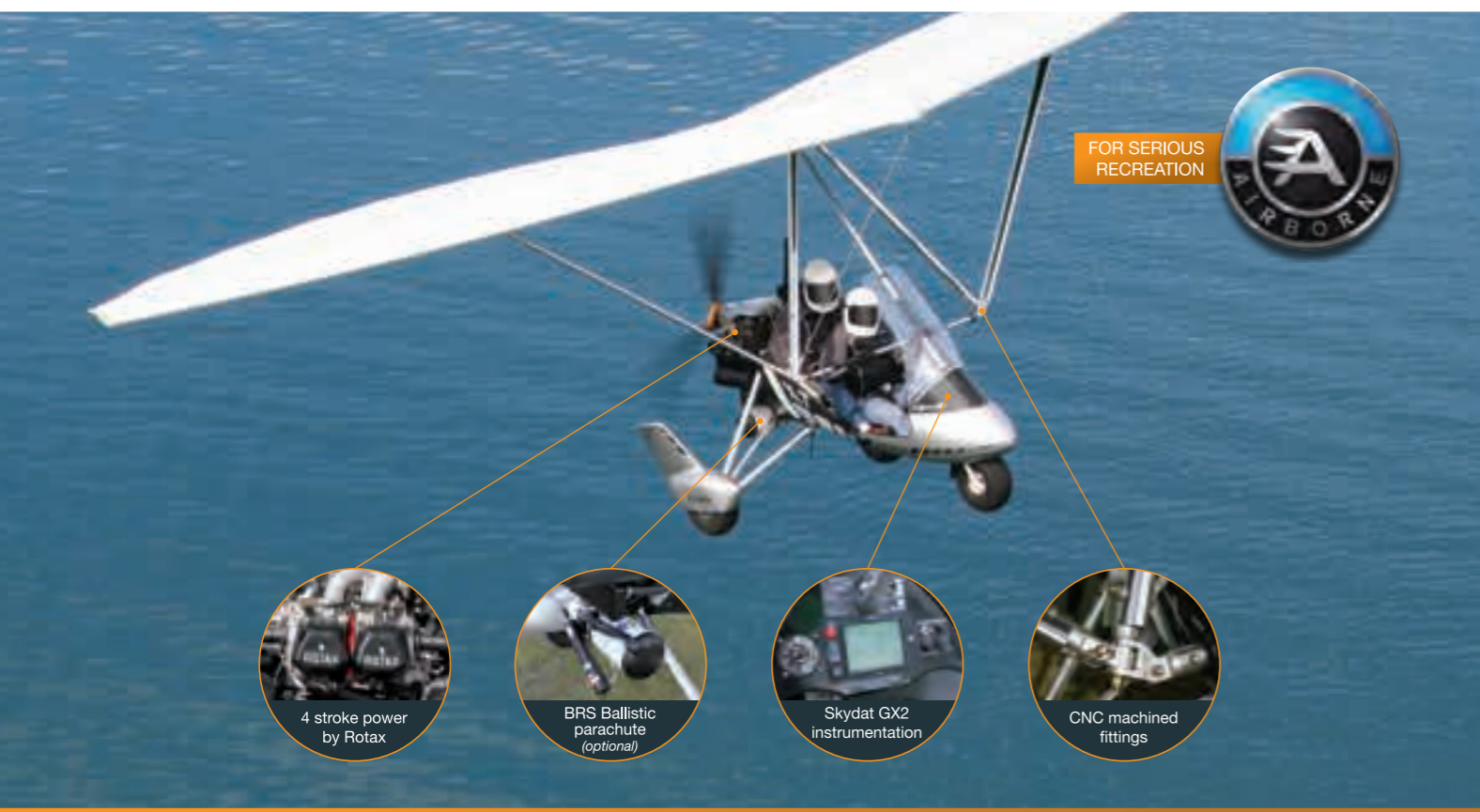




**T-Lite from \$20,000 inc. gst**  
 Visit [www.airborne.com.au](http://www.airborne.com.au) for T-Lite demo-days in your area.



FOR SERIOUS RECREATION



FOR SERIOUS RECREATION



4 stroke power by Rotax



BRS Ballistic parachute (optional)



Skydat GX2 instrumentation



CNC machined fittings

**The NEW XT912-SST with strutted wing**, cruises at 70 knots and has a range of 700kms – also available XT-582 now with the Streak 2B wing. From \$37,000 incl GST (with Merlin wing). Airborne microlights are certified and exported to 30 countries worldwide. Visit: [www.airborne.com.au](http://www.airborne.com.au) Phone: 02 4944 9199 Email: [fly@airborne.com.au](mailto:fly@airborne.com.au)



**The box**

FSX is notorious for being quite demanding on computing power. Basically, you need a computer with the following:

1. GPU (graphics processing unit, or graphics card) – this item needs to be the highest possible performing unit you can afford. In fact, when planning the budget for a new system (box only) you should set aside at least a quarter of the 'box' budget for this alone.
2. CPU (central processing unit) – speed is the key here, simply go for the highest output you can afford, anything over 3 GHz will work well. Multi core now works with FSX, so that is something to be considered.
3. Hard Drives – most are 7,200rpm, some are 10,000rpm and do a better job. For the best result, you should be looking at SSDs (Solid State Drives) – they are blisteringly fast and make a huge difference with FSX.

4. Memory – same old, most you can afford, at least 4 Gb.

Of course there are many other parameters to consider, such as motherboards, PSU (power supply unit) and cooling, so all of that will need to be considered in the case of any upgrades. Having said all that, most computers now come with a fairly high standard so they will run FSX, albeit at different performance levels. FPS (frames per second) is one of the major performance indicators – a basic unit may give around 10fps, where a top quality unit could give as much as 50. Probably the minimum you would like to see on the screen is 20.

For realism, FSX needs a considerable scenery boost – the default scenery is so plain as to make flying with it a waste of time. Fortunately there is a product which provides a staggering amount of realism. It is produced by Orbx and is titled FTX. Go to the website and

**You should set aside at least a quarter of the 'box' budget**

watch the promo video at [www.fullterrain.com/product\\_australia](http://www.fullterrain.com/product_australia) and you will see not only what FTX provides, but also what MS FSX can provide.

• If you want to read more from Dave on Flightsimming, including articles on aircraft/scenery reviews and tutorials, email editor@sportpilot.net.au and we'll beg him to do more.



# Jabiru Just Pure Fun



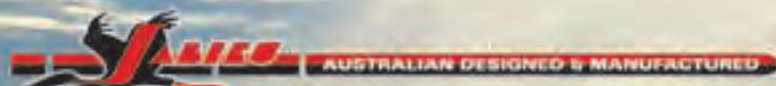
Now with Electric Flaps as Standard

**\$58,000**  
with two stroke engine

### JABIRU J120 FEATURES

- Light Sports Aircraft 500 kg
- Fuel Capacity 65 ltrs (4 hrs)
- 100 kts Cruise Speed
- No Flaps, No Options

**2200  
Aero  
Engine  
80hp**



Jabiru Aircraft Airport Drv, Bundaberg Q 4670 Ph (07) 4155 1778 Fax (07) 4155 2669 info@jabiru.net.au www.jabiru.net.au

# CAPTAIN for a day

by Kreisha Ballantyne

**W**HEN I was a junior aero-spotter, it was beyond my wildest dreams to ever captain a Boeing 737. Even today, as a grown and (allegedly) mature woman, I still beg the cabin crew to let me peek into the flight deck. And even though I'm content with my PPL and RA-Aus Pilot Certificate, I always wondered what it would be like to captain a giant bird.

So I donned my captain's cap and went along to Flight Experience in Darling Harbour to embrace the dream of flying heavy metal.

My instructor, Jon gave a short (but riveting) video brief. Having been given a heads-up about my logbook hours, Jon commented, somewhat ominously, "mmmm, we'll have to make this VERY interesting"....

Even though my experience of simulators is limited, there was no hiding the fact this is the king of the sims. My accumulative experience of peeking my head in 737s had stood me in good stead. Otherwise, I may have bolted at the vision of all those switches, knobs and levers.

After Jon settled me into the left hand seat, and I adjusted the leg length to 'shrimpy', I was introduced to through the radio operator who would simulate Sydney radar, approach and departures, etc.

Although Flight Experience offers a choice of over 24,000 airports worldwide, I was keen to fly from Sydney (as this would be the only time I could ever afford the landing fees!). As Iain Pero, Director of Sales, says "Flight Experience gives the chance for people to tour the world



without the huge price tag."

The simulator caters for customers with varying levels of time and confidence, offering packages ranging from 30 to 90 minutes. In the longer flights, captains can face challenging emergency situations such as big changes in weather and engine failure. Or, in my case, all three - with a double engine failure (although we got one back), a gear failure and a diversion to Richmond.

"We can tailor-make our packages to suit individual needs, whether they have years of experience or have never flown before. It's always great to see someone overcome their fear of flying by using the simulator," says Iain.

CASA has given Flight Experience its tick of approval and in a strong indication of its worth, professional pilots often use the simulator to log flying time.

And, as Iain explains, "We've created a flying club to encourage our regulars. When they have accumulated 4-5 hours of flying alongside an instructor, and passed the required test, they are able to take charge and fly solo. It's a pretty exciting feeling to be in complete control of a jet airliner's cockpit."

I can feel yet another aviation-related addiction on the horizon.

More information: [www.flightexperience.com.au](http://www.flightexperience.com.au)

**WIN!**

This edition's best Letter to the Editor wins a free 60 minute flight + DVD + 5x7 framed photo valued at \$329.95 from Flight Experience Darling Harbour.

**GT PROPELLERS AUSTRALIA**

Fixed Pitch for RV & also 2 & 3 Blade Ground Adjustable Propellers

Distributor of Sensenich

**SENSENICH**

PURCHASE DIRECT \* AFFORDABLE PRICE  
NO INTERMEDIATE HANDLING \* FAST DELIVERY

- constant speed
- electric or hydraulic in flight adjustable
- ground adjustable
- custom propellers on request

Fast delivery for standard fixed pitched to suit RV, Tecnam, Jabiru and most RA-Aus aircraft.

**GT FACTORY BONUS**

**For the first 10 Fixed Pitch and Constant Speed Propellers sold**

For best Prices and availability call Chris at GT PROPELLERS AUSTRALIA  
Phone 0415195095 Fax (08) 8326 7268 Email [chris@gtpropellersaustralia.com.au](mailto:chris@gtpropellersaustralia.com.au) or visit [www.gtpropellersaustralia.com.au](http://www.gtpropellersaustralia.com.au)

**QUICKSILVER AIRCRAFT AUSTRALIA**

WINDRISTLE New South Wales

GT 500

GT 400

Mobile: 0418 440 575  
(Best to get me on)  
A/H Phone: (02) 4956 7211

[bert@quicksilveraircraft.com.au](mailto:bert@quicksilveraircraft.com.au)  
[www.quicksilveraircraft.com.au](http://www.quicksilveraircraft.com.au)

With advantage of the current US Exchange Rate

**ENTRY LEVEL FLYING**  
You can currently buy the legendary GT400 (1700 MJ) for under \$20,000 or under AUD\$20,000 (plus GST) with 80-100 Hour Kit



# Tech talk

with Steve Bell



## RA-Aus takes all defect reports very seriously



### Modifying Your Aircraft

One of the more unpleasant tasks I have to perform is to ground an aircraft because it has been modified. (This only applies to factory built aircraft with registration numbers beginning with 24 [CAO 95.55], 25 [Old CAO 95.25], 32 [CAO 95.32], and 55 [CAO 101.55])

The RA-Aus technical manual Sections 3.5.2 and 3.5.3, as well as CAO 95.55, states that all modifications for the aircraft mentioned above MUST be approved by the holder of a CASA CAR 35 Authorisation (except LSA types – which must be approved by the manufacturer of the aircraft). What does this all mean?

I'll start with numbers beginning with '25' and '55' because these aircraft were designed and manufactured under an old standard, and because there are some still in the system (RA-Aus has several registered). Because they were specifically designed for use in commercial operations, a higher standard was applied. Which meant stringent control on modifications was maintained. The CAR 35 person ensures standards set by these old rules are continuously maintained (none of this is new).

For aircraft with a '24' or '32' number, these standards are relatively new (mid 80's for most and 2000 for LSA). Again the Authority considered these aircraft as having a higher airworthiness standard which must be met for the safety of people who are paying to fly in

them [there is legal expectation that when a person pays to fly or be flown in an aircraft, the safety and airworthiness standard is as high as possible]. There are different categories within those aircraft registered as "factory built" types. These are:

24 and 32- LSA (Light Sport Aircraft) – these aircraft are certified and built to a stringent standard [e.g. ASTM or BCAR S to list two, emphasised by the fact all LSA aircraft must have a valid Certificate of Airworthiness (C of A), because the manufacturer is legally responsible for the continuing airworthiness of their design. They are also the only ones who can approve a modification to an aircraft they designed and built. If you want to modify an LSA aircraft, you must contact the manufacturer and get specific approval for the mod. If the manufacturer does not approve the mod you request, you have two options: do not modify the aircraft, or have a new C of A issued in the experimental category - commonly called ELSA.

