

GLIDING

AUSTRALIA

Issue 39 December 2017 - January 2018

www.glidingaustralia.org

NAMIBIA

DESERT DREAMING

WOMEN IN GLIDING - NARROGIN & KINGAROY
FLYING WITH WATER BALLAST - AEROBATIC TRAINING

emergency

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GLIDING AUSTRALIA

No. 39 December 2017- January 2018

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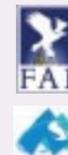
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Before calling the GFA office, please check out our website www.glidingaustralia.org to buy items, find documents and other information, and renew your membership.

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FROM THE PRESIDENT

THE PRESENT

My last article was about my vision and thoughts about where we are going, but it is often realistic to look at where we are, take the best and expand that, so here goes:

We actually get a lot of new members, although they historically join our organization and then leave after a year or two. This process is called churn and has many reasons, some of which we are trying to address. If we could simply cut our churn rate by 2%, we would have 5,000 members in 5 years. Some of the reasons they leave are lack of clarity regarding their goals and the fact that they don't have a long term goal, often seeing solo as their aspirational end of the line. What is a good long term goal for sailplane pilots?

Some think it's being a good cross country pilot, for others, a competition pilot, and for some, it's simply being ably to fly around their airfield. Let's look at one of these:

COMPETITION PILOTS

One of my long term best friends, a fellow pilot and Instructor, hated competition pilots with a passion, which was a bit interesting as I was, and still am, a competition pilot. Why did he feel this way? Well, he said, they were self-centered, egotistical, 'expletive deleted' people who didn't put in. He was not alone - lots of our members think that, or something similar. Are they right?

I don't know how many competition pilots there are in Australia but I would make a guess at around 100. How many of those are also instructors, coaches, maintenance people or administrators at any level of the sport?

I have not checked, but most of the competition pilots I know fit into at least one of these categories, and a number take on two or more roles. They are people who love the sport. Perhaps this is why they are

involved as instructors, coaches and administrators as well. If you ask around to see how many members of your club who enter competitions also do 'other' things, you may well be surprised.

Operationally, competition pilots need to make quality decisions - yes, I know there are a few who clearly don't - that allow good flight management, including decisions about energy management for final glide, safety decisions in larger gaggles, and during mass landings. Thinking ahead and considering what others are going to do is a good instructional and coaching survival technique, so these pilots are often in the back seat of your club two-seater.

Competition pilots also think about the meteorological situation a lot. Most competition pilots have worked out the weather days in advance. They anticipate, and that's why they are good on your committees. They don't wait until it's raining to decide they are not flying.

But a competition pilot, in our time-poor environment, also spends weeks of their available time going to competitions, travelling with their trailer many kilometers, flying, sometimes outlanding, and meeting their mates and competitors.

Are they self-serving? Perhaps. But they also manage their time, resources and the amount of effort they are willing to expend. Yet many of them also instruct, coach, conduct airworthiness on gliders, and support their clubs at committee or regional level. On balance they are, in my humble opinion, good for the sport. Can you say the same about yourself?

ACCIDENTS

The recent spate of fatal accidents has many people jumpy and their families and friends concerned, but while we recoil from the enormity of the pain and overwhelming sadness felt by the families and friends of those affected, we need to remember that we operate in an environment



that is not docile and one that deserves respect, understanding and experience.

You will hear many people with ideas on what has gone wrong and how to fix these accidents. Please don't be guilty of ill-informed conjecture or speculative commentary, and leave those that are charged with the grave responsibly of determining what went wrong and (most importantly) how it may be avoided in the future, to do their jobs. The reasons for some accidents may never be known but what is known is that we fly in an environment that is unforgiving of any misuse or neglect, and is governed by the rules of mother nature and physics, neither of which can be legislated against.

GFA works on the primacy of the pilot as a founding principle of safety. How that can be used in your personal safety is worth a thought. Personally, I try to always do my checks completely and correctly. I try to isolate myself just before a flight and focus on what preparations I have to complete. I really try to look out a lot, and I also try to prepare my glider with a good DI, even though I am the only one to fly it regularly, and no one has touched it since I put it away. Do you have some special safety focus thoughts? Perhaps you should discuss it with your mates.

A year ago I didn't feel very well - nothing specific, I just did

not feel well. The upshot of it was that I had major heart surgery, not a heart attack but serious anyway. How did I know something was wrong? It was simply because I didn't feel right. In an aging environment, we must listen to our bodies and if they are telling us that something is wrong, it is no good hiding it. After my operation I did not fly for a while. It was simply too difficult to get into a glider and my body needed time and rest. The reason for mentioning this is simply to emphasise that we can feel

unwell, get fixed or get better and get back into flying. On the theme of how you feel, I was Impressed the other day when a member of my club decided he was not airworthy - his words. Yes, it put me out as the instructor of the day, but I applauded the pilot for saying that - it's simply good airmanship and better safety. What can you do to stay safe yourself? What is the specific item you are going to use in the near future to make your flying that little bit safer?

Our families and friends expect us to return home safely after a great day's flying, and we should. I implore all pilots and members to not surrender to the temptation to stray beyond your personal limitations, fly regularly and don't become complacent. Our sports future depends on you.

PETER CESCO
PRESIDENT
president@glidingaustralia.org

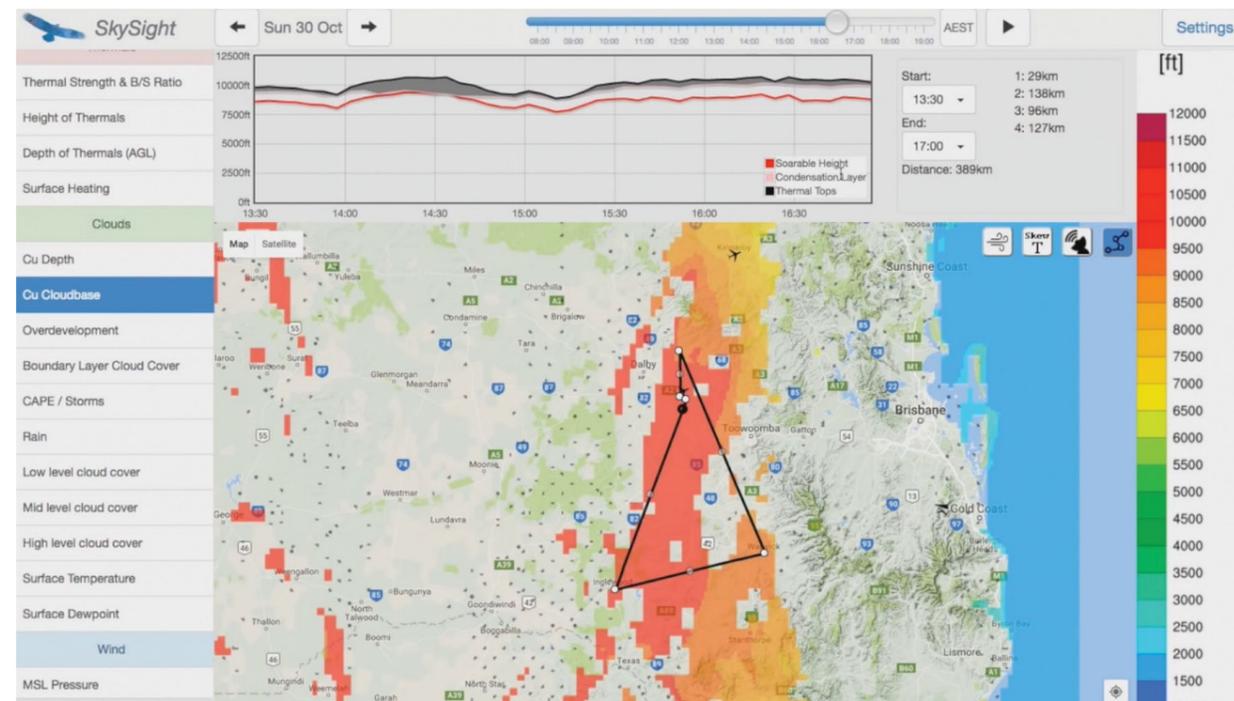
NEW WEATHER MODEL - GFA MET

Gliding has been well serviced for many years by many volunteers who have kept the RASP weather model operating in each state. This was a lot of time and effort and some considerable cost, paid for generally by the volunteers. With the advent of a number of commercial products, RASP seems to have disappeared in all states except for NSW where Bernie Baer continues to service the site and keep it operating. VSA contracted Matt Gage to provide his own version in Victoria (<http://vicmet.gliding.asn.au/VIC/>) which has received much support from pilots in that area of Australia. All other regions simply

asked their members to buy one of the commercial products. The GFA Board agreed that we needed to find a more permanent solution which does not rely only on volunteers, and so asked for expressions of interest to provide a national model, for free use by GFA members. We reviewed the different offers and, with some good technical advice, the Board selected Matthew Scutter's offer, called GFA Met, based on his Skysight.io. GFA Met does not have all of the attributes of skysight, but it provides important weather information to enable members to plan their flying tasks with

confidence. Those that do want some of the extra attributes will see the 'upgrade' button on the top right of the screen, which will let you purchase the full version of skysight.io. You can register for GFA Met via the MyGFA section on the GFA WEB page. Once you have registered, you will receive a welcome letter that gives a link to an excellent Youtube tutorial explaining the benefit of each of the attributes on the display. We hope that this tool will provide you with more confidence to plan your flights and then go and fly them. Enjoy!

TERRY CUBLEY





FROM THE EO

MEMBER SURVEY 2017 RESULTS

Earlier this year all GFA members were invited to participate in a survey, to provide guidance to the GFA Board on future directions for the sport. We had a good response from nearly a quarter of the membership, with over 2,000 suggestions for improvement.

Many of the focus areas mentioned are being targeted by the Soaring to the Future (S2F) program, which aims to standardise our processes, modernise our training methods and resources, and prioritise our approaches to better support clubs and members.

You can see a summary of the responses to better understand what the membership as a whole is seeking, and you can also look through the individual responses to see the range of views expressed in detail. Both documents are available on the GFA web page, look under

[Docs Forms/Administration/Admin docs/Survey](#) or visit this link tinyurl.com/GFASurvey2017

GFA STRATEGIC PLAN

The GFA Board visited Temora Gliding Club at the start of November to talk to club members and spend time developing its strategic plan for the next 2 to 5 years. This plan was based directly on the responses from the members' survey, and the new plan will be published in the new year once more work has been done to clarify timing and outcomes.

SKYSIGHT WINS CONTRACT TO PROVIDE THE GFA WEATHER MODEL

GFA Met, based on Skysight.io, owned and operated by Matthew Scutter, has been selected by the GFA Board as the preferred option for GFA's free weather model. Now all members can access this mini version of the Skysight.io model to get accurate and timely weather information to assist their

flying plans. (Read a full description on p3 in this issue.) You can register via MyGFA on the GFA web page.

TRIAL OF ON-LINE INTRODUCTORY MEMBERSHIP FORM (AEF)

Clubs currently have to pre-purchase AEF forms to use with their visitors. A number of clubs are now trialling an on-line version of the form, where the 'passenger' enters their details and pays online so that the club does not have to do this work.

Following requests from a number of clubs, the GFA Board has extended the Introductory membership to 30 days. Other restrictions stay the same - 10 flights, no solo, no Pilot in Command privileges, non-voting, not required to join a gliding club.

Once we have received some feedback we hope to offer this option to all clubs. If your club is interested in participating in the trial you can contact me at eo@glidingaustralia.org.

FAMILY MEMBERSHIP AND FAMILY FLYING MEMBERSHIP

There has been a steady uptake to this offer of free GFA membership to family members, which recognises them for their efforts in helping at the gliding club or just socialising with other pilots and family members. It also means that when they are helping out, they are covered by the GFA insurances. A number have also taken the extra step of becoming a Flying Family member which entitles them to fly and even receive instruction. The fee for this is only \$60 per year.

To apply, look under Gliding Information on the web page and 'hover' over the top item - Membership. You will see Family Membership to the right.

TOW PILOT ENDORSEMENTS

Tow pilots are reminded that they must apply to GFA EMO Chris Thorpe for their tow ratings to be



TERRY CUBLEY
EXECUTIVE OFFICER
eo@glidingaustralia.org

approved in the GFA System. GFA has been given full authority for tow pilot training and authorisations. Existing tow pilot authorisations will lapse on 24 December 2017. Tow pilots who do not hold a GFA Tow Pilot Certificate after this date will be unable to tow GFA gliders.

Tug Pilot Membership. We have reduced the membership fee for tow pilots. This new membership now only costs \$15.

NSW YOUNG PILOT SUPPORT

The following programs are available for clubs and individuals from May 2017 through May 2018. The programs will be reviewed each year.

Program 1: Young Pilot Support This program is aimed at pilots under 18. It allows funding to be sent to their Club to be applied to their Club membership and flying accounts for the coming year. Preference is given to those who have not applied previously. Entrants must be full, 12-month GFA members, aged 18 years and younger. Each pilot must complete 10 flights in the year to become eligible. The funds, \$100 per pilot grant.

To apply for this program please send email to secretary@nswgliding.org.

SOARING TO THE FUTURE

In order to gather information to assist with S2F planning I sent out a survey to all 643 of our Instructors and Coaches.

The full results are available on the S2F website.

Interesting highlights include: 326 responses received - over 50%

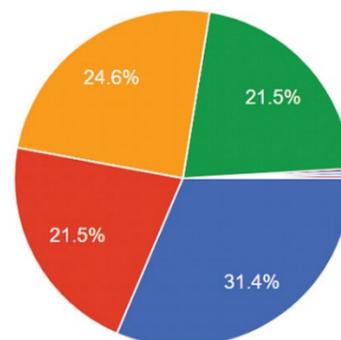
26 Instructors coach but don't have a coaching rating.

31% have held their ratings for over 20 years, 26% 10 to 20 years and 39% less than 10 years

55% of respondents would like to instruct or coach more than they currently do, 11% would like to instruct less and the rest are happy with the status quo.

Activities listed as ways to improve satisfaction and participation would be:

- Standardising training
- Sharing instructors and coaches



- 0 to 5 hours
- 5 to 10
- 10 to 20
- More than 20

4 individual responses indicating not instructing now

ABOVE: Hours spent on roles and ratings-related activities.

between clubs

Better documentation

When asked how many hours per month, on average, they spend on issues related to their ratings and roles - eg, hours on the field, attending panel meetings, or working on emails and documents, over 20% said over 20 hours. (See diagram left.)

Over 60% plan to continue instructing for the next 5 or more years. (See diagram top right.)

Top factors limiting participation were free time and other commitments.

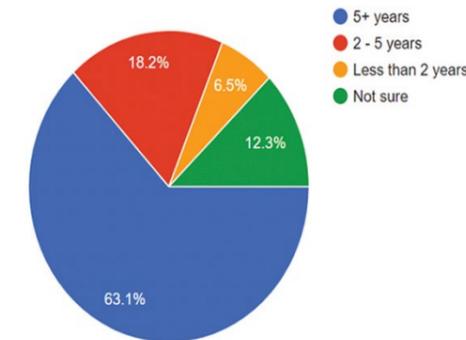
Just over half said they would be keen to undertake S2F training, and another 30% said maybe. (See diagram lower right.)

When asked for suggestions several asked for improved documentation, and mandating soaring as a part of basic training. Many asked for tools to improve skills and information on teaching techniques.

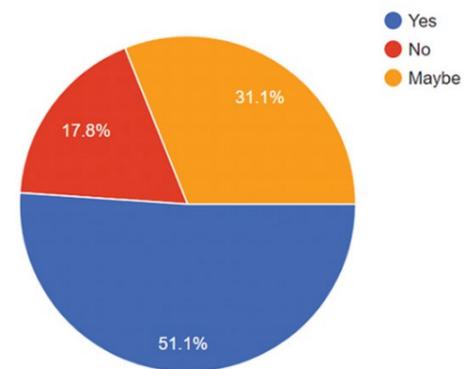
Some had concerns regarding increased workload with S2F. Note that while this may be true, initially - in the long term the aim of S2F is to improve efficiencies and reduce workload for all.

S2F CLUBS ANNOUNCED

We are pleased to announce that the four clubs for the initial trial of the S2F roll-out have been confirmed. We had applications from 11 clubs and it was not easy to narrow it down to 4 clubs. Each selected club has had to demonstrate 70% support of its membership and 70% of instructors and coaches. This has just been completed and we can



ABOVE: Percentage planning to continue instructing.



ABOVE: Percentage interested in SF2 training.

now announce that the successful clubs are:

- Sunraysia
- Hunter Valley
- Gliding Club of Victoria
- Darling Downs

We will be working with these four clubs and their members to refine the process for a club to achieve S2F approval. The process is being done in three stages over 12 months. As each stage is refined and completed with the 4 trial clubs it will be rolled out to other clubs.

MANDY TEMPLE
CHAIR S2F
s2f@glidingaustralia.org

WGC TEAM CAPTAINS FOR CZECH REPUBLIC AND POLAND

All good teams require an excellent Team Captain. The GFA Sports Committee invites expressions of interest from enthusiastic members to act as Team Captains for the two Australian Teams travelling to Czech Republic for the 18m/Open class World Gliding Championships and Poland for the Club/15m/20m class World Gliding Championships in 2018.

The roles require self-starters with excellent organisational skills working in an unsupervised environment, sometimes with conflicting priorities. Applicants should have good communication skills and be able to work collaboratively within a team environment.

Ideal candidates are those who have previously been a Team Captain or who have flown or crewed at World Championships.

The Team Captain is provided ITC funding to assist with expenses.

