GLIDING AUSTRALIA

Issue 49 September - November 2019

www.glidingaustralia.org

EUROPEAN SUMMER

FLYING THE EUROPEAN COMPETITIONS

AUSTRALIAN JUNIOR GLIDING CLUB

JWGC HUNGARY - GLIDERS-Ventus 3, AS 34 Me

VINTAGE GLIDING

GLIDING AUSTRALIA

No. 49 September - November 2019

COVER: VENTUS 3M BY JOHN ABSOLON OVER BOONAH AIRFIELD

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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.

9am-5pm Monday - Thursday 9am-3pm Friday

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FROM THE PRESIDENT

As members will appreciate, when we are going through as much change as is currently occurring, people will disagree with what is happening.

I decided to make this edition for the members who have open minds and really want the best for the GFA. I'll go through some of the changes and try to explain why they are positives or otherwise for our organization. It may of necessity spill into the next edition, so let's go.

TWO YEARLY FLIGHT CHECKS - POSITIVE

The new Operations plan to go to two yearly flight checks is good work by the Operations Panel. It's a game changer and brings us into the world that all of the other sports aviation enthusiasts effectively play in, as well as the standard 'private pilot'.

OPENNESS AND REASONING FOR RULE CHANGES - POSITIVE

The Operations Panel is also sending out new feedback documents to all flying members in any area of rule changes. We will see the result. The first concerned the two yearly flight checks. I actually disagree with having an online test, and no one else has it. But each and every flying member had a say in what was best. I look forward to the outcome.

CASA FUNDING CHANGES - PARTIALLY POSITIVE

We started the year with a draft proposal from CASA to change the funding agreement, effectively dropping our funding by over $40,000. This should not have been unexpected because we had publicly stated that funding needed to be sorted out before Part 149 came into force, and we had also been pushing for an increase in funding since the amount was frozen in 2014.

Initially, the nine Sports Aviation groups got together at CASA's expense and were told the criteria, and that CASA wanted us to sort this out. CASA left the room and we started working on it, but it was never going to be easy. We went away and had a number of follow-on meetings, during which it was obvious that RAAus was at loggerheads with what the other eight groups were proposing, so we separated on this matter.

As spokesman for the group, I presented the group proposal through an email to the head of CASA. Our proposal was accepted and basically used for our current funding. As a direct result, our funding is now considerably less than it was in the past, but it is better than the original formula that CASA presented. As part of this exercise, CASA 'found' an extra $20,000 for RAAus, after going to great pains on a number of occasions to advise that there was no more money. We don't begrudge RAAus the extra money, just the fact that CASA was not honest with us.

FUNDING REPORTING - NOT POSITIVE

Funding reporting requirements have changed and been expanded with this year's allocation, meaning less money and more reporting. The current agreement lasts two years, and I am not convinced the payments will continue. However, we are coordinating with RAAus and all the other sports groups to make a submission to the government to support further and increased payments. In the financial environment that we are in, I would not hold my breath for any more money.

PART 149 - POSSIBLY POSITIVE

Part 149 is now passed into law and we have a choice to make - go into it or not. CASA has advised that if we do not enter part 149, everything will remain as it is and we will not be allowed to make any changes. When pushed on this matter using an example of a sudden massive change that will increase safety, they admitted they would consider it. The cost of entering Part 149 is not insubstantial at around $150,000 and ongoing costs of $50,000 as suggested by the Deputy Prime Minister when this was tabled.

Part 149 is supposed to give us more autonomy, make it easier to manage our affairs, and give financial certainty of CASA support in the future. At the moment we are still discussing some of the aspects, such as why CASA should be able to overturn some of our selections for senior positions such as President, Safety officer, head of Operations/Airworthiness, the cost of change of internal regulations that have to be approved by CASA, and ongoing support funding for the services that we do on behalf of CASA.

Your Board is being appraised on this significant matter regularly, and will decide as we progress towards a decision. Current thinking is that we will probably go into Part 149, but will be the last group and see how it is being managed by both CASA and the other groups.

One third of the Sports Aviation bodies

cannot enter Part 149 now because other regulations need to be changed first. It beggars belief that it took over 20 years to get this far and it's still not correct.

This will be the most significant change in our operating methodology since the OpRegs were introduced, and will have significant and long term effects. We need to be alert to unintended consequences that, because of what I call the 'CASA effect', cannot be changed because they are enshrined in some other form of legislation, including CASA internal 'how to' documents.

FINANCIAL CHANGES - POSITIVE

The Board has agreed to changing the basis for managing our finances, from using only bank fixed deposits to investing these assets to receive a greater return. The aim is not to build our finances but to use our money more effectively in this era of minimum interest payments through banks.

We initiated this just ahead of a large downturn in the market, but credit is owed to the Board for holding their ground. We have now come out of the year with a much brighter and better outcome than would have been possible using bank interest only.

While this approach involves risks, wins and losses, ups and downs, the aim is to grow our interest by greater than 4% above inflation. This does not stop us from going back to fixed bank fixed deposits if they increase their returns, but that is not going to happen soon. Please read the Treasurer's report.

MARKETING AND PROMOTION - POSITIVE

This is an area we have not handled well over the years, and the Board has tasked a small group of members to identify appropriate marketing logos, material and processes for the future. These people met earlier this month and are starting that process, which you will see more of in the near future.

SAFETY GROUP - POSITIVE

Members will be aware that this group was initially set up to deliver an appropriately levelled SMS to the GFA and clubs. This has been achieved, in no small effect because of Stuart Ferguson and the team, and each club has an SMS that is appropriate to its size and complexity. This is a good thing and must now be maintained by each club.

A new GFA Safety Advisor is coming on board to take us to the next level of safety. Safety is not a 'bolt on item' run from the top down. It is a culture that is effectively controlled from the bottom up, which is different to our historical approach. Professor Sidney Dekker will be assisting in this journey, and I would recommend that members read at least one of his books. They are enlightening and often go against what we 'know' to be good safety activities.

MEMBERSHIP DIVERSITY - POSITIVE

Approximately four years ago we had 5% Juniors and 2% women. The last statistics I saw showed we had 25% juniors and 12% women, which is fantastic.

SOARING TO THE FUTURE S2F - POSITIVE

This program is about understanding and making clubs and members more modern, capable and dynamic, and it's working. S2F clubs are growing while the remainder are slowly getting smaller by about 2% per year. Other information about S2F will appear in this magazine, which I suggest you find and read.

FIVE YEAR TENURE FOR GFA POSITIONS - POSITIVE

We have just reached this milestone for a number of positions in GFA. It means that members are not stuck in a position forever, but can take a break and smell the roses. Nothing prevents a member from coming back into a role after a year or two. Another reason for the change is to invigorate and renew - new minds and new leaders lead to new ideas.

GFA MET - POSITIVE

This initiative has given each and every GFA member world class meteorological support that is the envy of many.

DI VIDEO - POSITIVE

The airworthiness department has developed a video for Daily Inspection to help us move into the brave new world of YouTube. Other new videos are being prepared and will be rolled out in the near future.

LOANS TO CLUBS - POSITIVE

The GFA makes loans to clubs as a means of assisting them in major purchases, such as aircraft. The loans are cheaper than a bank and GFA gets a better rate of return.

MANDE-NEWS - POSITIVE

One of several methods of communication tried in the last few years, when Mande-news is combined with GA Magazine, the GFA Forum and Presidents Forum, as well as our Facebook page and individual emails when needed, we are getting traction in the social media and communication world.

TRACKERS FOR COMPETITIONS - POSITIVE

The latest group of GFA trackers allow interested people to take an active interest in the latest racing positions live. It is exciting and adds to the glamour of the sport for a significant percentage of the membership.

UPDATED MEMBER PROTECTION POLICY - POSITIVE

Membership Protection has been instigated over a period of years. While some members still do not understand it, the basis of a good policy in this area is that it has to be started at the lowest level, and actually continued as a process. Many members think that a complaint is the start of an MPP, but this is incorrect. The intent is to support members and that's a good thing.

FEWER FACE TO FACE MEETINGS - POSITIVE

Although face to face meetings are sometimes necessary and have a place in our communications, their cost is high. The Executive and Board now have two less face to face meetings every year, saving many thousands of dollars of members' money. All national groups - for example, Operations, Airworthiness, Soaring Development and so on - have electronic meetings, mostly on a regular basis, to ensure quality decision making and good process.

ONLINE TESTS - POSITIVE

Currently, Radio Procedures, Airways and Airspace, and the A, B and C certificates are conducted online. Expect more as we move to be more effective in this space.

REMOVAL OF THE ANNUAL MEMBERSHIP CARD - POSITIVE

Did you ever forget to change your old membership card? We now have the online profile, which is very convenient and also saves the GFA about $20,000 per year of your money.

NO CHARGE FOR SPORTING LICENSES - POSITIVE

I cannot remember what the cost of this was, but it was a continual problem if you were a competition pilot because you had to renew it every year or every two years. We now do not have to pay for it separately, but get it free and automatically as part of our Glider Pilot Certificate.

GLIDER PILOT LICENSE FOR OVERSEAS USE - POSITIVE

This initiative gives pilots an EASA standard Glider pilot License if they wish to fly overseas. It doesn't fix every issue, but it certainly helps.

You can see that there are many positives in the GFA. So, next time someone says, "What does GFA do for you?" or says something negative, think about these things. On the desk next to me I have a sign that I found on Facebook that says DON'T TAKE CRITICISM FROM PEOPLE YOU WOULDN'T EVER GO TO FOR ADVICE. I don't know where it came from, but it may be worth remembering when you hear people talking down our organisation.

SOAR ANALYSIS GROUP

In the coming weeks we will be advertising for volunteer members who are interested in assisting in the safety area specifically as part of a SOAR Analysis group, whose task it will be to analyse in a non biased way the SOAR reports that are submitted. This will not be accident investigation, but analysis and follow up that will allow our operations, airworthiness and sporting groups to have meaningful data and minimize the workload of our staff. This will include follow up with those reporting, and the local CFI to speed up the process. The group will be selected using a number of criteria including having read and understood the book 'The Field Guide to Human Error Investigations' by Sidney Dekker. Fly well

PETER CESCO, PRESIDENT
president@glidingaustralia.org

FROM THE EO

GFA OFFICE

The Board has asked GFA Office staff to reduce their work hours slightly but this change was averted when Cathy accepted a full time position at Victoria University of Technology. Tanya and Fiona have been trying to manage the workload without replacing Cathy and, with support from Tim, to automate some functions. Carol, handling GFA's finance, is assisting with answering phone calls and so on, and occasionally putting in extra hours. We will continue to monitor and, following the introduction of GoMembership, we will determine the ongoing business needs.

Since we only have Tanya in the office on Friday and after 3pm daily, we occasionally have to close the office due to holidays and absences. We encourage members to email any requests to returns@glidingaustralia.org. Tanya and Fiona will reply as soon as possible. If you leave a request to the last minute, we cannot guarantee that your request will be acted on as quickly as you expected.

JUNIOR WORLDS

Our junior pilots and their crew and team captain did a great job in Hungary at the Junior World Championships. It sounds as though they worked well together and were well respected, which says a lot about how they interacted with the other teams. They faced quite difficult conditions but handled it well, and slowly learned to fly with the gaggles – not easy to practice in Australia. It was a very young team and if they can maintain their involvement we might see some great results in future years. David Collins won a day at the championships, not a common outcome for Australian pilots, showing that he has potential to mix it with the best.

AJGC

The Australian Junior Gliding Club has been very active in the past 12 months and now have a series of regional events that offer junior members the chance for some training, coaching and socialising. Their key program is Joeyglide, a competition but also a coaching opportunity. You don't need a lot of experience to attend, and they provide some great support to those who do.

They arranged a Junior Instructor Training course recently, resulting in eight new Level 1 instructors, who are now sitting in the back seats of gliders across the country. As our older instructors start to step back and do less instructing, this initiative is critical for our future growth. Planning for another junior course next year is well underway. Alongside this, the regions are planning a number of Instructor courses for our older, age 30-plus members, as well as more women instructors. GFA covers AJGC membership, so it is a good time to join in and get involved.

GOMEMBERSHIP COMING SOON

A new membership management system GoMembership has been purchased which will simplify and automate a lot of your interactions with GFA and expand opportunities for clubs. We expect that it will go live in mid-September. We have relied on Tim Shirley over many years to design, develop and manage the GFA system, but the Board recognised that we cannot continue with this approach and elected to use a commercial software application designed for national sporting bodies like GFA.

Members' first indication of the change will be when their membership is due for renewal, which will now be done through GoMembership and will require the use of a credit card. As the vast majority of payments are already via card, it's likely that most people won't notice.

The default payment method will be an annual recurring payment, in which the amount will automatically be deducted via your card every 12 months, rather than requiring you to renew manually. An alternative is instalment payments, where you pay an amount up front plus a small monthly payment.

Tim made a short presentation at the AGM and we then planned a series of webinars or similar where members and clubs can learn more details about the new software.

LIFE MEMBERSHIP FOR TIM SHIRLEY

I am pleased to advise that the GFA Board has awarded life membership of GFA to Tim Shirley. This honour was presented to Tim at the AGM. Tim has been a major player in our IT systems and scoring systems over 40 years, representing a great commitment.

TERRY CUBLEY AM
EXECUTIVE OFFICER
eo@glidingaustralia.org

AUTO TUG (E TUG)

Michael Shirley advises that CASA has formally approved the issuing of Certificates of Airworthiness to eTugs in the Limited category for the purpose of glider towing. (*See page 32.*) This is great news for Pawnee owners and should significantly reduce the cost of our aero tows over a short period.

FAI AWARDS

We were successful in our application for an FAI Airsport medal for Colin Turner in South Australia who has been responsible for introducing gliding to a large number of scouts over many years. Colin also received the GFA Bob Muller award for running the gliding section of the Scout Jamboree in SA earlier this year. Congratulations to Colin for his continuous commitment to the Scouts and aviation.

MEMBER SURVEY IN SEPTEMBER

Many of the improvements GFA has made over the past three yeast have been based on feedback from members through our member survey. The first survey was in September 2015, which was then repeated in 2017. The survey coming up in September and October 2019 will again use the same basic questions, so we can measure progress and also identify new opportunities for improvement. All members are encouraged to spend 10 minutes to provide advice to the Board for future development of GFA. We really want to hear from our younger member as their response has been a little poor in the first two surveys.

LIFE MEMBERSHIP FOR TIM SHIRLEY

Tim Shirley has been active in gliding for more than 40 years and has been responsible for significant aspects of our administration and sporting system for most of these years.

Tim started gliding in the 1970s in Adelaide and very early on joined the Australian Gliding magazine committee. Tim managed the membership database for both the magazine and GFA, and eventually developed it into the official membership system in use when the GFA office was established at Essendon Airport.

Since that time, Tim has developed and managed each successive GFA membership system until the introduction of Imis in the late 1990s, and was instrumental in the introducing Salesforce as our current membership system. Tim was employed as the IT/ Administraion officer in 2013, which is a contract positions, but he invariably contributes more time than he ever charges for.

Tim was Chair of the National Competition Committee for a number of years in the mid '90s. He took over the International teams selection process when Murray Evans stepped down. He also became chief scorer for the Australian National Championships during the same period and continued this responsibility through many Nationals and three World Championships at Gawler, Narromine and Benalla. He has trained his replacements in recent years, and has handed over this responsibility.

Tim has been Awards officer since 2009 and managed the nomination and selection of recipients, organised the trophies and managed the honour board.

Tim has contributed significantly to the GFA and our administration systems are much better for his involvement.

RANGA SCHOLARSHIP AWARDED

The RANGA Scholarship has been granted to Chelsea Symes, who is a member of Bendigo GC.

The scholarship runs from July 2019 to July 2020 and provides up to $1,500 towards flying training in gliders up to and beyond solo.

Chelsea was first introduced to gliding by her uncle, Steve Baldini who is an enthusiastic pilot and half owner of an ASW 19. The magic obviously influenced Chelsea, who has determined that her future career will be that of an airline pilot and that gliding experience is valued by future employers. The RANGA scholarship will be of great assistance to Chelsea in achieving her goal.

On hearing the news Chelsea said, 'When I received the email saying I had received it, I was speechless, I never thought an opportunity like this would come along for me. My uncle has been a glider pilot for many years and he introduced me to it when I was much younger. He would explain the physics of flight and how each control affected the way the glider moved. In early 2019 I began my training and accumulating hours toward going solo which I hope to do by the end of the year or early 2020.'

GFA CALENDAR

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

BUNYAN WAVE CAMP
14 -22 September 2019
Canberra Gliding Club
bunyanwavecamp@iinet.net.au

QLD STATE COMPS
21 -28 September 2019
Darling Downs Soaring Club
Bowenville QLD
www.ddsc.org.au

REPLACEMENT OF COMPONENTS
21-22 and 28-29 September 2019
SCGC Camden Airport
NSW Gliding is conducting a Course and Assessments for GFA Airworthiness Authorities for Replacement of Components (RoC) t The course costs $440 inc GST and covers training and meals for all 4 days. Courses are 8:00am to 8:30pm both Saturday and Sunday for consecutive weekends. Attendance at both weekends will be required to obtain the rating.

Bookings training@gliding.com.au

CLUB AND SPORTS NATIONALS
29 September - 5 October 2019
Kingaroy, Queensland
Practice Day 29 September.
Contest Director -
Greg Schmidt **0414 747 201**
kingaroysoaring.com.au

MINOR REPAIRS COMPOSITE STRUCTURES
29 September - 5 October 2019
Parafield Airport SA

Contact: Cath Conway cath@av8.net.au
mobile **0429 803 705**

WOMEN IN GLIDING WEEK
20 - 27 October 2019
Lake Keepit NSW
For further details please contact
Wendy Medlicott on **0428 499 774**
wendymedlicott@optusnet.com.au

VINTAGE GLIDERS AUSTRALIA MELBOURNE CUP RALLY
2 – 5 November 2019
Bacchus Marsh Airfield
All welcome!
Contact Dave Goldsmith
0428 450 475
daveandjenne@gmail.com

NARROMINE CUP
16 - 23 November 2019
For further details contact
Arnie Hartley arnie.hartley@gmail.com

VICTORIAN STATE CHAMPIONSHIPS
23 – 30 November 2019
Gliding Club of Victoria, Benalla
Contact Matt Gage
matt@knightschallenge.com

WAIKERIE ORANGE WEEK
23 – 30 November 2019
Waikerie Airport, Holder SA
Contact John Ridge
johnridge16@gmail.com

WOMEN IN GLIDING WEEK
30 November – 6 December 2019
NARROGIN GLIDING CLUB WA
Contact Jenny Shearer
0417 934052 jsh53303@bigpo

JOEYGLIDE 2019/20: AUSTRALIAN JUNIOR NATIONALS & COACHING PROGRAM
30 November – 7 December 2019
Kingaroy QLD
For further details please contact:
James Nugent 0400 235 815 or
Greg Schmidt 0414 747 201
admin@juniorsoaring.org
www.joeyglide.juniorsoaring.org

NSW STATE CHAMPIONSHIPS
30 November – 7 December 2019
Please contact Daryl Connell at
djpconnell@gmail.com for further details.

