

GLIDING AUSTRALIA

Issue 34 February - March 2017

www.glidingaustralia.org

WORLD GLIDING CHAMPIONSHIPS BENALLA



JS3 - VENTUS 3 - EB29R - KAWA & DIANA 2





emergency

PARACHUTE SYSTEMS



Thinback Emergency Parachute System



Slimpack Emergency Parachute System

Parachutes Australia have been supplying the world with emergency parachute systems for Civilian and Military applications for over 40 years

The **Thinback** and **Slimpack Emergency Parachute Systems** manufactured by Parachutes Australia are designed, tested and manufactured beyond regulatory requirements and provide the maximum safety, performance and comfort.

- Certified under FAA TSO C23(b) with Certificate of Type Approval issued by CASA together with Production Approval No. 515899
- Manufactured from durable Cordura fabric.
- Military specification harness webbing and hardware for reliable strength and durability.
- Stainless Steel closing grommets and ripcord assembly.
- Thin, soft pack for pilot comfort.

Also available:

- Sheepskin Accessory Option for improved comfort and hygiene.
- Static Line Deployment Option.

www.parachutesaustralia.com

ph 61 2 9829 5355
fax 61 2 9829 1300
22 Bosci Road Ingleburn NSW 2565
sales@parachutesaustralia.com


AVIATION INSURANCE
 AUSTRALIA

Providing experience, commitment and care when you need it most.

- Australia's largest independent aviation insurance broker
- 20 years experience, specialising in all classes of aviation insurance including gliders
- Most AIA brokers are qualified and passionate pilots with 90 years of combined experience
- Committed to providing the best insurance package to suit you and your individual needs
- Always competitive, always comprehensive, always accessible – 24 hours a day, 7 days a week
- Proud to be the new broker for the Gliding Federation of Australia

Contact

David Tait, Dylan Jones or Sara Barnard on (07) 3274 4732.

admin@aviationinsurance.com.au
www.aviationinsurance.com.au

GLIDING

AUSTRALIA

No. 34 February March 2017

COVER: MICHAEL SOMMER IN AN EB29R AT WGC BENALLA - BY AL SIM

2 FROM THE PRESIDENT - EXECUTIVE OFFICER
What's happening in the Australian gliding airspace.

9 BOOK REVIEWS
Well known coach G Dale and long-time glider pilot Bernard Eckey have published excellent books to help all pilots sharpen their skills.

12 WOMEN IN GLIDING - NARROGIN & MT BEAUTY
Women glider pilots - new and experienced, old and young - joined forces for coaching and encouragement in WA and Victoria.

16 WORLD GLIDING CHAMPIONSHIPS - BENALLA
The 2017 World Gliding Championships at Benalla attracted 116 of the world's best pilots. The gliders were exciting, conditions were challenging and outcomes were never certain until the final day.

WGC BENALLA - NEW GLIDERS & PILOT INTERVIEWS

18 JONKERS JS3
Uys Jonker from Jonker Sailplanes shares details of their competitive new JS3 glider.

20 SCHEMPH-HIRTH VENTUS 3
Tilo Holighaus CEO of Schempp-Hirth gives us a tour of their new Ventus 3, never tested in a World Championship before.

22 BINDER EB29R
Michael Sommer explains the primary development in Binder's new EB29R - its thinner, new profile wing.

24 DIANA 2
Sebastian Kawa discusses the attributes of his new Diana 2, from its curved wings to its thermal performance.

30 WGC BENALLA - MEDALS & WINNERS
Photos and listings - celebrate with the medallists and day winners!

32 SUDDEN IMPACT - ACCIDENT AT WGC
Stephen O'Donnell faced the ultimate challenge at WGC Benalla when he was involved in a mid-air collision. Here he recounts the experience and the lessons learned.

35 KINGAROY MULTI-CLASS NATIONALS
Conditions were fine but the pilots were keen at Kingaroy. Allan Barnes' success didn't come easily, requiring strategy and careful planning.

38 VINTAGE GLIDERS AUSTRALIA RALLY
The Vintage Gliders Australia Annual Rally 2017 included a celebration of 40 years since the formation of the club.

40 OPERATIONS
Chris Thorpe aims for Target Zero - zero accidents, zero harm to people.

42 LOW TOWING - LOW THERMALING
Drew McKinne shares safety tips for two key moments in glider flights - low towing and low thermaling.

44 AIRWORTHINESS

45 INCIDENTS & ACCIDENTS

GLIDING FEDERATION OF AUSTRALIA

MEMBERSHIP & CLASSIFIED ADVERTISING

Cathy Cassar cathy@glidingaustralia.org

www

AIRCRAFT REGISTRATION & related

Tanya Lorient tanya@glidingaustralia.org

AIRWORTHINESS & GFA TRAVEL

Fiona Northey fiona@glidingaustralia.org

RETURNS

If you are sending documents they must be emailed to returns@glidingaustralia.org

SHOP The GFA Online shop has a range of useful products including a Form 2 kit, www.store.glidingaustralia.org

GFA OFFICE

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

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

Tel: 03 9359 1613 Fax: 03 9359 9865

**C4/ 1-13 The Gateway
Broadmeadows VIC 3047**

SUBSCRIPTIONS

Non GFA members are welcome to subscribe to Gliding Australia. 1 year is \$47 inc. GST. www.glidingaustralia.org/shop1



Sean Young
Editor
sean@glidingaustralia.org

Adriene Hurst
Deputy Editor

EDITORIAL SUBMISSIONS
We invite editorial contributions and letters.
email sean@glidingaustralia.org
Other large files and photographs and can be uploaded at www.glidingaustralia.org/ga

DISPLAY ADVERTISING & MAGAZINE ENQUIRIES
sean@glidingaustralia.org

GLIDING AUSTRALIA
www.glidingaustralia.org
Tel 02 9332 2822
PO Box 246 Edgecliff



Official publication of The Gliding Federation of Australia Inc.
ABN 82 433 264 489 (GFA).
The GFA is a member of the Fédération Aéronautique Internationale (FAI) through the Australian Sport Aviation Confederation (ASAC)

Opinions expressed in Gliding Australia are not necessarily those of the publisher, nor does the publisher give assurances or warrants that the information published is accurate. Readers are advised to check any information contained herein. Editorial submissions are welcome but the publisher reserves the right to edit, abridge, amend and correct any material supplied for publication as the publisher sees fit. All rights reserved. Reproduction without permission is strictly forbidden without the permission of the publisher. © The Gliding Australia, Gliding Federation of Australia Inc 2015 **Print Post Publication Number PP 381712/02675**
WS Media Design & Publishing Services info@westsunsetbooks.com

FROM PRESIDENT MANDY

I HAVE A DREAM

I read an article this week that made the point that if Martin Luther King had said, "I have a Plan" rather than "I have a Dream" history would have remembered him differently, if in fact it remembered him at all. I think it is important to define what it is that we are trying to achieve with gliding in 2016 and 2017.

MY DREAM IS CLEAR

I look forward to gliding in Australia being recognised around the world for our initiatives to empower our members. For our influence to persuade the regulator to change legislation to meet our needs, for our initiatives to wrest maintenance of our tugs from the regulator, and for the high standard of our documentation.

I look forward to members doing the right thing, confident that they are safe from prosecution if they make an honest mistake.

I look forward to members taking responsibility for their actions, understanding that Pilot in Command means just that.

I look forward to a club environment that is built on trust, teamwork and common goals rather than guilt and point counting, measuring how much work each person does.

I look forward to gliding clubs where women pilots fly on equal terms with male pilots and all GFA members are not referred to by gender but are simply known as pilots.

I look forward to an aviation community that increasingly recognises the value of the stick and rudder training as a sound basis for all forms of aviation careers both civil and military.

I look forward to a regulatory environment under Part 149 where we can become fair and effective co-regulators.

Those of us who fly gliders know how special gliding is. If we didn't want to break the mould we would be flying GA at

our local aero club. We all want to do something that is a little bit different, to enjoy the freedom that gliding allows us.

As glider pilots in Australia we have freedoms that not many aviators enjoy. We can fly without a radio, we can fly in controlled airspace, we can maintain our own aircraft and we can write our own rules.

In recent weeks we have been sending out Club Health Checks to all clubs to help club committees understand what their members are thinking and how they can better meet their needs.

Anecdotally, we know that some clubs do really well because one person is driving change, and I have come to realise that the change that they are driving is a cultural change, not a physical change. It is not that the club has more hangars or more gliders. It is built on their belief that their club can become a great club and they bring the members along with them on that journey.

I now realise that if we simply asked, "Does your club committee have a Dream or does it have a Plan?" we would immediately identify successful clubs.

We have dozens of amazing people at clubs all around the country who lead their members with enthusiasm, energy and a clear vision of where they are going. We see that successful clubs are growing because these individuals have the leadership and vision to inspire their members to be the best that they can be. We can all learn from that. We must have a Dream and not a Plan.

We have Club Presidents who take ice in an esky to the launch point every weekend so the students have cold drinks, we have instructors who turn up every weekend before the students to prepare gliders for flight. These people are the heroes of our sport, they put heart and soul into what they do and it pays enormous dividends.



I know that not everyone shares this view. When I was visiting a club in Western Australia a pilot pulled up in his motorised 18m glider and, chatting with me as we walked back to fetch his car he said, "You want us to have more members and more students. What's in it for me? I just want to go flying!" We have to accept that a number of our members fall into that category. They are not interested in growing or promoting the sport and that is their choice to make. We need to make room for everyone, but that does not mean that we cannot recognise the incredible work that is done all around Australia so that the rest of us can go flying every weekend in safety, enjoying the freedoms that we have. These people who are passionate about gliding, these people who have a dream about gliding - they need our support. They need us to tell them, "Yes, we agree." Even if we are not able to help them directly, we must let them know that they are on the right track, that we agree with them and that we support them. We must give them fuel to continue the journey.

We must never forget the grassroots on which we are all standing.

What is your dream?

MANDY TEMPLE

PRESIDENT

president@glidingaustralia.org



FAI GLIDING BADGES TO 2 FEBRUARY 2017



BERYL HARTLEY
FAI CERTIFICATES
OFFICER
faicertificates@glidingaustralia.org

A BADGE

NG MAN FUNG	12198	LAKE KEEPIT SC
VAN DER SLUIS MICHEL	12205	NARROGIN GC
PRICE TOBAIS	12207	301 NSW ATC
VIECELI SAMANTHA J	12208	LAKE KEEPIT SC
COLETTA LUCAS	12211	CENTRAL COAST GC

B BADGE

MAHER NICHOLAS G D	12170	SOUTHERN CROSS GC
LYNCH JARED G	12181	301 NSW ATC

C BADGE

DILLON GREGORY K	12134	SOUTHERN CROSS GC
BAHR MARK P	11817	BOONAH GC
BURGESS KELTON J	12200	LAKE KEEPIT
GAO QING	12041	NARROMINE GC
JACKSON PAUL C	12141	GEELONG GC

B, C BADGE

PERKINS DALE T	12055	GEELONG GC
WHALING-LAURENS JACK	12060	301 AAFC NSW
LI LOK H A	12138	DARLING DOWNS SC

A,B BADGE

BURGESS KELTON J	12200	LAKE KEEPIT SC
NICOLSON ALISTAIR P	12201	NARROGIN GC

B,C BADGE

BECKMANN NOAH	12192	BALAKLAVA SC
---------------	-------	--------------

A, B, C BADGE

GRAHAM ELIZABETH	12197	LAKE KEEPIT SC
HOOD TIMOTHY J	12199	KINGAROY SC
STEVENS TONY M	12202	NORTH QLD GC
GILMORE IAIN G	12203	G.C.V.
KELLER MICHAEL O	12204	NARROGIN GC
BROWN LACHLAN J	12209	SUNRAYSIA GC

BADGE CLAIMS

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

EASY PEASY SILVER C

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

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

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

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

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

ROBERT JEAN-LUC	12210	RAAF RICHMOND GC
VAN HAREN RHYS	12212	301 NSW ATC
GROSE ADRIAN K	12213	NARROGIN GC
YANG BAI	12214	NARROMINE GC

SILVER C

NESTOR JOHN T	4917	CABOOLTURE GC
MORTON MATTHEW	4918	LAKE KEEPIT SC
MURPHY JOSIAH J	4919	ALICE SPRINGS GC
CHAMBERS MARK	4920	KINGAROY SC
CALDON RAYMOND J	4921	SOUTHERN CROSS GC
BARTLETT CAMERON	4922	LAKE KEEPIT SC
MISTRY BEHERAM	4923	G.C. WEST AUSTRALIA
YANG BAI	4924	NARROMINE GC

GOLD C

DICKSON PAUL W	1735	HUNTER VALLEY GC
----------------	------	------------------

DIAMOND GOAL

MOLONEY MICHAEL		CABOOLTURE GC
BECKER ROBYN		NARROGIN GC
NOVAK EDDIE		SYDNEY GLIDING

DIAMOND DISTANCE

STOKES LEIGH M		ADELAIDE UNIVERSITY SC
GOLDSMITH JENNEFER		GEELONG GC

DIAMOND HEIGHT

STOKES LEIGH M		ADELAIDE UNIVERSITY SC
----------------	--	------------------------

DIAMOND CERTIFICATE

STOKES LEIGH M	244	ADELAIDE UNIVERSITY SC
----------------	-----	------------------------

700 KM DISTANCE

STOKES LEIGH M	244	ADELAIDE UNIVERSITY SC
----------------	-----	------------------------

BADGE
DECLARATION

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

GFA web site. 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

Post your green gliding certificate book.

