

# GLIDING

## AUSTRALIA

Issue 37 August - September 2017

[www.glidingaustralia.org](http://www.glidingaustralia.org)

***JUNIOR WGC***

***PERLAN HEADS FOR  
THE STRATOSPHERE***

***13.5M NEW WORLD OF GLIDERS***

***WINTER WAVE - FRANCIS CHICHESTER - CTO/A***








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# GLIDING AUSTRALIA

No. 37 August - September 2017

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### RETURNS

If you are sending documents they must be emailed to [returns@glidingaustralia.org](mailto:returns@glidingaustralia.org)

**SHOP** The GFA Online shop has a range of useful products including a Form 2 kit, [www.store.glidingaustralia.org](http://www.store.glidingaustralia.org)

### GFA OFFICE

Before calling the GFA office, please check out our website [www.glidingaustralia.org](http://www.glidingaustralia.org) to buy items, find documents and other information, and renew your membership.

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

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Broadmeadows VIC 3047**

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## HOW WILL HISTORY REMEMBER US?

I am always conscious of how quickly the world changes.

In my work I often used to ask elderly patients what was the biggest change that they had seen in their lifetime. Of course, I always hoped that they would say aviation - but no one ever did. The most striking response I got was from a sprightly lady born in 1900 that I saw just after the Berlin wall came down in 1990. "That's easy, dear," she said, "I get asked that all the time - the rise and fall of communism." This really brought home to me how quickly things can change. The world saw the rise and fall of communism and everything that entailed - wars, the camps, the Wall, the Cold War, the brink of nuclear war, all happening within one lifetime.

This helped me to understand how much can change in one lifetime and gives me perspective.

In gliding I think it is interesting to look back and realise that gliding is a very new sport that is changing very quickly.

I have heard stories of members, not that many years ago, cycling to the local club to build a glider over a six month period only to crash it on the test flight and start again. This is so different from today's experience.

If we look back to when I started 25 years ago, we had no internet, no mobile phones, no GPS. We received our weather by fax or simply by looking out the window. We flew in gliders without radios or audio varios. Nowadays, some competition gliders seem to have more equipment than a commercial airliner.

I do often wonder how things will change in the future, but I digress. This article is not about that. I want to write about how people looking back at this time, now, in the first decades of this century will judge us.

My hope is that they would see that glider pilots all around the world struggled with declining numbers, and battled against other competing forms of sport aviation, computer games, virtual reality, and drones.

I hope they'll see that we railed against bush lawyers, increasing regulation, CASA not at its finest hour, producing ever more regulations to "protect us".

It is my hope that when they look back they may see that in Australia this time was a turning point. I hope they will see that by adopting modern methods for training, by standardising the training, reducing the burden on volunteers and returning the fun to gliding, we secured its future.

I'm optimistic about the future. I do believe that with the right choices and some investment in the right areas, gliding in Australia can reverse the decline in membership, improve retention, and once again become a major player in aviation.

I do understand that change can be difficult and I know that in the member survey recently, a number of comments were made such as "Don't change anything - it's fine as it is".

Unfortunately, I cannot agree with that view. Everything is not fine as it is. Membership is steadily declining.

We must change.

We must embrace the change.

We must improve on what we currently do.

We do a very good job of attracting new members actually. Our new member numbers are good, some of the best in aviation. Where we fail is in retention, with a huge churn close to 30%.

If we were to improve our retention rate by only 7%, we would double our membership in 10 years. It doesn't take too much to change something by 7%. We should not be too ambitious and change too much too quickly - I know that that is not a good recipe for success.

I sometimes say to people that with the Soaring into the Future initiative, we are not building a new house from scratch - that actually might be easier.

We are trying to renovate an existing structure, and that is more difficult.



We will make more mess, we will break more things and we will inevitably do some damage to the existing structure.

But at the end of the day the structure that we end up with will be stronger and sounder and better suited to weather storms into the future.

In conclusion I have been President of GFA now for a little over two and a half years and so my term is coming to an end.

I would like to thank everyone who has contributed along the way. I won't name them because I'm bound to forget someone but I think you know who you are.

I have enjoyed the experience and it has been an incredible privilege.

I have met many amazing people who do some amazing things and they have inspired me to work harder than ever to ensure that their hard work is not in vain.

I feel that I leave the Gliding Federation in good shape - I do know that in taking on these roles the job is never finished. You can only hope to leave it better than you found it.

Those of you who know the poem 'Success' by Ralf Waldo Emerson will know that this sentiment paraphrases a line from his poem, which I find very comforting.

So I am leaving my current role as President at the AGM to move on to managing Soaring into the Future, which is a really exciting new venture.

President Mandy, signing off.

**MANDY TEMPLE  
PRESIDENT**

[president@glidingaustralia.org](mailto:president@glidingaustralia.org)

## GFA ADVOCACY

*GFA sends representatives to many aviation associations and forums. Here is the next article detailing these meetings over the last two months and the issues that we are currently discussing.*

### CASA SAFETY SEMINAR AND PART 149

President Mandy Temple and Executive Manager of Operations Chris Thorpe attended the annual two day CASA Safety Seminar in Brisbane. This is a great opportunity to network with other Sporting Organisations and talk informally with CASA employees. It was an interesting meeting but unfortunately Johnathon Aleck the lead author of Part 149 was unable to attend due to fog at Canberra airport. The presentation we received in his absence was underwhelming and not particularly structured to address our questions. With the help of Air Sports Australia

Confederation (ASAC) we continue to lobby for clarity and answers as we move towards implementation.

### ASAC AGM

GFA Executive Officer (EO) Terry Cubley attended the ASAC AGM to represent GFA views. There was considerable discussion about Part 149 and the best way forward.

### FUTURE FUNDING

At the CASA Safety Seminar we formed an action group with RAAus and other ASAC member groups to lobby CASA, Ministers and others to address our funding shortfall. The GFA was the only group to have already written to Shane Carmody. A joint approach is thought to be more effective.

### AAFC BOARD MEETING

Chair of the Operations Panel (COP) Drew McKinnie attended the June AAFC Board meeting and represented GFAs

views. An updated MOU is being produced as an outcome.

### RAPAC

Did you know that GFA sends representatives to meetings of the Regional Airspace and Procedures Advisory Committee (RAPAC) in every state? Your representative's details are on the GFA Contacts page. RAPAC branches meet monthly to discuss airspace issues, radio frequencies etc. Regional airlines such as REX also attend these meetings.

### TUG PILOT RATINGS AND MAINTENANCE

At the CASA seminar we were able to finalise the details of the CASA Instrument to allow GFA to manage Tug Pilot Ratings to fill the void left by Post Part 61 changes. We continue to liaise with CASA for permission for GFA members to maintain our tugs.



## WOMEN IN GLIDING WA

### Narrogin Gliding Club 6 - 10 November 2017

**Calling all Ladies, keen to learn more about the wonderful sport of Soaring**

**2017 Women's World Championships top 5 finisher, Ailsa McMillan will be here to offer expert coaching**

**Short Lectures, Instruction  
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Food, Fun**

**If you would like to attend this annual experience, (even if only for a couple of days) email Robyn on [robynbecker@y7mail.com](mailto:robynbecker@y7mail.com)**



# FROM THE EO

## SOARING INTO THE FUTURE (S2F)

This bold new GFA initiative will be officially launched at the GFA AGM on 26th August. It is an ambitious project directed at significantly increasing GFA membership numbers, reducing workloads on club volunteers, allowing student pilots to progress more efficiently, and providing more structured opportunities for pilots to progress beyond solo.

The Board contracted Sports Community, a company specialising in sports club volunteer training, to provide advice and work with some of our members to create a proposal. We reviewed work done by Sailing Australia and have used their approach as a model for our own program.

This program will require input from a number of members, so we encourage you to support the planning and implementation of the various projects when they are advertised.

## MEMBERS SURVEY

We are working through the results of the member survey conducted in May/June. It received another great response in which over 20% of our members responded. However, since many junior members did not respond, we have missed out on some of their ideas.

The many responses include some great information. We are working through the thousands of suggestions and comments and will provide a summary shortly.

## GFA AGM 26TH AUGUST

The GFA AGM will be held on the last Saturday in August in Melbourne, starting at 3.30pm. All members should have received advice of the meeting, and you can find details on the GFA web page.

Members are invited to participate in the Members' forum at 4pm where you will hear about Soaring to the Future, simulators, member survey results, promotional videos and so on. You can join us at the presentation dinner that evening – book on the GFA shop under GFA events.

Members may nominate directly for the role of President, Vice President or Treasurer of the GFA. We currently have no nominations for Vice President. Do you have the skills and aptitude to take on one of these important roles? Contact the GFA secretary [secretary@glidingaustralia.org](mailto:secretary@glidingaustralia.org) if you have interest in nominating for one of these positions.

## PILOT RECORD BOOK

The GFA Operations Panel have recently launched the new Glider Pilot Record Book, which all student pilots should use, leading them from first flights through to the Glider Pilot Certificate (GPC). Some clubs have their own record book but the official GFA book has the latest details and covers all syllabus items. It will enable easier transition when people move from one club to another. Each club has been sent a number of free copies to trial, and many clubs are now ordering books for their new students.

## BEQUESTS

It is increasingly common now for members to make bequests to their clubs and other organisations as part of their will. A codicil is easier to use, it doesn't require a change to your will and is easy to set up. If you are considering such a bequest to GFA or your club, then you should talk to your accountant or legal advisor for guidance.

## TUG PILOT MANAGEMENT

GFA is taking over management of tow pilot qualifications and approvals, and all tow pilots must transition to the new GFA system by 24 December 2017.

The new aerotow manual transfers responsibility from CASA to GFA, which now provides tow pilot endorsements, aerotow retrieve permits and competition towing permits.

Tow pilots are asked to supply details of their current ratings, experience and currency to acquire GFA certification.

GFA has introduced a new tow pilot membership for tow pilots who



**TERRY CUBLEY**  
**EXECUTIVE OFFICER**  
[eo@glidingaustralia.org](mailto:eo@glidingaustralia.org)

do not fly gliders or motor gliders. The annual fee has been set at only \$15.00.

Tow pilots are reminded that they are not covered by our BBL insurances. You need to rely on the tow plane insurance, so check that the tug you are flying is insured.

Big thanks is due to Chris Thorpe and Peter John for their outstanding work on the aerotow manual.

## OFFICIAL OBSERVER (OO) REVALIDATIONS

Members who are recognised as OOs in our data base will have received an email from Beryl on 10 July advising you of the new revalidation procedures. We know that our database is not 100% accurate so you have three options.

1. If you are an OO and you received an email from Beryl about this in July, wait for the next email from Beryl on how to revalidate
2. If you are an OO and your member profile shows that you are an OO but you did not receive an email from Beryl in June, please advise Tanya at the GFA office.

[tanya@glidingaustralia.org](mailto:tanya@glidingaustralia.org)

3. If you are an OO but your member profile does not show that you are, please scan and send your OO document to

[returns@glidingaustralia.org](mailto:returns@glidingaustralia.org)

You can check your member profile by going to My GFA Select Edit Member Profile and log on with your membership number and date of birth. OO status is in the Sports section.

You will all receive an email from Beryl in September with instructions on how to revalidate your rating. This will involve answering a question relating to recent changes in the Sporting code. If you do not complete the revalidation then your OO status will lapse

## WOMEN'S COACHING PROGRAM

One key area for growing our sport is to increase women membership from its current low of only 5%. Gliding is a sport that has no gender specific traits so there is no reason why our women membership cannot grow to 50%.

Because the Women's World Gliding Championships will be held in Lake Keepit, NSW in December 2019, the GFA Board has asked the Sports Committee to focus on increasing the support to our women members to improve their soaring and racing skills. We have set up a women's coaching program that supports our highly skilled women, and also develops skills of all interested women pilots.

Two programs are set for December this year, with more programs to be run in 2018. All women members will have received an email inviting them to respond to a short survey and those who have responded have now been invited to attend relevant training and coaching programs.

If you missed this email, please contact the Women's Team Coach, Terry Cubley at

[terrycubley@bigpond.com](mailto:terrycubley@bigpond.com)

## OLE HARTMANN, AMO

Ole Hartmann of **Australian Aircraft Kits** located at Taree, NSW is a newly appointed GFA Approved Maintenance Organisation (AMO).

Ole is a very experienced aircraft engineer, factory ROTAX trained and equipped to totally support members in aircraft maintenance. He specialises in engines and sheet metal. Ole's company makes aircraft kits for amateur builders. Search online for Australian Aircraft Kits Hornet STOL. He supports kit purchasers by allowing them to build their kits at his factory under his and his employees' supervision.

## GFA SAFETY SEMINAR SERIES 2017/2018

We are just about to start our 2017 2018 GFA Safety Seminar series, with three Seminars between September and November followed by a three month break while hopefully everyone is enjoying a successful and safe core soaring and competition season before resuming the series in March 2018.

This series will be a little different from previous safety seminars in that the GFA's Safety Committee is coordinating the events, which will include presentations from Operations, who were the previous coordinators, Airworthiness, Sport and Safety. There will be the usual review of operational incidents and lessons learned. But, as new features, Airworthiness will review recent significant Service Difficulty Reports (SDR), Sports will provide input on how to improve performance based on what we have learned and an interesting Human Factors group activity will finish each day. The days will be busy and will need to start at

about 9am so we finish up at a reasonable hour. The final day's program will be published in early September.

We will also be introducing members to a series of Gliding Specific Safety related posters that have been developed by Richard Geytenbeek who has already done most of the illustrations you will see in the book 'Glider Pilot Training Record' and the daily cartoons at WGC2017.

## 2017 DATES AND LOCATIONS

16 September – Narromine Airfield  
8 October – Mildura – Venue still being finalised at the time of going to press.

11 November – Caboolture Airfield (Aero Club Building)

The 2017 dates will be published on the GFA online calendar, as will the 2018 dates when they are finalised.

**Stuart Ferguson**

**NATIONAL SAFETY MANAGER**

[nsm@glidingaustralia.org](mailto:nsm@glidingaustralia.org)

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## GFA CALENDAR

Use the Contact GFA menu at [www.glidingaustralia.org](http://www.glidingaustralia.org) to send events to the GFA Secretariat for publishing online and in [GA](#)

### CANBERRA GLIDING CLUB WAVE CAMP

26 August - 3 September 2017  
Canberra Gliding Club - Bunyan Airstrip, Monaro Hwy, Bunyan NSW  
Chris Thorne on 0401 147 125  
[nls264.wix.com/canberra-gliding#!wave-camp/cctb](http://nls264.wix.com/canberra-gliding#!wave-camp/cctb)

### GFA SAFETY SEMINAR NSWGA

16 September 2017  
Narromine Airport, Narromine NSW  
NSWGA Regional Safety  
Manager Brian Bailey [bbailey@activ8.net.au](mailto:bbailey@activ8.net.au)

### QLD STATE GLIDING CHAMPIONSHIPS

30 September - 7 October 2017  
Warwick Gliding Club, Massie airfield - located on Massie-Bony Mountain road approx. via road 14km north west of Warwick, Qld. [soaringcomp.net/qldstatecomp2017](http://soaringcomp.net/qldstatecomp2017)  
For further details contact Phil 0419 264 713 or [Phillip.Southgate@team.telstra.com](mailto:Phillip.Southgate@team.telstra.com)

### CLUB AND SPORTS CLASS NATIONALS GOONDIWINDI

9 - 18 October 2017  
For further information please contact [info@ddsc.org.au](mailto:info@ddsc.org.au) by email or go direct to <http://ddsc.org.au/2017-nationals>

### WOMEN IN GLIDING WEEK

Kingaroy Gliding Club is hosting the Women in Gliding Week. Contact Wendy Medlicott on mobile 0428 499 774 or email [wendymedlicott@optusnet.com.au](mailto:wendymedlicott@optusnet.com.au) for more details.

### WOMEN IN GLIDING WEEK WA

Narrogin Gliding Club  
Calling all Ladies, keen to learn more about the wonderful sport of Soaring. 2017 Women's World Championships top 5 finisher, Ailsa McMillan, will be here to offer expert coaching. If you would like to attend this annual experience, even if only for a couple of days, email Robyn on [robynbecker@y7mail.com](mailto:robynbecker@y7mail.com)

### KEEPIT FAST - LAKE KEEPIT

11 - 18 November 2017  
KeepitFast is a X-Country training and coaching week for competition and XC pilots wishing to improve their skills and competition results. While remaining a fun and relaxed event, this is a bit more intense than the Keepit Regatta. Proven coaches and national champions will do briefings, present topics and fly with participants. Everyone will have at least half a day in a dual-seater with a coach. Entries are limited to 15 in order of arrival. Entry fee \$180 if paid prior to 30 Sept, late entry \$230 post 30 Sept. More information and registrations at [www.keepitsoaring.com](http://www.keepitsoaring.com) or email Jacques Graells [jg.gliding@gmail.com](mailto:jg.gliding@gmail.com)

### WAIKERIE ORANGE WEEK

18 - 25 November 2017  
Contact John Ridge [johnridge16@gmail.com](mailto:johnridge16@gmail.com)

### VINTAGE GLIDERS AUSTRALIA MELBOURNE CUP RALLY

4 - 7 November 2017  
Bacchus Marsh. All welcome. Contact Dave Goldsmith, 0428 450 475 or [daveandjenne@gmail.com](mailto:daveandjenne@gmail.com)

### AUSTRALIAN GLIDING MUSEUM OPEN DAY

AGM and barbeque lunch. Sunday 5th November at Bacchus Marsh. Members and visitors welcome. Contact Dave Goldsmith, 0428 450 475 or [daveandjenne@gmail.com](mailto:daveandjenne@gmail.com)

### AUSTRALIAN GLIDING MUSEUM FABRIC COVERING COURSE

8 - 11 November, wood repair course 12 to 15 November, at Bacchus Marsh. Full details from Jim Barton, 03 93094412 or 0419 562 213

### NARROMINE CUP

18 - 25 November 2017  
Contact Beryl Hartley email [arnie.hartley@gmail.com](mailto:arnie.hartley@gmail.com)

### NSW STATE CHAMPIONSHIPS

9 - 16 December 2017  
Temora Aerodrome  
Contact Secretary Daryl Connell [djpconnell@gmail.com](mailto:djpconnell@gmail.com)

### FORMULA 1.0 GLIDING

28 December - 5 January 2018  
Leeton Airfield, NSW  
[www.f1gp.com.au](http://www.f1gp.com.au)

### VINTAGE GLIDERS AUSTRALIA'S ANNUAL RALLY

6 -13 Janaury 2018  
Bordertown Fun for all! - for information contact John "JR" Marshall on 0407 417 747 or [jma99350@bigpond.net.au](mailto:jma99350@bigpond.net.au)

### MULTICLASS NATIONALS

8 - 19 January 2018  
Waikerie  
Contact John Ridge [johnridge16@gmail.com](mailto:johnridge16@gmail.com)

### JOEYGLIDE NARROMINE

20 - 27 January 2018

### SAILPLANE GRAND PRIX HORSHAM

20 - 26 Janaury 2018  
Contact Contest Organiser - Arnold Neiwand mob 0429 857 275 or email [nieci@aanet.com.au](mailto:nieci@aanet.com.au) or Contest Organising Chairman - Selwyn Ellis Mob 0427 824 925 or [selwyn@wllisworks.com.au](mailto:selwyn@wllisworks.com.au)

### HORSHAM WEEK COMPETITION

3 - 10 February 2018  
[www.horshamweek.org.au](http://www.horshamweek.org.au)

### KEEPIT REGATTA - LAKE KEEPIT

24 February - 3 March 2018  
All pilots are invited to the Lake Keepit Regatta for a week of fun, friendly competition and coaching. This event is ideal for beginner and intermediate cross country pilots that want to start competition or improve their XC skills as well as for seasoned pilots that want to take it easy and share their knowledge. Daily talks and briefings by

experienced coaches and seasoned competitors on topics of interest and of course we will finish Saturday evening with the traditional extravaganza dinner at the Dircks. We have 8 new cabins and lots of camping sites but make sure you register early as the cabins get booked very quickly. Bring your glider, borrow your club dual seater, or rent one of ours (limited availability) and come have fun at the gliding paradise.

