

GLIDING

AUSTRALIA

Issue 62 December 2022 - February 2023

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BURKETOWN SAFARI



OMARAMA ADVENTURE - WATER BALLAST - RENNER CUP - VINTAGE - CLUBS



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GLIDING AUSTRALIA

MAGAZINE

No. 62 DECEMBER 2022 - FEBRUARY 2023

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FROM THE EO



TERRY CUBLEY AM
EXECUTIVE OFFICER
 eo@glidingaustralia.org

WHO ARE WE?

You may have noticed that, although we are the Gliding Federation of Australia Inc, we are now using the trading name 'Gliding Australia' in our documentation and promotions.

This is a deliberate change intended to establish a standard name that fits our image, logo and promotion activity. The Board has agreed that we won't use the acronym GA because of obvious confusion with the same acronym used for General Aviation.

We may use GFA when it so suits, but expect that you will generally see Gliding Australia written out.

Extraordinary General Meeting (EGM) – Constitutional Reform

The EGM was held via Zoom on the evening of 16 November.

- Members were advised via email on 8 October.
- An information package was sent to members on 12 October, containing
 - Current Articles
 - Proposed Constitution
 - FAQs
 - Link to ask questions

164 members submitted proxy forms, and 57 members attended the EGM Zoom meeting. The meeting was over fairly quickly,

with only the one motion to consider. The motion was to accept the proposed new Gliding Australia Constitution. The major changes include the separation of the Board and the Executive which should streamline the management and decision making, and the Appointment of a Chief Executive Officer (CEO). Though not exactly a stimulating topic, it is quite important for future management of the Association.

The rules for voting permit Flying Members (Adult and Junior) and Life Members to vote.

To change the Constitution, we need

1. At least 100 members voting, We had 216.
2. At least 75% must vote in favour. We had 99%, with only 2 members voting No.
3. A majority of members from a majority of Regions. All 5 regions had 97% to 100% in favour.

As a result, the motion passed.

The proposal states that implementation of the new Constitution will occur at the AGM in 2023 – which will be in August/September 2023. This delay is to allow time to explain the new roles on the Board and to seek applications for Board members and the new Chief Executive Officer (CEO).

MEMBER ENGAGEMENT

Passing this motion was a good outcome, but should we be a little concerned that only 216 flying member voted, out of a possible 2029 eligible members? It means that 10.6% of members participated. I'll assume this is because the majority of members are just happy to let the Gliding Australia Board get on with running the organisation and trust them to do the right thing.

WOMEN'S REPRESENTATIVE ON THE GLIDING AUSTRALIA BOARD

Harbans Mann has been appointed as the women's representative to the current Gliding Australia board. Harbans is a member of the South

Gippsland GC in Victoria, and also the Adelaide University GC in South Australia where she attends University. Harbans is a Flying Junior member of Gliding Australia.

Harbans was recently very active in arranging and organising a series of webinars for Gliding Australia members with presentations by Jim Crowhurst, Lisa Trotter, Bruce Taylor, Lisa Turner, Jo Davis, Jenny Thompson and Tobi Geiger. You can watch these presentations on the web page under Member Services/ Webinars.

Jenny Thompson is promoting the idea of a Women's Association to help encourage more women to get involved with our sport. A letter detailing plans for the Women's Association has been sent to all female flying members.

12% of our membership are women. Improving support for women in your gliding club can really assist with increasing membership and improving the culture of your club. More pilots means more flying and more members to help with the many jobs.

PART 149 PROGRESS

Gliding Australia is working to become an approved Self-Administering Aviation Organisation (ASAO) which will see us taking more direct responsibility for our actions and performance.

We need to meet certain requirements from CASA, but these are not too onerous and in most cases reflect what we currently do, or will only require small changes. By making this move now, we can reduce the costs of transition, which are potentially quite high.

It has led us to develop a number of procedures and policies. Two of the most recent additions are -

- Fatigue Management Policy.
- Management of Change Manual.

We are producing our Exposition, which details what we do and who does it, with some

changes to the key Accountable Manager including replacement of the President with a CEO.

We have to provide the final Exposition by early December and we will then have the next 12 months to fully implement and finalise some details.

IMPACT OF INCREASING DRONE ACTIVITY

A lot of discussion at the recent Safeskies Conference was about the introduction of drones and UAVs, with the resulting consequential airspace challenges, including collision risks. It was good to hear that Defence and Air Services were open to considering different ways of allocating airspace.

A number of clubs are seeing requests from new companies wanting to establish drone traffic routes within glider flying areas.

If you get such a request, you can seek advice from emo@glidingaustralia.org.

2026 WORLD GLIDING CHAMPIONSHIPS (JUNIORS AND OPEN/18M/15M)

Countries have been asked to nominate to run the Junior WGC and the Open/18m/20m WGC in 2026. Three clubs (Benalla, Cunderdin, Lake Keepit) have expressed interest to host these events and IGC will make its selection hopefully before the end of the year.

Narromine will host the 2023 World Gliding Championships for Club Class, Standard class and 15m classes in December 2023.

TRAINING SYSTEM ROLL-OUT

The new GGC training system has been progressively rolled out

to the Level 3 Instructors and CFIs, and progress is being made with training of club-level Instructors and Coaches.

CFIs and presidents of most of the Victorian clubs say the syllabus is good, but there are implementation problems in some areas.

You can see the new documents, which include Trainer Guides for the trainers, Pilot Guides for student pilots and Theory lessons. These are all available in the documents section of the web page. There is still some tidying up work to be done with the documentation, and trainers are encouraged to use the feedback form so that suggested improvements can be captured, reviewed and implemented.

The aim is to have all Instructors/Coaches trained by the end of 2022 and expectations are that the majority will have completed this by then. Opportunities will be provided to clubs in the New Year for Instructors who have missed out on training.

Queensland is ahead of the pack in terms of rolling the ITP down to Instructor level. Beverley and Narragin Clubs have been using the new program and have been pushing it quite strongly.

CHIEF EXPERIENCE OFFICER (CXO) POSITION

Richard Frawley has stepped down from the CXO role due to workload on some other tasks. Gliding Australia is therefore seeking a replacement to provide guidance on our technology

systems. The role is to be renamed as Information Systems Manager, and a formal advert will be posted in the near future, along with a position description. If you have talent in this area you could contact president@glidingaustralia.org.

FAI AWARDS TO GLIDING AUSTRALIA MEMBERS

Beryl Hartley has been awarded the FAI Paul Tissandier Diploma that recognises 'Provision of Services to gliding and sport aviation'.

The ITP Team has received the FAI Honorary Group Diploma (for Aeronautics), for their work in creating the new GPC Training System and Resources.

(More details on page 5.)

UPDATED NATIONAL COMPETITION RULES

Updated National Competition Rules are available at <https://bit.ly/3irfY8i> Changes the requirement for competitors to supply a Flarm analyser trace to check the effectiveness of their Flarm.

TEAM FLYING

Team flying for Sports Class will be trialed to see if that generates some interest for some pilots. Sports Class will not be a competition for international selection purposes and Selection document will be amended to reflect this.

JENNY THOMPSON CHAIR SOARING DEVELOPMENT PANEL

Row Labels	Gliding NSW	Gliding Queensland	Gliding SA/NT	Gliding Vic/Tas	Gliding WA	Grand Total
Against			1	1		2
In Favour	19	64	47	32	52	214
Grand Total	19	64	48	33	52	216
	100.00%	100.00%	97.92%	96.97%	100.00%	

AN OPEN LETTER TO THE GLIDING COMMUNITY

RE: 10TH WWGC – OUTCOMES OF APPEALS

It's nearly three years since Lake Keepit hosted the 10th Women's World Gliding Championships. For an event that started with so much excitement and promise the outcome has been devastating for many, particularly our women pilots and the cause for upset and controversy ever since.

At the culmination of the event it was discovered that the Australian Team (Team) had been using G Track Live data without a time delay, which was possible as the organisers had failed to secure the data with the use of password protection, and in the opinion of the competition organisers the Team broke rules and gained an unfair advantage over the other teams. Penalty points were applied against the Team which meant that Australia was denied a World Champion in one class and a third place in another. The details around this are complex and it is not my purpose to delve into the rights and wrongs of what occurred. Rather I would like to summarise what the process has been since that time and to put closure to this saga that has consumed so much time, energy and emotional investment.

Following the event, the Gliding Australia Board (Board) investigated the matter and as part of that process declined to support the Team's appeal to the FAI and applied penalties against Terry Cubley and Matt Gage. Terry and Matt believed they hadn't breached any rules and appealed the Board's decision, as was their right under Gliding Australia's disciplinary policies. As the matter had received so much exposure and with people holding strong contrary views, the Board found it impossible to put together an appeal panel that would be independent, impartial, be acceptable to all and not tainted by what had occurred. At the same time some of the Team's members decided to appeal the Team's penalty and posted their own appeal to the FAI through the Air Sport Australia Confederation (ASAC). This meant that there were two distinctly independent but parallel appeals running.

The Board thought it best to put a hold on dealing with Terry's and Matt's appeal until there was a resolution of the Team appeal to the FAI, which all thought might take in the order of three months to conclude. Who would have envisaged that it would be almost two years before a

result was announced. The outcome of that appeal was that the FAI's International Appeal Tribunal (IAT) found against the Australian appeal and instead totally disqualified the Team. During the lengthy FAI appeal process, for a variety of reasons, the Board came to the view that there was prima facie evidence that the IAT's processes were flawed and advised the Team that Gliding Australia would offer financial support, should they choose to take their case to a higher authority, not to defend an applied penalty, but rather to uphold their right to a fair hearing to ensure procedural fairness.

Following the finding by the IAT against the Team, the appealing Team members decided to take their case to the International Council of Arbitration for Sport, the governing body of the Court of Arbitration for Sport (CAS) in Lausanne, Switzerland. This was an involved and expensive process and was the final resort for the Team. Due to a misunderstanding of time-zones and public holidays in Switzerland around the Christmas period, the Team's legal representative missed the lodgement deadline by a few hours, and with the FAI's denial of a time extension it meant that the appeal could not be heard by the CAS – regardless of the merits of the case. That was the end of the road for the Team's appeal process – they had been disqualified, with no further opportunity of appeal. That occurred in late December 2021.

So, getting back to Matt and Terry. As part of Gliding Australia's pathway to Part 149 compliance we needed to update our policies around discipline, penalties and appeals. This culminated in a new policy – Complaints, Discipline and Appeals Policy and Procedures which was approved by the Board in April 2022. This new policy provided greater flexibility and allowed the appeal process to be referred to an independent third party separate to Gliding Australia. To break the stalled appeal process the Board offered Terry and Matt the opportunity of having their appeals dealt with under the new policy, to which they agreed. Consequently, ASAC was approached with a request to provide an independent, last resort, avenue of review. Following a process of consideration the ASAC Board updated its constitution and developed a policy that would allow it to provide a pathway of appeal to its member

confederations.

The process of lodging the appeal was thorough with 309 pages of agreed evidence, a submission from Gliding Australia and a combined submission from Terry and Matt. On 6th October ASAC's Independent Review Panel provided an Initial Summary with its decisions. These were to remove all penalties imposed by Gliding Australia and replace them with:

Terry and Matt may compete in any competition as pilots. Terry and Matt are excluded from judging, captaining, coaching or any authoritative or mentoring position for: 12 months for national competitions 24 months for international competitions.

Exclusion for eligibility for any authoritative or mentoring position for any foreign international team for 24 months.

Exclusion to represent Australia on any committee/body with IGC for 24 months.

Penalty period effective as at 06/10/2022.

As a lead up to this process it was agreed by all parties that whatever decision was made by the independent appeal authority that all would agree to accept and abide with its rulings. Under the Gliding Australia policy, the original penalty that was applied by the Board against Terry and Matt could not be applied until their appeal had been finalised. In the interim, Terry and Matt have had no obligation to abide with the Board's penalty, but it should be noted that neither of them has acted in a manner that has contravened the penalty.

I'm sure that everyone involved has learnt an enormous amount through this journey. There will always be issues that will need to be addressed – we are all human and competitive, but we must learn from the mistakes that were made at all levels and develop practices that will help mitigate the possibility of repetition. We have been advised that even the FAI is changing some of its governance procedures around the conduct of international competition.

This final step must now bring closure to this convoluted and exhausting process. It's time to move on and work in a positive manner, focussing on our pilots and team development to strengthen the future of our sport.

Safe flying and be kind to each other,

STEVE PEGLER

PRESIDENT

On behalf of the Board of

Gliding Australia

President@glidingaustralia.org

BERYL HARTLEY AND TRAINING PANEL RECEIVE FAI AWARDS



PAUL TISSANDIER DIPLOMA

The annual FAI awards were announced on 1 November 2022. The prestigious awards are given in a variety of categories across sports aviation. This year Beryl Hartley was awarded a Paul Tissandier Diploma. The Diploma is awarded to 'those who have served the cause of Aviation in general and Sporting Aviation in particular, by their work, initiative, devotion or in other ways.'

Beryl received particular mention for her 'dedication not only to gliding but to air sports generally through her many hours of service on various committees.'

Beryl has been dedicated to the

Australian Gliding movement for over 60 years. From the World Championships at Waikerie in 1974 to the Junior WGC Narromine in 2015 she has been involved in international and national competitions, including serving as Australian Team Captain four times. She has also served as the GFA President, Vice President and Treasurer.

Most Australian pilots will know her as the hard working FAI Certificates Officer when submitting their badge claims. Many pilots from around the country will also know Beryl from Narromine Gliding Club, whether they have flown in the Narromine Cup or visited

Narromine for cross country camps and the many competitions that have been held there.