MULTICLASS NATIONALS
9 - 21 December 2019
Tocumwal NSW
tocumwalsoaring.com
nfo@tocumwalsoaring.com

10TH WOMENS WORLD GLIDING CHAMPIONSHIPS LAKE KEEPIT
3 - 17 January 2020
For further details about the 10th Women's World Gliding Championships
Contact Mandy Temple
mandytemplecd@gmail.com
wwgc2019.com

VINTAGE GLIDERS AUSTRALIA ANNUAL RALLY - BORDERTOWN
5 – 11 January 2020
Members and friends are invited to the Annual Vintage Glider Rally to be held at **Bordertown Airfield** from 5 to 11 January 2020.
Social and flying activities will ensure a fun time for all. Winch launching will be provided.
Further details are available from VGA President
John 'JR' Marshall 0407 417747
jma99350@bigpond.net.au

HORSHAM WEEK
1 – 8 February 2020
For further details contact
horshamweek.org.au

NCC 20M 2-SEATER NATIONALS HORSHA
15 – 22 February 2020
Horsham, Victoria
horshamflyingclub.secretary@gmail
horshamflyingclub.org.au

INTERNATIONAL
3RD FAI WORLD 13.5M CLASS GLIDING CHAMPIONSHIP 2019 ITALY PAVULLO
1 - 14 September 2019

36TH FAI WORLD GLIDING CHAMPIONSHIPS GERMANY STENDAL-BORSTEL
19 - 31 July 2020
18m, Open, 20m

36TH FAI WORLD GLIDING CHAMPIONSHIPS FRANCE CHÂLONS-ECURY
8 - 22 August 2020
15m, Standard, Club

FAI GLIDING BADGES
TO 15 AUGUST 2019

BERYL HARTLEY
FAI CERTIFICATES OFFICER
faicertificates@glidingaustralia.org

A BADGE

ERIK JOHANNESSEN	902 SQUADRON AAFC
SALLY CRAWCOUR	THE GC OF WA
SAMUEL PETERSON	903 SQUADRON AAFC
CHI WAI FUNG	LKSC
TSZ KIT SO	LKSC

B BADGE

JENNA MARSCHALL	DDSC.
LUKE MORRIS	903 ATS

A, B BADGE

DAVID GRINDROD	BOONAH GC
MICHAEL POPE	NARROGIN GC

B, C BADGE

DAVID ALLEY	NARROGIN GC

A, B, C BADGE

KING HONG MA	LKSC
CHEUK FUNG LAI	LKSC
WAI KI ALSTON LUI	LKSC
HO LUN NG	LKSC
RICHARD WILLIS	SOUTHERN CROSS GC
CARL HOOGLAND	HUNTER VALLEY GC

C BADGE

LACHLAN ROSE	902 SQUADRON AAFC
SUJAI THOMMAN	MELBOURNE GC/VMFG
CRAIG LEE	MELBOURNE GC/VMFG
ROLAND MORSCHECK	CANBERRA GC .

SILVER C

STUART USHER	GLIDING CLUB OF WA

GOLD C

CHRISTOPHER ADDA	13805	GEELONG GC

DIAMOND C

ANDRZEJ WROBLEWSKI	252	GEELONG GC

1000 KM DIPLOMA

AKEMI ICHIKAWA	48	LAKE KEEPIT SC

MARKETING WORKING GROUP

In the past, each region has had a Marketing and Development Officer, with a position on the Board for Marketing and Development.

For a number of reasons, this organisation was not effective and very little progress was made in marketing, branding and development of the sport. Consequently, the Board abandoned this approach about 18 months ago.

In June, GFA established a working group for marketing and branding. The group is diverse, made up of both young and older members, experienced and inexperienced members, men and women.

In order for gliding to grow and thrive, we need to update our look and have a clear understanding of what we market and who we market to. We believe the group should be tasked with looking at internal as well as external marketing.

The Marketing group was formed by Board members suggesting possible interested members who were likely to participate. They were approached and we held an initial brainstorming workshop in early August. From that original group, we have now established a working group

- Sarah Thompson (lead)
- Phil Henderson (Vic)
- Terry Cubley (EO)
- Leonie Furze (NSW)
- Natan'El Schuster (Qld)
- Roger Shead (WA)
- Jenny Thompson (Board)
- Brooke Anderson (Juniors)

The immediate effort is designing a new GFA logo and producing promotional materials for use at airshows and events.

Now, to encourage involvement from the wider membership – we'd like to have a stock of catchy slogans to use in our marketing material and merchandise. Please send your ideas to Terry Cubley who will collate them.

We welcome input and feedback.

JENNY THOMPSON

AWPA – CROSS COUNTRY GLIDING SCHOLARSHIP

As the recipient of the 2019 Australian Women Pilots' Association (AWPA) cross-country Soaring Scholarship, I remind all women cross-country pilots that the AWPA offers an annual scholarship to a female glider pilot holding a Silver C Certificate. This scholarship aims to assist and enhance cross-country gliding skills.

A Gliding Award is also given for the most worthy flight flown by a female pilot in the past year, or for an outstanding contribution to the advancement of gliding in Australia. Nominate yourself. We would love to celebrate more ladies' achievements in gliding.

The AWPA also collected $600 in donations from members at our last conference in Brisbane to help Australian gliding women compete in the upcoming 10th FAI Women's World Gliding Championships at Lake Keepit in 2020.

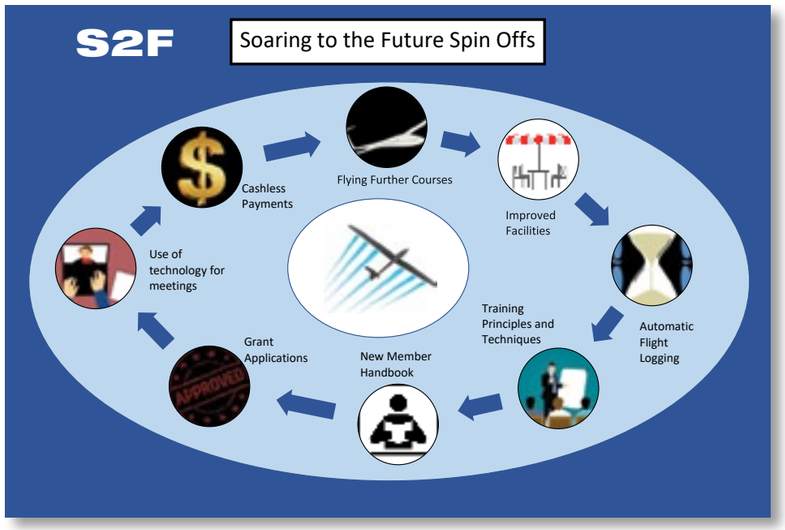
Each year, the AWPA makes available a range of scholarships and awards that create opportunities for women of all ages and levels of experience to learn how to fly or improve their flying skills - fixed wing with or without engines, helicopters and so on.

Please check the website awpa.org.au/scholarships-and-awards and put your application in for the next round.

The next annual AWPA conference will be in Broken Hill from 1 to 5 April 2020. Consider joining us - for those unable to fly there, commercially or privately, we will organise a party bus going there and back. We would love to see more women pilots at our meetings. It will be fun and informative and, just like our Women in Gliding camps, so important to help foster and develop friendship among girls with a common passion - aviation.

Looking ahead to the AWPA Broken Hill 2020 Conference.

DOMINIQUE BRASSIER



SOARING TO THE FUTURE SPIN OFFS

In this 50th anniversary year of the moon landing I have read many stories of the Spin Offs - items introduced into everyday life - created by the Apollo project.

I know that some members do not yet fully understand our Soaring to the Future initiative (S2F) or how it may affect them.

It is my hope that Soaring to the Future will leave a similar legacy to gliding in Australia with Spin Offs that benefit all clubs and all members.

The work is not yet finished but above is a diagram showing the current initiatives or Spin Offs that could be of immediate benefit to all clubs

CASHLESS PAYMENT

Clubs that have adopted Cashless Payment have found reduced 'leakage' and improved stock control.

Fewer members forget to pay and, as no cash is kept on site, security is improved.

FLYING FURTHER COURSES

Two coaches can train four solo pilots to GPC standard in a 5-day course. We know that post solo pilots are leaving gliding in high numbers due to slow progression in the traditional club system. These courses address that issue. We are running six back-to-back courses at S2F clubs in November and December and will then have a complete package to roll out to all interested clubs.

IMPROVED FACILITIES

Several clubs have successfully applied for grants or used GFA funding to upgrade their launch point facilities. This is a place that new members spend a lot of their time. If it is uncomfortable they may not persist. Changes can be simple and inexpensive such as -

- Internet connection
- Briefing material
- Whiteboard with working pens
- Cold drinking water
- Sunscreen
- Secure key storage
- Mobile equipment locker

More significant changes are -

- Better shade
- Permanent structures
- Comfortable chairs
- Trailer toilets

Club houses have also been improved to make them more presentable -

- New carpets
- Repainting
- New hot water system
- Hot showers now available

AUTOMATIC FLIGHT LOGGING

Some clubs are using Ditto log very successfully and work is proceeding on a number of new apps and black box testing to modernise flight logging and billing to further reduce member effort. Those using an automated system report greater accuracy of record keeping and fewer errors.

TRAINING PRINCIPLES AND TECHNIQUES

This training is now being rolled out in each state. It trains Instructors and coaches in modern teaching techniques.

This course is a requirement for all coaches and instructors of an S2F club.

The course will also be of value to any existing coach or instructor who would like to hone their teaching skills and obtain this rating.

TPT training is a prerequisite for the new Silver coach rating - post solo to GPC syllabus. We believe that, going forward, TPT training will be required for all instructor re-validations

NEW MEMBER HANDBOOKS

Manuals to define new member and committee member roles and responsibilities reduce conflict and makes any and all expectations clear and transparent for everyone to see.

GRANT APPLICATIONS

Clubs have been successful in achieving grants in a number of areas, particularly concerning shelter at launch points and installing solar systems.

USE OF TECHNOLOGY FOR MEETINGS

Traditionally clubs meet monthly and maybe miss a couple during the year. This only leaves 10 opportunities to make decisions and is a slow process. Clubs who make routine decisions by email find that they are better able to adapt to change and opportunities. Furthermore, this leaves the physical meetings free to discuss big strategic items without the clutter of small details.

"The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking." Albert Einstein

MANDY TEMPLE **CHAIR S2**
s2f@glidingaustralia.org

SOARING DEVELOPMENT UPDATE

The Soaring Development Panel (SDP) has a range of activities it manages and coordinates. This includes -

- National competitions, Handicaps
- International team participation
- FAI badges, records and OLC coordination
- Coaching and Pilot Development

COACHING UPDATE

In May, the Board approved a budget for the SDP to develop a comprehensive Coaching and Pilot Development system. Up till now, coaching has been handled in a broad brush manner. We have over 70 coaches in Australia and coaching is conducted in many clubs. It is fair to say that the perception of coaching is that it is an advanced activity, and often new post solo pilots do not know how to reach out to be able to get some coaching.

We have, however, had successful coaching events over the last few years including Coach the Coaches for new coaches, visiting coaches to the regions and other events.

Peter Temple took over from John Buchanan as the National Coaching Director in March of this year and he is tasked with the Coaching Program development, along with the Soaring Development Mangers from WA (Arnold Geerlings), SA (Craig Vinall), Vic/Tas (Matt Gage), and Terry Cubley who has volunteered to contribute.

Last year, the Coaching syllabus was defined and there will now be three levels of coaching - Silver Coach for coaching up to GPC, Diamond Coach for coaching up to 500km flights, and High Performance coaching for advanced coaching. During August the group has made fast progress and by mid-September, all training modules for Silver Coaching will be complete.

In parallel to this, the coaching panel is working with the Operations team to develop an integrated training system – a single training manual from first flight to GPC. The Board has set a timeline for this to be completed by April 2020.

COACHING EVENTS

Six Coach the Coaches events are planned for this summer. These courses are aimed at training pilots to become Silver Coaches.

Six Coaching Sessions are also planned for the summer. These courses are for solo pilots wanting to attain their GPC.

Details will be advertised in coming weeks.

POSITIONS VACANT

The Soaring Development Panel currently has four vacancies to fill. They are Soaring Development Manager (SDM) (NSW), Soaring Development Manager (SDM) (Qld), Handicap Committee Chair, and International Teams Convenor (ITC). Full descriptions of the roles will be advertised on the Forum and on the GFA website for those interested in becoming involved in the team that does exciting stuff for gliding.

JENNY THOMPSON

AGM AND GFA AWARDS 2019

GFA President Pete Cesco opened the GFA Annual General Meeting, held 24 August at the Bacchus Marsh Gliding Clubhouse, with the official launch of the GFA simulator, alongside its two designer/manufacturers, Alby James and Ian Kerton.

Members were thrilled to see the quality of the design and build, and quite a few took the opportunity to 'have a fly' – with very positive feedback following the experience.

Alby and Ian have developed the design so that it can be constructed without complex manufacturing processes, and Alby will shortly produce a flat pack enabling clubs to build their own simulators.

Afterwards, the GFA AGM commenced with 48 members attending. As no motions had been proposed for consideration, it was predominantly a procedural meeting. The minutes are available on the GFA web page under Documents/Minutes/AGM.

President Peter gave his report, including a summary of the main issues addressed by the Board over the past 12 months. These included the CASA funding reduction, introduction of Part 149 which will detail our governance role for the sport, the financial impacts of our decreasing membership and the Board's progress in addressing this trend, our investment policy to improve income, and changes to our safety management. The full report can be seen alongside the minutes, and are available at the same web location noted above.

The main action at the AGM was for members to approve the proposed changes to Board appointments and regional officers. The most significant were the changes to Board members, including the positions of Chair of Operations moving to Pat Barfield following Drew McKinnie's retirement. The new Safety Advisor Sid Dekker was introduced. Sid replaces Stuart Fergusson, who has completed his five years in this role, with a significant change to the structure and focus of safety.

Two new regional Board members were appointed, Greg Beecroft (WA) and Lindsay Mitchell (Qld).

The minutes list all of the regional officer positions. Among these, a small number of changes were approved, and these can also be seen on the web page under Contacts.

The financial report was accepted and the auditors re-appointed.

As the AGM came to a close, the president then announced a Life Membership, the GFA's highest recognition, awarded to Tim Shirley for his contribution of more than 40 years to GFA in the IT and sporting area. (See page 5.)

The Members Forum started immediately after the AGM with some information provided regarding the new GoMembership system, S2F and Sid Dekker explaining his different focus regarding safety.

OPPOSITE TOP: Alby James and Ian Kerton recieved the Hoinville Award for work on the simulator prototype.

ABOVE: Graeme and Jim Barton were awarded the Bill Iggulden Award for services to the Australian Gliding Museum.

ABOVE RIGHT: Colin Turner is recognised with the FAI Award and JR Muller Award.

RIGHT: Ailsa McMillan earned the 100km Oceania Record Benalla 205 kph

OPPOSITE BOTTOM LEFT: Andrew Simpson accepted the Ryan Award for Airworthiness on behalf of winner Anthony Smith.

OPPOSITE BOTTOM RIGHT: Matt Gage, pictured with Peter Cesco, and John Warington earned the Paul Tissandier FAI Award for their proximity analysis software.

The election of President, Vice President and Treasurer took place on the Sunday at the Board meeting. The positions are held as follows:

- President – Peter Cesco
- Vice President – Mark 'Lumpy' Paterson
- Treasurer – Dave Shorter.

GFA AWARDS

The awards were presented after the Members Forum, and included FAI International awards, GFA awards and GFA sporting trophies.

Two FAI awards were announced and will be presented at the FAI Conference in Switzerland in December. We were pleased to announce the recipients.

- The FAI Group Diploma was awarded to GFA for the management of gliding in Australia for the past 70 years (1949-2019).
- The FAI Paul Tissandier Diploma will be presented to Dr John Wharrington and Matt Gage for their excellent work in developing the Proximity Analysis tool which is now in use to improve safety at major gliding championships around the world.

Wallington Award	Services to the Sport of Gliding	Morgan Sandercock
Muller Award	Services to the Promotion of Gliding	Colin Turner
Hoinville Award	Services to Operations	Alby James and Ian Kerton
Iggulden Award	Service to gliding as a volunteer	Graeme Barton and Jim Barton
Ryan Award	Services to Airworthiness	Anthony Smith

Wally Woods Trophy	Longest Flight 2018-2019	Brian DuRieu	1129 km
Bob Irvine Trophy	Flight with Highest OLC Points 2018- 2019	Tobi Geiger	1171 pts
Martin Warner Trophy	Greatest Gain of Height 2018/2019	Rick Agnew	20,512 ft
Roger Woods Trophy	Best placed Australian in World Club Class 2018	Jim Crowhurst	11th Place
Royal Aeronautical Society Shield	Highest Speed by an Australian in World Club Class	Allan Barnes	104.6 kph

FAI Awards and Diplomas

Paul Tissandier Diploma	Matt Gage and John Warington	Proximity Analysis SW for separation in competitions	
FAI Group Diploma of Honour	The GFA (yes, all of it)		
Certificate of Appreciation	Colin Turner	Services to the Scout Gliding Club over many years	
Record	Ailsa McMillan	Oceania Record, 100kph Triangle 205kph	Benalla, 27 Dec 2018,

ALPINE GLIDING COACHING REGATTA

MOUNT BEAUTY

BY ANDREW EVANS

Mount Beauty Gliding Club's Alpine Coaching Week had an international flavour this year with a British coaching guru and a Hong Kong participant among its participants. Airline pilot Brian Thomas travelled to North East Victoria from Hong Kong to learn from a group of four coaches led by the renowned international gliding coach and author, G Dale. Also taking his flying to a very different level was former Air Marshall Geoff Brown who was head of the RAAF for four years until his retirement in 2015.

The course, sponsored by the Victorian Soaring Association and hosted by the Mount Beauty Gliding Club, was attended by four coaches and 15 pilots. G Dale spent the first three days of the course training coaches from various gliding clubs, including Mount Beauty Gliding Club pilot Craig Collings. All the coaches then flew with the participating pilots in varying flying conditions over several days. Mount Beauty Gliding Club members Peter Demeo, Steve Bradbury and Bernie Hochwimmer were among the pilots who participated in the coaching sessions.

The event was overseen by VSA representative, Philip Volk as Convenor and Mount Beauty Gliding Club Chief Flying Instructor Bernie O'Donnell, assisted by members of the Club. Daily organisation of the event consisted of a morning briefing and coaching class room session followed by flying sessions for which gliders were launched by aero-tow and winch launching.

Local pilot Tony Edwards, assisted by Club member Terry Ryan, provided aero-towing services while a number of other Club members Al Dickie, Greg Wilson, Detlev Rueff, Peter Deane, Andrew Evans, Duncan Robertson, Peter Demeo, Ollie Barthelmes and Rick Amery provided other support services including winch operation, winch launch check flights and ground crew duties.

In spite of large bushfires in the vicinity, excellent gliding conditions ensured that all participants were provided with opportunities to learn new skills while enjoying the majestic alpine environment of North East Victoria from a high altitude.