Entry fee only \$180 per glider and \$50 per additional passenger if paid prior to 31 Jan, late entry \$230 per glider and \$70 per additional passenger post 31 Jan.

More information and registrations at [www.keepitsoaring.com](http://www.keepitsoaring.com) or email Jacques Graells [jg.gliding@gmail.com](mailto:jg.gliding@gmail.com)

### VSA ALPINE REGATTA

3 - 9 March 2018  
Please contact Ian Grant, [ian.grant.gliding@gmail.com](mailto:ian.grant.gliding@gmail.com) or VSA website [www.gliding.asn.au](http://www.gliding.asn.au)

## FAI GLIDING BADGES TO 25 JULY 2017

#### A BADGE

WONG HOK KAN	12265
ANDREW MARWOOD	12273

LAKE KEEPIT SC
LAKE KEEPIT SC

MCAHON TYLER M	12269
ARLOVE GILLES	12270
KWAN YIN TUNG	12271
FAIR GRANT	12272

QLD ATC 200
MELBOURNE GC
GYMPIE GC
BEVERLEY SC

#### C BADGE

MONTROY MATTHEW R	12126
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HUNTER VALLEY GC
------------------

#### A,B BADGE

GEERLINGS JOSHUA	12266
------------------	-------

NARROGIN GC
-------------

#### A, B, C BADGE

SHILL ANTHONY W	12261
HAMILTON RODERICK J	12262
BABEL ALEXANDER	12263
SHEPPARD LANCE	12264
JARRON SCOTT S	12267
SWINKELS LUKE	12268

SOUTH GIPPSLAND GC
BALAKLAVA GC
GC WEST AUSTRALIA
G.C.V.
KINGAROY GC
G.C.V.

#### SILVER C

MORRIS CARL E.	4931
ROBERT JEAN-LUC	4932

ALICE SPRINGS GC
RAAF RICHMOND GC

#### GOLD C

BROWN GEOFFREY C	1736
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CANBERRA GC
-------------

#### DIAMOND HEIGHT

BROWN GEOFFREY
FOX PETER J

CANBERRA GC
CANBERRA GC

#### DIAMOND DISTANCE

BURTON DARYL S
----------------

ADELAIDE SC
-------------

### BADGE CLAIMS

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

#### EASY PEASY SILVER C

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

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

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

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

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

site. [http://www.admin.glidingaustralia.org/index.php?option=com\\_chronoforms5&chronoform=Badge\\_Declaration](http://www.admin.glidingaustralia.org/index.php?option=com_chronoforms5&chronoform=Badge_Declaration)

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

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

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

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

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

Or, if more convenient, email the file to: [arnie.hartley@gmail.com](mailto:arnie.hartley@gmail.com)

Post your green gliding certificate book.

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

Safe soaring, **BERYL HARTLEY**



BERYL HARTLEY  
FAI CERTIFICATES  
OFFICER  
[faicertificates@glidingaustralia.org](mailto:faicertificates@glidingaustralia.org)

BADGE  
DECLARATION

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



## LETTER TO THE EDITOR

Please send letters to

[sean@glidingaustralia.org](mailto:sean@glidingaustralia.org)

Please note that letters may not be printed in full or, if deemed unsuitable, may not be published.

### ANNIVERSARY OF THE LOSS OF JACK MUNN AND SID TABERLET

The date 2 August marked the 70th anniversary of a gliding accident at Fleur's Aerodrome, NSW that took the lives of Jack Munn and Sid Taberlet. According to Allan Ash's book 'Gliding in Australia', this incident was instrumental in the formation of the Australian Gliding Federation. As Jack's grandson, this event obviously has great personal significance for me.

One witness to the accident was Jack's brother and fellow Metropolitan Club member and glider enthusiast, Geoff Munn. Geoff was to never fly a glider again because, in his words, "I couldn't do that to my mother." I had my first lesson in a glider last year and, by doing so, re-started a Munn tradition after a 69-year pause. Many thanks go to the instructor Peter and the crew at Southern Cross Gliding Club.

Although it happened so many decades ago, this tragic event

### CHARITY EVENTS

I have always thought it would be good publicity as well as a genuine contribution to society if gliding clubs organised regular charity events, perhaps in conjunction with service clubs such as Rotary or Lions. Events would be held entirely on the basis that the clubs would make absolutely nothing from the exercise except community goodwill and perhaps gain new members. At my home club, Lake Keepit, the charity to support could be the Westpac Rescue Helicopter Service which is well supported and regarded locally. Another worthwhile idea would be to try to get glider pilot representation on the local council.



continues to affect me and my family, at least for the fact that my father and my siblings and I never got to know their father and grandfather. My thoughts and prayers continue to go to the family and friends of Sid Taberlet, as they do to others similarly affected by similar tragedies in all forms of aviation. My thanks go out to many in the gliding community who supported Jack's family following his death—we are still in possession of many touching handwritten condolences.

It was not until recently that I began to research Jack's accident and gliding exploits. With sadness, I discovered the recent passing of Ray and Allan Ash, both of whom wrote accounts of this and other historical incidents of the period and indeed personally knew those involved.

The attached recent photo includes Jack's brother Geoff (now 94), son Colin, grandson Chris (myself) and great granddaughters Elizabeth and Evelyn Munn.

KIND REGARDS, CHRIS MUNN

### GFA AIRFIELDS

Of more importance the GFA should investigate the possibility of purchasing land suitable for use as a gliding field about an hour's drive or less from, for a start, Sydney and Melbourne. Not the GFA's business, we are merely an umbrella organisation to supervise the efforts of gliding clubs. I am afraid that the future of gliding, certainly in NSW and Victoria depends on having a secure property from which to conduct operations. Not affordable? Not sure about that. We spend considerable amounts on other aspects of gliding which might have to be curtailed while

funds were expended on funding sites. Once the land was secure I am sure clubs would migrate their operations to such a site over a period of time.

There may be other ways to achieve this. It may be that a council would give a very long term lease or security of occupation at a predetermined cost.

The long term future of gliding depends on having security of tenure over where we conduct operations. The GFA should take the initiative in achieving this. It is probably beyond the resources of an individual club.

HARRY MEDLICOTT

# YOUR DREAM. OUR MISSION



## JS3 RAPTURE 18m

  
JONKER SAILPLANES

  
M+D FLUGZEUGBAU



## SIR FRANCIS CHICHESTER PIONEER OF AVIATION



We all need heroes who encourage us to achieve personal success in life. For those of us with an adventurous streak, Sir Francis looms large. Many of us in middle age or older will remember his epic solo voyage from Plymouth to Australia and return in 1967, undertaken when he was not in good health and without aids such as GPS or modern auto steering systems.

BY HARRY MEDLICOTT

He sought to emulate the feats of the giant sailing clippers that sailed between Great Britain and Australia, braving the perils of Cape Horn and the fierce conditions existing in the Southern latitudes not that far from Antarctica. Upon returning to Great Britain he was knighted by Queen Elizabeth II, using the same sword that Queen Elizabeth I used to knight Francis Drake. As a supreme example of courage and perseverance, it was a moment in history worth savouring.

What is less known is that he had flown a Gypsy Moth aircraft, a precursor to the more widely known Tiger Moth, to Australia many years earlier in 1931. Despite only having 100 hours, he undertook the rather ambitious aim of winning the title of the fastest solo pilot to fly from Great Britain to Australia, but was thwarted by engine problems. Persisting in his secondary aim, which was to fly solo from New Zealand to Australia, he then shipped his Gypsy Moth to New Zealand where he fitted borrowed floats. His aircraft lacked the fuel reserves to fly directly to Australia, so he planned to fly via Norfolk and Lord Howe islands.

### OFF-COURSE NAVIGATION

The legs of about 1,000km had nothing by way of intermediate way points to ensure he was on track. When I flew 1,000km to a goal in a Discus, pre-GPS, I navigated over a couple of hundred kilometres devoid of known landmarks by identifying a feature directly on compass track and also an intermediate feature. This gave me a line to follow and upon reaching the selected feature, I repeated the process. Nothing like this was available to Francis Chichester. Meteorological information at that time was meagre. Finding a small island in the empty Pacific Ocean is a formidable task. One doesn't want to think of the result if the target was bypassed.

Instead, Sir Francis used the principle of deliberate error, also known as off-course navigation. He computed a course to one side of his target, rather than directly to it. He had a sextant, compass, ASI, an accurate watch and not much else. Radio direction finding was in its infancy and not of much use. He pre-calculated the expected sextant readings at the time that would apply when close to his target. When using dead reckoning as well, he had hopefully reached the point that was the correct distance abeam his target, then turned and headed towards the island. It worked.

### USE IN THERMALLING

Perhaps unwittingly, we use similar principles to find thermals. In summer, cloud bases in Australia are often 8 to 10,000ft and in cooler weather 6 to 8,000ft. In winter in northern NSW and Queensland, it will be 3 to 5,000ft on a good day. We are often seeking to intercept a thermal core which can be 2,000ft or more under a likely looking cumulus cloud or perhaps a thermalling glider. If we fly directly under the cloud there is a very good chance we will miss the thermal, even if it is still working. If we find nothing useable we are faced with a dilemma. Should we push on or search around, perhaps fruitlessly, for the core? What is certain, assuming there is not a wind shear, is that the core will be in line with the wind direction in reference to the cloud. If the wind speed reduces with altitude then the thermal will probably lean downwind in contrast to upwind if the wind speed is fairly constant. The amount of upwind lean varies. If the thermal is coming from a strong trigger point then the amount of lean will be more than if the thermal is drifting downwind in relation to the

ground. All these variables can be catered for by using the principle Sir Francis Chichester used of deliberate error. Instead of flying directly at the probable core, we deliberately fly either upwind or downwind of the cumulus cloud and then fly directly towards it using the exact headwind or downwind direction that has previously been identified. By doing this, one can be pretty confident of contacting the thermal column or if nothing useful is found, one can press on knowing that the thermal is probably finished at the altitude we sought to intercept it.

A different situation exists if you are not flying much lower than a small developing cloud, or a larger one in an area that looks promising. As a suggestion, consider flying slightly to one side of the anticipated lift and make a turn where the lift is expected. If it is only a small thermal, you have a good chance of turning within the thermal or at least have the best chance of finding it.

### FLYING UPWIND OF TRIGGER POINTS

A similar principle applies when cumulus clouds are not there to help identify possible thermal sources. My speciality is flying longer flights. When starting as early as possible, usually about 10am, I prefer the first leg to have a quartering tailwind. Looking ahead, possible trigger points are identified and then the track modified to start just upwind of the trigger point. Then I fly with the wind directly behind me. Usually one finds better air even if a strong enough thermal is not yet present. Usually it is worth flying a kilometre or so downwind of the trigger point, as any thermal may have drifted. As soon as it is obvious that it is not worth progressing further, then it's time to fly to the next identifiable trigger point. This method will often continue for an hour or two until the night-time inversion is broken.

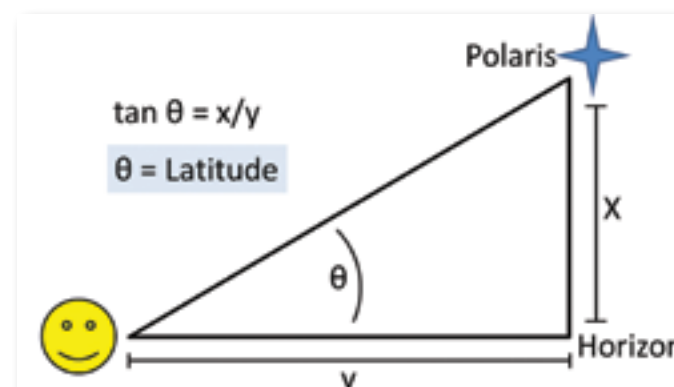
Pilots use the same principle when 'thermal stitching' a line of lift on a windy day when streeting is occurring.



A course is flown, perhaps 15 or 20 degrees away from the wind direction until the lift peters out. The pilot then changes direction to fly the same amount the other way. This should then take him through the line of lift until he again reaches the far side of the line and repeats the process. If the lift has petered out altogether then the pilot will either revert to track or fly diagonally to the wind direction and hopefully intersect another line of lift. Pilots have used this method to fly an into-wind leg on days of strong winds and no clouds for distances of 20 or 30kms without loss of significant height and very little actual turning.

Although not quite the same, when flying cross country by yourself on blue days with a modest crosswind it can be advantageous to turn upwind when intersecting an area of rising air and fly precisely in the wind direction, weaving a little to identify a lift pattern which might lead to a worthwhile thermal. So, perhaps unknowingly, we apply Sir Francis' pioneering use of deliberate error in relation to aviation. Perhaps give him a thought when next proposing a toast.

GA



Francis Chichester used dead reckoning - a combination of compass heading, estimated ground speed and time - to estimate his position and keep on track. His flight plan deliberately took him to the east of his destination, Lord Howe Island. He used a sextant while flying to confirm when he reached the latitude of Lord Howe. As he knew he was to the east, he simply turned west and 'ran the line' until he arrived.



PHOTO:  
Byrd  
Antarctic  
Expedition



# DIAMOND HEIGHT AT BUNYAN

BY GEOFF BROWN



I hadn't looked closely at the forecast and arrived at Bunyan around 10am. When I arrived at the airfield, the day looked as though it would be possible to get in a decent wave flight, but I wasn't particularly well prepared and didn't take a launch until around 12.30.

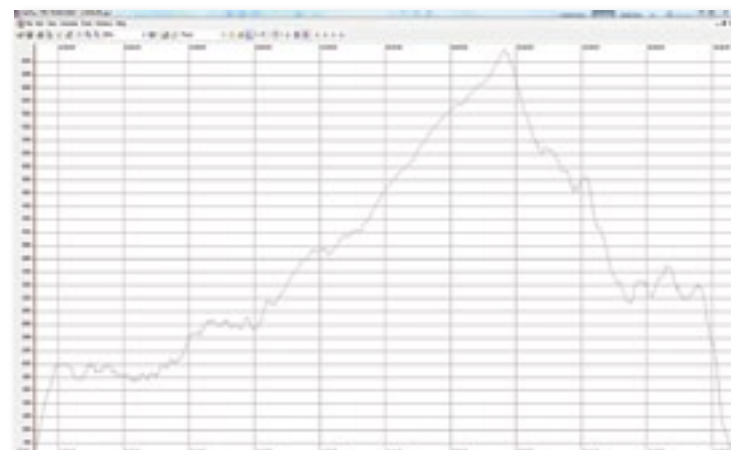
Several other people had launched earlier. Justin Fitzgerald flew to 481km on OLC for the day in his Ventus cT 17.6m.

Conditions on the ground were not too unpleasant with a WNW of about 20 to 25kts. I got off tow at about 4,000ft agl, which in retrospect was too early, and then struggled in the rotor and broken thermals for about 40 minutes. I then managed to contact some shear wave in front of the clouds and climbed to about 9,000ft.

I finally contacted the proper laminar flow at around 9,000ft and started climbing at an average of 2kts. I wasn't expecting a Diamond Height and was a little surprised as I continued to climb through FL150.

The climb rate started to increase from FL200 and I decided to terminate the climb just short of FL230 when I was still climbing at 3kts, mainly because of the airspace, the limitations of the O2 system I have and the fact I had no back up oxygen supply. I believe it would have been possible to climb higher on the day with a clearance, but I calculated that this was enough for a Diamond Height. After terminating the climb, I managed a pleasant tour around the area, taking in the sights of the Snowy Mountains.

I had a subsequent wave flight at Bunyan on 23 July where I climbed once again to over 20,000ft but concentrated on trying to get some OLC distance out of the flight. On that day, the wave was consistent and strong at 15 to 16,000ft and it was possible to do an 80km leg in good wave. I managed 370km at 207km/hr and Justin Fitzgerald managed 485km in his Ventus on the day. I believe that, in the right conditions, it would be possible to do a significant OLC flight out of Bunyan.



# WINTER AT BATHURST

BY GEORGE MARBOT



At Bathurst Soaring Club we have a Duty Pilot system where members are rostered to help with flying operations every weekend. On the weekend of 5-6 August it was my turn. As it was the middle of winter there was only one club flight booked so I was expecting a quiet weekend with instructors and few pilots sitting by the fire in the clubhouse.

On the Saturday the weather forecast was for a very cold air mass with strong westerly winds and some cloud cover to around 6,000ft.

John Jurrotte, the instructor of the day, and some other club members were at the airfield participating in a club-organised course on engine maintenance.

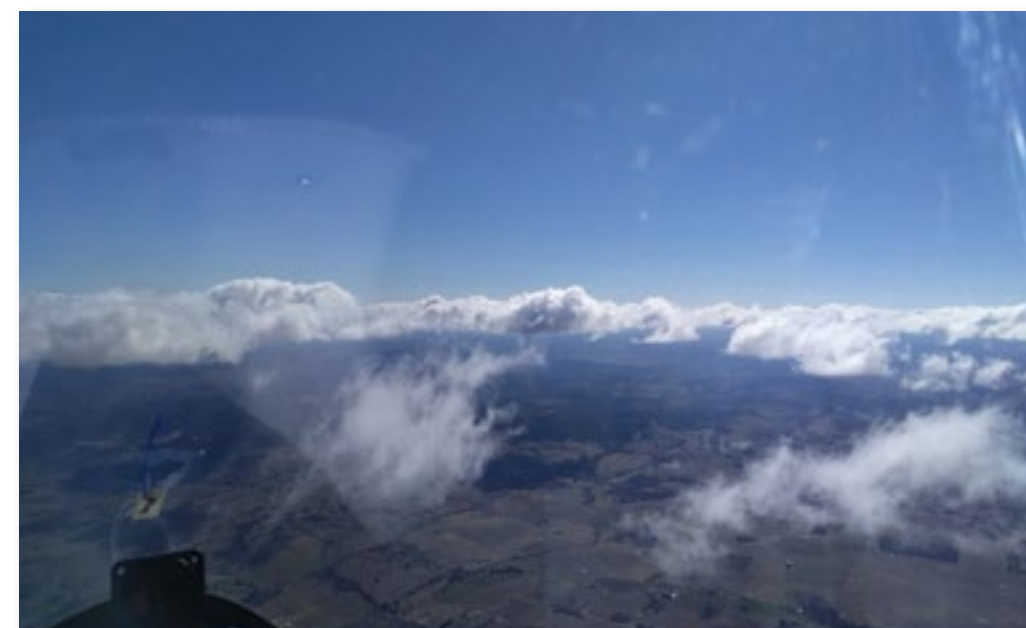
John and I talked about taking a flight in one of our clubs high-performance two-seaters, DG 505 or Duo Discus. It was windy and cold, but I needed to do my annual check anyway, so why not go for quick jaunt?