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

Safe soaring, **BERYL HARTLEY**

EXECUTIVE OFFICER

It has been a very busy December/January for many Australian pilots with the World Gliding Championships taking place at Benalla in Victoria. I trust all of you saw some of the media reports and in particular, the social media reports that covered the comps and the people involved. Separate, detailed reports on the event appear in this issue, but I do want to mention a couple of key outcomes.

VOLUNTEERS

We accept that people are less inclined to volunteer in these modern times, but that was not evident with these championships. The championships had over 70 volunteers who spent from 1 to 3 weeks helping to make the competition a very successful event. Another 30 also attended for a few days just to experience the comps and were happy to help out with some key tasks.

Most of the volunteers came from the local Benalla club, the GCV, but a significant number came from across all states. It was a pleasure to share the experience with so many GFA members.

GOLDEN OLDIES

I saw people who were very active in the sport for many years but haven't been seen for quite some time. They were excited to experience this historic event, and quite a few of the younger ones were starting to look wistfully at the gliders and towplanes and expressing some interest in possibly returning. Keep an eye out at your club for some of these experienced people wanting to re-engage with the sport and your club.

AVIATE IN APRIL

This concept of encouraging previous members to re-join fits well with our Aviate in April promotion. The proposal is that clubs should actively encourage and support the introduction of new members in April. If all members brought one friend to the gliding club for a flight during that period, your club would immediately gain some good flying revenue and, with some encouragement, you could gain a number of new members.

As an encouragement, the GFA will repay the club 50% of the new members' 12 month membership fee. Your club can either pocket the surplus, or use this as an enticement to the potential new member to join your club.

Your club has two options.

Hope that you get some new members and pocket GFA money.

Actively encourage new members and use the GFA money to grow your membership and future

Bonus offer. If the new member renews in 12 months' time, we will again reimburse your club 50% of their 12 month membership fee.

WORLD COMPS MEDIA PROMOTION

The standout success of the world comps at Benalla was the great media coverage provided by John Styles, Sean Young, Al Sim, Andrea Johnston, Lisa Trotter and Peter Trotter. The daily video walk before and after flying and reports from organisers was a great initiative.

Matt Gage ran the live tracking which was a major drawcard on site, across Australia and across the world. This enabled people to watch the action as it unfolded, watching progress of the pilots as they flew their tasks, seeing the tactical decisions, and following them through the nail biting final glides. A very fine line between winning and losing.

Towards the end of the comp the live streaming of cameras from some of the gliders, the gaggles and the finishes, with some excellent live commentary by Lisa Trotter, really engaged all watchers. This was the first time we have tried this in Australia and it was a great success. I look forward to improvements in this technology for future events.

The statistics for the tracking, web page and facebook uploads and viewings are huge compared to anything that we have done previously and is impressing FAI and IGC who are seeing this as a leading example of media success.

AUSTRALIAN TEAM

Our team pilots all had a podium finish on at least one day, demonstrating they have the skills to compete at this level of competition. Unfortunately each of them also had a least one low-points day with the Open and 15m pilots each having at least one outlanding. At this level of competition, one bad day can mean 10 or more places in the overall scores.

Steve O'Donnell was involved in a mid-air collision on day three but thankfully parachuted safely. With the glider severely damaged and Steve in hospital, that was the end of Steve's competition.

Pete Temple managed to place in the top ten (8th) in 18m class, our best result.

GFA member and Australian resident Mak Ichikawa, who flies for Japan, took out the Silver medal in 15m class –



TERRY CUBLEY
EXECUTIVE OFFICER

eo@glidingaustralia.org

congratulations to Mak on a great result.

The team members and Team Captain Mandy Temple and the coach Peter Trotter committed a lot of time, energy and finances to their participation, and we congratulate them on their individual performances and team performance.

MYSTERY CUSTOMER!

Some businesses send in mystery shoppers to test the level of customer service. I came across a similar scenario recently when my daughter decided to check out if she could come back to flying. She has 100 hours and a Silver C but hasn't flown since she was a teenager, interrupted by career and children. She is still interested and is planning when she can resume her flying.

She lives in Bacchus Marsh and went out to our old club on Australia Day. Only one club was operating, our old one, so she and her husband approached the pie cart. Approximately four members sat chatting, so they stopped next to them and waited. They were ignored for 10 minutes as the guys continued their chatting. Eventually she pushed in and they asked if she needed any help.

"How much is club membership?" she asked. \$300. "How much does towing cost?" \$5.50 per minute. "How much are the gliders?" 60 cents per minute. "Do you have any information?" She was handed a brochure with a couple of photos and club name. "Do you have any prices?" You will have to look at our web page. That seemed to be the end of the annoyance so they went back to their conversation and my daughter and husband left.

I really hope this is not standard practice. There was no engagement with someone asking about gliding, no checking if she had been flying before or wanted to get involved. Not even a suggestion of an AEF. The club is destined for decline if that is the accepted approach. Very disappointing.

CLUB PROMOTION WORKSHOP

The GFA Board has contracted a sports marketing firm, Sports Community, to help develop a marketing and promotions plan and then to assist individual clubs to grow their membership and participation levels. The first stage of this program will be a Marketing workshop in late March aimed at identifying the products that GFA should support and promote to clubs that can create increased member satisfaction.

If any members have an interest in this area or would like to provide papers or participate in this workshop, please contact me at eo@glidingaustralia.org.

WOMEN'S WORLD GLIDING CHAMPIONSHIPS

Australia will host the 2019 WWGC at Lake Keepit. We can enter up to nine women in these championships and we also need a significant number of organisers, supporters, assistants to make this event a success. Even greater than this, the hope is that the excitement around this competition will enable us to attract a significant number of new women members, inspired by the competitors and support teams. Our female participation rate is only 5%, so we have plenty of opportunity to welcome new women members.

The GFA Sports committee is starting now to draw together women keen to participate in any role with this next project. Please let me know if you would like to hear more.



Narrogin Gliding Club welcomed two new members recently and after the ensuing discourse, it appears one works for the RFDS as a training and checking captain. Not ones to miss an opportunity, we considered the feasibility of some closer interaction between the RFDS and Narrogin GC. As a result, the RFDS/WAGA Collaboration Workshop was born.

Narrogin hosts a significant regional hospital which relies heavily on the services provided by the RFDS. Arrivals can number as high as 10 per week, meaning higher levels of interaction and consideration provides increasing benefit for all. Like most aviation bodies, the RFDS is very conscious of the safety of its own and others it interacts with, in particular where shared runways and airspace with gliding ops are the norm. While there are almost never any conflicts, we are forever mindful of reducing the risks no matter how small.

The remaining WA gliding clubs are of course in similar situations as are probably most other gliding clubs around the country.

The presentation centred on what each body needed and the similarities and differences between us, including aircraft types and capabilities. While perhaps deserving some obvious responses, the reality was enlightening. However the overriding emphasis was that each wanted the best outcome for all.

For those who are located where the RFDS frequent, I would strongly recommend this level of interaction.

Many thanks to the RFDS for hosting the event, Phil Dodd (RFDS and NGC) workshop coordinator, Lis Driessen (NGC) and to the attendees for showing such commitment.

DAYLE FOUND
CFI NARROGIN GLIDING CLUB

Project Beyond 3000

Aviate in April

1. Fly a Friend at any gliding club in Australia in April
2. When they join GFA for 12 months GFA will repay 50% of the GFA membership fee to your club.
3. When the member renews in April 2018 GFA will again refund 50% of the GFA fee to your club.
4. Let's do it!

AUSSIE LIBELLE GATHERING 2016



Bendigo Gliding Club held its Libelle Gathering from 28 December to 30 December 2016 at its Raywood airstrip.

Participants arrived from all over Australia for this unusual event and as they rolled in with their glider trailers, rigging began almost immediately.

Although the event was planned to take place during what are normally the best summer soaring times, the weather on this occasion stubbornly refused to

co-operate.

On day one a 35kt crosswind blew away any chances of flying, so the Libelle group got to know each other, talked about their

various gliders, the modifications and techniques involved, as well as reading through the material provided for the gathering. It wasn't what was planned perhaps, but still a pleasant day.

Day two had little wind, although occasional downpours swept across the field. Nevertheless, most participants got airborne and managed to find lift while dodging between showers. Graham Levitt certainly earned his bottle of

Eaglehawk Chardonnay that day for the longest OLC effort and time in the air. After talking for a while about the highs and lows of the activities, the day was capped off with a barbeque. Keith Hays was presented with an award for making the trek all the way from Western Australia to our Gathering in Victoria, a fantastic effort.

Friday, the final day, began with the usual briefings, which were followed up by all the Libelle owners getting their gliders into a line so we could record this unique event with a few photos. The line-up of Libelles, something never seen before in Australia, was, in a word, awesome!

Despite the fact that many of these gliders are over 40 years old, they all looked great. The Libelle is a true classic and carries its age well with a bit of care. It also presents many opportunities for upgrades to the airframe, something not so common with other gliders.

Again, a westerly crosswind kicked in, but a few hardy Libelle pilots got airborne before the breeze grew to 15kts and operations were cancelled due to risks to the tug aircraft.

Alex Wallis put in a fantastic effort to fly almost 230km on a difficult day in Alpha-Whisky to earn the prize of a bottle of wine for the day.

Then it was derig time, so the crews carefully packed up their pride and joy into trailers. Thus ended the first Aussie Libelle Gathering.

A big thank you goes to all the participants who came from far and wide to make the event happen - well done Libellians!

MARK KERR



PILOT WELLBEING RESOURCE PAGE



We have released a new resource page to help Australian pilots manage their health and wellbeing.

The page covers wellbeing topics such as fatigue, diet, hydration, mental health and alcohol and substance abuse, all of which are issues with a potential to have a negative effect on pilot performance and aviation safety.

The new page also aims to dispel some of the myths, misconceptions and fear around how CASA regulates issues such as depression and the excessive consumption of alcohol.

It goes without saying that healthy pilots are critical to aviation safety. They are responsible for the lives on board their aircraft, and so must have the knowledge and self-awareness to monitor their own performance, addressing any issues that could affect safe operations.

This includes the obvious technical skills and currency, as well as general wellbeing - pilots' physical and mental health.

We're also working with various industry groups dedicated to helping pilots through issues such as depression and substance abuse, all part of an effort to help get pilots back to work while maintaining the highest level of safety.

By working with these organisations, we aim to create an environment of trust where pilots, their colleagues and their families have the confidence to report potential issues. In that way issues can be addressed before they affect aviation safety, and it helps to ensure a supported and monitored return to work for the pilots concerned, through transparency, cooperation and coordination.

The alternative - unreported drinking and substance abuse - is simply too dangerous.

One of these organisations is the Human Intervention Motivation Study (HIMS) recently established in Australia for anyone in the aviation community whose use of alcohol or other drugs is of concern.

Problems with alcohol and other substances do not necessarily mean the end of your aviation career. A cornerstone of HIMS is the understanding that substance dependence is a treatable medical condition. It is modelled on well-established overseas programs that have assisted thousands of pilots to return to work.

We also take a similar approach with mental health, treating every case of depression as unique, and making aeromedical decisions on a case-by-case basis.

Depression is more than just a low mood - it's a serious mental illness that affects physical health, and your concentration levels, alertness, reaction time and decision-making ability.

Needless to say, for pilots, the hazards and effects of depression could mean the simple difference between life and death. While depression is a serious health consideration, again, diagnosis doesn't mean the end of your aviation career.

We look for a good stable recovery, and even if in some cases ongoing medication is required. For pilots, well-managed depression is compatible with medical certification, but you must report any relapse in depressive symptoms to your DAME.

Despite the progressive regulatory approach we take on issues like

depression and substance abuse, there remains a genuine hesitation within parts of Australia's pilot community about self-reporting or reporting a colleague, out of fear of losing medical certification. That's why the decision was made to permit pilots who had recovered from depression to resume flying, even though they might still be taking medication.

Our Safety Promotion Team is currently distributing posters to the wider aviation community encouraging pilots not to ignore mental health and start a conversation with their GP or DAME.

Our Aviation Medicine section has also developed a series of fact sheets and case studies to help pilots understand how wellbeing and other health conditions could affect aviation safety and their medical certification.