The accolades were unanimous from the visitors on the excellent management of the course and the enjoyable experience provided at the beautiful alpine soaring location of Mount Beauty.

Here are some feedback comments received from the happy participants:

"Excellent coaching flights helped find and focus on my weaknesses; very good briefings by G Dale and the Alpine gliding coaches each morning; a good bunch of pilots attending. A well worthwhile and enjoyable week. Thanks to Phil Volk and the VSA for organising the week and to the many members of Mount Beauty Gliding Club for their friendship and support throughout."

Roger Harrop

"Thanks to all the people who made this event such a success. I had a great time. It was great to be invited although I feel as though we've only scratched the surface. I hope to be back."

G Dale

"I felt very lucky to have the opportunity to coach a great group of enthusiastic pilots along with some very experienced mountain pilots and coaches at the 2019 Mountain Soaring course at Mount Beauty. It was a great learning opportunity for me, too, and I think all participants - coaches and students alike - took away important learnings, not only for their soaring, but also personally. This would not have been possible without the tireless help and support from the Mount Beauty Gliding Club members, and some really nice weather… A big THANK YOU to all involved in organising and running this event."

Tobi Geiger

"I attended the course from overseas and found it to be a world class professional learning experience in a wonderfully relaxed and friendly environment. There are minimum gliding experience requirements, for good reason, but it was my first experience of mountain soaring and I could not have hoped for a better and safer introduction, alongside pilots with a lot more exposure who were clearly getting just as much out of it. The beautiful surrounds and welcoming expert hosts left me longing for the next one from the moment it ended."

Brian Thomas

"An enjoyable week at a superb venue with great hospitality from the Mount Beauty Gliding Club. The quality of the briefings and dual flying was unmatched and I now feel very confident in the techniques required to soar safely and successfully in the Alpine region."

Geoff Brown

"An excellent experience, with fantastic organisation, club members, coaches, briefings, atmosphere, venue and weather, I had a ball learning in an encouraging low stress environment after a long hot summer of flatland flying. Well worth your time to join the Alpine Week course if you're keen to learn the intricacies of the mountains."

Grant Heaney

As I live in the area and learned to fly at Mount Beauty, the course was an opportunity to help our club run a successful event. The highlights for me were meeting old friends and new people alike, interacting in meaningful ways, and sharing experiences together. A flying course needs good soaring weather, and we were privileged with a great variety of conditions allowing different styles of flying, and informative debriefs the following day. One memorable experience was listening to G Dale describe the effect of wave on thermal development, promoting the thermals at the wave peaks and suppressing them in the troughs, only to see the exact phenomena later that day as smoke from fires was injected into the atmosphere in wave conditions, making the peaks and troughs, and the corresponding cumulus and lack of cumulus clearly visible.

Craig Collings

"As a local, I was comfortable and confident flying in the best mountains in Australia, but there was complacency, too. G Dale has made me a safer pilot. His theory, presentations and style were excellent. Thanks also to the other coaches Craig Collings, John Orton and Tobi Geiger

and all the behind-the-scenes people at Mount Beauty for a very well organised week".

Steve Bradbury

Such clear explanations of what is happening when meteorology meets topography before or after, experiencing various such meetings increased the pleasure and exhilaration of mountain flying for me enormously. G Dale's 'Billy Walker Rule' is one I will not forget! Awesome hospitality from the Mt Beauty Gliding Club at their beautiful site. Can't beat the view from that green grass carpeted launch site. Thank you for the wonderful input and support you gave to the week, Bernie. It was a great experience for us. Looking forward to next year!

Jenne Goldsmith

"Firstly thank you and your team for the wonderful support given to us over the 6 days. The Mount Beauty Gliding Club made us feel very welcome and the efforts by the club members to make it happen is much appreciated. The excellent support from MBGC was fundamental to the success of the event. The quality of the coaching, led by G Dale, was excellent. I now look at terrain and think about the flow of air in a new and refreshing way. The course, underpinned by the emphasis on safety, eliminated my past hesitancy in the alpine regions and I am now looking forward to many more opportunities to fly in the high country. Following G Dale's excellent lessons, I now read his books with a much greater clarity and can thoroughly recommend them for any glider pilot wishing to improve his understanding of gliding weather."

David Pietsch

GA

JUNIOR TEAM SZEGED

BY ALLAN BARNES

The 2019 Junior World Gliding Championships at Szeged, Hungary, took place in July and August. Australia sent a team of four pilots - Michael Keller, David Collins and Reuben Lane in Club Class and Josh Geerlings in Standard Class. Szeged is a sleepy regional centre in the very south of Hungary, on flat fertile farmland just near the borders of Serbia and Romania, and has hosted World Gliding Championships before - a Women's Worlds in 2009 and a Senior Worlds in 2010.

For all of us, planning started many months before the main event. All the pilots had to apply to CASA for Glider Pilot Licences, which involved sitting English Language Proficiency Tests, having Police checks, and Class 2 medicals, all at a cost. Then the accommodation, airline tickets, car hire and glider hire had to be arranged.

It would have been great fun to have been on the same flights to Europe, travelling together to and from the comp. But invariably this is impossible to arrange. Two of our pilots live in WA, plus one comes from Melbourne and one from Newcastle. One was already in Europe, and the others had varying amounts of time available for the trip.

As a result, the first time the whole team met up was the day before the unofficial practice day. Even as team captain, this was the first time I had ever met two of the team, David and Josh, and only the second time I had met Michael. However, the team rapidly began to bond, as people with a common passion and background usually do. Including crew and helpers, the team eventually comprised 13 people and one inflatable kangaroo, Skippy, the most identifiable member of Team Australia.

Most European teams camp at the airfield, but for overseas pilots, bringing a full set of camping gear is quite impractical. Instead, we booked rooms at a farm stay-type of accommodation in a converted horse stables located 15 minutes from the airfield, which happened to be the same place that the US team was staying. Just 2km from the Serbian border, long queues of traffic were often waiting for clearance to enter Serbia. Fortunately, we could bypass these.

Our delightful host, Zsuzsanna, had an impressive collection of close to 40 used cars in her paddock, ranging from modern to as far back as a 1940s Mercedes. All these turned out to be awaiting clearance to enter Serbia, presumably due to insufficient paperwork after having been abandoned by their owners. The accommodation was basic but adequate, encompassing six rooms and four bathrooms, decorated in what could best be described as classic 1970s socialist style.

RIGHT: David Collins on the podium with Skippy after winning the day in Club Class.

COMPETITION READY

While the competitors set themselves up with their gliders, became familiar with instruments and prepared for scrutineering, Arnold Andrew and I set up the base radio station in the camping area at the airfield. An 8m aerial pole with pre-tuned antenna was mounted atop the mobile toilet block and a cable was run back to the Aussie base – a lightweight shade tent purchased for €50. This radio system enabled us to reach most of the pilots up to 80km out on track, once their onboard radios were correctly tuned. We then had to buy a brand new airband base-radio, since Europe now forbids the use of radios that cannot access the new 0.833Khz channel spacing. Ordered at 4pm from Lithuania, 1,500km and three countries away, it impressively arrived the next day at midday.

The practice days went well – especially the one that the boys called off mid-flight due to deteriorating weather and converted into a photoshoot opportunity, flying together and just having fun. During the competition, my role was varied – organising logistics, helping with spares or minor repairs, as well as supplying daily advice from the ground on weather, start times and the actions and progress of other competitors. Keeping the pilots motivated, the crews well informed, and coordinating retrieves were also among my varied responsibilities.

BRUTAL TASKING

From the point of view of tasking, the organisers were quite brutal. There were no soft easy tasks, and several were overset. On two days, every competitor landed out in both classes! This was not entirely due to the weather – on one of these days a 350-400km race would have been ideal but a 500km task was set that was impossible to complete in the time available. But overall, the quality of the tasking was pretty good and no days were wasted. We flew a remarkable 11 days out of 14, far more than is usual for a European competition.

The organisers hosted a couple of great events including the international night when each country showed off their local specialities of food and drink. Australia's contribution was Vegemite, Bundy Rum, Tim Tams and Anzac Biscuits, the latter expertly baked by the crew.

For the Aussie team, the highlight was undoubtedly David picking up a day win on one of the most difficult days of the competition. He fought his way around a 200km task to within 3km of the finish line before safely landing out at a nearby gliding club. We like to think that our cheer was louder than any of the other day wins, and David generously let Skippy share the podium! The low point was no doubt the overall result, which was disappointing for all four pilots. However, this was truly a baptism of fire.

For three of our four pilots, this was the first competition they had entered apart from Joeyglide. The contrast could not have been greater. The intensity of gaggle flying was extreme, and the level of strategy and team flying displayed by the winning pilots in both classes was quite exceptional and outside the experience of any of our competitors. All four made it home on only two days, resulting in a number of late night retrieves, adding to the fatigue of long hours in the air. Considering the unfamiliarity with weather, terrain and aircraft, and the lack of seasonal currency, I don't think our pilots have any reason to feel that they underachieved.

All of them agreed that the event was a fantastic experience, and have all come back better pilots, eager to apply their newly-learned skills to competitions in the future. Each showed impressive talent and resiliency, and I'm proud of them all. Keep an eye out for these guys at your next Australian Nationals! GA

JUNIOR WORLD GLIDING CHAMPIONSHIP SZEGED HUNGARY

28 JULY 2019 - 8 AUGUST 2019

STANDAARD CLASS

1	SIMON SCHRÖDER	GER	LS-8-15	7,422
2	SIMON BRIEL	GER	DISCUS 2B	7,262
3	TOMASZ HORNIK	POL	LS-8-15	7,000
31	JOSHUA GEERLINGS	AUS	LS-8-15	5,012

CLUB CLASS

1	JAKE BRATTLE	GB	ASW-20	8,453
2	FINN SLEIGH	GB	ASW-20	8,306
3	MAXIMILIAN DORSCH	GER	LS-4	8,263
38	DAVID COLLINS	AUS	LS-3	5,639
40	MICHAEL KELLER	AUS	STD CIRRUS	5,068
44	REUBEN LANE	AUS	LS-1F	3,790

soaringspot.com
bit.ly/2yTyiNf

AUSTRALIAN JUNIOR GLIDING CLUB

The Australian Junior Gliding Club was born in sunny Queensland in the winter of 2004, where a small group of junior pilots was feeling fed-up at the lack of young people attending the previous Nationals. Adam Woolley and Lisa Turner got into a conversation in the Benalla clubhouse with two masterminds of British gliding, Brian Spreckley and Martin Wells, on the topic of how to start an annual Junior Nationals.

Their key advice was along the lines of 'build it and they will come', but they also stated the importance of a standalone, independent event. Shortly after, a group of juniors began to meet and fly together regularly and, following a merger with a group from the southern states, a whole new movement was formed and an annual event staged for the very first time – JoeyGlide.

A CLUB IS BORN

Since then, the nature of the AJGC's work has varied significantly over the years, from a training operation at Stonefield, SA with our Blanik in 2007-2008 to helping facilitate the Junior Pre-World and World Gliding Championships at Narromine in 2014 and 2015 – and everything in between. Despite no longer operating as a training club, the AJGC is the representative body for all pilots under the age of 26 within the GFA system. The AJGC also holds a place on the GFA board, ensuring the younger end of the membership spectrum is fairly represented with regular input into GFA administration.

While a select few are responsible for this representation, all others work on other priorities such as fostering mateship within the junior ranks and providing opportunities for fun and development. In recent years, the AJGC has focussed on broadening the opportunities for young people in the GFA, as years of experience have taught us that flying gliders cross-country and competing at national level is not for everyone – and that's cool.

So, for the first time in July this year, the AJGC facilitated an instructor training course tailored for young people. Later this year, five AJGC Local Series events will run all around the country. Our aim is to bring juniors together and build skills in basic airworthiness, cross-country flying, aerobatics and more.

This month, some of our administrative committee members are actively participating in the GFA's strategic marketing planning, which provides guidance on ways to better engage young people in our sport. In December we will descend on Kingaroy in Queensland for the 16th consecutive running of our flagship event JoeyGlide, which is the Australian Junior National Championships run in conjunction with the Australian Junior Coaching program.

With more events than ever before taking place right around Australia, one can be confident that an AJGC affiliated and/or run junior event is only a short drive away. We hope these provide the possibly isolated junior pilot an opportunity to engage with like-minded people, learn something new and – most importantly – have a laugh.

As a result, while the AJGC has evolved since our humble inception by our hard-working foundation members back in 2004, the club's objective of engaging new and existing juniors in a very friendly, inclusive and fun environment is what we continue to strive for.

2019 AJGC JUNIOR INSTRUCTOR'S COURSE

In 2018, the GFA discussed various ideas to improve the outlook of the GFA instructor's pool at board level. As the representative body for juniors, the AJGC made a preliminary proposal to run a junior-specific instructor training course, with various aspects oriented toward helping juniors succeed in what is traditionally a time and cost intensive process. Fast-forward to April 2019, and the GFA granted the AJGC approval for a significant funding commitment to facilitate the inaugural AJGC Junior Instructor's Course (JIC). The AJGC was then tasked with pulling off this feat in just a few short months.

The format of a 5-day course was chosen, rather than a series of weekends attending local operations. We did this to maximise enthusiasm and camaraderie in the training group. This social aspect proved extremely important, and the positive effect of the participants 'carrying each other along' in understanding the theory and delivery each evening was happily very clear – perhaps something not as prevalent at a normal instructor training course.

The dates for the course were chosen to coincide with both university and school holidays. While obvious to some, sadly, many juniors miss out on various opportunities due to the dates falling during semester, revision periods or final examination periods.

The course duration was also set at five days, with a staggered two-group approach allowing the second group to run Wednesday to Sunday. This allowed the working individual to use only three days of precious annual leave. It was also necessary to select a site close to a capital city, to allow easier transport for those coming from interstate. Southern Cross Gliding Club at Camden was approached, and immediately offered full support - a fantastic start.

Aside from the necessary time commitment and date difficulties, arguably the single biggest barrier to any junior undertaking instructor training is the cost of the flying training itself. The GFA's financial commitment was undoubtedly key in allowing many, if not all the participants to complete their L1 upgrades – a point which becomes very clear when budgeting for a junior to complete approximately 10 to 12 instructor training flights, each with high aerotows in a modern two-seat glider. Each participant was very aware of the investment that had been made.

Alan Payne (Victorian & Tasmanian RMO) was gratefully enlisted as the course coordinator, with assistance from Pat Barfield and Drew McKinnie, who both had other engagements to attend to throughout the course of the week. Alan led the team of Level 3 instructors, which consisted of Steve Hedley, Rod Ferrier and Aaron Stroop as the persistent flying group, with welcome input from Laurie Hoffman and Dave Boulter. Each L3 was extremely generous in giving their time and accumulated knowledge, which was hugely appreciated by the training group.

continued over page

ABOVE: Natan'El Schuster

However, the weather did not play ball. Multiple days were plagued and delayed by fog, low cloud and rain meaning that the group fell slightly behind the training schedule. Fortunately, hope and persistence prevailed and many of the participants caught up – meaning that within a fortnight of the course, six of the nine course participants were signed off as level 1 instructors, and starting on their hopefully long, safe and productive instructing careers within the GFA. The remaining three are currently focussing on finishing their evaluations as soon as possible.

Furthermore, the JIC would not have been a success without the fantastic support of the Southern Cross Gliding Club. After the initial proposal, SCGC were swift to offer their full training and towplane fleet along with a strong backing from many voluntary club members who kept our operation flowing. To Justin Couch and his team at SCGC, thank you for everything!

Thanks also go to Paul Tridgell from RAAF Richmond Gliding Club, who generously offered his DG1001M as an extra aircraft for the course. Paul went to great lengths to prepare and deliver the aircraft, and pick it up again at the conclusion of the course. Thank you for your support, Paul.

Moving forward, the AJGC is excited to offer more opportunities to our membership with a new group of enthusiastic and capable instructors. We are also happy to have received a commitment from the GFA to facilitate an annual JIC over the forthcoming three years, so any interested junior pilots please watch this space – a call for expressions of interest will be opening soon!

JAMES NUGENT

FROM THE GFA

For quite a few years, the GFA has been assured that clubs have enough instructors and we don't need to train too many new ones. Suddenly the story has changed as many older instructors are now stepping out of the back seat after many years of supporting their clubs. Unless we rapidly train a new generation of instructors, many clubs will find it difficult to offer training in the near future.

Of the 454 Level 1, 2, and 3 Instructors in GFA, only 13 are women and only 11 are younger than 26 years of age. Compare this with the 334 instructors over the age of 55, and this shows how big the gap is.

GFA has been having success in increasing the number of young and women members, and are therefore keen to increase the number of junior instructors and women instructors.

The GFA Board were thrilled when the Australia Junior Gliding Club offered to organise a Junior Instructors course to be held at Camden with nine participants. Feedback from the L3 staff has been excellent, and we expect all nine to be flying in a back seat in the near future. While this is a positive step in the right direction, we still have a lot more progress to make.

TERRY CUBLEY, GFA EO

A PARTICIPANT'S PERSPECTIVE

The Junior's Instructor Course was an incredible week of learning and fun. The first day included greetings and a series of introductory presentations by Drew McKinnie - thanks to Drew! - followed by a site check. Every day thereafter began with lectures and presentations, followed by flights wherein we attempted to put theory into practice, which is harder than it sounds.

Alan, Aaron, Rod and Steve were the most wonderful instructors we could have asked for, and the Southern Cross Gliding Club were so accommodating and kind.

All in all, I learned a great deal, had fun and look forward to joining fellow trainees as a Level 1 soon. A special thanks also to the Australian Junior Gliding Club for all their work behind the scenes to make the week possible.

NATAN'EL SCHUSTER, 18

BUNDABERG GLIDING CLUB

2019 AJGC LOCAL SERIES

The Local Series is a series of AJGC run gliding events run by the AJGC State Representatives in each GFA region. They are designed as an introduction to the junior gliding community, while providing some valuable and fun opportunities in the process. Please read on to see what is taking place at an operation near you.

VICTORIA & TASMANIA

INTRODUCTORY JUNIOR GLIDING DAY
4 OCTOBER 2019
MELBOURNE GLIDING CLUB (VMFG)
BACCHUS MARSH

This year the AJGC local series for both Victoria and Tasmania will be a Junior Gliding Day held on 4 October at Melbourne Gliding Club. The purpose of this event is to encourage more juniors to get involved in gliding and explore what it is like to fly a powerless aeroplane. Young people from local aviation academies, schools and universities will be invited along to experience a hands-on flying session with a resident AJGC junior instructor in a high-performance two-seat glider, with no pre-learning or experience required.

There will also be a free barbecue lunch along with some great learning opportunities for the air sport of gliding, along with the opportunity to talk with various AJGC members about getting the most out of this marvellous sport. So, come to speak with one of our friendly, skilled junior pilots about cross country, aerobatics and even competitions, and join us for a terrific day of gliding. All family and friends are welcome. Don't miss out! Looking forward to seeing you there!

JASON TANG
zh.jason.t@gmail.com

ABOVE: Instructors and members of the AJGC at the Junior Instructor's Course at Camden.