The same applies if you build a kit, for which the manufacturer does not issue a certificate of compliance on completion.

Luckily many LSA kits also have an Ultralight version, which means you can move into the amateur built non-LSA categories (registrations which begin with old 28 or 19) which do not need a C of A. If you think this may apply to an aircraft you are building, contact me beforehand- it only applies to LSA kits which

have a second approval for non LSA types. 24 and 32 - Factory built types (non LSA). Most of these aircraft have a type certificate [or equivalent] issued by Australia or overseas. Again, these are considered to be of a high design standard, so modifications need to be controlled, monitored and approved before the modification is incorporated in the aircraft. As such, all modifications must be approved by a CASA CAR 35 Authorised person (and no one else). Again there is nothing new here. This requirement was included in the original CAO 95.55 and CAO 95.32.

The same applies to GA aircraft transferred as factory built types to RA-Aus. In all of these cases, the person (or organisation which has the type approval) is responsible to ensure the original design is still compliant and should issue Service Bulletins etc, to make appropriate upgrades as problems occur over time.

In the past, I used the option of allowing aircraft in this category to move over into an experimental category, but without a C of A this cannot be done. But there is another option. If the owner of a 24 or 32 category aircraft modifies the aircraft and the mod means that 51% of the aircraft is changed, the aircraft can be moved into the amateur built category. A good example of how this works is an aircraft registered with RA-Aus which looks like a Cessna 150 (in fact that is precisely what it was) but it was re-built and re-designed lighter from three dilapidated aircraft. It was done to use the three aircraft as material suppliers for the new design. This is totally acceptable as long as the finished product meets RA-Aus requirements for an amateur built aircraft. This is also the case with a number of other aircraft which have been damaged or deteriorated over time and are rebuilt to become amateur built types.

### Defect Reporting

Thankfully, most members send in defect reports - some are extremely well prepared, others are very basic. But there are still many defects not reported. Defect reports are the

main way I determine what is happening to aircraft in the organisation. So if they are not sent, I have no way to tell what is happening.

Recently, I had a defect report which looked as though it was an isolated incident. After a search of over 200 similar reports (by hand) in the records of all similar aircraft, I concluded my initial assumption had been correct. I reported the problem to the manufacturer, which I do every time, as well as to CASA. So the investigation came to an end. Imagine my surprise, when I was mentioning this defect to a group of owners and L2s and I was told this was a common occurrence.



Even the manufacturer didn't know. Simply ordering and installing a new part will not, in most instances, trigger an investigation. Many manufacturers have a parts sales department which is separate from the manufacturing activities.

It means many problems are simply not brought to anyone's attention.

If you discover a part not performing as it should, please do not simply get a new one and fit it without putting a report into the system.

RA-Aus takes all defect reports very seriously. When you discover a defect in an aircraft or component, start a preliminary investigation yourself (or if you feel you do not have the skills to do it, contact a L2, or L3, or L4 to

do it, write a report and then send it to me with the defect notification).

There are times when a defect report arrives without even the basic information included, such as aircraft type and registration number, which only complicates the matter further and makes any investigation almost impossible.

The same applies to incident reports.

A report was submitted recently by a person who did not own the aircraft. It did not include an aircraft type, registration number or engine details. In the part set aside for a description of the defect, it simply said the engine was running rough - without any further comment. I

have also had reports where basic details were missing, then received a nasty email demanding to know why I hadn't done anything. What am I meant to do?

### All round good guy

One other thing which has happened twice in the recent past - a member heard a rumour there were a number of failures involving a particular manufacturer. This member wrote what I can only call a tirade, based on the rumour and misinformation, and did not even give me a chance to explain.

In this particular instance, my hands were tied, because of how the aircraft and engine were approved (by the regulator, not RA-Aus). They were of a type where legal steps were required to even make a comment.

If the person had contacted me, I would have informed them something had been done to prevent further problems, (which seem to be working), by the regulator.

In many instances RA-Aus is powerless to do anything. But if defects are not reported, problems can continue to happen. I have never taken official action against a reporter of a defect, who has been honest enough to tell me what has happened - this will continue. There have been times when I have had to ground an aircraft for safety reasons. But better this happen than an accident.

Happy and safe flying and fixing 🛩️



# Flight instructor's forum

facilitated by the aviation guru - Professor Avius



## Touch and go... bang!



### How to avoid the hidden dangers of touch and go landings

All instructors know they have an obligation to teach techniques which minimise the potential for a pilot to lose control.

But the touch and go landing, common when practicing circuits, has so many inherent dangers, that teaching it should be limited to only the most advanced post-solo student.

#### The regulatory position

There are no regulations which insist either the touch and go or full stop landing should be taught.

The original CASA publication 45 'The Flight Instructor Manual' offered some guidance, but stressed full stop landings were more effective training. It also cautioned on the loss of control which can occur more readily during the touch and go.

Current CASA publications squibbed out and offer no guidance at all. Our Operations Manual Pilot Certificate syllabus is also silent on the matter, although the general gist supports the full stop landing. For example: Unit 5.1 suggests that after landing checks should be performed but does not mention touch and go.

It's a pity no guidance is offered because a culture has developed in which the touch and go is seen to be the norm. It is my contention this is a disservice to the student and probably not in accordance with the intentions of the syllabus.

#### Why are touch and go landings taught?

Most instructors will say touch and goes allow more circuits to be practiced in a given hour. And that they don't require taxiing back to the start point for each circuit, saving the student time and money. Further, where a runway has no taxiway, backtracking along an active runway could inconvenience other pilots.

Another argument for the touch and go is that it gives the student more opportunities to learn

control of the complex transition from landing to take-off.

These points are valid, but they don't outweigh the negatives of the manoeuvre, compared with the full stop landing.

#### Negatives of the touch and go

- Many accidents occur during the roll-out after touchdown or during the transition to take off.

- During the roll-out, many complex things are happening. As the aircraft decelerates, different forces act on the pitch axis and the student has to be skilled to maintain the correct back pressure on the control column. This back pressure must then be reversed as power is applied for the take-off.

- The changes required are made worse as the flap position is changed.

- Directional control of the aircraft is also critical. The tendency to yaw during deceleration is reversed as power is applied and, because it is an increased force, can catch out the student.

- The presence of a crosswind will add to the complexity of the student's task during the transition.

- Another negative is the distraction of completing (or not!), the required cockpit checks when transitioning to the take-off. The flap, trim and carburettor heat controls all may need to be located and adjusted; distractions which could cause the student to lose control of the aircraft during the transition.

- Other distractions and control changes, such as radio chatter and the increased elevator/rudder forces as the aircraft climbs through ground effect, make the transition procedure complex and critical.

- There is a risk students could become swamped with the increased workload demanded by a series of touch and go landings. There are other considerations beyond the cockpit.

The engine cools during the landing and

heats rapidly as the aircraft takes off and climbs out.

In some aircraft, repeated cycles like this could cause engine damage, especially if the student mishandles the engine by increasing the power too rapidly.

- The aircraft may also not have enough runway to safely take-off after touchdown. This includes obstacle clearance after the take-off. A shorter available runway also reduces options should an engine failure occur after take-off.

#### Positives of the full stop landing

- During the roll-out, the student learns to maintain correct back pressure on the control column and learns to keep directional control as the aircraft decelerates.

- The student will also learn the correct procedure for tidying up the aircraft after landing; that the flap is only adjusted when the aircraft is at a safe taxi speed or has vacated the runway and that the brakes are applied only after the aircraft has naturally decelerated. In compliance with our Operational Manual syllabus Unit 6.5 the student learns to use maximum braking while maintaining control.

- During the taxi back to the take-off position, the instructor can calmly point out how to prepare the aircraft for another circuit. Faults on the previous circuit can be analysed, critiqued and corrective action discussed.

- Most of all, the student learns patience and the discipline to use proper procedure.

- From the instructor's point of view, consideration should be given to the duty of care owed to the student to ensure everything taught them is absolutely in the best interest of the student. In this litigious world, the instructor does not want to be sued if an accident occurs because of improper teaching procedure.

As usual, comments are invited from instructors.

Email contributions to [guruavius@gmail.com](mailto:guruavius@gmail.com) or [editor@sportpilot.net.au](mailto:editor@sportpilot.net.au)

## Horsham Aviation Services

Ph 03 5381 1727

ABN 69 097 399 451

### EuroFox:-

Superb Workmanship  
Rotax 912 Engine  
(80Hp or optional 100Hp)  
3 Blade Propeller  
Short Take-off & Landing  
Stall 36Kts, Cruise 110Kts  
Quick Folding Wings  
Modern Cowling & Landing Gear  
(tricycle or tail wheel configuration)  
Optional Glider Tow version (works very well)

### Dynon:-

All NEW Dynon SkyView 7" or 10"  
with Terrain Awareness,  
Synthetic Vision, Autopilot, GPS,  
Backup Battery, Engine Management and more...

Australian Agents for:-  
**EuroFox Aircraft**  
**Dynon Avionics**

[info@horshamaviation.com.au](mailto:info@horshamaviation.com.au)  
[www.horshamaviation.com.au](http://www.horshamaviation.com.au)



### CHEETAH SIERRA 100

- Superior strength - 30kts stall
- Safe handling - 22kts with flap
- Easy to fly - 100ltr main fuel tank + wing tanks can be fitted
- 30kts cruise
- 3 baggage compartments
- Can be de-rigged into a trailer in 5 mins.

Light on controls, this aircraft handles at low and high speed like one of the best you will ever fly. There is no reverse yaw, lots of feed back at low speed. Designed as a simple build kit, no jigs required. **Call 03 5381 1727**  
Complete kit with 80hp motor - **\$13,990** Complete kit with 125hp motor **\$18,990**. All kits are + GST and less paint. Many options available.

- Cheetah MK2 kit 2 seat - \$22,800
- Super Diamond kit single seat - \$14,900
- Cougar 4 seat complete kit - \$65,500
- De-rigs in 5-10 mins into a trailer
- 120kts cruise - simple build.
- All prices are + GST



### COUGAR 2+2

COUGAR 2 - 2 H.A.A 4 SEAT VIB  
Complete kit **\$44,900** + GST  
Many options available  
De-rig into trailer in 5-10 minutes



Also available: Props, canopies, parts, repairs, re-builds, fibreglass, timber and metal, GFA Form II inspections.

Contact: Garry Morgan, Morgan Aero Works, Taree Airport, NSW  
Ph (02) 6553 9920 Mob 0418 253 466 Email [gkmorgan@ihug.com.au](mailto:gkmorgan@ihug.com.au)  
Web [www.morganaeroworks.com.au](http://www.morganaeroworks.com.au)

Proudly Australian  
Designed and made





# Learn to Fly

**RAAus FLIGHT TRAINING & PILOT SUPPLIES**

- \* **Jabiru**
- \* **Gazelle**
- \* **Piper Cub**  
RAAus Registered  
Genuine Warbird
- \* **Nanchang Adventure Flights from \$165**

Also: Trial Instructional Flights  
Biennial Flight Reviews  
Private Hire all aircraft  
Gift Vouchers  
Human Factors  
one day course

## Caboolture Recreational Aviation

Located at: Caboolture Airfield, Hangar 104, QLD  
Ph: (07) 5499 1699  
email: caboolture-warbirds@bigpond.com  
web: www.caboolture-recreationalaviation.com.au

Be proud of your flying and airmanship  
**COME FLY WITH US!**

In our comprehensive facility  
safe and thorough flight training  
by Peter McLean CFI

Flight Training in XT-912 or 582  
Endorsements Conversions Ground School  
BFR's Aircraft Sales  
7 days/week Accommodation packages available

Hangar 19  
Yarrawonga Aerodrome  
on the Murry River Victoria  
03 5744 1466

www.yarrawongaflighttraining.com.au

**Aeroprakt A22LS Foxbat**

Perfect for training, touring and station work - Take off and land in 75 metres - Legally carry up to 290kgs

**Foxbat Australia**

For a USB information pack, demonstration and your nearest dealer - please see our website  
www.foxbat.com.au

Search for Aeroprakt A22

### Jabiru J230C

Engine: Jabiru 3300, 815 hrs ttis.  
At approximately 1200' after take off for a local flight the engine began to run very roughly with an associated loss of power. The pilot set the aircraft up for a forced landing back at the departure airfield and was able to get a further few seconds of power from the engine before it stopped again. The landing was uneventful and a subsequent inspection of the engine revealed the induction manifold bolts had worked loose, allowing air leakage into the manifold.

### Evektor Sportstar Plus

Airframe: 870 hrs ttis.  
During a tight turn, shortly after passing through some severe turbulence, the aircraft canopy came open. The pilot was able to maintain control but the aircraft required full power to maintain 65kt. A landing was carried out at the departure airfield but no reason could be found for the fault as the canopy lock had been checked and confirmed OK during the pre takeoff checks.

### Jabiru SP6

Engine: Jabiru 3300, 520 hrs ttis.  
As the pilot was descending in preparation to join the circuit at his destination (about 5 nm away) the engine misfired and a shudder was felt through the airframe. The pilot elected to land on a road, as it was straight and clear of traffic. As the aircraft approached to land it struck an unseen power line crossing the road and came to rest with major damage to the airframe. The pilot suffered severe injuries and was transported to hospital by the RFDS.