For further inquiries please contact Chairman ITC -

Miles Gore-Brown mgb7773@gmail.com or Chairman Sports Committee -

The details of what the role entails is contained in the Team Captain's Handbook;

tinyurl.com/yanojfa2

MILES GORE-BROWN

GFA CALENDAR

Use the Contact GFA menu at www.glidingaustralia.org to send events to the GFA Secretariat for publishing online and in GA

NSW STATE CHAMPIONSHIPS

9 - 16 December 2017 Temora Aerodrome NSW Daryl Connell email djpconnell@gmail.com For more information please go to: www.nswgca2017.com.au

BATHURST SOARING CLUB CHRISTMAS CAMP

26 - 31 Decemeber Pipers Field Bathurst NSW Approx 20 Gliders, up to 100km from Pipers Field. Contact Graham Brown gsambrown@westnet.com.au Phone 0412 155 117

FORMULA 1.0 GLIDING
28 December - 5 January 2018
Leeton Airfield, NSW
www.f1gp.com.au

WAIKERIE FLYING COMPETITIONS COACHING WEEK

31 December 2017 - 6 January 2018
Drawing on the knowledge of top pilots arriving early for the nationals, this week will be run in a fun competition format so that we can discuss and analyse tactics. With daily scores but no total scores and no winner, this a good opportunity to try new approaches. Contact Head coach SA/NT Pete Temple for more details 0427 396 034 pete.temple@internode.on.net

VINTAGE GLIDERS AUSTRALIA'S ANNUAL RALLY

6 -13 January 2018 Bordertown Fun for all! - for information contact John "JR" Marshall on 0407 417 747 or

jma99350@bigpond.net.au

8TH WORLD SAILPLANE GRAND PRIX FINALS

13 - 20 January 2018 Vitacura Chile www.sgp.aero/finals2017

MULTICLASS NATIONALS

8 - 19 January 2018 Waikerie

Contact John Ridge johnridge16@gmail.com

JOEYGLIDE NARROMINE

20 - 27 January 2018

SAILPLANE GRAND PRIX HORSHAM

22 - 28 January 2018 Contact Contest Organiser - Arnold Neiwand. mob 0429 857 275 or email nieci@aonet.com.au or Contest Organising Chairman - Selwyn Ellis Mob 0427 824 925 or selwyn@wllisworks.com.au

HORSHAM WEEK COMPETITION

3 - 10 February 2018 www.horshamweek.org.au

AUSTRALIAN NATIONAL 20 METRE CHAMPIONSHIPS 2018

11 - 18 February 2018 Narromine Aerodrome For further information: Contact Beryl Hartley 0407 459 581 www.narromineglidingclub.com.au

KEEPIT REGATTA - LAKE KEEPIT

24 February - 3 March 2018 All pilots are invited to the Lake Keepit Regatta for a week of fun, friendly competition and coaching. Ideal for beginner and intermediate cross country pilots that want to start competition or improve XC skills, as well as seasoned pilots who want to take it easy and share their knowledge. Daily talks and briefings by experienced coaches and seasoned competitors on topics of interest and of course we will finish Saturday evening with the

traditional extravaganza dinner at the Dirck's. We have 8 new cabins and lots of camping sites but make sure you register early as the cabins get booked very quickly. Bring your glider, borrow your club dual seater, or rent one of ours (limited availability). Come have fun at the gliding paradise. Entry fee only \$180 per glider and \$50 per additional passenger if paid prior to 31 Jan, late entry \$230 per glider and \$70 per additional passenger post 31 Jan.

More information and registrations at www.keepitsoaring.com or email Jacques Graells jg.gliding@gmail.com

VSA ALPINE REGATTA

3 - 9 March 2018 Please contact Ian Grant, ian.grant.gliding@gmail.com or VSA website www.gliding.asn.au

BUNYAN WAVE CAMP 2018

15 - 23 September 2018 Canberra Gliding Club - Bunyan NSW Contact details - Club Captain David McIlroy dmcilroy@me.com

20TH FAI EUROPEAN GLIDING CHAMPIONSHIPS

11 - 25 May 2018 in Turbia, Poland. 18m, Open and 20m Classes.

35TH FAI WORLD GLIDING CHAMPIONSHIPS

8 - 21 July 2018 in Ostrow Wielkopolski, Poland. Club, Standard and 15m Classes.

35TH FAI WORLD GLIDING CHAMPIONSHIPS

28 July - 11 August 2018 Pribram, Czech Republic 18m, 20m and Open Classes.

WOMENS WORLD GLIDING CHAMPIONSHIPS LAKE KEEPIT

3- 17 January 2017

Darte change The change should make it easier for competitors with leave and family commitment to attend the championships.

FAI GLIDING BADGES

TO 25 JULY 2017

A BADGE

CREAM GREG	12298	NARROGIN GC
PAZORSKI-PASCOE ALEKSANDER	12301	KINGAROY SC
WONG CHOK LAM	12302	LAKE KEEPIT SC
WALSH JESSICA L	12305	DARLING DOWNS SC
CONWAY LACHLAN	12306	301 ATC NSW
DRIESSEN ELIZABETH M	12308	NARROGIN GC

B BADGE

PURTELL SEAN	12164	301 ATC NSW
SCHUSTER NATANEL G	12293	BUNDABERG
DODD PHILIP J	12225	NARROGIN GC

A, B BADGE

WILLIAMS WARREN R	12299	DARLING DOWNS SC
BRESLIN PAUL	12300	CABOOLTURE GC

REGAN JESSE M	12303	NARROGIN GC
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B, C BADGE

GIBBS COOPER B	12258	DARLING DOWNS SC
PRICE TOBIAS H	12207	301 ATC NSW

A, B, C BADGE

O'DONOHUE LEON P	12297	100 ATC QLD
HARRISONDAVID W	12304	WARWICK GC
WILKINSON BEN H	12307	301 ATC NSW
MOSIEJEWski JAROSLAW	12309	GEELONG GC

SILVER C BADGE

WALLER STEVEN	4933	SOUTHERN CROSS GC
COLLINS BARRY A	4934	DARLING DOWNS SC

DIAMOND GOAL

CALDON RAYMOND J		SOUTHERN CROSS GC
WALLER STEVEN		SOUTHERN CROSS GC

BADGE CLAIMS

ALL BADGE FLIGHTS WITH THE EXCEPTION OF HEIGHT CLAIMS MUST BE PREDECLARED AND OVERSEEN BY AN OFFICIAL OBSERVER PRIOR TO THE COMMENCEMENT OF FLIGHT. ALL BADGE FLIGHTS MUST BE FLOWN SOLO (NO PASSENGER, NO SAFETY PILOT). ALL BADGE FLIGHTS CLAIMS MUST BE SUPPORTED BY AN IGC FILE FROM THE FLIGHT.

EASY PEASY SILVER C

The Silver C distance flight is well placed to be the first exercise in gliding to test the basic skills of flight planning and navigation. The training for this first adventure in crosscountry flying is planned to be a task for the club coaches. I hope this short message is of assistance both to the aspiring new Silver C pilot and to club coaches.

For Badge flights: The pilot must be alone in the aircraft.

The pilot may not be provided with any in-flight assistance or coaching during the flight.

Find an Official Observer for your flight. I encourage clubs to place a list of Official Observers on club notice boards and club websites.

BEQUESTS

Would you like to help future generations of glider pilots when you have hung up your wings and gone to the big cumulus in the sky? Even if you already have a Will, it is relatively straightforward to include a bequest to the GFA or your club. Download an easy to use form at glidingaustralia.org under Gliding Information menu or tinyurl.com/yc53d42x



BERYL HARTLEY
FAI CERTIFICATES
OFFICER
faicertificates@glidingaustralia.org

BADGE DECLARATION

Click the [BADGE DECLARATION](#) button on glidingaustralia.org to go straight to the form. Or use this address inyurl.com/hsp4h7p

Make your flight plan and place the declaration of your flight in the logger to be carried on board. If the logger does not have the capacity for declaration, use the declaration page on the GFA web site. tinyurl.com/hsp4h7p

Make sure you declare: Pilot name, Glider type, Task details.

Enjoy your flight - The distance must be more than 50kms straight distance from the start.

Download the IGC file from the logger in the company of the Official Observer.

Complete claim form, available on the GFA website under Sport Forms, and have it signed by the OO.

Send the file and claim form to: Beryl Hartley, PO Box 275, Narromine NSW 2821

Or, if more convenient, email the file to: arnie.hartley@gmail.com Post your green gliding certificate book.

Make the payment on the GFA web site in the shop.

Safe soaring, BERYL HARTLEY

OFFICIAL OBSERVERS

All Official Observer rating as now due for renewal. If you have not received a message from the GFA office to renew your rating please contact the office with your Official Observer Number so your member profile may be updated. You will receive a message to answer a basic multiple choice question on a current sporting code requirement to renew your rating. Official Observer rating will be renewed each two years.

NARROMINE CUP 20TH ANNIVERSARY



Was it the best Cup Week ever? According to many of the regular attendants, and the new ones who gained their Silver, Gold and Diamond badges in the six days of soaring - yes, it was. Narromine welcomed back the pilots and families who came to enjoy a week of personal best flying, social engagement with gliding friends and great presentations.

Congratulation to those new cross-country pilots who came with C badges and went home with two Diamonds. Congratulation to **Gary Stevenson**, who had the highest score on the Online

Championships and is this year's winner of the Narromine Cup.

Among some excellent morning presentations was Robert Hare with his film and stories of the Morning Glory, G. Dale on pilot performance levels, Geoff Brown on improved piloting techniques, Beryl Hartley on FAI badges and Official Observer ratings, and a tour of the Narromine Aviation Museum.

The Narromine Cup was conceived 20 years ago to encourage pilots of all levels of experience to join together for a week of social and safe soaring. The mix of very experienced international

pilots with aspiring cross-country Silver C distance pilots is difficult in many clubs. It is particularly gratifying to see a world class competitor assisting and explaining the use and preparation of a simple flight recorder and giving tips on the day's task. This year there was an emphasis on senior pilots assisting the new cross-country pilots.

The Narromine Gliding Club is in full time operation until the end of March. It has started out as a great summer season and we welcome all visitors.

CASA AVIATION MEDICALS

The Civil Aviation Safety Authority has announced that it is "cutting aviation medical certificate red tape to make it easier for pilots to continue to fly safely." While these reforms do not affect the GFA's Medical Requirements for glider pilots, they may be beneficial to many of our CASA Licenced tow pilots who would prefer not to transition to the RPL to take advantage of the Recreational Aviation Medical Practitioner's Certificate (RAMPC) provisions. The RAMPC is based on a modified unconditional driver's licence medical certificate for a private motor vehicle.

The current reforms include creating a new category of private pilot medical

certificate, known as a 'basic Class 2' that will be available to private pilots flying piston engine powered aircraft but whose operations will be limited to the daytime visual flight rules.

According to the CASA website, "this basic Class 2 medical certificate will require an assessment by a doctor using the Austroads commercial vehicle

driver standards. General practitioners will be able to carry out assessments."

The new basic Class 2 medical will be valid for a maximum of five years up to the age of 40 and a maximum of two years above the age of 40.

For further details on CASA's Medical Standards, go to their website at: tinyurl.com/yd98nggz

Target ZERO

Culture of Safety begins with you

Zero accidents

Zero harm to people

CASA QBE

SAILPLANE GRAND PRIX - HORSHAM



The Australian leg of the 9th World Sailplane Grand Prix will be held at Horsham 22-28 January 2018. Planning for the SGP in the 18m Class is well underway, and the spring preparations of Horsham Airfield have begun.

The airfield will once again be manicured to its best condition and opportunities for the public to follow the racing via the internet will certainly be available. The committee has been working hard behind the scenes to make this Grand Prix even better than the highly successful event held in December 2016. With excellent

thermal-producing wheat fields, the Grampians National Park close by and every paddock suitable as an outlanding site, safe, thrilling, high-speed finishes are highly likely.

Grand Prix racing is the most competitive, exciting and exhilarating form of sailplane racing, and the chance to participate in this event is open to all 18m glider pilots. As last year, each race will take place around a closed course of 200 - 400km during the strongest part of the day,

E CONCEPT RULES FOR ELECTRIC GLIDERS

The IGC are currently working on a set of 'E-concept' rules for gliders equipped with electric means of propulsion (MOP) in competitions.

The idea is to allow use of limited amounts of electric power to improve the glider's performance or to gain altitude.

The first test event will be at Pavullo in Italy in September 2018. If the proposal is accepted, a new event will replace the 13.5m World Gliding Championships in 2019, opening the

competition to gliders with up to 15m wingspan with electric power units. The 2019 WGC will provide an opportunity to experience the concept in action, allowing the IGC to consider how it can be developed for the future.

Currently, several gliders are manufactured with electric MOP installed. These include the 13.5m mini Lak and 15m Lak, and the prototype GP14, which has a 13.5m span. The Silent, constructed as a microlight, is another example, and the Ventus 3 from Jonkers Sailplanes are also available in FES versions.

Without a doubt, interest in the MOP concept is growing. More information will be available after the 2018 IGC meeting.



and will take about two to three hours depending on the weather conditions in the race area.

The contest will be held over seven days, allowing pilots the opportunity to compete in different conditions. Each race starts with the opening of a 5km long start line by the race director. The start provides an exciting spectacle with all competitors streaming through the start together.

STILL TIME TO ENTER

Interested pilots please register online at www.sgp.aero/australia2018

Due to stringent rules regarding Grand Prix racing, only the top 20 pilots, chosen according to their world ranking, will be allowed entry.

Already, Horsham Flying Club has had enquiries from international pilots in South Africa and Italy, and expects to receive more in the coming weeks.

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WOMEN IN GLIDING NARROGIN

BY ROBYN BECKER



For the third year, Narrogin Gliding Club played host to the Women In Gliding WA event, held from 6 to 10 November 2017. This year was different from previous years, as we invited quite a few outsiders to join us, even if only for a flight. In total, our numbers included seven full-time and three part-time participants with four Air Experience Flights. At our disposal, we had the two Puchacz, the Puchatek, DG505, Grob Astir CS, Discus CS and Arnold's ASH 25E.

We could not have asked for better weather conditions for the WIG WA week. We had thermals anywhere from 7,000 to 12,000ft at up to 10kts and cu's as far as the eye could see! That's very unusual for WA.

Dominique travelled from Sydney, deciding at the very last minute to attend WIG WA on account of the foul weather forecast in NSW. She figured that since the weather would prevent her from doing the training that

she wanted to do in NSW, she may as well fly to Perth and join us for WIG WA, where the weather was forecast to be booming. I am pleased to say that we gained a true character in the group and a wonderful friend in Dominique! Judging from her comments about the event, she had a wonderful time, too.

Les and her husband Phil travelled from Warwick to experience WA conditions and hospitality. Les was a WA girl many years ago, and was a member of the Beverley Soaring Society before moving over east. She and Phil were able to catch up with many of their WA friends during the week.

PERPETUAL TROPHIES

The first of the perpetual trophies awarded at the event was Most Improved, which is customarily judged by the coaches. Lis Driessen won this award for finally achieving her A Certificate despite many challenges. The second award, Best Flight, goes to the pilot with the highest number of OLC points and the third was Pilot Choice Award, chosen by the pilots themselves to recognise who they thought would be the best and fairest pilot in the group during the week. Embarrassingly, for the second year, I was awarded Best Flight for my 339km flight on Wednesday and also the Pilot Choice Award, voted on by the group.



Congratulations must go to Dominique, who achieved her Silver C Badge, in the Grob Astir CS. Well done also to Lis Driessen for achieving her A Certificate.

MANY THANKS

Special thanks to our NGC coaches, John K, John W and Arnold for their time, patience and encouragement. Our instructors, Bryan, Dayle, Phil and Whippo played an important role with our less experienced pilots and AEFs.

Thanks go especially to Dayle, a man with MANY hats - CFI, orientation and flight instructor, safety pilot, maintenance guru, especially in electrical/electronic matters, council negotiator, bar manager, legal advisor, planning officer, official photographer and friend. Jo Arthur and her kitchen helpers provided simple, nutritious buffet breakfasts, a variety of tasty toasted sandwiches for lunch on the flight line and the most delicious three course dinners.

Our tuggies Trevor, Bryan and John all did a fantastic job of hauling us

into thermals, as usual. Ground assistants Adrian, Phil and Peter never failed to get the job done. Claudia diligently kept the logs and ran errands into town. Alis generously arranged for the beautiful gliding hats with the WIG Australia Logos printed on the front for both WIG events east and west. They went down a real treat! David Harris, President Trevor, Arnold and the members of Narrogin Gliding Club all played a huge role in the success of our WIG Week and are to be thanked.

The Women In Gliding WA week can be regarded as a most successful event, putting WA Gliding on the map, ensuring a bright future for Women's Gliding and Gliding in general in WA. Individual wish lists were addressed and fulfilled and in many cases, exceeded. Judging by the comments made by the AEFs, they really enjoyed their flights. We may have a couple of extra members soon.

It was a chance for us to learn the theory, test out the practical and gain confidence, be challenged and socialize with other pilots of varying levels of experience and from different backgrounds. The week was marked with loads of fun, laughter, hard work and learning. I would challenge all ladies to diarize next year's WIG WA event - you won't regret it.

Here are some of the comments made by some of the participants themselves:

DOMINIQUE BRASSIER

"From my perspective the camp went perfectly and more than addressed my expectations. My aim was to fly cross country with experienced pilots and work on my Silver C. I had a great orientation flight with Dayle and the flight with Ailsa could not have been better. Out of the four hours of flying, I probably spent three hours working hard on thermalling techniques and keeping the energy lines.



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It was hard work, mixed with a lot of fun, and very interesting. The great coaching and friendly pilots created a great atmosphere that really gave me the confidence to try the Silver C and to attempt the 300km on Friday. I really enjoyed it."

LIZ MILNE

"WIG week is important to me. Many everyday issues and challenges prevent me from doing the gliding I desire, including children, work and home commitments. WIG gives me the opportunity to concentrate on my flying, uninterrupted, for a whole week. I used to fly in WA, so when I set off for WIG WA, it was with the expectation of typical WA blue skies, typical WA heat and typical WA hospitality. The weather turned it on for us – complete with glorious cumulus-filled skies. My wish list was deliberately modest, but I ticked off all items on that list on Day 1. Then I had the bonus of flying over my old stomping ground of Beverley with Ailsa in the DG505, plus a 300km in Narrogin Gliding Club's Discus. I couldn't ask for better! But there was also wonderful food, lovely accommodation, all the support and encouragement you could ask for and amazing camaraderie. Don't just think about attending next year's event – put it in your calendar now. You'll have an excellent week."

ALIS STARINK

"It was yet again a wonderful experience - well organized and memorable. I especially enjoyed cross-country flights in the Puchacz with two of our coaches who really showed me what the Puch was capable of. Its performance was amazing and I loved every minute. Regrettably I couldn't attend the whole week but the days I did, I am very grateful for. Thanks, everyone."

JENNY SHEARER

This review came from a lady who had all but given up gliding until a while ago.

"I must thank you once again for organizing such an enjoyable event. I had a variety of flights and maybe that was why I enjoyed myself so much. On the third day I was at last back in an Astir, flying 2hrs 9mins. The fifth and last day was capped off by flying with Ailsa McMillan in the DG505. What a champion she is. I have a lot of hours in the DG flying mutuals but she showed me how to keep in the energy lines and how not to lose height, or not much, between thermals. I fly mainly on blue days, but now I appreciate cumulus clouds. We gained 10,000ft over the airfield and the next 3hrs 23mins were never under 9,500ft. When we were at 11,500ft the oxygen was working overtime. What a day! For the week, I flew 4 minutes short of 9 hours. Thanks to all involved and to WAGA, DSR, GFA and NGC."

BARBIE HINCLIFFE

"I am quite a nervous flyer and was at first very apprehensive, but then I decided to take up Robyn's invitation with an open mind and found that I quite enjoyed the experience - professional, safety conscious and caring about how I was feeling. It was a thoroughly enjoyable experience."

FROM OUR VISTING COACH AILSA MCMILLAN

Once again, I really enjoyed attending the WA Women in Gliding Week as a coach. It's a great opportunity for everyone to be able to focus on their gliding goals for a solid week. I think that's a really important part of the event because everyone can leave afterwards knowing that they have achieved a lot. Because WIG WA is held early on in the summer, it also gives plenty of time for everyone to build on this experience through the rest of the season and continue on with any goals they didn't meet during the event. Importantly, the club at Narrogin is strongly supportive of the event and make fantastic hosts. It's other club members who volunteer to be there instructing, towing or helping out on the ground in many different ways. Without that help, the event wouldn't work anywhere near as well as it does.