NSW ACT

INTRODUCTORY GLIDER MAINTENANCE
AND FUN-FLYING WEEKEND
27-29 SEPTEMBER 2019
LAKE KEEPIT SOARING CLUB

In keeping with the junior gliding and AJGC ethos, the NSW and ACT Local Series of the Australian Junior Gliding Club will be a basic glider maintenance and fun-flying weekend to be run with the assistance of Lake Keepit Soaring Club. The event has the primary objectives of exposing junior glider pilots to:

- Basic structural awareness and maintenance
- Daily Inspection certification on a variety of aircraft
- Introduction to Form 2 inspection processes and requirements
- Exposure to repair procedures and practices

And of course, going flying!

This weekend hopes to bring together young pilots and trainees from all clubs and areas in a friendly environment that will allow them to meet and socialise with other juniors of all levels and learn aspects of glider maintenance. We encourage junior pilots of all levels to attend and welcome the attendance and support of parents and family. We would also welcome non-flying friends who may be interested in gliding or who would just like to come along and see what's happening.

We would like to have an indication of numbers as soon as possible, so if you are keen, please register your interest at https://www.juniorsoaring.org/events/local-series/nsw-airworthiness-course

CAMERON BARTLETT
cameronbartlett@optusnet.com.au

CAMDEN L1 INSTRUCTOR COURSE FOR JUNIORS

At the initiative of the Australian Juniors, a Level 1 Instructor Training Course was held at Camden airfield. The course was attended by nine well-prepared junior pilots.

The four leaders, supported by short term attendances from two others, enjoyed the course as much as the candidates. All of the Juniors were very enthusiastic, ready to work together as a group and not afraid to ask questions. However, the weather was not so favourable and although the shortage of tow aircraft did shadow the proceedings a little, some follow-up training at their home sites will fix that.

Hopefully, such training courses can be held again in the future, as it was great to see so many young people preparing for the role of instructor.

ALAN PAYNE RMO VIC/TAS

WESTERN AUSTRALIA

INTRODUCTION TO CROSS COUNTRY WEEKEND
2-3 NOVEMBER 2019
NARROGIN GLIDING CLUB

The WA Local Series will be an Introduction to Cross Country weekend aimed at showing and reminding juniors what cross country flying is all about. Join us for some fun flying among friends around short cross-country tasks. No experience is necessary. Learn some tips and tricks flying with an experienced coach in one of our two-seaters or just come along for a taste of cross-country flight. Connect with other like-minded juniors, with friendly discussions, good food and an awesome social scene! Accommodation is available on site and all friends and family are welcome.

Hope to see you there!

MICHAEL KELLER
michaelsoar.3000@gmail.com

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ABOVE: AJGC President James Nugent

SOUTH AUSTRALIA & NT

JUNIOR TRAINING DAY
OCTOBER 2019 (DATE TO BE ADVISED)
ADELAIDE SOARING CLUB

The SA & NT Local Series will be an ab initio and advanced training day held at Adelaide Soaring Club, Gawler. Some juniors may find the club environment intimidating and difficult, so the purpose of this day will be to come together and progress your flying with your friends in a fun and relaxed environment. Several AJGC instructors will be in attendance to make this possible.

Part of the day will also be dedicated to a flying accuracy event, where everyone will have the opportunity to have a go at flying a circuit and landing as best as they can. There will be a prize for the winner.

The day will finish with a free group dinner to help decide when to do it all again. Look forward to seeing you there!

VLADISLAV ZHELEZAROV
vladislav@live.com.au

BELOW: Vice President Mitch Turner

QUEENSLAND

INTRODUCTION TO
CROSS COUNTRY WEEKEND
15 - 17 NOVEMBER 2019
DARLING DOWNS SOARING CLUB

In a similar model to the Western Australia series, the QLD state series is offering a slightly new approach for a junior gliding weekend. While still focussing on core syllabus progression and typical club flying, this course will particularly target cross country lectures and coaching. To prepare pilots for Australia's biggest junior competition. the course is offered two weeks prior to this season's JoeyGlide. Hosting post solo pilots is the only prerequisite, ensuring students obtain the most out of cross-country flight. If you're coming to get a taste of cross country, or are a legend among the pack, this year's Queensland State Series is for you.

Flying with like-minded, junior participant in this sport creates the opportunity for a great social scene. Accommodation is also available on site.

COOPER GIBBS
c8collishaw@gmail.com

For more information on any of the above local series events, please feel free to contact the relevant state representative using the information provided, or alternatively admin@juniorsoaring.org

JOEYGLIDE 2019

30 NOVEMBER – 7 DECEMBER 2019
KINGAROY (QLD)
16TH AUSTRALIAN JUNIOR NATIONALS &
JUNIOR COACHING PROGRAM

JoeyGlide is the name given to the AJGC's annual flagship event. It has a strong history in Australia, despite only existing for a fraction of the time of the Australian Club and Multiclass Nationals. First held in 2004 at Temora, each year JoeyGlide has been organised and run by the AJGC, usually with a current or past junior member as contest director. Many attendees of the early JoeyGlide events remain heavily involved in the GFA over a decade later. In 2017, a large group of past JoeyGlide organisers conceptualised and ran the Formula 1.0 club class grand prix, which remains extremely popular as it enters its third consecutive year.

JoeyGlide consists of two simultaneous parts. The first is the single-seat Junior National Championships and the second is the annual Junior Coaching Program. While the designation 'national championship' conveys a sense of extreme competitiveness, trust us when we say it is more relaxed than it sounds! Many juniors competing in JoeyGlide are flying in one of their first competitions, so the event is focussed on taking part in an informative, enjoyable and sociable week of gliding.

The single-seat Junior Nationals is a classic gliding competition, with a cross-country task set based on the weather forecast each day which the pilots attempt to fly as quickly as possible. The thing that sets JoeyGlide apart from any other gliding competition is that the average age is typically about 20! Someone who is considering attending shouldn't be anxious or concerned about competing in JoeyGlide, as the tasks are modestly set each day and the focus is on having fun and enjoying yourself.

An equally important part of JoeyGlide is the two-seat Junior Coaching Program. This is where the AJGC organises some of the most friendly and experienced coaches and instructors in the GFA to fly in modern, high-performance two-seat gliders to offer advice and coaching to up-and-coming pilots on their cross-country flying.

Traditionally, the coaching program has catered for a very broad range of abilities - such as a pre-solo junior learning the basics of thermal selection and centring, right through to teaching competition tactics and strategy to more experienced junior pilots. This is delivered by flying abbreviated versions of the competition task each day, allowing mixing with the competition fleet but without the stress of long flight times and responsibility for the safety of the flight.

For the first time this year, we are also hoping to offer basic aerobatic instruction within the coaching program as well. We see this as an exciting but more valuable aspect, teaching very valid skills in confidently handling the aircraft in a variety of flight situations. This is an opportunity that is commonly missed in many club environments.

While the single-seat competition is fantastically engaging and the two-seat coaching program is super enlightening, the most fun at JoeyGlide is in the camaraderie and mateship. The week will give a junior pilot opportunity to meet and get to know other people just like them - each with a strong interest in gliding and aviation and often with very similar life experiences, goals and ambitions. It is undoubtedly rare to get so many young people who share a relatively uncommon interest all in the same place to network and mix in such a relaxed environment.

Each night there will be opportunities to get involved in various social events and the rest days never go to waste. If the flying isn't enough for someone attending JoeyGlide, we are confident the social scene and resulting mateship will be.

Are you a parent, carer or individual who would like to know more information? We are always more than happy to help:

CONTACT: admin@juniorsoaring.org
JOEYGLIDE WEBSITE: joeyglide.juniorsoaring.org

MEET THE AJGC COMMITTEE

PRESIDENT - JAMES NUGENT

James grew up in Mildura on the Murray River, and moved to Melbourne several years ago to pursue his studies in Aero Engineering. His home club is Sunraysia Gliding Club, but he also flies with Melbourne Gliding Club at Bacchus Marsh throughout the year. Having been born into a gliding family, the recollections of gliding bar stories, exaggerations and laughs remain etched in James' memory from various gliding competitions and regattas he involuntarily attended as a child. James later learned to fly in a Blanik, and soon became interested in the competition circuit, of which he continues to love the challenge.

After first attending JoeyGlide in 2010 and participating in the coaching program in 2012, James joined the AJGC Committee in 2013, where he learned from past presidents Adam Webb and Eric Stauss what was involved in maintaining this vibrant community. Recently, he saw the need to give back in what could be viewed as a development phase for the GFA. For this reason, he enjoys working to turn junior-gliding related ideas into reality and appreciates seeing his mates and family having a laugh along the way.

ABOVE: Club Secretary Christopher Jesse

VICE PRESIDENT - MITCHELL TURNER

Mitch is a glider pilot who lived in Brisbane until very recently. He has now, before the ink has even dried on his newly minted CPL, moved to Darwin to pursue a career as a commercial pilot. Mitch made the road-trip south to his first JoeyGlide as a coaching participant in 2014 and has competed in each competition since.

If you're at a junior event, you'll probably hear him before you see him because he's loud and loves to have a laugh with just about anyone. His favourite part about coming to the competitions is hanging out with like-minded juniors and being social - or at least meeting new farmers. He has been a part of the AJGC committee since 2015, contributing in various roles. In 2018 he took up the position of junior representative to the GFA board and worked on the JIC proposal and junior membership subsidy, both providing some fantastic opportunities for juniors.

SECRETARY - CHRISTOPHER JESSE

Chris is a passionate minute scribe, hailing from the harsh and permanent winter climate of Brisbane. He would much rather spend hours in excel spreadsheets and completing general administration duties than actually flying gliders. When he does get away from work and into a real aeroplane, he does some blistering 100km cross country tasks out of the convection capital of the country, Boonah.

He attended his first junior gliding event in 2014, as a coaching participant at JoeyGlide in Narromine. After that insightful week in December, he has returned to compete poorly at every JoeyGlide since, an exception to the majority. Chris joined the AJGC committee as Secretary in 2017 and has been involved in advocating the movement and helping other juniors in their pursuits. He has also

continued over page

ABOVE: Club Treasurer Brooke Anderson

been involved in the Junior Instructor's course organisation and operation, JoeyGlide, junior gliding in Queensland and handling the membership and general online presence of the club.

TREASURER – BROOKE ANDERSON

Brooke grew up on the family farm south of the small country town of Tumbarumba before taking the big leap of moving to Albury, 77km from home. She is currently studying Agricultural Business Management through CSU and is working part time at Landmark Operations, while still regularly going home to help on the family farm.

Brooke has been involved with gliding from an early age. Her grandfather and father used to fly at Tumbarumba, where she would go and help out. She started gliding when she was 14, went solo at 15 and took her first cross country flight out of Leeton in December 2015, where she out landed 20km from the airfield and spent 7 hours in a paddock waiting for her retrieve crew.

Her first JoeyGlide was at West Wyalong in January 2016, where she made a late decision to move from coaching to competing. Despite the added challenge, she had the best week of her life and it remains a JoeyGlide she won't forget. JoeyGlide is where you meet friends for life. You may only see them once a year, but they are always there if you need help or advice with anything. Brooke joined the AJGC committee as Treasurer in December 2016 and has remained in the position since then.

COMMITTEE MEMBER - MICHAEL CONWAY

Michael grew up in Adelaide and learned to fly with the Adelaide University Gliding Club at Stonefield. He is also a graduate Aero Engineer and is currently working in defence. Michael first attended JoeyGlide in 2010 at the age of 15 as a coaching participant and made the journey to Kingaroy the following year to compete in his first competition.

Along with his brother Peter, he has been involved in junior gliding for a long time and continues to make his best efforts to attend JoeyGlide each year. Michael was involved in the organisation and running of last year's JoeyGlide at Waikerie, as it's in his backyard, and officially came on board this year as an AJGC committee member to help with other junior gliding related ventures.

COMMITTEE MEMBER & WA STATE REPRESENTATIVE - MICHAEL KELLER

Michael was the very first AJGC committee member from Western Australia, hailing from Narrogin Gliding Club in WA's wheatbelt region. His first encounter with the AJGC was at JoeyGlide 2017 in Narromine, after a visiting AJGC member from Victoria convinced him that he should head over and join the fun in the Eastern states. Michael joined the AJGC committee at JoeyGlide 2018 in Waikerie both as an Ordinary Member but also the AJGC state representative for Western Australia.

Since then, he has been largely working on the organisation of the WA Local Series event, which is an introductory junior cross-country coaching and lead-and-follow style weekend aimed at underrepresented junior pilots within WAGA. Michael has also taken up the role of in-house scorer for JoeyGlide, becoming the youngest scorer in the GFA scoring pool. For Michael, being involved with junior gliding is all about connecting with like-minded people, having a great time and contributing something to the future of our sport.

COMMITTEE MEMBER - REUBEN LANE

Reuben originally started his training with Mount Beauty Gliding Club, however his work as a qualified electrician saw him move north to Newcastle where he then began flying with Lake Keepit Soaring Club. Reuben attended his first JoeyGlide in 2013 as a coaching participant, returned at the 2014 Junior Pre-World Championships at Narromine to compete for the first time, and has competed every year since.

He also has a keen interest in representing Australia at international level, having flown in the Junior World Gliding Championships in Lithuania and very recently in Hungary, experience that puts him in a good position to make suggestions on improving competitive development in Australia. Reuben joined the AJGC committee in 2018 as an ordinary member and was retained in 2019 to make continued input into junior gliding related matters - something that is of interest to him after he has formed many great friendships over the years.

VICTORIA & TASMANIA STATE REPRESENTATIVE – JASON TANG

Jason lives in Melbourne and is an active member and instructor at Melbourne Gliding Club, Bacchus Marsh. He started gliding shortly after arriving in Melbourne in 2015 and is currently studying a Bachelor of Aviation. The first time he became involved with the AJGC was in 2017, at JoeyGlide in Narromine – the first ever gliding competition he had flown. Jason was just like many other pilots out there, who started flying radio control model planes before they followed their interests into full-size aviation.

Jason feels that being involved in gliding is all about exploring new challenges and experiences, such as flying aerobatics and cross country, as well as meeting with like-minded young people. Recently Jason took up the role of the state representative for Victoria and Tasmania within the AJGC, and is currently organising the Victorian Local Series event scheduled for October at Bacchus Marsh. Jason is really looking forward to seeing more juniors come on board and join us in this great community and hopes to see you at the next JoeyGlide.

NSW & ACT STATE REPRESENTATIVE CAMERON BARTLETT

Cameron calls Newcastle home and is currently studying Engineering. After completing his gliding training with RAAF Richmond Gliding Club, he now does most of his cross-country flying at Lake Keepit. Cam first attended JoeyGlide in 2016 at West Wyalong, where he participated in the two-seat junior coaching program, which he found a was lot of fun.

The following year he returned to JoeyGlide at Narromine in an LS7 and outlanded consistently, before returning to JoeyGlide at Waikerie in 2018 to compete in a mighty 205 Club Libelle, just because he likes a challenge. You will often find him with a glass of wine in the afternoon reminiscing about how lucky he was to make it back. Cam is an active representative of the AJGC Committee and the state representative for NSW and the ACT.

SOUTH AUSTRALIA & NT STATE REPRESENTATIVE VLADISLAV ZHELEZAROV

Vlad is a recent commercial pilot graduate from Adelaide and a keen glider pilot with Adelaide Soaring Club. For some time, Vlad has had a strong passion for helping young people experience the joys of aviation, which he regularly lives out as an instructor. Vlad first attended JoeyGlide last year in Waikerie and marvelled at how much he enjoyed flying alongside other juniors with very similar interests and ambitions to him. He quickly decided that this was for him, joining the AJGC committee as the state representative for South Australia and the Northern Territory. Vlad and his younger brother Tihomir have already made plans for their trip from Adelaide to Kingaroy to compete in JoeyGlide 2019 - and they think that you should too!

QUEENSLAND STATE REPRESENTATIVE COOPER GIBBS

Cooper is an enthusiastic and capable individual from Brisbane, who flies with Darling Downs Soaring Club. Having just finished year 12, Cooper hopes to have a career working in the Australian Defence Force. Cooper was highly influential in the genesis of the vibrant group YouthGlide Queensland, an initiative he and Gliding Queensland developed to offer added support and engagement to juniors within the Queensland region.

This year, Cooper took on an additional workload for YouthGlide by becoming the AJGC State Representative for Queensland. Under both his titles, Cooper hopes to run fun, worthwhile and educational gliding events for young people in Queensland. See above for more information on what Cooper has planned for his exciting Local Series!

EXPANDING OPPORTUNITIES

We hope that members of the GFA may have a better understanding of the work the AJGC is doing in its effort to boost junior engagement and retention. The movement - in various forms - has been present for over 15 years and has managed to achieve some momentum in this relatively progressive era of Gliding in Australia.

TOP: Committee Member Reuben Lane

ABOVE: Victoria & Tasmania State Representative Jason Tang

It is our hope and ambition that all GFA members bear in mind the existence of the AJGC and the expanding list of opportunities for young people in gliding, when they first welcome a junior pilot into their club. In a situation such as this, a gentle suggestion or recommendation could make all the difference.

AJGC COMMITTEE

CONNECT WITH US

Behind the scenes we have also been working hard to build our online presence as much as possible, bringing more of our work to the social media world. This process is ongoing, and we appreciate your support of our following platforms:

AUSTRALIAN JUNIOR SOARING
juniorsoaring.org

JOEYGLIDE
joeyglide.juniorsoaring.org

GA

GLIDING THROUGH THE EUROPEAN SUMMER

BY ADAM WOOLLEY

Flight Challenge Cup, FCC 2019, is the first big competition of the European season, located in Prievidza, Slovakia. It's the second time I've competed here, both times in a Cirrus 75. The focus of the event is relaxed fun, which is why it attracts 120 competitors over three classes each year, without fail.

It's also in a great task area. To the north are the small and big Tatra Mountains and then, moving into Poland, the fields become very tricky. To the south are more dense forests or open easy flatland sort of flying. It's all very picturesque and I really love it, especially when you get to ridge run on the tops of snow capped mountains!

Located in an Eastern European country, the flying is cheap, the food is delicious, the beer is cold and the quality of the competitors is high. While the terrain is mountainous, the off-field landing options and general safety of the site is quite manageable and extremely enjoyable.

Unfortunately for me, jet lag bit me at this comp, which led me to abandon the task half way around after a very intense low save and period of struggling for 30 minutes after. It zapped all my energy and focus, so I did the smart thing and returned home - after all, it's just a game in the end and not worth bending the glider in an outlanding that was likely to happen. A learning point for me when on a busy tight arrival schedule while overseas was that, if the day is tricky on Day 1, fly in the company of others to reduce fatigue.

After this day, my flying went really well, despite the very poor weather we experienced, resulting in only four tasks flown out of the possible 12. That is very unusual for this competition, where we usually get 8 to 10 days in!

HIGHWAY IN THE SKY

I was fortunate to spend the next competition in an Arcus M with John Buchanan. This was my fourth time at the Hahnweide, located in South Germany. An annual event like the FCC described above, the focus is on fun. The Germans don't really do any comps just for fun, though. Mostly in the sky, the quality of the field of 120 is always super high and similar to a World Competition.