John and I launched in the club DG 505 into a very strong north westerly. We could see wave formations above but there were no thermals to climb in to reach them. So we kept on tow up to some 7,500ft. We pulled off straight into the wave and during the flight we climbed up to 11,500ft. We explored the wave for 2 1/2 hours of exhilarating soaring and absolutely enjoyed the flight.

Sunday did not look so good in the morning with a blue sky and hardly any wind. But later on at around 10am, the wind picked up and a similar weather pattern as Saturday unfolded. John and I shared another the flight and landed after 2 1/2 hours.

Bathurst Soaring Club has reduced the hourly charge for hiring a club glider by 50% for the winter months. So the cost of flying for five hours including two tows to a 7,000ft worked out slightly over \$30 per hour, glider and tow included.

By the end of the weekend I had flown over five hours in the depths of winter. Who says winter is not there to fly?





# 13.5 M A NEW WORLD OF SOARING



BY SEAN YOUNG  
PHOTOS COURTESY OF LAK, ALISPORT,  
ALBASTAR, GP GLIDERS

## NEW GLIDERS AT 13.5M WGC

At the 13.5m World Gliding Championships held in Hungary in July, new gliders were flown for the first time in a world competition, joining the mini LAK and Diana 2 Versus that flew at the first 13.5m WGC in 2015. This new class has replaced the earlier World Class that had just one glider, the PW5.

The original concept of a World Class was to make gliding and glider competitions more affordable and, therefore, more popular. However, the PW5 had limited success and has since been overtaken by later technological developments.

A combination of developments is bringing about what may turn into a revolution in glider design, as well as the style in which gliders are flown in the future. The development of new electric engines, both front and rear mounted, and small jet engines has increased the number of gliders that can and are being fitted with propulsion systems.

But perhaps more intriguing are the new glider designs from small innovative companies, developed from the outset with engines in mind, that are now coming onto the market.

During the recent 13.5m WGC, pilots around the world were fascinated to see how these new gliders performed. Piloted by the greats of the sport including Uli Schwenk (nowadays more often associated with gliders that have exceedingly long wings) and 12 times World Champion Sebastian Kawa.

At the Championships, six mini LAK, three Silent 2 Electro, two AS-13.5 and one GP-14 VELO joined two modified Diana 2s - Diana 2 VERS VS - in the air. At the end of the competition, Kawa had won his 12th WGC in the GP-14 VELO. Nevertheless, the mini LAKS took the next four positions, flown by pilots from three different countries.

As you can see in the photographs, all of these gliders are beautiful to look at but they may also open up the sport in unforeseen ways.

Here is a brief rundown of the technical specifications of this new batch of gliders.



## MINI LAK

Lithuanian manufacturer LAK's (Litovskaya Aviatsionnaya Konstruktsiya) most popular glider was the LAK 12. After a couple of company changes, LAK gliders are now made by JSC Sportine Aviacija ir Ko 9 (SAirKo), based at Pociunai, who have a long history in gliders.

SAirKo now make the LAK- 17 Mini commonly known as miniLAK, LAK-17B and LAK- 19.

The LAK-17 MINI is an FAI 13.5m Class glider made of hybrid composite materials including kevlar and carbon and glass fibre. The wing spar is made of Graphlite SM315 carbon rods and has a double T section. Each wing panel weighs 40kg with upper surface airbrakes.

One of the benefits of the new breed of smaller gliders is the ease of rigging and general ground manouvering. So, not surprisingly, all the all controls hook up automatically

and the glider can be put together in a few minutes.

It is built in three versions, starting with the LAK-17 MINI, a pure glider with a fuselage ballast tank.

The LAK-17 MINI T is a motorglider with a retractable self-launching system with a Solo 2350 engine. There is also the The LAK-17 MINI Front Electric Self-launcher (FES).

Max TOW 350kg  
Max Wing Loading 41.6 kg/m<sup>2</sup>  
Wing Area 8.41 m<sup>2</sup>  
VNW 250kph  
Propulsion System Weight FES 52kg, Solo 59kg

[www.lak.lt](http://www.lak.lt)

continued over page







### SILENT 2 ELECTRO

The Silent 2 Electro is the first self-launching glider incorporating the Front FES to go into serial production.

It comes with a 22kW brushless FES installed in the nose, powered by two purpose-built, rechargeable Lithium battery packs.

The manufacturers Alisport say that a typical self-launch will require a ground run of about 100m on a hard runway and 120m on grass. Launching uses about 20% of the battery capacity, leaving about 40 minutes of power available for use as a sustainer.

The two Lithium battery packs, which have a built-in battery management system and a combined capacity of 4.4kWh, are located behind the cockpit, very close to the centre of gravity. Weighing just over 15kg each, they are easily removed for charging.

Alisport claim a climb-rate of about 6kts for up to 15 minutes, and straight and level flight at just 4 to 5 kW for up to 60 minutes on a full battery charge.

Some pilots wonder whether this is enough, and certainly most non-electric engines have a longer power-on duration. But other pilots point out that it would be unusual to miscalculate a flight so badly that you end up needing more than an hour of motor power to reach home, with no thermals or other lift to be found along the way.

The glider has a maximum take off weight (MTOW) of 300kg, or 313.5 kg with the optional ballistic recovery system, and a stall speed of less than 35kts. Therefore it complies with the deregulated class rules in many countries including, for example, the UK Single Seat Deregulated (SSDR) category. The Silent 2 Electro is also sold as a kit.

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

### 13.5 M CLASS

Back in 1989 when the idea of a monotype competition class was first considered, a competition was held to develop the World Class glider. The goal was to select a relatively inexpensive glider to encourage growth in the sport.

The glider that was finally chosen in 1993 was the Warsaw Polytechnic PW5, mentioned above. The PW5 did have a following and several World Class WGCs were held. But the glider only gained general acceptance in a few countries.

The IGC later decided to broaden the World Class into a more generalised 13.5m class, aiming to encourage the development of a variety of low cost gliders. The first 13.5m WGC was held in 2015 in Lithuania.

It is not clear that competition gliding needs an additional class. Club Class has been successful at catering for competitors flying lower cost gliders that, when new, were highly competitive and still compete well today. There is a danger that 13.5 m class could come to be seen as a truncated 15m class for lower performance gliders.

However, some people in the gliding movement argue that the light weight of these aircraft combined with the development of electric rear mounted engines and FES provides an opportunity to develop and widen the appeal of the sport. By developing the class it may be possible to attract a different group of pilots into flying competitively at WGC level.

### DEREGULATED CLASS

In Europe, 13.5m aircraft belong to the new class of microlight gliders that are not subject to EASA conditions. For example, the UK has the Single Seat

Deregulated (SSDR) category. In some countries this also means that there are no CofA or complicated airworthiness requirements. This makes microlight gliders attractive to many people hoping to avoid the onerous and expensive conditions of operating an EASA type certified glider.

The legislation regarding deregulated aircraft currently limits the weight to 300kg plus 15kg for ballistic recovery systems. The legislation also requires a max stall speed of 35kts, which significantly affects the design parameters.

### NEW RULES FOR 13.5M CLASS AT WGC

The IGC has amended the rules for the next 13.5m WGC to be held in 2019. Entering gliders will be required to have electric self-launching capability. To take advantage of the possibilities presented by electric FES type installation, some new and innovative rules allowing the use of some motor energy during the race are being mooted. Pilots could use this energy to enhance their glide or to climb as they see appropriate. Another possibility is a Tour de France type race concept that uses multiple locations during a single championship.

The new IGC rules governing 13.5m WGC will be published later this year. It is probable that the current wing loading limit of 35kg per sqm will be retained. The aim is to ensure the class does not become dominated by cut-off Dianas or other models to encourage the development of lightweight self-launchers.

It seems likely that the new rules will be based loosely on the Sailplane Grand Prix rules with place or elapsed time scoring and possibly regatta starts.







### AS 13.5 M

Albastar is a Slovenian aircraft manufacturer that designs and manufactures gliders and light aircraft, and also makes parts as subcontractors for other manufacturers.

Producers of the A1 motorglider and the Apis glider, the company's current production aircraft is the Albastar AS self-launching glider, which is available in 13.5m and 18m versions.

### FES

#### FRONT ELECTRIC SUSTAINER/SELFLAUNCH

FES was developed by Luka and Matija Znidarsic at LZ Design in Slovenia. FES is a propulsion system with a foldable propeller, driven by a strong, compact brushless electric motor located in the nose of sailplane. Lithium battery packs fit into the fuselage in a similar position to an extendable motor. Lighter gliders such as those in the 13.5m Class are able to self-launch with FES. In heavier gliders it is used as a sustainer system.

### ENGINE IN THE NOSE

With the engine in the nose cone of the glider, when not in use, the propeller folds back nearly flush with the fuselage, thus creating virtually no extra drag.

LZ Design lists several benefits of the FES system including instant startup - no warm-up is needed. The propeller whirrs into action at the flick of the switch, and the RPM is controlled with a throttle.

Propulsion is virtually silent, without loud exhaust noise. It is a very reliable system that doesn't rely on fuel pumps, filters or spark plugs, or experience carburettor icing. It is also nearly vibration free, as the

Albastar collaborated with Pipistrel on the development of the Pipistrel Sinus motor glider. They still produce the Sinus wings as well as the wings for the Pipistrel Virus and Pipistrel Taurus.

The AS 13.5m FES first flew in 2013. It has a newly designed airfoil and flaps. It is fitted with a 23 kW FES for both launch and sustained flight. It has a swivelling tail wheel that can be operated using the rudder pedals and wheels on the wing ends that enable the pilot to manoeuvre on taxi. The highest climb speed is 2.6 m/s at a speed of 80 km/h. Like the other gliders in this class it can also be fitted with a Ballistic Recovery System (BRS).

Empty weight 200 kg  
MTOW 300 kg 313 kg with BRS  
VNE 121.5 kt  
Stall Speed 34.6 kt  
Minimum sink 0.62 m/s at 45 kt  
Max L/D 42 at 56.7 kt  
Take-off distance 170 m

[www.gliders-albastar.com](http://www.gliders-albastar.com)

only moving parts are the propeller and the motor's bearing and rotor.

### OSTIV AWARD AT WGC BENALLA

Two FES-equipped sailplanes flew at WGC Benalla and an OSTIV prize was awarded to Luka Znidarsic for the contribution his development of this simple electric-powered propulsion system has made to gliding.

### CHANGING THE WAY WE SOAR

FES and the other new simple-to-operate propulsion systems now in production offer tantalising new ways to make the most of the soaring day. Pilots report that because the propeller can be deployed so quickly, they are using it in different ways such as to gain extra altitude immediately after pulling off tow, as well as to avoid re-alights and retrieves.

Several glider manufacturers are now offering FES versions of their new gliders, including Schempp-Hirth, SAirKo who manufacture the LAK, HPH Sailplanes from Czech Republic, and Alisport from Italy who make the Silent 2 Electro - FES.



### THE GP14 VELO

GP GLIDERS are designed and produced by Peszke S.C. Poland.

The Peszke family have a long association with gliding. Jerzy Peszke, the grandfather of the current MD, was an instructor of Tomasz Kawa, the father of Sebastian Kawa, the new 13.5m World Champion and the company's technical advisor. [picture right]

The current company was founded in 2007 and is a producer of aviation products, including high performance propellers, light sport airplanes and gliders.

The GP14 Velo that Sebastian Kawa flew to victory in the recent WGC was the factory prototype. Deliveries of the first production GP14s are scheduled for the end of September this year.

The GP 14 VELO 13.5m will have a 25kW, retractable electric self-launching system (RESLS). The glider will be sold in two fuselage sizes, standard and slim.

GP also produce the GP 11 Pulse and the GP 15 Jeta, a 15m glider. All three gliders are designed for the UK Single Seat Deregulated (SSDR) category. The GP11 Pulse weighs just 120kg and the GP15 Jeta, fitted with a motor and battery, 185Kg.

The GP 15 Jeta has an aspect ratio of 29 with a wing loading range from 33-60kg/m<sup>2</sup> and an L/D of over 50:1. The GP11 Pulse, catering for clubs and early solo pilots, has a fixed undercarriage and no flaps, with a glide angle of 39:1.



VS: 65 km/h  
VNE: 146 kt  
L/D: 43 / 95-105 km/h  
G limit: +5,3/-2,65  
Wing loading: 32-60 kg/m<sup>2</sup>  
Wing area: 7.0 m<sup>2</sup>  
Aspect ratio: 26  
Empty weight: 175 kg  
Max. take-off weight: 425 kg (255 kg UL)  
Min. sink speed: 72-75 km/h (35 kg/m<sup>2</sup>)  
Min. sink rate: 0.51 m/s (35 kg/m<sup>2</sup>)  
Speed at 2.0 m/s sink rate: 177-199 km/h (35-55 kg/m<sup>2</sup>)

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

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# PERLAN INTO THE STRATOSPHERE

BY SEAN YOUNG AND PERLAN  
PHOTOS PERLAN PROJECT

In 1992 Einar Enevoldson, a former NASA test pilot, saw printed images of LIDAR scans taken of mountain wave formations in Sweden, indicating that they extended into the stratosphere, far higher than 50,000ft. Fascinated by this, he conceived of the Perlan Project named after Arctic stratospheric Mother of Pearl cloud.

After a great deal of work, aided by funding from American businessman Steve Fossett, Enevoldson and Fossett eventually achieved a new altitude record reaching 50,727ft in a converted DG-500 M at El Calafate, Argentina in 2006.

Due to the untimely death of Fossett the following year, further development on Perlan was halted for a

time. However, with the help of new sponsors including Australia's Morgan Sandercock, CFI of Hunter Valley GC, the project restarted.

## AIRBUS PERLAN MISSION II

In 2014 Airbus became a major sponsor and since that time the re-badged Airbus Perlan Mission II has progressed rapidly.

Windward Performance, manufacturer of the SparrowHawk and DuckHawk gliders with RDD Enterprises in Bend, Oregon have built the Windward Performance Perlan II glider, designed by Greg Cole, for the project.

The aim of Perlan II is to smash the altitude record set by Perlan I and reach an altitude of 85,000ft or more, beating the altitude record set by the American military jet 'Blackbird' SR-71 in 1975.

The aircraft, made from composites, has a wing span of 25.55m and a high aspect ratio of 27:1. The pressurization system produces an 8.5 psi differential, although the two-person crew wear pressure suits for safety. The glider is designed to operate at extreme altitudes in only 3% of sea level atmospheric pressure, where its true cruising airspeed will be in excess of 0.5 Mach or 617kph.

The design required high-end design, analysis and construction to be flutter-safe at very high true air speeds, and strong enough for the potentially heavy turbulence that could be encountered at 90,000ft.

Morgan Sandercock and the Perlan team are in Patagonia at El Calafate flying missions this southern winter. The following is a rundown of how the project has been going at the time of going to press.

## PATAGONIA WAVE TO 32,500 FEET

On 31 July, it was the Logistics Coordinator Tago De Pietro's birthday and all he wanted as a present was a world record. But it was not to be. The Chief Pilot Jim Payne knew that the weather would likely support weak wave and the early morning weather balloon launch indicated a weakening wave formation at 29,000ft. But they needed the practice and the altitude check for their upgraded flutter telemetry, and their cold, soaking wet equipment also needed testing.

Jim Payne and Morgan Sandercock launched at 10.54. Alec commented that some of the wing running felt icy. Towing behind the Boero was steady to 10,000ft and although wave was available, it was weak as expected. Nevertheless, Jim and Morgan persevered to 32,500ft in 1-2 knots average lift.

## SECOND WAVE TO 32,500 FEET

On 3 August 2017 the Perlan Team was treated to nacreous clouds, highlighted by the rising sun to the east. These clouds have a pearlescent appearance resembling Mother of Pearl, the origin of the word Perlan. Because they form at extremely high altitudes, the team was delighted to see them.

From the weather balloon data, they expected good wave below 25,000ft but it was not clear what would happen above that. The wind diagram showed that the winds reduced from 25,000 up to 30,000ft, which is not a desirable trait for wave to propagate higher.

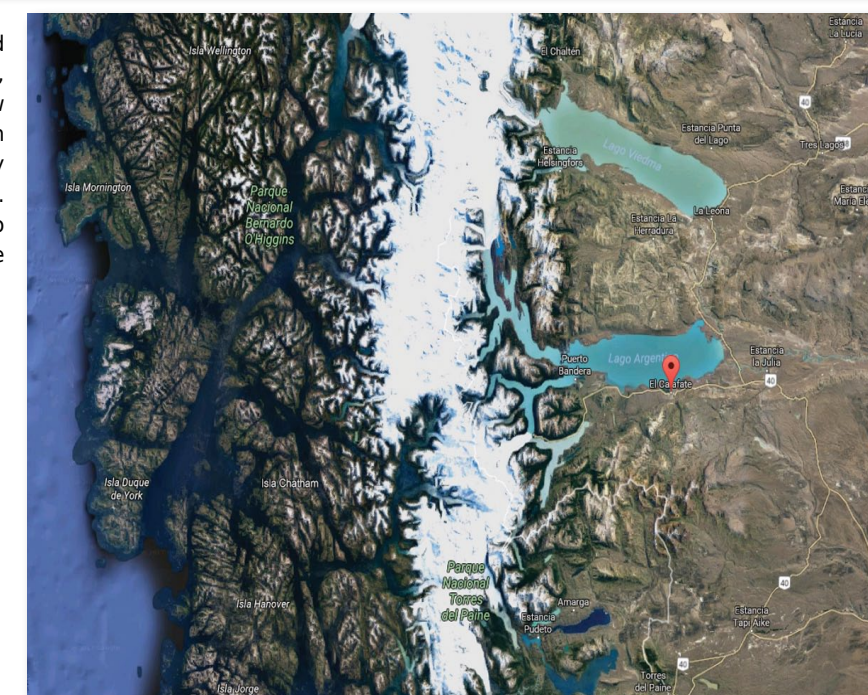
Studying the SkySight forecasts indicated that the afternoon had a slightly better wave profile, so Chief Pilot Jim Payne and Miguel Iturmendi, the Flight Test Engineer, launched the Perlan II at about 1pm. Their tow pilot Cholo towed them to Cerro Buenos Aires on the west end of Lago Argentino. When they released at 9,700ft they had 7-8 knots of lift. Because this was the best lift they had seen so far, they were very hopeful of making it past the tropopause at 30,000ft.