Beryl and Narromine Gliding Club will also be hosting the World Gliding Championships in Standard, Club and 15m Classes in December 2023.

FAI GROUP DIPLOMA OF HONOUR

The GFA Training Program Steering Group has been

given an FAI Group Diploma of Honour for their outstanding work in developing a common pathway for training pilots in core skills as well as soaring and cross country. Their work has focussed on standardising training materials and adopting modernised training techniques.

The team spent countless hours creating a standardised glider training programme, and developed an integrated and competency-based system for both trainers and students. They produced guides, theory lessons and updated logbooks and a complete Integrated Training Program, which is now being used in clubs across Australia.

The GFA Training Program Steering Group members are:

Patrick Barfield
Greg Beecroft
Terry Cubley
Matt Gage
Dennis Medlow
John Orton
Steve Pearson
Peter Temple
Jenny Thompson
John Welsh

You can see all the FAI Award winners at

bit.ly/3FevVHZ



FAI GLIDING BADGES

1 JUNE - 31 AUGUST 2022



BERYL HARTLEY
FAI CERTIFICATES
OFFICER
faicertificates@glidingaustralia.org

- | | |
|------------------------------|--------------------------|
| A CERTIFICATE | CENTRAL COAST SC |
| DARREN THOMPSON | NARROGIN GC |
| CLIFFORD HOLDOM | SUNSHINE COAST GC |
| HAMISH ROBERTSON | LAKE KEEPIT SC |
| BRUCE WYNNE | BEVERLEY SC |
| KOERT JAN SCHONEWILLE | BEVERLEY SC |
| BARRY PADMAN | LAKE KEEPIT SC |
| RICK MARTIN | CANBERRA GC |
| STEVEN SMITH | ADELAIDE SC |
| THOMAS COLYER | BATHURST FLIGHT |
| RYAN BETTS | |
| B CERTIFICATE | BATHURST SC |
| LACHLAN PENDARAKIS | CENTRAL COAST SC |
| DARREN THOMPSON | NARROGIN GC |
| CLIFFORD HOLDOM | BATHURST SC |
| LEO NELSON | LAKE KEEPIT SC |
| GARY HILL | SUNSHINE COAST GC |
| HAMISH ROBERTSON | SUNSHINE COAST GC |
| MARK TAYLOR | SUNSHINE COAST GC |
| NEILL THOMSON | |

- | | |
|------------------------------|---------------------------|
| BRUCE WYNNE | LAKE KEEPIT SC |
| KOERT JAN SCHONEWILLE | BEVERLEY SC |
| RICK MARTIN | LAKE KEEPIT SC |
| THOMAS COLYER | ADELAIDE SC |
| | |
| C CERTIFICATE | BATHURST FLIGHT |
| JACK GREY | BATHURST FLIGHT |
| LIAM NATTRASS | KINGAROY SC |
| MATHEW HARDINGHAM | SOUTH GIPPSLAND GC |
| JONATHAN BLOOMFIELD | SOUTHERN CROSS GC |
| JOHN RIEDL | SUNSHINE COAST GC |
| GREGORY ANDERSON | LAKE KEEPIT SC |
| BRUCE WYNNE | BEVERLEY SC |
| KOERT JAN SCHONEWILLE | LAKE KEEPIT SC |
| RICK MARTIN | ADELAIDE SC |
| THOMAS COLYER | GC OF VICTORIA |
| PETER DEHAAN | BYRON GC |
| LACHLAN HAYES | |

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

JOEYGLIDE 2023
Lake Keepit Soaring Club
11-18 December 2022
Contact:
admin@juniorsoaring.org

SAILPLANE GRAND PRIX AUSTRALIA - GAWLER
27 December 2022 - 5 January 2023
Entries to SGP Australia which will be held at Gawler 2 - 8 January 2023 are now invited. australia23.sgp.aero

VINTAGE GLIDERS RALLY SA
7 - 14 January 2023
Millicent Airport
The Vintage Gliders Australia annual rally will be held at Millicent South Australia from 7 to 14 January at the Millicent Gliding Club, Mt Burr Rd Millicent
JR (John Marshall, President Vintage Gliders Australia)
jma99350@bigpond.net.au

OPEN 18M & SPORTS NATIONAL CHAMPIONSHIPS WAIKERIE
10 - 21 January 2023
Waikerie Gliding Club
Competition contact Bill Mudge email billmudge@bigpond.com

20M TWO SEATER NATIONAL CHAMPIONSHIPS COROWA
10 - 21 January 2023
Corowa Airport
Contact Keith Gateley email keithgateley1@gmail.com

NSW STATE CHAMPIONSHIPS
4 - 12 February 2023
Temora Gliding Club
Contact Tim Causer
0418433665

AusGlide

WGC 2023 - PRE WORLDS
NARROMINE 2022

HORSHAM WEEK
4 - 11 February 2023
The 57th Horsham Week Gliding Competition will be held at the Horsham aerodrome horshamweek.org.au.

NARROMINE CUP NEW DATES
4 - 11 March 2023
Narromine Gliding Club
The Narromine Cup will be running this year. Contact **Beryl Hartley** on email arnie.hartley@gmail.com for further details

AUSTRALIAN NATIONALS PRE WORLD GLIDING CHAMPIONSHIPS NEW DATES
15 - 24 March 2023
Narromine
Narromine Gliding Club is hosting the 2022 Standard, 15 Meter and Club Class National Gliding Championships at Narromine Airfield. This competition attracts 100% selection points for the Australian Team to compete at the World Gliding Championships Narromine 2-16 December 2023.

As it is the Pre-Worlds event for the 2023 World Gliding Championships it will also attract many international competition pilots.

Entries are now open, click on this link narromineglidingclub.com.au/AusGlide/AusGlide2022 to go to the Comp website and register.

The competition will comprise three classes. An Unballasted Club class and Ballasted Standard & 15m Classes, same format as WGC Narromine. It will be run in accordance with the GFA National Competition Rules and will employ the GFA National Handicaps for Ballasted and Unballasted gliders as appropriate. The highest placed pilots in each class will be eligible for selection for the Australian National Team at the WGC Narromine 2023. Practice Day is **Sunday 27 November 2022** with the first Competition Day on **Monday 28 November 2022**.

Contact Beryl Hartley on email arnie.hartley@gmail.com for further details.

WORLD GLIDING CHAMPIONSHIPS NARROMINE
November - December 2023

Narromine Gliding Club is honoured to be selected by the IGC and we look forward to hosting an amazing gliding competition.

PARACHUTE PACKING AT BSC



Neill Fergie from Canberra visited Bathurst Soaring Club in November for a mass repack of the club's

parachutes. All the club's and many of the private owner's parachutes had their annual repack done over several days in the tug hangar. Not only was it a convenient and cost effective way for members to have their emergency chute maintained, it was a fascinating learning experience.

Neil told us the history of parachuting and the many

developments that have taken place in the techniques and technology over the years.

Members had the opportunity to pull their rip cords - while standing in the hangar - and get to feel more comfortable with how they work should the need arise.

Come and Fly with US!

Lake Keepit Soaring Club is a great place to fly... A 7 day a week club operation with a relaxed, fun atmosphere. LKSC has a modern, well maintained fleet and launches are by aerotow and winch. The region's varied terrain from plains to mountains with plenty of safe out-landing opportunities and year-round good conditions make LKSC ideal for pilots wanting to fly further, faster... sooner.

If you want to learn to fly gliders, get cross-country training, fly badge flights, work towards a GPC, or be part of the best gliding club in the country, come to Lake Keepit.

Tel: (02) 6769 7514
Email: manager@keepitsoaring.com
www.keepitsoaring.com

He also informed us that now our annual inspection really does last 12 months not the **six months** that it used to until recently.

INGO RENNER CUP



THE INGO RENNER CUP SEASON CONCLUDED ON 30 SEPTEMBER 2022

Australian pilots who post their flights on weglide.org are automatically scored for the Ingo Renner Cup. The scoring period is from 1 October to 30 September. At the end of the season, the combined score of the top three flights of each pilot will determine the ranking.

Winners of this inaugural Cup are Tobias Geiger, with Adam Woolley 2nd and Pete Temple in 3rd place. The 2022/23 contest is now underway with several excellent cross country flights already on line at bit.ly/3XIWGvg.

THE INGO RENNER CUP WINNERS

1ST PLACE
TOBIAS GEIGER
VENTUS 2AX

30/12/2021 BENALLA
967.67KM 1183.18KPH
1,065.90 POINTS

31/12/2021 BENALLA
911.67KM 125.92KPH
1,025.01 POINTS

05/02/2022 BENALLA
894.89 POINTS
794.44KM 115.38KPH
TOTAL 3538.92 POINTS

2ND PLACE
ADAM WOOLLEY
VENTUS 3T 18M

18/11/2021 NARROMINE
898.28KM 111.94KPH
862.67 POINTS

I declared 768km at ~128kph, followed by free flying. SkySight was perfect in its predictions today. Exactly at 1730, the climb strengths dropped off from 4kts down to 1.5kts to end the day on! Good fun as always.

25/12/2021 TEMORA
903.47 KM 122.63KPH
903.46 POINTS

Another day that was bloody good fun. Many thanks to Mac for keeping me well informed on the storm and showers on my return. It gave me much confidence! Got a bit low with the midday sun up North which slowed me down a bit, but once above 6500' again it was game on, rocketing along at 200kph and often taking 8kt climbs - 125kph for the task today, then extended for 900. Great fun day, haven't been up at FL120 in a glider in a while!

01/01/2022 TEMORA
1114.95KM 124.14KPH
1135.82 POINTS

Another awesome day in the skies, as well as a personal best for me regarding distance -- 1,115km at 122kph! Sadly, I misinterpreted SkySight today and

underset my task of 790km - which I did at 151kph. I finished at altitude and continued on to max out the day. While I didn't see Geoff, Mac or Akemi much, it was still nice to share the skies with you all. Blown away by the performance, feel and energy of the V3 - loving every flight!

TOTAL 3160.61 POINTS

3RD PLACE
PETE TEMPLE
ASG29 18M

29/12/2021
WAIKERIE
1083.38KM 112.16KPH
1088.34 POINTS

31/12/2021
WAIKERIE
1165.97KM 130.86 KPH
1061.57 POINTS
ANOTHER FANTASTIC WAIKERIE DAY

06/02/2022
GAWLER
1031.69KM 119.34 KPH
1103.41 POINTS

I declared a 1000km FAI triangle. A slog against the wind on two of the legs and a cool, lowish day.

TOTAL 3023.27 POINTS

4TH PLACE
GRANT HEANEY
SZD-48 JANTAR STD. 2

30/11/2021
TOCUMWAL
743.25 KM 98.97 KPH
960.76 POINTS
TOTAL 2919.53

5TH PLACE
LUMPY PATTERSON
JS3 TJ18M

24/12/2021
CUNDERDIN
905.69KM 116KPH
961.16 POINTS

Another Blue WA day... was trying for a 1000k but the start just wasn't fast enough, sadly... great day in the office just the same!

TOTAL 2909.48

6TH PLACE
ALLAN BARNES & HARRY MEDLICOTT
ARCUS M

31/12/2021
LAKE KEEPIT
968.86KM 107.03KPH
1,039.64 POINTS
TOTAL 2806.68



TOP LEFT: Adam Woolley flew 1114.95km 124.14kph scoring 1135.82 points on 1 January 2022 from Temora.

ABOVE TOP: Allan Barnes and Harry Medlicott flew 968.86km 107.03kph scoring 1,039.64 points on 31 December 2021 from Lake Keepit.

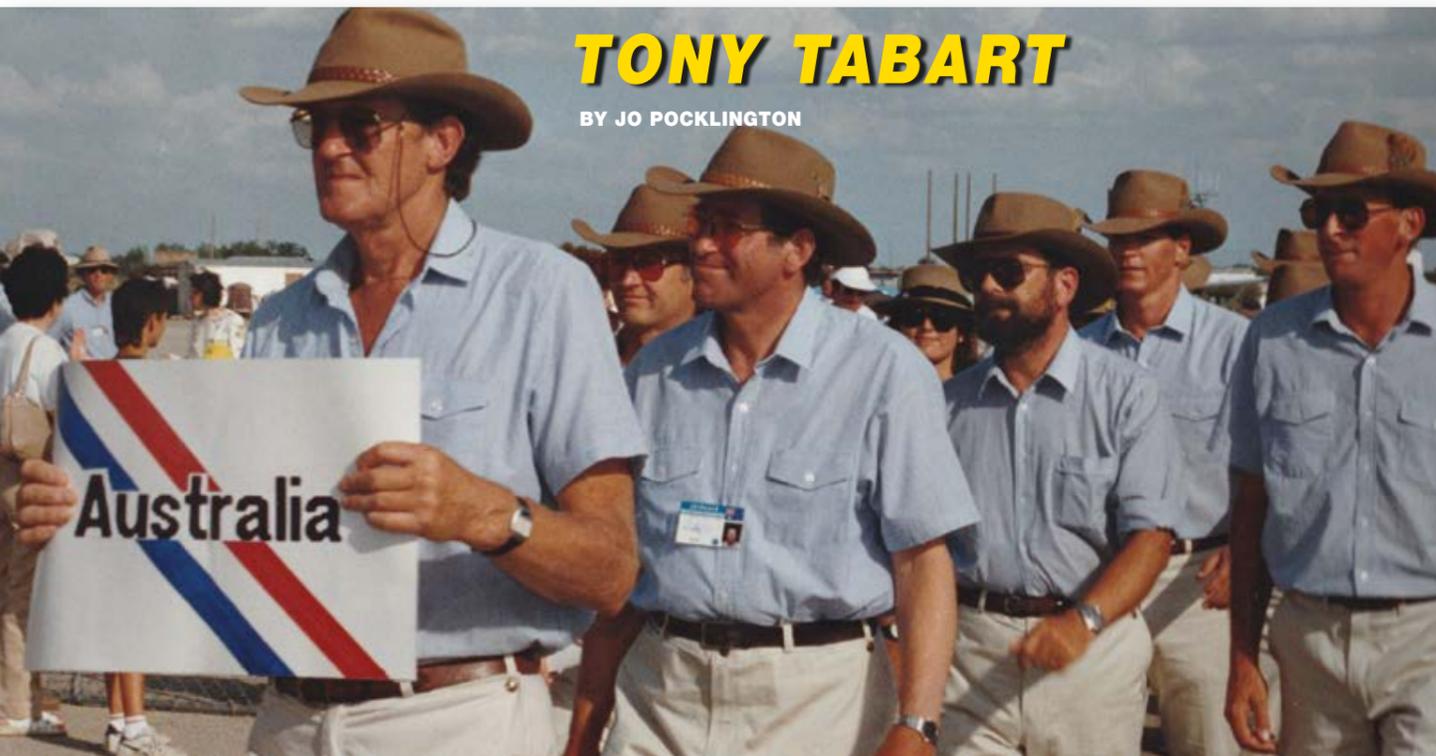
ABOVE: Lumpy Paterson flew 905.69km 116kph scoring 961.16 points on 24 December 2021 from Cunderdin.