The flying is generally wonderful, often involving fixed tasks and runs along the Schwaibish Alb - a highway in the sky, 1,000ft above the Hahnweide. This highway provides significant weather options and paths, where local knowledge plays a big part in the tactics and results. They say that after 10 years flying there, you almost have a grasp on it!

Unfortunately, John and I were faced with the usual hiring troubles that Australians often have in Europe - unfamiliar instruments, varios that don't behave like varios, no bug wipers during a very buggy competition - so much so, that after two hours airborne, the glider didn't handle well and the glide performance degraded significantly.

ABOVE: Spectacular views over the Alps!

BELOW: Prievidza airfield from above.

BIG KID

When we realised, after some stubbornness on my part, that we were just not in a position to win or place well due to the above challenges, we turned our focus to having fun on the ground and in the air – which is what we did, John is a big kid at heart with a wealth of knowledge and skill to pass on. So thanks, John, for this great two and a half week holiday together!

One highlight of our time there came after the competition when we flew directly south to the Austrian Alps. It was a challenging day in the flat lands, so we just used the engine liberally. When a climb was soft, we would just start the engine up, get high and pass the area to get to the Alps some 150km away as quick as possible.

Once there, we grinned from ear to ear with joy, of course, for the terrain we were seeing - huge and spectacular snow capped mountains - and also because we threw in some light aerobatics, too. The focus on the day was just pure fun.

After the championships, we visited both the Schleicher and Binder factory, and spent a day on the Wasserkuppe as tourists, enjoying bratwursts, ice cream, museums, model gliding, paragliding and sunny beautiful weather.

FINAL COMPETITION

My final competition of the European Summer saw me competing in Leszno at the Polish Open Class Nationals, where Poland's top pilots were fighting it out for line honours. Seventy pilots in total over three classes were there, plus 35 juniors who were having their own Nationals at the same time.

I was there with Martti Koivula, a nine-time Finnish National Champion and friend from Finland that I met in 2013. We competed in an ASG32 at 850kg, a fantastic glider, and performed really nicely in a straight line. We climbed well in the varying conditions and were lucky with no bugs for the entire championship!

My goal for the comp was to focus on fun, enjoy Martti's company and learn as much as I could from him. What we found was that we fly very similarly, smooth and with the same long and short term decision-making process. We managed a 1st, 2nd, 3rd and 5th as our top day results.

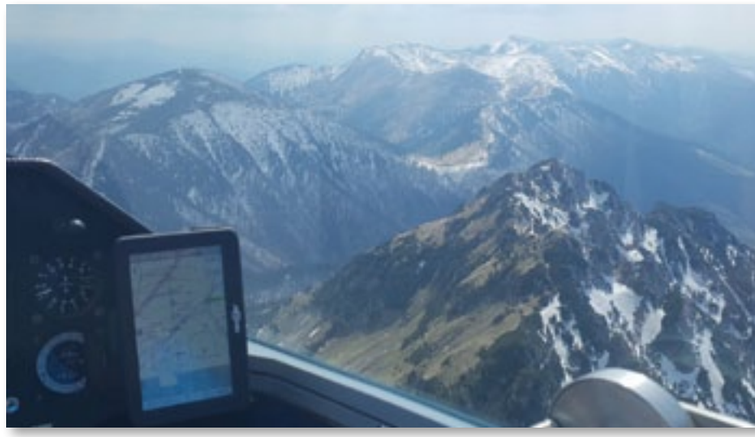
WRONG PLACE, WRONG TIME

Sadly, on one particular day we found ourselves a bit unlucky, being in the wrong place at the wrong time and without usable weather, which took us away from a 2nd or 3rd final placing. Then on the last day, we encountered that unpleasant, weak type of European weather that put fear into us all. We needed helpers – that is, the gaggle – to help us around, but sadly we were alone. The conditions were very tough for the heavy 20m glider to handle and we technically outlanded with 200pts for the day.

For the success part, we both felt that, while we finished 16th – a complete disaster – we were flying at an overall 4th place standard at this top level competition, and we were both happy about that.

Now it's off to Australia for the QLD State, Kingaroy Club and Sports Class Nationals, a coaching week in Keepit, Tocumwal 18m Nationals, 20m Nationals, then some rest in March...

GA



TOP: Racing in the mountains is always exciting, and a skill I would like to master some day.

ABOVE: On the last day we got very low, 400ft agl. At this point I wished we were at that beach on the lake down there!

BELOW: John and I, always smiling, even if the results and flying didn't go our way. It was incredible to experience what John could do with the glider.

FLYING HAHNWEIDE IN THE ETA

BY KEITH GATELEY

I understand that the International Hahnweide competition, held annually in the region south of Stuttgart in central Germany, is oversubscribed each year, so I am very happy to have been selected now for the third year in a row. Maybe it is because I am Australian, and the organisers like an international flavour, or because I am bringing the eta, a unique, intriguing aircraft, or because I am flying with Uli Schwenk, a huge personality. Maybe it's simply a little of all three.

The eta, D-KFEM, a rare and interesting glider with a 30.8m wingspan, has a 70:1 glide ratio. I purchased the eta in October 2016 from Erwin Muller, one of the original driving forces behind the project to produce the best open class glider with the eta project. It came very close to being the best, however, this article is not the place to debate this topic further.

This year marked the 53rd Hahnweide competition with 101 competitors flying in four classes, 17 in Open Class, 29 in 18m Class, 14 in 15m Class, 19 in Standard Class and 22 in 2-Seat Class.

Other Australians competing were Matthew Scutter in Standard Class, and Adam Woolley and John Buchanan in 2-Seat Class. Matthew had a fantastic competition, finishing 1st on four days and 4th on one day to end up winning his class. Adam and John struggled with their Arcus that didn't have bugwipers. This was such a shame as their wings came in most days with a black leading edge. This must have radically reduced their performance but, like good Aussie sports, they got on with the job with good humour.

Hahnweide airfield is close to the Stuttgart International airport, just 17km to the southeast. Airspace clearances are provided to ensure the 101 gliders have enough room to get in and out of Hahnweide safely.

Launches take gliders to the south and away from the airspace, so that many of the tasks can be held away from under the airspace steps but over higher ground, which can make it tricky to establish a climb some days. Usually the final glides start to the east and track along the Schwaibish Alb escarpment, which makes for interesting final glides when you are in Open Class, either just 50m above the escarpment or slightly below it, starting 30-plus kilometres out.

The competition offers racing and assigned area tasks for all classes, and 10km wide start lines have a maximum altitude and maximum speed for the start. All of these measures are taken to reduce gaggles but do not always work. Some experimenting was done with a start line with a declared departure time with an IGC marker, but it proved controversial and many of the pilots found it difficult to get their flight computers to manage this process.

The Schwaibish Albs are a popular gliding region. Many clubs are located along the Alb and on weekends it seems like a major gliding highway. Flarm can assist but the situation demands keeping eyes forward and all around to ensure separation is maintained. On 30 May, OLC confirmed that we had 138 meeting points but I am not sure that it was even the busiest day.

The competition days summary follows. The eta in the capable hands of Uli Schwenk with me as co-pilot, watching and learning, had very respectable results.

482KM AT 107.1 KPH

Our flight took us up to the southwest towards the Black Forest then went north and completed a clockwise circumnavigation of the Stuttgart airspace. This is an interesting task and the transition stages make it really interesting. From the Schwabish Alb, over the valley and onto the Black Forest, then back over the lower country and step up onto the Schwaibish Alb near Aalen before a final glide back along the Alb.

The winner was Felipe Levin flying an EB29r and second place was Sylvain Gerbaud flying a JS1c 21m, we came in third - so far, so good.

105.6 KPH CIRCLING PERCENTAGE 18%

This task stayed over the Schwaibish Alb and we struggled to establish ourselves above the Alb before the start line. In fact, after covering 20km or more at circuit height we dropped off the Alb and over a valley with the thought that we may have to start the engine. Then, just nearby, we saw a flag on a castle go from stationary to fluttering, hopefully a sign of a thermal. It was, and saved us before we even started. We were flying for over an hour by this time and ready to head to the start line that had been open for some time.

The winner today was Jim Acketoft and Wilhelm Wendt from Sweden in Wilhelm's brand new EB29Dr. Second was Felipe Levin in an EB29r. Again, we are third and very happy with this result.

489KM RACING TASK AT 120.3 KPH

After two rest days due to rain, we were back into it again. Our second leg was 243km from west to east along the Alb. Passing to the south of the Nördlinger Ries in Western Bavaria, we encountered a 24km diameter impact crater, well-known to locals not to have great thermals. So, no matter how tempting it looked – and it did – we did not divert there. Local knowledge is so important. It was a good, fast day with no low spots.

The winner was Felipe Levine in his EB29r with second place going to Christophe De Lorte in an ASH 25mi, and we placed third once again. We are very happy with this on a fast day, as the eta is thought to have more of an advantage in weak conditions.

268KM RACING TASK 112.78 KPH

This task took us off the Schwabish Alb towards the Black Forest but turning onto the next leg before reaching it. Having to thermal over the valley and getting the transition back onto the Alb was critical.

Some new faces were on the podium today. First was Max Kollmar in a Nimbus 4T, second was Stephen Beck in his ASW 22BLE, and Jim Acketoft and Wilhelm Wendt in the EB29Dr came third. Fourth was Felipe Levin in his EB29R and we placed fifth in the eta.

506KM AT 125.06 KPH

The last day was a fast day, resulting in the fastest speed we have achieved through the whole competition and only 3.09 kph off the leader. Again, we headed off towards the Black Forest in the southwest and then past the crater in Bavaria.

The winner today was Jim Acketoft and Wilhelm Wendt in the EB29Dr, 2nd was Sylvian Gerbaud in his JS1c 21m with 3rd going to Filipe Levin in his EB29r. We placed 4th and with good points to assist in the overall result.

What a fantastic experience it, once again – three years now placing 2nd, 5th and 2nd. We are looking to compete again next year and have a few things we want to tweak with the eta. Look out for 54.HWW20.

To keep up with what the eta is up to, go on Facebook and search for Seventy2one to see the regular updates. If you would like to fly the eta with Uli Schwenk next time you are in Germany, check out Seventy2one.

I have also joined a club in Germany, Aero Club Bad Nauheim, just 30 minutes north of Frankfurt. As I write this article, I am having a rest day from some great long flights. I completed a 1,000km declared FAI triangle with Lorenz Dierschke, flying to the south of the Black Forest, then to the northeast of Frankfurt and then home again for a total of 9.5 hours flying. It was only in the last 30 minutes that we finally knew we had the task in the bag.

Looking forward to Europe 2020 for more fun.

GA

INTERNATIONAL HAHNWEIDE 2019

25 MAY – 1 JUNE 2019

OPEN CLASS

1 FELIPE LEVIN	EB29R	4,174
2 ULI SCHWENK / KEITH GATELEY	ETA	3,942
3 SYLVAIN GERBAUD	JS1C 21M	3,915

soaringspot.com/en_gb/53-hww/

VINTAGE RALLY SEASON IN ENGLAND

BY DAVID GOLDSMITH

While organising a visit to the International Vintage Glider Rally 2019 in Britain, it soon became apparent that this was no ordinary summer for vintage gliding. As usual, the Rendezvous Rally was scheduled the previous week, however the Midland Gliding Club had organised 'Wood Week' at Long Mynd preceding the Rendezvous, so add another week!

The Long Mynd presents quite a topographical challenge for the glider pilot. The narrow precipitous route to the mountain top is not for the fainthearted. However, one is rewarded by a spectacular airfield and a large and friendly, well-equipped gliding club complete with accommodation and meals service available.

During our visit we had a classic day with a steady 20kts onto the hill, providing the chance to renew my bungee rating after 42 years and Jenne to have her first bungee launch, both in the ASK-13. The T31b was also well utilised, majestically rising in the lift after a ground run of a few metres! Because their system uses a Landrover to pre-tension the bungee and achieve a rapid turnaround, no teams of runners were needed.

The Rendezvous rally at Husbands Bosworth gave us the opportunity to renew many friendships, with English, European and a few other nationalities assembled ready to enjoy some serious vintage gliding. The highly colourful, mostly wooden gliders on the airfield resembled a scene from the 1950s, in sharp contrast with the modern all-white gliders seen currently.

Variable weather during the rally even included a heatwave, with temperatures to 33°C resulting in good flights up to around 6,000ft. The prizes at the breakup were for the prettiest glider, a Slingsby Prefect; the longest flight, 2 hours 29 mins by Martijn Hoogenbosch; and the oldest glider, a 1939 Grunau Baby – all won by the Dutch team.

The Norfolk Gliding Club at Tibenham airfield hosted the 47th International Rally, commencing 27 July. Tibenham is the largest privately owned airfield in Britain, and coped easily with the many visitors. The weather did not cooperate on some days, and Monday turned out to be the best day of the Rally, with flights of up to 295km in a Ka6.

Older gliders were a feature of the Rally, with the prototype Kirby Kite having a ladies day flown by Australian, German and American pilots. The famous camouflaged Kirby Kite, used in radar trials during World War two, continues to fly with its controls operated by wooden pull (as opposed to push) rods. The 1948 Zlin Krajanek, which completed restoration in 2006, still looks brand new.

TOP OPPOSITE: Slingsby T21b bungee launching on the Long Mynd.

ABOVE: Top aerobatic display pilot Graham Saw with his Slingsby Petrel. Graham put on a display at the Shuttleworth Trust in a Lunak.

BELOW: Jenne Goldsmith and Ulf Kern with Nick Newton's Hutter 17.

LEFT: Connie Bruns helps Jenne try out a Minimoa.

The variety and colour of the multitude of assembled gliders was impressive, and the generosity of the owners in sharing their gliders was much appreciated. A Minimoa model flying contest was won by Peter Raphael's model, even though it was reduced a further 50% due to passenger baggage limitations!

All round the three rallies were very successful and great fun. As a followup we have enjoyed some hill soaring at Sutton Bank and attended a display day featuring gliding at the Shuttleworth Trust. We are looking forward to some gliding at Camp Hill and the Gliding Heritage Centre at Lasham before returning home.

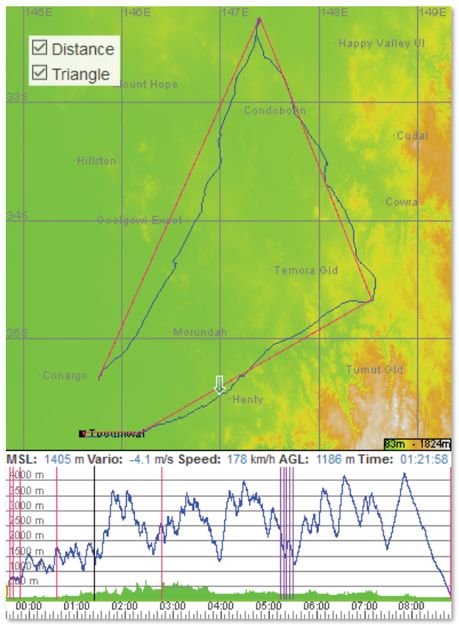
1,000KM FAI TRIANGLE IN A FORMULA 1.0 GLIDER

BY PHIL RITCHIE

It was late winter as I wrote this, when a young man's fancies turn to spring and the new soaring season. Unfortunately, I no longer qualify for the term young man. So, like Bruce Springsteen, my thoughts have turned to 'Glory Days'.

About a year ago, Lumpy Paterson of Tocumwal Soaring Centre fame told me I was going to go to the F1 GP in December and to sweeten the deal he'd lend me one of his gliders for the event for free. Lumpy is very persuasive and the hire rate was within my budget so the appropriate plans were made.

During the week before the comp was to start, Lumpy changed our plans. The weather on the practice day looked like it would be awesome and he wanted to try a 1,000km triangle in his JS3. I didn't care where I flew so, after an 8-hour drive from Adelaide, I arrived in Tocumwal the day ahead to find my glider, the Hornet MV, in its trailer. He'd been too organised and prepared it before changing plans. However, Hornets rig easily - auto-coupling was a Glasflugel invention!



With the glider rigged, I asked where we were going the next day. Lumpy wasn't sure till he'd spoken to some guy called Ingo. As it was already 7pm, we called him, but Ingo was still flying, and only landed back at Toc as the sun set. Mr Renner had been instructing till early afternoon, got his Discus out and, thinking it was too late to bother filling it, went on his way, covering a gentlemanly 750km to pass the afternoon. Impressed, this had a bearing on my thoughts the next day.

The next day, Lumpy prepared his JS3. I gave the Hornet a quick wash, and prepared to have a fun day since I already had my 1,000km badge. I wanted to practice flying the glider in its F1 GP configuration - that is, no ballast, which was good as no bags were fitted anyway. My plan was to fly to the first turnpoint, fly up the second leg and turn for home at a decent hour. I was second to launch, after Mac Ichikawa in his heavily ballasted LS8.

By the time I'd launched this time, I'd already been on my way on my previous 1,000km flight. The thermals were reliable but the wind kept blowing me south. Mac hadn't headed off, causing doubt about being able to stay up. I decided to loiter around Toc for a while. Lumpy elected to wait till the thermals got a bit higher before launching so after a bit I pushed off east towards the first turnpoint.

Since I'd last flown a Hornet nearly 15 years ago, I reacquainted myself with its foibles and fiddled with the vario. It wasn't until I was about half way along the first leg before I was able to connect with the Cu which had been north of me for some time. Soon after, Lumpy started the chase to catch me.

I managed to get low at the first turnpoint, but I do that a lot at turnpoints. Lumpy called that he was turning north for the second turnpoint while I struggled to get altitude back. I recovered quickly and rounded turn one. Although the second leg was the into wind, the strong climbs and serious altitude at cloudbase meant we made good speed. Lumpy called a weak spot midway along this leg, which I confirmed by falling in, too. The second half of this leg looked excellent so I pushed north, confident as only a glider pilot at 12,000ft can be.

Lumpy by now was around the second turnpoint and making haste back to Toc when he got on the radio and asked when I planned to turn. Giving it a bit of thought and recalling last evening when we saw Ingo land so late in the day, I figured that, given the distance to run plus a bit of a tailwind on the last leg, I had a real chance of completing my second 1,000km task. This time, however, it would be a real hairy-chested, Formula 1.0 1,000km triangle. If Ingo could stay up late, so could I!

After getting low at the second turnpoint, the trip south started off well enough but way out west the sky looked dark and the high cloud was spreading out - a lot. About half way down the final leg, my gonads quietly retreated and made no more rash suggestions. I took a good climb back to cloudbase and set off on track hoping for one more reasonable climb or several weak climbs. However the air was feeling very dead. I flew over river country hoping for something from the damper ground but found only reduced sink.

By this time Lumpy was back at Toc, filling out his badge claim form. I called him and said I'd like a tow, please, when I reach the ground. So my second longest flight, 50km short of 1,000km, was followed by my quickest retrieve. The paddock was pretty rough with thick clumps of spiky grass. The Hornet has a large main wheel for its time, which was a good thing. The Callair's huge undercarriage springs made it easy on Lumpy, while the initial ground run damaged some flies trapped under the front canopy.

Back at Toc, while we packed up and last light approached, Mac landed back at the field about 90 minutes after I had initially outlanded. So it was possible to have stayed up long enough to have completed the task that day - just not by me. Looking at the data later, it turned out Lumpy had set a new 1,000km triangle record.