LEFT TOP: Perlan Chief Pilot Jim Payne and Morgan Sandercock over the Andes on their 32,500ft flight.

LEFT BELOW: The view from the one of the viewing panels. Because the glider is pressurised and designed to reach 90,000ft, a perspex canopy is insufficient.

TOP: Morgan and Jim board the specially designed Windward Performance Perlan II.

RIGHT: Perlan are flying from El Calafate, Santa Cruz Province on the Argentinian side of the Andes.







dropping off to less than 1 knot. So, after 4.5 hours of extremely cold flying, they returned to El Calafate airport. To descend, they flew a constant bank turn with a strong tail wind, resulting in a flight trace that looks like a corkscrew.

The Perlan Project team have been in Argentina since the first week of July and plan to stay for 10 weeks until the first week in September. Until then they will continue to test wave conditions, analyse flight data, collect weather information and, in particular for Morgan Sandercock, upgrade the telemetry systems.

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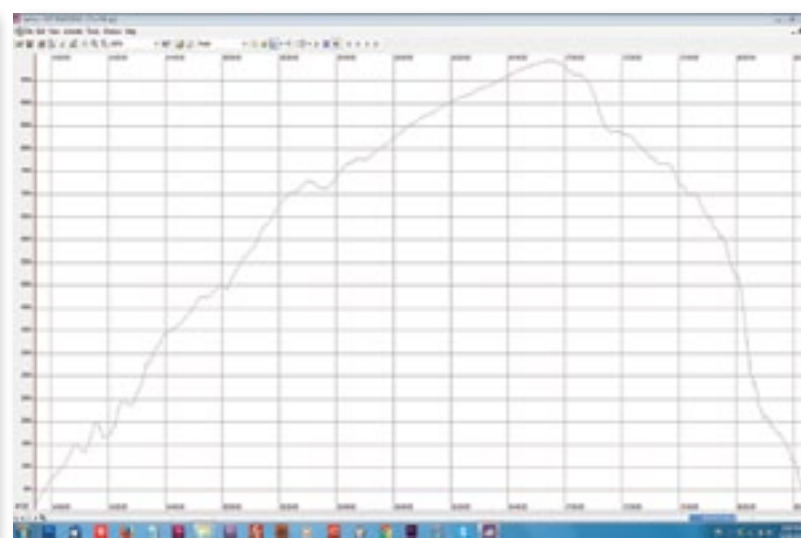
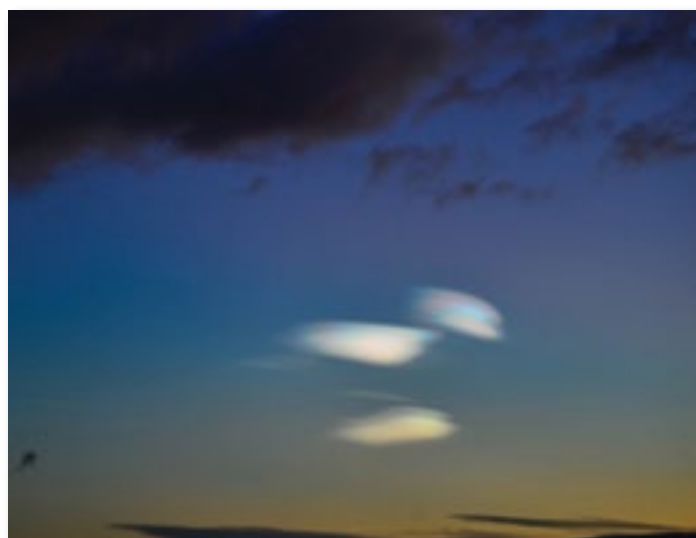
[www.perlanproject.org](http://www.perlanproject.org)

The clouds from the satellite photo did not indicate wave bars parallel to the Andes. Unfortunately the lift rates had softened considerably and failed to provide enough energy to climb higher. After using some altitude to search for stronger lift for two hours, nothing better could be found. They climbed back to 30,000ft but, again, found the lift

LEFT: The cockpit is pressurised but Morgan is wearing a pressure suit as a back-up measure.

BELOW LEFT: Nacreous Mother of Pearl clouds.

BELOW: The trace showing the climb to just under 10,000m on 31 July.



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# JUNIOR WORLD GLIDING CHAMPIONSHIPS



## ALLAN BARNES - TEAM CAPTAIN

Pociunai is an airfield just 40 minutes south of Kaunas, Lithuania's second city. It's a massive, roughly square field, mostly surrounded by pine forest. The Aussie team live in a small but nice three-bedroom, two-storey house in the forest, just 100m from where the gliders are tied down.

The weather has been very poor to average. We have achieved seven scoring days in Club Class and eight in Standard Class out of 12 possible days.

Tasking has always attempted to maximise, or exceed, the theoretical maximum possible flight distance. This has meant that most days have had mass outlandings, with the exception of one day where a chance alignment of conversion lines meant that most pilots completed the task. In fact, there have been more outlandings than returns to the airfield. Only 44% of landings in Club Class and 48% in Standard have occurred back at the airfield.

Outlanding options are terrible over most of the tasking area. When we first arrived, almost no fields were clear at all. Crops are mostly wheat, oats, rapeseed and maize. However, in the two weeks probably 10% of these have been harvested. Some grass fields are located next to farmhouses, but at regular intervals these are filled with concrete blocks used to tie cows to, so that no fences are required.

The terrain is mostly very undulating. A flat field is rare, with most having multiple rises and falls within a typical 200-300m length. This is apparently due to the glacial moraine that was deposited here as the ice retreated at the end of the last ice age. There are also plenty of large and small forests and lakes just to spice things up a bit.

This comp has also been a technology watershed. We now have FLARM tracking systems using a network of ground-based receivers that show every glider's position, climb rate and height on a public web browser in real time. You can display a sorted list of all pilots by current height, updated every second, height AGL, climb rate, and so on. It is now normal for every team to guide their pilots into the strongest climbs ahead. "The climb is 4kts, 1.2km at your 11 o'clock, etc", or "CX is just starting to turn, 5km ahead and 1,000ft below. The thermal is coming off the big factory near the lake". We have found that this works even when the previous pilot to climb there

PHOTOS BY: Paulius Grigalina, Ona Krygeryt and Vismant Ruzgait.



has left half an hour ago - the thermals regenerate so regularly. However, it is a fundamental and, in my opinion, undesirable change to the sport. Those with the most experienced ground crew now have a huge advantage, and pilots leaving early can not possibly escape the notice of every other pilot. If they have a good run the others will follow the identical path, if not, the others will choose a different track.

OPPOSITE, TOP: The town of Pociunai.

OPPOSITE, BELOW: Reuben Lane with Andrew Horton from Balaclava on the grid.

ABOVE: Dylan Lampard preparing for launch.

BELOW: The Australian Team: Dylan Lampard, local crew Kotryna and Jonas, Matt Gage, Ailsa McMillan, Andrew Horton, Allan Barnes and Reuben Lane.



## DAY 1 - OFF TO A GOOD START

Well, a solid outcome for all our pilots on Day 1. There were quite a few landouts, but fortunately none of our pilots were among them. Dylan had a great run most of the day but was caught out by one low spot at the extreme remote corner of his task, which cost him a large amount of time. Reuben had a solid day, keeping up with the gaggles most of the way round but venturing out alone for a good chunk of the 3rd leg, which slowed him down. Ailsa also had a mixed bag, starting maybe a little too early but recovering well and playing a conservative finish where some only just scraped home. All in all a good outcome for Day 1 of the Worlds. Day 2 has just been scrapped - the CAPE forecast below shows why.

ALLAN BARNES



continued over page



## DYLAN LAMPARD STANDARD CLASS - 6 AUGUST

So much happened in such a short flight today. We ended up launching on a 1:30hr AAT with a minimum distance speed of approx 75kph. The plan was minimum distance and just get around.

However, a stonking convergence was heading for the first turn point. All of the class started as the gate opened and we blasted along the street. This line was easily the



best weather I have had over my three years in Lithuania. But it took a turn for the worst when it took a large left turn off track for the first turn. It then got even worse when it stopped working and the entire class got low. The weather conditions off of this convergence were nearly unsoarable, so once we were off, it was extremely difficult to stay airborne.

We were all well south of the first turn, trying to climb in 0 to 1 knot climbs at below 2,000 feet. To add to the issues, a strong wind was blowing us further south of the first turn and also pushing us into the forest.

Most of the class ended up outlanding at this point. I managed to stay airborne for about another hour before I finally plonked into quite an interesting field about 200m long with a nice large hill, trees on final approach and a power line across the middle to add to the excitement. It made an exciting end to an interesting flight.

Sadly, eight pilots managed to scrape around minimum distance, which means the day is a valid day for us in Standard Class. Even more annoying is the fact I did over 100km but only got scored for 30km on task as I bypassed the first turn while on the convergence... I did, however, reach the second turnpoint, but turns out it doesn't count if you don't hit the first turn beforehand.

TOP LEFT: Ailsa takes a flight in a primary glider on one of the several no-competition days.

LEFT: Matt Gage at Aussie Base.

ABOVE: Dylan in a field - not a paddock. On most contest days, only a minority of gliders landed back at the airfield.



## 90 Years of Alexander Schleicher Gliders

BY BERNARD ECKEY

The world's oldest glider manufacturer is turning 90. Not only are Schleicher's 125 employees celebrating the event but longstanding suppliers, loyal customers, research institutes and aviation authorities are also combining their congratulations with a heartfelt "Thank you" for many decades of trustful and pleasant cooperation.

### THE COMPANY'S EARLY DAYS

The company's founder - Alexander Schleicher - established the business in 1927. He based it at Poppenhausen near the famous 'Wasserkuppe' mountain, well known in gliding circles as the birthplace of our sport. At first the young company focused on the construction of wooden sailplanes, which were designed by a number of well known external experts. Back in 1951 Alexander Schleicher laid a cornerstone for today's business by employing in-house designers on a full time basis. Pioneers like Rudolf Kaiser and Gerhard Waibel are names indelibly connected with this era. Their unrelenting drive to break new ground, push the limits of performance and improve aircraft handling has made them household names in gliding circles. Their successful designs have dominated the gliding scene for decades and the resulting flood of orders forced Schleicher to expand rapidly. More than 9,500 gliders and motorized sailplanes have since been delivered to enthusiastic pilots and gliding clubs alike. They have turned the dream of flying into reality for countless people around the globe.

In 1969 the management of the company was passed on to Winfried and Werner Schleicher and in 1993 Edgar Kremer carried the company forward along the lines of Alexander Schleicher's original vision. Today the company is already led by the third generation of Alexander's grandsons, Peter and Ulrich Kremer and it continues as a strong and highly successful family enterprise, still located at the original site.

### A NEW BROCHURE TO MARK THE ANNIVERSARY

To coincide with the 90th anniversary, a new 28-page

brochure was released. It is now also available on the Schleicher website and apart from information about the people who design and build aircraft it includes an interesting insight into modern glider production.

[www.alexander-schleicher.de/en/90-jahre-alexander-schleicher-segelflugzeugbau/](http://www.alexander-schleicher.de/en/90-jahre-alexander-schleicher-segelflugzeugbau/)

The brochure also underlines Schleicher's tradition of manufacturing all essential components in-house. This approach not only allows maximum flexibility and the best possible quality control but also ensures a trouble-free spare parts supply well into the future. Many of the gliders built during the company's early history are still flown regularly to

ABOVE: Most of the 125 strong team behind a brand new ASG 29 Es.

BELOW: Present and past management.

continued over page



## 10TH FAI JUNIOR WORLD GLIDING CHAMPIONSHIPS 2017 POCIUNAI, LITHUANIA

30 JULY - 12 AUGUST 2017

### CLUB

1 JULIAN KLEMM	GERMANY	STD. LIBELLE	5,545
2 PAUL ALTRICHTER	AUSTRIA	LS 4	5,448
3 STEFAN LANGER	GERMANY	STD. LIBELLE	5,256
14 AILSA McMILLAN	AUSTRALIA	STD CIRRUS	4,428
22 REUBEN LANE	AUSTRALIA	LS1 F	4,155

### STANDARD

1 SJOERD VAN EMPELEN	NETHERLANDS	LS 8	5,976
2 IGNAS BITINAITIS	LITHUANIA	DISCUS 2A	5,938
3 JORIS VAINIUS	LITHUANIA	LS 8	5,933
21 DYLAN LAMPARD	AUSTRALIA	DISCUS 2A	4,799





ABOVE: ASG 23 with electric propulsion in action.

this day and are receiving prompt support or spare parts without first parting with an annual service fee. It demonstrates this strong focus on quality and long-term customer support quite impressively.

#### WORKFORCE LOYALTY A KEY TO TOP QUALITY

Even in the 21st century the production of gliders has almost nothing in common with mass production – another fact impressively underlined by the new brochure. More than ever before the dedication of a loyal workforce is imperative if only top quality aircraft of the highest possible standard are to leave the factory. An unusually large number of employees spend their entire working lives at Schleicher. Their know-how has turned into a treasure trove for the company and their decades-long skill refinement is ultimately the reason for the unique fit and finish, the durability and the reliability of the final product.

Cooperation with aerodynamic research organisations ensures that the entire fleet retains its competitive edge it is imperative to push the limits of what is feasible, optimize and improve existing designs, go into previously unknown directions and keep looking forward. For these reasons, highly qualified in-house aerospace engineers are constantly extending their know-how and expertise by a close cooperation with the world's leading aerodynamic research organisations. Martin Heide (ASH...) and Michael Greiner (ASG...) have developed gliders that are in great demand today, partly due to their innovative designs and their attention to detail and partly due to their dominant role on the competition scene. Other members of the development team are acting as generators and converters of ideas into reality. It is therefore no wonder that the entire team has earned a reputation as forerunners when it comes to the application of new materials or new manufacturing techniques.

#### WHAT'S NEW?

Resting on its laurels has never been an option and a constant investment in new models or innovative technologies is a long-held company tradition.

Fitting an optional electric propulsion system to the new 20m two-seater ASG 32 is only one of many examples. This environmentally friendly drive system combines extremely simple operation with previously unthinkable low noise emissions. The Lithium-Ion battery weighs only 68 kg including its metal housing. Its location in the engine bay

makes it easily accessible and it also ensures that a full load of water ballast can still be carried the wings. The battery powers the vibration-free 25 KW motor for 20 minutes and allows a climb rate of 3-4 knots – even with two people on board. When using the saw-tooth method pilots can rely on a range of 100 km – more than enough for cross-country flying with ultimate peace of mind. Operating this new propulsion system could not be easier. At long last clubs now have access to a motorised 2-seater that even low experience pilots can safely operate without risking issues due to less than perfect petrol engine management.

But the innovations don't stop there! Recently the new retractable

and steerable tail wheel was patented to Schleicher and this optional extra has already proven very popular among early ASG 32 customers. It not only allows easy taxiing but thanks to its cleverly arranged undercarriage door it also makes for the aerodynamically cleanest fuselage on the market. It contributes to superior high-speed performance compared to other gliders in 20m class.

[www.alexander-schleicher.de/en/flugzeuge/asg-32-mi/](http://www.alexander-schleicher.de/en/flugzeuge/asg-32-mi/)

Apart from featuring the renowned Schleicher safety cockpit, the ASG 32 is also the only 20m two-seater that satisfies the very latest CS 22 design rules. These new crashworthiness requirements stipulate that occupants must remain protected within a stiff safety cell if a 9 g (formerly 6 g) crash landing occurs.

The option to paint this new aircraft in colours other than white is another step forward in terms of safety enhancement through improved visibility.

#### ASG 29 REFINEMENTS

The ASG 29 remains a best seller with production figures approaching 330 but that hasn't stopped Schleicher from developing a new version with electric starter motor and releasing a Competition package. Especially cross-country pilots appreciate that diving the glider for an engine start is finally a thing of the past. For an in-flight engine start with the new starter motor, pilots sacrifice as little as 45ft and can climb away under full power within 12 seconds. In addition to starting the engine, the starter motor also takes over the propeller brake function and vertical positioning of the propeller during engine retraction. Consequently the pilot's workload is reduced to the activation of one switch in the cockpit. This most user-friendly system on the market greatly contributes to the aircraft's ongoing popularity.

The Competition package ensures that the ASG 29 remains the top gun in 15 and 18m classes. It is available as an optional extra and consists of the following:

a) A more streamlined tail wheel fairing (for operations on sealed runways) b) Fairings behind attachment point of rudder cable c) Profiling of fin and tailplane d) Smooth transition between Perspex and paint on canopy frame e) Sealing of canopy frame f) Transition-free application of registration letters and decals g) Recessing of lateral Mylar seals on engine bay and undercarriage doors.



All future ASG 29 (and all ASH 31) will leave the factory with a modified boundary layer control system. Recent research has established that it not only provides a very welcome performance enhancement but also improves the glider's agility and handling. Extensive testing and in-flight comparisons have since confirmed the expected performance gains.

#### THE EVERGREEN

Even after more than a quarter of a century of production the docile ASK 21 remains the world's favorite trainer. Its production figures are fast approaching 1,000 and its certified service life of 18,000 hours makes it by far the most economical trainer in the medium term. The motorised version is adding to its popularity and the trend towards training new pilots in a self-launching glider continues unabated. Schleicher has heeded the worldwide call for an increased maximum weight in the rear seat. So far the ASK 21 was limited to 110 kg in both front and rear seat but now a certification of 130kg in one of the seats has been granted. The necessary structural reinforcements have already become standard for all new ASK 21 and the total maximum cockpit load is 220kg. This modification is seen as a major step towards allowing larger instructors to continue their valuable service to the gliding movement.

#### OPEN CLASS FEELING IN THE ASH 31 MI

Developing a new self-launching glider, incorporating the aerodynamic features of the ASG 29 and making it available in 18m and 21m configuration has long been a request of many loyal customers. By doing so Schleicher effectively created a new class but with its 21m wingtips the ASH 31 Mi has repeatedly proven that it can match it with larger wingspan Open Class gliders. More than 170 ASH 31 have already left the factory and many other customers are patiently waiting for theirs.

Another reason for the aircraft's popularity is its modern drive unit featuring a powerful rotary engine based on the Wankel design. It is renowned for its absence of vibration, its

reliability, its compact design, its excellent power to weight ratio and its ease of operation. All self-launching Schleicher gliders come equipped with this engine and production figures are fast approaching 600. The latest version features a fuel injection system, which – in combination with a tailor made propeller - has significantly boosted power output. The simultaneous integration of an electronic engine control system with automatic altitude compensation has made engine management even easier. No doubt, this drive unit represents a big step forward compared to conventional 2-stroke technology of yesteryear.