All this information and more is available on our Pilot Wellbeing page at casa.gov.au/wellbeing

GFA CALENDAR

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

LAKE KEEPIT REGATTA

25 February - 4 March 2017

www.keepitsoaring.com

SA STATE COMPS ASC

11 - 13 March 2017

Contact Mandy Temple 0428

378076 thetemples@internode.on.net

QUEENSLAND EASTER REGATTA

8 - 15 April 2017

Darling Downs Soaring Club, Mccaffrey Field, Bowenville QLD 4044, Australia

For more information

www.ddsc.org.au

COMPONENT REPLACEMENT AND FORM 2

20 -26 May 2017

Waikerie

16 participants

Cost - to be advised

Coordinator - Peter Cesco

Contact - cescop@optusnet.com.au or mobile 0422 006 111

swiftavionics

ALL GLIDER AVIONICS

PowerFlarm



When it comes to seeing every craft in the sky, PowerFlarm has no rival. With ADS-B and a max range of over 10km, you'll always be the first to know

Flarm Mouse

For the competitive pilot, LXNav's Flarm Mouse is the sleekest IGC approved option on the market



Nano3 LACK INK 0.300 INTRODUCES

- IGC Flight Recorder
- 3 axis accelerometer
- 3 axis gyroscope
- 25 hour battery life
- Vario
- All in one system backup



Aeolus Sense

The most affordable standalone AHRS on the market

- 3-axes gyro, accelero & magno!
- IAS, TAS, Altitude, Vertical speed, Ground speed ... and many more features



The Soaring Engine

by G Dale
A gliding handbook for beginners and seasoned pilot's alike. With everyday language and clear diagrams, G's 30+ years of experience flies off the page

FREE SHIPPING quote
Gliding Australia with order
on-line store

nathan@swiftavionics.com.au

swiftavionics.com.au

LOUDIE IGC

Packed with FEATURES

- Aviation Quality GPS
- IGC Approved Logger
- ENL - Engine Noise Detector
- 12 hours Battery Life at full screen brightness
- Back up Vario
- FLARM Display
- Sunlight Readable Screen
- SeeYou Mobile Software



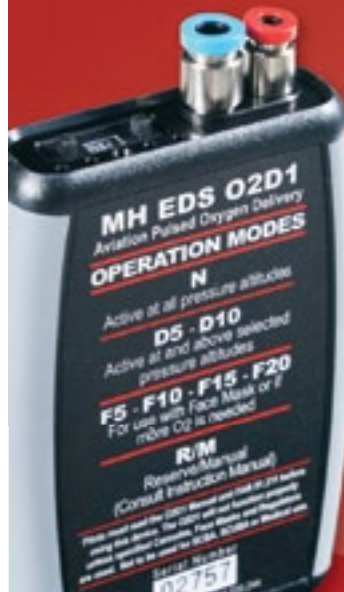
All in One Flight Computer

Comes with all accessories to go soaring straight out the box

Professionally Supported Software
Local Support and Free Advice

GOSOARING
.COM.AU
07 5499 4636

OXYGEN SYSTEMS



COMPLETE SYSTEMS

Constant Flow or EDS

Kits include all the components you need to enjoy soaring above 10,000 ft and be SAFE.

Using oxygen from 5000 ft has proven to be therapeutic, thinking clearer, land back not feeling fatigued.

Complete Kits with everything you need
Local Support and Free Advice

GOSOARING
.COM.AU
07 5499 4636



Hot off the press is the fourth edition of Bernard Eckey's book 'Advanced Soaring Made Easy'. Updated and extended, it now contains 432 pages, 187 illustrations and 176 photographs. New topics have

ADVANCED SOARING MADE EASY 4TH EDITION

been included, the structure of the book has changed, the page layout and graphics are much improved, the text has been revised or extended throughout, and the quality of the many new photographs is simply spectacular.

Previous editions of this best seller have already helped many solo pilots to become highly skilled and very competent cross-country pilots. The fourth and final edition is now an all-encompassing book on advanced soaring. It is completely up-to-date with current changes in the sport and offers new pilots a self-coaching tool with all the information needed from a single source. This doesn't mean that performance oriented pilots have been forgotten. On the contrary, chapters on competition flying, glider fine-tuning and the all-important psychological aspects assist

experienced pilots to improve their success rate in competitions or enhance their chances at record attempts.

Every glider pilot can benefit from the breadth of information in this book. Inexperienced pilots will gain valuable insights while building basic skills, avoiding setbacks and disappointments. Cross-country pilots can use the advanced theoretical knowledge in the development of superior practical skills. Competition pilots will find their knowledge challenged, resulting in insights that will greatly contribute to rapid progress. In short, 'Advanced Soaring Made Easy' is the ultimate reference for pilots trying to get on the fast track to success – a book that no ambitious glider pilot can afford to ignore. For availability, visit

www.future-aviation.com

THE SOARING ENGINE: VOLUME TWO

G Dale's instructive series 'The Soaring Engine' goes to the heart of what every soaring pilot is interested in – the movement of the air. The aerodynamics of any flying craft is the same whether it is an airliner or a sailplane. The difference for sailplanes, hang gliders or paragliders is that there is no mechanical means to provide thrust. Soaring pilots rely on the forces of nature to provide an engine. Making best use of the elements requires knowledge and knowhow that you can readily access from the easy-to-read, easy-to-understand writings of G Dale.

The fascinating and exciting conditions created by convergence and wave are the subject of volume two, which builds nicely on volume one's dissertation on ridge and thermal flying. It is not essential to read volume one before volume two, but recommended. G continues his successful format of one topic and diagram per page for easy reading and later reference. It is cleverly organised so that the first half of each page covers the theory and the latter part of the page provides comments and advice on application of the knowledge in real life and the best strategies to use.

As a professional coach and guide of many years, G Dale has had the opportunity to make many observations of patterns of energy and he has learned how they work and how to make best use of them as a soaring pilot. He has also

learned how to avoid difficulty and potentially unsafe circumstances. This knowledge he generously offers to the gliding community, no doubt making for more enjoyable and safe soaring for those who read his book.

G Dale has successfully taken on a huge challenge to explain an enormously complex subject in a way that is useful to the soaring pilot. Just as in the first book, this volume breaks it down to explain how the air works by using the key principles of sun, wind and terrain effects. G describes patterns in a way that allows you to develop a picture in your mind. Knowing these basic principles and concepts, the reader is more likely to be able to put it together when up in the air. G states his intention to help pilots understand and use patterns in the sky by providing "... simple models and clear rules of thumb ... instead of a head full of complex physics".

Most soaring pilots have come across convergence and wave effects, even if they didn't know it. After reading this book you will probably recognise many of the patterns described but maybe didn't know how to use them or how to avoid getting caught out by them. G Dale points out mistakes that can be made in various conditions, and most pilots reading the book will recognise having made these mistakes. An understanding of why the mistake

happened in the first place is essential to avoiding making the mistake again. It's better to find out through reading this book than outlanding.

The section on convergence breaks it down into three different types of convergence: temperate sea breezes, carpet wind convergences and convergences of similar air masses. The rest of the book is devoted to wave soaring. Classic wave conditions and how to use them is described after a step by step explanation of how wave works. More complex wave systems are explained as well as the effects of wave on thermal and ridge flying. Given the potential to get into trouble in the less benign conditions that come with wave soaring, G provides clear information about how to keep safe.

Reading this book is inspiring and will make you want to get up there and look for these patterns, and try out the strategies and techniques.

LISA TROTTER

In stock at Swift Avionics,

swiftavionics.com.au

and www.thesoaringengine.co.uk





For the second year, Narrogin Gliding Club played host to the Women In Gliding WA event. The week began with a tasty welcome sausage sizzle on Sunday evening, 30 October. With the arrival of GCWA's DG 1001 from Cunderdin, the stage was set for a fun-filled week ahead for the eight women who signed up to attend this year's event.

With much joviality after supper, Ailsa McMillan pulled out her bottle of bright pink nail varnish and proceeded to paint everyone's nails - Dayle, Bucko and Cecil got the treatment too! It was her way of breaking the ice between the club members and the visitors from the East.

We were most honoured to have Ailsa, from Geelong Gliding Club, come and coach us for the week. Although she is still regarded as a junior, she has competed in two World Gliding Championships and has crewed for a third. She has also taken part in at least one Grand Prix. Her knowledge of gliding in general is remarkable and her passion for long distance flight is absolute. During the week we were treated to several superbly prepared, well-presented lectures and power point presentations on thermals, the structures, the techniques to fly in them, and so much more. They were fresh, informative and easy to follow.

Jenny Thompson from Darling Downs Soaring Club in Queensland and Wendy Medlicott from Lake Keepit enrolled to experience West Australian hospitality, countryside and gliding conditions. They told me that, due to my enthusiastic emails and communications, they would travel to WA and support us. On leaving at the end, they both came to me to congratulate our club for making this WIG a memorable one, for all the right reasons.

Since Jenny is a qualified Level 2 Instructor, coach and also a tug pilot, I decided that we would all benefit from her enormous bank of knowledge and experience and asked her to fly as a coach as well. She and Jeremy were adamant that they had come to experience WA, but so willingly gave of themselves where they were needed. Wendy told me right from the start, that she was no longer a qualified coach or instructor, so I asked that she

fly with some of the girls, as a buddy or mentor. She agreed and this worked out really well. I firmly believe that both Jenny and Wendy were very helpful in stabilizing the group of ladies, some of whom have been away from gliding for some time. Having only recently come back to it, they lacked confidence. I am absolutely convinced that after their WIG experience, those ladies' confidence has grown. They all enjoyed their solo flights further away from the airfield, and hopefully with the right encouragement, will develop their cross country skills here at Narrogin.

Monday morning loomed cool and bright. Club members who had volunteered their services for the week pulled the gliders out of the hangar, DIs were carried out and gliders washed before the 9am briefing. After the housekeeping, weather and general issues of the day were discussed, the ladies held a short meeting on their own to discuss among themselves just what each wanted to achieve from the week's activities. We were paired with the coaches and mentors for the day's task, a Pingelly-Wickepin-Narrogin triangle. My thanks go to Whippo for his unfailing support during our task on that afternoon. He kept radio contact with me throughout and encouraged me to make it home in very tough conditions. More notable was Suzette's awakening to cross country flight.

On Tuesday, with Jenny Thompson's expertise, which may I say is well worth witnessing, we studied the weather for the day ahead and the task was set. I flew a mutual flight with Harry Medlicott, which turned out to be a truly enlightening experience. Our task took us from Narrogin Silo - Cuballing - A3 - Highbury and then back to Narrogin Airfield. Two crews made it all the way round the course and a few bailed in some rough and choppy conditions

later in the day. I have learned that flying with a coach has some very big advantages - besides the lessons a coach can teach, it's fun to have the company.

Wednesday proved to be our best day as far as the weather predictions were concerned, and so we planned to take full advantage of the favourable conditions. Tasks were set according to wish list criteria and ability levels, so a task was set: Narrogin - Nomans - Brookton - Narrogin. Most pilots accomplished the task and were all very pleased to have achieved their goals. I had a goal to achieve a 300km badge flight, so set a Narrogin - Kulin - Quairading - Narrogin FAI triangle. Jenny Thompson agreed to be my Official Observer, and subsequently signed my badge claim form. Suzette only wished to accomplish a cross country flight, and was encouraged to do a Narrogin - Brookton - Narrogin task, which constituted a Silver C Distance flight. We all achieved what we set out to do on that day, and went to bed tired but very satisfied.

On Thursday morning, Harry Medlicott gave us a brilliant lecture on thermalling techniques. Harry told me one evening that he has accomplished twelve 1,000km flights - which his wife contradicted by revealing that the number was 18. As the weather report that day didn't look too bad, we set a small task for Pingelly - Wickepin and back. I flew with Ailsa for the first time in the GCWA DG1001, a truly beautiful machine. After an hour of scratching around the airfield in choppy, difficult 0.5 to 2 kt thermals to 4,600 ft, we canned the task and landed.

On Friday morning we all donned our WIG WA shirts, kindly sponsored by WAGA very well received by the ladies who attended the week. Dayle took the official photographs and has sent the entire file of pictures to our drop boxes for review. There are some wonderful memories among those photos. Some of us flew on Friday morning, and although I had planned to convert to the Discus CS, I spent the afternoon taking care of administrative issues and didn't get to do the conversion flight after all. I am aware that Alis did her conversion flight in the Astir and Lyn spent a good hour swanning around the sky in the Puchacz.

As ever, Margaret was on hand to provide a simple, nutritious buffet breakfast, conveniently packed lunches and delicious dinners. She was most ably assisted in the kitchen by Scarfie, who ironed out any and all issues that Margaret may have encountered. Between them, Margaret and Scarfie were responsible for between 15 and 20 meals, thrice daily - a feat which leaves me in awe.

Our tug pilots for the week were Trevor, Cecil, Bryan and David Shearer, all doing a fantastic job of hauling us into thermals, as they always do. Among the ground assistants, I have to specially mention Rick Amery, Peter Bradshaw, Dennis Buckley and Scarfie, who never failed to get the job done, whether it was filling in on the flight line, or removing rubbish from the kitchen for Margaret or cleaning the ablutions, it was done quickly, efficiently and without complaint. Our visitors were very impressed by the clean, DI'd bank of gliders - ready to fly each morning. The comment came back, "this is such a luxury!" Claudia and



ABOVE: Jenny Thompson gets to work on the airfield.

Scarfie, went above and beyond, by ensuring that the accommodation for our guests from the eastern states was clean, fresh and well presented. Flowers, brought from Bucko's garden, were placed in the rooms - much to the delight of our visitors. Thanks must also go to Alan Arthur and Tony Henderson for the loan of their caravans to Ailsa and Alis. Claudia sat in the pie cart for the first 2 days, diligently keeping the logs, until she and Bryan were unfortunately called away home on urgent business early on Wednesday morning. A tree in their garden had fallen, destroying a gate, and lay resting on the neighbour's house.

I cannot go further in my report without making special mention of another of our coaches, John Kenny. Although still recovering from a shoulder reconstruction and unable to fly, John gave us his undivided support and encouragement. Our CFI Dayle spent the entire week ensuring that we ran a safe, professional operation, at the same time respecting the Women In Gliding theme. Thank you, Dayle, for your presence, advice, rock solid support and wonderful photographic memories.