CHERYL SMITH

The highlight of my WIG experience this year was a 2 hour mutual flight with another woman pilot. I am sure that the other air traffic were surprised by the number of women's voices on the airwaves at Narrogin over the week. It was a unique and wonderful experience to be in the majority for a change, and the men that were there seemed happy to be in the minority. It was lovely to catch up with all the wonderful women pilots I know and love and also to meet some new ones. This is a brilliant experience and I am very keen that we continue to do this on an annual basis. I know there is a lot of support for this among the women who were there. I think it is really important to give as many women as possible the opportunity to try this wonderful experience and to nurture the interest in those who do come along and give it a go.

GA





BY LEONIE FURZE

Leonie Furze says Women in Gliding Week suffers from an image problem. Do female pilots just spend the week complaining about men and drinking tea? Let her dispel the myths.

The movie 'Dirty Dancing' was a massive box office hit that earned in excess of \$200 million worldwide. It was the first film to sell more than a million copies on home video and the Dirty Dancing soundtrack, including the single '(I've Had) The Time of My Life', won a Golden Globe, an Academy Award and a Grammy Award. So why couldn't the movie's lead actress Jennifer Gray - who also became famous overnight - get another film role? Answer - she had an image problem. She was typecast in the role of Baby and couldn't convince directors otherwise.

Women in Gliding shares a similar problem. I have heard that male glider pilots think WIG Week is a bunch of old women sitting around drinking cups of tea - I prefer a cold glass of sauvignon blanc, myself. Recently, while waiting my turn for my annual check flight, I mentioned that I was heading up to Kingaroy the following week for this year's WIG. One of the guys in my club commented, "So, you sit around wingeing

about men for the week, do you?" Is this really the image of Women in Gliding Week? Let me dispel the myths.

Women in Gliding Weeks have been running annually for over 12 years all over Australia. These events provide a platform for the relatively few, widely spread women to meet, get to know each other, learn, support, inspire, mentor each other and form friendships. They are also the perfect opportunity for women to fly and stretch their flying abilities in a non-threatening environment. The benefits to Australian gliding as a whole include -

- Developing teamwork and leadership skills of participants.
- Developing mentoring for new pilots or pilots who lack confidence. At many clubs throughout Australia, they may be the only female pilot in the club.
- Creating a support network of females on the field, which is less intimidating for new members.
- Developing skills among the current female membership.
- Creating role models.
- An important chance to offer instructors, both male and female, a way to develop their skills through teaching a diverse group of individuals.
- Improving club culture.

HIGHLIGHTS AT KINGAROY

When I asked the participants what motivated them to come to Kingaroy WIG Week this year, the common theme was catching up with other female glider pilots and gaining inspiration from them. Many also commented that it made the perfect opportunity to get current and get back



into cross country flying, giving them the ideal, non-threatening environment. Dominique Estival's goal for the week was to "challenge myself to do real cross-country, which I hadn't done for 10 years". Jo Wooler summed up the importance of WIG week nicely and said, "I have been to the events before and find it an invaluable week of consolidated flying, catching up with other women glider pilots and continued learning and appreciation of our sport."

Although we weren't blessed with perfect Queensland conditions as we battled soggy paddocks and a few days of strong winds, everyone had a great time and a lot was achieved. Multiple pilots were endorsed for various single seaters and the Duo. The talk on IT and instrumentation was appreciated by all, the discussion on Secret Women's Business never fails to entertain and many pilots finally came away from the week with the ability to upload flights onto OLC. The Kingaroy Soaring Club members also went above and beyond our expectations. Lisa Trotter organised the 'Birds and Feathers' themed welcome dinner, the fabulous Kingaroy instructors Greg Schmidt and Neil Dunn surprised the ladies with a portaloos at the launch point and Bob Butler's cooking, including his famous Beer Can Chicken, made this year's event a huge success.

THE FUTURE - WIG WEEK 2018

Female glider pilots may be a small group (only about 5% of all glider pilots in Australia) but they do have high aspirations for the sport. Among the ten or so women that came to Kingaroy, their future goals include -

- 500km
- 750km
- 1,000km
- Completing the Diamond badge
- Aerobatics
- Attending competitions as crew initially, with a long term view of competing themselves.
- Instruction
- Towing
- Speed records
- Preparation for Women's Worlds



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WIG 2018

Patrick Swayze said, "Nobody puts Baby in a corner." But Jennifer Gray couldn't get out of the corner she had backed herself into. Women in Gliding won't make the same mistake. WIG 2018 is going to be big with world class pilots lined up to share their skills and knowledge. Rest assured, there won't be time for sitting around drinking tea.

GA



WIG WINNERS

Most Meritorious Flight Trophy – Dominique Estival
This beautifully designed masterpiece was created by one of our own WIG, Jo Wooler, and was awarded for Dominique's flight to Jimbour over the Bunya Mountains and onto the Darling Downs in difficult conditions.

MOST IMPROVED PILOT AWARD - ADA LIM

The Soaring Engine Vol 1 by G Dale is an ideal prize for Ada. With only 40 gliding hours, Ada achieved her duration of 5 hours, height gain of 1,000m and first flight in a single seater, the Astir CS77. Ada also flew a cross-country flight from Kingaroy to Wondia and Kumbia.

THE MOST COMMITTED TO SOARING - LEONIE FURZE

The prize of a SkySight subscription was generously donated by Matthew Scutter. There was a lot of competition for this prize but it was ultimately awarded to Leonie who didn't let a bit of bad weather get in the way of flying every day bar one, and on that day she used the time to work on her glider. Leonie also brought along her glider from Bathurst NSW, driving 12 hours in one day.



FROM THE PERSPECTIVE OF TWO FEET ON THE GROUND

As I am new to the gliding competition scene, I am excited to meet people. I was recently submersed in a room with dedicated and passionate people who fly gliders. I introduced myself with my story about where I am from and what do I do, and was looking forward to telling someone about my amazing journey just getting to the gliding club. When I arrived at the part of my story where I think there should be some 'wow' and 'that is incredible' reactions, I saw that I still have their attention but something seems to be missing.

I reflected, and realised that I had not mentioned anything about gliding. Around the room, I could hear this new language in the background. It included words like bubbles, shear, gaggles, inversions, outland, dollies, flarm, vario, wing walkers and the list goes on. Amazingly, all these words could form one sentence and be completely understood by a glider pilot. However, I required a debriefing in translations before launching myself back into conversations. I can identify that a bubble is not about soap and water and that changing a 'dolly' is strictly about a wheel, but the meaning is incomprehensible in any other association.

GLIDING CONVERSATIONS

I have not been exposed to the exhilaration of a long flight in a glider. I go a shade of green after a few thermals. I sit and I wait for my partner who has just commenced the sport again and think just how amazing this really is. My travelling story can wait. This window of time here is precious and the time to speak the in-depth glider language is now.

The journey for each person to be present for a gliding competition is different. The articulation, dedication, skill, technique and commitment is reflected in each pilot and the ability to fly in a competition is an honourable achievement. To be able to compete has been a well thought out process that can involve years of a well-executed plan and preparation. In the daily routines of life, gliding conversations are probably absent and the pilots are waiting patiently for the seasonal hot weather to begin.

BY SHARON DENNIS

Sharon is a GFA Family Member. Not a pilot but an avid supporter. This is her observation from the sidelines of glider pilots and glider competitions.

Gliding competitions provide an opportunity for a shared understanding and to talk gliding. Each day the room buzzes with an array of stories involving lifelong quests and passions to be in the air. They are surrounded by other people with the same concepts and experience. The conversation template is shared and equal. There are no explanations required nor the need to educate any people like me, with my two feet placed firmly on the ground. The time frame to speak the glider language is short and every bit of that time is absorbed with delight and contemplation.

LEARNING THE LINGO

After watching and understanding a bit more of this fascinating sport, I think that I am slowly picking up on the gliding language. I know a gaggle has nothing to do with geese, a diamond is not a stone in a ring, a beer can turn is not a unique drinking style, an undercarriage has nothing to do with any body parts and thermals are not something you put on for a cold night.

Another discovery is that the names of Nimbus, Ventus, Janus, Discus and Arcus are actually not ancient mythical gods, they are 'the other loves' of a gliding pilot, so their claim that they are 'mistresses' seems appropriate.

With two feet on the ground looking skywards I watch with awe and fascination at the big, white fine-lined and graceful gliders. There is a realisation that each pilot resembles a remarkable achievement of excellence in flying an aircraft that is reliant on weather and skill to remain airborne. I am surrounded by people who are gliding athletes, who have already had a marathon journey just to be present at a gliding competition.

The immersion into the gliding culture has been a wonderful and positive experience. There is support, acknowledgement and sharing with anyone interested in flying, even for the people like me, who have two feet on the ground.

GOONDIWINDI DELUGE



BY TERRY CUBLEY PHOTOS BY SHARON DENNIS

It takes just as much effort to run a gliding competition in bad weather as it does in good weather. This was certainly the case with the recent Goondiwindi Club and Sports Nationals, which experienced probably the worst weather seen for many years in that part of the country.

Luckily for the participants, the small group of organisers led by Bob Flood did an excellent job and managed to ensure at least a few good days of flying, and in the meantime kept a happy and fun atmosphere so that the pilots were at least enjoying themselves despite being on the ground.

I am wondering if Bob Flood's name was some sort of omen, because Goondiwindi had one of its wettest periods and, in fact, the Gold Coast and Sunshine Coast a few hundred kilometres east had in excess of 300mm of rain during this period.

The practice day on Monday 9 October was actually a very nice flying day with good lift and nice clouds.



Unfortunately, on this day Simon Brown died in an accident in his glider, which sounded like it might have been a medical issue although that has not been confirmed. The organisers called the competitors back from the task, and the feeling in the clubhouse that night was very sombre. The competition day on the Tuesday was abandoned, but a few pilots went flying and had some good conditions.

Wednesday 11 October was the first competition day and was predicted to be good weather, although with the possibility of some storms in the area. Well 'some storms' turned into extensive storms over much of the contest area and most pilots had to combat rain, overdevelopment and long glides. Despite this, most returned home to Goondiwindi with great stories of detours and waiting for the rain to go past, and long glides.

DOWNPOUR

Then it rained. I am not sure how much rain we had over the next two days but when the sun reappeared the ballasted glider tie down area was under water. A few attempts at towing the gliders out failed with great risk of damaging the nice grass surrounds, so the decision was made to cancel the sports class task. Club Class gliders were in a better area and, with barefoot pilots and crew wading through the water to extract the gliders, they were manhandled down to the launch point. A major warning was issued - "If you land in a paddock today you may stay there for a week". So Club class had their second day.

The next five days were very depressing with intermittent showers and high cloud making tasking impossible. A few people wandered off home, so by the time the last day finally arrived and was flyable, there was only small field of competitors. Club Class managed Day 3, and so it was a valid Championships, with winners and scores and excitement. Sports class only had two days so no champions could be awarded, but they did enjoy the few flights they had.

You cannot do much about the weather!



OPPOSITE, MAIN PHOTO: Overnight the tiedown area received large amounts of water.

OPPOSITE, BELOW: Competitors review the day.

ABOVE: Terry Cubley and the other pilots get ready to fly on one of only three competition days. The 15m and Open Classes flew only two days.



ORANGE WEEK 2017 WAIKERIE

19 - 25 NOVEMBER OPEN

1 VNL	CRAIG VINALL	AS G29E-18M	5,625
2 LPI	HAIDYN DUNN	HPH 304S SHARK	4,312
3 OTN	LEIGH STOKES	ASW20C	4,229

soaringspot.com/en_gb/orange-week-waikerie-2017/

WESTERN AUSTRALIAN STATE CHAMPIONSHIPS NARROGIN

20 - 30 NOVEMBER MULTICLASS

1 HCB	GREG BEECROFT	BEVERLEY	LS 8	7,750
2 UCR	DON WOODWARD	BENALLA VENTUS 2CXA	18M	7,359
3 GLV	NORM BLOCH	BEVERLEY	LS 8	7,316

soaringspot.com/en_gb/western-australian-state-gliding-championships-2017-18/

DREAM WEATHER IN NAMIBIA

BY BERNARD ECKEY



Climbing away in the first thermal of the day.

The old adage, "It doesn't matter what you know, it only matters who you know" is still very valid today. At the AERO trade fair in April I met with Axel Anschau of Komet trailer fame. While we inspected his latest trailer features he expressed an interest in a week of flying in Namibia. So far I had always dismissed this idea but the chance of not only sharing the experience but also the expense put an entirely different complexion on the matter.

Obviously, both of us liked the idea of flying together, but Axel said, "It won't be easy to get our hands on a decent two-seater for an entire week, especially at this late stage."

The entrance to the Flying Lodge.



"Leave that to me," I said, and before the day was over I had an offer to hire an ASH 30 Mi for a whole week in early November.

"Early November is far from ideal as it is usually blue around that time of the year," Axel objected, "and the convergence lines are not yet fully established either."

"Beggars can't be choosers," I replied and promptly suggested that we grab the opportunity with both hands.

GETTING THERE ISN'T EASY!

When Axel agreed, my thrifty wife raided my frequent flyer account but had to dig deep into hers as well to make the flight to Namibia courtesy of Qantas Airways. Of course, convenience goes out of the window when you fly for free. Qantas booked me on a 33-hour trip to Windhoek via Dubai and

Johannesburg, and on top of this came the 3-hour drive to the gliding centre at Bitterwasser.

On arrival we noticed the long row of shipping containers with plenty of European gliders in their bellies. While we completed the formalities, four very competent local men were busy rigging our ASH 30 Mi. Sure, they have done it many times before but their efficient service with a smile had to be seen to be believed! We only helped with the fitting of the outer wing panels and then met other early arrivals for dinner. Of course, gathering as much information as possible from these seasoned Bitterwasser visitors was high on the list of priorities but eventually my jet lag caught up with me and we both put our heads down in expectation of reasonable soaring conditions for the day ahead.

EXCITEMENT ON THE FIRST DAY

The morning weather briefing had everyone excited! Above average flying conditions were forecast and most pilots promptly prepared for long distance flights. Being new to flying in Africa we decided on taking it easy, getting our bearings and exploring the area. We watched others launch while getting the glider to the most remote take off point on the dry and almost perfectly shaped salt lake. The locals simply call it "The Pan", which is not really an apt description for an airfield with a diameter of almost 3km. Getting to the launch point takes a while as gliders must be towed along the outer perimeter of the pan. Take-offs are by self-launching only and landings are allowed in any direction but the elevation is well over 4,000ft and the surface is a little soft in places. With ambient temperatures exceeding 35°C and our take-off weight of just under 850kg, the ground run turned out to be longer than usual. When the glider got airborne the rate of climb was over half of what I'm used to at home – a brilliant reminder of the effects of density altitude.

A wisp of a cumulus helped us to find the first good thermal and not long after the sky exploded with nice thermal markers in all directions. Good climb rates boosted our confidence and we soon decided to combine our intended area exploration with a 750km FAI triangle attempt. Without having turning points or track lines on our moving map display, we simply flew in a northwesterly direction while keeping an eye on the Windhoek airspace. Then we ventured into the mountains east of the Namib Desert and on the final leg we overflew Bitterwasser far enough

to complete a 750km FAI triangle. In the end we accumulated a greater distance than intended, but our flight path had much in common with the path of a badly drunken sailor on the way home.

IT GETS BETTER STILL

On our second day it was Axel's turn in the front seat. As the forecast was equally good we decided to go into the direction of the most promising cumulus clouds and take it from there. It led us into a northeasterly direction and when we arrived at the border of Botswana we turned south to follow a well-developed line of clouds. Good streeting with strong embedded thermals made for excellent progress and when the clouds thinned out we first followed another cloud street to the west and later northwest. Soon after our board computer indicated 1,000km and on landing at Bitterwasser we went home. A speed of 141km/h turned out to be the fastest 1,000km flight for both of us, but after landing we agreed that we should have extended the flight on such a good day.

The forecast for the following day was less optimistic with showers predicted from mid afternoon. I was in the front seat again and after the initial blue thermal we headed for some good-looking clouds about 50km north of the airfield. Of course, when we arrived there, they turned out to be just inside the Windhoek airspace. This left us with little choice but to point the nose of the ASH 30 in an easterly direction.

Soon after we reached an ideal cloud density east of Windhoek. We took advantage of it for a while before venturing into Botswana and far into the Kalahari Desert. The sky over the Kalahari looked very good indeed but the total lack of roads or any other infrastructure made us feel a little uneasy. Although we were cruising between 12,000 and 16,000ft (8,000 - 12,000ft AGL) the lack of landmarks for terrestrial navigation was a little unnerving.

When the only reasonable outlanding option appeared to be an occasional dry salt lake, my mind

continued over page

International atmosphere





The ASH 30 Mi on short final.

started to play funny games with me. It let me contemplate a catastrophic failure of our avionics and prompted me to work out a rough compass heading for a return to Bitterwasser – just in case! Bar talk of retrieves taking seven (7) days also sprang to mind and so did the apparent abundance of hungry hyenas in Botswana. It eventually made us turn tail and head towards the relative safety of Namibia again.

So far our average task speed had been the subject of some jubilation in the cockpit but the forecast showers were now slowly creeping into our flying area. Some of them turned out to be only virga but that made little difference at our level. We did our best to avoid getting wet but that was not met with great success. The lift, however, was still strong

and we were still confident of making it back to Bitterwasser when some sparks forced us into quite significant detours.

However, on arrival over the Bitterwasser oasis the area to the north appeared to be clear of rain. At first we felt that it was safe to continue towards the northwest but we soon changed our minds for fear that a thunderstorm might be over or near Bitterwasser on landing. After all, 'safety first' was our motto right from the beginning! We had already flown more than 900 km at a pleasing speed of 144 km/h and we were happy with our efforts.

However, after looking at the OLC results we had to concede that other pilots flew further and even exceeded the magic 1,000km distance. They elected to fly in a different part of the country where they had no problems with rain or thunderstorms. Of course, we debated whether they were just smarter or whether they had better local knowledge, but in the end we concluded that it was probably both!

HAVING A DAY OFF

Whether you believe it or not - this long distance flying is hard work! After three long days in the cockpit a rest day was warranted and a visit to the neighbouring gliding centre at Pokweni was decided upon. Again, the airfield consists of a dry and surprisingly firm salt lake. It is incredibly flat but can quickly fill up after heavy rain. Therefore a slightly elevated emergency strip is usually located next to Namibian 'pans' with gliding operations.



Sunset at Bitterwasser.

After a guided tour, a cold drink and hearing stories of very fast, long distance flights from Pokweni, it was back onto gravel roads with potholes and corrugations galore. Some African wildlife, including giraffes, was spotted alongside the never-ending gravel road but after a 200km round trip we were wondering how a little hire car like ours could possibly survive such torture.