#### NEW OPEN CLASS 2-SEATER

It might have taken a long time to develop the all-new ASH 30 Open Class 2-seater but it is now in full production. The significantly enlarged cockpit is only one of many improvements and if the feedback of owners and pilots is anything to go by, the aircraft is another brilliant piece of aeronautical engineering by designer Martin Heide. Most noticeable of all is the combination of a vastly improved high-speed and climb performance with a previously unknown agility in the air. All in all, a worthy successor of the trusty ASH 25 best seller.

#### OTHER INNOVATIONS

The fact that the latest generation of batteries provides double the capacity at less than half the weight has prompted Schleicher to obtain approval to equip their entire range of gliders with LiFePo4 batteries. Among other advantages, this capacity increase allows the installation of cleanly integrated LED flashlights in the leading edge of the fin. Given that the latest LED technology is almost as powerful as conventional strobe lights, and given that they only consume a small fraction of the power, customers can combine both these innovations to enhance visibility and increase safety.

Even in their wildest dreams the company's founder would not have imagined what sailplanes looks like today, what performance gains have been achieved and what these modern gliders are capable of. Aren't we lucky to live in exciting times like these?



## HOKKAIDO GLIDING PARADISE

BY VINCENZO PEDRIELLI

Where do Japanese go flying gliders? "On river banks!" But what if the river overflows? They take a break ...

I recently visited the city of Takikawa (Okkaido), which houses one of the most important gliding clubs of Japan, the Skysport Association of Takikawa (SATA).

The Takikawa airfield is about 100km from Sapporo and is located on the Ishikari River. The Club was founded in 1989 as the only gliding school in Japan, and now has more than 200 registered members.

The Club owns ten modern gliders, and 20 private gliders are available that the Club can rent. They also have a fair fleet of vintage sailplanes including a Minimoa, a Steinadler MG19, a Condor, a Weihe, a Gö4, a Hagiwara

H23C-3 and a Hato Japanese original primary glider. I had the opportunity to make a nice flight in the two-seater Steinadler MG19 and enjoyed the landscape surrounded by mountains still covered with some snow.

The runway is 800m by 20m on asphalt and 1,400m by 200m on grass. Launches are made with a two-line winch, four Busio drums and two Robin DR400/180R tow planes. The Club has a workshop equipped both for maintenance of the gliders and for mechanical work on the powered planes. The clubhouse has a large briefing room, a library and a comfortable cafeteria. Also worth mentioning is the Takikawa Skypark Museum featuring vintage sailplanes, instruments and flying equipment.



Takikawa is particularly suitable for gliding with many thermals, convergences and frequent wave. The flying period runs from mid-April to mid-November. From December to early April, the runways can still be covered by snow.

I could conclude by saying that Hokkaido is really a paradise for gliding fans, with its wonderful volcanic scenery, its dry climate and the absolute lack of airspace restraints - and in addition it is not too far from Australia.



OPPOSITE, TOP PHOTO: Takikawa Airfield

OPPOSITE, LOWER PHOTO: Skypark Museum

THIS PAGE, TOP TO BOTTOM:  
The Steinadler MG19.

Vincenzo ready for his flight in the Steinadler.

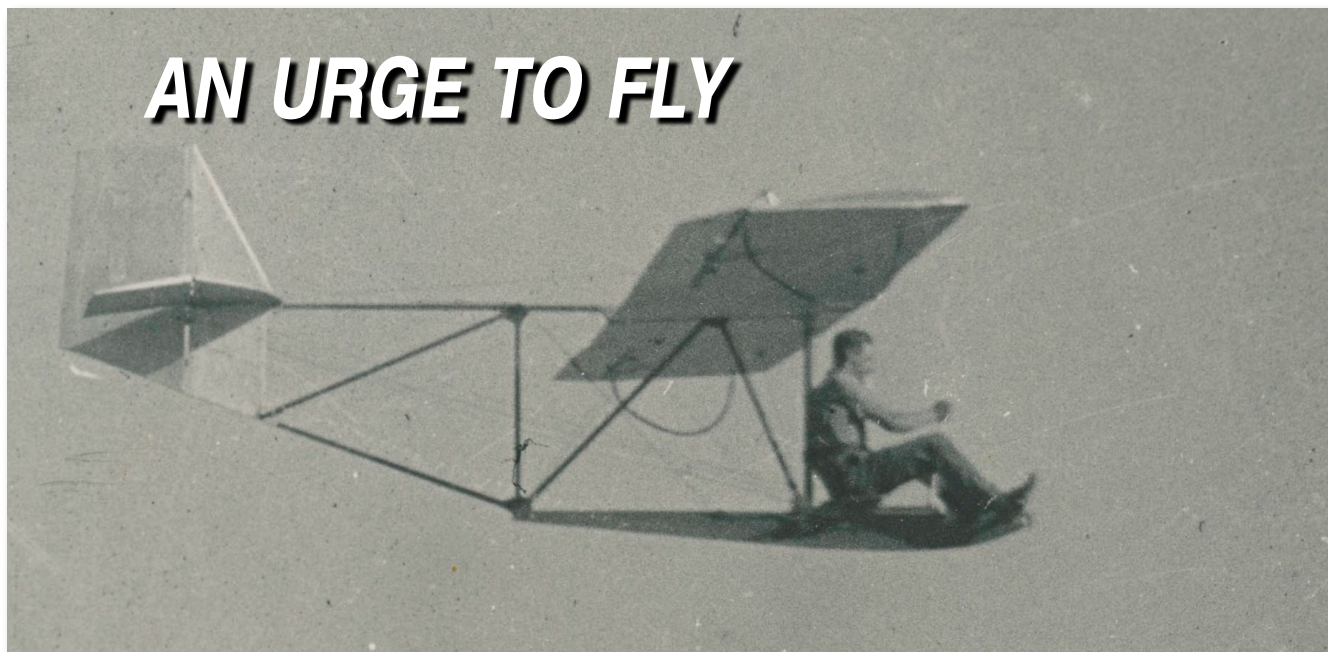
The stacked hangar.

Hagiwara 23-3C in the club hangar.





# AN URGE TO FLY



This is an extract [chapter 4] from 'An Urge to Fly', the recollections of Alan Menere 1915 - 2001.

## FROM THE FOREWORD

Alan moved to Bendigo while in his early 20s. There he met some like-minded young men who enjoyed challenges and matters mechanical. Flying was the adventure of the time, and they decided to give it a go.

The challenge was to fly, and by their own efforts. They were aided in this by the embryonic regulatory arrangements covering light aircraft construction and flying, a sense of optimistic can-do, and the cavalier estimation of risks that goes with being in your early 20s.

In his mid-60s, Alan retired to Port Stephens, fishing and socializing when he wasn't tinkering with wingsails for his catamaran. As he could touch-type, he quickly learned to use a computer.

Very aware that he was the last member of the Bendigo group still alive, he resolved to set down his flying experiences.

## THE FIRST CIRCUIT

On the way out to the field that morning I knew this was to be the day we had been working towards, the day when the glider would soar up beyond the point where we could land without completing a circuit. By now weaving along in a series of "S" curves had become automatic. There was no longer any skidding or side-slipping. We had no instruments, of course, but we could pick these departures from what was right by feeling the wind blowing harder on one side of the face. And, of course, we had plenty of critics on the ground.

Preparing for this big day we had earlier purchased a 1500 foot coil of new fencing wire. Ron was standing by when we called in to pick it up, waiting to see our reaction when we went to move it. He was not

disappointed. We could hardly lift it. Up to that time we had just added extra lengths to extend the towline without ever thinking of the total weight. From our original calculations we knew that the glider, complete with pilot, had a wing loading of about 2 pounds to the square foot. This compared, according to our reading, with about 4 pounds per square foot of the average light biplane. Taking the weight of the wire into consideration our wing loading was almost doubled. We had been aware of the wings flexing under load but had assured ourselves that the spar was just taking up the load, which we argued, was just what it should do.

We consoled ourselves that it only represented about a 50 per cent increase in weight. Denied any more scientific approach we envisaged the glider upside down with two hefty helpers sitting on the wing tips. Without resorting to this test we were confident that it would hold together. Our confidence was not misplaced, particularly when a couple of months later, Ron reported that on one tow the glider had lifted the back of his car a foot off the ground. As nothing had given way we assumed that our calculations were flawed or that wing loading figures had a big built-in safety factor.

But all that was in the future. Today was going to be a special day. Best of all, Hain and I took it in turns to fly and this was my turn. Our full 1500 feet of wire was stretched out. The towcar looked a long way away. The sun was shining and the wind was coming straight down the field at about ten miles an hour.

That was enough to give aileron control so no helpers were needed to hold up the wingtips until the glider got under way.

The safety belt was tightened, the usual signals given, the towline took up the slack and the glider started to move forward. The usual drill was followed, take-off when the first pulse on the towline indicated the car had moved into second gear, wait for the next pulse meaning top gear had been engaged and that was the signal to ease back the stick and experience again the thrill of seeing the horizon dip down as the blue sky beckoned you up. This time there was to be no slackening off half way. It was up and up and up. Because of the angle at which the glider was climbing it was not easy to look straight down but between my legs I could see the tow car heading towards the far corner of the paddock. We had calculated on gaining an altitude of about 1000 feet. This was three times as high as we had reached before. As the car approached the end of the run I eased the stick forward, tugged the release, and drew a deep breath. Now I was truly in a third dimension.

I had planned to make a gentle turn to the left over an adjoining paddock covered in scrubby trees known locally as "whipsticks". I extended my left foot on the rudderbar, no more than two inches, and held the stick over to the left. Obediently the nose started to swing round and the view of the horizon changed. Then the movement stopped, with the glider pointing about 45 degrees off the original line. This was not what it was supposed to do. I kicked the rudder hard left and heard it bang against the stop. I looked over my shoulder and there it was, hard over to the left. I don't know why but my eyes also took in a tuft of grass jammed on the end of the skid. They also took in the emptiness behind and below. Then I heard a voice. It was not one of the guardian angels we joked about. It came up from the ground 900 feet below, "Christ he's going slow", it said. For the first time I heard the silence. The wires that should have been singing were almost silent. There was no wind on my face. I had lost airspeed. This was a stall condition.

The couplet that had saved the necks of many pioneer flyers less than thirty years earlier may have flashed through my mind. "When in danger or in doubt, nose her down and pull her out." I did just that. The horizon flipped up and I was looking down on the scrub. I held the stick forward until the wind was literally howling. Then I kicked the rudder again to the left and pushed the stick about four inches in the same direction. The effect was instantaneous. The earth spun around and the horizon tilted madly. I had just made a "U" turn and the field lay ahead.

My worry now was just how far ahead. I had lost a lot of altitude in the past thirty seconds and looked for a more favourable landing ground than those whipsticks, some fire-blackened and vertical like an army of spears. My luck still held. I cleared the fence with the wind still howling in my ears. I was travelling half down wind and cutting across the track we had used for take-off. Straight ahead was a large patch of Scotch thistles. I thought I could reduce speed by touching down but on touching the ground the glider promptly bounced up twenty feet. Down again and this time into the thistles. They took my mind off worrying about crosswind landings, dragging me to a stop within fifty feet.



The ground crew arrived within minutes. Ignoring my immediate predicament in the thistles they stood on the edge of the patch and wanted to know what had gone wrong and why I had to attempt a near vertical bank on that first turn. I did not fly again that day. Hain made a couple of straight flights but mostly we just talked about what had occurred on that first circuit. We agreed that I was on the point of stalling and it heartened us that the glider had behaved so well with no sign of the vices manifest by so many of the more primitive aircraft. We also agreed that the rudder had been ineffective because of a near stall condition and that for the same reason, and because of the comparatively large area of the vertical fin in front of the rudder it just refused to come out of wind. Hain said he had read something about this sort of thing. He said it was called "weathercocking".

It was not long before all of our flights were circuits. No more trouble was experienced in turning out of wind. And we listened to the voice of the wind rather than those that came up from the ground. Our confidence was high, and now, unlike the days at Big Hill, it was based on experience. That there was an element of luck in our exploits we would not deny. Nor would we deny the shortcomings of our theoretical knowledge and our reliance on a pragmatic learn as you go approach. In the weeks ahead there was more satisfaction, fun and experience to be had. There were also moments to be remembered. Like the day when, after landing I noticed that the pulley that held the elevator wire in place had been badly damaged and allowed the wire to come away in my hand. This pulley was mounted on the skid and had obviously hit a rock. Whether that had occurred on take-off or landing will never be known. Then there was the day that Hain landed in another nearby paddock in the middle of a flock of sheep. Fortunately, they all ran in his direction as he came down and, like a well trained sheep dog he put down on their backs. They bounced in all directions but all were able to walk away. The glider suffered no more damage than strained landing wires. It was at this stage that we felt our urge to fly had finally been realised.

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ABOVE: Free flight, coming in to land. By now we regarded ourselves as experienced pilots. Sometimes, if we got a 'lift', we would go out over the trees and land in another paddock.

BELOW: Balanced on a log with enough wind to give us lateral and longitudinal control. Two or three hours of this and we were ready for a tow down the slope. 1938.





# ACTIVE INSTRUCTOR RETURNS

A report of instructors in each club was sent to each CFI in early August. CFIs have been asked to update the list by adding or removing instructors from the active list. Instructors who are taken off the list will have their ratings lapsed. Lapsed ratings can be reinstated with the consent of the RM/O as per MOSP2, Section 9.3.8.

## List of Operations Department Documents and Forms

A list of current and superseded operational documents and forms is now available from the GFA Documents library at this link: <https://tinyurl.com/y6v5mhpl>. Copies of cancelled and superseded documents and forms that members may hold should be destroyed, as they no longer have any authority.

## OAN 02/12 (Revision 1) Annual Flight Reviews

Since the early days of flying both stalling and spinning have been major causes of aircraft handling accidents, but an economic design solution to the problem of spinning has not yet been found. It is therefore incumbent on all instructors to spin-proof our pilots. The GFA requirement for refresher training at each AFR is intended to reinforce the primacy of correct control inputs so that such are automatically used. At the June GFA Operations Panel Meeting an update was made to Operations Advice Notice No. 02/12 to reinforce this. The OD can be viewed at this link: [tinyurl.com/ydb6wdpr](http://tinyurl.com/ydb6wdpr)

For further information on accidents, safety, threat and error management, personal limits, preparation, spin checks, error chains and dialogue on safety and training, the document at the following link makes good reading: <http://tinyurl.com/y88lbdao>. We recommend all pilots read this article in the lead-up to the next soaring season and reflect on their own vulnerabilities.

## INDEPENDENT OPERATIONS

At its June meeting, the GFA Operations Panel has agreed to amend MOSP 2, paragraph 13.1.1 to confirm that the only time a L1 Independent Operator cannot exercise the privileges of their endorsement is when operating at a site where a Level 2 Instructor is actively supervising the gliding operations. If the operation is not being supervised by a Level 2 or higher instructor, even though a person holding a level 2 instructor rating might be present, a person holding a Level 1 Independent Operator endorsement may exercise the privileges of that endorsement subject to any conditions stipulated by their CFI. This is not a change but a clarification.

## Fuel Management

Investigation of a recent fuel exhaustion incident in a Pawnee during aerotow activities revealed that despite the pilot completing fuel checks, things can still go wrong. In this case the pilot checked the fuel level while the aircraft was on a slight incline, which led to an erroneous reading of available fuel. Due to the shape of the fuel tank, visual inspection of the fuel level is NOT a reliable method of determining fuel level unless the tank is filled to capacity when the aircraft is parked on level ground. A contributing factor was that the aircraft had not been fully refuelled before operations commenced.

Fuel checks should ideally be conducted on a level surface.

In aircraft such as the Piper Pawnee it is difficult to determine the remaining fuel level by visually inspecting the fuel tank.

Tow pilots should start the day's towing with full tanks, keep a record of the number of tows and time flown, and refuel early rather than late.

In aircraft with recording tachometers or an engine hour meter connected to an air pressure sensor and switch, keeping track of tachometer or meter time is a useful aid to fuel management.

Fuel exhaustion incidents are most likely after a change in pilot when the relief pilot has taken over an almost empty aircraft. It is therefore good airmanship to check the fuel state by reference to at least two separate methods of fuel management upon changing pilots.

GFA recommends pilots carry no less than 30 minutes of reserve fuel.

## JUST CULTURE

While writing these notes I received an email from Sidney Dekker, the CFI of the Warwick Gliding Club. Sid provided me with this link to a good article on why a 'just culture' is necessary, [tinyurl.com/y9rg4h6g](http://tinyurl.com/y9rg4h6g). I urge all pilots to read this and to take note of the message therein.

## INSURANCE - MINIMISING LIABILITY CLAIMS

I occasionally field enquiries about the protections offered to members and Clubs from their insurance policies, especially regarding third-party liability.

Similar to any financial service, insurance advice must only be given by authorised persons. As I am not an authorised person, my response will be to read the insurance policy document and seek advice from your Broker or the insurer directly.

Good practice dictates that Clubs should consider ongoing risk assessment of their facilities under their Safety Management System and implement reasonable measures to remove any substantive risks, or face increasing liability exposure for injuries occasioned by use of the Club's facilities. This comes under the normal duty of care factors. A person is not negligent in failing to take precautions against a risk of harm unless the risk was foreseeable - that is, it is a risk of which the person knew or ought to have known - and the risk was not insignificant, and in the circumstances, a reasonable person in the person's position would have taken those precautions.

However, various State and Federal legislation provides that a person engaged in a 'recreational activity' is not owed a duty of care by another if a risk warning is given and if that risk that was warned about gave rise to an injury. Consequently, the key to successfully defending litigation brought by persons injured while participating in gliding, including all ancillary aspects, is that they understand they participate at their own risk because gliding is a 'dangerous recreational activity'.

Essentially, if a person is injured while participating in a 'dangerous recreational activity' they may be disentitled from bringing an action to recover compensation for that injury if it has been caused by the materialisation of an obvious risk inherent in that activity. However, it should also be noted that whether a defence under the various Federal, State and Territory laws can be successfully relied on to uphold a denial

of liability will always depend on the peculiar facts and circumstances of each case. It is not possible to extract a hard and fast rule - hence why we have insurance!

What this means for Gliding Clubs is:

participants should be given notice, either verbally or by (signed) contractual waivers before participating. Documents are better as they can be produced in Court;

waivers should only specifically exclude personal injury or death and not other types of damage; and

as the activity is dangerous or carries a risk of injury, significant or minor, that is how the activity should be advertised and notice of those matters shouldn't be hidden in the 'fine print'.

## THE GLIDER PILOT CERTIFICATE

In the lead-up to the June Operations Panel meeting the Regional Operations Panels were tasked with identifying the reason why many members have not yet claimed their Glider Pilot Certificate (GPC). The response was that many of our experienced members do not believe the GPC affords them any privileges that they don't already hold. This might be so for some pilots but those who want to exercise independent operator privileges must now hold a GPC.

Another benefit of the GPC is that it is an ICAO compliant document that is recognised by CASA for the issue of a Glider Pilot License for use overseas. There have also been cases where some overseas authorities have accepted the GPC as the basis for the issue of their own Glider Pilot licence.