I have to thank the Committee of Narrogin Gliding Club for their role in making this WIG WA week the enormous success that it was, for their unfailing support, encouragement and for making the club and its fantastic facilities available to WIG for the week. David Harris and





Trevor Sweeting must be recognized for the negotiations with Swain Johnson of GCWA for the hire of the DG 1001 from Cunderdin. The use of the extra dual, high performance glider proved to be invaluable to the success of the week. I have to thank Alis Starink for arranging the transport of the DG 1001 from Cunderdin to Narrogin and back. I

ABOVE & BELOW: Ailsa McMillan and Jenny Thompson receive gifts of appreciation for their efforts and encouragement from the participants at WIG Week in WA.

have to thank the members of Narrogin Gliding Club for making us all so welcome, and for helping to make the week run smoothly and efficiently. The week was marked with fun, laughter and joviality, which has made Narrogin arguably the friendliest, liveliest and most active gliding club in the state. Thanks also must go to John Styles, who sanctioned the payment of Ailsa McMillan's flights to Perth and return. Ailsa brought a new, fresh and infectious vibe to our WIG WA event this year as well as an incredibly sound knowledge and enthusiasm which we have not seen here in WA. Ailsa was a shining light on this year's event and I hope we may be able to entice her to come again next year, for we all learned an awful lot from that young lady!

We also have to thank GFA for the funding we received. This year, we were fortunately not plagued with outlandish costs, so all of the money donated to WIG WA by GFA and WAGA was used for tow and glider hire costs. This made the whole experience a lot more affordable for us all.

Ailsa and I decided to institute three awards as perpetual trophies for the week. The first, Most Improved, would be decided by the coach. The second award, Best Flight, would be judged by OLC points, and the third was Pilot Choice Award, chosen by the pilots themselves to show who they thought would be the best and fairest in the group during the week. Suzette won the Most Improved Award and I won Best Flight for my 311.9 Km flight on Wednesday. I was also fortunate to have been awarded the Pilot Choice Award by the group.

The Women In Gliding WA week was another enormously successful event, putting WA Gliding on the map, making the powers that be in the eastern states sit up and take note of the specialness we have here. Individual wish lists were fulfilled and we all learned an awful lot from our flights with coaches and other pilots with much more experience than ourselves. It was a chance for us to gain confidence, learn at our own pace and socialise among ourselves.

JENNY THOMPSON

Jeremy and I saw there was a WIG week being run in WA, and thought that as we'd never flown in the west, we should go to WA and make a visit to Narrogin for the week. Well, it exceeded our expectations entirely. The coach for the week was Ailsa McMillan from Victoria, who was brilliant, fun and expert. We were all made so welcome at the Club and many members helped out to make it a great success. The week was organized and coordinated by Robyn Becker, who is infectiously enthusiastic. It was fantastic that Wendy and Harry Medicott also came across from the East for the event. The weather was reasonable, with most days being suitable for cross country, and we had one really good day of 9000ft, where many achieved good cross country flights. It was so good, we are coming back next year.

WENDY MEDLICOTT

I decided to go to Narrogin to support Robyn and the ladies from WA with their WIG week. What a great time we all had.

Ailsa was the coach for the week supported by Jenny Thompson and I did a few mutual flights with the girls. The weather was difficult but we all had a wonderful time and the appreciation shown by the club for us travelling from NSW, Jenny and Jeremy from Queensland and Ailsa from Victoria made us feel very humble. Jenny even had a poster of herself and her glider up in the ladies facilities and when they found out that it was her she managed to get the 'poster girl paper plate award' at the final dinner. Congratulations to Robyn for winning the Best Flight award and also the Pilot Choice Award.

The Most Improved Award went to Suzette for her first cross country flight of 50km in a Puchacz.

If any of you want to fly in WA, I suggest you investigate the three clubs south of Perth but especially Narrogin, where I am sure you will be made most welcome. **GA**

Getting Women Hooked on Gliding: Mt Beauty



BY LISA TROTTER

More women gliding and more women hooked on gliding - mission accomplished.

Flying at Mt Beauty - unmissable

What better site than Mt Beauty to inspire new and not so new women glider pilots to make soaring a greater part of their lifestyle? Who would think that Lisa Trotter would need more encouragement, but I was truly motivated to broaden my flying from flat land competition to include more alpine soaring.

Wendy Medicott started organisation for the event early this year and when I found out where the Week was being held, I decided that I couldn't miss the opportunity to fly at such a wonderful place. Having flown out of the Gliding Club of Victoria for many years and attended Khancoban camps, I was familiar with flying in the Alpine country but only on really high days. Having the guidance of Craig Collings and Tobi Geiger shone a whole new light on how the hills can be used and enjoyed.

THE ROAD TRIP

I left the Sunshine Coast for the road trip down south on Thursday 1 December, picking up Madeline (Maddy) King at Brisbane airport on the way. Maddy, who glides out of Charters Towers, arrived on a flight from MacKay and I scooped her up at the Airport pick up area, which was an interesting exercise with a glider trailer on the back. We headed to Byron Bay Gliding Club and experienced a severe storm with hail on the way - trailer was OK (phew). Thanks to Ian McPhee for hosting us. The next stop was Moss Vale, south of Sydney, and the following day on Saturday we finally arrived at Mt Beauty in time for their Hangar Party.

Mt Beauty Gliding Club was celebrating the Club's 40th birthday and we were lucky enough to be able share in the celebration, which included yummy food - especially the salads. It was also a great chance to meet the club members. Of course, everyone knows Mark Bland the club CFI who lives and breathes gliding. He is obviously a tower of strength for the club and certainly was for the WIG Week event. Quite a few of the women participants were also present and the rest arrived the following day. Jo Wooller rode her motor bike all the way from Brisbane.

THE GIRLIE GAGGLE

Among the 17 women participants were eight women from Victoria, six from Queensland and three from NSW. The experience level ranged from pre-solo to World Championship Competition. In the photo above, from left to right in the front row are Sylvia Sharman, Louise O'Grady, Lisa Trotter, Madeline King, Jennifer Llewellyn, Janet Neisler. In the middle row are Wendy Medicott, Rachael Richards, Carol Moir, Jamie Brady, Megan Quinn, Melissa Path, June Nakamara. In the back row are Jo Wooller and Jenne Goldsmith. Kerrie Claffey and Dominique Brassier weren't present for the photo.

THE FLYING

On the first couple of days the weather was marginal and I began to realise how an engine in a glider can be a handy thing. But the soaring conditions picked up, providing excellent conditions on all but one day. Mark Bland was out on the field before 7.30am each day and winch training filled the mornings. Some pilots were working towards solo, some consolidating recent solo and others getting their winch endorsement. Maddy, who is 18 years old, went solo again and was doing soaring flights of two hours or so. She achieved her 'B' certificate by the end of the week. Jamie Brady went solo in an ASK-21 and Jo Wooller did her first solo winch flight. By the middle of the day, pilots piled into the five two-seaters and six single-seaters for some soaring around the rocks and tours of the ski fields.

Melissa Path from Rockhampton training with Andrew Evans - Mt Beauty Club President





Lisa Trotter, Trevor Hancock and Wendy Medicott.

THE ADVENTURES

Trevor Hancock very generously provided a seat in his Arcus every day which was enthusiastically taken up by fellow Arcus pilot Wendy and other excited pilots. Mark Bland used his ASK-21M to take student pilots to sample the high plains, Ian Grant provided coaching in a Janus, generously made available by the Grampians Soaring Club and Dave Wilson coached in the Melbourne Gliding Club Duo Discus. Two-seater flights were made to Mt Bogong, Falls Creek, Mt Feathertop and Mt Hotham and on one day the Arcus went to Mt Kosciuszko. You know how I said that having an engine in a glider could be a handy thing – well, getting over that last ridge to get home brought out the Arcus iron thermal.

Some two-seater coaching flights were even more adventurous. Ian Grant found himself quite a way south east of Mt Beauty on one day while the rest of us were being chicken not venturing much past Mt Bogong and Falls Creek.

Do you still remember what I said about an engine in a glider possibly being a handy thing? Well, Ian did a good job of outlanding at a strip near Benambra just north of Omeo. Then he and Jamie were aero retrieved by Tony Edwards in his Cessna 180 with tuggy Megan on board learning a thing or two about retrieves in the Mountains. It was a pretty exciting day for 18 year old Jamie who is a recently soloed glider pilot. Ian Grant continued to provide excitement for his coachees – this time Janet Neisler. Ian successfully found a landable paddock in a tight valley at Wandiligong on his way to Mt Buffalo. You know what I said ...

EXPLORING THE SKI FIELDS

By 1pm we had cumulus clouds to 6 or 7,000ft on most

days and the operation expanded to include towing by Megan Quinn in the Gliding Club of Victoria's Scout and Tony Edwards of Mt Beauty in his Cessna 180. Single seater flights were made by June Nakamura in the Club's Hornet, Louise O'Grady in her ASW19, Kerrie Claffey in her ASW28 and me in my LS8. Jenne Goldsmith took to the skies using the winch in her Ka6E and did a number of adventurous soaring flights in the spectacular mountain scenery which included a visit to Mt Feathertop.

Kerrie and I were lucky enough to do a number of lead and follow coaching flights with Craig in his ASW20 on one day, Tobi in his LS4 on another day and both of them on our last day, which was a hoot. On the first day Craig and I ventured up to Mt Hotham while waiting for Kerrie to launch and join us then the three of us went together to Mt Buffalo / Lake Buffalo and then via Mt Porpunkah to Mitta Mitta and Mt Benambra near Dartmouth Dam, returning via Mt Bogong and Falls Creek. It wasn't an easy day with a long glide across the blue from the Tawonga Gap to Mt Buffalo. This was the day that Ian was sampling the outlanding options at Wandiligong.

MORE ADVENTURES

The next day was better, but Tobi stretched us a bit more with a flight circumnavigating Mt Buffalo so that we came around the south side well below the lookout and very close to the rocks. We had a very reassuring commentary from Tobi about outlanding at Porepunkah airfield being available. Then on our final day Craig and Tobi suggested we go to Mt Bulla, a reasonably straightforward flight out of Benalla but a bit more daunting out of Mt Beauty because of the lack of outlanding options on the direct track. Keeping within glide of landable valleys, we looped a bit to the north, then tracked via Mt Cobbler to Mt Buller. I was 4,500ft at Mt Cobbler which is 5,350 feet high but found good lift on the rocks. We turned Mt Bulla for Mt Buffalo which had Cus at a good height above it allowing us to sightsee over the top of the hill. We went back to Mt Beauty via Mt Porpunkah and decided to make use of the still excellent conditions to work our way up Mt Bogong and go to Feathertop via Falls. From there we ran down the Razorback close to the ridge at 100kts back home. Wow!

With all the flying we did, you would think there would hardly be time for anything else, but we managed to squeeze in some great dinners, yoga, scones, walks and runs. Maddy cooked a delectable veggie pasta one night at the Cedar Lodge accommodation for the women, Rachael made scones in her campervan and Roi's Restaurant opened especially for us - thanks, Kitty - for a feast of Italian food for everyone involved in the week, some 30-plus people. The final night was a BBQ at the club with food organised by Wendy and Louise and meat cooked by Andrew the President. An important part of the night was the thank yous and show of appreciation for the superb efforts of the Club, instructors and coaches.

THANK YOUS

Wendy Medicott has made a huge contribution to Women in Gliding over the years, including organising a number of WIG Weeks. She started working on the details early in the year with much assistance from the Mt Beauty Gliding Club and from Louise O'Grady. She not only looked after the participants but also the volunteer coaches and helpers. She ran the briefings and fitted in a few radio interviews as well.



Mark Bland also played a major role in making the event a success. In addition to running the operation, instructing, coaching and organising the accounts, he gave some excellent talks at briefing. As we know, behind every great man there's a great woman and her name is Suzanne.

Other club members also worked diligently to make sure everything ran smoothly, such as Greg Wilson at the launch and Detlev Rueff on the winch. The coaches were also acknowledged, including Andrew Evans, Mike Parkinson, Tobi Geiger, Craig Collings, Ian Grant and Dave Wilson. Lisa Trotter gave talks on goal-setting, feel of the air, dealing with anxiety, dehydration and secret women's business.

Thanks must also go to the organisations that provided funding and equipment for the Week. The GFA Marketing and Development Committee provided a significant amount of funding as did the Victorian Soaring Association. These funds contributed to the cost of aerotows, aircraft hire, volunteer expenses, subsidies for participants – especially the Juniors. Ian Grant and Wendy Medicott very generously provided some of their own funds to support the week. The Melbourne Gliding Club and the Grampians Soaring Club made their two seater aircraft available. Also, thanks to the guys who transported the Janus.

AWARDS

On the final night, various awards were made including the following -

Most improved pilot: Madeline King and Melissa Path
Awarded: Bernard Ecky's books – Advanced Soaring Made Easy.

Most Meritorious Flight: Combined winners Lisa Trotter and Kerrie Claffey

Awarded: Handcrafted stainless steel trophy by artist Jo Wooller of Mojo Creations.

Michele Baptist Scholarship: Rachael Richards, to advance her gliding.

Awarded: \$500 generously donated by Rod Harris in memory of Michele Baptiste who lost her life in 2009.

MISSION ACCOMPLISHED

If the overall objective of WIG week was to increase the participation of women in gliding, including the number of women and the amount of flying that they do, then the



Megan Quinn with the Scout

week was a success. Almost all the participants went away with enthusiasm and additional skills to do more gliding. There is no doubt that an event dedicated to women increases the feeling of belonging to the sport, and increases confidence by seeing others who are similar make progress. Among the participants was a wide variety of experience levels and personal objectives.