### Seamax M22 Amphibian

Airframe: 77 hrs ttis.  
Prior to landing the pilot had confirmed the landing gear was down, both by observing three green indicator lights and also by visually checking the landing gear. As the aircraft touched down the left gear leg collapsed and the aircraft skidded to a stop with abrasion damage to the hull. The pilot was not injured. An inspection revealed the gear leg was not travelling fully over centre when it was lowered due to a previous faulty adjustment of the limit switch mechanism.

### Foxbat A22LS

Pilot experience: 190 hrs, 11 on type.  
As the aircraft accelerated on take off the pilot realised he could not move the control wheel back. The aircraft became airborne and the pilot closed the throttle but the aircraft struck the ground, bounced and then hit the ground again. The nose wheel collapsed and the aircraft came to rest with damage to its cowling and one wingtip. The pilot, who was not injured, realised he had not removed the control lock before attempting the take off.

### Aeroworks Cheetah

Conditions: Light winds, nil turbulence.  
Pilot experience: 250 hrs, nil on type.  
As the pilot lifted the aircraft off, he over rotated and then lowered the nose, causing the aircraft to touch down on one wheel and a wingtip. As it became airborne again the rudder contacted the runway. The instructor took control and landed the aircraft without further incident. The aircraft received minor damage.

### Tecnam P92

Pilot experience: 1061 hrs, 32 on type.  
The pilot was landing the aircraft in a paddock he had used several times previously. He was unaware two star pickets had been put in the paddock to mark out the location of a new irrigation installation. The aircraft struck both of them, damaging one wing and the stabilator. The pilot was uninjured.

### X-Air

Engine: Rotax 618, 304 hrs ttis.  
Shortly after takeoff, and at an altitude of approximately 1700', the engine went to idle without warning. The pilot attempted a forced landing in a waterlogged paddock. After touchdown, the aircraft rolled a short distance, bogged and overturned. The nose wheel detached and the fuselage was also damaged. The cause of the engine power loss turned out to be a throttle cable bracket which had been formed with a 90° bend and no bend radius, which caused the bracket to fracture.

### Evektor Sportstar

Airframe: 130 hrs ttis.  
The aircraft canopy blew open while on a local flight. The pilot was unable to close it so he carried out an uneventful emergency landing on a nearby strip while a passenger held the canopy partially closed. Inspection of the latch mechanism revealed the spring steel safety latch preventing movement of the main latch had sheared off and was subsequently found on the luggage compartment floor.

## DEFECTS

### Tecnam Super Echo

Engine: Rotax 912, 1460 hrs ttis.  
A frayed throttle cable on one carburettor caused a partial loss of power in flight. The cable had jammed in the outer sheath, preventing the carburettor from opening fully. Both cables had been in service for approximately 580 hours.

### Aeroprakt Foxbat A22LS

Airframe: 421 hrs ttis.  
While investigating the cause of spongy brake operation it was discovered both copper lines had cracked where they attach to the brake callipers. The cracking appears to be due to work hardening resulting from slight movement of the callipers in relation to the rigidly mounted brake lines during braking.







# PLAN B emergencies

by Arthur  
Marcel

**P**LAN A is, of course, to reach your destination. In most cases, thank goodness, this plan works well. Sometimes, however, the motor stops. Plan B then becomes a forced landing. There are other, rarer, emergencies, though, which may require the use of a parachute. Most of us do not fly with chutes, but some do. There are two categories of emergency parachutes, personal rigs and ballistic recovery systems (rocket deployed for the whole aircraft). In this article, we look at the personal rigs.

At a gliding seminar at Boonah in 2007, a three dimensional GPS trace of a glider collision was displayed. Gliders touch each other more often than we do, because they all want the same piece of rising airspace. The speed at which the broken glider fell out of the gaggle was amazing. Smashed planes fall to earth very quickly and it can be a challenge to get out in time. However, at the seminar it was said there had never been a gliding fatality in Australia following a successful exit. It was also reported that the ripcord needs to be pulled by about 500ft. Sports parachutists might say 200ft if it's your lucky day.

There are four emergency scenarios which might necessitate a bail-out. Firstly, there is airframe failure. This might be the result

of overstress or fatigue. It can also be the result of a mid-air collision with another plane or with a large bird. At Caboolture, a few years ago, the gliding tug hit a pelican-size bird. The pilot was lucky to get the plane down in one piece. If it had been the strut instead of the leading edge, he probably wouldn't have made it.

The second emergency scenario is control failure. Again, a quick exit might have to be made from a rapidly descending, out-of-control aircraft. The third scenario is engine failure over trees or rough terrain. This time, egress is not made in such a panic, but it's open to argument as to which kind of landing would be more survivable.

The fourth scenario is an engine fire. It should be noted some RA-Aus registered planes have fuel cocks which aren't readily accessible from the cockpit. All four of these scenarios are improbable events and, even then, an emergency chute is no guarantee of longevity. The challenge is to get out quickly and safely, and with pusher planes (e.g., Sapphires or Drifters) this means avoiding the salami slicer at the back.

One thing to remember is to always buckle on the parachute rig outside the plane and to never ever unbuckle it before stepping back out again. That way a good habit is formed about which buckle to release in the event of an emergency. In a panic, rehearsed motor memory is far stronger than its cerebral counterpart.

Canopies are either round or square. The square ones have a higher airspeed and are more manoeuvrable. Both come in different sizes and are matched to the pilot's weight. There are three main types of container – ones you sit on, ones on your back and long ones that do both. There is also a modified backpack called a wedge which is thicker at the bottom than the top to further recline the sitting position.

Definitely, the most important part of the whole exercise is having an effective and well rehearsed exit procedure. If a bailout was ever necessary, there would be precious little time to think about it. The aircraft canopy would have to be discarded and the pilot would have to be out and clear of the aircraft in the minimum time possible. To help get clear, emergency rigs have diapers. A diaper, as the name suggests, wraps around the skirt of the canopy and is designed to delay deployment until the lines are fully extended. This reduces the chance of the opening chute catching on the airframe.

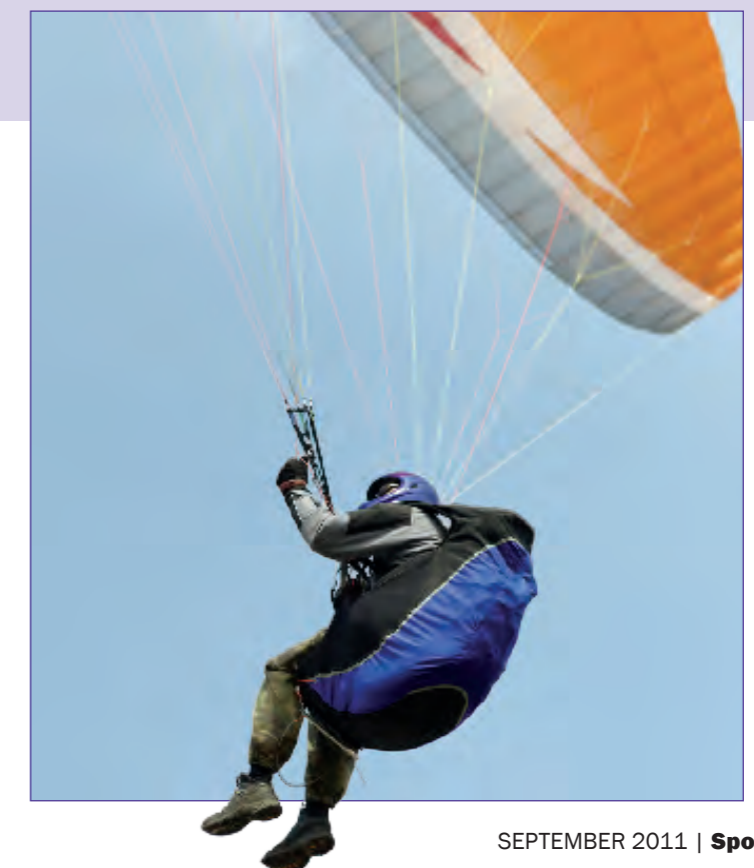
Parachutes come with rigging manuals. The instructions in these manuals are mandatory, even if they may sometimes seem counter-intuitive. For instance, Strong Enterprises, a major supplier of parachutes to the US military for fifty years or so, requires the lines of their rigs to be divided into two groups of different lengths, one to effect deployment and the other to unzip the diaper. I was once involved in an extended three way conversation with Strong in the US and a local rigger which eventually necessitated a repack of my rig in accordance with Strong's non-optional instructions.

BRS systems have three advantages over personal rigs. The first is psychological. Some people face a psychological barrier when it comes to jumping out of an aircraft, even in dire circumstances. The worrying thing is they do not know this until the moment the action is required. Secondly, BRS deployment time is

more rapid and can therefore be effected at lower altitude. Thirdly, the pilot and passengers are protected by the aircraft structure when making contact with the ground. On a windy day, this might be a significant advantage. However, there is one big disadvantage to BRS and this is when the aircraft becomes uninhabitable due to fire. The following report from the US sadly illustrates this point:

**▶▶** *If a bailout was ever necessary, there would be little time to think about it*

*Boulder, Colo. Two small planes collided over Boulder's outskirts killing all three people aboard, while a glider under tow by one aircraft cut loose and flew through the fireball to safety, officials and witnesses said. Three people were aboard the glider that managed to disconnect from a Piper Pawnee as a Cirrus SR20 clipped the tow line an instant before the two planes collided. Both aircraft plummeted toward the ground but the glider landed safely with no injuries to anyone on board. The Piper Pawnee with only a pilot aboard had just taken off from the Boulder airport with the glider in tow. The other plane, a single-engine, four-seat Cirrus SR20, was carrying two people. The Cirrus spiralled downward with a plume of black smoke billowing from it and a parachute deployed. The parachute was designed to deploy if a plane was disabled and was attached to the plane's wreckage, not the pilot or passenger (who were tragically forced to jump because of the fire).*



Learn to fly NEW J160 Jabirus  
in Melbourne's Yarra Valley



Lilydale has a fleet of 20 aircraft including:  
NEW J160 Jabirus Beech Bonanzas  
Piper Warriors Beech Travelairs  
Piper Archers Cessna 172SP

**LILYDALE AIRPORT**



Lilydale Flying School  
Ph: 03 9739 1211  
Fax: 03 9739 1019  
www.lilydaleairport.com.au





# How far have we travelled in 85 years?

by David Houston

**T**HE roots of the Light Aircraft movement in Australia can be traced back to the desire of the Air Ministry in Britain to popularise private flying after the end of the first World War. There were some abortive attempts. In the Light Aeroplane Competition at Lympne in Kent 1923, ALL the entries were found to be impractical because the rules limited the engines to 750cc. And so, with 1920s technology, their power was limited to about 25bhp.

A decision was made by the then Director of Civil Aviation in April 1925 to fund the purchase of two aircraft and a spare

engine, for each of five aero clubs around Britain. Whether it is in architecture or in engineering, all design involves making compromises and the designer who makes the best compromises produces the most successful result. The aircraft design chosen in 1926 was the De Havilland D H 60 Moth powered by the 60 horsepower A.D.C. Cirrus 1.

So how far have we come? And how does today's successful recreational aircraft compare with the original practical popular flying machine?

Including the prototypes and pre-pro-

duction models, only 51 copies of the original Moth aircraft were made in 1926-27 using the original 60bhp Cirrus 1 engine of 1925. This was quickly followed by the introduction of the Cirrus II engine (85bhp) in 1926, and nearly 400 examples of the D H 60X Moth variant were produced with the more powerful engines between 1926 and 1928 with licence examples being built in Australia.

The D H 60X Moth was a two seat training aircraft with an 85bhp engine and a MTOW of 703kg. A comparable current aircraft would be the Jabiru J170. The table below compares the essential numbers.

Aircraft	Units	D H 60X Moth	Jabiru J 170	Changes
Persons on board		Two in open cockpits	Two in an enclosed cabin	Improved environment
Seating		Tandem	Side by side	
Empty weight	kg	402	320	20% less
Max Take off Wt	kg	703	600	15% less
Power loading	kgs/HP	8.27	7.48	10% less
Fuel capacity	litres	85.5	135	58% higher
Wing Span	m	9.15	9.657	6% more
Wing Area	m <sup>2</sup>	21.28	9.56	55% less
Span loading	kg/ m	76.8	62.13	19% less
Wing loading	kg/ m <sup>2</sup>	33.04	62.8	90% more
Length		7.22	5.775	20% more
Height	m	2.67	2.3	14% less
Wheel track	m	1.397	1.9	36% more
Track/ wing span	per cent	15.3	19.7	29% more
Speed Vne	kts	85	140	65% more
Cruise speed	kts	73.8	100	36% more
Landing speed	kts	38	40	5% more
Speed range	ratio	2.24	3.50	56% more
Lift coefficient at Vne		0.248	0.174	30% less
Lift coefficient at Cruise		0.33	0.34	3% more
Max Lift coefficient		1.24	2.13	72% more
Rate of climb	ft/ min	625	500	20% less
Service ceiling	ft/ min	15 000	15 000	no change
Range	n m	356	850	139% more
Endurance	hours	5	9	80% more

## Similarities and differences

A comparison of the two specifications only tells part of the story. To appreciate where advances have been made, we need to look at each aspect of the technology and any limits which affect the compromises designers have to make.