In addition to independent operator privileges, the undermentioned endorsements are also recorded on your GPC:

- Carriage of Private Passengers;
- Controlled Airspace;
- Cross-Country/Touring (Self Launching Sailplane);
- Independent Operator;
- Low Level Finish
- Self-Launching Sailplane

There is no cost for the GPC and application can be made online at the MyGFA Services link: <https://tinyurl.com/y8nhnzok>

## GLIDER TOWING PERMISSIONS

On 26 June 2017 CASA issued GFA with an instrument of 'Permission, direction and exemption' (Instrument number CASA EX71/17) formally devolving the training and endorsement of tow pilots to GFA. A copy of the instrument is appended to the rear of the new Aerotowing Manual.

## THE IMPLICATIONS OF THIS ARE AS FOLLOWS:

All tow pilot training and assessment must now be conducted in accordance with version 4 of the Aerotowing Manual that is now available from the online Documents Library.

Tow pilots and CASA Delegates should now complete an application to convert their existing authorisations/endorsements to a new GFA Glider Towing Certificate. Application forms can be downloaded from the online Forms Library. At the time of writing over 100 tow pilots have completed the transition.

To exercise the privileges of a Glider Towing Certificate, tow pilots must hold GFA membership. Those who are not already GFA members may apply for 'Tow Pilot Membership' at a cost of \$15 per annum. Application for membership should be made prior to making the application to convert as the GFA

CHRISTOPHER THORPE

**Executive Manager,  
Operations**  
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membership number is endorsed on the certificate.

Tow pilot authorisations previously issued by CASA or RAAus will lapse on 24 December 2017. Tow pilots who do not hold a Glider Towing Certificate after this date will be unable to tow GFA gliders.

## PLEASE NOTE:

This new system does not change pilot licencing or medical requirements. Tow pilots must still be licenced or certificated to fly the class and design features of aircraft being used for aerotowing gliders and must comply with the conditions of their licence or certificate.

The GFA's BBL insurance policy does not cover tow pilots, as their risk is covered by the aircraft's insurance policy. Clubs should therefore ensure their tow planes carry sufficient liability insurance so as to protect the tow pilots.

Persons holding Tow Pilot category of membership cannot fly a glider or motor glider as PIC nor receive glider flying instruction. They can be trained as a tow pilot and may exercise Tow Pilot authorities except for towing with motor gliders. They can assist with club activities but are not required to be a club member and have no GFA voting rights.

The application to convert and associated documents may be scanned and emailed direct to [emo@glidingaustralia.org](mailto:emo@glidingaustralia.org) so long as the combined size of attachments in an individual email message does not exceed 20MBs.

RAAus pilots who want their towing endorsement recognised by RAAus must include a copy of their RAAus Certificate with their application.

In order to conduct towing operations with a GFA-registered motor glider, the holder of a Glider Towing Certificate must hold full flying membership to GFA.

Glider Towing Certificates have an expiry date that coincides with the expiry of the holder's GFA membership. When membership is renewed, a fresh Certificate is issued. A fresh certificate will also be issued when additional endorsements are granted. This is the same process we use for the Glider Pilot Certificate.

A bush lawyer type of pilot has queried the need for a GFA-issued Glider Towing Certificate when they already have a permission issued by the Regulator of the day. The basis of CASA's recent approval is that all towing must be conducted in accordance with the current Aerotowing Manual, and from 25 December 2017 only tow pilots who hold a GFA Glider Towing Certificate will be able to tow GFA gliders.

If anyone has any questions, please feel free to contact me....but please read the Aerotowing Manual first, as you will probably find the answer you are looking for is there.

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# AREA FORECASTS GO GRAPHICAL

## CHANGES TO LOW-LEVEL AREA FORECASTS COMING NOVEMBER 2017

The Bureau of Meteorology (BoM) will be changing the format of Area Forecasts from text based to graphical on 9 November 2017. The new format Graphical Area Forecasts will provide more useful and user-friendly data for glider pilots.

Over the last two years, GFA has worked with other sporting aviation groups, the aviation industry and BoM to transition from current Area Forecasts (ARFORs) to Graphical Area Forecasts (GAFs).

Many aviation users had requested that BoM transition to more intuitive graphical products, with less reliance on interpreting abbreviations and locations in long text strings. No, this does not mean plain language forecasts, but combining graphics with clearer text describing variations in conditions with location will be more user-friendly. These changes will also ensure GAFs comply with International Civil Aviation Organization's (ICAO) Annex 3 specifications.

The Bureau of Meteorology currently produces ARFORs for 28 areas across Australia. ARFORs are in a text format, with an overview detailing the general meteorological situation followed by sections giving more detailed forecasts of various meteorological parameters. ARFORs often have to describe zones where different conditions are expected, using text such as 'N or S of line joining YSWG-YSCB-YSNW'.

### THE CURRENT ARFORs WILL BE REPLACED WITH TWO NEW PRODUCTS FROM 9 NOVEMBER

#### GRAPHICAL AREA FORECASTS (GAFs); AND GRID POINT WIND AND TEMPERATURE FORECASTS (GPWTs).

Graphical Area Forecasts - GAFs. First, GAFs will provide information on weather, cloud, visibility, icing, turbulence and freezing level in a graphical layout with supporting text in a tabular format.

The GAFs will not only be quicker and easier to interpret but

will also allow greater flexibility when distinguishing between weather boundaries, allowing more detailed forecasts to be produced. For example, if a pilot was planning a route below FL100, a check of the image will give a visual indication of conditions expected. For more details on these conditions, the pilot would then obtain this from the relevant section in the associated table. Examples of GAFs are shown below.

GAFs will be produced for 10 areas across Australia. GAF areas will be NSW-E, NSW-W, NT, QLD-N, QLD-S, SA, TAS, VIC, WA-S, WA-N, instead of the area numbering format currently used. The vertical extent of GAFs will remain the same as the current ARFORs (surface to 10,000ft).

Grid Point Wind and Temperature Forecasts - GPWTs. Secondly, GPWTs will include wind speed and direction and temperature forecasts at specified heights above mean sea level presented in a gridded format. Low level GPWTs are now online in Aviation Forecasts - Aviation Charts at <http://www.bom.gov.au/aviation/charts/grid-point-forecasts/>

Low level GPWT charts will be at higher resolution, 1.5 degrees, with wind and temperature data for 1,000ft, 2,000ft, 5,000ft, 7,000ft and 10,000ft. They will be useful to glider pilots for flight planning purposes, such as selecting the best altitude for a particular flight. Pilots can interpolate data to determine winds and temperatures at any location between grid points, or at other levels and times than those charted.

For example, at Canberra Gliding Club at Bunyan, near the Snowy Mountains, the GPWT provides more accurate and relevant wind and temperature data than the data currently in ARFORs, developed for a much larger area of NSW. GPWT data is provided down to ground level AMSL, so high ground may have blank data at 1,000ft and 2,000ft.

Glider pilots will notice the following changes from 9 November 2017:

GAFs produced for NSW-E, NSW-W, NT, QLD-N, QLD-S, SA, TAS, VIC, WA-S, WA-N, from surface to 10,000ft.

Instead of the ARFOR 'Overview' text, GAFs will contain an image of the forecast area, divided into smaller areas with common characteristics of weather, visibility or cloud that change in a similar fashion during the period of the forecast.

Significant weather features such as troughs, fronts, tropical lows and tropical cyclones will be shown on GAF images, with their direction and speed of motion.

Detailed information about the conditions experienced within areas displayed in the image will be provided in a tabular format.

Validity periods will be standardised across Australia. GAFs will be valid for 6 hours, with two consecutive products issued at time of issue, providing a forecast for 12 hours.

GAFs will not be amended. Advice of an amendment for deteriorating conditions in a GAF will be solely in the form of an AIRMET and/or SIGMET.

Corrections will be made to GAFs for improvements in conditions, and typographical errors.

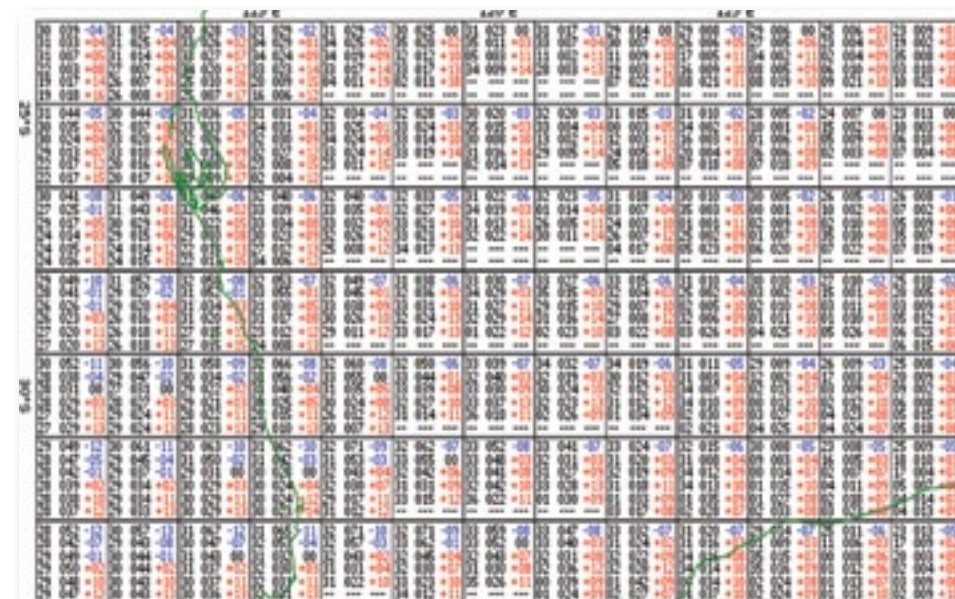
Low-level winds and temperatures will be provided in Grid Point Wind and Temperature (GPWT) forecasts for nine areas across Australia covering the domains of the GAF products.

Area QNH boundaries will be modified to align with the GAF boundaries.

These changes to ARFORs are part of a larger project at the BoM, with changes to SIGMETs and AIRMETs already implemented in 2016 to comply with ICAO Annex 3 specifications. These changes have led to the production of SIGMETs and AIRMETs with fewer typographical errors in a more standardised format, issued in a more timely manner.

These changed products and improvements will come into effect on 9 November 2017.

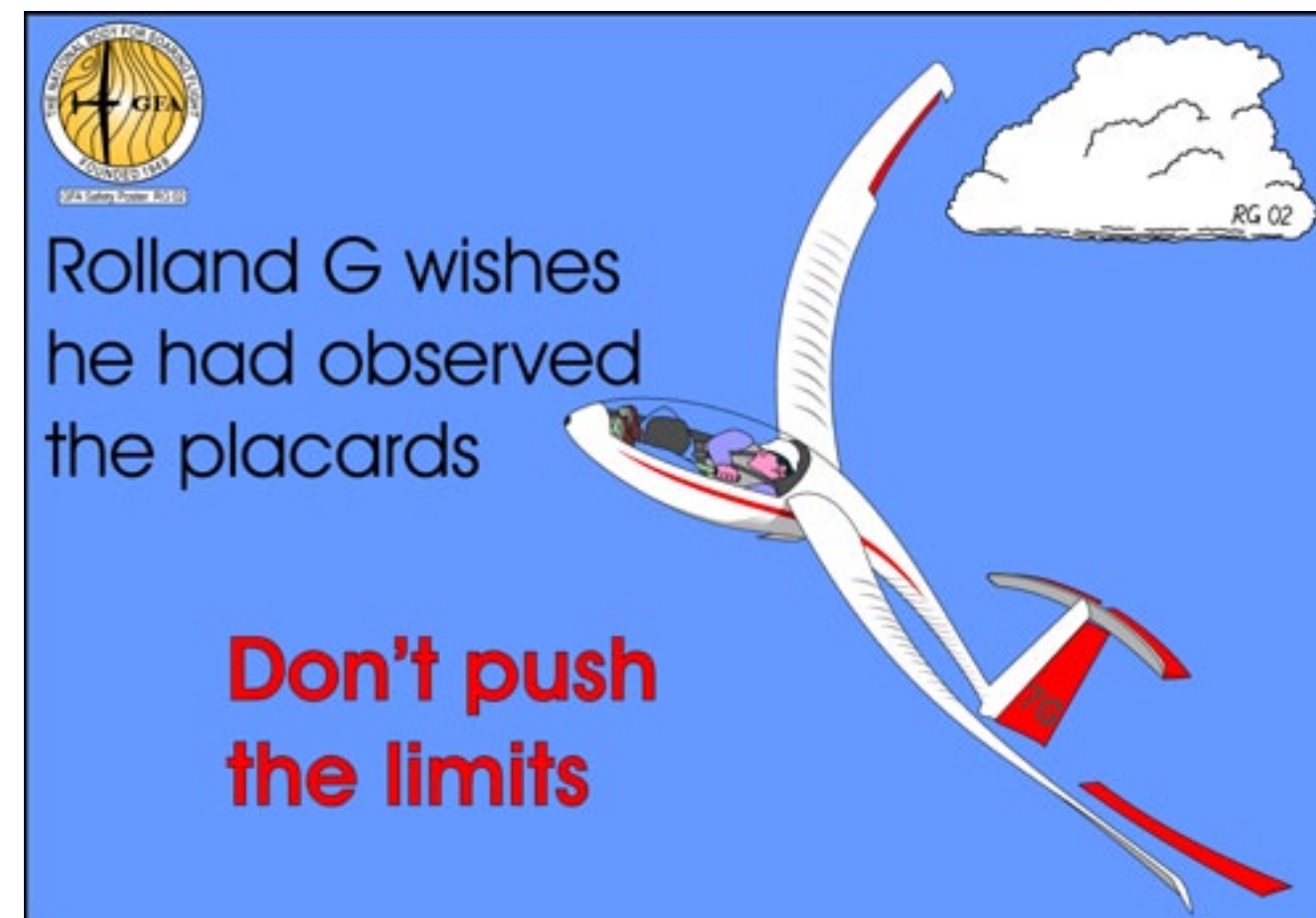
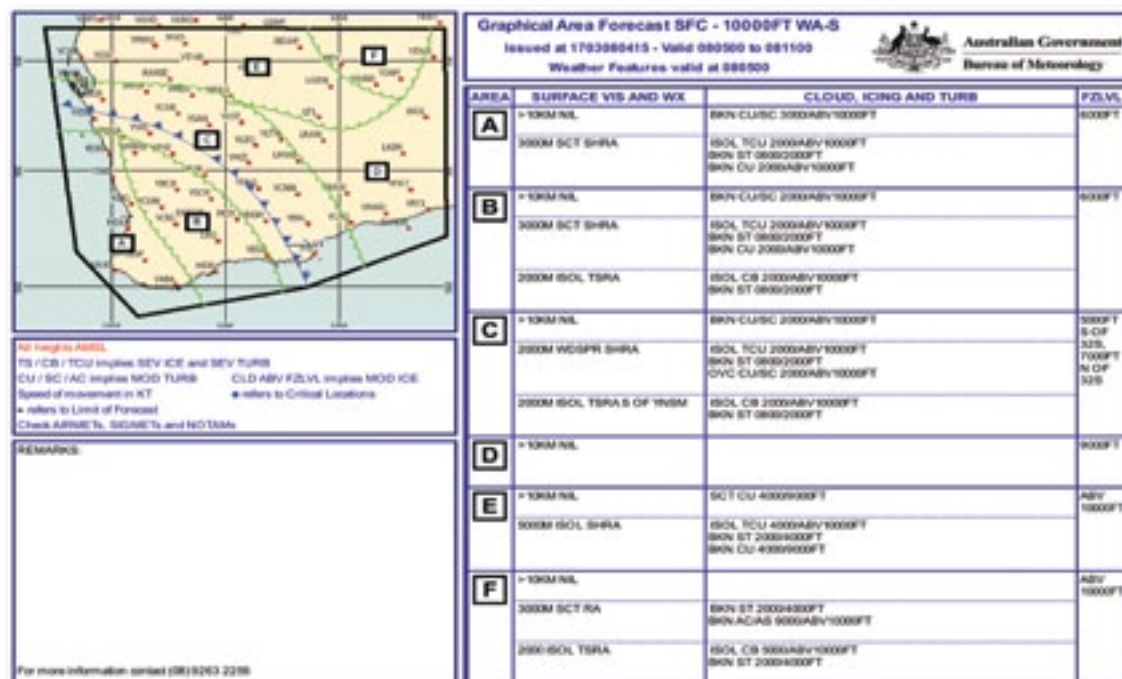
Further information can be found on the Bureau's aviation 'Knowledge Centre' web page at [www.bom.gov.au/aviation/knowledge-centre/](http://www.bom.gov.au/aviation/knowledge-centre/). A detailed GAF User Education Guide and A3



Summary Poster are available. Please send questions, comments or requests for further information to: [webav@bom.gov.au](mailto:webav@bom.gov.au) and [cop@glidingaustralia.org](mailto:cop@glidingaustralia.org) as appropriate. Electronic Flight Bag vendors including OzRunways and AvPlan are expected to soon issue updates to include GAF and GPWT data.

Many thanks to Amber Raman and Ashwin Naidu at BoM for their assistance with this article and graphics.

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# SO, YOU WANT TO BE CTO/A ?

**Mike Burns** is a GFA character and important GFA member. I have not actually met Mike but have come to know him quite well by many emails over my time as CAD and have greatly appreciated his frequent advice and history. Mike will tell his own story in the articles in this series, but in summary he has been actively involved and a major player in GFA Airworthiness since before the '70s, writing most of the original airworthiness manuals and ADs, developing our system and training system - and getting CASA to play along! He has been the father of GFA Airworthiness.

In fact, I used a few of Mike's documents when working on the fledgling South African glider maintenance team in the '80s. His influence has gone worldwide and has a high reputation. He will write six articles looking at his experiences and GFA history, which I hope will prompt a few other people to write their stories before it's too late. Or maybe you budding historians can capture a few stories. Thanks, Mike, for your years of effort, the great foundations you laid and the recent help. Maybe we can encourage a few more people to help in future and enjoy maintaining our gliders. **ROB HANBURY**

Chief Technical Officer Airworthiness. It sounds impressive. From 1949 for 30 years or so the GFA Airworthiness System was under the control of the CTO/A, who was responsible to the GFA Executive for management, standards and training. The officer worked very closely with delegations from the CASA of the day, but was never dictated to by CASA.

Up to 1979 the CTO/A position was honorary and part time, changing in 1980 to a full time, paid position. The author was the first employed CTO/A and over the next 10 years met an intriguing number of characters and had an amazing range of experiences, some of which I feel may be of interest to the current GFA Members. Sometimes a knowledge of history can avoid situations being needlessly repeated.

We do not fully appreciate that our day to day experience of gliding is the result of thousands of hours of work, contributed over the past 68 years, by dedicated volunteers and a few paid staff, all of whom have stories to tell. Hopefully my stories, spread over six magazine articles, may prompt a few others to go to press, giving a behind-the-scenes look at why things are done and what has made controversial decisions necessary. An amateur-based, de-centralized organization like GFA is difficult to manage, compounded by the need to have strong safety standards maintained in both airworthiness and operations.