FUTURE WIG WEEKS

The Week did cater for a great variety of objectives, but I think future WIG Weeks could be more targeted at objectives relating to increasing female participation in gliding and thereby garnering even stronger support from the membership and clubs. With the coming Women's World Gliding Championships, a WIG Week could be held with a focus on competition flying, maybe run in parallel with a WIG Week for Ab initio and lower experience pilots or with a focus on getting your GPC to provide a framework for progress. I look forward to more discussion on this.

For women reading this who didn't make it to the Week, perhaps this article has sparked your interest. It would be good to hear how WIG Weeks could in the future encourage and support you to be more involved in the sport.

WORLD OF GLIDING AT BENALLA

PHOTOGRAPHS BY AL SIM, STEVE MAZURKIEWICZ,
JAREK MOSIEJEWSKI, JUTTA GOLDMANN, SEAN YOUNG



After years of planning, 116 pilots, their team captains and crews descended on Benalla at the end of December for the 34th FAI World Gliding Championships in Open, 18m and 15m Classes.

The people of Benalla gave a warm welcome to the many participants and enthusiasts from around the world. Australian pilots from all over the country gave their time as volunteers, or just visited to soak up the atmosphere. It was a challenging championships for the organisers and pilots, but it was a magical time for lovers of gliding, with beautiful new gliders to

admire. With so many great pilots and world champions competing, working as team captains or coaches or visiting, it was an immense pleasure to be part of this great event.

Here are some reflections from Competition Director Terry Cubley describing some of the major challenges the pilots faced, Australian Team Captain Mandy Temple on her experiences supporting the team on the ground, and four of the pilots who give an insider's view of the competition's strategies and conditions. We also take a close look at the new gliders that flew at WGC Benalla.

TERRY CUBLEY CHAMPIONSHIP DIRECTOR

In many ways, the Benalla World Gliding Championships was a big success. We had great support from GFA members with over 70 volunteers spending three weeks to ensure we could put on a good show. Another 30 spent two to five days helping out with a myriad of jobs.

Our focus was to ensure everything we did contributed to the pilots being better able to compete fairly without too many hassles. We all learned that 90% of the pilots were nice people just wanting to have a good time and enjoy some fast competition. A few others were a little tense and, therefore, more prone to complain or react. Our team quickly learned to keep smiling and to work with the pilots, which worked well.

The advice to "keep smiling" and sound positive also applied to how we worked with the weather. It was a terrible weather system that we had to contend with. The task area was still green from a very wet spring, we were constantly subjected to high cloud streaming over from WA, and temperatures were quite low. Not great gliding weather at all.

We had three really good days over the three weeks. Two of those days, occurring in the practice period, saw typical high speeds under cumulus, and the one good day

during the competition featured good heights, although blue, with open class completing 750km and the other classes near 700km.

Most days had the same structure - thermals starting to 3,000ft between 12 and 1pm, with maximum heights expected from 4,000 to 6,000ft. The weather models showed thermals weakening from 6.30pm, although the pilots were regularly coming home at 7.30pm.

TACTICS

Race tactics are quite important if you want to win an event like this. The scoring system rewards people who don't make mistakes, and does not reward people who try things differently. As a result, pilots were not prepared to start early and risk getting rolled by the gaggle. On many days, the large gaggle waited until long after it made sense to leave and, as a consequence, the gaggle progressed en masse around the course.

Pilots were complaining about the risks in the gaggle, but they all still waited for it and would not go alone. We had two mid air collisions. Two 18m gliders 'touched' (which means 'crashed') on day 2, but both were able to return to an airfield and both flew the next day. The other crash was more dramatic, causing both pilots to parachute.

The injuries sustained appeared to result mainly from landing in the parachute with strong winds on the ground.

The task setting was very well done by Weather Lady **Jenny Thompson** and Task Setter **Tobi Geiger**. The weather was hard to predict, in particular at what time it would start and finish, but we had to set increasingly larger tasks to try to reduce gaggles before the start. A 30-minute delay in launching could make a task less likely to be achieved, so we had a fine balance between launching into low altitude or changing to task B. On one day, we had to invent Task C, sending a car carrying the new task sheets in a mad rush down the runway in time to meet the delayed launch time.

IN THREE DIRECTIONS

Tobi's plan was to try and keep the three classes separated by setting tasks into different areas, so we often had one class heading west towards Bendigo, another class heading NW towards Hay, and the third class northeast towards Temora. Sometimes, a short leg along the edge of the hills at the start was needed for one class to give a separation in time, when they would then head north. This worked well and the separation was achieved on all days. The weather was not good enough to go into the hills to the south except during the practice period and even then, many competitors were reluctant to venture in due to the limited outlanding options available from the heights being achieved.

The last day was a good example of the comp. Launching was delayed for 15m class and heights achieved were under 3,000ft AGL. Gliders were dropping water and milling around in low gaggles. By the time we came to launch 18m class, the 15m gliders were just getting to 3,000ft, and as we had a different launch area we continued to launch 18m class, who also milled around at 3,000ft in low gaggles. Heights slowly improved and the 15m class moved away towards their start line, allowing enough space to launch Open class, who then milled around in low gaggles at 3,500ft, slowly climbing to 4,000ft. It takes 80 minutes to launch the fleet, but we managed to get them into the air in time to make their tasks achievable. It was all a bit low but a good opportunity to race for the final placings.

DIFFICULT TASKS, GOOD PILOTS

The tasks were difficult throughout the competition, but the pilots were better. At this level, small errors make a big

difference and after seven or eight days of racing, a few pilots had slipped down the ranking due to outlandings or some slow speeds. But there were some familiar faces near to the top.

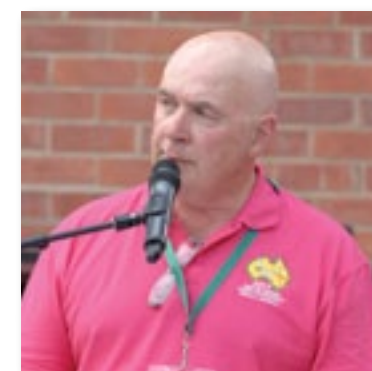
In Open class, Andy Davis and Michael Sommer, who fought out a close battle in Poland two years ago, were both again in the top three, with Michael in third place only 30 points behind Russel Cheetham in first, with Andy between. On the last day, Michael and his team mate Tassilo Bode started a few minutes after Russell and Andy. As we watched the tracking, they remained close to each other all the way around. It came down to getting a climb on the Warby hills 40km from home - who could get onto glide the fastest. They were all below glide, with half a knot climb rate. Tassilo headed off on final glide to see if he could pick up the height by gliding and therefore give Michael some advice. He didn't, and had to fire up his engine 5km short. Russell achieved glide first and flew home to become world champion. Michael got home only a few seconds later, but not enough to bridge the 30 point gap.

In 18m class, Killian Walbrou (France) was 70 points ahead of a group of two Germans and two British pilots. Killian was the first pilot home just before 6pm and was the new world champion, just ahead of Mario Keissling and Mike Young.

15m class was also quite dramatic, with Mak Ichikawa in the lead going into the last day, 33 points ahead of Sebastian Kawa and his Polish team mate Lukasz Grabowski. Mak and Matthew Scutter flew together, starting a little earlier than the Polish pilots, and were managing to say ahead quite well until the last turnpoint area. Mak and Matthew went much further into the turnpoint area, probably expecting some good air on the way home, but it was getting late with an expected finish time of around 7pm. Sebastian won the day at 81kph, but meanwhile Mak had got low on the Warbies coming home and arrived 40 minutes late at an average speed of 71kph. Sebastian was once again world champion with Mak Ichikawa in Silver medal position and Lukasz with the Bronze.

So the weather wasn't easy on the pilots or the organisers, but the pilots still had a very tough battle and the skills of the champions really showed through. Open Class had nine tasks, 18m Class had eight tasks and 15m Class had seven tasks. These tasks, with the three practice days, provided enough flying to make it a very viable outcome.

GA



FAR LEFT: Some of the 116 gliders that competed at WGC Benalla, come in to land.

ABOVE: CD Terry Cubley spoke at the opening ceremony.

BELOW: A few of the WGC's 100 or so volunteers, without whom the Championships could not have taken place, say hello from Benalla.



RAPTURED JS3 TAKES TO THE SKY



MAGNIFICENT PEOPLE IN THEIR FLYING MACHINES

Thirty years have passed since a WGC has been held in Australia, and I wanted to capture some of WGC2017 Benalla for posterity. Numerous present and past World Gliding Champions were participating at Benalla, some flying in the competition and others serving as team captains, coaches and observers. Between them all, they have hundreds of thousands of hours of gliding, gained over at least six decades. Many of the best competition pilots in the world were there and it seemed important to interview as many of them as we could. On the following pages, some of the pilots, the manufacturers we met and their aircraft are featured.

SEAN YOUNG, EDITOR

LISA TROTTER

Early in the year, Lisa Trotter called me to offer to do some interviews on camera during the championships. Lisa has been flying in gliding competitions since the late 1980s. She has flown at many national championships in Australia as well as representing Australia at WGC Uvalde in 2012 in 15m Class and at the Women's WGC in Germany in 2005. Lisa already knew many of the pilots who were going to be at Benalla. She also knew their concerns, strategies and the difficulties they would face day to day. She seemed the perfect person to interview the pilots.



NEW GLIDERS

In addition to the pilots, there were several models of gliders at Benalla that had never been seen in Australia before. These included the Ventus 3, which had not flown in any competitions before, and the JS3, which had only made its maiden flight a few weeks before the championships, as well as the EB29R and the Diana 2. Not only were the gliders there, but their manufacturers attended as well. It was obvious that we should video these gliders and their makers.

In the end we produced 120 videos covering the new gliders, interviews with the Australian team, pilots on the grid before flying and after landing plus the daily task setting and more. All the videos can be seen at wgc2017.com or the WGC YouTube Channel tinyurl.com/jk4orfa

You can read the full story behind the video production at Benalla at wgc2017.com or this direct link tinyurl.com/z9crynt

JS3

The South African team arrived in Benalla with two brand new JS3s that were to be flown in 15m Class by their designers and manufacturers, brothers Uys and Attie Jonker of Jonker Sailplanes. The JS3 had its maiden flight on 12 December 2016. They told me that by the time they had packed the two new JS3s into boxes they had flown about 50 hours in them, combined.

Until the JS3s had actually been loaded onto the Qantas aircraft, it was not official that the gliders would be flying at Benalla. Uys said, "We decided about a year and a half ago that we would participate in 15m Class, as we had completed the aerodynamic design of the JS3. We were hoping to have it completed in time for Benalla, but we knew from the beginning that we would need an additional six weeks to get them here." So, ensuring the participation of the newest gliders in the contest was a tightly timed achievement.

Due to Christmas and New Year holidays, the Jonkers decided to apply for the gliders to be registered in Australia and hurriedly filled in the forms for an Aussie C of A. When Lisa and I caught up with Uys at the beginning of January he was still filling in the new maintenance release for his glider.



The main innovation in the JS3 is the position of the wings. "The precise positioning required extensive modulation and numerous simulations to understand the complex flows between the wing and the fuselage," said Uys.

He explained that the high wing design observed in birds has always been recognised as an advantage – theoretically, at least. Nevertheless, despite many attempts in the past, a successful design of this type has never before been achieved. "It took us a lot of iterations, slowly moving the wing up and down in computer models to determine the effect on the sailplane and find the optimum position.

"What we do see [in the design] is that we have a larger wing available for lift. The wing area is the same, but a lot more of this area is doing the work.

"We got the first indications that we were correct when we saw that even with a wing loading of 60 kg/m², you can climb nicely at 100 to 110 kph, which is slower than our 18m aircraft at 54 kg/m² wing loading. So we see there is something special about this design, and we hope that by comparing it to other aircraft over the next few days, we can determine how much gain we have actually realised.

"If you look at the fuselage wing junction [see photo right] you can see that we tried to find the correct angles. It looks like a bird, and the advantage is that you have additional lift, which is lost if you move it to a lower position. According to our modulations, the disturbance from the wings affects the fuselage less, and therefore the fuselage runs cleaner through the sky."

Lisa asked Uys what he thought the JS3 would be known for in the years to come. He said, "We have always been trying to make an aircraft that is pleasing to the eye. We also want an aircraft that is good in all conditions, but with wing loading variations so it could also be a winner in weak European conditions. The idea was to make an all-conditions, winning aircraft."

Other innovations in the glider include moving the energy tubes to the elevator, making the fin cleaner and reducing drag.

IN THE AIR

By the end of the competition, Uys had racked up two day wins and Attie a 2nd place, even though 15m Class only completed six races, as one was cancelled in the air due to the accident [see page 31]. Uys and Attie also finished the comp in places 11 and 12. So, it is clear that the glider is a capable of beating the Ventus 2, ASG29 and Diana 2.



TOP: Attie Jonker's new JS3 is ready to fly in 15m Class at WGC Benalla. Attie was Chief Design Engineer of the JS3, made by the company that bears his name.

LEFT: Uys Jonker, having just completed the Certificate of Airworthiness required to register the new glider in Australia, showed Sean and Lisa the new aircraft.