The airframes are completely different as are the construction materials, but the Maximum Take-Off Weight (MTOW) and Empty weights are similar (-15% and -20% respectively for the Jabiru). The Jabiru's engine is significantly lighter (-51%) and the fuel capacity of the Jabiru is 58% greater than the Moth's, so although the combined engine and fuel weight of the Jabiru is only 15% (29 kg) less than the Moth's, the Jabiru has a much greater range (+139%), and endurance (+80%).

The landing speeds are similar (within 5%), but the cruising speed of the Jabiru is 136% of the Moth's and the speed range is 56% greater, reflecting advances in aerofoil design and the near universal use today of flaps, instead of having lots of wing area to reduce landing speed. In fact, the lift coefficient at landing speed for the Jabiru is nearly double that for the Moth (2.13 vs. 1.24). Span loading is directly related to the creation of Induced drag, (drag caused by the creation of lift), while a comparison of wing area is less meaningful because one aircraft is a biplane and the other is a monoplane.

Another parameter that relates to ease of ground handling is the wheel track as a ratio of the wing span where the track of the Jabiru is 36% greater than the Moth's.

The maximum rate of climb and the service ceilings of the two designs are very similar, because they depend mainly on power to weight ratio which is similar.



>> Jabiru J170





**Esquale VM-1**

"You've flown the rest now fly the best"

- All Carbon Fibre - 135 Kts Cruise - Rotax 912 ULS 100hp
- Electronic Constant Speed Propellor
- Kits Available

**Ultra Aviation** 17 - 18 Chris Drive Lilydale VIC 3140 Email: info@ultraaviation.com.au  
Tel: 03 9735 5165 Fax: 03 9735 5699 Web: www.ultraaviation.com.au

**Propulsion**

As mentioned, one of the big differences is in the propulsion system, which in part, is due to better alloys but also to the easy availability of high octane fuel today.

The fuel generally available in the early 20's was 68 octane motor spirit, so the compression ratio was limited to 4.9: 1 which limited the thermal efficiency of the engine.

Today we are able to choose between 100LL Avgas or premium Mogas (95 octane), so the Jabiru engine can have a compression ratio of 8:1 without fear of detonation. This meant that the swept volume of the Cirrus to produce 85bhp at 1800rpm had to be 4.9 litres, compared with 2.2 litres for the Jabiru at 3000rpm.

Both engines use direct drive to the propeller (no reduction gear), so the Jabiru has to use a smaller prop to suit the higher revs. The larger prop of the Moth is more efficient, but it is one of the compromises the Jabiru designers had to make. If a Jabiru owner is concerned, there is an option for fitting a variable pitch/constant speed prop, to allow the pilot to optimise the pitch of the prop for each part of the flight, another technology which was only dreamt of in the 1920s.

The Jabiru is fitted with pressure compensating carburettors, relieving the need for the pilot to manually adjust the fuel/air mixture. But like almost all reciprocating aero engines, it has not yet gone the extra mile and adopted electronic fuel injection technology now used almost universally by the motor industry.

The origins of the Cirrus engine are interesting. Because an initial order for 10 aircraft with 15 engines would hardly motivate an engine manufacturer to develop anything, the original cylinders and heads were taken from war surplus Renault V8 aero engines the A.D.C company had available. (A.D.C. stands for Aircraft Disposal Company). By the time the supply of War surplus Renault cylinders ran out, the market for Moth aircraft justified the creation of the De Havilland series of Gypsy engines to take their place.

**Accessories**

The only electrical wiring on a Moth was the ignition system. There was no battery and no generator, so there was no electric self starter; there are numerous stories of aircraft running away when someone tried to start them on their own without first chocking the wheels correctly, (they had no wheel brakes either). There was no amplified intercom; conversation and instruction

Engine		A.D.C.Cirrus 2	Jabiru 2200	% change
Type		Upright In line air cooled OHV	Horizontally opposed flat four air cooled OHV	
No. of cylinders	each	4	4	no change
Bore	mm	110	97.5	11% less
Stroke	mm	130	74	43% less
Swept Volume	litres	4.94	2.2	55% less
Compression ratio		4.9	8	63% greater
Minimum fuel quality	Octane	68	95	40% higher
Dry weight	kg	127	62.8	51% less
Maximum Power	BHP	85	80	6% more
Revs (max power)	rpm	1800	3300	83% higher
Power to weight	BHP/ kg	0.67	1.27	90% greater
Propellor diameter	m	2.058	1.524	26% less
Oil capacity	litres	9	2.3	74% less
Time between o'hauls	hours	300 - 450	1000	122% more



>> The J170 - how does it measure up?

between open cockpits was by the Gosport "speaking tube" which dated from about 1915.

Pilots of that era would be amazed to see the array of electrical and electronic systems we enjoy today. Before WW 2, electrical equipment was comparatively heavy and night flying was avoided by private pilots. The general introduction of blind flying instruments to military and commercial aircraft did not come until the mid 1930s. We have now passed through the era of suction driven gyroscopic instruments to an era where glass panel instruments are competitive for performance, size and weight with the full blind flying panel of 60 to 20 years ago, (if not for cost quite yet).

**Operational assistance**

This covers the whole area of airfields, navigation, maps, radios and Air Traffic Control. It is undoubtedly the area where there have been revolutionary changes, made necessary by the explosion in commercial aviation and especially in RPT operations. Even airliners in the 1930s operated from grass airfields (no need for cross-wind landings), runways only became common with the need for all-weather operations during WW 2 and two-way VHF radio and radar were also inventions for the military at that time. Special aviation maps and weather forecasts usually did not exist in the early days and adventurers like Amy Johnson (the first woman to fly a Moth from Britain to Australia) sometimes had to make their own by cutting up an atlas. We may sometimes feel restricted by designated airspace, but against that we have aviation maps and the assistance of GPS technology. We live in another world.

*This article compares the D H 60X Moth as described in Magnificent Enterprise by Janic Geelen (NZ Aviation Press); with today's Jabiru J170 with an 80bhp engine as described on the Jabiru web-site.*

Accessories	D H 60X Moth	Jaibru J 170
Wheel brakes	not fitted	standard
12 v Engine driven generator	not fitted	standard
Battery & electrical system	not fitted	standard
Engine self starter	not fitted	standard
Intercom	speaking tube	standard
Radio & transponder	not available	optional
Glass cockpit	unheard-of	optional

**HORSHAM AVIATION SERVICES**

ABN: 65 007 339 451  
 Now Importing THE EUROFOX AIRCRAFT:  
 • Quality Factory Built  
 • Quick folding wing design  
 • Glider Tow certified to 750Kg  
 • Short take-off & landing  
 And DYNON AVIONICS Products:  
 • Now with Autopilot capability  
 • Solid state sensors  
 • Checklists  
 • Audible alarm capability  
 PH: 03 5381 1727  
 Email: info@horshamaviation.com.au

**TEXAN Club Ozz.100**

**NEW TEXAN AVAILABLE NOW!**



**\$110,000 + gst.**  
 NIL HOURS new aircraft.  
 MICRO-AIR RADIO  
 7" SCREEN AV-4 GPS  
 ROTAX 912 ULS 100hp.  
 3-BLADE Adjustable Prop.  
 TINTED CANOPY  
 Tru-Trak ADI/AH. with GPS.  
 Cabin Heat, Carby Heat, Tail Strobe, Electric Trim & Flaps, Steerable nose wheel. H/duty UC.

The TEXAN is a SPORTS CAR with wings. Short take-off, rapid climb rate, fast cruise. Lots of FUN!! and cheap to run. Available NOW!! At a great price, see the fabulous TEXAN today.

**FLYSYNTHESIS Australia.**  
 Leaders in sports plane technology!

Phone: 0458 159988  
 Email: sales@flsynthesis.com.au  
 Web: www.flysynthesis.com.au

Immediate delivery Texan Club Ozz 100. with lots of extras.  
**DON'T miss this one or you will have to wait 5 months for the next delivery.**



### 1886 AVID FLYER, 19-3304



TT 550 hours, Subaru EA81 engine, 80 kts cruise, 2 seats, radio/intercom, 56 litres fuel, luggage space, \$29,500 ono. Ph Ian 03 5127 2476

### 2101 HANGAR SITES



Limited hangar sites available, starting from \$3500, situated at Kennedy Airfield Adaminaby, grass strip 817m. Only 10min walk to Town, 35min Cooma. Airfield owned by aero club giving you a secure affordable home for your plane for years to come. Contact Ray Killen 02 6456 3895 mobile 0428 409 107

### 2168 JABIRU-J MODEL



One of the best multi awarded custom built 19 Jabirus with only 270hrs TT on 120 HP 6 Cyl and airframe. This quality build would suit a fastidious buyer. Aircraft has rear cargo floor at door level for ease of loading. Asking \$82,000 ono Enq on 07 5497 2727 after 6pm. Pictures at drifter1174@matilda.net.au

### 2280 EVANS VP-1A VOLKSPLANE



VH-EVP for sale. Always hangared Melbourne. Superb condition. 53 hrs TT. VW1600. Cruise 60kts. Empty 236kg Max 348kg. Load 83kg with full fuel. Fuel 39L at 11Lph. VH-EVP experimental but can be RA-Aus registered. Very pleasant and fun to fly, no vices. Cheap flying \$10,000 ono. Ph 0401 388 651 or 0403 849 117

### 2287 JABIRU J120C 24-7279



New December 2009, private use only, option upgrades incl. VSI, Garmin 296, landing light, strobe, voltmeter, Davtron chrono, speckle rear interior and custom graphics. 170 hrs TT with full factory LAME servicing. This aircraft is as new and offered for sale to make way for upgrade and flies perfectly at 104 kts @14l/hr. \$52,500. Genuine enquiries welcome on 0408 586 848.

### 2298 AEROPUP TWO SEATER



Regn 19-5206, 230 hrs TT, Jabiru 4 cyl 85HP. Lame owned, built and maintained. 90 kts economy cruise, 16 LPH, 96 Litres fuel in wings. Quick fold wing system for easy trailering. Large luggage compartment. Always hangared. Award winning build and finish. \$53,000. Location Caboolture Qld. For more details and photos, email Steve dux480@bigpond.com or phone 0421 603 175

### 2350 CHEETAH - XLS



Cheetah by Rainbow Aircraft. Factory built. PP Jabiru

2200. TT 42 hrs eng/airframe. Immaculate condition. Superb handling. Pleasure to fly. 110 litre tank. Spacious cockpit. Always covered. \$44,900 Call George 0417 017 384 e-mail gcartwright@bcgs.wa.edu.au

### 2358 QUAD-CITY CHALLENGER 1 CWS



Clipped Wing Special, Single seat, vg condition, 345hrs, Radio, GPS, elect. start Rotax 503 2-stroke, new tinted windscreen, 4 strobes, flaperons, lambswool seat. Rego to Sep 2011. You-Tube for wonderful flight examples. Unique aircraft, flies itself. The Oaks. \$9,990. John 0400 627 339 or email jdsquared@bigpond.com

### 2374 FLOATS

Puddlejumper 14ft Amphibious fibreglass floats. Retractable stainless steel undercarriage with brakes and water rudder. Instructions and mounting hardware to suit most kit aircraft to 450kg. Brand new, still in crates, selling at \$3,000 below purchase price. \$7500 Ph John 0427 757 922

### 2403 X-AIR



X-AIR, TT 165hrs, 75hrs with Rotax 618, Ultralam skins, Bolly prop & spinner. Spats, wide entry. Hangared at Clifton QLD. \$18,950. For history and more pic's e-mail shirleyroy@bigpond.com

### 2451 SONEX FOR SALE



Sonex for sale, 152 TTIS, Aerovee 80 hp engine. All

metal construction, cruises 110kts at 15 lph. Always hangared. \$49,000 contact Roger 0438 519 922

### 2464 ZODIAC 601XL-B

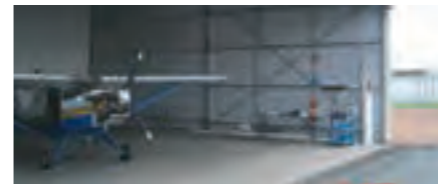


Jabiru 3300 TT AF and ENG 104 hours. Recently upgraded. Beautifully built aircraft with superb looks and handling. Full glass cockpit Dynon D100 D120 and Avmap IV. Microair transponder and VHF radio. Suit new buyer. Reluctant sale. Visit www.jodaplanes.com for all build and flying photos. \$75,000 ono. Contact Dave 0407 008 896 email davidg@fnoc.com.au