The 1980s was a decade of rapid development in aviation, not just gliding. For GFA it was a period during which the safety of our sport was put under an intense spotlight. We had lost and injured far too many members, requiring standards to be re-set in both Airworthiness and Operations. To its credit, CASA allowed GFA to sort itself out. Their support and assistance - not interference - was significant.

I had the privilege of working with a small group GFA members who were dedicated to the extreme, all seeking to produce better standards of safety. It was no surprise to see anxiety, stress and trauma have an effect on some of that group, many of whom have now departed on their long final glide, but collectively they have been responsible for moving our sport forward, our major advancement being SAFETY.

## WHY PAID, FULL TIME?

In late 1978 a fatal sailplane accident in Queensland was investigated by the CASA of the day, the Bureau of Air Safety and the Brisbane Coroner's Court. The final finding

was that the accident itself was due to pilot error, apparently a case of flying under the effects of prescribed medication. However the investigation found other much more serious problems. The sailplane involved was determined to be un-airworthy, and the Inspector involved, fresh from a GFA engineers course, was found wanting when examined by CASA. Bluntly, the findings showed that GFA was not managing airworthiness in an adequate manner, top to bottom. The situation was considered very serious. It was not the first time similar problems had been found, enough for CASA to finally issue an ultimatum.

## "FIX THE AIRWORTHINESS PROBLEMS OR WE TAKE IT ALL BACK."

That meant loss of everything from AD issue, inspection, standards, manuals, training courses - the lot. The major part of the problem was simply overload on existing GFA staff at all levels, particularly after 1974 when the sport almost doubled in size and imports were epidemic. The sailplane manufacturers were also under pressure, coming to grips with designing and building GRP airframes and trying to develop powered sailplanes. GRP was the new wonder material that we needed to learn a lot about.

An honorary CTO/A would have no chance of keeping up part time.

Discussions with CASA determined that if an appropriate person filled the CTO/A role full time, then they would back off and see how it went. Keep in mind that in 1979, GFA was the ONLY sport aviation organization in Australia, and possibly the world, to be totally in charge of its own functions under delegation. Unheard of, but due entirely to the GFA founding fathers and the deal they struck with CASA in 1949.

The author drew the short straw and started in the GFA office at Essendon Aerodrome in January 1980. I had both gliding and power experience from age 14, held inspector and instructor ratings, NSW RTO/A for a while, substantial engineering experience in General Aviation, experience in other industries. Perhaps most importantly, I knew most of CASA's key Melbourne Head Office staff by first name as a result of having completed a number of major General Aviation projects through design and certification.

## THE FIRST WEEKS

Opening my office door on day one, a pile of some 63 un-actioned Airworthiness Directives and Service Bulletins literally covered the desk. At that point I think the job

struck home.

First step was to see CASA, introduce myself and get a feel for their side of the story, making sure we were all on the same page. The first officer I met was a French engineer with a worldwide reputation as a flutter expert, acting as CASA's Senior Certification Engineer.

First question: "What are you going to do about the flutter incidents?"

Blank look. "What flutter incidents?"

Out came the story. GFA had been having flutter and vibration incidents for quite a long time, varying from mild, to catastrophic (wings off), to fatal. These incidents were apparently occurring at the rate of nearly one a month. Little GFA action had been taken and that was seen to be very serious.

I pulled a file from my briefcase and slid it across the desk. "Can we sort this out?"

In his role as Senior Certification Engineer he had been sitting on an application for a Permit to Fly and a Certificate of Airworthiness for something like five years for a home-built Marske Pioneer tailless sailplane, built from drawings by the late John Lynch. I had assisted John during the construction of the sailplane and could not understand what the delay was all about.

"I will never issue a C of A for a tailless aircraft."

Somewhat bemused, I asked, "Why?"

"Many years ago I took up an invitation to fly a French tailless sailplane. The experience was so traumatic that I vowed I would never attempt to fly another tailless aircraft or be party to the certification of one."

We spent the next half hour or so discussing my participation in the initial construction of and later, numerous flights in, the Twin Plank, tailless, 2-seat sailplane, designed in Australia, given full Type Approval and a Certificate of Airworthiness by CASA, apparently well before the Frenchman started with CASA.

The outcome was a Permit to Fly in my pocket and eventually a C of A for the Pioneer.

The lesson was more important. To negotiate properly one has to understand the views and position of the person you are negotiating with. Very, very important, as I was to find over the next 10 years.

I met with a number of other officers, all having their input. Full co-operation and support was offered, helped in part by several being GFA members. There was nothing really that some hard work and common sense would not be able to fix, given time.

As I was leaving, one of the officers beckoned me into his office.

"Please take a seat. I want to offer you an apology."

I knew this officer by name and reputation, but we had never met. He had been responsible for issuing a CASA Airworthiness Directive requiring extensive inspection of timber box spars in General Aviation aircraft. The AD was so extreme that it caused the demise of one small, Sydney based, aircraft manufacturer with whom I had worked, plus many GA aircraft were permanently sidelined.

"This is my last week here, I am retiring. I have come to realize that the timber spar AD was issued for the wrong reasons, having ramifications that could have and should have been avoided. My emotions at the time around the death of my brother in an aircraft accident clouded my judgment."

My respect for the guy went up a notch. For a career

engineer to front up like that was unique. Why did he apologize to me? This episode remained with me over the next 10 years, during which I was responsible for issuing several hundred GFA ADs, hopefully keeping those documents objective with minimum side effects.

Back in the GFA office one of my first jobs was to accumulate written and verbal accounts of flutter and vibration as far back as possible, break it down into cause and effect. Months later results showed about 80% were due to inspection and maintenance inadequacies, 15% to pilot lack of awareness of sailplane flutter limitations and 5% to design faults. A section was added to the BSE which I had started to write as NSW RTO/A, adding flutter to the Engineer School syllabus. Complicit with this was the introduction of monitoring wing bending frequency, something totally ignored by GFA, but relentlessly followed by German manufacturers after WW2. Before joining GFA I had found a cracked timber main spar by a drop in wing frequency and could not understand GFA's attitude in not following that procedure. "We don't do it to a Cessna" was about the only comment I ever heard.

Of note, the 'Reducing Vne with Altitude' placards now common in late production sailplanes, started with GFA and migrated, like many other safety measures, to Europe, and were eventually added to Design Requirements.

My family was still in Coffs Harbour, so at the end of the first month I headed back to finalize shifting them to Melbourne. I left the office after lunch, heading north, a 1,400km drive. I had loaded the still unfinished ADs and Service Bulletins into the Mazda ute intending to finish them off while away. Just north of Shepparton the engine slowed, with no response. I pulled over and as I stopped, a big cloud of steam issued. I was almost outside a garage/service station at Tallygaroopna. As I lifted the bonnet the proprietor strolled over, putting his head under the bonnet. He said, "That's going to need parts. Roll her over to the workshop and I will get the head off."

Twenty minutes later with the head off, a new set of exhaust valves and gaskets was needed. A phone enquiry found one valve in Adelaide, one in Albury, one in Melbourne and one in his store. "Looks like 3 days," he said.

"OK, can you drop me off at the nearest motel?"

"No need for that, we have a spare room. Bunk in with us."

He and his wife had a small farm close by and two school age girls. For two days I commandeered their kitchen table, setting about finishing the ADs and Service Bulletins. The whole family got involved.

"What's a Jantar?" "Where is a Grob made?"

"Would a bigger bolt help?"

"Coffee?"

## MORNING DAY 3

"Parts have arrived, have you out by lunch." I gave him a hand and was ready to go.

"What do I owe you?"

"Oh, just fix me up for the parts."

The preparedness of Australian country people to help when a problem arises has both surprised and humbled me on many occasions.


**NEXT TIME: "Mike, just lost the Blanik and tug, 3 dead."**



accidents & incidents

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

You can read the full SOAR report at <http://tinyurl.com/lrmko56>  
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.

<div><div></div><div><div>The Gliding Federation of Australia Inc</div><div>SOAR Accident and Incident Occurrences</div><div>General Statistics</div><div>Date From: 01/02/2017</div><div>Date to: 31/03/2017</div></div></div>					
Damage	VSA	SAGA	GQ	NSW/WAGA	Total
Nil	5	8	6	2	21
Substantial			2		2
Minor	1	1	1	1	4
Total	6	9	9	1	27
Injury	VSA	SAGA	GQ	NSW/WAGA	Total
Nil	6	9	9	1	27
Total	6	9	9	1	27
Phases	VSA	SAGA	GQ	NSW/WAGA	Total
In-Flight		3	2		5
Launch	4	2	2		8
Ground Ops	1	1	1		3
Thermalling		1	2	1	4
Landing	1	2	1	1	6
Outlanding			1		1
Type of Flight	VSA	SAGA	GQ	NSW/WAGA	Total
Local	3	2	6		11
	1	1	1		3
Competition				1	5
Cross-Country	1		1	2	4
Training/Coaching	1	2			3
AEF			1		1
Total	6	9	9	1	27

4-FEB-2017 GQ  
TST-10M

Shortly after take-off and at a height of about 200ft AGL the pilot heard a thump and the engine surged.  
The aircraft immediately lost power so the pilot set the engine to idle, lowered the nose down to maintain forward speed, and then shut the engine down. The pilot turned the aircraft to the right at the cross strip to take advantage of a longer runway and landed safely. Subsequent inspection revealed damage to propeller mount, propeller drive belt and the propeller. Investigation revealed that



one of the two bolts that attach a bracket at the top of the reduction box housing had not been tightened properly and had loosened over time due to vibration. This resulted in a stress fracture of the bolt head, which broke off and allowed the propeller shaft to move forward and down. In turn, this resulted in the drive belt coming off and tangling around the hub of the propeller. The destructive forces instantly created by the sudden imbalance of the propeller shaft cracked two of the three narrow support sections of the reduction box housing. Fatigue breaks are usually caused by insufficient tightening and the lack of proper preload or clamping force. This results in movement between the parts of the assembly and the bending back and forth or cyclic stressing of the fastener. Eventually, cracks will progress to the point that the bolt can no longer support its designed load. At this point the bolt fails with varying consequences. For the bolt to be properly loaded and prevent premature failure, a designated amount of torque must be applied. Proper torque reduces the possibility of the bolt loosening while in service. The correct torque to apply when you are tightening an assembly is based on many variables. The bolt is subjected to two stresses when it is tightened. These stresses are tension and torsion. Tension is the desired stress, while torsion is the undesirable stress caused by friction. A large percentage of applied torque is used to overcome this friction, so that only tension remains after tightening.

10-FEB-2017 GQ  
AIRCRAFT SEPARATION  
STANDARD LIBELLE 201 B

When about 9km south-west of the home airfield and at about 5,700ft, the pilot initiated a left turn to enter a thermal. After turning through approximately 120 degrees the pilot saw an Embraer ERJ 170- 100 LR passenger jet operated by a Northern Australia Regional Airline in a left-hand bank heading towards the Wellcamp Regional airport. The Airliner passed about 500ft below and about 300 to 500m from the glider. The glider pilot did not hear any radio calls on the CTAF (126.7 MHz) and does not know whether the pilots of the airliner saw the glider. The CFI noted that there has been an increase in the number of airliners from one particular airline and dialogue has been opened with the airline to inform them of the gliding operations. Discussions were also held with the Regional GFA AA&A Officer and it was determined that the Club would continue to remain on the existing Multicom frequency but that its pilots would be briefed on the high risk areas close to the broadcast area boundary.

18-FEB-2017 WAGA  
AIRCRAFT CONTROL  
ASH 31 MI

The experienced pilot was undertaking a ‘round the clubs’ cross country flight in a new self-launching glider.

Weather conditions were fine but thermals were only going to 3,700ft AGL. A new electronic navigation device had been installed in the glider but the pilot was not relying on it as they were unsure that the pilot profile and final glide calculations were correct. The aircraft carried two fully charged batteries, one of which was used to power the aircraft and the other was being charged by the aircraft’s solar panels. The flight started well and the pilot was unconcerned about the low ceiling. Having rounded the first turn point, the pilot was at 1,000ft AGL over an area with small and wet paddocks. In reach of a landable paddock, the pilot lowered the undercarriage and started the engine. After a short climb at about 6,900 revs, the engine began to misfire, as it had done on a previous flight, and the pilot assumed the battery was low. The pilot cooled and stowed the engine and headed on task towards the second turn point. At this time the batteries were swapped so as to equalise the voltage in each. On nearing the second turn point the pilot reached a height that the navigation system suggested with provide a safe final glide home. While thermalling shortly afterwards, the pilot heard a tapping noise that was thought to be the cover for the water dump valve flapping, but was later found to be the fuel filling pump running. Nearing home and at a height of about 1,500ft the pilot again started the engine. While the engine ran satisfactorily, all the electrical instruments went blank. When the pilot believed final glide for a straight-in approach had been established, the engine was again cooled and stowed. During the final approach the pilot set landing flap and proceeded to land with the wheel retracted. Due to the electrical failure, the undercarriage warning did not activate. While the pilot recalled doing the pre-landing checks, they merely looked at the undercarriage lever and perceived it to be in the correct position. The CFI noted that this incident resulted from a chain of stressful events. The crucial factor being that the pilot did not physically check the position of the landing gear lever. This is not uncommon when pilots fly a straight-in approach. The chances of identifying an error while flying a normal, tandard circuit, is significantly higher than when on final glide for a straight-in approach. Causal factors include inexperience on type and a high level of stress that led to inattention to detail.

18-FEB-2017 SAGA  
AIRCRAFT SEPARATION  
GROB G 103 TWIN II

A DG1001 landed on RWY 23 Grass Right while a Twin Astir was on its base leg for the same runway. After exiting the glider, the crew of the DG1001 made no effort to vacate the strip but were awaiting a retrieve vehicle. The student flying the Twin Astir under instruction flew the glider into an undershoot position behind the DG1001. The Instructor in the Twin Astir assumed command and took action to prevent a landing behind the DG1001 and overflew the DG1001 at a low height, estimated at about 20 to 30 ft. The Instructor in the Twin Astir chose not to land on the gravel runway alongside because of a perceived risk of conflict with a launch that was about to commence on RWY Grass Left. Investigation revealed a breakdown in procedures, namely: a glider launch was commenced while the Twin Astir was established on a late final approach; the wing runner for the aerotow launch was inexperienced; and the crew of

ACCIDENTS & INCIDENTS

the DG1001 made no effort to vacate the runway for the following glider.

25-FEB-2017 VSA  
AIRFRAME PWS

At around 2500' AGL the tow pilot noticed the PW 5 was being flown erratically. The tow pilot used the radio to speak with the glider pilot, who advised the release knob could not be reached. As the glider was directly above the airfield, the tow pilot instructed the glider pilot to move into high tow position so the tow pilot could activate the tug’s release. Following release of the rope from the tow plane, the glider pilot was able to reposition themselves and manged to activate the tow release. The rope fell to the ground and was lost. Both aircraft completed a successful landing. Subsequent investigation revealed the seat back adjustment had failed, causing the glider pilot to move rearwards and away from the release. The seat adjustment is a fabric cushion that is adjusted by folding and secured to the rear bulkhead by Velcro. The glue adhering the Velcro strip to the rear bulkhead had failed, thereby allowing the cushion to slip from its intended position during take-off.

18-MAR-2017 VSA  
RUNWAY EVENTS SZD-51-1 JUNIOR

The glider pilot took a launch for a local flight after having earlier satisfactorily completing an annual flight review. During the course of the flight the pilot was contacted by the ground operation and informed that no one else required the aircraft and that the pilot could land long at the end of the flight so as to position the glider near the hangars. Sometime later the pilot joined circuit and gave a downwind call on the CTAF advising of the intention to land on the operational runway. During the base leg the pilot noticed a glider and tow plane were positioned for launch on runway grass right, and that a Cessna aircraft was on final approach for the bitumen runway. The glider pilot elected to land on runway grass left and turned onto final approach, with the Cessna now on the ground some 500 metres ahead. The glider pilot, realising the Cessna would probably turn left in front of the glider in order to taxi clear of the operational runway, made a radio call advising the Cessna pilot not to turn left. Shortly afterwards the Cessna turned left at the taxiway and stopped as the glider flew past just above the ground. The glider pilot stated "this was a dangerous situation which followed from poor decision making on my part when on Base re where to land, a fixation on landing near the hangar, and a delayed appreciation of the relative positions of my aircraft and the Cessna when approaching the cross Runway, at which point my options were limited. I must have observed the powered aircraft landing on 09 and exiting on that taxiway literally hundreds of times. Had I not observed the Cessna holding on the Runway, I may have been able to retract the airbrakes and gain sufficient height to clear the taxiway. I do not think fatigue was a factor". Good operating procedures and flying standards are developed over time and built on the experience of many pilots and many mistakes. Pilots should always be aware that even slight departures from standard accepted good practice can have severe consequences. There is no doubt that convenience can be a seductive force and very many pilots (and clubs) have been tempted into bad decisions and choices for no other reason.



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## GFA APPROVED MAINTENANCE ORGANISATIONS

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AVIATION COMPOSITE ENGI TOCUMWAL		PETER CORKERY	0439 842 255	corkerys@bigpond.com.au
AVTEC AVIATION	BOONAH	ROGER BOND	0409 763 164	avtecaviation@virginbroadband.com.au
CAMDEN SAILPLANES	CAMDEN	MIKE DUGAN	0418 681 145	camdensailplanes@bigpond.com
GCV WORKSHOP	BENALLA	GRAHAM GREED	0428 848 486	gcvworkshop@benalla.net.au
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KEEPIT GLIDER TECH	LAKE KEEPIT	GRANT NELSON	0417 843 444	keepitglidertech@outlook.com
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SL COMPOSITES	TEMORA	SCOTT LENNON	0438 773 717	scottl@internode.on.net
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### GFA CLUB LIST

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

sean@glidingaustralia.org

### 716 FLIGHT GLIDING CLUB

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

### 2 WING AAF

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

### ADELAIDE SOARING CLUB

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

[www.adelaidesoaring.on.net](http://www.adelaidesoaring.on.net)

### ADELAIDE UNIVERSITY GLIDING CLUB

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

### AIR CADET GLIDING CLUB

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

### ALICE SPRINGS GLIDING CLUB

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

### AV8 FLIGHT TRAINING AV8 FLIGHT TRAINING SOUTH AUSTRALIA

0429 803 705 [AV8.net.au](http://AV8.net.au)

### BALAKLAVA GLIDING CLUB

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

### BALLARAT GLIDING CLUB

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

### BAROSSA VALLEY GLIDING CLUB

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

### BATHURST SOARING CLUB

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

[www.bathurstsoaring.org.au](http://www.bathurstsoaring.org.au)

### BEAUFORT GLIDING CLUB

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

### BENDIGO GLIDING CLUB

Borough Rd, Raywood. Own airfield. Operates weekends and public holidays. Hangars, workshop and club house with cooking and ablution facilities. Aerotow with Eurofox tow plane. Club fleet a PW6 two seat trainer and a Junior. Approx 20 private gliders. Tel 03 5436 1518 or 0459 485 281. [www.bendigogliding.org.au](http://www.bendigogliding.org.au)

### BEVERLEY SOARING SOCIETY

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

### BOONAH GLIDING CLUB

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

### BORDERTOWN-KEITH GLIDING CLUB

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

Caravan Site, Camp Sites.