You can see the walk around the JS3 with Uys Jonker, plus Lisa's interview with Uys in full and 120 other videos from WGC Benalla at the Video Gallery wgc2017.com or on YouTube tinyurl.com/jk4orfa

NEW WING IN THE WIND VENTUS 3



LEFT UPPER & LOWER PHOTOS: Wolfgang Janowitsch flies a Ventus 3. He finished the competition in 6th place.

LEFT CENTRE: Tilo Holighaus CEO Schempp-Hirth talks to Lisa Trotter about the Ventus 3.

associated cloud was forecast to clear the area. But as usual, the exact timing was predictably unpredictable.

All three classes gridded and at 12.30pm, Task Setter Tobi Geiger took a 'sniffer' launch, as usual. When he reported a cloud base of 2,200ft AGL and little or no lift, launching was delayed. Soon after 2pm, Terry and his team became concerned at the prospect of 116 gliders in the space above the airfield with limited climb possibilities. Considering the safety issues involved, they decided to cancel both 15m and 18m Classes and launch the Open Class.

VENTUS 3

Meanwhile, Tilo Holighaus CEO of Schempp-Hirth cycled out to the launch point to show me and Lisa the Ventus 3, which has never been tested in a World Championship before.

Tilo talked about the development of the glider and its stand out feature, the all-new wing, with multi-dihedrals towards the wingtip and the swept back distribution of the different airfoils.

With three separate water tanks in each wing, the glider is highly configurable for different soaring conditions. Lisa asked Tilo why the V3 has a maximum wing loading of 55 kg/m², which is below the ASP29 (57 kg/m²) or the new 15M JS3 at 60 kg/m². Tilo explained that they considered the entire flight envelope in designing the new wing, and that 55 was the best number.

"It's not only taking the figures, but how the glider actually flies," Tilo said. "For us, what was extremely important was the climbing ability, not just that it climbs well, but that it feels how to find the lift. All the pilots who are flying the glider here have confirmed my own experience that when you enter turbulent air, you can feel where the centre of the thermal is. So far in this glider I have never turned to the wrong side.

"Especially here in Australia, where there are sometimes tricky conditions and blue lift, we think that is a big advantage.

"We have made dozens of comparison flights and, especially at high speeds, we are positive that the new Ventus is not only good on the figures, but also in the air."

IN THE AIR

Six of these new super 18m ships flew at Benalla. By the end of the contest, a JS1 flown by Killian Walbrou from France took first place, Mario Keissling from Germany took 2nd place in a Ventus 3, Mike Young 3rd in an ASG39, and the following three places were all Ventus 3s. It was a difficult competition but the V3 was a clear winner.

You can see Lisa's interview with Tilo in full, plus a walk around the Ventus 3 at wgc2017.com or on YouTube tinyurl.com/jk4orfa

continued over page



TOP: Andreas Lutz, who worked for Schempp-Hirth and helped design the Ventus 3, flew this glider to finish 11th overall.

MIDDLE: Tilo and Lisa talk while Sean Young records the interview with his mobile video unit.

ABOVE: The multi-dihedral construction of the all-new Ventus 3 wing is its stand-out feature.



On 2 January, WGC Benalla officially took control of the contest site for the duration of the championships, and the morning's briefing was held for the first time in the comfort of the BPACC Auditorium adjacent to the Gliding Club of Victoria's clubhouse. CD Terry Cubley quickly went through the formalities, followed by the weather briefing given by the contest Weatherperson Jenny Thompson.

Task Setter Tobi Geiger displayed some suggested tasks to fly for the three classes. You can see his daily presentations, Task Setting with Tobi, on the WGC YouTube Channel at tinyurl.com/jk4orfa, where each day Lisa Trotter discussed the weather and briefing with Tobi. From the first official training day onward, Thursday 5 January, tasks were set except on the very first day of the comp, 9 January, which was cancelled before briefing.

The opening ceremony was held on a hot and humid Sunday. On the first day of the contest a trough passed across southern Australia bringing rain. On Tuesday the



EB29R ELEGANT NEW WING WITH MICHAEL SOMMER AND OLIVER BINDER



As well as two brand new EB29Rs, Oliver Binder from the manufacturer Binder Gliders was at Benalla. Oliver and four times World Champion Michael Sommer showed us the new glider.

Lisa spoke to Oliver, nephew of Walter Binder who founded the company to make self launching gliders. He said, "We started ten years ago with the EB gliders. At that time the maximum weight for gliders was increased from 750 to 850kg, so we made a complete new Open Class 850kg self-launcher."

The first EB29 was made in 2009, and since then Michael Sommer has won two WGCs in one of these gliders. At Benalla, Michael flew the latest variant, the EB29R. Lisa asked Oliver what was new in the 29R version.

"We made a new wing with a new profile, which is thinner, whereas the original EB29 has a modified wing

from previous glider. We can now go to a higher wing loading. The original EB29 had a loading of 52, but the 29R can go to 57 kg/m²," he said.

The EB29R also has a wingspan of 29.3m, compared to the JS1 with a wingspan of 21. Lisa asked about the advantages of this design. "Binder designs self launchers, which makes the gliders heavier. Having a bigger wing span increases the possibility for greater wing loading. Consequently, if the weather is very weak we can still climb full of water, while a glider with a 21m wingspan will have to dump water in order to climb," Michael said.

He explained that the glider has a much greater range of conditions in which it can perform well, from fast to weak conditions. "I think the glider has advantages in any conditions because it is so variable. With the high aspect ratio, its performance at slow and medium speeds will be unbeatable.

"At Benalla you can have a mix of conditions. We have had some very good conditions in the practice week where we achieved speeds above 160kph. In the fast conditions we go very well because of the high wing loading. But looking at the sky today, if we do fly, it will certainly be a slow day where we fly medium speed, and with the high aspect ratio I am certain there is no glider that can beat it."

Michael has been flying EB29s since they were first produced.

He said, "To me, the story of Binder is extraordinary. Walter Binder started to build retractable engines for sailplanes, first for his own glider. Then later on, DG, Schempp-Hirth and other companies relied on Binder for self launching systems. Not being satisfied with existing gliders, he made the transition from making engines to making gliders as well. The business started by modifying existing gliders, taking the ASH 25 fuselage and putting a different wing on it.

"The company evolved with the ETA project, after which Walter decided to make his own airplane. He started with the two-seater EB28 which first flew in 2007, then progressed from the two-seater to the single seater EB29. The company employs only 12 people - six make the engines and six

make the aeroplanes. They only manufacture three airplanes a year, so it really is a high-end workshop."

TEAM FLYING

Lisa asked him about flying at Benalla and his team flying with Tassilo Bode. "I could not wait to get back to my old home. I spent six years in Melbourne and was a member of GCV for four years," he said.

"I think what Tassilo and I have developed flying together since 1999 is a success story. We fly pretty close together, so we have a bigger wingspan to cover the air, and we are less likely to miss thermals. We have two brains, to create the best possible task. It is risk management also. If you are on your own, it is more likely that you will make a mistake or miss a thermal. When there are two of you, you're much less likely to lose points. I think it is a much safer and faster way to get around a course.

"We have a lot of history and trust, and don't talk much in the air. It can't simply be replicated by two people flying together - it's a relationship built up over time."

PASSION

Asked what he loves about gliding, Michael answered, "Using the power of nature to achieve great height and speed is the first thing that fascinates me about gliding. I don't need a competition for that. But the combination of that with racing, to try to beat the competition just using the power of nature, is exciting. I think it is a fantastic sport. Everybody is thrilled about the race and can't wait to get going, to see everyone giving their maximum."



TOP: Michael Sommer talks on the airfield about the EB29R.

BELOW: Michael showed us around the glider, pointing out its main new development - the thinner, new profile wing.

IN THE AIR

Michael Sommer won two days in the EB29R, but was beaten into 2nd place overall by Russell Cheetham in a JS1c. Sebastian Eder from Austria finished in 8th place in an EB39. Tassilo Bode finished 17th in an EB29R and Pierre de Broqueville from Belgium 18th in an EB29. Italian Alberto Sironi finished 10th in a Quintus, but the JS1 is still the dominant glider in Open Class, winning seven of the top ten places. Out of the 35 open class contestants, 23 flew JS1s.

continued over page



ABOVE: Michael Sommer, Silver medalist Open Class, comes in to land in his EB29R.

BELOW: German team pilot Tassilo Bode flies his EB29.



THE PERFECT WING

SEBASTIAN KAWA DIANA 2



Coming into WGC Benalla with seven WGC wins and three Sailplane Grand Prix world championships under his belt, by the end of the competition, Polish contender Sebastian Kawa had earned his 11th world title.

After the final flight, we met him on the airfield at his glider, where Lisa asked him how he continues to be motivated after so much competition flying.

"I like to fly, I like the competition itself, conferring with other pilots and, as I am successful, it is satisfying. So that is why I have been flying so many competitions.

"About two years ago I decided to do something different and organised a trip taking a glider to the Himalayas, Nepal. This year I flew in the Caucasus in Russia. This is the type of flying I would like to do more of. My ultimate target would be to fly over Antarctica.

"There are a lot of places that are fantastic for flying gliders, but nobody has even tried to do it - for example, Central and South Asia, where virtually nobody has flown. Tian Shan Mountains, Kazakhstan, Kyrgyzstan have great potential, but they have never seen a glider."

DIANA 2

"I hate this glider. It is a lady, you know, it has humours. The performance is nice. But it should be

treated as a prototype, and this glider is the prototype serial number XB001. It is very difficult. It flies well but there are problems - you may break it on any occasion. It's fragile. You may break the tail, tail wheel, water tank.

Comparing how it flies compared to other gliders, he remarked, "The JS3 is a brand new glider and everyone was afraid of it. But today we flew together and we are happy about it because we won. It seems that if there are differences, they are small, which means we have a chance."

PERFECT WING

"The secret of this glider is the perfect wing. The fuselage is not optimal, but the wing is very good. If you look at the wing, it's twisted, it's curved and there is no single straight line. The very modern Jonkers sailplanes try to come close to it, but they still have straight lines. But [the Diana 2] is based on the model from 2005, which is already ten years old.

"It takes more water and has a wing loading of 57 kg/m², more or less the same as the ASG29 [less than the JS3 at 60kg/m²]. Because the wing is small, the elongation is a little better and the lift coefficient is a very good, so you may fly slowly, even with this heavy wing loading. You may slow down to about 95kph in a thermal. So if you need to turn tightly in a small thermal in the mountains, for example, it is a good glider because you have a bigger margin to the stall. You fly 110kph and the other gliders are on the edge of the stall, but this glider can still pull up.

"On the other hand, the handling is not so good, so you have to be well trained to fly it."

IN THE AIR

Sebastian Kawa took first place and his Polish team mate Lukasz Grabowski came 3rd, both flying Diana 2s. Makoto Ichikawa came 2nd flying a Ventus 2a. Italian



ABOVE: It is true, the wing of the Diana 2 is curved, with no straight lines at all.

RIGHT: After winning his 3rd 15m WGC in her, Sebastian is back in love with lady Diana.

Stefano Ghorizo came 8th flying his modified Diana 2 - Versus - with an FES installed.

You can see Lisa's interview and two after-landing videos of Sebastian in which he describes his flights. There is also a video recorded after he received his day win medal when he talks about gaggle flying and his fierce competition with Mak Ichikawa, who was ahead of him on the scoreboard up to the last race of the championships. wgc2017.com, YouTube [tinyurl.com/jk4orfa](https://www.youtube.com/watch?v=jk4orfa)



MATTHEW SCUTTER 15M CLASS

Now I've had some time to reflect on the WGC, it's time to share my thoughts on what went well and what went wrong

The biggest success was the glider - I decided on a V2a early on, because I knew I wasn't going to have much time to practice in whatever glider I chose, and I already knew how to fly a V2a. V2a is strongest in the weather we had, weak-to-middling weather where handling outweighs glide performance. Importing a glider right before the worlds was a bit of a gamble, but we got it right, and the glider was excellent - just a few minor teething problems that had minimal impact on the result. We were very scared going in of the JS3s and the Diana 2s, and while I do believe they have an edge, the weather we had afforded them only a small advantage.

The weather was a big factor in my results. Typically any given competition has a decent spread of weather, and when I wake up to a low, blue, gaggly day, I know that it's not one of my strengths and I set out at the start of the day with the objective of losing as few points as possible. As it dawned on me that every single day was going to be low, blue and gaggly, I knew that hemorrhaging 100 points a day wasn't going to cut it, and in lieu of magically becoming a better pilot overnight, I would have to increase the competitive risk level I would accept if I wanted to make a respectable placing.

Managing competitive risk is like trying to balance on an exercise ball, you have to keep a laser focus on your centre of

gravity and the room to move is extremely small before you topple. Regrettably, I stacked it magnificently, which I attribute to not enough flying in (poor)

Australian weather this year. I burnt all my work leave on travelling to Lithuania and South Africa, which I think in normal Benalla weather would have been appropriate preparation, but for what we had, I wasn't well practiced.

Further to that, the weather, the gagging, and the accidents combined to produce days that simply weren't fun, and I was losing my focus as a result.

The team generally worked well together, and we were very sorry to lose Steve as a teammate for the latter half of the competition, but I'm happy to say that as a team we still achieved an excellent result, getting Mak into second place overall. I tried very hard to hold first for him, but the last day went awry.



MAKOTO ICHIKAWA 15M CLASS SILVER MEDAL

The weather this season was heavily affected by floods earlier in the year. Although I wanted to go to Benalla, the wet ground was problematic and I had only managed to fly to the south of the Murray from Tocumwal during Squad Week in December.