### 2472 QUICKSILVER GT500

Two place-dual controls. Airframe 330 hrs. Rotax 582 engine only 90hrs since rebuild. 2 X ASI, 2 X ALT, VSI, 2 X EGT, water, fuel, volts, taco, hour, radio, intercom, 2 X headsets GPS 55. 64lts wing tanks. Flaps. 1000 FPM climb, 70 knots cruise. New 18"X 8" balloon tyres (Tundra). New brake pads. Tail boom ground support foot. Video camera mount. Good Condition. Reduced to \$19,000 Melbourne Ph/Fax 03 9737 9155

### 2476 HANGARS



HANGARS For sale or lease. Scone Airport NSW (YSCO). Brand New, Fully-Enclosed and Secure. 12m x 12m individual hangars. Sliding Doors 3.6m high. Concrete Floor. Power, light and water. Tarmac Apron and Taxiway. Freehold Title. Ph: 0429 810 008

### 2482 SKYFOX CH22



Factory built 1994 comes with trailer & covers. Well maintained. Motor Rotax 912 total time 1351.5 hours, folding wings, new 2 blade Bolly prop, bush tyres, new maule tail wheel. Also has a spare warpdive prop and other spares. Selling due to ill health. \$34,000 ono For details phone 02 6844 1343 Binnaway NSW

### 2509 LIGHTNING AIRCRAFT (RA-AUS.19 REG)



Excellent condition, suit new buyer, always hangared, low Hrs, Extended Wing Tips, Electric Trim & Flaps, Park Brake, 43 Kts Stall, 136 Kts Cruise. AVIONICS, Dynon D180, Garmin SL 40 VHF, Garmin GTX 327 Transponder, Trio Auto Pilot, Lowrance 2000c moving map GPS, ASI, Certified Compass, Cabin Heat, Boarding Steps, ELT, Aux Power Plug, Nav & Strobe Lights, Landing Lights, Boarding Steps. Latest Model JABIRU 3300 Eng. \$125,000 inc GST. Ph 08 8767 2145, Mob, 0408 813 501

### 2515 SONEX AEROVEE



80HP Taildragger, TT 80 Hours, Microair Radio, Grand Rapids EIS, Garmin 196 GPS, Cruise 100kts, Polished Metal. Currently VH registered. Will register RA-Aus for new owner if required. Email sonex386@gmail.com or Ph Shane 0412 537 730 \$55,000 Neg

### 2521 SHARE IN DRIFTER OWNERSHIP



Third share in a Drifter at Cessnock airport. 582 blue head engine with less than 100 hours. This is a great opportunity for part ownership of a proven aircraft and economical flying. Third share is \$5,000. http://tinyurl.com/driftershare Contact Lindsay 0414 586 255 or Leighton 0407 564 174

### 2523 TECNAM P2004B



RA-Aus 24-4664 Immaculate condition. Always hangared, Lismore area. Rotax 100 HP. 200Hours. 120Kts cruise, 18 litres per hour. Strengthened main undercarriage. Airmaster 3 Blade electronic prop and large wheels fitted for short field perf. Separate foot and handbrakes. Dual pole controls with electric trim. Dynon EFIS D100, Garmin GPS Map 296, Garmin SL40 VHF w Intercom, Garmin GTX 320A Transponder w Mode C, Fuel Computer. Strobes, nav lights. Reason for sale - new aircraft arrived. \$130,000 including GST Ph 0412 834 225

### 2525 SKYFOX GAZELLE



Exc. cond. 1674 hours. Fresh gearbox o'haul. Fresh 100 hrly. Fantastic trainer. Foldable wings for easy trailering or storage. Full maint. history. VHF/UHF radios. Good fun, economical aircraft. Based in Moruya. Delivery options available. \$35,000 Ph. 02 4478 6288/0411 480 393

### 2555 JABIRU 230B



TT 275 Hrs, Jabiru 3.3L, 6 cyl eng, 120hp. Built 2005. Always hangared, presents very well, heaps of luggage space, well maintained. Electric flaps, cabin heat, Microair radio, Garmin 296 GPS, wingtip strobes. Located near Wagga NSW. \$65000 ono. Must sell., Ph 0488 342 035.

### 2565 SINGLE SEAT RANNS S14



Excellent condition, recon 582 ROTAX with 15 hours and logs, new alloy 40lt centre tank, plus two 38lt wing tanks. \$14,900 Always hangared. Includes radio and GPS. Ready to fly away. Ring George 0439 882 186 George Town Airfield Tasmania

### 2567 JABIRU J160C



Factory built in 2007, total time flown 120 hours, fitted with standard instruments, permanently hangared, not used for training. Contact Paul. Mobile 0428 661 902. PRICE: \$62,000 including GST

### 2568 KR2 - FAST & FUN



Jabiru 2200 engine, 110 Hrs TT, Sweetapple Propeller, Galaxy Ballistic Chute, XCom 720 Radio with Intercom, 110lt Fuel Capacity, L2 maintained, Always hangared, 110Kt Cruise, 15lt/hr, \$31,000, 07 4095 3956, 0419 654 048, more at http://athertonairport.com.au/atherton/forsale/kr2

## About Members' Market Ads

MEMBERS can e-mail, fax or post market ads to the RA-Aus head office. Stampils Publishing does not handle market ads. Payment by cheque, money order or credit card must accompany ads which must be paid prior to publication. Deadline is the first of the month, one month before the cover date. RA-Aus accepts all major cards (except American Express and Diners Club). Text - \$15 (50 words maximum - text will be edited when it exceeds

maximum limit). Photos - \$15 (include stamped addressed envelope for return). Neither RA-Aus nor Stampils Publishing accepts responsibility for any errors or omissions. The Members Market is subsidised by members and is for non-commercial sales only. RA-Aus and Stampils Publishing reserve the right to withdraw from publication, without refund, any ad deemed unsuitable, including low quality or faulty images.



**2571 JABIRU SK**



TT 209hrs, 2200 engine overhauled by Jabiru at 140 hrs. New Prop, Good Panel, includes VSI, DG & EGT, Icom radio, Garmin GPS III Pilot, 2 headsets, Strobe, Custom stripes, Wheel spats. Always kept in hangar. Located Bunbury WA. \$45,000 ono. Hangar also for sale \$15,000. Ph Greg 08 9586 3964 or 0408 746 391

**2574 SAVANNAH FOR SALE**



Rotax 912 ULS. 3 years old . 285 hours airframe and engine. Regular maintenance by qualified LAME. Warp Drive propeller. Fuel flow meter. XCOM radio/intercom. COMMANT antenna. Original slat-wing for true STOL performance - 26 knot stall. MOGAS used for last 240 hours exclusively. Always hangar stored. Good condition. Reluctant sale. \$64,000 Ph 0417 141 542 Kym

**2575 LIGHTNING**



TT 55hrs. Jabiru 3300 120hp. Sensenich prop. Dynon EFIS+EMS. GPS AvMap. A/P Trio. Garmin GTX327. Com SL40. Cruise 135Kts, 22Lts. Leather Upholstry and Trim. Always hangared. \$129,000 no GST. Ph. 02 6559 2599. 0408 312 601

**2579 JABIRU J230C**



Factory built. Natfly 2008 winner. 24-4937 Excellent condition. Always hangared. TT404hrs. Microair radio, transponder, Fuelscan 450 (couples to GPS) Low fuel light, New battery, Dual strobes, Heater, 10 ply tyres. Serviced every 20hrs, Many extras. Best value for money touring aircraft on market. Ph 0418 930 100 \$83,000

**2580 TECNAM BRAVO LSA**



Immaculate condition only 165 hrs TT. 100hp Rotax 912. Dynon EFIS D100. Garmin Mode C transponder. Garmin radio. AvMap large screen colour GPS. Dual fuel flow meters with electric fuel gauges. Electronic trim. Fully maintained by LAME. Always hangared. \$118,000 + GST. Phone 0411 471 273 for more details.

**2581 XT912 - AIRBORNE TRIKE**



New SST wing with only 42hrs, base 446hrs, excellent condition, no incidents, always hangared & covered - c/w high windshield, heavy duty covers, cargo bag, overnight cover, landing light, strobe, radio & intercom, bar mitts, pylon bag, engine cover. Ideal set up for touring. Great buy at \$50,000 ono. Make an offer. Phone 0419 518 353.

Registered trailer with storage boxes and wing carrier also available.

**2582 ZENITH 601 XLB**



320hrs TT, Jabiru 3300, Hydraulic lifter with hollow push rod upgrade, all AD's current. Petroni 3 blade prop, Cummins Spinner. Standard instruments and engine gauges. XCOM radio, Micro Air Transponder, Air Gizmo dock for Garmin x96. Electric flaps, Ray Allen aileron/elevator trim controls on the stick. Matco wheels and brakes. Excellent condition, superb to fly. Hangared Cessnock NSW. \$67,400 ono. Full build log available. Contact Work: 02 9925 5032, Mob: 0402 829 966, email: eddie.seve@clarity.com

**2584 SKYFOX GAZELLE FUSELAGE**

Complete Fuselage for sale. Straight, nil accidents. Includes stainless steel firewall, windscreens and doors. Currently stored near Kingaroy Qld. Photos available on request. \$5,000 ono. Ph John 0427 757 922 or email johnmcbryde@gmail.com

**2588 ROBERTSON STOL B1-RD**

The ultimate STOL fun machine, this 95-10 built by Robertson Aircraft Corporation using standard aircraft components. Massive 162sqft wing gives stall speed of 15mph and cruise speed 38mph. Website www.ultralightnews.com/antulbg/b1rd\_ultralight.htm. Original Cuyuna 30Hp plus spare Rotax 503. \$5,000 John 0427 757 922

**2610 BANTAM B22S - VERY STOL !!**



24-3340 Good condition. 582E with 350 Hrs TT. Two helmets with intercom. VHF & UHF. Hangared Central Queensland. NEW wing & elevator skins. \$22,000. Can deliver. Phone Max 0413 245 803.

**2611 10-069 SAPPHIRE 447CDI**



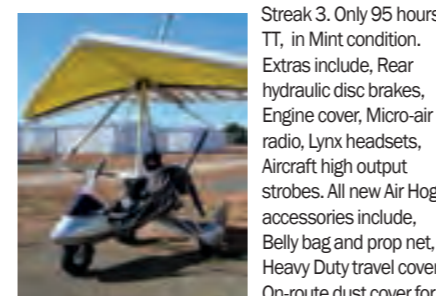
Wing tanks plus 14L fuselage tank with Gauge. ICOM A200 radio, Instruments and near new Sweetapple prop. Low Hrs on Engine and Airframe. Great performing single seat Ultralight, cruise at 75Kts with over 4.5 Hrs endurance. Hangared at Maitland. \$13,500 ono. Ph Col 0412 522 916 or email col.burrows71@gmail.com

**2612 SPACEWALKER II**



Open cockpit flying at its best, fastidiously built 1930s style, great attention to detail, low hours, always hangared, excellent condition. Subaru EA81 engine, Warp Drive ground-adjustable carbon fibre prop, Icom radio and intercom, located Aldinga SA. Reg 19-7243. Fly now at well under build cost. \$38,500 ono. Phone Gordon 0405 474 243

**2613 XT 912 TUNDRA**



Streak 3. Only 95 hours TT, in Mint condition. Extras include, Rear hydraulic disc brakes, Engine cover, Micro-air radio, Lynx headsets, Aircraft high output strobes. All new Air Hogg accessories include, Belly bag and prop net, Heavy Duty travel covers, On-route dust cover for pod and engine, and full wing cover. About \$ 75,000 worth new. Price is \$55,000. Discounted lessons available if required. Contact Rob 0428 527 200

**2618 SUBARU EA81 ENGINE**

Complete with Amax conversion reduction drive, propellor, engine mount & radiator (ie firewall forward) with cowls if required. Hours ground/ test flight only. Upgrading to 150 hp as my draggy biplane needs more power. Can see test run in aircraft. Compression test provided \$4,000 Phone 0427 217 112 or email graeme.s@impulse.net.au

**2620 AEROCHUTE 32-1949**



Regn. Exp.17 Feb. 2012 Last LAME Inspection April 2011 By Aerochute Industries. Airframe & Engine 130Hrs. Landings 120. Engin Rotax 503, Propeller: Ivoprop TBA 58 Inch 11Degree 3 Blades. Custom Built Alum.