LEFT: The new season began on 1 October. So far, Matthew Scutter is in the lead with his flight on 6 November of 659.52 km 109.39 kph scoring 732.53 points.

TONY TABART

BY JO POCKLINGTON



ABOVE: Tony Tabart leads the Australian team at the opening ceremony of the 1991 WGC in Uvalde. He is followed by Ingo Renner and Brad Edwards who went on to win the 15m Class flying an LS6.

Tony Tabart learnt to glide with Geelong Club. His first gliding competition was at Horsham's inaugural event at Doon in 1966 and he competed in every Horsham Week until the 50th in 2016, the only pilot to do so. A dodgy knee replacement meant that he was unable to get out quickly and safely in the event of an incident, so he gave up competitions after that event.

A 5th generation fine wool grower on a property in south-west Victoria, Tony maintained an air strip on his farm – Kurweeton, near the township of Derrinallum – which hosted Kurweeton Soaring Group and Corangamite Soaring Club from 1972. In January 1973, the Victorian Gliding Championships were held – in perfect conditions –

at Kurweeton. Competitors from Horsham, Laverton, Geelong and Benalla as well as members of the host clubs took part. Tony took out the title.

As well as running his farm, from 1974 Tony instructed with Ingo Renner at Sportavia Soaring Centre, Tocumwal. His last glider flight was with Ingo in his beloved Caproni in December 2017 “just for fun, in the skies around Tocumwal”.

Tony set many gliding records. He was the first Australian to complete an FAI 1,000km triangle, in January 1979 in a Nimbus II in the Tocumwal area. This flight also broke the existing Australian 1,000 km triangle record by flying 1,017km in 9hrs 45min (125kph). Twenty years



RIGHT: Tony at Burketown where he flew the Morning Glory.



ABOVE: The Australian team at WGC Omarama in 1995. Left to right: Paul & Sandy Mander, David Jansen, Keith Willis, Jo Pocklington, Michael Giles, Bruce Taylor, Brad Edwards, Ingo Renner, Terry Cubley, Tony Tabart, Tracey Tabart, Ian Patching, Beryl Hartley, Louise Taylor, Judy Renner, Gabby Hayes.

later, Tony's best flight was completing 1,030km in 6hrs 32min (158kph) in Bitterwasser, Namibia in January 1999 in an ASW20.

Tony felt that being the first Australian to win a day in a world competition (Yugoslavia in 1972, the only pilot to get home) was his greatest achievement – until he became the oldest winner of the Australian Open Gliding Championship at Gulgong in 2004, after not having competed in Open class for about 15 years.

He was Australian Open champion on four occasions and represented Australia in former Yugoslavia, Waikerie, France, Italy, Austria and Sweden. Tony felt it “a privilege to represent Australia at the last full multi-class competition at Ekeby airfield, Eskilstuna, Sweden in June 2006. There were 116 pilots from every continent, with 36 competing in 18m class; I was the only Australian in the class and at 70 years old, the oldest pilot in the competition”.

Tony crewed for Australian team members in Texas and Finland, and managed the Australian team for the pre-worlds at Minden and the Gold Medal winning team in Uvalde, Texas. He assisted with the Omarama, New Zealand world championships and was manager of the Australian team at the pre-worlds and worlds in Mafikeng. He received an Australian Government Sport Achievement Award for ‘Achievement in Aviation’.

Tony obtained a power license in 1965 and, with an instrument rating, ran a small aviation business from his farm for some years. He built a Lancair – a high performance two seater American kit with a cruise of 180 knots – and enjoyed many trips into the outback. The first adventure was to New Guinea in 2007.

Tony had around 5,000 power hours and 7,500 hours gliding. His love of flying never faded. In his words, “I’ve been flying for about 60 years and the thrill is as great as ever. I’ll continue as long as I have my health and my ability; I’ll be flying as long as I can.” Tony enjoyed an adventurous, stimulating and fulfilled life in his 86 years.

Fly high TT



ABOVE: Tony with Jo after completing 1000km in Namibia.



CONQUERING MT COOK

BY ADAM BLAND



ABOVE: Adam contemplating the amazing view over the Ben Ohau range.

My last trip to Omarama was pre Covid, so it was great to leave the flooding rain behind last month and enjoy 10 days of nice weather with my son Adam and an Omarama Gliding Club Duo Discus. We had a mixture of thermal, ridge, convergence and, finally, wave on our last flying day. When we arrived back in Melbourne on 23 October, guess what? It was raining again. **MARK BLAND**

ADAM BLAND

After 5 hours in one of Omarama's DUO Discus with my father Mark Bland, we managed to get into the wave. We requested airspace clearance from Christchurch ATC to open up the Flight Levels. We hadn't originally planned to go to Cook, as the wave systems didn't appear to be organised to the north, but we heard a local, experienced pilot call on the radio to say he was tracking for Mount Cook in wave.

We headed up over the top of Lake Pukaki and climbed in 6kts up to about 13,000ft in wave coming off the Ben Ohau Range, at the end of which lies Mt Cook.

BELOW: Mark and Adam Bland ready to launch in a Duo Discus at Omarama.



The summit was sticking up through the clouds, clearly visible, and we decided to have a crack. Getting closer, we fell out into some sink but still had options to turn back, and so we proceeded on. We came back into rising air as we approached and flew right over the top.... Yeeehaaaaaa.

On the run home back along the Ben Ohau Range, we had to pull the air breaks to stop climbing, and peaked at 19,000ft. Tracking into a stiff 60-odd knot head wind, we had to be careful not to overspeed the glider. We had TAS (true airspeed) close to VNE (velocity never exceed) of 135kts but IAS (indicated airspeed) of only about 105kts due to the density altitude.

BACK ON THE GROUND

We were tempted to push harder to get home because by this point our feet were freezing, but instead had to accept the painfully slow ground speed back to Omarama. The view, however, was amazing. Descending back into the McKenzie Basin where Omarama lies, we flew back into pockets of rotor so was very turbulent in places.

When we were finally back into the circuit, Dad did a good job landing into a gusty 25-30kt headwind on finals. We flew over the threshold at 90kts and managed a very smooth landing considering the conditions, and pulled up in style out in front of the hangars. It was a three person job to get us out of the glider and luckily there was someone to help us hold the canopy and wing so we didn't fly away again. It was an incredible flight. We finished off with some beers at the pub with the Kiwi tug pilot and some other friends.

Our last few days in the land of the long white cloud have been as ground dwellers. We had a good day hike around the base of Mt Cook and went exploring in Christchurch.



MIXED EMOTIONS

We felt very lucky for the experiences of the last 10 days in Omarama. Flying there obviously has its own risks and I have to admit there were times when I felt a mix of emotions, as the situation can change rather rapidly. One minute you're cruising along in anywhere from 5 to 10kts and up ... on top of the world watching the altimeter wind higher and higher and then, if you aren't paying attention or thinking ahead about where next to navigate, you can be in the exact opposite situation, descending over tricky terrain.

We had an incredible week of superb weather, flying

nearly every day in very different conditions from thermal and ridge to convergence -- and finally wave! It was my first time above 14,000ft in a glider in over 20 years. The last time was at Leeton, NSW in a Blanik as a teenager in an epic summer thermal without oxygen.

The ruggedness of the New Zealand Alps is awe-inspiring, and the day of convergence soaring down to the coast was equally impressive. Thanks to the old man Mark Bland for sharing his knowledge during a rad week of gliding in the land of the long white cloud.



FLY LIKE A ROCK - WITH WATER BALLAST

BY DAVE SHORTER



The summer soaring season brings the promise of long flights in strong conditions. Now is a good time to refresh our knowledge on the safe use of water ballast. This article by the late Dave Shorter was first published in Keep Soaring and is kindly reproduced with the permission of Lake Keepit Soaring Club.

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

The extract on the following page from the website aviation.stackexchange.com gives a very clear explanation of the benefits of ballast. So, how much water? Under what conditions do you benefit? And what gain in speed do you achieve?

PUTTING WATER INTO YOUR GLIDER

Read your manual first. Make sure you balance the wing tanks with the appropriate amount of water in the tail tank. The wing tanks are normally ahead of the CofG of the glider and need to be balanced by water in the tail.

In the JS1, you need 1 litre of disposable water in the tank for every 25 litres in the wings. Your glider's flight manual is the guide. Never put hose pressure into the wings – many very nice glider wings have been split open this way. If you're pressure filling, you should have a maximum of around 1 metre of head with your filling system. An overflow pipe in the water filling system a metre above the wing surface will achieve this.

If you're not filling the tanks completely full, you'll need to measure the amount you put in. Pouring water into the

wing with a 20 litre bucket and funnel is a bit fatiguing. Cheap digital water flow meters are available – see hoselink.com.au, au.wellindal.com/garden/gardena/p-2907 or google 'water flow meter'.

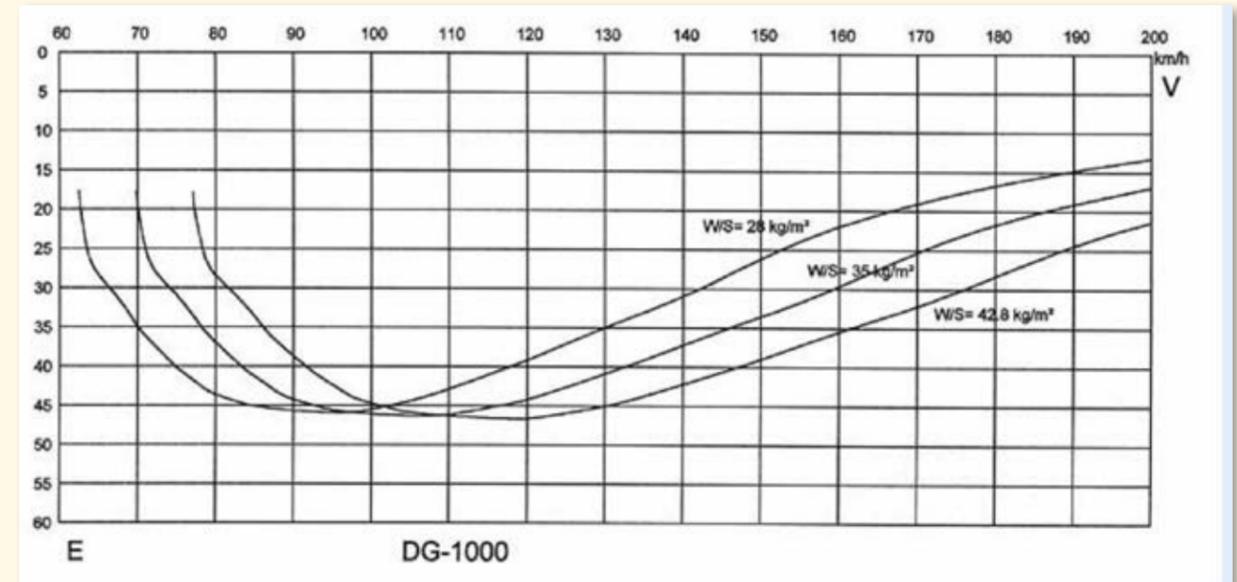
I've had some variable results with meters giving misleading results, particularly if the flow rate is too low, or batteries going down. I currently have two cheap meters in line, both reading as a check against each other (see picture). I also have a calibrated 10 litre bucket that I use to check that they are reading accurately. (I think the Neta flow meter may possibly be no longer available.) After filling is completed, don't forget to check that all dump valves are working – including your tail tank.

BEFORE LAUNCH

Towing a glider with water can be tricky – particularly traversing sloping ground. If the wing walker is on the uphill side, water may run downhill in the lower wing, resulting in that wing scraping along the ground. The wing walker may be insufficiently heavy to keep the wing down, so add a weight such as a couple of old bottles of water to keep the wing from lifting. Keep a careful eye out the rear when towing, to ensure you don't travel the length of the field dragging one wing on the ground and risk wrecking an aileron on a tuft of grass.