NO REST FOR THE WICKED

The weather prediction for the following day created excitement again. This time we used preselected turn points and we paid attention to avoiding track deviations as much as possible. As both of us were keen on another 1,000km flight, we were among the first to launch.

With the engine still humming we encountered a nice, round 4kt thermal that was slowly getting stronger in line with our increasing altitude. On our way to the far northeastern corner of the Namibian gliding sector we found truly excellent thermals and the now familiar track along the border to Botswana produced equally good conditions with climbs to 17,000ft. In an attempt to contact the famous convergence line, we eventually turned southwest for about 200km but couldn't find this energy highway among the increasingly dense cumulus cover. Therefore we abandoned the idea and headed in a northeasterly direction again.

As the thermals along our new track were still peaking at 8kts we decided to overfly the airfield and turn back with enough safety margin for a landing close to a 7.03pm sunset. It worked well for us! We landed shortly before last light after a flight of 1,155km at a speed of 144.44 km/h. Twilight is almost non-existent in Namibia and when the glider was properly tied down it was almost pitch dark.



MEETING EUROPEAN GLIDING GREATS

At dinnertime we noticed that a few more European gliding heavyweights had escaped the northern winter. It turned out that some of them even live in Namibia for several months every year. Not a bad

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Other pilots are also having a rest day.





Flights to Namibia go through Perth, Singapore or Doha to Johannesburg in South Africa, and then on to Windhoek in Namibia. Then it's a three-hour drive to the flying centre at Bitterwasser.

idea, if you ask me, especially if you are retired and want to engage in your favourite pastime activity all year round. Here was our chance to share views and opinions with world record holders, World and European champions and pilots who always tend to occupy a top competition placing. As an opportunity like this doesn't come up every day we opted for another rest day with a few relaxing hours by the pool.

The next day we were keen to fly again. It was our last day with access to the ASH 30 but it was deemed to be largely blue and not good enough for another

1,000km flight. We launched first but only got going well after midday. To our surprise the first thermal was stronger than expected. We headed due west but due to blue conditions and scarce outlanding options, we adopted extremely conservative flying tactics.

After about an hour, some distant cumulus clouds developed in the northern corner of the Namib Desert. They were still well over 100km away but we promptly made a beeline for them. After a low

point and some experimenting, we finally got into the world famous convergence line over the mountain chain east of the Namib Desert. It was marvelous and can best be described as a typical Australian trough line on steroids. With the flaps in maximum overdrive and with the ASI hardly ever indicating less than 100kts, we made rapid progress but our late start killed any hope of another four-digit flight distance.

Still, we accumulated 850km for the longest flight out of Africa on our last flying day at Bitterwasser and we were pleased to pass the glider on to the next charterer without a scratch.

A GLANCE IN THE REAR VIEW MIRROR

It is hard to avoid superlatives when it comes to summarizing our week at the Bitterwasser gliding centre. No doubt, we were extremely lucky to strike such superb weather conditions and to have access to an equally superb glider. During the entire week an elongated heat low was hovering over Namibia and Botswana, which directed warm and moist air from the Indian Ocean over our flying area. The interaction with the cold and dry air of the Benguela current on Namibia's west coast produced picture postcard cumulus on most days.

Airspace restrictions are hardly worth mentioning, but the number of soarable hours is still relatively low in early November. They dictate high to very high average speeds for flights with four-digit kilometer distances. We both knew that, but not in our wildest dreams did we expect to fly a total distance of 4,711km in only five days – all without a drop of water ballast.

The peak of the season in the southern part of Africa is normally between the middle of December and the middle of January. Around that time the convection is often even stronger and thermals can extend to 19,000ft or even higher. With an additional hour of daylight around Christmas, there is little

wonder that triangle flight distances in excess of 1,400km have been recorded. Two-seaters capable of self-launching are used almost exclusively at Bitterwasser, and for good reason. Regularly handing over the controls on flights lasting 7 or even 8 hours and some smart joint decision making is vital if the prime objective is not to collect as many OLC points as possible but to avoid stress and stay safe.

THE SERVICE IS SIMPLY STUNNING

No doubt, the Bitterwasser gliding centre is the most popular destination for glider pilots in southern Africa, mainly due to this well looked after oasis near the fringes of the Kalahari Desert and its superb facilities. A first class restaurant provides buffet style breakfast and lunch plus three-course dinners on a daily basis. Different levels of accommodation are on offer, plus a swimming pool, workshop, superbly maintained gardens, an oxygen and fuel replenishment service, expert weather briefings, a fully staffed laundry, and - best of all - a large crew of 'Line Boys'.

They wait for your landing and have the towing vehicle parked right behind your glider the moment you open the canopy. Before you get out and unstrap your parachute, wing walker and tail dolly are already attached and the aircraft is on its way back to the tie down area. They even wipe the bugs off the wings before they put the weatherproof pyjamas on the glider for you. Simply fantastic!

A German team of gliding gurus manages the staff of 45 locals. They attend to almost every need and they always do it with big smiles on their faces. All of them are happy to have

found very scarce employment at the gliding centre and all of them go out of their way to maintain a high standard and a very pleasant atmosphere for pilots from all corners of the globe.

SAFETY FIRST

When looking on the flip side of the coin, the long trip from Australia and the associated jet lag problem cannot be overlooked. In the interest of safety it is highly advisable to conduct a few days of sightseeing prior to engaging in aviation activities. Exotic wildlife, including oryx, kudus, giraffes springbok, wilde beast and ostriches are found in the area but if you want to see elephants or lions you are better off investing in a trip to Etosha National park, located about 500km north of Windhoek, the capital of Namibia.

Do I recommend a visit to Bitterwasser? Most definitely, but make sure you select a competent co-pilot with experience on type and put safety on top of your list of priorities at all times.

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BELOW: The 'Line Boys' in action.



2017 MELBOURNE CUP VINTAGE RALLY



BY DAVID GOLDSMITH
PHOTOGRAPHS BY TREVOR GIDERING, HAL HOPKINS AND DAVID GOLDSMITH

The Vintage Rally at Bacchus Marsh Airfield commenced on Saturday 4 November and finished on Melbourne Cup day, Tuesday 7 November, with the Australian Gliding Museum Open Day on Sunday. This year the weather co-operated for the first two days, but became rather windy on Monday and Tuesday. With many visitors, some from interstate, the comfortable clubhouse was well patronised and provided convenient accommodation, while Stoney's Pub provided a pleasant

watering hole with delicious evening meals.

On Saturday Bob Hickman launched first in his Boomerang, followed closely by Garret Russell and Dave Goldsmith in the Geelong ASK-13. How long has it been since an ES-56 Nymph has been seen in Victorian skies? Peter Rundle from Central Coast (NSW) was delighted to fly and show the results of his labour of love, having saved the prototype Nymph from demolition along with its roost in the ceiling of a Sydney furniture showroom.

Then followed Peter Raphael with his bright red Cherokee II from Bendigo. Vintage flights were made throughout the rest of the afternoon, with Ka6 owner John Mackley returning to get current again in the ASK-13 after a few quiet years, and Rob Moffat enjoying a flight in the Nymph. Bob won the certificate for the longest flight, 1 hour 47 minutes, and also the award for longest distance after reaching Fiskville. Best height was awarded to Garrett Russell, who achieved 5,400ft in the ASK-13.

On Sunday, David Howse soared the Museum's Schleicher K4 two-seater during an evaluation flight after completing its Form 2 inspection. Peter Rundle scored the longest flight with 2 hours and 6 minutes in the Nymph, also achieving best height. Peter Raphael flew the Museum's Woodstock for over an hour, achieving best distance for the day.



Jenne Goldsmith introduced a gliding newcomer to the pleasures of the ASK-13, as did Rob Moffat. Leigh Snell with Sylvia Sharman, and Wayne Mackley with Sue Snell, enjoyed the opportunity to fly the K4. Monday and Tuesday brought a strong gusty wind so the vintage crowd took it easy, but not so the following weekend when more good flying was done in the Nymph, Cherokee and ASK-13.

AUSTRALIAN GLIDING MUSEUM OPEN DAY, AGM AND BARBEQUE

Sunday's Museum day attracted almost 50 local and interstate members and friends. The atmosphere was friendly and informal and accompanied by good food and an interesting program.

At the Annual General Meeting, a vibrant year was reported, with the paintshop settling into service and a toilet block/equipment shed approaching completion. There are now 63 gliders in the collection and often over 20 volunteers joining in, with Tuesdays and Fridays our regular working bee days. While we have lost our major sponsor due to his retirement, GFA has come onboard with some much appreciated funding to assist the running of the museum, and many local businesses also assist with sponsorship.

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LEFT TOP: Sylvia Sharman awards Bob the daily certificate for longest duration.

LEFT BOTTOM: The fabric course members admire the Orotex fabric on the Nymph.

ABOVE: Bob Hickman's Boomerang, Geelong Club's ASK-13 and the Nymph wait on the flight line.

BELOW: Gliding historian David Craddock enjoyed the Museum Open Day.





Apart from preserving our gliding heritage, the Museum is also working to preserve wood repair and fabric working skills with traditional and modern materials such as glues, fabrics and finishing processes, as necessary. Wood and fabric courses are run each year to train people in these valuable skills to assist in the maintenance of Australia's older gliders.

Interesting presentations were made to a large crowd. Before a delicious BBQ lunch, Peter Rundle showed us how to obtain a free glider from a demolition site and finish up with an immaculate, historic aircraft that draws crowds like free beer. An excellent story that can only leave one impressed with the skill, determination and humour of the small group who carried out this



almost monumental transition. A big 'well done!' to Peter Rundle, Rob Moffat and John McCorquodale for pulling it off and enjoying many laughs along the way. Oh, by the way, it flies very sweetly and landings on the skid are delightfully short!

Peter's talk was well supported with photographs on the big screen in the Museum's theatre area. Following lunch, guests were invited to return to the theatre area where Russell Darbyshire showed a fascinating movie and talk about an organized tour of the air museums of the former iron curtain countries.

MUSEUM COURSES

Immediately following the Vintage Rally, the Museum launched into a four-day fabric course followed by four days of a wood repair course. The fabric course presented by Jim Barton with Trevor Odering's assistance included the full recovering of a vintage Kestrel wing, elevators and an aileron, as well as informative presentations by Russell Darbyshire, until recently the Stits Polyfibre Australian Agent, and Brian Gooden, the Australian and New Zealand representative for Oratex fabrics.

The minor wood repair course was presented by Peter Raphael, Peter Rundle and Greig Wanless and included tool care and sharpening, glues and materials, scarfing, practical training on timber and plywood, patch repairs on a grounded Ka6 wing, and steam bending of ply.



OPPOSITE, TOP: The Museum K4 accelerates for take-off.

LEFT BOTTOM: Wood repair course members watch and listen under instruction.

ABOVE: Leigh takes his first flight in the Museum Woodstock.



MY FIRST LOOP

Of course, I had previously been in a glider when the instructor had done loops and chandelles and I had really enjoyed them, but actually performing the manoeuvre yourself is something else. I took my first aerobatics course in a glider last October at Bathurst Soaring Club and I LOVED it.

After our pre-flight lecture, going through the safety procedures, the effect of g-force on the brain, the risk of spatial disorientation while performing aerobatics, the risk of tail-slide, the specific speed requirement and the importance of smooth flying at high speeds, we soon moved on to the practical part.

The first part of the practical course was realising how disorientated you can get in a glider once you lose reference to the horizon and rely only on feeling the forces on the glider. As an exercise for student pilots, I was asked to close my eyes and tell the instructor whether the glider was turning right or left. At first, for large movements, I was able to feel the correct direction, but for smaller and consecutive manoeuvres, I was lost. It is easy to take sense of direction for granted when the pilot has the correct information from all his or her senses and instruments. Realising that this is not always practical, seems to me to be an important part of training - and not just for aerobatics.

BY DOMINIQUE BRASSIER

Dominique is a member of Bathurst Soaring Club and has racked up 230 hours in gliders and 60 hours in motor gliders. She still feels like a 'beginner' but practising aerobatics has helped increase her skills and confidence.

The second part was to make quick corrections from unusual attitudes - for example, when the glider is in steep upwards climb or steep spiral dive types of situations - and be ready to apply the correct type and amount of controls to recover to a normal flying attitude. This type of exercise was really good, not only as a practice, as some improperly performed aerobatics manoeuvres could lead to such attitudes, but also generally to improve pilot skills.

Finally, as we managed to get some height again, I performed the HASLL checks again and tried a couple of loops after following the instructor through the first one. I had to talk to myself a lot - prompted by my instructor Serge Lauriou, the CFI of BSC - to make sure I kept pushing the stick as the speed built up to the required level, and then pulled it gradually and kept it pulled all the way back around the loop, trusting this was the right thing to do despite any temptation to do otherwise, as the glider magically went around upside down and round again.

What a feeling! I guess at first there was a bit of fear, followed by the tingling of excitement and exhilaration of being upside down and making it all the way around. It felt so smooth when performed properly. I must admit though that for those first loops I did not quite manage to keep track exactly of where I was in relation to the field nor whether my wings were perfectly horizontal or not. I guess this will come with more courses and practice.

At the end of the session, the instructor also demonstrated wing overs, and the zero gravity feel at the top was amazing. Trusting to apply the right amount of rudder just at the right time seemed a bit daunting and certainly much more advanced, but a delightful taste of what future aerobatics courses and practice could bring.

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FLY LIKE A ROCK

BY DAVE SHORTER

It's a well established phenomenon that if you throw a feather, it won't go far, but throw a rock with the same force and see how far it goes. So it is with gliders. An empty glider is a bit like the feather - fill the wings up with water and it goes like a rock. Conversely, try dropping the feather and the rock together. Which one falls quickest? Similarly with gliders, the sink rate of the heavy glider is significantly greater.

So, how much water? Under what conditions do you benefit? And what gain in speed can you achieve?

PUTTING WATER INTO YOUR GLIDER

Read your manual first. Make sure you balance the wing tanks with the appropriate amount of water in the tail tank. The wing tanks are normally ahead of the CofG of the glider and need to be balanced by water in the tail. In the JS1, for example, you need 1 litre of disposable water in the tail tank for every 25 litres in the wings. Your glider's flight manual is the guide.

Never put hose pressure into the wings - many very nice glider wings have been split open this way. If you're pressure filling, you should have a maximum of around 1 metre of head with your filling system. An overflow pipe in the water filling system a metre above the wing surface will achieve this.

Higher wing loading is a trade-off between higher average speed and less efficient climbing. In case of strong thermals and/or long glide intervals, the optimum moves toward more, in weak conditions towards less or no ballast.

The good thing is that you can dump water rather quickly, and also partially, so that in a competition you usually fill up and dump if necessary, rather than start light. The Quintus, for example, can take up to 250 litres!

Aft ballast in the vertical tailplane is sometimes used to balance a forward CG caused by water in the wings - depending on your ship, partial dumping can be problematic. Of course there are many philosophies and tactical debates concerning the "water or no water" dispute, but once you've overtaken an identical, lighter ship with full wings and no height loss, you get to see how much fun ballast can be (until the next thermal, that is).

If you're not filling the tanks completely full, you'll need to measure the amount you put in. Pouring water into the wing with a 20 litre bucket and funnel is a bit fatiguing. Cheap digital water flow meters are available - see <https://www.hoselink.com.au>, [https:// au.wellindal.com/garden/gardena/p-2907](https://au.wellindal.com/garden/gardena/p-2907) or Google 'water flow meter'.

I've had some variable results with meters giving misleading results, particularly if the flow rate is too low, or batteries are going down. I currently have two cheap meters in line, both reading as a check against each other (see image, next page). I also have a calibrated 10 litre bucket which I use to check that they are reading accurately. I think the Neta flow meter may possibly be no longer available.

After filling is completed, don't forget to check that all dump valves are working - including your tail tank.

BEFORE LAUNCH

Towing a glider with water can be tricky - particularly traversing sloping ground. If the wing walker is on the uphill side, water may run downhill in the lower wing,

causing that wing to scrape along the ground. The wing walker may be insufficiently heavy to keep the wing down, so add a weight such as a couple of old bottles of water to keep the wing from lifting.

Keep a careful eye out the rear when towing, to ensure you don't travel the length of the field dragging one wing on the ground and risk wrecking an aileron on a tuft of grass. Many gliders need to stay level to prevent loss of water from a wing on the ground, so at prelaunch, you will need to prop the wings. Adjustable aluminium extension poles for painting, available from Bunnings paint shop, work well.

If the ground is uneven you can adjust the support height each side to ensure your wings are level. CAUTION - using small diameter broomsticks, or dowel poles to prop the wings can dimple the underside of the wing surface. Ensure that the bearing surface on top of the pole has something to spread the load, and if possible position the wing support directly under a rib.

If you don't have sticks, just keep the wing walker on until launch, and persuade your friendly wing-man to manage the wing walker after you've launched.

LAUNCHING WITH WATER

If it's your first flight with water, don't be concerned. Some people advise you to try your first flight with half water, but you'll find the glider quite manageable full of water. It feels more solid, doesn't get bounced around as much, and the glider is just as easy to handle full as empty, provided you fly a bit faster.

It is important to ensure your wing-man balances the wings before the tuggie starts to roll. If the wings are not balanced, when the wing-man lets go you'll have a lot of trouble holding that heavy wing up until you get full aileron control. Conversely, if the wing-man gets your wings properly balanced before you roll, the inertia in your wings keeps the wings much more stable than an empty glider, and the launch is much easier to control.

You'll need to aerotow at a higher speed. A fully ballasted 18m glider gets quite 'mushy' and uncomfortable aerotowing at 60kts, and this can be quite dangerous.

If you're heavy, make sure the tuggie knows, and request a 70kt tow. If on tow out you're not getting that speed, quickly request "plus 5/10 knots". Don't ask for 70kts - he may already think he's flying at that speed, or his ASI may be over-reading. Always say "plus" whatever you need. Aerotow with high take-off weight requires a powerful tow plane. Many tow planes are not certified to tow gliders with high take-off weights. Reduce the take-off weight if necessary!

Winch launching with ballast? A fully ballasted single seat glider all-up-weight won't be too different to that of a two seater trainer, so a winch with enough power to launch the training gliders should be able to handle a ballasted single seater.

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ABOVE: Dominique gets a different view of the world.

BELOW: Aaron Stroop goes over the theory of aerobatics with the course group at Bathurst Soaring Club.

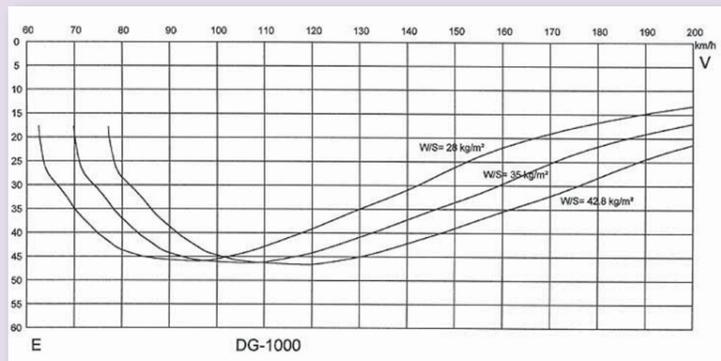


This extract from the website aviation.stackexchange.com gives a very clear explanation of the benefits of ballast. See box.