Trailer with Lock-Up Tool Box & Electric Remote Controlled Loading Winch & 2 Loading Ramps. Parabolic Suspension CSA alum. Wheels 4x4 33 Inch BFG A/T New Tyres. Icom IC-41S UHF Receiver 2 Lynx Micro Head-Sets Lynx Intercom Radio Interface 2 Safety Helmets, Flying Suits 2 Scott Flying Goggles, Air Rule & Operations Manual. Deep Cycle Battery to Operate Loading Winch. Total Price \$ 19,500 Ph 0414 912 424

**2628 XAIR HANUMAN**



Late 2009 Model, 912 Rotax 80 Hp, Warp Drive Prop, Engine 97hrs Airframe 81hrs, usual instruments. Microair Radio with separate Intercom & 2 headsets, Cruise around 75-80 knots and uses standard unleaded 13-15 lts per hour, 80 lt fuel tank. Ultralight easy clean covering, wings can be folded about 15mins. Large cabin with small baggage area behind seats. Overall cheap to run, easy to maintain, good first aircraft. \$36,500 Bundaberg Ph 0407 782 834

**2629 ZENITH STOL CH701**



Rotax 912 80 hp, 620 hrs A/F & eng. VFR instruments & all standard engine gauges plus dual EGT & fuel computer. VHF radio headsets & coms. Always hangared. Have finished next one. \$45,000 ono. Delivery by air can be arranged. linart@aussiebroad-band.com.au 08 9655 3090

**2631 FISHER KOALA**

202 Taildragger J3 Cub single seat (look on Utube) Flies like Cub. 1600 Jabiru motor purrs at 2400 rpm, very quiet cruising at 60kts. Stalls at 29 kts, extreme short-field takeoff. Pure pleasure to fly. Radio and headset. Aircraft in great condition. \$9,000 Steve 03 5233 4603

**2633 JABIRU LSA 55/3J**



55-0664, J2200 with 524 hours airframe, 128 hours eng, Lowrance GPS, headsets, good condition, Port Wakefield, \$35,000 Ph 0428 682 120

**2634 CHEETAH SIERRA 19-5473**



TTIS 68hrs. Jabiru 2.2 Hydraulic Lifters. Sensenich 60 X 46 Prop 10hrs. Matco brakes ASI, VSI, ALT, TBI, 2 X

EGT, 2 X CHT. Icom ICA 200 radio & Flitecom intercom. 2 X Avcomm Headsets. Lowrance C2000 GPS. Located Taree NSW. \$62,500 neg No GST. Ph 02 6552 2383 Mob 0429 954 479

**2636 JODEL 18/JABIRU 2.2**



Engine mount for sale, new unused, \$750. Other Jodel parts available. Phone Bob 07 3800 8474

**2638 DRUINE TURBULENT AT100**



19-4864, built under 101.28, brand new with permit, 0 hrs. Single seat wooden, VW 1835cc. Expect 90+kts cruise, stall 32kts. 14 lph, total 401. dual ign. (Bendix mag. + coil), 25A alt. Fifth plans - built by experienced builder. \$19,000. 02 4351 1437 or email moola@tgp.com.au for more pics etc.

**2641 JABIRU J120-C**



Reg. 24-7002 Factory Built December 2008. Cruise TAS, 105 Kts on 14 Lph. This aeroplane has always been hangared. Approx 250 Hours Engine/Airframe. Level 2 Maintained. Many extras. Genuine reason for selling. Asking Price \$57,000 ONO. Contact Steve 0457 179 960 Northam WA

**2642 TASMANIA. FISHER-KOALA BY PHIL BIRD**



A delightful, beautifully built single seat a/c. Electric start Rotax 447. Cruise 50kts. Stall 27kt. Excellent short field T/o and landing. Stunning visibility. Icom radio: 161 hours: Removable wings. Custom trailer available. Pics of construction at adenwickes@optusnet.com.au

**2643 THRUSTER T 500**



TT 1165 hrs. Rotax 582. 225 hrs since rebuild. VH & UHF Radio. Hangared at Helidon Qld. Flies great and well

**RECREATIONAL FLYING .com.au**  
The home of ALL Australian Pilots, Aircraft and Aviation Enthusiasts  
Phone 03 9444-802 How can we help

<b>GPS UNITS</b> 5" & 7" From \$149.95 <b>BARGAIN!</b>	<b>HEADSETS</b> FROM ONLY \$124.95 <b>Huge Range</b>	<b>Dyson Holland Manuals and more</b>	<b>Kannad PLBs Only \$395</b>	<b>We are also the Australian WICKS AIRCRAFT SUPPLIES AGENT</b>
Full range of GPS units Full range of Headsets Flight Bags Flight Planners Navigation Tools & Aids ERSA and Charts Aerials Intercoms	Scanners Radios (Hand Held) Radios (Panel Mount) Transponders Comm Accessories PCAS Anti Collision PLBs, ELT's, EPIRB's Aircraft Chocks	CO Detectors Remove Before Flight Pitot Tube Covers Fuel Testers/ Syphons Instruments Multi Tools Torches & Lights Mr Funnel's	Safety Wire Batteries Aircraft Decals Bolt Gauges Nuts, Bolts & Screws Easter Pins Washers Electrical Terminals	Wedge Cushion Clamps O-Rings and much more Clothing Books & Manuals DVDs Flight Sim Products Aviation Clocks = everything else you need

**And also come and join in the largest group of Australian recreational pilots helping each other on-line - and it's all FREE**

<ul style="list-style-type: none"> <li>Aircraft Information</li> <li>Aviation Articles</li> <li>Discussion Forums</li> <li>Kit Building Forums</li> </ul>	<ul style="list-style-type: none"> <li>Aircraft Type Usergroups</li> <li>Google Earth Airfields</li> <li>Free Flight Planner</li> <li>Free Classifieds</li> </ul>	<ul style="list-style-type: none"> <li>Clubs/Schools Listings</li> <li>Photo Gallery</li> <li>Video Library</li> <li>Weather Tools</li> </ul>	<ul style="list-style-type: none"> <li>Latest Aviation News</li> <li>Pilot Blogs</li> <li>Event Calendar</li> <li>and so much more...</li> </ul>
---	---	---	--



maintained. \$15,000 complete and engine and gearbox also available. For more info Ph 0427 622 176

## 2644 JABIRU LSA-55



1600 hrs TTIS. less than 200hrs on factory rebuilt solid lifter engine, with new through bolts, ignition coils & leads. Full GA panel with Bendix King transponder & Icom A200 VHF, Garmin 196 moving map GPS. Recent 2-pack repaint, interior immaculate. Always hangared, one of the neatest around. Flies beautifully, cruise 95-100kts at 13-14 litres/hour. Full L2/LAME history from new, Regularly serviced. Selling to make room for new project. Located near Launceston, Tas. \$39,000 Ph 0419 375 291.

## 2645 JABIRU J200A



Manufactured 2004, TT480, engine Jabiru 6 cyl. 120HP. Mechanical lifters Jab prop. Stalls 43kt, cruise 115-120 MTOW 600kg. Three strobes, 2 radios, 1 transponder, auto pilot, Intercom EFIS-D10 System IK2000. Flight & engine monitor, GPS MAP Garmin 296. Cabin heat, manual flaps serviced every 25hrs. Nil accidents. 138lt. Hangared L.T.V. \$75,000 Ph George 03 9707 3238

## 2646 KR2

Retractable taildragger built under R101.28 wider/longer fuselage Revmaster 2100D, naturally aspirated engine C of G permits 185kg in cockpit. Stall 40kts, cruise 120kts IAS 3200 RPM, fuel 70Lt @ 14LPH 5 hrs gross range. TT airframe/engine 80hrs. Located Geelong \$20,000 ono Ph 03 5241 1605, 0427 138 656 Evenings only to 8pm

## 2647 WANTED

Damaged aircraft for repair or parts, or unfinished projects, will consider anything. Ph 0419 476 677 or email planesmaker@gmail.com

## 2648 GAZELLE CA 25N



Very good condition new bungees, new tyres and more, full history, joy to fly. Always stored in hangar, reluctant sale. Corowa. \$34,000 Ph Gordon 0418 691 678

## 2649 NO HANGAR NEEDED. SKYFOX CA21



Quick fold wings, one person 5 min to fold or unfold, just load onto trailer and take home. TT 530hrs, Engine Areopower, 105hrs since complete rebuild, Will fit into area 2.4m x 6.3m great for limited space. Price \$25,000. Contact Lloyd on 0424 649 075 or lloydenglish1@dodo.com.au for details. Located Nth QLD.

## 2650 GENESIS SLIPSTREAM- 4142



Always Hangared, as new. 100 hp Rotax 912 uls, 120 hrs TT airframe & engine. Warp Drive ground adjustable prop. Stratomaster Digital panel, Garmin 296 GPS, Xcom VHF T2000 transponder. 2 sets of noise activated head sets. 2 axis electric trim, 70 lts fuel. Take off in 150 mts land the same. 2 seat side by side very comfortable & roomy. All log books, build & component manuals. Hervey Bay area. Ph Terry 0400 411 772 or TERENDY@bigpond.com \$34,500 ONO

## 2651 JABIRU LSA 55-3342



TT 445 hrs, 2 pack paint, Icom A200 radio, New heads 210hrs ago, solid lifter motor. Lowrance Airmap 300 GPS, delight to fly. \$37,000 Ph Graham 0411 261 481

## 2652 AIRBORNE 912 XT



Tundra, SST wing. Helmets, Intercom, Radio. Wing and Base covers. Ballistic Parachute. 14 hrs total time. \$65,000 without BRS. Ph Peter 0418 278 012 or 0418 681 898

## 2653 SAVAGE CUB 2010



Rotax 912 ULS. 78 hrs. Vortex Generators. VHF/UHF Radios and intercom. Rear Instruments and Controls. As new. Many factory extras. Substantial savings on new aircraft. Superb tail-wheel trainer, runways optional. Phone Peter 0418 681 898

## 2654 SB DRIFTER



25-0746 Factory built, 760 hours TT, tail plain

complete recover in fabric, new radio (M760), 2 x new helmets, new rear cockpit instrumentation, modifications have been made for ease of dual training. Phone 0418 859 049 or email hastingaviation55@bigpond.com, South Australia

## 2655 PELICAN PL STOL



Approved for 600kg. TT 490hrs. 100hp Rotax L2 built & maintained. 100kt cruise, including Icom A200 VHF. New GME UHF CB. Accusat 406 Mhz EPIRB. New battery & spark plugs. Extras include wheel fairings & nose wheel kit. \$70,000 ono. No tyre kickers please. Ph 07 4783 3398

## 2656 DRIFTER (AUSTFLIGHT)

Not being flown our Drifter needs a new home, wire braced, upright engine mount, Rotax 582, electric start, skins replaced, engine o/haul completed, super aircraft, great to fly, good looking blue with gold trim. Rego 25-0445. Make reasonable offer (03) 94396083 AH, mail@goflying.com.au

## 2657 ENGINE COMPONENTS

Deceased estate. Volkswagen new & used engine components for U/L aircraft. Ph 02 4945 2394 Belmont NSW or kntvw@ozemail.com.au

## 2658 PIETENPOL AIRCAMPER



Own a piece of aviation history. Will carry 2 x 95 kg people plus full fuel on Subaru EA81 (100 Hp). Selling as I am being relocated for work. Has 201 hours TT. \$25,500. Full details including 22 pictures, full history and short video & contact details, can be found at www.pietenpol.com.au

## 2659 TRIKE EDGE X

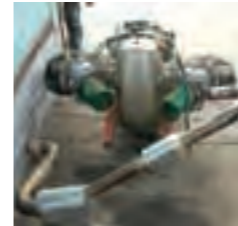


582 Bluehead Rotax 278 hours, 4 Blade Brolga Prop, Streak Wing, Headsets, Radio, Strobe, Net, Wing and Base Blue and White Good Condition. 07 5481 2025 or 0418 776 116

## 2660 THRUSTER 95.10

Built in 1997, always kept in hangar, flown approx 400 hrs Rotax 503 engine, health reason forces sale. At present aircraft is stored under house. All in good condition \$6,000 ono. Qld Ph 07 5496 2116. Mob 0417 626 314

## 2661 BMW RT100 MOTOR



1000cc 70hp set up for aviation with Rotax reduction drive & twin ignition, 2 spark plugs per cylinder, comes with exhaust manifold \$2,500 Phone Tony 0429 132 128

## 2662 HIRTH 2004



Model 3701 3 cylinder fuel injected 100 hp 2 stroke with reduction drive, prop, spinner, fuel pump, wiring & computer only 61 hrs since new \$6,000 or \$5,500 without prop Phone Tony on 0429 132 128

## 2663 AERO PUP



2 seater only flown 30 hrs. Fitted with Jabiru 6 cylinder engine. \$45,000, cost \$55,000 to build. Ph 0412 421 032

## 2664 FLIGHTSTAR IISC



Brand new, never flown Flightstar IISC, one of the last ones to come from the US. Has been assembled with excellent attention to detail. Plane includes a fully enclosed cabin, dual controls, custom carpet interior, Falcon instruments, in-flight trim, brakes and mylar coverings. Plane is not fitted with an engine but can be sold with a Rotax 582 with 212 hours, or can be fitted with an engine of buyer's choice. Please call for more details: 0412 506 242

## 2665 JABIRU J160C



Factory built 2007. Reg 24-4926 Aircraft and engine 230TT. Dual Microair radio and Microair transponder. Garmin Aera GPS. Beautiful condition, well looked after and always hangared. \$65,000. Ph 0438 634 411

## 2666 EUROPA XS 19-7850



Monowheel 180 hrs. TT. Jabiru 3300 engine. In very good condition, built to high standard, CAO 101-28 compliant, (recently changed from G.A. reg). Wings are quickly detachable & a reg. trailer is included. \$78,000 Ph. 0428 988 662 email derekrr@bigpond.com

## 2667 MAXAIR DRIFTER

503 DCDI Legal two seater, flown regularly, tidy condition. \$9,500 located in SE Queensland. Call or email for details trike@tpg.com.au 0407 020 549