Many gliders need to stay level to prevent loss of water from a wing on the ground. So, pre-launch, you will need to prop the wings. Adjustable aluminium extension poles for painting, available from Bunnings paint shop, work well. If the ground is uneven you can adjust the support height each side to ensure your wings are level.

CAUTION – using small diameter broomsticks, or dowel poles to prop the wings can dimple the underside of the wing surface. Ensure that the bearing surface on top of the pole has something to spread the load and, if possible, position the wing support directly under a rib. If you don't have sticks, just keep the wing walker on until launch, and



THE POLAR CURVE AND WATER BALLAST

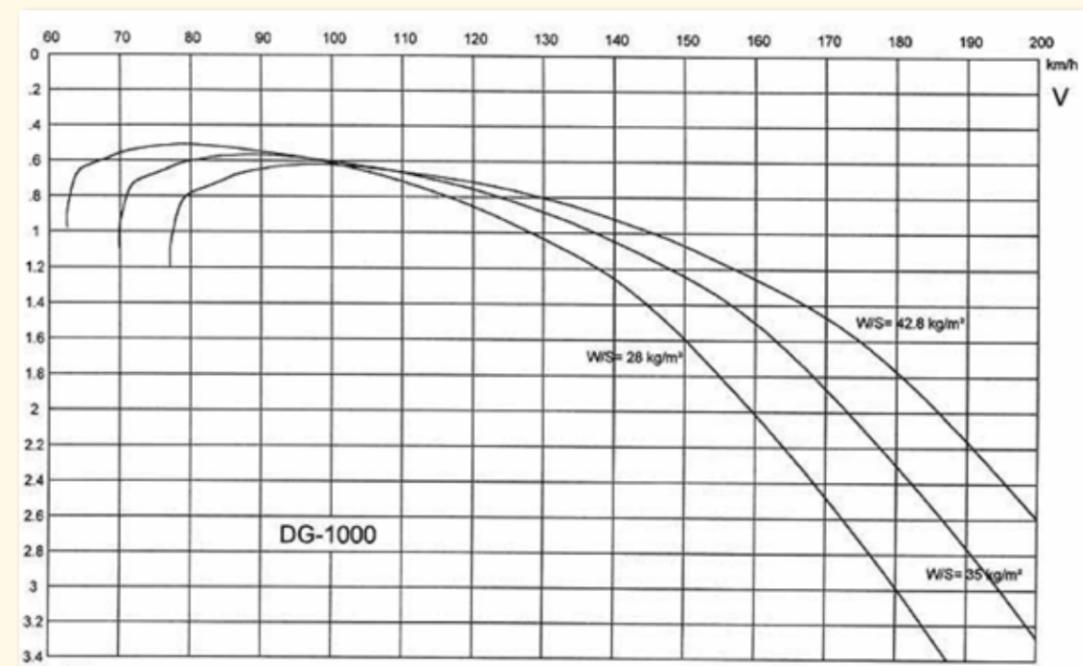
Let's look at this L/D(=E) diagram of the enticing DG-1000 from DG Flugzeugbau. (But don't fear – it's true for all gliders). The first graph shows L/D at various wing loadings. The best L/D ratio is equal for different wing loadings, but occurs at different speeds – the higher the load, the higher the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

The next diagram shows the polar curve. You can see that the minimum sink rate occurs at the lightest load. The heavier the load is, the longer you will have to circle in the same thermal for a given height gain.

Higher wing loading is a trade-off between higher average speed and less efficient climbing. In case of strong thermals and/or

long glide intervals, the optimum moves toward more, in weak conditions towards less or no ballast.

The good thing is that you can dump water rather quickly (also partially), so that in a competition you usually tend to fill up (and dump in case) rather than start light (the Quintus for example can take up to 250 litres!) Aft ballast in the vertical tailplane is sometimes used to balance a forward CG caused by water in the wings – depending on your ship, partial dumping can be problematic. Of course, there are many philosophies and tactical debates concerning the 'water or no water' dispute, but once you've overtaken an identical, lighter ship with full wings and no height loss, you understand how fun ballast can be – until the next thermal, that is.



continued over page

persuade your friendly wing-man to manage the wing walker after you've launched.

LAUNCHING WITH WATER

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

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

You'll need to aerotow at a higher speed. A fully ballasted 18m glider gets quite 'mushy' and uncomfortable aerotowing at 60kts, and this can be quite dangerous. If you're heavy, make sure the tuggie knows, and request a 70kt tow. If you're not getting that speed on tow out, quickly request 'plus 5/10 knots' (don't ask for 70 knots – he may already think he's flying at that speed, or his ASI may be over-reading – always say 'plus' whatever you need.)

Aerotow with high take-off weight requires a powerful tow plane. Many tow planes are not certified to tow gliders with high take-off weights. Reduce the take-off weight if necessary! But what about winch launching with ballast?

A fully ballasted single seat glider's all-up-weight won't be too different to that of a two-seater trainer, so a winch with enough power to launch training gliders should be able to handle a ballasted single seater. But stall speed is appreciably higher and minimum airspeed needs to be adjusted up (GFA guidance 1.3xVs min.) The JS1 manual specifies min/max speeds for 600kg AUW of 62/81 knots.

SELF-LAUNCHING WITH BALLAST

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

FLYING WITH WATER BALLAST

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

Remember that stall speed increases with wing loading – the whole polar curve shifts right. If your best L/D glide ratio occurs at 50 knots empty, you'll need to be flying at

minimum 60-65kts to prevent the glider mushing. Whereas you may find that an empty glider goes up best at around 50-52kts, the same glider will require up around 60kts to climb. If you're heavy, enjoy the extra speed.

AEROBATICS

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

WHEN TO DUMP WATER?

The essential thing to remember is that it is all a question of trading off the higher inter-thermal speeds against the lower climb rates in thermals. If the thermals are strong, what you lose in climb rate is relatively insignificant. But if it's a weak day, then the difference in sink rate can mean the difference between climbing and not. Consider a hypothetical case – assume that when thermalling empty, the glider sink rate is 2kts, versus 2½kts sink rate for a ballasted glider – a ½ knot difference.

If you find a thermal where the air is going up at 3kts, the empty glider will climb at 1 knot, while the ballasted glider will barely climb, achieving just ½ knot – half the rate of climb! It's a very severe penalty, as you take twice as long to climb. Instead of, say, 25% of total flight time spent climbing, you'd be spending 50% of your time climbing. You should dump your water. The penalty is probably even bigger than this, as the heavier glider needs to fly faster to avoid stalling, or mushing, so it can't stay as close to the stronger lift in the centre of the thermal.

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

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

Some recommendations I've seen for older gliders suggest that ballast is not worthwhile unless conditions exceed 4kts for the day. I think most of us tend to hang on to our water far too long. The decision to dump or reduce loading depends a lot on your view about how conditions will develop, and also how well your glider climbs when heavy. My Mosquito never seemed to climb very well with a wing loading much above 43 Kg/m² whereas the modern wing profiles seem to still climb well in weak conditions fully loaded (over 50 Kg/m²).

In Europe, I'm told the calculation of how much water to carry is a very precise art, as the weaker conditions make wing loading critical. While on the ground, you should check the rate of water flow, remembering that in-air, the flow rate could differ. In straight flight, the air pressure under the wings is higher than above, and flow is probably slower, while in a steeply banked thermal with extra G forces, the glider probably sheds water quicker. Typically, tanks will empty in around 4 to 5

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



minutes – some dump much faster than this. If you're having trouble climbing, try dumping half your water – maybe a minute with taps open – and see how it feels before getting rid of it all.

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

LANDING WITH WATER

Most manufacturers don't recommend landing with full water – but if you need to, remember extra speed, at least another 10 knots over normal approach speed, and a gentle round-out. Flaring the glider at normal approach speed with a heavy glider can give a nasty surprise – the glider doesn't respond to the flare the same way and you may have a heavy landing. You must have the extra speed so that the glider will respond to your flare, and the stall speed is around 10 knots higher, so touchdown will be correspondingly higher, and much harder on the undercarriage.

PROBLEMS DUMPING WATER

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

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

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

from the manual!

Leaky dump valves are often a problem – drip, drip, drip. Try a bit of Vaseline around the rim of the valve seat. But be careful. Some dump valves rely on rubber to seal, and grease (to a lesser extent Vaseline) can degrade the rubber. Neoprene is more resistant to grease, and silicon grease won't worry rubber seals. Some dump valves have a threaded centre into which you can screw a tool to pull down more firmly and improve the seal before launch. But if you partially dump water during the flight, the valves may drip in air. It just depends how significant the rate of drip is.

UNEVEN OR RESTRICTED DUMPING OF WATER

In a DG-202 I owned, the neck of the water bags could become twisted during transport in the trailer, which restricted water flow when dumping. The club's Discus IUO at one stage also had problems with one dump valve not working properly. This meant that you ended up with a very asymmetric wing loading. Always check before launch that both wings are dumping water evenly. If you suspect they're not in flight, add another 5-10 knots to your approach speed when landing, and prepare for a ground loop at the end of your ground roll as you lose speed. In air, it's probably a good idea to consciously maintain a bit of extra speed, as a spin with asymmetric wing loading could be interesting.

BAGS VS INTEGRAL TANKS

There are potentially some issues with integral tanks, in which the wing structure forms the tank. Composite resins and gelcoat absorb water and ultimately can deteriorate and weaken with water penetration. The inside of the tanks may be sashed with paint or gelcoat during the manufacturing process to provide a water seal at the spar/skin joints. How well this seal withstands continual moisture is unknown. Some gliders are known to have developed leaks and water penetration into the structure. It is recommended that gliders be stored with water dump valves open to allow residual water to dry out – some people have installed small fans to aid the ventilation when hangared.

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

GA

BURKETOWN SAFARI - MORNING GLORY

BY GRANT ROOKES
WITH PHOTOS FROM GRANT ROOKES, MICHAEL ZUPANC, JOHN CLARK

Glider pilots have been going to Burketown for the Morning Glory for many years and it has been growing in popularity. This September at least 17 gliders and other RAAus aircraft, plus paragliders, flocked to Burketown. This is Grant Rookes' story of his journey.

After waiting for what seemed like forever, the travel restrictions ended and plans were prepared for what is on every Australian-based glider pilot's must do list.

MORNING GLORY TIME

After weeks of planning and checks upon checks, I commenced the ultimate cross country flight in a Stemme VT from Beverley, WA to Burketown, Queensland. For some time, I've been itching to fly the Glory and this year will be the first of many.

With a suitable glider, a window of opportunity and accommodation booked, I was all ready to set off with Rob Hanbury as my RH ballast and cohort in the adventure. Rob has done this journey many times before and had a pocket full of fuel cards, maps and wisdom.

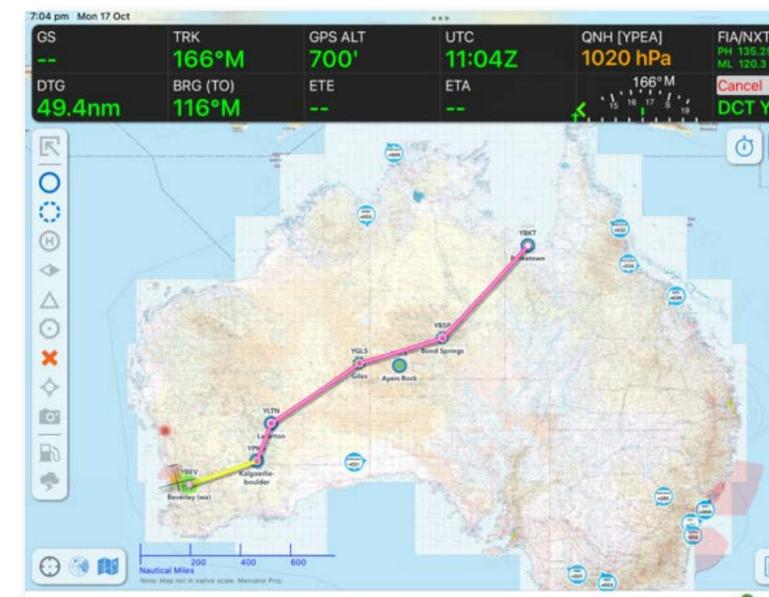
Once the pre-flight checks were complete, Rob and I departed Beverley, flying direct to Kalgoorlie for a top up of go go juice and then off to Laverton for our first bum break, leaving the green and yellow patchwork and entering the endless expanses of brown vistas of nothing.

Even though the Stemme VT is a limousine of the sky, the glider pilot's arse still takes a beating. 385Nm and 4 1/2 hours down, lots more to go!

FLYING EAST

The second day started early, leaving Laverton and heading off to Giles, 385 Nm and another four hours of brown and endless expanses of nothing. As the Nm ticked over, we were able to spot the only two billowing dust clouds. On closer inspection, one was a road train and the other a ute on the road below.

continued over page





ABOVE: A much better wave...after most of the gliders had gone home! (photo: Michael Zupanc)

BELOW: Patrick Barfield and Bill Bartlett



At Giles we topped up with juice again for the next 317Nm leg to Bond Springs, which is located 20km north of Alice Springs and home of the Alice Springs Gliding Club and NT Soaring.

As we departed Giles and headed east, the scenery continued to change dramatically as small ranges and canyons and the incredible ground features of Central Australia appeared.

As we flew east the sun was behind us, causing the most incredible afternoon light playing with the colours of the rock formations below. Kings Canyon and the MacDonal ranges came and went. We descended into Bond Springs for a great night with the local club members in town and yet another top up of mo gas.