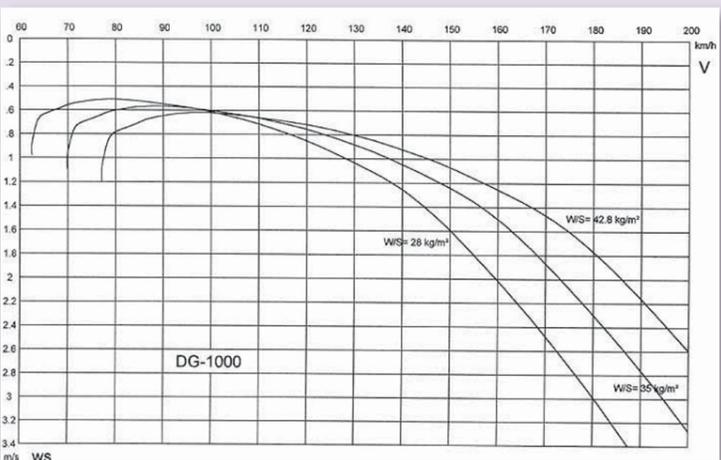
THE POLAR CURVE AND WATER BALLAST

Let's look at this L/D(=E) diagram of the enticing DG-1000 from DG Flugzeugbau - but fear not, it's true for all gliders. The first graph shows L/D at various wing loadings. The best L/D ratio is equal for different wing loadings, but occurs at different speeds - the higher the load, the higher speed. You can also see that the minimum/stall speed is also higher for higher loads.

The next diagram shows the polar curve: You can see



that the minimum sink rate occurs at lightest load. The heavier the load, the longer you will have to circle in the same thermal for a given height gain.



However, stall speed is appreciably higher and minimum airspeed needs to be adjusted up (GFA guidance 1.3xVs min.) The JS1 manual specifies Min/ Max speeds for 600kg AUW of 62/81 knots.

SELF-LAUNCHING WITH BALLAST

Modern self-launchers can carry about one and a half times the pilot's weight in water. This means that the glider is going to take a lot longer to lift off - on a typical Keepit day, about 50% longer and on a hot day, even further than that. Check the flight manual for information on flap position. On gliders happy to take off with positive flaps, it may be recommended to use 0° or negative flaps on the initial part of the take-off roll and move to positive flaps when you have aileron control authority.

FLYING WITH WATER BALLAST

This is the fun part. As a rule of thumb you can expect to achieve another 10% in XC speed on a reasonable day. You should be cruising around 10kts faster between thermals. And you'll need to fly faster when thermalling. Your glider will feel more solid and secure. If you happen to dump water you'll be surprised at the difference in feel, and how light, jumpy and twitchy an empty glider feels in comparison to what it was like full.

Remember that stall speed increases with wing loading - the whole polar curve shifts right. If your best L/D glide ratio occurs at 50kts empty, you'll need to be flying at minimum 60-65kts to prevent the glider mushing. Whereas you may find that an empty glider goes up best at around 50-52 knots, the same glider will require up around 60 knots to climb. If you are heavy, enjoy the extra speed.

AEROBATICS

Gliders may be approved to do simple aerobatics when not full of water, but most are not approved to do so when water ballasted. "Intentional spins with water ballast are not permitted." Read your flight manual!

WHEN TO DUMP WATER?

The essential thing to remember is that it is all a question of trading off the higher inter-thermal speeds against the lower climb rates in thermals. If the thermals are strong, what you lose in climb rate is relatively insignificant.

But if it's a weak day, then the difference in sink rate can mean the difference between climbing or not. Consider a hypothetical case - assume that thermalling empty the glider sink rate is 2kts, versus 2½kts sink rate for a ballasted glider - a ½kt difference.

If you find a thermal where the air is going up at 3 knots, the empty glider will climb at 1 knot, while the ballasted glider will barely climb, achieving just ½ knot - half the rate of climb! A very severe penalty - you take twice as long to climb. Instead of, say, 25% of total flight time spent climbing, you'd be spending 50% of your time climbing.

You should dump your water. The penalty is probably even bigger than this, as the heavier glider needs to fly faster to avoid stalling, or mushing, so it can't stay as close to the stronger lift in the centre of the thermal.

If you're climbing at an average of 4kts, the penalty of ½ knot is 13% and still significant. But if you find thermals of 6 to 8kts, the penalty is less than 10%, you'll be spending less than 25% of your time climbing, and the higher inter-thermal cruising speeds you can achieve with ballast more than offsets this climbing penalty.

In Australia in summer we're blessed with strong conditions, and very rarely do you take off without full water ballast. In comps, it's always an advantage to stay full, at least until you reach the first thermal on track. If it's a very weak day, you can dump down then - you've had the benefit of the flatter first glide to that thermal.

Some recommendations I've seen for older gliders suggest that ballast is not worthwhile unless conditions exceed 4kts for the day. I think most of us tend to hang on to our water far too long.

The decision to dump or reduce loading depends a lot on your view about how conditions will develop, and also how well your glider climbs when heavy. My Mosquito

never seemed to climb very well with a wing loading much above 43kg/m² whereas the modern wing profiles seem to still climb well in weak conditions fully loaded - over 50kg/m². In Europe, I'm told the calculation of how much water to carry is a very precise art as the weaker conditions make wing loading critical.

While on the ground, you should check the rate of water flow, remembering that in-air, the flow rate could differ. In straight flight, the air pressure under the wings is higher than above, and flow is probably slower, while in a steeply banked thermal with extra G forces the glider probably sheds water quicker. Typically, tanks will empty in around 4 to 5 minutes - some dump much faster than this. If you're having trouble climbing, try dumping half your water - maybe a minute with taps open - and see how it feels before getting rid of it all.

Normally, the tail tank empties at a rate that keeps the glider in balance, but make sure the tail tank dump valve is open at the same time as the wing valves. And remember thermalling etiquette - don't dump on top of other gliders thermalling below. You also need to remember to dump before landing - I normally open the taps on final glide at around 15km from home.

LANDING WITH WATER

Most manufacturers don't recommend landing with full water - but if you need to, remember to add extra speed, at least another 10kts over normal approach speed, and use a gentle round-out. Flaring the glider at normal approach speed with a heavy glider can give a nasty surprise - the glider doesn't respond to the flare the same way and you may have a heavy landing.

You must have the extra speed so that the glider will respond to your flare, and the stall speed is around 10kts higher, so touchdown will be correspondingly higher and much harder on the undercarriage.

PROBLEMS DUMPING WATER

If you suspect that the water ballast isn't dumping symmetrically - typically noted by the position of the stick at low airspeeds - you must close the dump valves of the wing tanks immediately, to avoid greater asymmetry. When flying with asymmetric water ballast you have to increase the airspeed, especially in turns, so that you can avoid a stall at all costs. A fully developed spin may not be recoverable with asymmetric load.

Fly the normal circuit, touch down approximately 6kts faster than usual and after touch down, carefully control the bank angle to avoid a wing touching the ground too early. It is dangerous to fly with empty wing tanks while ballast is remaining in the fin tank because the CofG position might get dangerously aft, therefore it is prohibited to put water in the fin tank if there is any risk of icing.

If the operating force of the fin ballast control handle is unusually low - that is, you don't feel the force of the retaining spring - you should suspect that the valve cannot be opened. In this case you should shut all the valves, wings and tail, to avoid an inadmissibly aft CofG position. If you must perform the landing with full ballast, try to avoid an outlanding. (That's verbatim from the manual!)

Leaky dump valves are often a problem. Drip, drip, drip. Try a bit of Vaseline around the rim of the valve seat. But be careful. Some dump valves rely on rubber to seal, and grease (Vaseline to a lesser extent) can degrade rubber.

WATER FLOW METERS

Cheap water flow meters can be quite reliable provided the battery is not going flat, and the flow rate is sufficient. I keep two meters inline to check on each other, and regularly check the flow calibration into a calibrated bucket. Min flow 6 litres/min for the Hoselink to register properly. Keep a spare battery and change at least once a year.



Neoprene is more resistant to grease. Silicon grease won't worry rubber seals. Some dump valves have a threaded centre into which you can screw a tool to pull down more firmly and improve the seal before launch. But if you partially dump water during the flight, the valves may drip in air. It just depends how significant the rate of drip is.

Uneven or restricted dumping of water is an issue. In a DG- 202 I owned, the neck of the water bags could twist during transport in the trailer, which restricted water flow when dumping.

If there is a problem with one dump valve not working properly, you could have a very asymmetric wing loading.

Always check before launch that both wings are dumping water evenly. If you suspect in flight that they're not, add another 5 to 10kts to your approach speed when landing, and prepare for a ground loop at the end of your ground roll as you lose speed. In-air, it's probably a good idea to consciously maintain a bit of extra speed, as a spin with asymmetric wing loading could be interesting.

BAGS VS INTEGRAL TANKS

There are potentially some issues with integral tanks, in which the wing structure forms the tank. Composite resins and gelcoat absorb water and ultimately can deteriorate and weaken with water penetration.

The inside of the tanks may be sashed with paint or gelcoat during the manufacturing process to provide a water seal at the spar/skin joints.

How well this seal withstands continual moisture is unknown. Some gliders are known to have developed leaks and water penetration into the structure. It is recommended that gliders be stored with water dump valves open to allow residual water to dry out - some people have installed small fans to aid the ventilation when hangared.

Water bags contain the moisture inside a vinyl sleeve which protects the integrity of the resin structure. But bags can also develop leaks, and the vinyl deteriorates with age and needs repair or replacement. Fortunately, there are a number of Australian companies which can supply good new water bags for a lot less than OEM bags. GA

First published in Keep Soaring the newsletter for LKSC and reproduced here with kind permission

SO, YOU WANT TO BE CTO/A ? PART 3

Mike Burns' influence is worldwide and he has a high reputation. This is the second of six articles he has written, looking back at his experiences and GFA's history.



Some days you know you have everything totally sorted, all the T's crossed and the i's dotted, and then Murphy wakes up and in an instant, the whole thing goes pear shaped. That was the scenario around the worst phone call I received as CTO/A.

A point in time never to be forgotten.

We received a complaint from a GFA member about a weight and balance recently completed at a commercial workshop. Subsequent investigation revealed that there were possibly quite a number of sailplanes with similar problems from that workshop. It appeared that the workshop concerned had designed and built its own weighing scales, which were of doubtful calibration. That problem was resolved over time, but it then became apparent that sailplanes were being delivered with many other unacceptable issues, resulting in further investigation. Despite discussions with the workshop proprietor, phone calls and letters, the reports kept coming, leading to a widely held opinion that the workshop should be closed down.

Hat and coat on, I awaited an early morning flight out of Melbourne. The 727 sat on the tarmac well after departure time, while passengers grew very fidgety.

"Good morning ladies and gentlemen, Captain Death, (true !) in charge of your flight today. Unfortunately, last night when the 727 was re-fueled the apprentice assisting took the fuel docket home and as we have not been able to find him. We will have to drain the aircraft and refuel again."

An hour or more overdue, we arrived in Brisbane. I grabbed a hire car and arrived at the workshop around 11.30am. The proprietor greeted me accompanied by a very grown up, very switched on, 4-year-old boy. We exchanged pleasantries and were about to get down to business when the phone rang. The proprietor went to answer, leaving myself and the youngster alone. I commented that the workshop was very clean and tidy.

"He has worked his b off, to clean up, just for you," he said, a 4-year old's words of wisdom.

Then I noticed a small tent on top of the office. Pointing to the tent, I said, "Is that where you're living?"

He gave a nod of the head. I knew they were in financial difficulty, but did not know just how bad it was

Phone call over, I laid it on the line. After a long discussion, I found myself in a position where I could not remove the family's only source of income. Terms for continuing sailplane repair and maintenance work were agreed to, involving more GFA participation, second inspections, etc, which seemed to work for a while.

Back in Melbourne I had to wear a lot of criticism for not having closed the business down.

Sometime later a 90% completed HP18 homebuilt (Vee tail, all metal, built from a kit) was taken to the workshop to be finished off and test flown. This project had been stage inspected by CASA during its construction, but GFA, as part of the airworthiness system re-build, had taken over all homebuilt projects from CASA.

All of the inspections were completed, weight and balance sorted and, based on what I received in the GFA office, a Permit to Fly was issued for the initial test flight program. The workshop proprietor elected to do the flight testing himself.

One test flight was completed and the report I received indicated that the sailplane was almost uncontrollable. One witness told me the pilot climbed out as white as a sheet, totally frightened.

Hat and coat on, I took another early morning flight, back to the workshop. Inspection showed that the V tail was not rigged properly. Applying forward stick gave right rudder, applying left rudder gave nose up, the incorrect mixing making it virtually uncontrollable. That was part of a 20-item defect list that came from my inspection.

When I left for Melbourne the deal was that all of the defects had to be rectified, a second inspection completed, possibly by the builders, and then another Permit to Fly would be considered. One of the significant defects was the harness lap strap to fuselage fittings, inadequate strength-wise and located in the wrong place, which would have allowed the pilot to 'submarine' under forward loading.

On Friday afternoon in my office, I was just about packed up to go to an engineers' course at Leeton. A large brown envelope arrived in the mail, identified as coming from the workshop. I rang the proprietor to advise him that I would be away for a week and that I would open the envelope and process the job after I got back from the course.

There would be no Permit to Fly until that was done.

The Leeton course went very well, culminating in a dinner at the local club on the last night. It was a great night, everyone on a high. About 7pm a waiter tapped me on the shoulder saying there was a phone call for me at the desk.

It was Mike Valentine, the GFA National Coach.

"Mike, the HP18 went in this afternoon, killed the pilot."

My legs literally sagged and I could barely stand, the disbelief was overpowering. That simply could not have happened. I remember my wife looking at me, "Christ! Mike, you look terrible." Many of the guys on the course knew the pilot, so our night ended on a very somber note.

Back in the office, I was briefed on the accident. The HP18 had no dive brakes, just large flaps for landing. After what was probably a successful test flight, while on late final with full down flap, one flap snapped full up. The sailplane rolled sharply out of control, impacting a telegraph pole. The pilot was thrown clear of the sailplane.

But the big question was, how did it get into the air? Apparently the local GFA RTO/A was advised that the CTO/A was on an engineering course and too busy to issue a Permit to Fly, so would he issue a Permit instead?

The Bureau of Air Safety and CASA came on very strong. This could well have been another GFA

airworthiness inadequacy and it was made clear that an adverse finding would almost certainly see the CASA airworthiness delegations terminated.

The Bureau determined that the homebuilders had modified the flap control system, which affected the inter flap connection, but had not advised anyone of the modification, which was not obvious to anyone doing an inspection. It was later found by X-raying the structure. The modification failed, producing the asymmetric flap, a fatal condition.

I opened the envelope, in front of a witness, to see how well the 20 defects had been catered for. There was a drawing of the new lap strap attachment bracket, which clearly showed that it was structurally inadequate and, in fact, worse than what it was intended to replace. The pilot probably died due to that attachment bracket failing. The package of documentation was then forwarded to the Bureau. We were all under investigation.

The Bureau and CASA determined that GFA had nothing to answer for, the accident was the result of the actions of individuals acting in an inappropriate and illegal manner.

There was an immediate reaction, of course, from some GFA members -

If the business had been closed down, the accident would not have happened. A death would have been avoided.

Would it? That is something I have thought a lot about.

What did we learn?

TRUST and HONESTY, are key elements in our sport. If we lose trust in our ability to look after each other, then our safety is in serious jeopardy.

NEXT TIME: Can we use an auto engine?

GA

ARE YOU FIT TO FLY?

After an horrendous start to the soaring season, it is pleasing to hear a 'good news' story for a change; albeit it could have been worse. Issues such as cardiovascular problems as described by Wayne are among the causes of pilot incapacitation in aviation, although evidence of this is often difficult to establish with certainty, particularly in fatal accidents. Consequently, it is vitally important for pilots to assess their fitness to fly before each flight, and adhere to advice given by medical practitioners. Indeed, ignoring medical advice not only places the pilot at risk, but also other airspace users and people on the ground. It is worth repeating the advice about loss of medical fitness in MOSP2, Section 10.1.1:

"A pilot flying under the provisions of the self-declaration of physical fitness who suffers from a condition described in Operational Regulations, Section 3.2.2(d) must obtain a Medical Practitioner's Certificate of Fitness' before recommencing flying.

"A pilot flying under the provisions of a 'Medical Practitioner's Certificate of Fitness' in terms of Operational Regulations, Section 3.2.2(d) who suffers a condition which renders him/her unfit for flying is required to undergo another medical examination by

CHRISTOPHER THORPE
Executive Manager,
Operations
emo@glidingaustralia.org



his/her GP or medical specialist before resuming flying as PIC. A fresh 'Medical Practitioner's Certificate of Fitness' will be required confirming the problem has been treated and the person is again fit to fly.

"The above requirements do not apply to minor injury or temporary illness (such as the flu, head cold, etc.)."

"While a pilot who has lost medical fitness may not fly as PIC, they may conduct mutual flying in terms of paragraph 8.1.5 at the discretion of the CFI or delegate, who must be satisfied that the medical condition is not likely to put the continuing safe operation of the glider at risk. The glider must at all times be flown within the limitations of the PIC's qualifications and authorisations."

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The internationally recognised 'IM SAFE' Checklist allows pilots to assess their fitness before flying. It is recommended that if a pilot answers 'yes' to any of the below questions, they should reconsider flying.

- Illness: Do I have any symptoms?
- Medication: Have I been taking prescription or over-the-counter drugs?
- Stress: Am I under psychological pressure from my

job? Worried about financial matters, health problems or family discord?

- Alcohol: Have I been drinking within 8 hours? Within 24 hours?
- Fatigue: Am I tired and not adequately rested?
- Emotion/Eating: Am I emotionally upset? Have I ensured proper hydration, sustenance and correct nutrition.

GA



WAYNE BURGESS SHARES HIS RECENT EXPERIENCE

If it wasn't for a decision made in a split second I would not be here to tell my story, in the hope that maybe it can save someone's life in the future.

My name is Wayne Burgess, and I have been a member of Caboolture Gliding Club since I soloed in July 1999. In 2000, I was mentored by Allen Lattimer for my first failed attempt at cross-country flying. Then, over the years, my life was taken over by family and work commitments. Unfortunately, 18 years soared away and my dream of going cross-country was placed on hold.

I flew many times since 2000, including a very memorable flight in Somerset, England last Christmas. Turning 60 years of age, I decided it was time to stop thinking about attempting a cross-country flight and to simply do it. 2017 was going to be the year I would succeed.