## 2668 CHEETAH 19-7579



Total time 4 hrs. 2.2 Litre Jabiru Motor, Petroni Carbon Fibre ground adjustable prop, Cummins spinner, Sennheiser Head sets, Icom A200, Garmin GPS All brand new. \$58,000. Phone 03 5023 7535 after 6pm

## 2669 WANTED

Subaru EA81 reduction drive or gearbox, engine mount, tacho, cht gauge WANTED. Also any Rotax bits - WHY? Ph David 0488 271 936

## 2670 STORM 400/CENTURY PROJECT



Metal 2+2 seat. 70% complete. High quality of work. Almost ready to close. Most kit to finish, no engine or prop. Build logs, photographic history, books, clecos, rivets, large number of additional parts beyond standard kit. Many tools included, others + instruments available for right offer. Asking Price: \$42,000 ONO Ph Scott 0449 113 897 or Lyndon 0414 711 733

## 2671 JABIRU SP 500/6 19-3717



Well maintained and hangared. 449.5 hrs. 123kts @19hrs hr. Sweetapple cruise prop, custom extractors, 10 ply mains, 85ltr tank. STD gauges + electric turn coordinator, volt meter, fuel flow meter. XCom VHF & headsets, + UHF & 2xGPS. Grim voltage regulator, Anderson jump start plug. Will deliver anywhere. \$55,000. 08 9921 8790

## Members' Market enquiries

Ph: (02) 6280 4700  
E-mail: admin@raa.asn.au

## 2672 SONERAI IIL



VW 2100 twin bings 2 into one exhaust. 120kts 12lt/hr. 90 hrs old. \$35,000. Also Sonerai II Project Fuse complete & two pac painted wings, need mod. Motor 1835 rebuilt plus all fittings, dopes etc to finish, wheels, brakes, cowls, w spats etc. \$15,000 or \$45,000 the lot. Ph Rolly 03 5634 2733 Yarragon VIC

## 2673 IBIS GS700



Yoke control 250hrs TT. 912 Rotax 100hp. 7" Dynon EFIS Garmin GPS, electric flaps, trim & aileron trim. Toe brakes, leather seats. LAME maintained. Always stored in hangar. Suit new buyer. First reg'd 2010. Ph Peter 07 4121 2435

## 2674 SAVANNAH VG XL

(Wide body) KIT (option 2) Untouched and still in shipping crate, this fast build kit from Italy includes everything ready for Rotax 912uls motor (100HP). Only requires motor, prop and paint. Paid \$30,300 (included extra 300 clecos, manuals and build photos). Will consider all offers. Email jasonr65@bigpond.com for more information or call 0459 261 239

## 2675 LSA LIGHTNING AIRCRAFT 24-7660



Avionics, Grand Rapids Sport EFIS inc Auto Pilot, Garmin SL40 comm, Garmin GTX327 Transponder, 1000ll intercom, EIS 600J eng. Monitor, Kannad 406 ELT, ASI, Cabin heat, Custom upholstery Package, Landing Lights, Nav & Strobe Lights, Dual Brakes, Boarding Steps, AuxPower Plug. JABIRU 3300 Engine. All in EX.cond. \$130,000 inc GST Ph. 08 8767 2145 or 0408 813 501

## 2676 JABIRU-REBUILD PROJECT

Early model Jabiru damaged in EFOTF accident. Airframe needs fibreglass repairs & repaint. Engine needs repair (not major). 55 registration. Airframe TTIS 2710 hrs. Engine TTIS 358hrs. \$15,500 Located Bowral NSW. For further information & photos email jabforsale@hotmail.com or phone 0417 429 369



# PARADISE P1 THE "REAL PLANE" LSA



Leisure Sport Aircraft  
 www.lsaoz.com  
 Email: sales@lsaoz.com  
 Ph: 0412-834225



## Results of board election 2011

THE opening and counting of the ballot was carried out in accordance with By-Law 1. The Association's mailbox was cleared on Friday, August 12, 2011 to include ballot papers received by the 4.00pm deadline detailed on the ballot paper. The following are the results.

<b>ACT/NSW</b>	Dave Caban	87	
	David Gardiner	16	
	Graeme Hutchinson	45	
	Colin Jones	15	
	<b>Donald Ramsay</b>	<b>145</b>	<b>Elected</b>

<b>SA</b>	<b>Ed Herring</b>	<b>180</b>	<b>Elected</b>
	Bas Scheffers	27	
	Ian Shaughnessy	76	

<b>STH QLD</b>	<b>Myles Breitreutz</b>	<b>108</b>	<b>Elected</b>
	Kelvin Hutchinson	78	
	<b>John McKeown</b>	<b>97</b>	<b>Elected</b>

<b>VIC</b>	<b>William (Bill) Cain</b>	<b>141</b>	<b>Elected</b>
	Brent Christensen	110	
	Lorraine MacGillivray	63	

<b>WA</b>	Edwin (Ed) Smith	77	
	<b>Gavin Thobaven</b>	<b>78</b>	<b>Elected</b>

Congratulations to the successful candidates.

There were 79 invalid votes (not counted) as no membership number was printed on the return envelope.

Julie Roll  
 Returning Officer

### Learn To Fly

In the stunning Northern Rivers Area of Northern NSW at SALTWATER (ALA) Close to Ballina & Byron Bay. Experienced CFI using Paradise P1 or Foxbat Aircraft.



### Flight North

#### & Ballina Ultralight Flying Club

**John Gardon**  
 Chief Flying Instructor  
 Pilot Examiner  
 jagardon@tpg.com.au

SaltwaterCreek Road  
 PO Box 154  
 WARDELL NSW 2477  
 02 66834225 0412834225



## Leisure Sport Aircraft

RESELLERS AND INSTALLERS OF

# Airmaster



### CONSTANT SPEED PROPELLERS

## Leisure Sport Aircraft

FOR ALL YOUR RA-AUS AVIATION MAINTENANCE NEEDS

- ROTAX SERVICING
- AVIONICS SUPPLY
- AVIONICS INSTALLATION
- PERIODIC AND HEAVY MAINTENANCE

**FLY-IN AND HOLIDAY AT BYRON BAY WHILE YOUR AIRCRAFT GETS SOME TLC**

Email: john@lsaoz.com  
 Ph: 0412-834225



## GOSTNER AVIATION

- New Airline Glass Recreational & General Aviation Jabiru's
- Airline Pilot Training
- Recreational, Private, Commercial Instrument, Twin & Instructor Ratings
- Full/Part time courses & live in avail
- Employment Opportunities



For more info contact David Maddock  
(Camden Airport) on 0414 788 105

[www.gostneraviation.com.au](http://www.gostneraviation.com.au)

## OASIS FLIGHT TRAINING



**Visit us at Moorabbin**  
Recreational and GA Training

Theory Courses for Recreational Pilots and GA Pilots

The theory courses cover all the theory from BAK to IREX and ATPL.

We cater for all your needs ranging from the Recreational Pilot Licence to the Professional Pilot Licence. We also cover aerobatic training and endorsements. Our range of aircraft includes Jabiru, PA28, PA28R, and multi engine aircraft for advanced training. We also offer a certificate IV in aviation.

**OASIS FLIGHT TRAINING**  
32 Second St, Moorabbin Airport  
Ph 03 9587 3311 Fax 03 9587 3399 Mob 0407 840 641  
Email: [oasisf@bigpond.com](mailto:oasisf@bigpond.com) Website: [www.oasisflighttraining.com.au](http://www.oasisflighttraining.com.au)

## TruTrak Flight Systems

**Autopilots for All Recreational Aircraft**  
Jabiru, Sport Star, Tecnam, Texan, Sorix, Esquel, Lightwing, Glasair, Lancair, RV, Longezzy...  
You build it, we fly it.

**EFIS**, Picture quality second to none; sunlight readable and viewing angle beyond all others; user friendly; flight director standard; Auto arrival transition standard. Add-ons include the full range of TruTrak autopilots.



**ADI Pilot II** Attitude Direction Indicator as a standalone instrument in 3 1/8" or 2 1/2" or combined with either a single or dual axis autopilot.



**Digiflight II** The most popular two axis autopilot with many options – vertical speed, GPS steering, yaw dampener, auto Trim.



Australasian Distributor & Service Centre **0419 554 656** [Info@flymore.com.au](mailto:Info@flymore.com.au)

# Out of the closet

New products this month



### The Angel

SKYSHOP introduces the Angel- a small, lightweight audio headset interface with a heavyweight punch. With built in stereo Bluetooth connectivity and a multitude of input and output jacks, as well as an integrated flight computer.

Angel uses Bluetooth, to connect to your mobile phone for sending and receiving calls. You can also stream stereo music from Bluetooth enabled MP3 players, mobile phones, PDAs or satellite radios. The Angel allows you to download and navigate your contacts and call lists from your phone and to control your Bluetooth MP3 player directly.

There are both phone and stereo audio jacks for wired connections, in addition to an audio

output jack to record radio communications or to provide narration while videotaping.

The auto-dimming feature means the screen and keypad are easy to read on the brightest days and will dim for the darkest cockpit, making it easy to navigate Angel's intuitive menus. Even the technologically challenged will find navigating between the phone, the mp3 player, and the flight functions easy.

The lithium ion batteries keep the Angel going longer than you can stay in the seat and provides headset power so you can still use all of the features out of the aircraft.

Price \$495  
Web [www.skyshop.com.au](http://www.skyshop.com.au)  
Phone 1300 301 161

### S1 Digital headset

SENNHEISER has combined intelligent noise cancellation technology with maximum comfort in an innovative aviation headset. The fully adaptive digital noise cancelling technology accurately analyses the surrounding situation at the push of a button to achieve uniquely superior results. The headset features high wearing comfort, with adjustable contact pressure for the ear cups and a special comfort zone for glasses, as well as a Bluetooth interface and clear voice transmission with a user customisable treble boost function. The headset is rounded off by a stylish design by BMW Group DesignworksUSA.

By pressing the Smart Update button integrated into the ear cup, the circuitry measures the spectrum and intensity of surrounding noises and applies individual filters perfectly adapted to the situation.

The processor generates a filter algorithm which specifically reduces the dominant noise proportions.

The S1 Digital has a three-stage treble boost separately adjustable for each side which focuses on speech. In addition, pilots can adapt the sound pressure level individually to their own hearing ability. As in all Sennheiser headsets, the Peak Level Protection feature reliably protects the pilot's hearing against volume peaks above 110 dB.

Price Approx \$1200  
Web [www.sennheiser.com.au](http://www.sennheiser.com.au)



## CENTRAL WEST Flying

**Escape the coastal weather and heavy air traffic - fly from Bathurst, NSW**

- Flight Training, Flight Reviews, Advanced Endorsements, Conversions and Private Hire
- Block training and accommodation available
- Modern facilities with airport 'control tower' view
- Current model Jabiru 160s and J230s - all with Transponder, GPS and ELB. Three with EFIS



PHONE: 02 6337 3945 MAIL: PJ Moodie Memorial Drive, Bathurst Aerodrome 2795  
EMAIL: [info@centralwestflying.com](mailto:info@centralwestflying.com) WEB: [www.centralwestflying.com](http://www.centralwestflying.com)



We're **big** on the  
**little** things.



Good people  
to be with.



Contact details for you and your broker:

VIC/Tas Ph: (03) 8602 9900 SA/WA/NT Ph: (08) 8202 2200  
NSW Ph: (02) 9298 2377 QLD Ph: (07) 3031 3535

QBE Insurance (Australia) Limited  
ABN 18 003 181 032  
NFS Licence No 228542



### Cummins Spinners

Give that finishing touch  
to your Aircraft

Give Allan a call: 0417 121 111  
or check out the web site

[www.cumminsspinners.com](http://www.cumminsspinners.com)



## RIVERLAND FLIGHT TRAINING

Professional Instruction for  
Recreational Pilots



Train in quiet airspace in the latest  
model J170 for only \$160ph in the  
sunny Riverland of South Australia

\*Full and part time courses  
\*Most endorsements  
\*Limited accommodation  
\*Assistance with theory is free  
\*J230 available for hire on completion of  
Pilot Certificate

Phone Tim  
M 0427 839 500 P 08 8582 2799

Email  
[rtf@riverland.net.au](mailto:rtf@riverland.net.au)  
Web  
[www.riverlandflighttraining.com.au](http://www.riverlandflighttraining.com.au)

## MID MURRAY FLYING CLUB

Come fly with  
Mid Murray Flying Club  
Learn to fly a Tecnam P92ES in  
the safety of flat open country  
Recreational licence from age  
15 years and over



Training 7 days a week  
Trial instructional flight (TIF)  
Cross country endorsement  
BFRs  
GA to RAA conversion  
Budget accommodation Available  
Private hire of RAA / GA aircraft



Swan Hill Aerodrome Back Boga Rd  
PH (03)50322444 Email [ifly@info.com.au](mailto:ifly@info.com.au)

## AVIATION INSURANCE

experienced aviation insurance specialists

Australian Insurance Representative of Avionics Insurance (Broker Pty Ltd)  
4/11 Louise Avenue 2860/21

Stewart & Gadye Smith would like to assist with your  
RAA-Aus or GA aircraft insurance, or hangarkeepers  
public liability policy needs. The only insurance we  
handle is aviation, we do it well, and we are friendly  
to deal with. We can help you select appropriate  
cover for your needs and we will obtain competitive  
quotes for you from the various insurers with whom  
we are accredited. We welcome clients in all parts of  
Australia, and if you can't catch us during office hours  
on 1300 308 700, we are often available after hours  
on 03 9657 5963 or 0433 278 700.