Due to the limited accommodation in Burktown, we had a day spare and hung around helping out our hosts with their gliders and letting our now seasoned arses have a little respite.

BASE CAMP

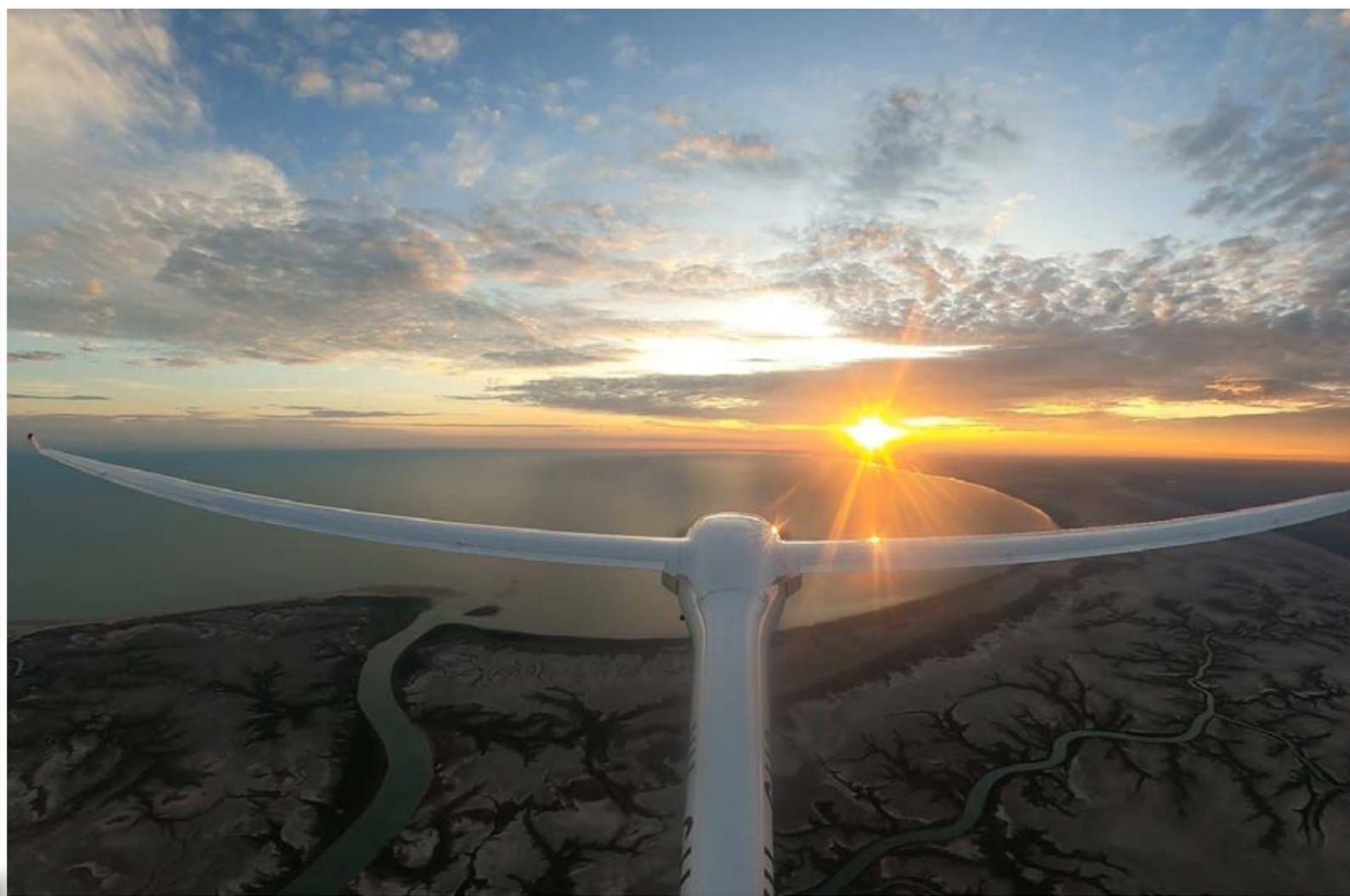
The next day we were back in the air early for the last leg, and after crossing

the time zone fence line, our goal was almost in sight. At the end of a 470 Nm, 5-hour leg, we arrived in the metropolis of Burkettown, Queensland, with a regular population of 180.

We tied down and, securing a good spot, we walked to town, our base for the next two weeks. After 1553 Nm (2500km) we found the pub closed but our pub accommodation (the donga) was cool. We took a quick walk around exploring the area – 5 minutes is all it takes – before we were off to find something cool to drink.

Through the next two weeks, many more gliders, planes and handgliders arrived from all over Australia and even a blow-in from NZ who flew up from Melbourne in two days in a Katana to see what the Glory was all about.





ABOVE: James Cooper in front of a wave. (photo: Michael Zupanc)



Over the following days our routine was to wake up 4.30am to study the satellite photos, get up 5am proceeded by a 15 min walk to the airport with headlamps blazing, preflight and then takeoff before the self launching gliders and trikes. The sun rise is spectacular over the mudflats and shark and crocodile-infested coastline. Burketown is named after Burke and Wills who walked up from Adelaide in 1860 to explore the north route. However, they didn't make it to the sea as it's another 20km away - maybe it was something to do with the crocodiles.

TWICE IS NOT ENOUGH

Over the two weeks in Burketown I only got to ride her majesty's glory twice. Bugger, however - as soon we left back to Perth, there was a run of them. But the ride was awesome and a special type of flight.

The first ride paralleled the coast about 15Nm offshore. It was an





ABOVE: Another view of James Cooper, ahead of the wave. (photo: Michael Zupanc)



unsettling feeling descending towards the sea from a safe altitude for the first time, leaving the safety barrier of gliding range on the crocodile infested mudflats, but a certain kick in the pants as we changed to gliding mode and flew along her at 120kts at 1,500-2,000ft above the sea. What a blast.

The second ride was an inland glory, which meant a simple take off from Burketown and straight into the glory.

On the days when Miss Glory didn't appear, we flew up the coast for breakfast or out to a fishing camp at Sweers Island for a swim, or it was back to Burketown for a breakfast toastie with the other hopeful pilots and a midday nap until it was dinner time.

PATIENCE

The accommodation in the area is very limited and most of it taken up with fishermen, grey nomads on the Savannah Way route or glider pilots. The Savannah Lodge is the best in town and has shade and a paddling pool for residents but was 80% booked out by the Lake Keepit mob. Next comes the campground dongas with aircon, and then fisherman's shipping containers with aircon. In short, very limited. But it's all about the location and the weather gods.

The return trip was the reverse of the way out, but via Bond Springs, Uluru, Warburton, Laverton and home to Beverley.

It was a great trip with lots to say, but the photos say much, much more and are a must. You have to be prepared to wait, as Miss Glory is not very predictable or punctual. So, all up, three weeks of magical scenery, good experiences and about 6,000km of touring in the Stemme.

On that note, a bag a lollies doesn't last if you have one lollie every 20Nm.

MG 23 -- Bring it on.

GA



BENDIGO GLIDING CLUB OPEN DAY



ABOVE:
Overhead view of
the airfield. (Photo:
Gordon Trollip)

Bendigo Gliding Club has finally had a chance to run an Open Day for the public. The past couple of years have been challenging for all clubs, faced with restricted social interaction and now, uncertain weather events. With the opportunity to showcase a couple of museum gliders, the club put on an event that exceeded all expectations. The weather contributed greatly to our success in providing what was to be a brief window of respite over several weeks of uncertainty.

Having members who are also involved in classic car and vintage motorcycle clubs was a boon in attracting these enthusiasts to the event. They too were eager to stretch their wings on the day, get out and about, and embrace the opportunity to display their vehicles and

share their and our passion. It was great to see the how members of each group engaged in the diverse classic cars, motorcycles and gliders, learning a little more about each other's interests.

Through the club members' regular attendance at the Raywood Hotel, and tour involvement in community events and social media, the club was able to attract the interest of the local community. A number of families with children came along to enjoy the sausage sizzle and simulator. By the end of the day we had distributed 12 dozen sausages!

Operations were limited to AEFs due to the delicate condition of the runways after heavy rains, but we were still able to conduct eight flights and sign two new members, with additional public interest in future rides.

On the vintage display line were the Northrop Primary, K8b GMA, both from the AGM, Hall Cherokee GPR, Bocian 1D GQJ and Ka6CR XFF. Representing the modern gliders were the ASK-21M, LS8, DG 400, SZD-55 and Standard Libelle.

This is by far the best Open Day the club has run and, buoyed by this success, the club has resolved to make this an annual event. It will be even better next time!

Peter Raphael



AGM FABRIC COURSE AUSTRALIAN GLIDING MUSEUM, BACCHUS MARSH



A Fabric Course was held at the Australian Gliding Museum at Bacchus Marsh, VIC over the five days from Monday 7 November to Friday 11 November 2022, with 9 students attending. It followed a very successful Wood Course that had just been conducted over the previous five days from 2-6 November, Wednesday through Sunday, with eight students.

SCOPE

The fabric course got underway with an introductory talk by Russell Darbyshire on the long history of fabric covering of aircraft, the fabrics, fastenings and sealing systems used, the development of dopes, the Randolph and Stits systems and the more recent Stewart, Blue River and Orotex systems.

As the previous Australian agent for Consolidated Aircraft Coatings, an experienced fabric worker and a widely-travelled visitor to the world's aviation museums, Russell has a host of interesting stories and photos. A demonstration followed with participants helping with the fabric covering of an Auster elevator.

AGM volunteers had earlier prepared the following airframe parts for covering:

Hall Cherokee wing – This large piece was allocated to Steve Griffin and Brian Gilby. Eight under-cambered ribs required stitching, so each class member was given a turn at gaining this experience. Reflecting Steve's extensive previous fabric work with balloons, this piece was covered and completed to a very high standard.

Schneider Grunau Baby II rudder – This was allocated to Mark Pilkington and Sharon Carpenter, who achieved a very satisfactory result. The small but tricky job of covering the Hall Cherokee wing-tip plate was largely completed in the remaining time available on the course and again, quite a satisfactory result was achieved.

SZD-30 Pirat rudder – This AGM piece was allocated to Jeff Farrow and Spiro Mallia as it represented some of the issues to be faced in re-covering the syndicate SZD-30 Pirat. This item was successfully finished in the first two practical days, so Jeff and Spiro moved on to complete the AGM's SZD-30 Pirat elevator in the two practical days

that followed, achieving good results.

Prototype ES60 Boomerang rudder – This piece was allocated to Gerry Elliott working with Bryan McGrath as it represented issues similar to those he was facing in his ES60 project. This item was very satisfactorily completed in the first two practical days so Gerry and Bryan moved on to help the team complete the AGM's SZD-30 Pirat tailplane in the remaining two days.

Hutter H-17 rudder – Jenne had earlier removed the doped cotton fabric and had her H17 rudder structure inspected. No repairs were found to be required, so just some filling, sanding and varnishing with EV-400 had completed the preparation required. The rudder was substantially covered in the first two practical days before Jenne needed to leave to attend to some family commitments. This work has since been comprehensively completed in two subsequent work days at AGM, so the item is now complete and ready for painting.

The Stits system, the only system used and taught at AGM, was applied utilising Poly-Fiber Uncertified Light fabric for all components. Procedures used followed the CAC Manual and are summarised in a separate note. The course has been expanded to 5 days to provide more experience in the finishing tasks of taping, patching, fitting drain holes and Poly-Brushing.

Hal Hopkins

continued over page



WARWICK VINTAGE WEEK

BY LAURIE SIMPKINS



Warwick Vintage Week was held from 2 to 8 October and attracted an interesting line-up of gliders to the local area, southwest of Brisbane. Aircraft attending during the week included a CARMAM M-200, Hutter H28, Cherokee,

ES57 Kingfisher, BG12A, Foka5, ES60 Boomerang, Schweizer SGS 1-35, a Puchatek and two Ka6CRs. There was even a visiting DG202, flown in by the M200 owners who alternate between the fibreglass DG202 and the



wood-construction M-200.

Some good flying was accomplished, despite the weather! Peter Rundle actually went home to Lake Macquarie, south of Newcastle, a day early because of forecast rain. Nevertheless, pilots were flying on the Monday and Tuesday in great weather, with climbs to 7,000 to 8,000ft.



CONCENTRATION TIME LIMITATIONS

Harry Medicott recently flew in the World Gliding Championships in Szeged Hungary. Following are two articles by him about flying safety.

Studies were undertaken in the 1990s to determine how long it was possible to concentrate continuously before the ability to concentrate deteriorated. The results were common to virtually all the people studied and it was considered to be an actual brain function that put a limit on continuous concentration. Since then, psychologists have analysed the results and accepted them as correct.

It was found that continuous concentration was possible for about 30 minutes, after which slow degradation occurred. At 90 minutes, a person's ability to concentrate quickly became almost useless, after which a period of about 15 minutes was needed to restore brain function. This time scale was common to different classes of participants. Perhaps this is the reason school study time is usually divided into 45 minute segments.

CONCENTRATION DEFICIT

On highways, we often see signs recommending and even offering free coffee to drivers to stop and have a break after no more than 2 hours driving, especially at holiday times. When driving on unfamiliar roads, far greater concentration is needed and we reach concentration deficit much sooner than if we are relaxed, as we do when we are driving in familiar circumstances. I guess research has shown that many accidents occur after two hours of driving. I am sure the same happens when flying. Unless we take measures to stop concentrating continuously, our decision-making will be less than optimal.