So the challenge is still out there to complete a 1,000km FAI triangle in a Formula 1.0 glider - maybe by one of those young people I mentioned earlier who flew so well at the 1.0 GP. GA

eTug C of A from CASA

CASA has approved the issuing of Certificates of Airworthiness in the Limited category to eTugs for the purpose of glider towing. This approval means that you can now have your PA25 Pawnee converted to eTug specifications.

THE eTUG GROUP

eTug was first created in 2006 with the conversion of a PA25-235, VH-CUR. Its Lycoming O-540 engine was replaced with a GM V8 alloy block LS1 engine and a belted PSRU (propeller speed reduction unit) to achieve better flight operation, performance, fuel consumption and economy. Water cooling allowed rapid descent with no fear of the shock cooling that damages air-cooled engines, as well as the added benefit of far faster circuits. To date, CUR has been tested and proven over 1,300 hours and 18,000 glider launches.

The second eTug conversion, VH-PIJ, is now certified. Both aircraft are towing at the Gliding Club of Victoria in Benalla. Other PA25 owners can now apply to have their aircraft converted to eTug specifications.

The eTug Group has made cost comparisons for running and maintaining an e Tug versus a Lycoming PA-25 using avgas. Some of the benefits they claim include:

ECONOMY AND COST SAVINGS

- An eTug glider launch costs less than half that of any other tug.
- eTug burns mogas at 58l/hr against a Lycoming's avgas burn of 72l/hr. After recovering the Federal Road Tax rebate on mogas, and with double the launches per hour, eTug's fuel cost per launch is 80% less than the avgas-fuelled Lycoming
- eTug routinely launches 12 two-seaters or heavily watered gliders, or 15 single-seaters per engine hour with a full circuit, more with a modified circuit
- Winch launches are now redundant. eTug can launch up to 20 gliders per engine hour at a cost of $9.50 for a launch to 1,800ft, and require one less person to operate than a winch operation.
- Maintenance costs are substantially reduced. The engine can be overhauled – or indeed replaced – for less than $10,000. A commercial engine overhaul costs $6,000-$8,000, and suitably skilled club members can be approved to do this work for even less, contrasting favourably with a typical $70,000 Lycoming rebuild.
- Time away for 100-hourlies is eliminated. Suitably experienced club members and/or retired LAMEs approved by CASA under CAR 42ZC(6) are authorised to do this work at the club. All the conversion equipment, such as radiator, engine, PSRU, propeller, instruments and so on, can be certified at any time by suitably experienced club members and/or local GM auto mechanics.
- TBO is set at 2,000 hours.
- Prop strike does not damage the engine or PSRU. A new set of blades can be fitted by approved club members in about an hour.

PERFORMANCE AND SAFETY

Safety of both gliders and tug are significantly improved:

- With a 60% increase in static thrust, ground acceleration is far higher. This makes wing-running impossible, immediately achieving aileron authority so wing drop is considerably less likely.
- Higher climb rate enables end-fence clearance to be substantially increased ensuring safe return to the departure runway in the event of a tug failure.
- Fuel injection means that mixture adjustment and carburettor fires are things of the past. Immediate starts are normal.
- The pilot has no shock-cooling instruments to monitor, so the descent can be done with eyes constantly outside checking circuit traffic.
- No lead is added to the atmosphere.
- eTug is more fun to fly. While it flies like a Lycoming-engined PA25, the increased climb and substantially increased descent rate with deliberate engine-off landings are enjoyable and encourage pilots to develop skills in flying efficiently.

To learn more contact The eTug Group
michaelbshirley@gmail.com
Michael Shirley 0427 108 040

THE VENTUS 3M ARRIVES

BY MIKE MADDOCKS

The Ventus 3M arrives. After a three-year wait, my new glider has finally arrived. Its factory test flight took place on 24 January but it was then left at the factory for further testing and development of the new engine management systems. We decided that this was preferable to having it 16,000km away needing an update.

This glider is the first production model of the 3M after the prototypes. The container was finally packed on 3 July and made its way to Brisbane via Hamburg and Kuala Lumpur over the next 44 days. I was accused of looking at Ship Tracker more often than Flight Radar - a cardinal sin for a pilot, I'm told.

As the fittings for my Cobra trailer were in the container with the glider, we decided to take two trailers with us for the unpacking. As my usual helpers were flat out refinishing gliders for the Women's World Gliding Championships, it was left to my wife Julie and I to do the job.

This was probably for the best, as most of the work involved fiddly adjustments to the trailer and was more time consuming than heavy lifting. It was handy that Julie is a Form 2 inspector, and knows her way around a glider, and it also helped that we had ordered a Cobra one-man rigging aid that was also in the container. We had borrowed Maddog Composites' Ventus 2cxa FES trailer in the hope that some of the fittings would be the same. Well, at least the tailplane fit.

WELCOME TO BRISBANE

The folks at Famous Logistics were, as always, extremely accommodating. They arranged to have the container placed in an open area at their facility where we could get the trailers next to the container and unpack in our own time, offering manpower as needed. Many thanks are due to the warehouse manager who kept coming out to offer help with any lifting.

After getting all of the pieces back to the Maddog Composites workshop, the work started.

A Form 2 inspection was completed, photos were taken of every accessible part and serial number, and what seemed like a ream of paperwork was completed for the issue of an experimental certificate. Dennis Stacey, Tanya and Fiona at the GFA went out of their way to get the registration and Experimental Certificate sorted out by Friday afternoon, allowing me one day to fly the glider before going back to work for a week. I'm writing this looking out of my Hong Kong airport hotel watching aircraft landing 400m away. I was able to manage three and a half hours out of Boonah, getting up to 8,500ft. Not bad for the middle of August.

DOWN TO DETAILS

I had ordered the Ventus 3M, 18m self-launching version with the base glider coming with everything needed to go flying except instruments. I chose several options to make myself more independent. These included steerable tailwheel, wing wheels, wing fuel tank and tail tank. All antennas were built in during manufacture. These include GPS, Flarm, Transponder and ADS-B.

For instruments I went for Lx 9070, V8 and S10, winter ASI, Air Avionics Altimeter and Transponder, which even left room for a compass. With everything integrated, nothing is hanging off the panel other than the rear view mirror. I went for three LiFePo4 batteries giving ample power to run all of the instruments, even for those 1,000km flights that I am planning. The engine battery can be used for avionics if needed. Charging can be done with the batteries installed or removed as required.

MY FIRST FLIGHT

Rigging was painless although we were only two old blokes. We had the Cobra rigging aid but chose not to use it as the main wing panels weigh only 68kg. Everything connected nicely, so that the only problem was the number of pieces - six wing sections.

With this model, Schempp-Hirth have gone away from the usual side opening canopy, going instead for a lift-up canopy and instrument panel making it easy to get in and out. I took time to get comfortable in the cockpit, trying different parachutes and seat back positions. The seat back is adjustable from the console utilising gas struts behind the seat. I am 192cm tall and this is only the second aircraft that I have flown with the rudder pedals not fully forward. I found 3 notches back worked.

The release is mounted on the panel avoiding the T handle sticking into your leg, while the other adjusters are knobs rather than T handles. Everything is beautifully finished and all the controls are easy to reach and operate. The instrument panel was designed on the Lx 9070 with V8 and S10 on the right and ASI and Air Avionics Air Control Display 57 on the left with the new colour engine control and display.

The Air Control display is the Altimeter and Transponder control and display, and will soon also control the radio, all in one 57mm instrument. This allows the transponder and soon the radio to be mounted remotely, clearing spaces on the panel.

SMILE ON MY FACE

Starting the Solo 2625-01i engine was a simple two switch operation. All you have to do is turn the ignition on, wait for the engine to extend and press the stick mounted starter button. The computerised engine control and fuel injection system looks after the rest. The engine started almost immediately.

Taxiing with one wing down was easy with the wing wheels and steerable tailwheel. The turn radius was excellent and could be tightened by increasing the power and getting the tail off of the ground.

The take-off was conventional while the power advanced smoothly to keep the tail on the ground. The wing came off the ground early and the glider lifted off normally but then I had to keep raising the nose to keep the speed on the blue line, finding that I was climbing at over 500ft/min. This is probably because the Ventus has the same engine as the DG500, Nimbus 4 and Arcus. The engine shutdown and retraction was as easy as the start up – switch the Ignition off and wait for the automatic prop braking and retraction to happen.

I spent the next three hours having a ball. I think the smile is still on my face. I tried everything I could think of. Thermalling left and right, trying all of the flap settings, trying different bank angles and speeds. High speed flight, slow speed flight, stalling at different flap settings, with and without airbrakes. A couple of significant things I noticed were that I do not think I used full rudder at all and I very rarely changed the trim. The controls are beautifully balanced with the trim moving automatically with the flap.

The approach and landing were conventional. The triple panel airbrakes and landing flap allowed easy control of approach speed and aim point. Roll-out was easily controlled with the steerable tailwheel and large hydraulic disc brake.

All that I can say is that it was well and truly worth the wait, and I cannot wait to go flying again.

Maddog Composites are the Australian Agents for Schempp-Hirth

SCHLEICHER'S NEW SELF-LAUNCHING AS 34 ME

BY BERNARD ECKEY

Our beloved sport is in decline – we all know that. Gliding statistics around the world make for depressing reading when other sport aviation sectors report a steady rise in members and activities. The reasons for our downhill slide have been discussed at length but, sadly, our countermeasures have so far not met with any success.

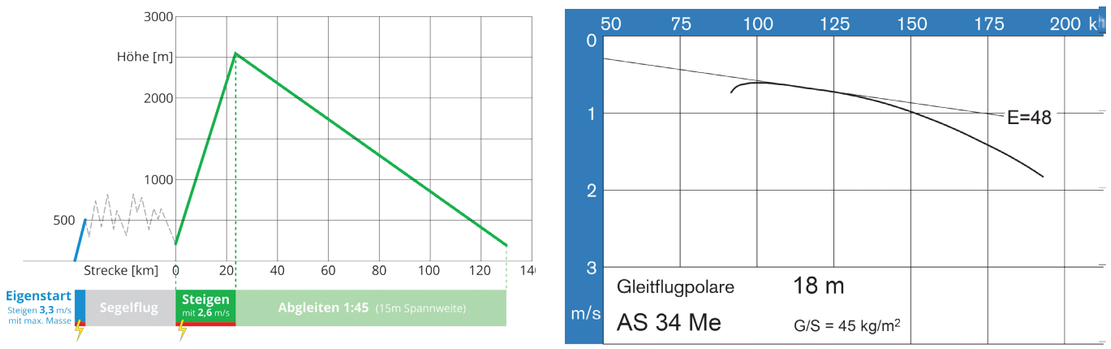
What is it that drives glider pilots away? Could the complexity of the latest breed of gliders play a significant role? Is it the usual long wait for just a short local flight or the cost of getting into the air? Does inconvenience come into it or is it the ever-present risk of landing out? Is it a combination of these factors or possibly even other deterrents? What about our fleet – most gliders are designed specifically for competition purposes featuring super high performance and a matching price tag. Sure, a very flat polar curve and a wide range of wing loadings is great for racing but such features don't rank high among the priorities of 'just for fun' glider pilots. In the past, this much bigger group of pilots has clearly been overlooked so it is no wonder that many of them have voted with their feet.

How can this trend be stopped or – better still – reversed? We know that a fleet of PW5s or similar aircraft didn't help. We also know that we have to look much deeper to ensure that our members' expectations are fully met. Today's time-poor pilots expect to fly for as long as they want and explore terrain out of gliding range without risking an outlanding and missing out on a planned evening activity. In other words, just like power pilots, many of our members prefer total independence and flying with some sort of predictability. Aviating with great peace of mind is exactly what makes power flying popular and is the main reason why all types of power flying clubs have enjoyed tremendous success over recent decades. Perhaps it would be a good idea to learn from our powered friends and offer our members flying with the individual freedom that only a motorized glider can provide.

By now, some purists might throw up their arms in disgust but persistent feedback like this has convinced Schleicher to develop an electrically powered glider primarily for pleasure flying and club operations. It is called the AS 34 Me, designed to allow even less experienced pilots to self launch and fly without the slightest concerns about engine management issues. Conventional wisdom says that combustion engines in gliders are a maintenance hassle but we now live in the electric age where operating a reliable electric motor with the help of a smart controller has become child's play.

Let's look at each of the AS 34 Me's main components. The airframe is largely identical with the well-known ASW 28, popular around the world and winner of quite a few national championships in Standard Class. It is widely recognized as an easy-to-fly glider with pleasant handling characteristics, without flaps and without hidden vices. Because of its slightly larger wing area compared to other Standard Class gliders (originally intended for an optional ballistic parachute system) and its large and much lauded safety cockpit, it fulfills all the prerequisites for an upgrade to an electrically powered self-launcher with 15 or 18m wingspan.

AS 34 Me - Flugleistung mit Motor



The power plant isn't brand new either. It has proven itself in the hands of clubs and in the 20m two-seater ASG 32 El. The battery capacity is sufficient for several self-launches on a single day and the air-cooled EMRAX motor gives the single-seat AS 34 Me impressive take-off performance. At a 35KW power setting the ground roll is just 260m, and its climb rate of 3.7 m/s (7kts) will get the AS 34 Me to 2,000ft in just three minutes. Best of all, it still leaves enough power in the battery pack for a further climb to 7,400ft. This trumps most petrol powered sustainer engines and the range of 130km gets even the most over-ambitious pilot home when thermals quit their services earlier than expected.

In other words, the new AS 34 Me combines a proven electrical drive system with an equally proven airframe. Its performance matches it with the best of its class. With the standard 15m wingtips, the best L/D is 45:1, and 48:1 when the optional 18m outer wing panels are fitted. Two battery packs are shaped like slender sticks, which slide into safety enclosures in the inner wing panels. Even an optional water ballast system is available for pilots preferring to fly with maximum wing loadings of 48.4 kg/m2 or 50 kg/m2 depending on the choice of outer wing panels. With 18m wings, the empty mass of the AS 34 Me is 387kg and its maximum take-off mass is 575kg.

Using the electric power plant is straightforward due to its intuitive control system, adopted from the ASG 32 El. Thanks to the degree of automation impossible to achieve with combustion engines, a ground run and a briefing is the only training necessary. Even low-experience pilots can safely operate the electric motor, as wrong motor management is practically impossible. Following an in-flight familiarization with the electric power plant a self-launch should not present a problem either and integrated wingtip wheels make a wing runner unnecessary.

The power lever (throttle) is just about the only thing the pilot needs to care about. After activating the master switch, it extends the propeller and on pressing the starter button, the motor cuts in instantaneously. Advancing the power lever increases the power output and pushing it all the way down promptly stops the propeller. It then rotates into a vertical position and retracts itself automatically – all within seconds and without distracting the pilot at all. Using the power plant is a real pleasure rather than a high workload job. Best of all, the only noise is the humming sound of the propeller.

Lithium ion batteries with a capacity of 8.6 kW (in 18650-Format with steel casings) power the AS 34. Safety was paramount during the development of the aircraft and the core of this safety concept is the Battery Management System (BMS). It monitors and displays voltages, temperatures, currents flow and remaining battery power. Incorrect operation is impossible as the BMS also avoids deep discharging, over charging or overheating. In case of a problem, (for example mechanical damage resulting in a short-circuit) the individual cell connectors act as fuses and limit a possible short-circuit to a confined area.

A totally discharged battery requires charging for only 4½ hours but Schleicher is reluctant to quote a service life for the battery pack. The battery supplier has quoted 500 to 1,000 charging cycles (empty to full) but more practical field experience is needed to determine the true battery life, given that usually only a small battery top-up is required.

The TBO (Time Between Overhauls) of the motor is 1,000 hours. Assuming that the power plant is on average used for only 5 minutes per flight, the motor should not need any attention for 12,000 launches. Power plant maintenance is limited to visual inspections and systems checks.

If by now you think that this technology has all the potential to open a new chapter in gliding, you are right. There can't be any doubt that – at least for the recreational aviation sector – the future belongs to electric drive systems. Given that glider pilots only require power for short periods to get airborne and/or to avoid outlandings, electric power plants are ideally suited. Their reliability, their low operating cost, their almost non-existent maintenance requirements and their unrivalled operator friendliness will see them capture an ever-increasing share of the market. In short, the list of advantages is simply too long to be ignored.

Who wouldn't like to fly a quiet and environmentally friendly aircraft with very low engine operating costs, with no power reduction at altitude, free of vibration, simple to operate, and – last but not least – with no fuel smell or exhaust fumes?

No wonder glider pilots and clubs around the world are excited, partly due to the lower price tag compared to gliders with a conventional two-stroke engine. Just connect the charger at the end of the day and expect to fly a powerful self-launching glider when next you arrive at the airfield. Of course, this doesn't fully eliminate the initial cost hurdle but in the long term, gliders that require no more maintenance than a mobile phone will prevail.

Bernard Eckey is the Australian Agents for Alexander Schleicher

AVOIDING APPROACH & LANDING ACCIDENTS DURING TRAINING

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Target ZERO — Culture of Safety begins with you; Zero accidents; Zero harm to people

This article discusses landing accidents involving misapplication of controls by the student during approach and landing, and provides some guidance on how to train against these accidents.

Heavy landing accidents, and accidents involving an apparent loss of control during final approach, have been too frequent since gliding began. Many of these involved students on training flights in two-seat aircraft with a relatively low time and/or minimal launch experience level, being directed or monitored through the landing by an instructor.

It is clear that many of these accidents involved an unexpected and inappropriate control input by the student, usually involving the elevator control, leading to either an abrupt nose down pitch and dive, or a nose up pitch and stall, from which the instructor was unable to recover sufficiently or even at all.

LEARNING FROM THE PAST

A recent double fatality accident involved a very experienced instructor training a student on his eighth flight. The student was probably being directed by the instructor through the final approach and landing. At a height of between 30 and 50ft on a normal final approach, the aircraft was observed to increase the airbrake setting and simultaneously dive into the ground at a steep angle in excess of 60 degrees.

Injuries suggest the instructor had his left hand on the dive brake and right-hand on the control column, and that the student had his right hand on the control column at impact but the exact control inputs are open to conjecture. For whatever reason however, it is clear that the student must have pushed forward quite vigorously with his hand on the control column and the instructor was unable to respond to recover from the effect of the inappropriate control input due to limited reaction time.

Two further incidents since then were alarmingly similar. These involved students who input large and inappropriate elevator control movements with one hand while also manipulating the airbrake control with the other hand. These may have resulted from misguided attempts to control airspeed as the airbrake setting was adjusted, or may have resulted from some mental confusion about what the two hands were doing with the two different control inputs on the control column and the airbrake lever, or some other confused/aberrant reflexes.

ANTICIPATING AND AVOIDING

In these two cases, the incidents occurred at sufficient heights for the instructors to respond, although one of the aircraft sustained serious damage.

First, it must be quite clear who is flying the glider at any time. When you take control, say clearly, “I have control” (or “my aircraft”) and start flying only when you have heard the student say “You have control” (or “your aircraft”). Similarly, when you hand back ..... “You have control” .....“I have control”, and then take your hands and feet off the controls. Don’t abbreviate the words to “I have”. The only possible exception to “I have control”, “You have control” etc might be in a sudden emergency when you can’t afford to waste time saying anything before doing it! But still say the words anyway — the student will be more likely to let go!