As Caboolture Week drew near, I packed my camper trailer and drove to Darling Downs Soaring Club, arriving Friday evening. All was going to plan. I set up the camper and saw old acquaintances, but little did I know that before the week was over, my whole life would change in a split second.

On Melbourne Cup Day, the morning started as it should. I flew in Duo Discus XL and was ticked-off to fly the Astir Jeans VH-KYT, a single-seater. I was feeling hot, and not like my normal self. Strange... I had drunk enough water. Nerves... they are a good thing. I decided to wait awhile. Let things settle. I would be all right.

Pre-flight checks completed, I strapped my

parachute on, checked my water bag and off I went with a good take-off with a release at 4,000ft. The temperature soared to 40 or 41° C. Conditions were right for my attempt to gain height. But, something was telling me NO. It did not feel right. So instead of going up, I made the decision to land.

It was the decision that saved my life. I was having a heart attack in the air. I landed the glider and proceeded to push it off the strip. I was in a lather of sweat. Unusual. Yes, it was hot but not enough to cause such sweating.

The heart is a wonderful thing. It tries to warn its owner many times. You just have to listen. But, I was in denial. I decided it was the heat and proceeded to help with the packing up for the day. By this stage, I was feeling extremely unwell. Again, I thought it was the heat, so I sat in my car with the air-conditioner trying to cool down, but I couldn't. It happened! A tap on my chest and then another. Harder this time. Pain in my left arm. Chest pain. NO. This is not happening to me... but it was.

A ambulance was called. Barry Collins and Kevin Roden were by my side. Still in denial, I said to the Ambulance Officer, 'I am OK. It's just the heat.' But, after they persuaded me to have some tests, just to be on the safe side, I was taken to Oakey Hospital.

The tests confirmed my nightmare. The doctor broke the news to me. He said, 'I have good and bad news. The good news - you are alive. The bad news - you have had a heart attack and you are on your way to St Andrews Hospital in Brisbane.' I was still in total denial.

I arrived by ambulance at 3.30am and was operated on at 4.00pm the same day. Two stents were used to unblock a 90 per cent blockage from the main artery and another at 80 per cent with no damage to my heart. I was also scheduled for another operation for another two blockages.

For anyone reading this, my message to you is -

If it does not feel right, if it does not sound right, if it does not look right, then it is NOT RIGHT and you should land ASAP.

PROJECT DEFIB

Project Defib is a Red Cross initiative which aims to reduce the number of deaths caused by sudden cardiac arrest by making defibrillators and related training and support, accessible to all sporting clubs, schools and not for profits across Australia.

More than 30,000 Australians suffer from sudden cardiac arrest every year of which only 5% survive. Immediate access to a defibrillator can lead to a 70% survival rate if applied quickly.

Project Defib is a national program which enables every sporting club, school and not for profit in Australia access to a subsidised Lifeline VIEW Defibrillator package which includes, training and ongoing support.

WHY DO WE NEED DEFIBRILLATORS?

Cardiac arrests are not just restricted to the elderly or high risk groups. A cardiac arrest can occur in children due to drowning or choking, receiving an

GET REGULAR CHECK-UPS

A week later, I have had ample time to reflect back and yes, I will fly again and I will achieve what I started out to do.

I am deeply grateful for the quick response by everyone at Darling Downs Soaring Club, but especially to Bass and Kevin, who saved my life. Again, many thanks to all who stepped forward when I was knocking at death's door.

WAYNE BURGESS

electric shock, respiratory related medical conditions such as asthma and anaphylaxis, trauma, poison or congenital abnormalities.

Red Cross and the Heart Foundation both acknowledge the advantage of having easy access to automated external defibrillators wherever large groups of people gather, including schools.

projectdefib.com.au 1300 367 42

A SERVICE TO YOUR COMMUNITY

Reducing the time it takes to locate an Automated External Defibrillator (AED) is key. If an AED is applied to a sudden cardiac arrest victim within the first minute of collapse, their chance of survival is 90%. For every minute that passes, their chance of survival drops 10%, leaving a 10 minute 'window of opportunity'.

Most people do not know where the nearest defibrillator is. If your airfield has an AED be sure to let your local community know. It could save someones life. It may also increase your club's standing in the eyes of your neighbours, making your club a community asset.





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accidents & incidents

All clubs and GFA members are urged to report all accidents and incidents promptly using the GFA's occurrence reporting portal at glidingaustralia.org/Log-In/Log-in-soar.html as and when they occur. This is always best done while all details are fresh in everyone's mind.

You can read the full SOAR report at <http://tinyurl.com/ltmko56>

Reports noted 'Under investigation' are based on preliminary information received and may contain errors. Any errors in this summary will be corrected when the final report has been completed.



The Gliding Federation of Australia Inc
SOAR Accident and Incident Occurrences
General Statistics
Date From: 01/06/2017
Date to: 31/07/2017

Damage	VSA GQ	SAGA	WAG	NSWGA	Total
Nil	5	1	3	1	16
Minor		3			5
Substantial		1			1
Total	5	5	3	1	8

Injury	VSA GQ	SAGA	WAG	NSWGA	Total
Nil	5	4	3	1	21
Minor		1			1
Total	5	5	3	1	8

Phases	VSA GQ	SAGA	WAG	NSWGA	Total
In-Flight	2	2	1	1	10
Landing	3	2			6
Launch			2		4
Ground Ops		1			2
Total	5	5	3	1	8

Type of Flight	VSA GQ	SAGA	WAG	NSWGA	Total
Training/Coaching	1	1	2		6
Local	2	3	1	1	10
Cross-Country	1				1
AEF	1	1			2
Total	5	5	3	1	8

10-JUN-2017 WAGA LOW CIRCUIT DG-1000S

This investigation involves a claim that a pilot, practicing a low-level finish manoeuvre at a Regional airfield, flew contrary to the Rules and Regulations. It was reported that, "Following an evaluation flight the PIC joined a crosswind leg at a normal height but then, without any prior low-level finish warning calls, proceeded to descend at high speed to join the downwind leg at approximately 200ft AGL and then descended further to approx. 100ft AGL on the base leg before landing normally."

ANALYSIS AND FINDINGS

1. After careful review of the flight parameters and the regulations, it is not evident that the pilot has breached any rules and regulations. The provisions of CAR 166A (as amended by CAO 95.4, Section 3(j)), to avoid a collision, were met. Furthermore, the glider's circuit did not conflict with the guidance detailed at paragraph 5.3.1 of Civil Aviation Advisory Publication (CAAP) 166-1(4.1) as the pilot has permission to descend below 500ft as per the CASA approved GFA Operational Regulation 6.5(b)(iii). However, the question of whether the pilot communicated his intentions in accordance with the rules in 10.8.3 in MOSP Part 2 Operations cannot be determined.

2. Track analysis shows that the high speed, low level finish phase of flight was conducted within the circuit area, not during the approach to the aerodrome from the SW. A safe speed was maintained during flight in the circuit area.

3. Assessment of whether the flight was conducted within the rules requires analysis of both the letter and the intent of those rules. Communications exchanged during the investigation highlighted some divergent interpretations of the rules and their intent. Some witnesses expressed views that the low-level finish flown by the pilot was outside the intent of the rules:

(a) One witness stated: "The MOSP intention is clearly that a Low-Level finish should be planned and executed from a point outside the 5 km area, not from well inside any 3km finish circle and certainly not within 1km of the airfield."

(b) Another witness stated, "The definition in MOSP states that the pilot must descend "with sufficient kinetic energy to enable the pilot to convert energy into height and recover adequate height to enable a safe circuit and landing to be performed". It seems clear from this that the intent is for the low-level portion of the flight to be completed before the circuit is commenced and for the circuit itself to be conducted at a normal height. A minimum circuit height is

continued over page

2-JUN-2017 GQ AIRFRAME ASK-21MI

The pilot flying was undertaking a currency check flight operating from the rear cockpit. After a normal take-off and climb to 4,000ft, the engine was shut down the propeller stop was activated. The pilot flying and the instructor, observing the propeller continuing to windmill, both attempted to engage propeller stop to no avail. The flight was abandoned and a successful landing was conducted with the propeller tower in the extended position and the propeller windmilling.

Upon inspection, it was observed that the propeller stop had sheared off and scuff marks were evident on both propeller blades. The propeller stop assembly was bent backwards, and there was minor damage caused to the propeller tower shroud. The person who dispatched the aircraft for launch recalled hearing a noise as the aircraft entered the main runway but believed the noise had come from a nearby maintenance hangar. A subsequent check of the runway located the plastic sleeve from the propeller stop, revealing it was damaged during take-off. It is believed that the pilot flying had inadvertently knocked the prop stop handle when reducing the throttle to idle during taxiing, which caused the stop to extend and contact the rotating propeller.



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unfortunately not defined and so it is (apparently) open to interpretation. I certainly don't believe that the intention is to endorse the conversion of height to speed in order to do complete circuit as low & as fast as possible - which is exactly what I observed."

The above comments are the witnesses' interpretation of the rules. When interpreting the rules we should consider 'intent' in its widest sense to include such things as what the rule was intending to achieve and the mischief the rule was intended to remedy. Prior to 2006 'low-level finishes' could only be conducted at approved Competitions (State, National and International only) and required CASA approval. GFA was concerned about that process as it excluded any legitimate means of safely practicing or training for a procedure that clearly requires a high level of skill and judgement.

It was also noted that the CASA approval only authorised the event at which the low-level finish procedure could take place but not the pilots, leaving control in the hands of the competition organisers, who may at times have little knowledge of the pilots that are performing them. After lobbying by GFA, CASA agreed to remove their approval requirement and hand over approval to GFA subject to GFA introducing acceptable pilot endorsement and low-level finish procedural requirements.

The change was promulgated on 30 March 2006 via Civil Aviation Order 95.4 Amendment Order (No. 1) 2006. When this procedure was developed, competition finish lines were usually set as some point on or near the aerodrome, and was usually an extended line from a runway or airfield boundary fence. It was only in more recent times that remote finishes were introduced, thereby displacing the finish point up to 3 kms from the aerodrome reference point. For example, WAGA Local Rules for Beverley 2011, para 15, define a finish circle 2km from the aerodrome reference point and a minimum finish altitude of 500ft. Original guidance in pilot's notes accompanying the original Operations Directive 01/06 stated: "It goes without saying that a safe landing is planned to follow the finish and pull-up. The circuit that follows the pull-up should ideally contain 3 legs, however, safety is the prime consideration.

A circuit following a low-level high energy finish might be best likened to a modified circuit following a low-level winch launch cable break, but with a much higher pilot workload. As always, a pre-landing check is part of the circuit procedures. Pilots unable to safely perform such a circuit under these circumstances should never attempt (or be allowed to attempt) a low level high energy finish." The guidance closed with the comment that: "Low level glider finishes are spectacular and exhilarating events when conducted safely. However, they are skilled undertakings that require great care and planning."

The intent of the rule was to train pilots how to safely manage a low-level finish and allow pilots the opportunity to practice the manoeuvre to maintain proficiency. It is left to the pilot's discretion to manage the entry to the manoeuvre and the only requirement is that they do it safely and with prior permission where possible. The statements by witnesses (a) and (b) draw

on the opening statement at paragraph 10.8 of MOSP Part 2 Operations: "A pilot holding a Low-Level Finish Endorsement may conduct low level finishes, which are defined as an approved circuit entry and landing technique where a glider descends below 500ft AGL within 5km of an airfield with sufficient kinetic energy to enable the pilot to convert "energy into height" and recover adequate height to enable a safe circuit and landing to be performed."

The witnesses contend that the conversion of energy into height must be done at circuit entry. However, this is a very narrow reading of the statement and does not reflect the dynamics of a low-level finish manoeuvre or the variations to circuits that are actually flown in competitions and XC regattas. This should NOT be read as the pull-up must be done at circuit joining. It merely requires that a safe circuit and landing be performed., It is improbable for most gliders to gain 800- 1,000ft required to join a standard circuit, more likely in the range 250-500ft. There are also many variations to circuits, such as straight-in approaches and joining from base leg, often preferred in competitions.

4. Based on 3 above, it is not intended to make any significant amendment to the rules. GFA MOSP Part 2 Operations Section 10.8.3 contains required procedures to achieve safety outcomes.

5. The GFA Operations Department will consult with the GFA Sports Committee to review whether any change to guidance in the GFA Competition Safety Pack or pilot's notes might be published. Guidance around training and practicing low-level finish manoeuvres will form part of this review.

6. GFA also recognises the obligations of Club CFIs and Operations and Training Panels, defined in MOSP Part 2 Operations Section 9.1, in maintaining operations and safety standards, maintaining compliance with rules, and pilot discipline. GFA recognises that clubs have the right to develop and publish local rules, competition rules and local operations supplements. Where restrictions are applied, consideration must also be given to providing opportunities and areas for safe training and practice.

1-JUL-2017 GQ AIRCRAFT CONTROL TWIN ASTIR

The command pilot was to conduct a short flight to reposition the aircraft following a runway change, and offered the front seat to a low-hours student. After releasing from an uneventful aerotow the command pilot handed over to the student pilot, who immediately advised that the front rudder pedals were difficult to operate. The command pilot assumed control and safely conducted a circuit and landing.

Subsequent inspection of the front rudder pedals revealed the left hand front pedal the return spring had detached. Investigation revealed that the Daily Inspector had noticed the detached spring but was called away to attend a briefing before rectifying the problem. After the briefing the inspector, having forgotten the detached spring, completed the Daily Inspections and signed out the Maintenance Release. As the inspector subsequently stated: "...I was interrupted doing the DI and didn't re-commence the DI

from the start. I should have either completed the DI and insisted on a Sterile Environment, or started again from the beginning."

2-JUL-2017 SAGA AIRCRAFT SEPARATION DG-1000S

During a check flight (Annual Flight Review) the pilot under check flew into the downwind leg to join circuit.

The glider's flight path was head-on to a Jabiru aircraft established on the downwind leg. Although a collision was avoided the glider pilots were counselled. When flying at uncontrolled airports, pilots rely on each other to help avoid midair collisions by following the recommended procedures and communicating intentions on the common traffic advisory frequency (CTAF). The risks of flying against the circuit traffic are obvious.

15-JUL-2017 VSA AIRCRAFT SEPARATION TWIN ASTIR

During the course of an annual flight review, the instructor manoeuvred the glider towards the circuit joining area with the view to conducting a 'running out of height' exercise. As the pilot under check was manoeuvring to join circuit, a radio call was heard from the gliding operations base alerting the pilots to a powered aircraft flying overhead the airfield at about 700ft AGL, climbing out from the direction of the nearby certified aerodrome.

The pilot under check spotted a low-wing powered aircraft just below the horizon and climbing straight towards the glider. The pilot under check manoeuvred the glider to avoid a collision and simultaneously made a radio broadcast to alert the powered aircraft to maintain its heading. The aircraft passed within 200m laterally at the same height. The pilot under check reported that the overcast conditions made sighting aircraft below the horizon difficult, especially against "a variety of vineyards, scrubby terrain, buildings and swamps", and that the powered aircraft may not have been sighted had the base radio alert not been made.

The powered aircraft was not identified but witnesses at the nearby certified aerodrome saw the aircraft depart the runway in contravention to published procedures designed to ensure aircraft do not depart directly over the nearby gliding winch site.

16-JUL-2017 GQ WHEELS UP LANDING DISCUS CS

The pilot had returned to the airfield after a 3-hour local soaring flight in hot and blustery conditions. The pilot's CFI commented that "the flying (because of turbulence and unrelenting sun) was tiring (though with some spectacular streeted thermals in the blue)". The pilot arrived over the airfield at 2,000ft AGL in order to properly assess the wind direction by reference to the windsock. The wind speed at that height was 23 knots.

After joining downwind, the pilot commenced the pre-landing checks but, due to concentrating on speed and trim in the blustery conditions, forgot to lower the undercarriage. The pilot noted: "I didn't verbalise the FUST as I normally do. My workload was high as the downwind leg was fast and I neglected to lock the undercarriage down, and following base and final

landed wheel up. The high wind speed on the ground made the landing quite short and mitigated further damage to the underbelly."

The pilot's CFI noted, "The conditions were certainly liable to invite heat exhaustion/dehydration and the kind of fatigue that allows checklist items to fall through the cracks. I can imagine how (the pilot's) attention would have been drawn into the immediate challenge of the circuit: managing speed and space in turbulent high-wind conditions - and facing that after a long flight in the bumpy, hot blue. I do know (the pilot) had drinking water with him, as I saw him put it in the glider." Landing mishaps commonly occur when pilots become overloaded close to the ground. Workload management can be eased by proper flight management which includes attending to pre-landing tasks (like lowering the undercarriage) early rather than later in the circuit. Refer also OSB 01/14 'Circuit and Landing Advice'.

29-JUL-2017 GQ TERRAIN COLLISIONS MDM-1P "FOX-P"

1. FACTUAL INFORMATION (GFA Field Investigation)

1.1 History of flight

On 29 July 2017, the pilot flew the glider from Boonah, Qld on tow to Lismore airfield, NSW (YLIS) behind a Piper PA-25-235 Pawnee. The pilot arrived on tow over YLIS at 5,500 feet in order to have time and space to merge with other traffic. He landed at Lismore at 10:30 am (all times are local) on 29 July 2017, the day of the Lismore Aviation Expo. Air displays that day had been approved by CASA, to be conducted by Paul Bennet Airshows (the approved organisation). The glider pilot and tow pilot attended a private briefing session by the organiser's delegate at the Lismore Aeroclub, consistent with the Lismore Display Instructions from the organiser. The glider pilot and the tow pilot then both signed the participant signature sheet as per the conditions for the air display approval that day. The scheduled time for the glider display was 2.40pm.

At approximately 3pm, the glider was towed to 3,500 ft. AGL by the Piper Pawnee and released over the display area (see section 1.10 Aerodrome information). Weather at the time was CAVOK with light winds. Altitude was used up as the glider performed its planned aerobatic manoeuvres inside the designated display box. At approximately 100ft AGL, a wing-over was initiated which brought the glider onto an ESE track inside the display zone.

As planned, the pilot then initiated the final manoeuvre, a four-point roll. After this roll, another wingover was planned, followed by a landing on runway 33. The four-point roll was initiated at approximately 50ft AGL. Halfway through the manoeuvre, the glider appeared to be running out of energy, according to witnesses. While inverted, the pilot lowered the nose somewhat to increase airspeed, then pushed away from the horizon and levelled the wings to the upright position. The glider then impacted the ground near the runway, but outside the gable markers (see figure 1). system.