We only allow a very low-hours pilot to fly for about an hour, as they will be concentrating at high level on every aspect of their flying and exhaust their concentration ability quite soon. A maximum flight of one hour seems pretty right.

So how does all this relate to competitive glider flying, including speed or distance attempts? Many pilots do not realise that their ability to concentrate – that is, their ability to make the very best decisions – deteriorates well before their ability to fly in a competent manner. I have noted that our best pilots seem to be able to fly competitively for extended periods, even though they are subject to the same challenges. In competitions, even one poor decision can mean the end of one's hopes.

How often do we look back and wonder why we did not act differently when, in retrospect, the decision we should have made is obvious? As an example of relaxation, a friend flew with Ingo Renner, undeniably Australia's best pilot, on a training cross country flight. They flew over a large wet irrigation area and my friend said to Ingo, "We have used over half our available height and do not have enough height left to fly out of this area, which seems devoid of lift."

Ingo said, "There will be lift," and then amused himself by chasing flies out the clear view window.

TIME TO RELAX

So how can we minimise our concentration loss? Well before the competition starts, we often spend an hour waiting, often close to cloud base, in company with other gliders. Better pilots, knowing there is time to spare, take themselves well away from the other gliders until close to the time to start.

They will start with their concentration allowance intact, whereas others will have used up about half of their natural quota. I have flown about six 1,000km flights, each lasting about 10 hours of flying time, as well as many more taking slightly less time. How do I maintain concentration for that long?

Cruising between thermals takes over half of our time in the air. I choose a target, which might be 3km or 30km away, set the appropriate speed and have the audio vario only responding to lift. The sums show you are just as well off flying at a pretty constant speed through modest changes in lift or sink.

If diversions are planned to fly through what appears to be a better line of lift, and if the decision is made early enough, then not much extra distance is involved. But I don't want to be distracted by having a variometer singing its song for hour after hour. Far better to be completely relaxed and then concentrate when the vario starts to give you a solid message. Some pilots on long flights make a conscious decision to positively relax about every hour for at least 5 minutes.

RECOGNISING STRESS

Many pilots do not realise the level of stress they are under and the extent to which it may affect their flying. Adopting measures that keeps you relaxed will improve your flying performance and safety, but they require positive action to implement.

I came across another example while flying in a national competition about 25 years ago with the competition director as a co-pilot for the day. I noted that we had been flying for an hour at close to 10,000ft and, as well as activating my oxygen supply, I asked my co-pilot if he would like his also turned on. He replied that he felt fresh and did not want oxygen. A couple of minutes later, I asked him to make a small calculation relating to height and distance to finish. After trying for some time he said he could not do it and asked for his oxygen to be turned on.

This was good example of a decline in mental capacity going unrecognised. A self test used in barometric chambers, used to show pilots the degradation of personal abilities associated with low oxygen levels, is to count back from 100 in steps of 3. Some glider pilots turn on oxygen at well below 10,000 ft, which works well with systems which vary oxygen delivery with height. Pilots tell me that they stay fresher when doing this.

SAFETY RELATED FACTORS DISCUSSED AT THE WORLD GLIDING COMPETITION IN HUNGARY

A mid air collision and the associated problem of successfully evacuating a damaged glider is always a concern to glider pilots, especially at competitions, which usually involve multiple gliders flying in close proximity. The statistics are not good. At 3,000 ft AGL, the success rate of exiting a glider and deploying a parachute is 50%. Below that it quickly reduces and by circuit height the survival rate is almost nil unless a pilot evacuation system has been installed.

Allan Barnes and I flew in the recent 20m World Gliding Competition at Szeged in Hungary. Here are some interesting observations.

Despite over 80 gliders launched in not much over an hour, with a total of about 4,000 launches and landings by gliders and tugs undertaken by the end, there were no flying accidents and the only account of damage was when a glider on landing roll ran over a small obstacle, resulting in some repairable undercarriage damage. I had entered the competition with some trepidation, having heard tales of aggressive flying in European competitions.

TAKING SAFETY SERIOUSLY

Our experience in the 20m Two-Seater Class was that pilots in or joining thermals, which sometimes comprised ten or more gliders, were invariably careful and avoided difficult situations. Likewise the daily briefings, led by a safety officer, were constructive and pilots appeared to pay full attention. At registration inspection, all gliders had to have their Flarms operation checked, and pilots had to physically demonstrate that they could exit a glider wearing a parachute in about 12 seconds or less.

Pilots took safety seriously. As an example, at a team captains' meeting the point was raised that some tasks were close to out-and-return, which is not generally considered to be in the interest of safety. The problem was that the task area was constricted by airspace limitations and it was difficult to task gliders and avoid out and return legs. The accident reported in the recent Junior Worlds appeared to be caused by tasking gliders flying from different sites, to fly in opposing directions.

Pilots at Szeged were asked to report close encounters. These were evaluated and sometimes the traces were displayed on a large screen during briefing. The safety officer at the last briefing expressed his dismay that the only penalty that could be imposed was based on the evaluation of whether the incident could be classed as dangerous flying, which is a judgment subject to argument.

The safety officer suggested

1. In the same manner as penalties are applied if a glider crosses the clearly defined lines for airspace infringement, a specific distance for glider separation should be noted and gliders in breach of this distance should be evaluated for possible dangerous flying

2. Gliders judged to have flown once in a dangerous manner should possibly have a predetermined penalty

applied. Following a second infringement, the pilot would be removed from the competition.

3. Pilots knew who the cowboys were and team captains should report them to their local authorities to ensure that these pilots were not considered to represent their country.

It might sound a bit harsh but the safety officer had looked at safety breaches during the competition and was dismayed at some close calls. He noted the organisation was unable to apply definitive penalties that would not be subject to evaluation and appeal. These points are worthy of consideration by Australian authorities.

USE OF FLARMS

A few separate comments are due regarding the use of Flarms. The manufacturers are well aware that the radio signal used by Flarms cannot penetrate a glider's carbon fibre structure. This results in a large area under a glider which is a blind spot for Flarm reception as well as pilot visibility. PowerFlarm have taken care of this shortcoming by providing a second terminal on the unit. This connection is receive only, in contrast to the main aerial fitted to the top side of the glider, which is both transmit and receive.

The glider we hired in Hungary had an additional short aerial fitted just behind the undercarriage doors and was easily removable for glider transport. This added safety feature should cost no more than about \$30 for a short aerial and coax cable connecting it to the PowerFlarm unit.

I have been involved in situations where no Flarm reception was available due to this blind spot. Absence of pilot or Flarm visibility combined with a high rate of reduction of relative altitude resulted in an adverse situation. This can be extremely dangerous in the circuit area where we have high rates of vertical change with tugs on descent rates of up to 2,000 ft/min and glider / tug combinations climbing at about 600 ft/min.

CIRCUIT AREAS AND ACCIDENTS

My personal view is that the fitting of a low-cost second aerial to gliders with provision for one should be mandatory. I have suggested we should have a nominated area for glider launching and tug descent at airfields in much the same way as we use a nominated area for spin training so that pilots can avoid this area. When giving his rolling call, the tug pilot would announce his intentions.

Statistics both here and overseas indicate that circuit areas are a major source of accidents. The launching procedure at Australian competitions is usually very thoughtful and a credit to the organisers and tug pilots.

Safety should be about identifying possible causes of accidents rather than reacting afterwards.

HARRY MEDICOTT

AROUND THE CLUBS



John Criticos, age 16, receives warm congratulations on his first solo from his instructor John Bugno at Narrogin.



After weeks of runway closures due to the wet weather, Andrew Jhavery achieved his first solo in a glider on a glorious, dry sunny day at Southern Cross Gliding Club, Camden. Well done, Andrew.



Congratulations to Grant on his first solo at Darling Downs SC.



Congratulations to Ben Wilkinson of South Gippsland Gliding Club on his L1 Instructors rating.



Congratulations to Shane on his first solo at Darling Downs SC.



Lake Keepit SC is seeing blissful, happy faces all round. The rain has stopped, the sky is blue. Seasonal instructor Mike Birch is helping his student Gary progress with post-solo training.



After many months of rain over the eastern states, Lake Keepit Dam is overflowing. To anyone who was at Lake Keepit SC for the WWGC or during the years prior, these images will be an amazing sight. It started raining at the end of the WWGC and since then the landscape has been transformed.



Bathurst Soaring Club held an Ab Initio course in November. The four students attending enjoyed a great week of good thermal soaring conditions for local flying. They all had a wonderful time and progressed well in their soaring careers.

RAIN RAIN GO AWAY

BY ANTHONY SMITH
 CHAIR AIRWORTHINESS DEPARTMENT
 cad@glidingaustralia.org



The continuation of wet weather across large areas of Australia has caused a number of airworthiness challenges. Sailplanes are being stored in hangars and trailers without being flown for extensive periods of time. These conditions have brought forward a number of reports of corrosion found during annual inspections.

In this example, a Standard Jantar that had been stored in its trailer was brought out for an Annual



Figure 2: The pedals had all but seized due to corrosion.

This prompted a very thorough inspection of all the steelwork in the sailplane.

It is important to remember that corrosion will occur on exposed steel. It is better to prevent rust from occurring by ensuring that the steel has its paint patched up regularly rather than patching up the rust later. Steel with high wear areas become problematic. While the sailplane is in use, any rust that forms will be worn off very quickly. When the sailplane is inactive for a period of time, these bare areas can corrode quite fast depending on the conditions. High humidity is one of the worst.

The storage conditions become critical. Even though the trailer may be well sealed and rain proof, high humidity can cause condensation (dew) to form inside the trailer and inside the sailplane. Conditions where a heavy dew occurs overnight can cause corrosion problems when you do not expect it.

The other problem that we are now receiving reports about is rodents. In many areas the wet weather has flushed the rodents out of their normal abode and they are now seeking shelter in hangars and in sailplanes.

Figure 3: Evidence of rodents in an ASK-21 wing.

Rodents can be particularly troublesome. They need to gnaw to keep their teeth short and will gnaw on pneumatic tubing and wiring – often in the most inconvenient or inaccessible corner making inspection extremely difficult. The damage to wires can be hazardous. Once the wiring insulation is damaged, an electrical short may occur which can cause a fire – not something you want to happen in flight.

In vintage sailplanes, the rodents will cheerfully gnaw on the wooden structure and can cause quite a bit of damage.

The other problem is the rodent urine is acidic and fully capable of causing corrosion to start, particularly if the paint condition is poor – another way that the wet weather is causing corrosion!

Inspection. The early signs weren't promising, and corrosion was immediately visible in the cockpit.

Figure 1: Cross bar and support tubing showing surface corrosion.

Corrosion along the fuselage cross bar was immediately evident, but it later became apparent that the rudder pedals had also seized as a result of corrosion. The axles that the pedals rotate on had rusted.



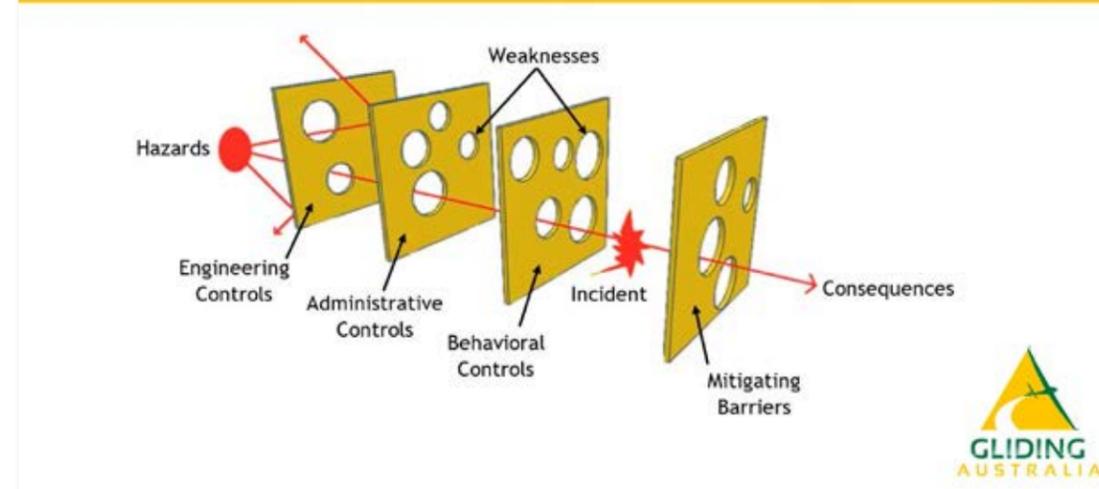
TOP: 1. Cross bar and support tubing showing surface corrosion.

ABOVE: 2. The pedals had all but seized due to corrosion.

RIGHT: 3. Evidence of rodents in an ASK-21 wing.

AIRWORTHINESS WEBINARS

James Reason Model – aka Swiss Chees



Anthony Smith has been adding to his Airworthiness Webinars with several new recordings online. He has covered subjects including undercarriage incidents, current health of the AW system flutter, flight envelope and propellor departure. They are essential viewing for any pilot involved in glider maintenance. Indeed all club members should check out these interesting videos and increase their knowledge of keeping our glider fleet airworthy.

You can see all these webinars and lots more at:

GLIDING AUSTRALIA YOUTUBE CHANNEL
<https://bit.ly/3VykaS3>

GLIDING AUSTRALIA WEBINARS
glidingaustralia.org/webinars/

The Flight Envelope

3

V_R = Max Rough Air
 V_D = Design Speed
 V_{NE} = Never Exceed Speed

CS-22 forefather came into effect in early 1970's. Vintage gliders may have different rough air limits depending on design standard used. Some had a 10 m/s gust requirement (but sharp edged gust rather than sinusoidal).