ABOVE: Although Makoto Ichikawa represented Japan at Benalla, he flew with friends and Aussie team mates Stephen O'Donnell and Matthew Scutter.

This was going to be my third WGC to team fly with Matthew Scutter, and I had been talking seriously on the ground with Steve O'Donnell since the Kingaroy Nationals. Since Steve and I are very close in age, we quickly understood each other and it only took a short time to develop good team work between the three of us.

Once the WGC started, the weather became bluer, leaving very limited room to play, particularly because we were flying gliders with slightly less performance compared to the Diana 2.

CAUTIOUS GAME

We let the main gaggle go. Then the Poles followed two minutes later and we left half a minute after that. We were ready to take our own track but didn't want to lead out and have everyone follow us, if possible. We used better looking cu on the left and caught everyone before the river and the blue. Once in the blue, I quickly became highest and pushed ahead after turning TP1.

I got low then, and was rejoined by Matthew, Sebastian and Louis. We had one strong climb, but once we crossed the river the sky felt much softer and we, the older three, played a cautious game. Sebastian had a bit of an edge on the last climb at the Warbies with the higher CL max [lift coefficient] of the Diana 2's wing, and as a result of this he had a better final glide. I was second for the day.



The second day was not so well played. We left before the gaggle and got rolled on the first leg in very weak conditions. All three of us had to take evasive action and exit from the gaggle at some stage... But we managed to finish within 30 seconds of each other, making a good team effort, but lost points due to the start. Lesson learned.

We caught the gaggle by the first TP and turned the second TP ahead of them. I was pushing hard with Steve and I got fair bit lower than my mates. Joining the gaggle above me, Steve and Matthew were swallowed up in it, too, so I was behind the gaggle when the collision happened. It was a huge shock.

PERSISTENT GAGGLE

Assigned a 5-hour AAT on a blue day, on the third scoring day we could see that the organisers were trying everything to reduce gaggle with longer task, but unfortunately they did not succeed. The gaggle was perhaps bigger due to it reforming at each area, with slower people rejoining from inside the polygon.

We started mid field to avoid losing sight of the Poles, who had started ahead in anticipation of a long day. We tried to fly some kilometres longer at each Area. Matthew, unfortunately, started to fall behind on the third leg. He missed two climbs below me and the Poles, his last resort for raising dust, did not work for him, unfortunately... I managed to win the day.

The following day, 17 January, we faced a 484km task in the prefrontal high blue, and aimed to start at the optimum time. Though we had no direct view of Kawa, we joined him after two or three glides. We were ahead of him by first TP, though he was catching up using the high speed performance of the Diana nicely. He was with us again before second TP.

PUSHING FOR THE LEAD

We pushed hard on the third leg. Sebastian did try coming to our thermal but for some reason left it alone. We decided to take a more southerly track thanks to skysight.io, and this was rewarded with 15 minutes. But our flight wasn't without stress, getting down to about 3,500ft or so on an 11,000ft day after a LOOONG glide. We were 2nd and 3rd for the day. I was able to get into the lead overall. We agreed this was not enough and we were determined to push together, aiming for a 100-point lead before the last day.

We managed to play the pre-start game OK on the 19th, the fifth scoring day, when we had information from Alex (thanks!) that high clouds were arriving one hour later than forecast, so we held back with confidence. I managed to mostly stay on top of the gaggle and we started after the Poles at the end of our class.

We tried to push ahead of the gaggle once we caught up with them, but after TP3, we did not hit anything very strong until we got down to 1,000ft AGL under the small, leading gaggle. Then we were caught by the main gaggle from above and the remaining task distance was just enough to catch everyone again, except Sebastian. He beat us home by about three minutes. Matthew came 2nd, and I came 3rd for the day. The lead was now reduced to 33 points, but we were still feeling quite strong.

THE BIG FINISH

Convection was very low pre-start, and a southerly wind was pushing into the start area. Waiting any longer to start was risky. I felt strongly that, even in the difficult blue, I should be able to do all right. Also, Sebastian in the Diana 2 can normally outclimb us all at the end of the day and do a better

final glide, so there was no guarantee that I could stay with him all day to keep the lead.

So I went before the gaggle, some minutes after Matthew and a small group. The day was not straightforward at all in the low blue conditions. Matthew tried to help with info out in front. The biggest problem was the southbound leg. I did not manage to find a final climb on the Warbies and when I started circling low, south of the highway, I could see Sebastian circling on the Warbies.

So that was it. The score was not enough to keep the lead. The final result was naturally disappointing, but completing the task on such difficult day gave me satisfaction in some ways, and many friends contacted me immediately to say that Silver is not so bad.

I talked with my friend WO that evening. He had also come second in the 2014 WGC in a Ventus, and agreed that trying to stay with the Diana 2 had its risks. Many people say they thought I would have (or should have) stayed with Sebastian all day, but in reality this is not so easy in a lesser performing glider.

MANY THANKS

Special thanks go to my wife Akemi, also Team Captain, and my super mechanic Martin and super crew James. I hope

MANDY TEMPLE AUSTRALIAN TEAM CAPTAIN

This challenging competition played out under a range of weather conditions. The best weather occurred during practice days - of course! - but it did give the visiting pilots a taste of what is possible at Benalla. In fact, many pilots flew faster, further and higher than ever before - up to a speed of 160kph, as far as 747km and as high as 12,000ft.

The aggressive gagging at the start of most race days, however, was disappointing and dangerous, to the point of making some pilots genuinely afraid. Some participants have suggested the situation calls for a change to the competition rules.

The number of media and radio interviews was encouraging and will hopefully help us continue to raise the profile of gliding in Australia. We all used the opportunity to spruik Australia as a gliding holiday destination. Good media coverage featured throughout the event, such as the series of interviews by Lisa Trotter and Sean Young with several pilots and also with our Task Setter, Toby Geiger, posted on the website and social media.

This competition will also be remembered for a non-fatal midair collision. I remember the chilling message that came over the radio, 'I've just seen a mid air right in front of me I can see two parachutes...' In the end, it was a good outcome. [see Steve O'Donnell's article page 32.]

The Australian team worked together well at the event, flying as three teams of two and exhibiting some of the best team flying ever by Australian pilots, with good sharing of information between all. Nevertheless, the stop-start feel to the competition, with the flying days alternating with several no-fly days, was a challenge.

We met up with lots of old friends at Benalla and have made many new ones. Lots of members dropped in for a visit but I was usually too busy to talk to many of them, which I regret. But it was to be expected, as I was wearing two hats, serving both as GFA President as well as Australian Team Captain. I also spoke at the opening and closing ceremonies. Next up, we are all anticipating the Women's World Championships at Lake Keepit in 2019.

they have learned few things and can put the experience to good use in the Junior Worlds.

I was very lucky to have great team mates. It was very unfortunate that we lost Steve for the second part of the comp, but his smile always cheered us up. It was a great pity that Matthew had to outland one day, but he still showed his great talent and was attacking hard with me again from the next day. We have very different flying styles and strengths (and age!) but it seems we can complement each other very well.

And thank you to all fellow competitors who came from very far away. We fought very hard for two weeks, so we hope you'll come back again when we have nice cumulus like the ones during practice week.

My sincere thanks go to Adam Woolley, who was my syndicate partner in the Ventus. I am very glad he is now finally enjoying it. Many thanks to everyone who helped us get G1 tuned up.

Judy Renner said after the comp, "Even Ingo had to finish second once before he won a WGC." Well then, I guess I must try again next time. The good thing is, I feel I am still getting stronger!

**THANKS TO OUR SPONSORS**

We wish to thank Go Soaring for Seeyou subscriptions and pulse oximeters for our pilots, and Matthew Scutter for Skysight on steroids, John Styles for team uniforms, stickers and matching canopy covers, and the GFA and ITC for funding. Thanks to Dave Jansen for the Aussie base radio, Ingo Renner for his wealth of local knowledge, Phil Holbrook for matching team umbrellas, Alex Wallis for the biggest, best military standard antenna on field with 170km range, plus VSA Woolworth and BES support on International Night. I must also commend the professionalism of the tug pilots, who made no complaints throughout the contest period.





PETER TEMPLE 18M CLASS

The standard Benalla World Competition gaggle involved between 20 and 60 gliders all circling in the one thermal at much the same height, often gradually descending, all waiting for someone else to make a move. That'll be my lasting memory of the competition.

I arrived at the Benalla World competition quietly confident of a good result. Local knowledge was an advantage for the Australian team and, having won my last five national championships, I was in good form. I'd flown many flights with 18m team mate Tom Claffey over several months and we were working well together.

But the Worlds often brings on unusual weather and this event was no exception - low, weak, blue conditions that we would not normally fly in. On many days the thermal tops were only 2,500ft above ground for much of the task with climbs sometimes 1kt or less.

Under these conditions, winning is all about working the gaggles and staying alive in the process. As reported elsewhere, the huge gaggles were not safe places to be, but to have any chance of a good result you had to be in them. In such weather the gaggles are almost always faster than individual pilots, or

teams. 20+ gliders cruising in close proximity will invariably find the strongest climbs and stay out of trouble.

Tactically, there is an advantage in starting the task a few minutes after the gaggle - but, of course, all the pilots know this, and the waiting (pre-start) game begins. With the day rapidly disappearing, delaying far past a sensible time to start, we all circle in one enormous gaggle - with 60+ gliders on one day - waiting for the impatient pilots to leave.

In many cases, that was one of the Aussies. To our detriment, we are naturally individual pilots. Predictably, we get rolled by the gaggle 15 minutes later and we all complete the task like a flock of sheep, or maybe more like swarming insects where individual thought is not rewarded, but somehow the collective works towards the goal. With higher convection, cumulus clouds or mountainous terrain, gagging is not essential and those are the days we enjoy - days where individual thought is rewarded.

Tom and I managed to avoid the gaggles on a few days, allowing me to achieve a day win with Tom a close third. It was my first day win at a world championship - made all the more rewarding because we achieved this by making better individual decisions than the other 41 pilots in the class.

Overall, the unusual, more typically European conditions robbed the local pilots of our advantage. It was a tough competition in many ways. Despite that, I achieved one of my goals of never getting low, which avoids disaster days at the expense of a slower average speed. Final scores at the top were very close. I'm happy to have finished within 300 points of the new world champion and to be awarded an FAI diploma for the top 10.

The Australian team hoped for a better final result but we all had some good days and are proud of our achievement. I learned a lot and will do my best to pass on that knowledge. Thanks to everyone that supported the journey.

Of course, the Benalla weather resumed normal programming the day after the closing ceremony with 10,000ft cumulus. C'est la vie.



ANDREW DAVIS OPEN CLASS 3RD PLACE

Russell Cheetham and I have now flown several competitions together as a team and because both of us recognise the value of close team flying in the blue conditions, we quickly slipped back into our usual routine of starting together and staying as close as reasonably possible.

If we got separated, the stream of information from the leading glider would enable the following glider to catch up again, to our mutual benefit. During the practice period and the first half of the competition, it became obvious that Russell was much more in tune with the blue conditions than me, consistently making better decisions and also climbing better in the gaggles.

As for the threat of the newly developed EB29R, it became apparent during the practice period that our JS1C was

marginally better at 110 knots plus, but that at all slower speeds and in the climb the EB29R was clearly slightly superior and every time we slowed down to cross a large gap the EB would float away from us. In order to beat the brilliantly flown EB29Rs of Michael Sommer and Tassilo Bode we would have to do something significantly different. If we simply flew around in the same gaggle they would beat us. Of course from their perspective, all they had to do was start just behind us and chase us until the extra glide angle caught us, and so the pattern was set with Michael and Tassilo starting just behind us on most days. With a short start line, good visibility, only one thermal source near the start line and the EB climb performance enabling them to float to the top of the pre start gaggle, there was little we could do to escape from the EBs. However, when there were clouds, we did make good use of the opportunity afforded by the cumulus days.

Stefano Ghorizo talks with Lisa about the advantages of flying a glider with an FES, like the modified Diana 2 he flew at Benalla. The engines are heavy, but also efficient, powerful and have a climb rate of about 3.3m/sec.



FES

Another fascinating glider was at Benalla. Stefano Ghorizo, world record holder and current 13.5m World Gliding Champion, is also the General Manager of Alisport, manufacturer of the Silent 2 that has a Front Electric System (FES). At Benalla, he was flying his modified Diana 2, which has an FES, and flew the same glider in 13.5m configuration to victory in the 2015 13.5m WGC.

We talked to Stefano on the grid before launch. He said, "This glider has a very high undercarriage, so we have no problem with the prop hitting the ground. The engine is very effective, a self launcher. It uses lithium polymer batteries with a range of about 120 km. The FES is heavy - the batteries, motor and wiring weigh about 60kg. Batteries are 36kg. What we normally manufacture for the Silent 2 is 34 kg, but this engine has more power, about 28 kilowatt, running at 132 volts. The motor is not very big, but we have heavy cables and it is a three phase motor. The cables run under the seat. It was

hard work to get everything into a small fuselage.

"On the Silent, the propeller has a diameter of 1m. On this glider, the diameter is 120cm. This propeller is very efficient. It has a low RPM compared to the Silent 2, and the climb rate is about 3.3 m/sec, or 1,000 fpm. "

VENTUS FES

The other FES at Benalla was a Ventus 2 flown by Luka Žnidaršič in 18m Class. Luka and his father Matija are the inventors of the FES at LZ Design in Slovenia. Luka gave a presentation about Front Electric Systems at the OSTIV Conference.