### BUNDABERG GLIDING INC

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

### BYRON GLIDING CLUB INC.

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

### CABOOLTURE GLIDING CLUB

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

### CANBERRA GLIDING CLUB

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

### CENTRAL COAST SOARING CLUB

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

### CENTRAL QUEENSLAND GLIDING CLUB

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

### CORANGAMITE SOARING CLUB

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

continued over page



**DARLING DOWNS SOARING CLUB**

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

**GEELONG GLIDING CLUB**

Shared facilities with VMFG and Beaufort GC at Bacchus Marsh Airfield. Tel 0409 212 527. Operations by aero tow weekends and public Holidays and by arrangement. Monthly winching also available. 3 Tugs, 6 club gliders including 2 x two seaters, 16 private gliders, **GLIDING CLUB OF VICTORIA** Samaria Road Benalla, Tel 03 5762 1058, State Gliding Centre of Victoria. Club rooms with Bar and large lounge dinning, Office, Members kitchen and commercial Kitchen Toilets and briefing rooms with storage. Members Caravan Park with Ablution block and dormitory accommodation. Weekends from April-Sept, 7 day a week operations at other times. GFA approved workshop. 8 club aircraft including 4 two seaters, 41 private aircraft. Hangar space, Large private hangar complex. [www.glidingclub.org.au](http://www.glidingclub.org.au)

**GLIDING CLUB OF WESTERN AUSTRALIA**

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

**GLIDING TASMANIA (The Soaring Club of Tasmania)**

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

[www.soaringtasmania.org.au](http://www.soaringtasmania.org.au)

**GOULBURN VALLEY SOARING**

Lot 2, Tidboald Road Warring, Located at: -36.41S 145.14E. Winch operations Saturdays and Sundays by appointment. 4 club aircraft and 2 private. Clubhouse, Shower and toilets. Caravan Park, Private units, Hangars. 13 members. Private owned strip.

**GRAFTON GLIDING CLUB**

GRAFTON GLIDING CLUB No facilities or airfield.Owns K7 and C/Libelle. Tel 02 66541638 .

**GRAMPIANS SOARING CLUB**

Located at Ararat Airfield (Victoria) the club operates at weekends and public holidays with independent operator mid-week activities by arrangement. Launching is primarily by aerotow; winching also available. Fleet comprises basic trainer (Puchacz) and advanced trainer (Janus C) plus Jantar Std 3 and H201B Libelle; 8 private single-seaters.

Hangar space often available for visiting pilots plus club-house and bunkroom accommodation. Locality offers excellent XC, ridge soaring and mountain wave opportunities. Camps at Jallukar (near Grampians) Easter and Queens Birthday. Well-deserved reputation as the Soaring Centre of Victoria. Clubhouse phone 0490 487 708 weekends or 03 5342 9946 weekdays. [www.grampianssoaringclub.com](http://www.grampianssoaringclub.com)

**GYMPIE GLIDING CLUB**

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

**HORSHAM FLYING CLUB**

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

**HUNTER VALLEY GLIDING CLUB**

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

**KINGARROY SOARING CLUB**

Situated at Kingaroy Airfield, Club Gliders include Duo Discus X, Ask 21,2 Discus CS and Astir CS77. 30 Private gliders, Facilities include Club House with licenced bar, Bunk House accommodation for 35 in single and family rooms. New Club hangar was opened in February 2014. Operations every weekend, First Thursday of the month 4 day weekend and two after 3 day weekend i.e. Friday, Saturday and Sunday. Come and visit one of the friendliest clubs around. Club House 61 7 4162 2191 Launch Point 0438 179 163 [www.kingaroysoaring.com.au](http://www.kingaroysoaring.com.au)

**LAKE KEEPIT SOARING CLUB**

The Club lies within Lake Keepit State Park off the Oxley Highway between Gunnedah and Tamworth, Elev 1120ft AMSL. Tel: 02 6769 7514. Operates 365 days a year. Aerotow every day, winch every second Saturday. 9 Club Gliders including 4 two seaters, 40 private gliders. Facilities include Flight Centre; Clubhouse; kitchen/BBQ; double, single, twinshare accommodation; camp sites; workshop; hangarage. [www.keepitsoaring.com](http://www.keepitsoaring.com)

**LATROBE VALLEY GLIDING CLUB**

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

gliders.

**LEETON AVIATORS CLUB**

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

**MELBOURNE GLIDING CLUB (VMFG)**

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

**MELBOURNE MOTORGLIDING CLUB**

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

**MILLICENT GLIDING CLUB**

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

**MORAWA GLIDING CLUB**

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

**MOUNT BEAUTY GLIDING CLUB**

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

**MOURA GLIDING CLUB**

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

**MURRAY BRIDGE GLIDING CLUB**

Pallamana (7km from Murray Bridge on Palmer Rd). Tel 0403 318 277 [www.murraybridgegc.com](http://www.murraybridgegc.com) Operations are self launching and by arrangement. 1 club 2 seater motorised and 3 private motorgliders. Club House, Hangarage. [www.murraybridgegc.com](http://www.murraybridgegc.com)

**MURRAY VALLEY SOARING CLUB**

Redlands Road Corowa 3km's west of town. Tel 02 6033 5036. Seasonal professional operation, aerotow or self launch. [www.australian-soaring-corowa.com](http://www.australian-soaring-corowa.com) Large hangar, clubhouse with office, internet, bar, Showers, BBQ, Swimming pool, Spa, water ballast, battery recharging services,

Paved roads and runways, camping and caravan sites. Two tugs. We own and operate four unique 40ft sea containers to ship 6 gliders per container.

**NARROGIN GLIDING CLUB**

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

[www.narroglinglidingclub.org.au](http://www.narroglinglidingclub.org.au)

**NARROMINE GLIDING CLUB**

The club owns and operates Twin Astir, Duo Discus, LS4, Libelle, Discus B. Tugs: club owned Pawnee 260 and private owned C-180.14 private owned gliders. Facilities include club house with licenced bar and kitchen. Private owned tourist park on site with En-suite rooms,airconditioning, kitchen, recreation room, laundry. Walking distance from town. The club operates full time November to April and Fri, Sat, Sun, Mon for the rest of the year. The club welcomes all visitors.

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

**NSW AUSTRALIAN AIR FORCE CADETS**

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

**NORTHERN AUSTRALIAN GLIDING CLUB**

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

**NORTH QUEENSLAND SOARING CENTRE**

Corinda Avenue, Columbia, Charters Towers, Tel 0428 797 735, Operations by winch Sundays and public Holidays by arrangement. 5 Private gliders. [www.nqsoaring.org.au](http://www.nqsoaring.org.au)

**RAAF RICHMOND GLIDING CLUB**

We operate gliders mostly on the weekend using a tow plane (mainly Sunday), and our motor-glider flights are available 7 days a week. All our operations are subject to Air traffic control, weather and pilot availability. Main Phone: 02 4587 7618

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

**RAAF WILLIAMTOWN GLIDING CLUB**

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

**SCOUT GLIDING CLUB**

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

**SOUTHERN RIVERINA GLIDING CLUB**

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

**SOUTHERN CROSS GLIDING CLUB**

Located at Sydney Metro Airport Camden, a licensed General Aviation airport, hosting operations in the commercial, private, sports and recreational aviation areas. It has a reputation as Australia's leading sports/recreational aviation airport. Hangar sites available, GFA approved workshop on the aerodrome. Aerotow Piper Pawnee (CPU, FBI, SMS) Flying Friday, Saturday, Sunday, Monday and Wednesday. P.O. Box 132, Camden, NSW 2570 0425 281 450 or airfield on 0402 055 093 [www.gliding.com.au](http://www.gliding.com.au)

**SOUTHERN TABLELANDS GLIDING CLUB**

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

**SOUTH GIPPSLAND GLIDING CLUB**

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

**SOUTHWEST SLOPE SOARING P/L**

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

**SPORTAVIATION – TOCUMWAL**

7 day a week all year round operations by Aerotow. Gate 10, Babbingtons Road Tocumwal airport. Tel 0427 534 122. 5 club aircraft including 2 two seaters, 9 private aircraft. Caravan Park, Kitchen, Bathroom, BBQ area reception/Office, Conference and briefing rooms, Wi/Fi Hangarage water, full time courses. [www.sportaviation.com.au](http://www.sportaviation.com.au)

**SUNRAYSIA GLIDING CLUB**

Winch launching Weekends and public Holidays. 3 km's West of Koorlong, Mildura. Tel 03 5025 7335. 22 members, 2 two seat and 2 single seat aircraft, 5 other private aircraft. Canteen Clubhouse, camp sites. [www.sunraysiaglidingclub.org.au](http://www.sunraysiaglidingclub.org.au)

**SYDNEY GLIDING INC.**

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

**SOAR NARROMINE P/L**

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

**SCOUT ASSN OF AUSTRALIA NSW GLIDING WING**

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

**TEMORA GLIDING CLUB**

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

**WARWICK GLIDING CLUB**

Warwick Gliding Club is a small, friendly gliding club located at the Warwick Airfield on the Darling Downs in South-East Queensland 2 hours drive from Brisbane. Tel: 07 3077 6973 [www.warwickgliding.org.au](http://www.warwickgliding.org.au)

**WAIKERIE GLIDING CLUB**

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

**WHYALLA GLIDING CLUB**

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





## CLASSIFIED ADVERTISING

glidingaustralia.org

For members' convenience, Classified Ads can be purchased from the Gliding Australia website at [glidingaustralia.org](http://glidingaustralia.org). Go to Classifieds then click on the link and complete the online form where you will need to provide the text for the ad and any photos, if required. The cost for the ad will be determined by the number of words and any photos you wish to add. You will then be taken to a secure payment area to process your payment. Your ad will be placed on the GFA website for a month from the date of payment. Ads that are financial at magazine deadline (10th of every second month) will appear in the GA Magazine. For any enquiries please contact the GFA office on 03 9359 1613.

## SINGLE SEAT

**VH-GVR Diamant 18**, reluctantly offered for sale. Low hours, recently refurbished and surveyed - performance approaching 45:1. Semi-clamshell trailer with excellent fittings. Asking \$8,500; make me an offer! Please see [www.sailplanes.co/sailplanes/single-seat-sailplanes/diamant-18\\_139](http://www.sailplanes.co/sailplanes/single-seat-sailplanes/diamant-18_139) Contact Caleb on 0414 902 196



**VH-NZE LS6c**, New paint PU 2014. 15m and 18m tips. About 2400hrs 850 flights. Mountain high oxygen, LX S80 and LX 8080 vario moving map navigation. Parachute. Tow out equipment. Cobra trailer. \$68,000 ono. Contact Steve by Email: [steve767@gmail.com](mailto:steve767@gmail.com)



**VH-EAX,A1 Discus 2a** 2x WGC wins, 6x Aus Nats,



1000/1250km flights. 2500hrs 800 launches. Repainted/profiled in PU, at Aerospool in 2013, as new. Deepened seat pan. Inertial Butterfly variometer & ESA Multiprobe, PowerFLARM (w/ Bluetooth), FLARMView, Microair 760, Bugwipers, 1 (wo)man rigging kit, Kerry covers. Dual axle Cobra w/ extra storage, anti-snake. Many spares.\$110,000, basic equipment, \$120,000 all in. Contact: [matthew@skysight.io](mailto:matthew@skysight.io)

**VH-GST LS6B** Form Two Valid until November 2017, Landings 1135, Hours 3400, Mountain High Oxygen System, Oudie 2#, All Tow Out Gear, Mars Parachute, Komet Clamshell Fibreglass /Aluminium Trailer. A CD containing all log book entries and pictures of the Glider instruments etc. is available. \$55,000 Contact George Scarfe [georgescarfe49@gmail.com](mailto:georgescarfe49@gmail.com) Mob. 0428 464 618



**VH-UKD Ventus2a**, Competition ready – Cobra Trailer (reg NSW) and basic instruments. Full tow gear. Empty weight 220kg, carries 220 litres water. \$80,000 Call 0407 459 581



**VH-WVX LS3**, 3000 Hour inspection COMPLETED. The best LS3 in the country. Fully repainted in PU. Winner 3 x National championship in club and 15m class, 5 X 1000 km flights, 5th place in Junior worlds. LS8 performance for less than half the price. Great handling, Great condition. Fully enclosed metal clam shell trailer, Competition ready. V7 Vario, flarm and Oudie. 2800 hours. 800 flights. Fresh form 2. Ground handling gear. \$40,000. Call Terry on 0408 085 988



## TWO SEAT

**VH-GGO (AVA-101)** is two seat sailplane: tandem, Fully Composite, High performance, fixed sprung main wheel, T tail, and tail wheel, with control rod. GGO first imported to Australia for Avalon Air show 2005. It has expired Experimental C of A. Max payload of 188Kg, with Empty weight 427Kg. must sell \$10,500 ONO. Ring "Bahman" 0449 100 600



**VH HNT K7** Fresh form 2 1698hrs 5389 landings. Basic instruments front & rear plus borgelt vario averager. 720 channel dittel radio PTT & boom mikes both cockpits well fitted out trailer. 50 yearly survey due in 12 months open to offers. Contact Dennis 0428 229 727 or [denmeyer1@bigpond.com](mailto:denmeyer1@bigpond.com)



## MOTOR GLIDERS AND TUGS

**VH-GFF, Nimbus 3T** 25.5m. Total hours 2900. Engine hours 40. Tilt-up panel mod and full instrument panel rewire completed by Maddog Composites. Panel configured for lxnnav V7 + Oudie IGC + Flarm and Dittel Radio fitted. Cockpit fitted with Mountain High Oxygen system and bug wipers also available. Fully set up for competition or distance flying.



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

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

**VH-GPH DG400 4-56** 1800hrs airframe, 180hrs engine, BEA mod auto engine retract, refinished 2014, Komet Clamshell trailer, Mountain High, Strong parachute, Tow out gear, Form 2 Dec17, DG service contract, Jaxida canopy cover, Tasman vario and Flight pack system, Tasman EGT. \$80,000. Contact Jack 0439 398 199.



**VH-ZBW Ventus 2CM** Self launcher Airframe 3500 hrs. 970 flights Engine 83 Hrs.Excellent condition Never damaged. Refinished im Polyurethane. New canopy fitted 2016. Folding propellor overhauled by factory in Germany 2016.New wing lift pins and elevator pins 2015. Professionally build enclosed metal trailer Borgelt and clear nav varios, Clear nav flight computer Flarm.Recent form 2. Wing covers and canopy cover. Ground handling gear. Done 4x 1000 K flights, and won 2 nationals. \$120,000 Negotiable. Contact Bob 07 4633 2025 or [wendoure@westnet.com.au](mailto:wendoure@westnet.com.au)





**VH-XQK, G500M** two seat, self launching motor glider, 60HP Rotax 535C. Has been syndicate owned since being imported new in 1992. Being sold with a recent Form 2 inspection. Always hangared. \$120,000 negotiable. NOW REDUCED TO \$95,000. Link to video- <https://youtu.be/UFNktUg2rSE> For more details contact **Bob Ph 02 6332 9235 bobjmcdo@gmail.com**



**VH-NUF TAURUS 503** 2-year-old Taurus M powered by an air cooled two stroke two cylinder 50 hp Rotax 503 engine. Two seat side by side spacious self-launching glider. Only 120 Total hours and only 30 Engine hours. Comes with Pipistrel 5 year extended Warranty. Fitted with every possible extra including a Galaxy Ballistic parachute and a full set of instruments including an LX9000 with ProStick control. Even has an E22 Tost nose release. Beautifully finished with acrylic paint and a very high build quality. Spacious cockpit with leather seats and trim and maximum cockpit load is a generous 190 kg. Large blue tinted canopy with excellent visibility. Includes a dedicated Cobra trailer for long distance travel. Complete with new maintenance release. Price Reduced to \$ 169,000 **Grant Rookes 0407 998 959 grookes@yahoo.com**



**VH-GUE DG500M** 1/5 SHARE. Based at Boonah. Built 1995 always hangared. Immaculate condition. New Solo engine factory fitted in Germany by Binder 2014. Equipped for solo independent operation. Australian Agent for Solo Engines is one of the syndicate



members. Dual Mountain High oxygen system. Flarm and Mode C Transponder for safety and CTA transit Full avionics panel, flight and engine controls both cockpits, Low utilization. \$35000. **Jim 07 3821 1246 hjrgrant@iprimus.com.au**

**VH-XGE, Super Dimona HK36-R VH-XGE TTAF** 1440, Rotax 912-A2 TTIS 760, Electric Constant speed prop TTIS 140, Bendix King KT-76A, well maintained based Moorabbin. All weather covers. Contact **Philip Henderson on 0418 511 557**



## INSTRUMENTS AND EQUIPMENT

**VHF RADIOS** - Icom ICA-210, Becker AR3201 and AR4201, Funke ATR600.  
Becker AR4201 - \$700  
Becker AR3201 - \$400  
ATR600 - \$500  
All in working order - Great prices. **Call Arnie 0418 270 182** or email **arnie.hartley@gmail.com**

## TRAILERS

### Komet Eurolight Trailer for ASG 29 18m

Purchased August 2008. Double walled aluminium sides, fiberglass/ Epoxy top. Lateral guides for wing dollies and outer wing panel holders modified to Cobra style. Stored mainly undercover and used infrequently. Selling due to an opportunity to change to a different trailer. Contact **Craig Vinall 0416 236 662**



# 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.

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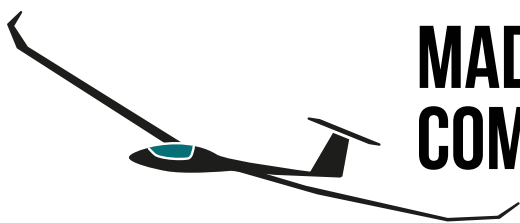
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Why not share your story so that others can learn from it too? If we publish it, we'll give you **\$500**. Email us at **fsa@casa.gov.au**

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

Please do not submit articles regarding events that are the subject of a current official investigation. Submissions may be edited for clarity, length and reader focus.





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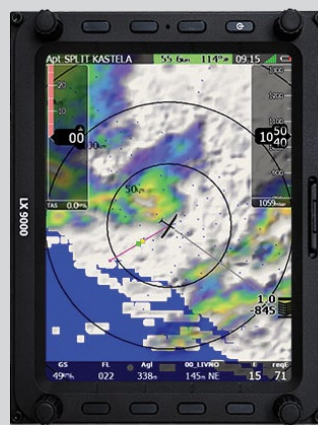
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