Incidents - Controls

Ventus B 14 Aug 2022: During flight, pilot used flap lever. The flap handle bent slightly backwards at the top of the handle. Pilot thought the grip had come loose or broke, gently pushed forward at the top of the handle and it came away completely.

PUBLIC TALK BY LISA TROTTER
DISTANCE FLYING

Distance Flying for all levels

July 2022

Join Lisa Trotter for an expert look at distance flying for your level.

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The fine line between speed and trouble & the feel of the air

Public Talk by Bruce Taylor

The fine line between speed and trouble & the feel of the air

June 2022

Join Bruce Taylor for some expert advice on soaring techniques and theory.

[WATCH HERE](#)

DISTANCE, SPEED AND ACCELERATION OR WHY YOU NEED A VARIOMETER

BY LEO DAVIES



When we fly, we like to go fast. Pilots often brag about their speed, as in, "I averaged 340 km/hour on my last leg". Strange then, that once we close our eyes, we have no way of telling how fast we are going. Back in the days when we used to fly to attractive destinations in fast jet aeroplanes, the guy in the left seat would push the throttles forward and we felt ourselves accelerate down the runway but once we were doing 1,000 km/hour in the cruise we had no perception of movement at all. "Mine's a gin and tonic, thanks." Our senses are designed to keep us out of trouble and are much better at detecting change than steady states. Whether it is swimming in cold water or sleeping on a train, our brain is insensitive to constant stimuli.

We can detect changes in speed, though -- that is, acceleration. We have quite good accelerometers in our buttocks. As I sit in my chair typing I can feel the chair pushing upwards against me with an acceleration of 9.8 metres/second². If I am lucky enough to be sitting in a glider and enter a 9.8 m/sec thermal, then I will feel 2 times the force of gravity. This will rapidly disappear as my glider begins to accelerate upwards. Once I am going up with the air mass at a stable rate then the accelerometers in my behind will tell me that I am back in a stable 1 x gravity field. So, we get the initial sensation of acceleration as we enter a thermal but once we are turning in it, we have no idea if we are going up quickly, slowly, or not at all.

Most of our physiological sensory organs are essentially springs. Under acceleration, the springs get compressed, under deceleration they get stretched. We can sense the length of our spring-like sensors and this tells us whether we are accelerating or slowing down. All our muscles and tendons are full

of spring sensors, so we get a lot of feedback about acceleration. These sensors have exotic names, such as Golgi tendon organs, Pacinian corpuscles and muscle spindles, but what they have in common is sensitivity to stretch. A hang glider pilot will feel air pressure compressing the spring sensors in the skin of his face but in our Plexiglas cocoons we lose this input. We are left with subtle clues to speed, predominantly wind noise. When we enter a turn, though, we are accelerating in a new direction and we certainly feel that.

Our inner ear is the most important and sensitive organ for detecting acceleration. The hearing organ, the cochlea, detects high frequency accelerations, sound waves, and the semi-circular canals detect low frequency accelerations like gravity and thermal entry. The balance organs are lined with cells topped by fine 'hairs', each topped by a small crystal, an otoconia. Yes, crystals really are magical. Under the influence of acceleration, the otoconia bend the hairs they are attached to and the hair cells fire off, giving us information about how we are accelerating. When we are earth bound and walking around in a constant gravitational field, these organs tell us when, and by how much, we are moving our heads. In the glider, like the accelerometers in our bums, they tell us about acceleration as we transition from one air mass to another.

The semi-circular canals detect angular acceleration. As we rotate our heads the semi-circular canals rotate but the inertia of the fluid within them produces movement of fluid through the canals. Once we have been in a constant turn for a while, the fluid catches up with the canal and the hair cells stop firing.

Without vision we would have no idea that we were still turning. Thus, in a cloud, with no external reference, the only force you are aware of as you enter a spiral dive is the gradual increase in G force, acceleration, as the turn steepens up. Once the wings come off this force will be relieved. In order to soar successfully we need to know about velocity, both airspeed and vertical velocity. Although we can sense thermal entry via our accelerometers, the only way that we can know how quickly we are going up in an established climb is with a velocity sensor, a vertical speed indicator. So, although you 'feel' thermal entry, you are dependent on your variometer to tell you whether you are in a good thermal or an ordinary one. Interestingly, soaring birds have evolved in-built vertical velocity sensors. They have air sacs in their bones that expand with decreasing air pressure and vent through small orifices. This is very similar to the design of a variometer. It is possible that glider pilots might evolve such a system, but it may take us a while to get there.

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SOARING RHAPSODY

'Soaring Rhapsody' is a series of linked poems in the style of Haiku. The leading verse is a meta, the seed from which all the subsequent haikus germinate in their first word.

Together, they seek to convey a glimpse of the sensations and rewards of soaring flight as experienced by sailplane pilots. Hopefully, they provide some insight into what motivates pilots to venture enthusiastically again and again into the sky, flying unpowered aircraft.

For sailplane pilots, whether gliding simply for the sheer joy of it or competing for championships and records, they are a reminder of the wondrous visual, physical and spiritual exhilaration we are privileged to enjoy in the sky.

DREW MCKINNIE, COLIN VASSAROTTI



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

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CREW RESOURCE MANAGEMENT

The following is an extract from a recent UK AAIB report into an accident involving a touring motor glider that highlights the importance of completing the pre-take-off checklist diligently and without distraction, and the importance of the 'O - Options' component of the check list (i.e. evaluate and brief emergency plan, identify aircraft critical speeds).

The flight was attempted with the propeller in coarse pitch. Despite using the checklist for the engine start and after start procedures, the incorrect position of the propeller was not picked up. The last chance to check the propeller position during the final power checks was omitted, probably due to the presence of a glider on finals and a perceived need to be airborne and out of the way before it landed. While this is an understandable action on behalf of a pilot not wanting to be in the way of another aircraft, doing things at haste risks forgetting or missing vital actions that could compromise the safety of the aircraft and its occupants.

The pilot realised that the aircraft was not accelerating as normal and announced his intention to stop. It is likely that there was sufficient runway to abort the take-off and stop the aircraft until shortly before the aircraft became airborne. The passenger (who was an instructor and examiner) either did not hear the call made by the pilot of his intention to stop or did not believe there was sufficient room to stop and took control of the aircraft. The aircraft became airborne with insufficient performance to climb away and so began to descend. Although the aircraft was positioned towards a field, the right wing struck a tree, and the aircraft struck the ground.

Using a decision point on the runway would have given both occupants a good understanding of where it was possible to abort the take-off rather than continue with insufficient performance. Discussions among pilots before the flight can also ensure that, should an emergency or unexpected event occur, both pilots know what their roles are to be and what responsibilities they have in controlling the aircraft.

LAUNCH POINT RISK MANAGEMENT

Recently, a glider landed to the right of other gliders awaiting launch and stopped alongside, and within 10 metres, of the lead

glider. This is not an uncommon situation at many gliding sites, but it does raise the question as to whether there are better alternatives.

Many years ago, an IS28 touched down on the runway behind, and immediately to the side of, the launch grid. The handling pilot lost control and veered off the runway and rolled across the front of gliders awaiting launch, narrowly missing the lead glider. The tow pilot of the tug taxiing to the launch point from outside the gable markers saw the IS28 heading for him. Instinctively he cut power and the propeller stopped just before the glider's cockpit rolled under his starboard wing. In the UK a few years ago, while attempting to go around from low height, a Jabiru descended and drifted left and collided with a stationary glider which was waiting to launch (See photo from AAIB report). Fortunately, no one was injured. In this case it was considered likely the aircraft did not climb due to the combination of the inadvertent retraction of the flaps, a brief delay in the application of full power and the aircraft being slightly above the maximum take-off weight.

What these occurrences show is that there is a real risk to gliders and ground crew at the launch point from aircraft landing in proximity. Clubs should review their operations and consider whether they need to make changes to reduce the risks.

AIRCRAFT FAMILIARISATION

There have been several reports in recent years of pilots landing with the undercarriage down but not locked. Most of these occurred due to the pilot being unaware of how to properly engage the locking mechanism, which suggests pilots are not taking the time to familiarise themselves with the aircraft systems. Not all undercarriage locking mechanisms are the same, so it is important that pilots either read the aircraft flight manual or seek a briefing from a pilot experienced on type. When converting to new types, common items which need special consideration are the undercarriage, and the airbrake and flap levers, which may be subtly different or entirely new. For further information, refer to Operational Safety Bulletin 01/06 - Aircraft Familiarity.



CHRISTOPHER THORPE
CHAIR OPERATIONS
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Occurrences & Incidents

All clubs and GFA members are urged to report all occurrences and incidents promptly, as and when they occur, using the GFA's occurrence reporting portal at glidingaustralia.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 tinyurl.com/ltmko56

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



The Gliding Federation of Australia Inc
SOAR Accident and Incident Occurrences
General Statistics
Date From: 01/05/2022
Date to: 31/07/2022

Damage	WA	NSWGA	SAGA	GQ	Total
Nil	3	7	4	1	15
Minor		2	2		4
Substantial				1	1
Total	3	9	6	2	20

Injury	WA	NSWGA	SAGA	GQ	Total
Nil	3	9	6	2	20
Total	3	9	6	2	20

Phases	WA	NSWGA	SAGA	GQ	Total
Launch	1	4	1		6
Landing	2	3	2	1	8
Ground Ops		2	1		3
In-Flight			2		2
Thermalling				1	1
Total	3	9	6	2	20

Type of Flight	WA	NSWGA	SAGA	GQ	Total
Local	3	5	1	1	10
Training/Coaching		2	4	1	7
Cross-Country		1			1
AEF			1		1
Ground Ops		1			1

Level 1	VAG	SAGA	NSWGA	GQ	Total
Airspace	1		1		2
Environment			1	1	2
Operational	2	5	6	1	14
Total	3	6	9	2	20

1-MAY-2022 WAGA DG-500 ELAN ORION PREPARATION/NAVIGATION

What Happened

During an aerotow launch the tow pilot noticed that the combination was not climbing normally. After checking the tow plane, and at approximately 2,000 ft AGL, the tow pilot gave a 'rudder waggle' signal to alert the glider pilot to the poor climb rate. When the glider pilot did not respond to the signal, the tow pilot checked the rear-view mirror and observed sunlight reflecting off the open [aluminium] dive brake panels. The tow pilot then called the glider pilot on the CTAF frequency and informed the pilot the glider's airbrakes were open, and after several seconds of inaction the tow pilot made another call. The glider pilot then closed and locked the airbrakes and replied to the tow pilot over the radio. The launch and release proceeded normally thereafter.

Analysis

The glider pilot had conducted nine flights since the beginning of 2022, four of which were in his own glider (Hornet), and three of which were private passenger flights in the club's Puchacz. The pilot had not flown the DG505 since September 2021. The CFI spoke to the pilot about the occurrence and it was determined that the pilot did not correctly lock the dive brake prior to the launch. It was not determined why the glider pilot did not notice the wing waggle or hear the initial radio calls. The pilot stated they had cycled through opening and closing the airbrakes during the pre-take-off checks, and when challenged by the launch crew the pilot stated they "touched the dive brake handle to ensure it was fully forward and checked the handle was flush with the cockpit wall and said 'dive brakes locked and away'. The pilot noted that unfamiliarity on type may have contributed: "the airbrake handle on the DG 505 is apparently in the 'locked position' the handle is flush with the wall of the cockpit when the brakes are not locked", whereas on "other gliders I fly the airbrake handle is not flush with the cockpit wall until it is locked away." The glider pilot agreed to attend additional training with one of the club's Level 3 instructors before flying the DG505 again. The CFI wrote an article for the club's monthly newsletter, reminding pilots to physically check that the dive brakes are properly locked when performing the pre-take-off checks.

Safety Advice

Unfamiliarity with type is most likely to cause problems during high workload situations. It is therefore important that pilots understand that 'new' gliders take time to get to know. Sometimes differences can be minor, and familiarity comes easily. However, even simple processes, like locking the airbrakes, can be different between types. It is therefore important that pilots take the time to know and fully understand the function and location of all the controls and systems.

1-MAY-2022 WAGA DG-500 ELAN ORION AIRCRAFT CONTROL

What Happened

The pilot was conducting a local private passenger flight, and had returned to the circuit after a flight of about 2 hours duration. During the final approach the pilot flared early, and the glider stalled onto the runway from about 1 metre. The tailwheel struck the runway first and just ahead of the mainwheel. The landing was observed by the Duty Instructor and several other pilots, who described the landing as being "heavy". The duty instructor, who is also Airworthiness inspector, noted that the glider ran out of energy while the main wheel



was approximately one metre above the ground but it did not sustain any damage. The pilot believed they had too much airbrake applied after the flare, but the duty instructor was of the view that the round-out was started too high. The CFI has briefed one of the club's Level 3 instructors, who has agreed to spend some time with the pilot to assist with improving their landing technique and other aspects of their flying. It was noted by the CFI that while the pilot was current, they had only a few flights on type and had not flown this aircraft for several months.

**8-MAY-2022 SAGA
DG-500 ELAN ORION
AIRCRAFT CONTROL**



What Happened

During the initial ground roll of an aerotow launch being flown by the student pilot, the starboard wing dropped to the ground. The flight crew heard a noticeable 'bang' as the wingtip struck the edge of a taxiway. The student then experienced problems controlling the aircraft, so the instructor assumed control. The flight continued with no further issues, but after landing the instructor noticed damage to, and excessive movement in, the winglet. The glider was grounded pending a detailed structural inspection.