GA

GFA APPROVED MAINTENANCE ORGANISATIONS



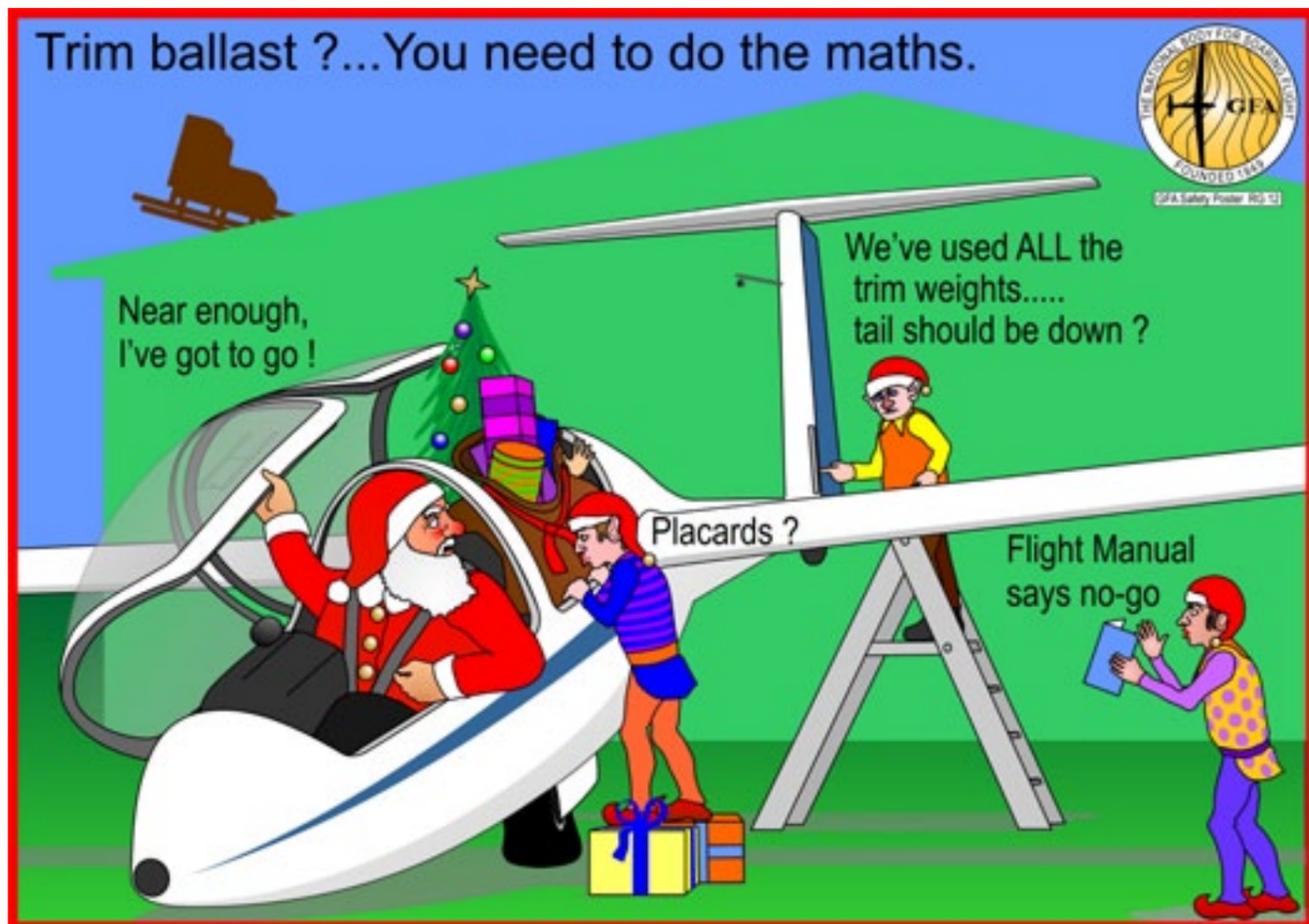
AEROSWIFT COMPOSITES	BALLARAT	JOE LUCIANI	0428 399 001	comcom2@bigpond.net.au
AIRCRAFT KITS	TAREE	OLE HARTMANN	02 6553 8100	aircraftkits@bigpond.com
AVIATION COMPOSITE ENGI	TOCUMWAL	PETER CORKERY	0439 842 255	corkerys@bigpond.com.au
AVTEC AVIATION	BOONAH	ROGER BOND	0409 763 164	avtecaviation@virginbroadband.com.au
CAMDEN SAILPLANES	CAMDEN	MIKE DUGAN	0418 681 145	camdensailplanes@bigpond.com
GCV WORKSHOP	BENALLA	GRAHAM GREED	0428 848 486	gcvworkshop@benalla.net.au
HOLMES HOLDINGS	BRISBANE	PETER HOLMES	07 5464 1506	holmbros@gmail.com
KEEPIT GLIDER TECH	LAKE KEEPIT	GRANT NELSON	0417 843 444	keepitglidertech@outlook.com
MADDOG COMPOSITES	IPSWICH	ANDY MADDOCKS	07 3143 3131	contact@maddogcomposites.com.
auMORGY'S GLIDER WORKS	WAIKERIE	MARK MORGAN	0427 860 992	morgans@scelco.net.au
SL COMPOSITES	TEMORA	SCOTT LENNON	0438 773 717	scottl@internode.on.net
T & J SAILPLANES	TEMORA	TOM GILBERT	0427 557 079	tnjgilbert@internode.on.net
ULTIMATE AERO	BOONAH	NIGEL ARNOT	0437 767 800	nigel@ultimateaero.com.au
UNIVERSAL PLASTICS	PERTH	DARREL LONG	08 9361 8316	universalplastics@inet.net.au

Test Instruments

Conrod Bearing Clearance Tester (CGCT) required for 50 hour maintenance of 2 stroke engines

John Amor jbamor@optusnet.com.au 0408 178 719 03 9849 1997

Bert Flood Imports david@bertfloodimports.com.au 03 9735 5655



GFA CLUB LIST

Please send any corrections, updates, additions for inclusion in the club list to

sean@glidingaustralia.org

716 FLIGHT GLIDING CLUB

Operations weekends, Public Holidays and school holidays. Club aircraft 1 two seater. Tel# 08 9571 7800

2 WING AAF

Operations from Warwick airfield shared with Southern Down GC. E. Located 12km NW of Warwick on Warwick-Allora back Rd, L at hall. Aerotow on 1st Sunday and third weekend of every month plus first week of school holidays. Club fleet 2 x two seaters and single seat with Tug. Facilities include own hangar complex. Tel 07 3879 1980. www.2wg.aafc.org.au

ADELAIDE SOARING CLUB

Operations every day except Tuesday Hangars, Bar, Clubrooms, Bunkhouse, Caravan park, Camp sites, Workshop, Club leases airfield Easter Regatta (April), Gawler Week (December), Flinders Ranges camp (May) Gawler (YGAW) -Ward Belt Road Gawler P.O. Box 94, Gawler, SA 5118 Tel (08) 8522 1877, Fax: (08) 8522 3177 Aerotow, Piper Pawnee (BOT PIT) www.adelaidesoaring.on.net

ADELAIDE UNIVERSITY GLIDING CLUB

Operations from Stonefield with Barossa Valley Gliding Club. Winch launching weekends and public Holidays year round. Facilities include, Clubhouse, bunkhouse, toilets, showers, Kitchen, BBQ area and entertainment. The club owns 5 gliders including 2 x two seaters, 4 private gliders. Tel 0412 870 963. www.augc.on.net

AIR CADET GLIDING CLUB

Ward belt Road Gawler airfield. Facilities and operations shared with Adelaide Soaring Club. Located at: -34° 36' S, 138° 43' E. Operations weekend and school holidays or by arrangement. Aerotow and self launch. 2 private two seater motor gliders. Clubhouse, Bunkhouse and briefing room. Tel 08 8522 1877.

ALICE SPRINGS GLIDING CLUB

Located at Bond Springs 20km's North of Alice Springs.- Winch launching Saturdays and public Holidays. 4 club aircraft including 2 x two seaters. Facilities include Club house, camp sites, Hangars, Tel 08 8952 6384.

AV8 FLIGHT TRAINING AV8 FLIGHT TRAINING SOUTH AUSTRALIA

0429 803 705 AV8.net.au

BALAKLAVA GLIDING CLUB

Weekend operations by winch 10km's NW of Balaklava on the Whitwarta Road. Tel 08 8864 5062. Located at. 4 Club aircraft including 2 x two seaters, 10 private gliders. Facilities include Bar, Canteen, Clubhouse, caravan Park, camp sites, workshop, Hangar sites, Club owns Airfield. www.bgc.asn.au

BALLARAT GLIDING CLUB

15 members operating from the Ballarat airfield. Airport Road Ballarat. 47.5 E Tel 5339 2444. Aerotow operations most weekends or by arrangement. Single club two seater. Access to hangarage and airport facilities for Bar, showers and rooms.

BAROSSA VALLEY GLIDING CLUB

Stonefield, 16km East of Truro, L 5km, behind Stonefield church, Tel 08 8564 0240. Winch operations weekends and public holidays or by arrangement. 2 club Gliders including 1 x two seater, 5 private gliders. Facilities include canteen, clubhouse, caravan park, camp sites workshops, Hangarage and spare sites. Club owns airfield.

BATHURST SOARING CLUB

Pipers Field - (On Fremantle Rd, 1.5km from Eglinton) E. Tel: (02) 6337 1180. Aerotow operations weekends and public Holidays. Club has two tugs and 6 gliders including 3 two seaters. Private fleet is 34 aircraft. Club Facilities include: Clubhouse, ablution block, Caravan park with Power, Hangars, Full Kitchen, Dormitory. www.bathurstsoaring.org.au

BEAUFORT GLIDING CLUB

Shared facilities with VMFG and Geelong GC at Bacchus Marsh airfield. 26 members. Aerotow by arrangement with GGC and VMFG, operations on weekends and public Holidays. 4 club aircraft with 2 two seaters, 17 private gliders. www.beaufortgc.org.au Tel 03 9497 2048

BENDIGO GLIDING CLUB

Borough Rd, Raywood. Own airfield. Operates weekends and public holidays. Hangars, workshop and club house with cooking and ablution facilities. Aerotow with Eurofox tow plane. Club fleet a PW6 two seat trainer and a PW5. Approx 20 private gliders. Tel 0459 485 281. www.bendigogliding.org.au

BEVERLEY SOARING SOCIETY

Beverley Airfield, Bremner Rd Beverley WA, Tel 08 96460320 Clubhouse, Bunkhouse, Fully equipped Kitchen and Briefing room. Members Caravan Park with Ablution block. Large workshop. Operations Friday to Sunday and by arrangement on Public Holidays. 3 Pawnee tow planes, 8 club aircraft including 4 two seaters Private fleet of 40 single seat gliders. www.beverley-soaring.org.au

BOONAH GLIDING CLUB

is in South-East Queensland about 25 minutes south of Ipswich. Contact the Boonah Gliding Club via Email infomail@boonahgliding.com.au for any queries 7 days a week. If you wish to speak to someone about bookings, call our mobile 0407 770 213. www.boonahgliding.com.au

BORDERTOWN-KEITH GLIDING CLUB

Western Hwy 5kms west of Bordertown, Tel 08 8752 1321. Operations by winch every Saturday or all year by arrangement. 5 club aircraft including 2 x two seaters, 1 private

glider. Bar canteen, clubhouse, bunkhouse, Caravan Site, Camp Sites.

BUNDABERG GLIDING INC

Elliott Gliding field, Childers Hwy Bundaberg, Tel 0417 071 157. Winch operations weekends and public Holidays. Club Fleet includes 1 single seat and 1 two seat glider, Private fleet 1 x 2 seat glider. Club Facilities: Clubhouse, Area available for camping & caravans, 2 hangars. Grass and sand runways. www.gliding.inbundy.com.au

BYRON GLIDING CLUB INC.

Tyagarah Airfield (council owned) - E side of Pacific Hwy, 5 kms N of Byron Bay. Entry off Gray's Lane then 2nd left into Old Brunswick Road passed the blue hangars to club white hangars at the eastern end of this dirt road. Telephone (02) 66847627. Operations are 4 days a week, self launch only. The club owns 1 Jabiru Falke and there are 4 private motorgliders - Falke 2000, 2 Dimonas and Grob 109A (some available for hire). Facilities include: Clubhouse with kitchen and bathroom, 2 hangars, with only basic camping on grounds. www.byrongliding.com

CABOOLTURE GLIDING CLUB

45 km's North of Brisbane on Bruce Hwy PO Box 920, Caboolture, Qld 4510 Tel 0418713903 Flying: Fridays, weekends, Public Holidays. Aerotow with Piper Pawnee (SPA) Licensed aerodrome, bar - canteen www.glidingcaboolture.org.au

CANBERRA GLIDING CLUB

Bunyan Airfield, 1297 Monaro Highway, Bunyan NSW 2630 (13km north of Cooma, Western side of highway), Located at: -36° 08' S, 149° 09' E. Tel# 0429 523 994. Aerotow operations weekends and public Holidays. The club has 4 aircraft including 2 tow seaters. Private fleet is 11 gliders. Facilities include: Clubhouse, bunkhouse, club and private hangars, Club own the airfield. www.canberragliding.org Wave flying centre for NSW

CENTRAL COAST SOARING CLUB

Bloodtree Road, Mangrove Mountain NSW 2250, Tel 02 4363 9111. Rope Winch operations Thursday, Saturday and Sundays. 5 club aircraft including 2 two seaters, one private glider. Club facilities, workshop, hangar and clubhouse. www.ozstuff.com.au/ccsoaring

CENTRAL QUEENSLAND GLIDING CLUB

Lot2, Gliding Club Rd, Dixalea. 90 km SSW of Rockhampton Tel 0488 781821 Winch operations Weekends and weekdays by arrangement. Club fleet: Grob103 twin, Astir CS, 5 private gliders, Hangarage Clubhouse, bunks, lounge-briefing room, kitchen, showers, 12V solar power, 240V gen set Club owns airfield 06/24, 1700m, grass/gravel www.cqgliding.org.au

CORANGAMITE SOARING CLUB

Kurweeton Pastoral Co. Kurweeton Derrinalum - Private strip. Tel 03 5593 9277. Winch and self Launch. Club Fleet 1 x two seater, 2 private aircraft. Flying by arrangement.

continued over page

DARLING DOWNS SOARING CLUB

McCaffrey Field (Warrego Hwy, at 8km W of Jondaryan, turn S down Mason Rd), Tel 0409 807 826. Aerotow operations weekends, public Holidays and by arrangement. There are 26 private gliders. Facilities include: Bar, Kitchen, Clubhouse, Bunkhouse, caravan park, camp sites, BBQ area, Showers, Wi-Fi, Lounge, Workshop, Hangarage, Club own the airfield. www.ddsc.org.au

GEELONG GLIDING CLUB EST. 1929

Bacchus Marsh Airfield. Operating Weekends and Public Holidays. Bunkhouse accommodation with toilets, & kitchen. Large workshop and hangers. Four two seaters, five Single Seaters, Pawnee tug, three other tugs available, sixteen private gliders. www.gliding-in-melbourne.org or call 0409 212 527.

GLIDING CLUB OF VICTORIA

Samaria Road Benalla, Tel 03 5762 1058, State Gliding Centre of Victoria. Club rooms with Bar and large lounge dining, Office, Members kitchen and commercial Kitchen Toilets and briefing rooms with storage. Members Caravan Park with Ablution block and dormitory accommodation. Weekends from April-Sept, 7 day a week operations at other times. GFA approved workshop. 8 club aircraft including 4 two seaters, 41 private aircraft. Hangar space, Large private hangar complex. www.glidingclub.org.au

GLIDING CLUB OF WESTERN AUSTRALIA

GCWA is about 1.5 hours, 160 km's east of Perth, towards Kalgoorlie. The club operates weekends and public holidays, with sealed runways, hangar, club rooms and a fleet of 7 aircraft and Pawnee Tow plane. The club operates from the Cunderdin airfield and can be contacted on 0417 992 806 or see us at www.glidingwa.com.au

GLIDING TASMANIA (The Soaring Club of Tasmania)

is situated half way between Launceston and Hobart on the Midland highway (4km east of Woodbury). 28 members. Operations every Sunday and Saturdays by arrangement. Club owns ASK13, Club Libelle, Pawnee Tug. MotorFalke also available for dual flying. Private fleet includes Nimbus and Grob 103M. Ph. 0419992264

www.soaringtasmania.org.au

GOULBURN VALLEY SOARING

Lot 2, Tidboald Road Warring, Located at: -36.415 145.14E. Winch operations Saturdays and Sundays by appointment. 4 club aircraft and 2 private. Clubhouse, Shower and toilets. Caravan Park, Private units, Hangars. 13 members. Private owned strip.

GRAFTON GLIDING CLUB

Waterview Heights (Eatonsville Rd, 8km W of South Grafton). Tel 02 6654 1638. Winch Operations Saturday or by arrangement mid week. The club has two aircraft including 1 two seater, with one single seater. Facilities include a hangar.

GRAMPIANS SOARING CLUB

Located at Ararat Airfield (Victoria) the club operates at weekends and public holidays with independent operator mid-week activities by arrangement. Launching is primarily by aerotow; winching also available. Fleet comprises basic trainer (Puchacz) and advanced trainer (Janus C) plus Jantar Std 3 and H201B Libelle; 8 private single-seaters. Hangar space often available for visiting pilots plus club-house and bunkroom accommodation. Locality offers excellent XC, ridge soaring and mountain wave opportunities. Camps at Jallukar (near Grampians) Easter and Queens Birthday. Well-deserved reputation as the Soaring Centre of Victoria. Clubhouse phone 0490 487 708 weekends or 03 5342 9946 weekdays. www.grampianssoaringclub.com

GYMPIE GLIDING CLUB

Located at Kybong 10 km south of Gympie, 26 degrees S, 152 degrees 42 E. on the Bruce Highway. Telephone 54851895/54477647. Winch operations. Operates Wednesdays and Saturdays and other days by arrangement. Facilities include Club House and Hangars. Gympie Airfield is a CTAF and hosts other power aviation and commercial operations. The Club has 2 Club two seaters, 2 single seaters and 10 private single. www.ggc.gympiegliding.org.au

HORSHAM FLYING CLUB

Horsham airport – Geodetic Road Horsham. Tel 03 5382 3491. Weekends and public holidays, aerotow. Clubhouse, Bar, canteen, Bunkhouse, campsites, Caravan Park, Workshop, hangar space. 5 club aircraft including 2 x two seaters. 8 private aircraft.