PROMPTING

There are several types or stages of prompt, ranging from the indirect question or suggestion, such as “Where are you going to land?” through the direct “Move left to miss the other glider”, to an intervention “I have control!” Unless things are going badly wrong, start with the indirect prompt – this is an invitation, if you like, to the student to assess a situation and make a suitable decision. The prompt does not tell the student exactly what to do. If this produces no response then the next prompt will be in the form of a direction “Do this” – in effect, a piece of advice on what to do next.

While the actual decision and judgement has been taken away from the student - you are asking them to do something specific - they are still flying the glider. The final stage in prompting is, obviously, “I have control”, where you intervene to make the decisions and judgements and do the flying.

Students usually learn best when they are making their own decisions and getting them wrong, so you must think carefully about when you should say something and what it should be. Don’t wait too long. If the situation is getting out of hand, take control in plenty of time. Early intervention is needed close to the ground as time is short.

DEMONSTRATION

Experienced instructors are agreed that students must not be progressed through their training, to instruction through the final approach and landing, until they have demonstrated a high level of control and co-ordination during upper air work training sequences.

Before being allowed onto the controls at low level (that is, circuit height), the student will benefit from instructor demonstrations while following on the controls. Remember the demonstrate-direct-monitor training sequence and be clear about where the student is on this sequence once landing training is to be introduced. Do not ‘over progress’ the student through this phase!

Above circuit altitude, demonstrate the primary effect of elevator at lower airspeed to show stick movement, and also at approach speed so that the student appreciates the reduced stick movement and increased effectiveness of the elevator. It is important that the student understands the range of stick movement at various speeds before handling the aircraft close to the ground – ie below the spin recovery height for the aircraft.

This emphasises a need to ensure that the student has gained the fine motor skills to manipulate the controls appropriately, particularly the elevator, and the student appreciates the relatively small elevator control inputs that are required at approach speeds.

CONFIDENT ADJUSTMENT

When conducting an actual approach, any tendency for the student to make frequent adjustments to the airbrake setting must be discouraged, especially if it is not possible to detect the effect of one change before the next one is made. Failure to maintain a near-constant setting may be due to lack of familiarity with the forces and changes involved. A useful exercise to overcome this problem is to agree before take-off that the student may move the airbrake position only once on the approach. In practice the instructor may have to allow further movements, but the exercise will discourage frequent adjustments and help build confidence.

The practice of closing airbrakes in the final stages of the approach must be discouraged except when the speed is decaying too quickly to allow safe completion of the round-out and the glider is too close to the ground for the pilot to be able to lower the nose; or where lowering the nose is not increasing the speed fast enough.

THRESHOLD OF INTERVENTION

The instructor must be ready to take over during the approach, particularly when close to the ground, if the student becomes unresponsive to directions or responds inappropriately. The instructor should guard (i.e. lightly grasp) the stick against the student over-controlling the elevator in both directions. This requires maintaining a light hold on the stick and awareness that a negative G bunt manoeuvre, as occurred in the double fatality event, might lift the instructor’s hand off the control column.

During the first few occasions when the student is being directed through the approach and landing sequence, allow the student to control the glider with the control column (with the instructor guarding the elevator with the right hand), while the instructor retains control of the airbrake. This allows the student to concentrate on maintaining just direction and speed control while the instructor controls the aiming point.

TIMELY MONITORING

The instructor must monitor the student’s workload on final approach. If the student stops responding to the instructor’s directions, this is a sign that the student is becoming overloaded and the instructor must take over for safety and training benefit.

In the event of a high ballooned landing or serious bounce, the instructor must respond immediately by taking over control, closing the airbrakes and stabilising the aircraft off the ground, before resuming the landing with an appropriate airbrake setting. At this stage, lower the nose if necessary to stabilise the aircraft, but accidents have also resulted from the instructor lowering the nose excessively in this situation, too!

Caution: Even though the instructor may be guarding the stick, this will not prevent the stick moving in response to a student applied input. This is because the instructor’s hand and arm will be relaxed. It takes about 1-2 seconds for the instructor to then react where discrimination and judgement are involved. Remember, 60kts is 100ft/sec – so an instructor will have very little time to react to a steep push-over at heights below 200ft.

INITIAL TRAINING

Before the student attempts their first directed landing, try the following upper air work exercise (Note - the student must have a sound understanding of the use of the airbrakes prior to this):

- At a sufficient height for extended upper air work, select an appropriately located and prominent aiming point in front of the glider at (approximately) a half dive brake setting approach angle.
- Demonstrate, direct and monitor the student through varying the airbrake setting with a constant airspeed (while noting the resulting undershoots and overshoots produced), varying the airspeed with a constant airbrake setting (while noting the increased elevator effectiveness with increased approach speed), and finally varying both airbrake setting and airspeed together.

continued over page

- Continue until the student can reliably manipulate both controls with appropriate inputs to the desired effects.
- Extend (still at upper air work height) to the simulated 'air landing' exercise by saying something along the lines of "OK, we are now at 50ft…maintain the half brake setting, maintain your approach speed…now 20ft …start to flare by bringing elevator back a little to reduce our sink rate…now a few feet off the ground, keep elevator back pressure to hold off…now we are stalling just above the ground and now we have landed!" Then, of course, recover from the resulting stall!
- Before allowing a student on the controls during final approach, the instructor must brief and demonstrate the importance of a stabilised approach. A useful teaching tip for initial circuit training is to commence the circuit several hundred feet higher than normal with the same angular references on downwind and base leg. This will increase the time on final approach for the student to practise control adjustments and achieve a stable approach.
- A common early student error is to overcontrol with airbrake corrections on finals, so before flying it is worth spending time with the student in the cockpit showing the amount of movement of the airbrake handle relative to the amount of airbrake/spoiler movement on the wings.
- As with all glider flying, the student must be taught to fly circuits with a light, relaxed grip on the control column and make control inputs using wrist action rather than moving the entire arm.

OPTIMISM BIAS

All pilots and instructors are vulnerable to various cognitive biases and errors; it is part of the human condition. Researchers have shown the most pervasive bias is optimism bias, where the person has an expectation of success, driven in part by the illusion of control over everything, and the planning fallacy where success is overestimated and resources, costs and negative consequences underestimated, plus a lack of consideration of complexity and chance.

Complacency can in turn drive a lack of emphasis on the final part of the demonstrate-direct-monitor training cycle. Complacency, plus optimism bias, plus experience with numerous past successes, might easily combine to make the instructor late to intervene in a rapidly deteriorating situation close to the ground.

HALO EFFECT

Optimism bias may also be compounded by a halo effect, where positive impressions made from one characteristic (e.g. nice person, keen, seems on the ball) are assumed to extend to other areas of competence. An experienced instructor may make a high assessment of their ability to read students and detect limits in their competence, when that student may still be subject to incorrect responses or training gaps.

For these reasons, it is particularly important for instructors to consider their own susceptibility to optimism bias, to consider pre-flight the thresholds of intervention that should be applied during training sequences.

"Assume the worst; hope for the best."

Remember your threshold of intervention: unless you are really sure of your ability to talk the student through any sort of upset, be prepared at all times to **TAKE OVER CONTROL AND INTERVENE EARLY!**

GA

Occurrences & Incidents

All clubs and GFA members are urged to report all occurences and incidents promptly, as and when they occur, using the GFA's occurrence reporting portal at gldingaustralia.org/Log-In/log-in-soar.html. 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
Accident and Incident Occurrences
General Statistics
From: 01/03/2019
Date to: 31/05/2019

Damag

	VSA	GQ	NSWGA	SAGA	WAGA	Total
Nil	6	9	7	1	2	25
Substantial		3				3
Minor	1	2	1	1		5
Total	**7**	**14**	**8**	**2**	**2**	**33**

Injury

	VSA	GQ	NSWGA	SAGA	WAGA	Total
Nil	6	13	8	1	2	30
Minor	1	1		1		3
Total	**7**	**14**	**8**	**2**	**2**	**33**

Phases

	VSA	GQ	NSWGA	SAGA	WAGA	Total
Launch	4	5	3		1	13
Flight	1	4	1		1	7
g		4	4	1		9
d Ops	2	1		1		4
Total	**7**	**14**	**8**	**2**	**2**	**33**

Type of

	VSA	GQ	NSWGA	SAGA	WAGA	Total
Cross-C	1	3				4
Local	2	8	6		1	17
Training	2	2	2	1	1	8
Ground	2	1		1		4
Total	**7**	**14**	**8**	**2**	**2**	**33**

Level 1

	NAGA	VSA	SAGA	NSWGA	GQ	Total
Airspace	1	2		4	1	8
Environment					1	1
Operatic	1	5	2	3	11	22
Technical				1	1	2
Total	**2**	**7**	**2**	**8**	**14**	**33**

10-MAR-2019 GQ HARD LANDING SF 25 C FALKE

The pilot of the touring motor glider had earlier in the day completed a recency check. The pilot then undertook a local flight, upon return from which he conducted a 'power on' circuit. During the final approach the pilot landed heavily, resulting in the propeller striking the ground and the landing gear and fuselage being damaged. As the glider rebounded into the air the pilot reconfigured the glider and conducted a stabilised approach to landing straight ahead. The pilot suffered several crushed vertebrae, potentially because the aircraft was not fitted with energy absorbing cushions. The aircraft was substantially damaged and was subsequently written off by the insurer. Engine-on landings in motor gliders have a high probability of a prop strike resulting in serious damage occurring should the aircraft be mishandled. GFA recommends that, unless operationally necessary, touring motor gliders should be landed with the engineoff and propeller feathered to reduce pilot workload. To prevent injury to the pilot in a heavy landing, seat cushions should not be highly compressible under normal flight-loads. Soft cushions will compress under acceleration, and after the material is compressed the cushion rebounds with the potential for injury to the pilot's body, particularly the spine. Gliders should be fitted with energy-absorbing cushions made out of viscoelastic foam. For further information, refer to article titled "Safety briefing describing why pilots should fly with an energy-absorbing foam cushion" available from the British Gliding Association.

10-MAR-2019 GQ GROUND HANDLING DISCUS A

As the glider was being towed from the hangar towards the launch point along a bitumen taxiway, the wheel of the 'wing walker' dolly struck a tire that was lying on the grass and was unseen by the driver. This caused the towing bar to dislodge from the tail dolly axle. The vehicle driver instinctively braked, albeit gently, but the glider continued to roll backwards and slightly to the left of the vehicle. The trailing edge of the port wing, just inboard of aileron, hit the vehicle's taillight and tailgate on the drivers' side, swinging the tail of the glider towards the car. The glider came to rest with the port side of the tailplane over the windscreen. The port wing of the glider was damaged, and the vehicle suffered a broken taillight and damaged tailgate. The driver noted that had they not stopped, the glider would not have struck the vehicle or suffered damage. The errant tire was removed, and the Club will raise awareness among its members of the need to protect movement areas from foreign objects.

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24-MAR-2019 GQ
HARD LANDING
BLANIK L13 A1

The flight was in the final landing phase of an ab-initio training flight, and the student had flown the entire flight. On earlier flights the student had demonstrated good speed control during final the approach but needed more work with the airbrakes, so on this flight the student was flying the approach with some coaching by the instructor. During the approach the instructor verbally guided the student's manipulation of the airbrakes while 'ghosting' the control column and airbrake lever. The student established a stable approach at the normal approach speed of 55 knots using about one-third airbrake but was soon overshooting the aiming point. The instructor called for more airbrake, and the student fully deployed the airbrakes while simultaneously pitching forward on the control column. With the speed increasing beyond 65 knots, and at a height of about 90 ft AGL, the instructor commanded "watch your speed and you don't need full brake". In response, and at a height of about 50 ft AGL, the student closed the brakes and the nose pitched up. With speed now rapidly decaying the instructor called loudly 'Speed. Speed. Speed' and felt the stick move forward as the nose pitched down. The instructor took control and tried to flare the aircraft, but it struck the ground heavily in a slightly nose down attitude. The undercarriage took the full impact and suffered damage. Heavy landing accidents, and accidents involving an apparent loss of control during final approach, have been too frequent since gliding began. Many of these involved two-seat aircraft on training flights involving students with a relatively low time and/or minimal launch experience level being directed or monitored through the landing by an instructor. It is clear that many of these accidents involved an unexpected and inappropriate control input by the student, usually involving the elevator control, leading to either an abrupt nose down pitch and dive, or a nose up pitch and stall, from which the instructor was unable to recover sufficiently or not at all. Experienced instructors are agreed that students must not be progressed through their training into being directed by the instructor through the final approach and landing, until they have demonstrated a high level of control co-ordination during upper air work training sequences. Instructors should also know their threshold of intervention: unless they are really sure of their ability to talk the student through any sort of upset, they must be prepared at all times to TAKE OVER

CONTROL AND INTERVENE EARLY! For detailed advice on this subject, refer to Operational Safety Bulletin (OSB) 01/19 - 'Avoiding Approach & Landing Accidents During Training'.

7-APR-2019 GQ
RUNWAY UNDERSHOOT
BG 12/16

The pilot had returned to the circuit from a local soaring flight in his recently acquired glider. The pilot noted that he "was still mastering approach control using flaps instead of air brakes". The glider was third in circuit behind two higher performing gliders. The pilot flew too far downwind for the conditions and performance of the glider, and landed in a paddock short of the a rfield. Witnesses observed the glider on downwind, positioned somewhat wider and lower than expected for a glider of its performance. They then observed the glider as it turned onto base leg at the same point as the higher performance gliders but much lower. An instructor observing this expressed the opinion to their student that from that position and altitude the aircraft would not be able to make it back to the airfield. The pilot also realised at this time that the glider would not make the airstrip and continued the base leg with the aim of landing in a paddock under the approach path and just short of the runway boundary. The pilot made a successful landing, but the glider rotated 160 degrees to the right as it came to rest. Causal factors include:

- Inexperience on type. The pilot had only 6 flights in the BG12 and usually flew gliders of higher performance.
- Unfamiliarity with type. The BG 12 has trailing edge flaps for approach control that are full span to the aileron. The pilot was still getting accustomed to their operation.
- Decision making. The pilot was number three to two DG1000s and decided to extend the downwind leg to follow them instead of turning-in early..

7-APR-2019 VSA
AIRCRAFT PREPARATION
PIPER PA-25-235

While undertaking the morning pre-flight inspection of the Pawnee tow plane, the pilot found that the magneto switch was set to BOTH. The tow pilot noted that in this configuration "the engine was left live" and "potentially dangerous given that people walk past the propeller and may even try to move it if it was in an awkward position." An aircraft magneto is an engine driven electrical generator that uses permanent magnets and coils to produce high voltage to fire the aircraft spark plugs. Airplanes have two magnetos, left and right, each of which fires one spark plug per cylinder, creating a redundant system that allows the engine to operate at full power independent of the battery and engine-driven alternator. This means that the electrical system can be turned off with the master switch and the magneto-equipped engine will continue running. Turning the magneto switch to 'Off' actually causes a short circuit (called grounding) in the magneto coil that prevents it from working and avoids accidental starts. Investigation identified the pilot who had flown and hangared the aircraft the previous day had earlier received remedial training and counselling for leaving the tow plane in a similarly unsafe condition on a number of previous occasions. As the pilot appeared incapable of managing the aircraft in a safe manner and demonstrating the necessary discipline, the Club Committee removed them from the towing roster. Most pilots understand the dangers of a spinning propeller and have heard horror stories about a "hot mag" accidently turning over the engine. GFA reminds members handling powered aeroplanes to assume the ignition has been left in the "on" position and that the engine could start at any moment. Tow pilots should periodically check that the aircraft engine's dual magneto systems have properly shut down the engine to avoid the risk of an unexpected start. For further reading, refer to Flight Safety Australia article "Properly clear of the prop? at this link: flightsafetyaustralia.com/2014/03/properly-clear-of-the-prop/

14-APR-2019 NSWGA
NEAR COLLISION
DG-1000S CIRRUS DESIGN CORPORATION SR22

At this regional aerodrome, contra circuit operations are conducted to separate the glider operation from general aviation traffic. Gliding operations had commenced on the glider RWY 17 around 0900 that morning, but due to strengthening winds from the north, operations were changed to Runway 35 Grass Left around 1145 hours. The glider had joined circuit following a solo check flight for an A Certificate student pilot.

Meanwhile, a Cirrus SR22 entered and backtracked the runway to take-off from the reciprocal end (RWY 35). As the glider turned onto its base leg the pilots observed the Cirrus SR22 rolling for take-off and turned early onto a final approach. During take-off the Cirrus SR22 drifted West towards the glider runway due to the slight crosswind, which forced the glider pilots to land close to the runway's western boundary to provide separation. It is not known whether the departing Cirrus SR22 pilot was aware of the presence of glider or the developing conflict. In areas outside controlled airspace, it is the pilot's responsibility to maintain separation with other aircraft. For this, it is important that pilots utilise both alerted and unalerted see-andavoid principles. Pilots should never assume that an absence of traffic broadcasts means an absence of traffic. The following publications provide information that may assist pilots avoid airprox events:

- Staying clear of other aircraft in uncontrolled airspace
  atsb.gov.au/publications
  bit.ly/2YSxbbb
- Collision avoidance strategies and tactics
  aopa.org/training-and-safety
  bit.ly/2M8jG5e
- A Flight Safety Australia article, Sharing the skies – gliders printed in Issue 87 July-August 2012, is available at
  pandora.nla.gov.au
  bit.ly/2MbEyIO
- CAAP 166-1(1) provides advice in relation to making radio broadcasts to reduce the risk of comingin close proximity with other aircraft:
  casa.gov.au
  bit.ly/2KF6QIt

21-APR-2019 GQ
RUNWAY EVENTS
JS1 C 18/21

During the initial aerotow launch and climb to The pilot returned from a cross-country flight and commenced final approach to RWY 09 with a 14 to 20 knots crosswind component from the SSE (160 degrees). The pilot landed with +4 flap setting and minimal airbrakes, and extended the hold-off in order to touch down further up the runway near the hangars. The pilot stated: "At the point of touchdown the aircraft suddenly and unexpectedly entered into a ground loop and finished up facing in the opposite direction to landing. I was not aware of anything that could have caused this other than the possibility of a strong gust at the point of landing." Investigation revealed the ground loop was most likely caused by a gust exceeding the aircraft's maximum crosswind component. This was most likely compounded by inappropriate flap settings likely leading to loss of lateral control as the aircraft slowed. The aircraft flight manual states that "Safe landing in cross-winds up to 30km/h (16kts) is possible due to polyhedral wing shape allowing high bank angles during touch down:

- Use Flap setting 4 for moderate crosswinds and Setting 3 for strong crosswinds (exceeding 25km/h or 14kts).
- Align the aircraft nose with the runway centreline using the rudder.
- Lower the into-wind wing sufficiently to overcome drift.
- Keep the into-wind wing lowered until coming to a complete stop.
- Change to Flap setting 1 after touch down."The pilot's CFI noted that the "pilot had developed a habit of flying along the runway in ground effect to find the perfect spot to land and pull up in front of his hangar. That is not untypical (even if not necessarily advisable), but in this case it may have contributed to extra vulnerability of the glider to a sidewind gust." Operations in crosswind conditions require strict adherence to the applicable crosswind limitations or maximum recommended crosswind values, operational recommendations and handling techniques as described in the aircraft flight manual. To calculate the crosswind component, the "rule of sixths" is a useful method that does not require a calculator and gives a fairly accurate approximation for most relative wind angles. The "rule" makes use of the happy coincidence that the sine of 10 degrees is very close to 1/6th, sine 20 degrees is very close to 2/6ths and so on. To use this "rule" you first determine the relative wind angle, and then multiply the reported wind strength by the appropriate fraction. So if the reported wind is 280/12 and you are using runway 32, the wind angle is 40 degrees, or 4/6ths, so the crosswind component is therefore 4/6ths of 12kt, say 8 knots. [Note: at 60 degrees, or 6/6ths, the margin for error is somewhat higher and many pilots multiply by 0.9. Use actual wind speed beyond 60 degrees]. GA

DEFECT REPORTS

Defect reports (SDR) are best submitted through the SOAR system or they can be emailed or posted.