Analysis

At this regional aerodrome it is usual for gliders to launch from the right-hand side of runway 31 on the 4m wide bitumen edge of the main unsealed runway. During launch the glider's right wing overhangs the edge of the runway, and the take-off path crosses a taxiway to the north of RWY 05/23. The CFI reported that the soil around the bitumen moves due to changing moisture content, and at the time of this incident the soil was about a 20 to 30mm below the level of the bitumen. When the wing dropped to the ground, the wingtip wheel holder struck the edge of the bitumen and compressed against the wheel, and the shock caused the wingtip to flex that damaged the wingtip retaining pin. The bent retaining pin prevented the wing tip extension from easily being removed, but upon inspection it was revealed that the alignment pins and stub spar were undamaged. The level change along the edge of the

runway and taxiways is a known issue, and the airfield maintenance team are constantly filling the areas and rolling the surface to keep the level change as small as possible. The CFI stated: "The key learning from this issue is the damage to the wingtip extension, was not obvious at first glance. The fact the force of the impact was sufficient to bend the wingtip wheel mounting frame indicated that further investigation was needed before returning the aircraft to the flight line."

Safety Advice

A damaged wingtip security mechanism can lead to the winglet dislodging in flight, as SOAR report S-1600 attests. On 15 November 2019 at about 2000ft AGL, the wingtip securing mechanism of a Lak 17 sailplane failed, allowing the winglet to move forward and dislodge from the alignment pins. The winglet twisted in the airflow causing the aircraft to enter a spin that was not recoverable. The pilot only just managed to escape by parachute. Any significant wingtip strike during launch in an aircraft with detachable winglets should be treated seriously and whenever possible the flight should be abandoned. The aircraft should be thoroughly inspected by an approved inspector before being returned to service.

**8-MAY-2022 NSWGA
FK LIGHTPLANES FK9 MK IV ELA
RUNWAY EVENTS**

What Happened

A powered aircraft entered the runway and took off while the runway was occupied by a glider and tug preparing to launch.

Analysis

Operations at this regional aerodrome have been limited to a single runway (runway 05/23) for several months while runway 18/36 is reconstructed. The reconstruction has also closed the cross runway 09/27. Runway 05/23 is an asphalt surface 30 metres wide and 2040 metres long. When conditions are suitable, glider operations from taxiway B on runway 05/23 are common practice given that taxiway B is midway along the runway. Operating in this manner minimises the duration of runway occupation with the glider next to launch able to prepare outside of the runway strip, and the tow plane is able to land short and, where no aircraft are wishing to use the runway, roll through to conduct the next launch with minimal delay and impact on other users. Taxiway B has clear visibility to both the 05 and 23 thresholds and vice versa. On the day of the incident, and prior to the powered aircraft entering the runway, the glider ground crew made an entering runway call on the CTAF for an imminent glider launch. The glider was then pushed from the holding point at the runway strip edge onto runway 23 at taxiway B (mid runway taxiway). As the glider was turned and aligned on the runway centreline a powered aircraft called on the CTAF that it was also entering runway 23. The glider ground crew called the powered aircraft and confirmed that the glider was on the runway and would be launching in approximately 2 minutes. The powered aircraft was visible at the runway threshold

from the glider launch point. The powered aircraft acknowledged and responded that it would be "out of the way". As the ground crew removed the glider tail dolly and prepared the aerotow rope, the powered aircraft took off and overflew the glider/tug combination by an estimated 100-150 feet. During the subsequent investigation, the pilot of the powered aircraft stated that he knew the gliders were operating from about the mid length of runway 23. He advised that after broadcasting he was entering the operational runway from the threshold, about 1,000 metres behind the glider operation), he received a radio call from the gliding operation advising they would be taking off in about three minutes. The pilot of the powered aircraft could see the tug and glider, but due to the distance he believed they were positioned outside the runway and that he could take-off and be out of the way without interfering with the glider launch. As his aircraft is a taildragger the pilot did not see the gliding combination over the nose until he was airborne, at which point he judged the safest course was to continue the take-off. The pilot of the powered aircraft was surprised to see the glider was on the runway and not the grass. The gliding CFI advised that the position of the gliding operation was agreed by the aerodrome operations panel and local operators are aware. However, consideration will be given to including an entry in ERSA or issuing a NOTAM for the period the runway works are in progress.

Safety Advice

This incident highlights the hazard of non-standard operations, i.e. gliders operating from mid runway and at some distance from the threshold, and the critical importance of communications, especially what you say and how you say it. For further information on good communication, refer to the fourth booklet in the revised 'Safety behaviours: human factors for pilots' kit available from the CASA website: <https://bit.ly/3gCsl0U>

NOTE: When the runway strip is occupied by a glider tug or glider, the runway is deemed to be occupied. Aircraft using the runway may, however, commence their take-off run from a position ahead of a stationary glider or tug aircraft (Chapter 3 of the CASA Visual Flight Rules Guide and AIP ENR 5.5-2, paragraph 1.2.4 refer). Also, Pilots must comply with CASR 91.055 – '(Aircraft not to be operated in manner that creates a hazard'.

**21-MAY-2022 NSWGA
ASTIR CS
LANDING
GEAR/INDICATION**

What Happened

Following a winch launch to about 1600ft AGL, the pilot retracted the undercarriage and flew towards a nearby ridge. After several minutes ridge soaring, the pilot returned to the circuit. While configuring the aircraft for landing the pilot found the undercarriage handle was jammed and could not be moved despite several attempts. The pilot made a radio call informing the ground crew of the problem and conducted a safe landing with the undercarriage retracted. The aircraft suffered only minor abrasions to the bottom of the fuselage. Inspection identified the rear edge of the

mudguard (which is part of the undercarriage system) had latched onto a lapped joint in the wheel bay liner. This is a known issue with this type and is usually the result of the pilot raising the undercarriage with excessive force. The proposed solution is to add about 10mm to the leading edge of the aft section of liner to ensure the overlap is always maintained.

**22-MAY-2022 SAGA
ASK21
AIRCRAFT CONTROL
What Happened**

The elderly pilot, who had been driving the winch all day, decided to fly the glider back to the hangar at the end of flying operations. During final approach the pilot increased airspeed to 80 knots and flew along the length of the runway at between 10 to 15 feet. Towards the end of the strip run and while the glider was still flying at 70 knots, the pilot opened the airbrakes slightly. While the pilot was prepared for a change in pitch, the glider immediately dropped, and the mainwheel struck the runway at speed. The glider rebounded, touched down again and the pilot held the glider in the flare attitude. The glider then touched down heavily and rolled to a stop within about 70 meters. The glider was withdrawn from service pending a hard landing inspection.

Analysis

The CFI found that mishandled recovery from the initial bounce led to pilot-induced oscillations, with around 4-5 touchdowns occurring. The Club's Instructors' Panel observed that the pilot's skill set is gradually declining with age, and that the pilot was well behind the action during the bounced landing. The pilot has accepted this observation and will participate in some remedial training and more frequent check flights. It is unlikely the pilot will attempt another ground-effect run.

Safety Advice

As we grow older our body has a tendency to "slow down" in reaction time, and our cognitive abilities also decline with aging of brain cells and their billions of complex interconnections. Every day we perform hundreds of cognitive tasks but are mostly unaware of the effort involved. Cognitive deficiencies are insidious, have a substantial negative impact on performance and are hardest to identify when the pilot is performing routine activities. One reason symptoms go unnoticed is that with practice and routine, the brain adjusts to mild to moderate cognitive impairment. In other words, normal activities can mask the severity of the deficiency. However, if the pilot's routine is interrupted by an urgent or stressful situation, then the extent of cognitive impairment may become more evident. It is well known that flight experience can compensate to some degree for age-related declines in cognitive function and that overlearned complex tasks such as piloting are less susceptible to age-related deterioration than abilities to perform in novel situations. Notwithstanding, recency of experience can have a dramatic effect on overall airmanship, regardless of age. It is known that older pilots who have long breaks between flying take longer to regain their proficiency. Older pilots should fly regularly and participate more frequently in recurrent training

continued over page

(e.g., flight reviews). However, when physical deterioration outstrips piloting skills - it's time to quit!

**12-JUN-2022 GQ
SZD-50-3 PUCHACZ
TERRAIN COLLISIONS**

What Happened

During the final approach the student mishandled the flare and recovery, and the instructor was too late in taking over and could not prevent the left wing from contacting the ground heavily and then impacting a runway light. The glider's port wingtip was substantially damaged.

Analysis

The pre-solo student was undertaking the first of four planned pre-solo assessment flights. The student performed well during the launch and brief soaring flight and flew a normal circuit. The student established the glider on a stabilised final approach using a half-airbrake setting. In response to overshooting the aiming point the student opened the air brakes further, which resulted in a high rate of descent. The student over rotated into the flare and the glider ballooned. The student corrected by closing the airbrakes and pitching forward on the stick, and then opened the airbrakes again. The instructor called taking over but this was not heard by the student who remained on the controls. The instructor found the controls were difficult to move and could not prevent the left wing striking the ground heavily and then colliding with a runway light. The student had not flown for two months and the instructor, with hindsight, recognised that they should have given the student more time to refamiliarise themselves before introducing the pressure of an assessment flight.

Safety Advice

The most common instructing accident is 'instructor failed to take-over in time'. These accidents usually involve the trainee responding in an unforeseen way or failing to respond at all (e.g. not rounding out). Given that the overall idea is to let the trainee do as much as possible within their level of skill the instructor should never wait until the last moment - which can rapidly become too late before responding to a situation that is going awry. This is particularly true of any manoeuvres close to the ground. Instructors also need to guard themselves against unexpected reactions during the critical stages of flight by adopting a defensive posture, i.e. having their hands and feet ready to take control.

**23-JUN-2022 NSWGA
HK 36 R
RUNWAY INCURSION**

What Happened

While a motor glider was on final approach to RWY 36, the Duty Instructor observed two persons walking down the middle of the runway towards the launch point. The Duty Instructor made a radio call to inform the motor glider pilot of the runway incursion and suggested he land on RWY 35. The motor glider pilot diverted onto runway 35 and landed without further incident.

Analysis

The motor glider pilot was flying a glider approach and not under power. The pedestrians were a visiting level 2 instructor and former club member, and an ab-initio student. The instructor had landed earlier after a very brief solo flight and decided to walk back to the launch point after leaving the aircraft at the hanger complex. The Duty Instructor noted the pedestrians when difficult to see in the late afternoon lighting conditions as their clothing blended into the surrounding grass and trees. The motor glider pilot stated that he did not see the pedestrians during the approach for the same reasons, and that he may not have seen them at all had the Duty instructor not made the radio call. The motor glider pilot stated the pedestrians were directly in his approach path and he very easily could have hit them. The visiting instructor admitted he was not paying attention and did not consider the dangers of walking down the middle of an active runway, nor the issue of visibility late in the afternoon. The ab-initio student stated he was unaware of the approaching motor glider, that he was following the lead of the instructor, and had not thought of the dangers of walking in the middle of an active runway. The pedestrians were counselled and all personnel on the airfield were reminded of the dangers of being on an active runway, and of the expectation that all personnel returning to the launch point must use the adjacent dirt road.

Safety Advice

A runway incursion happens when an aircraft comes close to collision with another aircraft, vehicle, or person within the take-off and landing area. In most cases, runway incursions happen due to human errors. In this case, the pedestrians' lack of situational awareness and failure to recognise the risks of walking down the middle of an operational runway were the key causal factors. Situational awareness is the understanding of your environment, which involves information processing and sound decision-making. No one has perfect situational awareness, but it is vital that one thinks ahead, and monitors, detects and recognises those factors that pose a risk. Above all, avoid complacency.

**10-JUL-2022 NSWGA
ASK 21 MI
BIRDSTRIKE**

What Happened

At about 500 ft on climb out, the pilot of the glider under tow observed an eagle fly straight towards the tug. The tug pilot saw the bird approaching and made a sharp left turn. The bird passed the tug but was caught in the slipstream. The glider pilot reported "an uncontrolled rotating ball of feathers came straight at the glider hitting the port wing about five feet out from the fuselage. I requested a right turn back towards the airfield and released for a straight in landing on RWY 03". After landing a maintenance inspector examined the port wing and found the bird had struck the top of the leading edge and slid over the wing leaving scratches and slight residue, but there was no structural damage, and the aircraft was returned to service. GA

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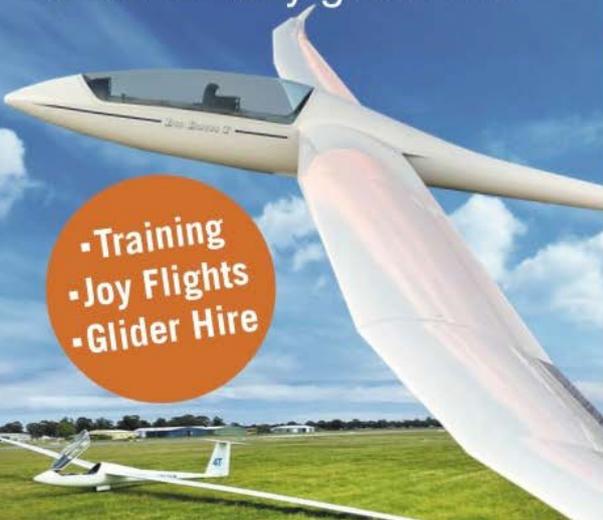
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