HUNTER VALLEY GLIDING CLUB

Warkworth - (10km W of Singleton. S along Putty Rd to Mt Thorley intersection, then W towards Denman. 1st turn right after crossing the river at Warkworth), Tel 02 6574 4556. Aerotow operations weekends, Public Holidays and one Friday/month. Club owns 2 two seaters and 2 singles and the private fleet includes 16 gliders. Facilities: Clubhouse, bunkhouse, caravan park, camp sites, workshop, club owns airfield. www.hvgc.com.au

KINGARROY SOARING CLUB

Situated at Kingaroy Airfield, Club Gliders include Duo Discus X, Ask 21.2 Discus CS and Astir CS77. 30 Private gliders, Facilities include Club House with licenced bar, Bunk House accommodation for 35 in single and family rooms. New Club hangar was opened in February 2014. Operations every weekend, First Thursday of the month 4 day weekend and two after 3 day weekend i.e. Friday, Saturday and Sunday. Come and visit one of the friendliest clubs around. Club House 61 7 4162 2191 Launch Point 0438 179 163 www.kingaroysoaring.com.au

LAKE KEEPIT SOARING CLUB

The Club lies within Lake Keepit State Park off the Oxley Highway between Gunnedah and Tamworth, Elev 1120ft AMSL. Tel: 02 6769 7514. Operates 365 days a year. Aerotow every day, winch every second Saturday, 9 Club Gliders including 4 two seaters, 40 private gliders. Facilities include Flight Centre; Clubhouse; kitchen/

BBQ; double, single, twinshare accommodation; camp sites; workshop; hangarage. www.keepitsoaring.com

LATROBE VALLEY GLIDING CLUB

Latrobe Valley regional Airport – Airfield Road Morwell. Tel# 0407 839 238, Weekends, Public Holidays and mid week by appointment. 3 club gliders, 3 private gliders.

LEETON AVIATORS CLUB

Brobenah - (9km N of Leeton PO, on E of main canal at foot of Brobenah Hills). 26' 07" E. Tel 02 6953 6970. Winch operations Saturday and Sunday by arrangement. Club A/C 1 tow seater and one private motorglider. Facilities include Clubhouse showers toilets, Canteen, hangar with workshop, Camping.

MELBOURNE GLIDING CLUB (VMFG)

Bacchus Marsh Airfield 8 km's south of town on the Geelong Road. Operations weekends, Public Holidays and Fridays. Tel 0402 281928. 115 members, aerotow operations. Two tugs and 7 gliders in the fleet with 4 two seaters and a two seat motorglider.

MELBOURNE MOTORGLIDING CLUB

Moorabbin Airfield, Grange road Mentone. Tel 0418 511 557. Operates Motorglider AEF's around Melbourne anytime by booking. Royal Victorian Aero Bar and restaurant. Controlled airspace operations.

MILLICENT GLIDING CLUB

Mt Burr Road Millicent. Tel 0427 977 241. Winch launch operations Sundays or by arrangement. Two club aircraft one two seater, 3 private aircraft. Bar, Clubhouse, Workshop, Hangarage.

MORAWA GLIDING CLUB

We are a small club located in the best soaring weather of all WA clubs approximately 4 hours drive north of Perth. We operate on Sundays and for nominated blocks of time to cater for training courses and cross country events. Members participate in Club and private operations of winch, auto launching and motor glider flying. ph (08) 9971 1137 <https://sites.google.com/site/glidingwesternaustralia/home>

MOUNT BEAUTY GLIDING CLUB

Mount Beauty Airfield operations weekends and public holidays and by arrangement. Winch launching with a two seater and single seat fleet. 30 members with a range of private gliders and motorgliders. Tel 0417 565 514. www.mtbeauty.com/gliding

MOURA GLIDING CLUB

Location: On Moura-Theodore Rd, 5 mins from Moura, Tel 07 4997 1430. 3 members, operations Sunday by winch. Facilities include Club House, hangar, 1 x two seater.

MURRAY BRIDGE GLIDING CLUB

Pallamana (7km from Murray Bridge on Palmer Rd). Tel 0403 318 277 www.murraybridgegfc.com Operations are self launching and by arrangement. 1 club 2

seater motorised and 3 private motorgliders. Club House, Hangarage. www.murraybridgegfc.com

MURRAY VALLEY SOARING CLUB

Redlands Road Corowa 3km's west of town. Tel 02 6033 5036. Seasonal professional operation, aerotow or self launch. www.australian-soaring-corowa.com Large hangar, clubhouse with office, internet, bar, Showers, BBQ, Swimming pool, Spa, water ballast, battery recharging services, Paved roads and runways, camping and caravan sites. Two tugs. We own and operate four unique 40ft sea containers to ship 6 gliders per container.

NARROGIN GLIDING CLUB

Located 8 km's west of Narrogin Township WA on Clayton Road This is about 200km's Sth East of Perth. The club features a powered Caravan Park, Ablution Block, kitchen, workshop, Licenced Bar, clean accommodation, Sealed Runways. The club fleet comprises three two seaters and three single seat A/C with Pawnee Tug. The club operates weekends and public Holidays and conducts 5/6 day beginner courses. The club conducts annual wave camps at the Stirlings, Fly-ins to local farms and Cross country courses. Contacts at Tel 08 9881 1795 or 0407088314,

www.narroglingclub.org.au

NARROMINE GLIDING CLUB

The club Our club's current fleet comprises of: Four two seaters, Two single seaters, Two Piper Pawnee tow planes. Facilities include club house with licenced bar and kitchen. Private owned tourist park on site with En-suite rooms,airconditioning, kitchen, recreation room, laundry. Walking distance from town. The club operates full time November to April and Fri, Sat, Sun, Mon for the rest of the year. The club welcomes all visitors.

www.narromineglidingclub.com.au

NSW AUSTRALIAN AIR FORCE CADETS

Flight Commander (Pres) - FLTL(AAFC) Bob Sheehan 0429 485 514 Chief Flying Instructor - SQNLDR(AAFC) Bill Gleeson-Barker 0408 443 009 Restricted full week courses, ADFC and ADF Personnel only - mainly during school holidays. Bathurst A/D

NORTHERN AUSTRALIAN GLIDING CLUB

Batchelow adjacent to the township. Tel 08 8941 2512. Operations Saturdays and public Holidays. Aerotow operations, 1 two seater, 3 private gliders. Club House, Hangarage available.

NORTH QUEENSLAND SOARING CENTRE

Corinda Avenue, Columbia, Charters Towers, Tel 0428 797 735, Operations by winch Sundays and public Holidays by arrangement. 5 Private gliders. www.nqsoaring.org.au

RAAF RICHMOND GLIDING CLUB

We operate gliders mostly on the weekend using a tow plane (mainly Sunday), and our motor-glider flights are

available 7 days a week. All our operations are subject to Air traffic control, weather and pilot availability. Main Phone: 02 4587 7618

www.richmondgliding.com

RAAF WILLIAMTOWN GLIDING CLUB

Williamtown airforce base 25 km's North of Newcastle on Nelsons Bay Road., Tel 02 4982 9334. Club fleet 2 Two seaters and 2 single seat gliders. Facilities include: workshop. 14 members. Operations weekends by appointment.

SCOUT GLIDING CLUB

Armstrong, (On Morgan Rd, 10km N of Blanchetown, W side of River Murray). Tel 0418 815 618. www.airactivities.sa.scouts.com.au Operations weekends and by arrangement. Self launching 2 x motorfaulks. Club House, Bunk house, Full kitchen and dining facilities, camp sites.

SOUTHERN RIVERINA GLIDING CLUB

Gate 3 Tocumwal Aerodrome 2km east Operations 7 days a week all year round. Launching by aerotow. 3 club operated gliders - 2x2 seaters and one single seater 76 members with a range of private gliders and motor gliders. BBQ and full kitchen facilities. CFI 0358 743 052. www.srgc.com.au

SOUTHERN CROSS GLIDING CLUB

Located at Camden Airport, approx 1 hour south west from the centre of Sydney, the club is one of the oldest and largest gliding clubs in Australia. It operates Saturday, Sunday, Monday, Wednesday and Friday all year round. The club offer 4 two seater and 4 single seater gliders supported by 3 Piper Pawnee tugs. A GFA approved workshop is located on the aerodrome. Postal address PO box 132 Camden NSW 2570 Ph (02) 4655 8882 email secretary@gliding.com.au.

www.gliding.com.au

SOUTHERN TABLELANDS GLIDING CLUB

Lockesyleigh" Carrick (11nm NE of Goulburn - N on Hume Hwy 12km, Left onto Carrick Rd, 8km, over railway on right). Tel 0408 647 671. Winch operations Saturdays or by arrangement. Facilities include hangarage. www.stgc.org.au The club has 2 two seaters and a single.

SOUTH GIPPSLAND GLIDING CLUB

Leongatha airfield 8km's south of Korumburra. Tel 0437 041 709. Operations weekend and public Holidays and by arrangement, Winch launching with rope. Aerotowing by arrangement. 4 club aircraft including 2 x two seaters. 2 Private gliders. 14 members. Camp sites, workshop, hangar

SOUTHWEST SLOPE SOARING P/L

Operations from Bendick Murrell airfield. Tel 0488 531 216. Winch and self launch by arrangement. Club own 1 two seater and has 3 private gliders. Facilities include: Hangar, powered camping area.

SPORTAVIATION – TOCUMWAL

7 day a week all year round operations by Aerotow. Gate 10, Babbingtons Road Tocumwal airport. Tel 0427 534 122.

5 club aircraft including 2 two seaters, 9 private aircraft. Caravan Park, Kitchen, Bathroom, BBQ area reception/Office, Conference and briefing rooms, Wi-Fi Hangarage water, full time courses.

www.sportaviation.com.au

SUNRAYSA GLIDING CLUB

Winch launching Weekends and public Holidays. 3 km's West of Koorlong, Mildura. Tel 03 5025 7335. 22 members, 2 two seat and 2 single seat aircraft, 5 other private aircraft. Canteen

Clubhouse, camp sites. www.sunraysiaglidingclub.org.au

SYDNEY GLIDING INC.

Operations from Camden Airport.. Tel 0412 145 144. Self launch operations weekends and midweek by prior arrangement. Club has 2 self launching 2 seaters. www.sydneygliding.com.au

SOAR NARROMINE P/L

Operations from the Narromine airfield west outskirts of town. Tel 0419 992 396. 7 day a week aerotow operation 2 tugs. 10 club aircraft including 3 two seaters. Facilities include: Caravan park with En-suit rooms and showers and air-conditioning. Camp Kitchen self cooking, recreation room with TV and Laundry Facilities. www.soarnarromine.com.au

SCOUT ASSN OF AUSTRALIA NSW GLIDING WING

Operates from the Camden airfield. See Sydney gliding for location details. Tel 02 9773 5648. Operations with self launch motor glider and 1 two seater glider. Weekends and other sites by arrangement. Membership restricted to youth scout Assn members.

TEMORA GLIDING CLUB

Operations from Temora Airfield 2km's Nth of the township off airport Road.. Tel 02 6977 2733. Operations by aerotow weekends with full time camps in January and others by arrangement. Club owns a two seater, Private fleet, 7 single seaters. Facilities include: Bar, canteen, Clubhouse, camp sites,

WARWICK GLIDING CLUB

Warwick Gliding Club is a small, friendly gliding club located at the Warwick Airfield on the Darling Downs in South-East Queensland 2 hours drive from Brisbane.

Tel: 07 3077 6973 www.warwickgliding.org.au

WAIKERIE GLIDING CLUB

Operations weekends and by arrangement, 7 day operations December and January. Waikerie airfield 3 km's east of town. Tel 08 8541 2644. Aerotow operations. 4 club aircraft including 1 x two seater, 17 private gliders. Trailer park. 29 members. www.waikerieglidingclub.com.au

WHYALLA GLIDING CLUB

Tregalana (25km from Whyalla on the Whyalla to Port Augusta Highway on the Right) Tel 08 8645 0339. Winch launching operations Sundays. Two single seat club aircraft, 1 private. Club House, hangarage available.

CLASSIFIED ADVERTISING

glidingaustralia.org

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SINGLE SEAT

ASG-29e

pristine condition, very low hours. Inner wing panels re-profiled and sealed by Peter Holmes. Poly paint all over. High performance propellor and engine mods. Cobra trailer and ground handling gear. Jaxida and Kerry all-over covers. Paul Mander, 0417 447 974, paul@mander.net.au

VH-CQV DG 200/17C

1630 hours, 590 landings, no accidents. Single piece canopy, 15 and 17m wingtips, schwabelac gelcoat. B-21, B-24 plus Winter vario. MicroAir 760 radio. Flarm and DVS. XCSOar on Kobo nav. Light weight trailer, tow-out gear. Some extras. Located at Benalla. MR valid until October 2018. **John Millott: 0429 147 462** or johnmillott280@gmail.com



VH-CTG LS1D

3404hrs, 1318 Landings. Great performing LS1D with recently rewired electrical and repiped pitot static system. Includes a



recently installed flarm Mouse (with certified flight logger) and Flarm-NAV readout, a Winter Variometer, and a full service history with associated documentation. Comes with a good registered trailer. Will be sold with a fresh Form 2 Annual Inspection / Maintenance Release \$15,000 ONO Contact **Steve 0437 187 565**

VH-IUS Nimbus 2 SNo. 103

Nimbus 2 SNo. 103, 2010 Hrs 760 Landings LD 49:1. Gympie based. Form2 August 2018. All steel dual axle trailer QLD Reg. \$24,000, for Pics call **David on 0408 018 857 or 07 5476 4241** or davidb10e@gmail.com

VH-UKD Ventus2a

Competition ready – Cobra Trailer (reg NSW) and basic instruments. Full tow gear. Empty weight 220kg, carries 220 litres water. \$80,000



Call **0407 459 581**

TWO SEAT

VH-NZZ Arcus T

2015, 392 h, 77 launches, 1 engine hour. LX S8/D, LE 57, Power Flarm



Core etc. Anschau twin axle Trailer, all rigging/towing gear. PU factory paint. As new. For info contact w.stalenburg@worldonline.nl for full details. **William Stalenburg Phone: 0474 309 406**

VH-GNZ, Kookaburra Mk IV GFA Form 2, expiry's 05/01/2018 Hours-mins, 4,604-53. launches, 22,892. Delcom AIR960 Airdand transceiver. Borgelt B300 club variometer. Open trailer. \$5500.00 **Brian McIntyre. 0419 847 197.** brianmcintyre@live.com



VH-UKY (Ka7) 2 seater 2015, 392 h, 77 launches, 1 engine basic instruments including new altimeter & new harness. Flown at Gympie since Oct. 2015 previously Gulgong N.S.W. reduced to \$6500



ono. Open upgraded trailer Qld reg Included. Contact **Janet 0439 745 091**

MOTOR GLIDERS AND TUGS

Swift single seat

Forerunner of the Aeriane Swift. 22:1 LD. 28hp Koenig. plus nil hour



crated spare engine. Located Hobart. \$6000 for quick sale. PH **John 0459 526 055**

VH-GFF, Nimbus 3T

25.5m. Total hours 2900. Engine hours 40. Tilt-up panel mod and full instrument panel rewire completed by Maddog Composites. Panel configured for Ixnav V7 + Oudie IGC + Flarm and Dittel Radio fitted. Cockpit fitted with Mountain High Oxygen system and bug wipers also available. Fully set up for competition or distance flying.

Pfeiffer trailer has been fully refinished and reconfigured (by Maddog Composites) with Cobra style wing dollies stabilised with side bearing runners and hydraulic lift for the fuselage. Comes with full IM1 one man rigging system and tow out gear, including tail lift. No heavy manual handling required with this setup. Glider also comes with full all-weather covers and wing and tail ballast tanks all fully operational. Also comes with 24.5m and 22.9m wingtips and various spares.

Sustainer is fitted and fully operational with min pilot weight 78kg and maximum weight with full fuel 100kg. Glider is fully sorted and in very good condition inside and out. Full PU refinish in 2012. Genuine 1:60 glide performance in a very elegant and capable package. Glider is currently hangered at Bathurst Soaring Club and a package with T-hanger is also possible. Price: \$85,000 negotiable Contact **Adam Gill, Phone 0417 770 084**



VH-GIO Atlas (TST-10-m) fibreglass 15M 80 hrs with pop-up Rotax 337, 10 hrs, 40 to 1 LD (claimed) - high rate of climb - suitable lighter pilots - best under 80 kg- recent Annual owner can help you get rating if needed - \$40,000 ono Contact **Richard Pincus 0408 525 618**



VH-GFU SUPER XIMANGO.



continued over page

Two seat side by side . 32:1 L/D . Rotax 912 Liquid cooled 4 stroke. Engine time 1015 hours. Hoffman 3 position prop. Wings fold to fit in standard hangar. Retractable undercarriage. Always hangered. Western Australia. A great touring motor glider for the morning glory. \$70,000 .Contact **Bill on 0428 513 911**

VH-GPH DG400 4-56



1800hrs airframe, 180hrs engine, BEA mod auto engine retract, refinished 2014, Komet Clamshell trailer, Mountain High, Strong parachute, Tow out gear, Form 2 Dec17, DG service contract, Jaxida canopy cover, Tasman vario and Flight pack system, Tasman EGT. \$80,000. Contact **Jack 0439 398 199**

VH-GUE DG500M

1/5 SHARE. Based at Boonah. Built 1995 always hangered. Immaculate condition. New Solo engine factory fitted in Germany by Binder 2014. Equipped for solo independent operation. Australian Agent for Solo Engines is one of the syndicate members. Dual Mountain High oxygen system. Flarm and Mode C Transponder for safety and CTA transit Full avionics panel, flight and engine controls both cockpits, Low utilization. Price reduced \$32000. **Jim 07 3821 1246 hjrgrant@primus.com.au**



INSTRUMENTS AND EQUIPMENT

VHF RADIOS - Icom ICA-210, Becker AR3201 and AR4201, Funke ATR600.
 Becker AR4201 - \$700
 Becker AR3201 - \$400
 ATR600 - \$500

All in working order - Great price
Call Arnie 0418 270 182
 or email arnie.hartley@gmail.com

TRAILERS

Komet Eurolight Trailer for ASG 29 18m

Purchased August 2008. Double walled aluminium sides, fiberglass/Epoxy top. Lateral guides for wing dollies and outer wing panel holders modified to Cobra style. Stored mainly undercover and used infrequently. Selling due to an opportunity to change to a different



trailer. \$17,000 Contact **Craig Vinall 0416 236 662**

WANTED

Trailer suit ASK-13

Must have internal dimensions 8.5M x 1.5M x 1.5M. In condition to gain permit for travel if unregistered. Prefer dual axle and eastern location. **David 07 5476 4241**

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Articles should be between 450 and 1000 words. If preferred, your identity will be kept confidential. If you have video footage, feel free to submit this with your close call.

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DG-1001 - the true multi-role glider for clubs and syndicates!

In one glider you can have

- 20 metre tips with winglets, water ballast and retractable landing gear*
- 18 metre tips with Neo winglets.
- 17.2 metre tips for the full range of aerobatics.

* standard configuration

Other options include three landing gear configurations...

- Electrically operated main gear (or manual on request) with tail wheel.
- Three wheel layout with retractable main gear, fixed nose and tail gear.
- Three wheel layout with fixed and faired main and nose gear.
- Other great features include tail and cockpit ballast blocks to optimise C of G for XC and spin training.

The DG-1001 is available in 4 versions...

- DG-1001 Club with fixed and faired landing gear and 18 metre tips with Neo winglets.
- DG-1001S with 20 metre tips and winglets, water ballast and retractable landing gear.
- DG-1001T with sustainer engine.
- DG-1001M self launcher.

Also Available :