More serious defects are also entered in the CASA reporting system. This enables CASA to be involved in discussions with the National Airworthiness Authority (NAA) responsible. This may result in a EASA Airworthiness Directive (AD) covering ongoing continuing airworthiness requirements. The defect reporting may also result in the type certificate holder (manufacturer) raising a Service Bulletin or Technical Note covering the defect.

The GFA may issue an Airworthiness Directive depending on the risk, it may issue a Airworthiness Alert (AWA) or a Airworthiness Notice (AN). All operators of the affected aircraft type or equipment would be notified. Defect reporting by our members is essential for the safety and continuing airworthiness of our sailplanes.

Here are some recent defect reports to give you an idea of the type of problems that clubs around the country deal with on a regular basis.

Members can the SOAR reporting system by selecting the orange heading 'My GFA-SOAR Reports' at glidingaustralia.org

PIK-20 E GA-033419 25/07/2019

Stb flap/aileron intermediate pushrod bearing failure. Under investigation for age, corrosion, fatigue, material failure. The defect is a known failure point in the Pik 20E, refer AWA 2012-1

ASTIR CS GA-033421 5/07/2019
TOW RELEASE HANDLE JAMMING CONTROLS

Potential serious accident Refer AD 358. Defect report details possibility release knob could restrict stick movement.

DG-1000S GA-033340 30/06/2019

DG Harness locking buckle failure. Under investigation - Environmental grit/foreign material impared harness function. Cleaning fixed, glider returned to service.

The glider was re-rigged after an outlanding and left in the hangar. The damage was not reported but luckily was found on the following DI. Photo of the popped/cracked rudder skin, the rudder jammed hard over (note red electrical tape in photo). On rudder removal and inspection, the second photo shows the lower cracked rudder plywood hinge, the bush loosened by the trauma.

JANTAR STANDARD 2 GA-033208 11/06/2019
RUDDER DAMAGE

Accident damage sustained in careless ground towing technique.

GA-033206 10/06/2019
JANTAR AIRBRAKE FREEPLAY

Control system design permits accelerated wear and free play in control circuits.

GA-033205 10/06/2019
ALTIMETER ERRORS

Altimeter found sticky and out of tolerance on annual inspection.

GA-033203 9/06/2019
BEARINGS SPRAY LUBE

Poor bearing maintenance lubrication technique - clean first then lubricate.

GA-033207 8/06/2019
LOW MAINTENANCE STANDARD

Glider found in a condition requiring exra effort to bring to a satisfactory airworthiness standard.

GA-033204 7/06/2019
ALTIMETER

Altimeter found sticky and out of tolerance.

STANDARD LIBELLE GA-0333903 1/05/2019
EXTEME AIRBRAKE PIVOT BEARING AND SYSTEM WEAR FOUND ON 3000 HR LIFE EXTENSION NSPECTION

Bushes and fittings found worn. Repaired/ replaced during life extension inspection.

GA-033147 4/05/2019
SEAT BELT CROTCH STRAP REVERSED

Completed crotch strap rigging reversed to allow pull up to tighten.

GA-032985 28/03/2019
WINGLETS

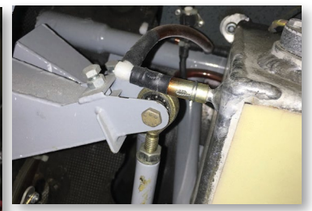
Maintainer advised of non-approved winglets. The winglets were not with aircraft at annual inspection. Engineering approval of winglets in progress.

GA-033293 20/04/2019 DG1001 TRIM CABLE CAN DISCONNECT

The DG 1000 has a rear trim quick disconnect to allow rear stick removal. This Dzus type half-turn quick disconnect is prone to uncouple. DG has been requested to supply further information regarding locking and possible replacement part.

VENTUS 2CM GA-033341 5/05/2019
FUEL TANK MOUNTING FAILS CAUSING A FUEL LEAK

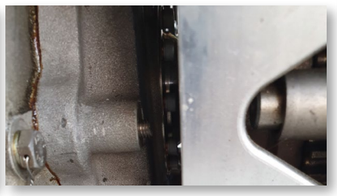
CASA defect report submitted. Three mount tabs repaired. Alignment of mount holes realigned in mount tabs to relieve stresses.



GA-033149 19/04/2019
REAR CANOPY GAS STRUT LEAKING AND FAILED Completed gas struts needed servicing/ regassing.

GA-033062 12/04/2019
AUSTRO ENGINE STUD SHEARED OFF

AWA 2019-2 raised and issued 8/07/2019. Defect known to type certificate holder. Approved repair scheme forwarded to all operators.



GA-033113 8/04/2019
RUDDER DEFLECTION OBSTRUCTION

Ballast weights when fitted down near the rudder pedal controls limit rudder deflection when rudder in the full forward mount position.

GA-032934 14/03/2019
W&B INCONSISTENCIES

W&B carried out differed significantly with previous weighing results. Research suggested W&B was carried out without draining fuel tank. Reweigh carried out now with all fuel removed, the results now close to the manufacturer's original calculations.

GA-032963 24/02/2019
VENTUS UNDERCARRIAGE FAILURE

Known stiff undercarriage action led to gear up landing. Landing gear after the event removed, cleaned and inspected, lubricated and refitted. Now serviceable, the action only requiring normal loads and effort

GA-032873 13/02/2019 ASK21 FRONT CANOPY FAIL SAFE LOCK SYSTEM FAILURE

The front canopy locking mechanism is designed so as the front canopy cannot be locked with the rear canopy open. On this occasion, the system failed.

GA-032875 13/02/2019 STBD BALLAST TANK LEAKING & SOME EVIDENCE ON THE UPPER SKIN "D" NOSE PLACARDED "NO WATER BALLAST PERMITTED"

Discus B Stbd wing failed AD 165 water ballast pressure test. Glider placarded and released to service IAW GFA AIRW-M15 Permissible Unservicibilities document.

GA-032848 3/02/2019
DG1000 TAIL BALLAST COVER DEPARTURE

The tail ballast cover locking failed due to grime, poor condition and maintenance. The mechanism showed 'green' and was additionally taped. The aircraft on launch touched the ground a couple of times, the second time the cover flew off. When this happens, the ballast is left with no safety retaining mechanism.

GA-032856 3/02/2019 DG1000 TAIL BATTERY LEAK

Tail batteries charged in-situ often get forgotten and taken for granted. This battery failed and when removed was found starting to leaking acid. It was removed just in time. The GFA has had other reports of tail batteries leaking, the battery acid in one case damaging metal fittings, access requiring major structural repairs. Most batteries in sailplanes usually get removed and inspected on a daily basis when charged. AWA 2012-1 dated 23/05/2019 contains advice for operators who perform in-situ battery charging and maintenance recommendations.

GA-032834 11/01/2019 VH-GKD
REPAIR OF AIR BRAKE ARM

Fatigue; material failure. Known defect. Refer AD 538 issued for certain aircraft serial numbers.

GA

DENNIS STACEY
Chief Technical Officer
cto@glidingaustralia.org

SAFETY WHEN YOU'RE AT 10-4

PROFESSOR SIDNEY DEKKER
NATIONAL SAFETY ADVISOR

Bear with me as I talk you through a few figures. In 2017, we made some 50,000 glider flights together. In that year, we lost five pilots to fatal accidents in Australia. In other words, one dead pilot resulted from every 10,000 flights we made. It was the worst year since 2006, when we had four fatalities. This has occurred against a relatively constant backdrop of one or two fatalities per year. For now I won't go into the grief that these deaths cause both inside and outside our community. But believe me, I've been close enough to the aftermath of some of them to feel the rough texture of shock and despair, and the violent disappearance of a life forever – like a cloud blown over the horizon.

What I want to talk about here is how the occasional spike to one fatality per 10,000 flights is instructive, because it tells us something about our fatality prevention efforts. Formally put, the probability of a fatality in 2017 was 10^{-4}. One fatality per 10,000 'exposures' puts us on par with, say, cattle farming. Over the past years, Rene Amalberti, a colleague of mine in France, analysed safety-critical activities and found some remarkable differences in what each one had done, and still had to do, to promote fatality prevention. Critically, it depended on the safety level they had already achieved. There were unsafe activities, he found, and safe ones, and ultra-safe ones:

Safety level	10^{-2} to 10^{-3}	10^{-4} to 10^{-5}	10^{-6} to 10^{-7}
Example of activity:	Himalaya mountaineering, extreme sports	Gliding, cattle farming, road traffic	Railways in Europe, nuclear power generation, scheduled airlines in First World
Success created by:	Excellent craftsmanship, individual skills and experience	Active safety governance, official roles and established safety requirements.	Mature designs and reporting systems, core set of expert operators with limits on autonomy but discretionary authority where needed.
Failure caused by:	Seeking out limits on maximum performance; incompetence, bad luck	Choices still made at user's level.	Complexity and gradual drift into disaster under pressures of production
Go to next level by:	Writing more rules; accepting limits on maximum performance; standardization and quality control of equipment and procedures.	Further standardizing designs and procedures; Optimizing safety reporting systems.	Science doesn't know this yet.

- Participating in an unsafe activity is associated with a 1 in a 100 or 1,000 chance of life-changing or fatal injury, or 10^{-2} to 10^{-3}.
- A safe activity reduces that to 1 in 10,000 to 1 in 100,000; or 10^{-4} to 10^{-5}.
- Ultra-safe activities expose their participants to an infinitesimal 1 in 1,000,000 to 10,000,000 chance of death or life-changing injury, or 10^{-6} to 10^{-7}.

There are also activities that are even riskier than unsafe ones. That includes some forms of surgery or experimental treatment. Those, however, are risks we or our families are prepared to face because the alternative is certain death. Have a look at the table. I've summarised and grouped some of Amalberti's findings there. For the sake of space, not everything is represented there, of course. You might well have experiences that can be added to one of the boxes.

The governance of safety at our level of 10^{-4} to 10^{-5} is quite active, through club-level and GFA coordination, official roles in clubs and the GFA, design standards and safety requirements. But in the end, we have the autonomy of making choices that directly affect the probability of a pilot becoming a statistic. In ultra-safe systems, that autonomy has been gradually scripted out, leaving only discretionary authority - like that of an airline pilot - when needed and defensible. But we engage in gliding because we love the freedom of it. Perhaps we might accept some further limits on seeking out maximum performance, such as in competitions. We have already been doing that – we no longer finish at a height of 2ft over the airfield, for example. What else is open to us to develop an ever safer activity?

WHAT HELPS?

What doesn't help is simply writing or enforcing more rules. That would have helped if we rated 10^{-2} to 10^{-3}. But we're safer than that. Amalberti has noticed a tendency of systems to simply write more rules, but never take any rules out. The effect is purely additive, with nobody really knowing any longer which rule is responsible for assuring which part of safety, or why the rule was put there in the first place.

What does help is continued work on cultures of safety at the club level, where honesty, openness and reporting are all safe and normal. As Stuart Fergusson flagged in his last column, we have work to do, as one third of our clubs are not reporting anything.

What will also help is a continued drive for standardised cockpit designs. New technologies such as ejection cushions, ever more capable flight computers, and electrical launch and sustainer systems are the next frontier. These are great avenues for our community, including manufacturers, to contribute to our journey to ever greater safety.

GA

CLASSIFIED ADVERTISING

glidingaustralia.org

For members' convenience, Classified Ads can be purchased from the Gliding Australia website at glidingaustralia. org Go to Classifieds then click on the link and complete the online form where you will need to provide the text for the ad and any photos, if required. The cost for the ad will be determined by the number of words and any photos you wish to add. You will then be taken to a secure payment area to process your payment. Your ad will be placed on the GFA website for a month from the date of payment. Ads that are financial at magazine deadline (1st of every second month) will appear in the GA Magazine. For any enquiries please contact the GFA office on 03 9359 1613.

SINGLE SEATERS

VH-JUS, LS6-C 17.5 M and 152,300 hrs and 350 landings like new with recent PU paint upgrade P Holmes and clearnav computer and remote and Clearnav Vario . Ozflarm; Mtn high Oxygen and 3 bottles . dust covers. always hangared; Cobra trailer also hangared like new. 15 M and 17.5 Meter tips, delightful to fly ; based at Lake Keepit, welcome to test fly, various spares tyres etc Contact **Greg or Jus 0414 490 907 or 0407 494 377**

VH-WVF Pik 20B Excellent condition 3219 hrs 1573 landings, new panel and refurbished cockpit last year ,new inner and outer wing seals, Ilec SB8 vari, Winter mech vario, Microair radio, minioz flarm, Mars chute, full all weather covers, blue tinted canopy, duel battery system.new ballest bags ,forty year survey done last year ,good to go for another ten years a very clean well sorted glider. Good trailer with new tyres, current QLD rego and a one-man rigging system that works a treat. Price $17,500 Negotiable. Phone Mike 0407 402 083 or email **mike@goldcoastsailmakers.com.au** Check out my you tube channel Mike Sabin to see many adventures in this glider

VH-WPP Ventus 2a 18m performance, in new condition with new PU refinish, A+ maintenance history; LX9000 w/v8 vario, ATR radio, miniOz flarm, tow out gear, cobra trailer; Suitable for pilots with 50hrs solo, save money by not needing to upgrade for a long time! Price $125,000 For more details, photos or other options,
Contact **Adam Wooley Mob +61 438784688**
Email **go_soaring@hotmail.com**

VH-XJB LS7-WL S/N 7069 Built 1989. 2950hrs & 1250 landings. Excellent Std class performance. Basic instruments plus LX8000/V5 vario, XCOM radio. Flarm. Refinished professionally 2015 by Morgys Glider Works in 2-Pack PU paint. Winglets. Tow out gear and clamshell trailer. $55,000. Ph. **0429 413 570** or **secretary@waikerieglidingclub.com.au**

VH-IUG, Jantar 2B SZD-42-2 20.5m, 49:1 L/D, LAME refurbished and Form 2. Perfect ballast tanks. New Flarm. LX electronic variometer. New compass. Oudie. Winglets. Advanced towball ground handling gear. Excellent condition. Current hours 2000, extended to 3000 hours. Cost $25,000 including trailer. Contact **Robert 03 9499 4275**

TWO SEATERS

VH-XQY Due to a fleet upgrade, Hunter Valley Gliding Club offers a **Puchacz** for sale. Purchased new in 1991 by HVGC. Fastidiously maintained and in great condition.
LX V7 vario front and rear, Xcom radio with rear seat repeater, Flarm with displays both seats. 4652hrs & 10345 landings. Fresh Form 2. No

trailer but we can assist with a trailer to get it to your site. $44,000 inc GST. Contact **Jeff Hunt 0412 152 511**

VH-XQA, DG 500M Self Launch Two Seat Motor Glider, 22M (winglets fitted under current CofA). Imported new in 1994. Privately owned and hangared at Camden. In excellent condition (Gelcoat Schwabbellack finish). Airframe - 1310hrs Engine & Prop.-188hrs (incl. 25hrs since engine rebuild). Landings – 660 Custom built 2 Axle trailer (E-Brakes), 2 Parachutes PA Thinback/Aerolite, LX 8000 front & rear incl. stick control, variometer and GPS with FLARM, Mountain High Oxy Regulator plus Bottle, 2 Bose A20 Headsets,

complete tow-out gear. $130,000 Contact **Dean Ward Mobile 0411 840 352** or email **dean@dean-ward.com**

MOTOR GLIDERS & TUGS

VH-GSI ASH25Mi two sear self-launcher. 60 HP rotary fuel

injected engine. Imported 'ex-mould' re-profiled a year later and finished in polyurethane. 26m with winglets. One-man ground handling gear and one-man rigging gear. CNav full X/C and X-com radio with rear seat repeaters. Hangared at Lake Keepit. Same syndicate since new. Two shares of three for sale – price reduced. Contact **Ian** at **ianbarra777@gmail.com.**

VH-DXN Whisper Motorglider 16m. Limbach L2000 80HP with Hoffman V62R three position prop. Engine and propellor 12 hours TSOH. This is the original manufacturer's prototype built in 2004. Now more than 30 flying in the world. Total airframe time is approx 275 hours. Comfortable cruising at 90 knots with minimal fuel burn or sound gliding performance at 1:28. Currently located at Bindoon WA. Price $50,000 neg.
Contact **murray.dixon2@bigpond.com**

VH-XQM Discus bT, Airframe 902H, Engine 13.25H. Refinished in PU 2014, always hangared. ClearNav and C302 Varios, panel mounted Oudie, Maughmer winglets, MH Oxy system, PA parachute. Martin trailer recently refurbished. Everything included for XC or competition flying $75,000. Contact **Ray 0422 242 904.**

VH-GPH DG-400 17m,~1,820 Airframe Hrs, ~185 Engine/Prop Hrs, Form 2 completed April 2019, Refinished in PU 2014, Standard Instruments plus Tasman Vario and EGT, Fully Automatic Engine Control, Tinted Canopy, Immaculate inside and out, Good condition Comet trailer with brand new axle/wheels, single person rigging equipment, Engine spares, Perfect self-launching freedom machine! $75,000 ono Contact **Dave 0457 598 993** email **oneaviation@hotmail.com**

continued over page

INSTRUMENTS & EQUIPMENT

Komet Eurolight Trailer for ASG 29 18m - "REDUCED PRICE" 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. $15,000 ONO Contact **Craig Vinall 0416 236 662**

LNAV S80 Vario/Navigation (when Flarm/GPS connected). Stand-alone (80mm) vario, final glide and navigation system, moving map. Basic "Club" version. Nav to WPT. Upgrade to more features. Like New $1400+post. **gliding.lxnav.com/products/s80**
Contact: Damien Mob: 0427 000 553

ASG29
Engine installation, complete pakage with ILEC etc <3hrs engine time, Crated and inhibited for long term protection Bargain $12,500,Contact Scott Percival phone 0419 837 355

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Australian Agents for DG & LS

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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 :

LS8-sc neo
Standard Class Racer

18m & turbo options available

DG-808C Competition
18m Self Launcher

outstanding self-launch performance