## AIRCRAFT FINANCE

in affiliation with Link Finance Australia Pty Ltd.

If you seek aircraft finance we, via our affiliate Link  
Finance, would welcome the opportunity to seek  
to assist if:

- The application is for \$50,000 or more
  - The applicant is a business or the plane will be  
used for 50%+ business use (inc. on-site use)
- Good bank rates, normally held over 5 years.  
Security is normally over just the plane.  
Ring Stewart Smith to discuss your needs and to  
see if we/Link can assist.

AUSTRALIAN COMMERCIAL CREDIT PTY LTD  
Perth, Western Australia

Phone: 08 9442 2222  
Website: [www.accredit.com.au](http://www.accredit.com.au)  
Email: [enquiries@accredit.com.au](mailto:enquiries@accredit.com.au)  
A.F.N. 110/111/112/113/114/115

## Advertisers index

AAA Fasterway	28
Aerochute Industries	34
Aerosport Australia	3
Aerosport Aviation NZ	26
Airborne	42
Adelaide Biplanes	6
Alpine Aircraft	30
Asia Pacific Light Flying	35
Australian Aircraft Kits	18
Australian Lightwing	21
Australian Commercial Credit	69
Bendigo Flying Club	16
Bert Flood Imports	40
Brumby Aircraft	18
Byron Bay Microlights	38
Caboolture Recreational	50
CAI insurance (RGIB)	28
Central West Flying	67
C & H Freight	70
Cheetah	49
Coominya Flight Training	36
Cub Aircraft	17
Cummins Spinners	69
Delta Recreational	10, 38
Ecowatch	36
Evektor	38
Fly Synthesis	56
Foxbat Australia	50
Gostner Aviation	66
GT Propellers	44
Horsham Aero Club	30
Horsham Aviation	49, 57
Jabiru Aircraft	37, 44
Leisure Sport Aircraft	64
Lightning Australia	18
Lilydale Airport	52
Mendelssohn Pilot supplies	12, 72
Microair Avionics	13
Mid Murray Flying Club	69
OAMPS	49
Oasis Flight Training	66
Outback Aircraft	21
Pacific IBIS	14
Powermate	39
QBE Aviation IBC	68
Quicksilver	45
Recreational Flying	59
Recreational Flying Co. Gympie	28
Redcliffe Aero Club	27
Riverland Flight Training	69
Robert Herring	31
ROTEC	7, 32, 35
Royal Newcastle Aero Club	34
SeaRey	6
Sennheiser	71
Silent Wings Aviation	9, 22
Skyshop	2
Skysports Innovation	28
Skysports Training	35
Skywise Microlights	16
Sport Aviation Tocumwal	38
Temora Flight Training	38
Tiny Flyer	12
True Trak Flight Systems	66
Ultra Aviation	56
Wingmate	19
Yarrowonga Flight Training	50
Zenair	18



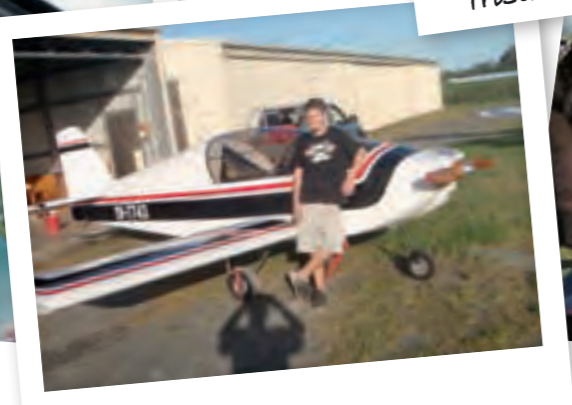
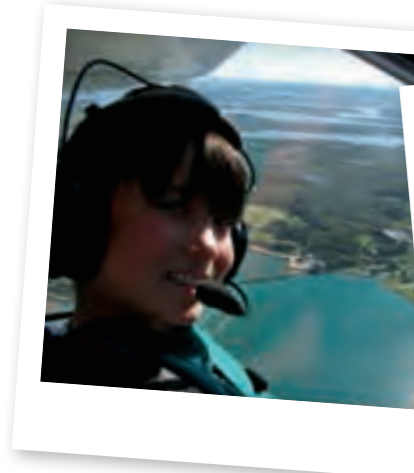
# Junior pilots reaching for the sky

SINCE its introduction a little over two years ago, Junior Membership has enabled dozens of aspiring young members to start fulfilling their dreams of becoming tomorrow's pilots. Prior to its introduction, members under the age of 15 were only able to receive a maximum of three hours flight instruction. Now they can un-

dertake more extensive ab-initio training along with developing the necessary aptitude in other areas of the syllabus - such as navigation. As has always been the case, these members are not allowed to fly solo until they turn 15 years of age but now they are able to begin developing skills and reaching for the sky at an earlier age.



Junior Pilots Katsuya, Orion, Jake, Tristan and Kell with the Super Petrel



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

**CH Freight** HOME BUILDERS – AIRCRAFT/AIRCRAFT PARTS  
Pain free importing at a reasonable cost

**OVER 15 YEARS EXPERIENCE IN THIS MARKET. WE ARE ABLE TO OFFER:**

1) door to door service, if required	4) competitive costing
2) part container as well as full container services	5) personal friendly service & honest advice
3) weekly departures for both consolidated cargo as well as full containers	

Like a quote? just email: [christine@chfreight.com.au](mailto:christine@chfreight.com.au) or [shelly@chfreight.com.au](mailto:shelly@chfreight.com.au)  
List the details of the supplier with the weights, dimensions & destination. This is all we require.

Give it a try, you won't be sorry C&H Freight is a 100% Australian owned company

Unit 3, 4-8 Mareno Road, Tullamarine VIC 3043 Tel +61 3 9330 0800 Fax +61 3 9330 0811



## THE QUIET REVOLUTION

### INTRODUCING THE S1 DIGITAL PILOT'S HEADSET FROM SENNHEISER

The Sennheiser S1 Digital aviation headset is designed to give you maximum control over noise levels in the cockpit, so you can focus on the joy of flying. At the push of a button, the S1's exclusive NoiseGard™/ digital technology accurately analyses the cockpit's noise levels to achieve superior noise cancellation during all phases of flight—from take-off to landing. Design features like adjustable headband contact pressure and a special "comfort zone" for glasses ensure you stay comfortable. Additionally with the Bluetooth interface, clear voice transmission and a customisable treble boost function, you'll never miss a word.



SCAN WITH YOUR QR CODE READER

Sennheiser aviation headsets. Put on before flight.™  
Learn more: [www.Sennheiser-Aviation.com/S1](http://www.Sennheiser-Aviation.com/S1) or scan the QR code with your smartphone.  
For more information contact: Syntec International - Free Call 1800 648 628

MADE IN GERMANY NoiseGard™/digital Designed in collaboration with BMW Group DesignWorksUSA





# MENDELSSOHN PILOT SUPPLIES



(03) 9537 3848

www.ozpilot.com.au

PO Box 1038, Windsor, Vic. 3181

## GARMIN GPS and AVIONICS



Large 7" screen with  
ES/DAP and Terrain  
GPRMAPS... \$2200  
GPRMAP 1.5W... \$2200  
GPRMAP 2... \$2200  
GPRMAP 3... \$2200



**AERA 600 ... \$750**  
Active Interoptions  
4" color touch screen  
Lithium-Ion - up to 10hrs  
Night flight - illuminated night  
Windows - 6270 4070 color  
Electronic Database  
Protected database of Australia  
Map updates free by Internet  
6.24 MHz bandwidth  
AMA 600 ... \$1100

**NEW GTR 600 and GTR 700**  
GPS/GNSS Receiver, COLI  
GPS/GNSS Receiver, COLI  
GTR 600 Transponder ... \$2000  
GTR 700 Transponder ... \$2000  
GTR 600 Base Unit ... \$1000  
GTR 700 Base Unit ... \$1000  
GTR 600 Base Unit ... \$1000  
GTR 700 Base Unit ... \$1000  
GTR 600 Base Unit ... \$1000  
GTR 700 Base Unit ... \$1000

**AIR GIZMO**  
Panel Pack for ATR ... \$200  
Panel Pack for CRJ ... \$200  
Panel Pack for CRJ ... \$200  
Panel Pack for CRJ ... \$200

**BLUETOOTH GPS**  
M W GPS Bluetooth receiver  
GTR 600 for iPad ... \$1100

## AWARE - AIRSPACE WARNING DEVICE & GPS



Aware is Australia's first airspace warning GPS compatible with digital charts from Airservices Australia (ASX) also available.  
The multi-sound warning Aware takes situational awareness to the next level with 28 warnings displayed over digital versions of the maps pilots must often fly with.

- Australian Airservices (ASX) Approved digital charts on standard
- Moving map GPS
- Unique airspace warning system
- Ready to use straight from box
- Pair alongside existing GPS



Aware ... \$200  
Aware ... \$200  
Aware ... \$200  
Aware ... \$200  
Aware ... \$200  
Aware ... \$200

## HEADSETS



**2013.2**  
Improved comfort  
Better noise attenuation  
Instantaneous connectivity  
Switching music input  
Zulu 2 AHD2 radio ... \$180  
Zulu 2 AHD2 radio ... \$180  
Zulu 2 AHD2 radio ... \$180  
Zulu 2 AHD2 radio ... \$180



**HISANCA Head** ... \$120  
HISANCA Head ... \$120  
HISANCA Head ... \$120  
HISANCA Head ... \$120



**Icon A20 Headset**  
For CRJ Integropinion ... \$200  
For CRJ Integropinion ... \$200  
For CRJ Integropinion ... \$200  
For CRJ Integropinion ... \$200

## DYNON AVIONICS



AFFORDABLE CLASS COCKPIT AVIONICS AND AUTOPILOT SYSTEMS FOR EXPERIMENTAL AND LIGHT SPORT AIRCRAFT



**Electronic Flight Information**  
EFLI-01 ... \$1200  
EFLI-02 ... \$1200  
EFLI-03 ... \$1200  
EFLI-04 ... \$1200



**Engine Management**  
EMM-010 ... \$1200  
EMM-020 ... \$1200  
EMM-030 ... \$1200  
EMM-040 ... \$1200



**Auto Pilot System**  
APS-100 ... \$1200  
APS-200 ... \$1200  
APS-300 ... \$1200  
APS-400 ... \$1200



**SkyView**  
SV-100 ... \$1200  
SV-200 ... \$1200  
SV-300 ... \$1200  
SV-400 ... \$1200

## MICRO AVIONICS



**MINI-100 Integral Helmet** ... \$100  
**MINI-100 Integral Helmet** ... \$100  
**MINI-100 Integral Helmet** ... \$100  
**MINI-100 Integral Helmet** ... \$100  
**MINI-100 Integral Helmet** ... \$100  
**MINI-100 Integral Helmet** ... \$100  
**MINI-100 Integral Helmet** ... \$100  
**MINI-100 Integral Helmet** ... \$100

## NFLIGHT CAMERAS



**COCKPIT VIDEO CAMERA**  
NFLIGHT 100 ... \$100  
NFLIGHT 200 ... \$100  
NFLIGHT 300 ... \$100  
NFLIGHT 400 ... \$100

## BENDIX/KING

**KEYMAP INC GPS** ... \$1000  
**KEYMAP INC GPS** ... \$1000  
**KEYMAP INC GPS** ... \$1000  
**KEYMAP INC GPS** ... \$1000

## TRAFFIC ALERT



## ICOM

**ICOM**  
IC-7000 ... \$1000  
IC-7000 ... \$1000  
IC-7000 ... \$1000  
IC-7000 ... \$1000

## INSTRUMENTS

**PCI ALLEN** (100 approved)  
ALLEN 100 ... \$100  
ALLEN 100 ... \$100  
ALLEN 100 ... \$100  
ALLEN 100 ... \$100

## INTERCOMS

**HM**  
HM 100 ... \$100  
HM 100 ... \$100  
HM 100 ... \$100  
HM 100 ... \$100

## SURVIVAL EQUIPMENT

**SURVIVAL PRODUCTS**  
SP-100 ... \$100  
SP-100 ... \$100  
SP-100 ... \$100  
SP-100 ... \$100

**LIFE JACKETS**  
LJ-100 ... \$100  
LJ-100 ... \$100  
LJ-100 ... \$100  
LJ-100 ... \$100

FAMILY RUN  
BUSINESS FOR  
OVER 25 YEARS



ALL OUR PRICES INCLUDE GST



RUN BY PILOTS  
FOR PILOTS

FOR THE BEST PRODUCTS AND SERVICE, CALL CASSIE, ROY OR HARRY 03 9537 3848 OR MOBILE 0404 877 412. All prices subject to change.