WANT TO SEE MORE?

VIDEOS - STORIES - PHOTOGRAPHS

To get the full picture of how the championships unfolded, you can watch 120 videos including interviews with many of the daily winners, the Opening Ceremony and other videos that were made during the competition. In addition there are photographs and daily news stories.

WGC BENALLA WEBSITE
wgc2017.com

YOUTUBE

Videos - click videos  menu item on the menu bar at wgc2017.com or go to

tinyurl.com/jk4orfa

FACEBOOK

More information is available on the Facebook page <https://www.facebook.com/WGCBenalla>



Open Class Champions: Gold - Russell Cheetham, Great Britain;
Silver - Michael Sommer, Germany; Bronze - Andrew Davis, Great Britain.



18m Class Champions: Gold - Killian Walbrou, France; Silver - Mario Kiessling, Germany; Bronze - Mike Young, Great Britain.



15m Class Champions: Gold - Sebastian Kawa, Poland; Silver - Makoto Ichikawa, Japan; Bronze - Lukasz Grabowski, Poland.



Day 6 winner: 18m Class - Peter Temple, Australia.



Day 6 winner: 15m Class - Makoto Ichikawa, Japan.



Team Cup Winners

TEAM CUP

1	GREAT BRITAIN	898.46	4	POLAND	854.30
2	FRANCE	887.93	5	AUSTRIA	846.83
3	GERMANY	869.52	8	AUSTRALIA	836.74



Day 3 winners, L-R: 1st in 18m Class - Sean Fidler, USA; 2nd in 15m - Attie Jonker, SA; 1st in Open - Oscar Goudriaan, SA, 1st in 15m - Uys Jonker, SA.



Day 11 winners in Open Class: 1st Place - Ricardo Brigliadori, Italy (left); 3rd Place - Peter Szabo, Hungary (centre); 2nd Place - Bruce Taylor, Australia.



Day 7 winners in 18m Class: 1st Place - Wolfgang Janowitzsch (right) and 2nd Place - Andreas Lutz; both from Austria.



Day 7 winners in Open Class: 1st Place - Michael Summer (left) and 2nd Place - Tassilo Bode; both from Germany.

34TH FAI WORLD GLIDING CHAMPIONSHIPS BENALLA

8 - 21 JANUARY 2017

OPEN CLASS

1 E1	RUSSELL CHEETHAM	GREAT BRITAIN	JS1C	6,562
2 EB	MICHAEL SOMMER	GERMANY	EB29R	6,549
3 80	ANDREW DAVIS	GREAT BRITAIN	JS1C	6,520
4 OG	OSCAR GOUDRIAAN	R SOUTH AFRICA	JS1C	6,455
5 BX	PETER SZABO	HUNGARY	JS1C	6,399
19 B3	BRUCE TAYLOR	AUSTRALIA	JS1C	5,597
24 AG	ANDREW GEORGESON	AUSTRALIA	JS1C	5,380

18M CLASS

1 FA	KILLIAN WALBROU	FRANCE	JS1	6,607
2 I	MARIO KIESSLING	GERMANY	VENTUS 3T	6,514
3 57	MIKE YOUNG	GREAT BRITAIN	ASG29E	6,480
4 M7	MATTHIAS STURM	GERMANY	ASG29	6,443
5 7X	BORJE ERIKSSON	SWEDEN	VENTUS 3T	6,434
8 PT	PETER TEMPLE	AUSTRALIA	ASG29	6,300
20 T1	TOM CLAFFEY	AUSTRALIA	ASG29	5,940

15M CLASS

1 BB	SEBASTIAN KAWA	POLAND	DIANA 2	5,417
2 G1	MAKOTO ICHIKAWA	JAPAN	VENTUS 2A	5,281
3 RP	LUKASZ GRABOWSKI	POLAND	DIANA 2	5,222
4 FB	LOUIS BOUDERLIQUE	FRANCE	ASG29	5,213
5 MM	ANDRÉ-EMMANUEL LITT	BELGIUM	VENTUS 2BX	5,159
12 LE	MATTHEW SCUTTER	AUSTRALIA	VENTUS 2AX	4,647
36 DE	MICHAEL EISELE	GERMANY	VENTUS 2AX	1,136
37 O1	STEPHEN O'DONNELL	AUSTRALIA	VENTUS 2CXT/15	1,126

FULL RESULTS AT [HTTP://WGC2017.COM](http://WGC2017.COM) AND <http://www.soaringspot.com>



The Australian team

BEWARE OF SUDDEN IMPACT

BY STEPHEN O'DONNELL



With my crew and some of my family on the grid a couple of days before the accident.

Stephen O'Donnell was flying in 15m Class at WGC Benalla. While flying with a group of 15m gliders over Yerong Creek, South of Wagga Wagga on the third leg of the task, he was involved in a mid-air collision with Gernam competitor Michael Eisele. This is his story.

Saturday, 14 January dawned much as the previous practice and competition days had, except that the weather looked to be improving slightly. Conditions were forecast to be more in line with a normal Aussie day, starting with good cumulus cover in Victoria and turning blue as we got into NSW with a 15kt southwesterly wind. Thermals to around 5,000ft were expected but with the possibility of an early shutdown coming back into the wind on the last leg. The task for 15m Class was Benalla - Morundah - The Rock - Benalla, around 420km.

Launch occurred at a bit after 1.30pm and the entire 15m Class soon ended up in the general area of the northern start point where the waiting game went on as in previous days. Most of the 37 gliders in the class gathered here, waiting for inspiration and a group to lead off. By about 2.30pm, a few gliders had started, followed by the rest of us in the next 20 minutes. I started close to last with my teammates, feeling confident in the conditions and knowing that the Europeans would be worried about the change from cumulus to blue north of the river.

SETTING OFF

The first leg to Morundah was straight forward and I was able to push fairly hard as we approached Lake Urana, trying to shake off the tentative gaggle that we had caught up with. The gaggle behaviour, as on previous days, was fairly ordered with a couple of aggressive types mixed in as usual, but nothing too uncomfortable. By the time we got to the first turn I found myself out in front by 5km or so, having taken a more westerly line than most.

The second leg to The Rock was spent trying not to get run down by the now large gaggle, but the inevitable happened just prior to the turn and I was caught by about eight of the faster guys, with another 15 or so hot on their

heels. After turning The Rock for the 160km run home into the wind, I had my teammates just below, and about 15km along the leg we took a 3kt climb to 5,000 ft, close to the inversion. As I left this climb, I noticed the group of eight or so gliders about 1 or 2km ahead on track turning right, and I decided to fly through the left edge of their thermal without stopping. As I entered the edge of the thermal, I let my speed wash off to around 75kts indicated and seemed to be clear of all the circling gliders, which were a bit above me.

IMPACT

My last memory of normality was shifting back to negative flap with a couple of gliders well out to my right, in my mind I felt comfortable that I was clear of any conflict. In an instant I heard and felt a violent unseen impact, was aware of broken perspex, strong airflow and that my glider was immediately unflyable. My perception was that the glider pitched down steeply at impact and started spinning to the left in a violent unnatural action. The broken perspex was from my head breaking through the canopy, caused by the impact that took off most of the tailplane, broke the fuselage at the engine bay and took 6ft off the left wing.

In the seconds following impact I found myself watching my hands eject the canopy frame and push it away into the airflow, then undo the harness.

The next instinct was to try to get out in the same manner as I do on the ground, using my arms to lever down to raise myself up high enough to get my right foot under me to lift my body out over the side. This proved impossible due to the G loads being imposed. I tried a few variations of this, trying to go left and then right, all the while getting more anxious to get out, knowing that I was heading for the ground at a good rate. By now I was yelling at myself to "do something different" as this approach clearly was no good.

All I could think to do was stick my already retracted right leg over the side to grab the airflow and this quickly pulled me around so that I could get both legs over the side and then roll the rest of me over the side and under



Brothers Bernie, Tom and Jack with locals at crash site of IKB.

the right wing. Having no idea of my height or where I was relative to the aircraft, I immediately found and pulled the ripcord, the chute deploying seemingly instantly. I've done a few jumps under round chutes a long time ago but was unprepared for the shock of the opening, which certainly knocked the wind out of me. At opening I was aware of my spot tracker and ripcord handle falling after the now stable wreck of a once beautiful Ventus.

The wreck fell vertically, left wing down, without oscillating, the damage to the tail and fuselage very obvious. I continued to watch it fall the 1,000 or so feet to the ground and was surprised at how loud the impact was.

The sound of the impact jerked me back to the reality that "I'm next". I had my first look up at my parachute and was amazed at how small it looked. The awareness that I didn't have a lot of time got me thinking again. The wind was 17kts so I reached up to grab the steering lines but couldn't find them. In desperation I grabbed the right hand risers to turn myself to face into the wind, which I managed by about 200 feet. I got my feet together and tried to brace them a bit for landing but was aware of going backwards pretty fast. The impact was very heavy and was mostly taken on my backside, the wind knocked out of me for the second time in a couple of minutes.

BACK TO EARTH

Almost immediately, the wind started dragging me along the ground on my back at a reasonable speed. By the time I was able to release the three quick connectors, I'd been dragged 30 or 40m.

As I lay on my back I was immediately aware that a lot of me was hurting, but this was offset by the sight of a white parachute descending to the north, still quite high, maybe 1,500ft when I saw it. I lay there getting my breath back and watched until the other pilot hit the ground about 400m away in a

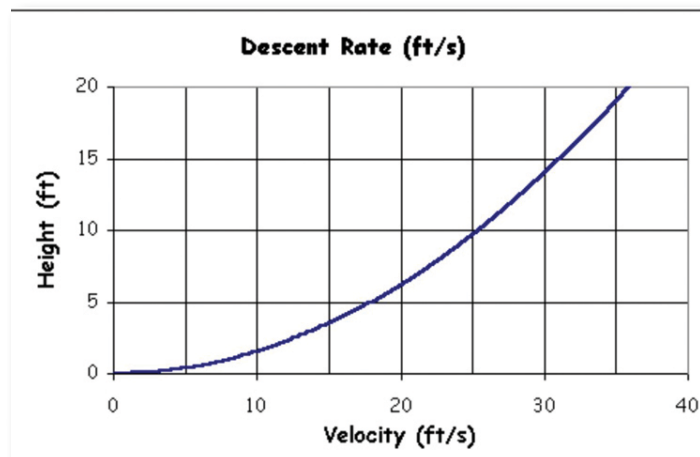
different paddock, thinking that I'd wait where I was for assistance as I was quite worried about my back. That wait was in vain as the unknown pilot of the other glider lay without moving after landing. After several minutes I realised that I needed to get on the move to the other pilot to see if help was required. I was still mobile but was worried about a sharp back pain. Everything else seemed to be bruises and scrapes and my shirt was covered in blood coming from a cut on my nose.

The other pilot was Michael Eisele from Germany and, after introducing ourselves, it was obvious that he wasn't going anywhere due to a broken left leg. Neither of us had any trackers or phones, having lost them during exit. During this time I noticed a couple of gliders circling overhead and presumed that they might be radioing in to Benalla. With some difficulty we were able to get Michael into the shade of a nearby hay bale and then I was able to get back over a fence and onto a track leading toward a distant farmhouse. Within a couple of minutes a car came by with a local called Justin, who was able to make some calls and get emergency services activated. Once another local, Mary Anne, arrived I was able to get her to phone my upset wife, Mary, as I was getting very agitated about

Brothers Jack and Tom with Michael's wreck showing the static line that deployed his chute.

continued over page





Here is a chart demonstrating descent rates and the equivalent height to jump from. For example, 25ft per second is like jumping off a 10ft high wall. Add some backward speed for wind velocity and it gets more difficult.

her not knowing if I was OK. We were extended great care by the locals of Yerong Creek and local ambulance, police and fire brigade.

Eventually, we were helicoptered to Canberra by the Snowy Hydro rescue chopper, where I spent a couple of days and Michael four days.

LEARNINGS

For me the lesson that stood out was about how to save myself. The collision itself happened in a very busy racing environment and we all thought we knew the risks. I had practiced for months leading into the comp, flying in close company with teammates but nothing compares to the sheer numbers involved in these comps. I was aware that the aircraft in my blind spots were the big danger. The accident occurred when both of us got into each other's blind in an area where there was a lot of other traffic. Neither of us remember hearing the alarm activate, but maybe we were immune to it given the number of times it does activate in a high traffic situation. It's well known that the technology cannot cope with all conditions and maybe this was one of them.

The thing that I did have some control over, once the accident occurred, was the ability to save myself. I was able to do this but I wasn't as prepared as I thought I might have been. Forty years of flying had made me a bit too casual about some aspects of emergency procedures, given that I had never had a mid-air scare other than a birdstrike.

PARACHUTES

Other than in basic trainers I have always worn a parachute, generally whatever comes with the particular



My son Joe checks out my chute after the event.

aircraft. Other than checking for repacking recency, I have never been too concerned about the particulars of each parachute. This is probably due to my flying so many different aircraft over the years and has made me complacent. The chute I used on the day belongs to the aircraft and I had no idea of its size or any other details.

The chute did a terrific job, opening rapidly, but I suspect is undersize for my weight. Upon checking I found that this parachute comes in one size only and that it is rated for weights of 75 - 125kg.

The descent rate is only advertised for the minimum weight, so I suspect the 125kg rating is about survival of the structure of the parachute at its tested speed of 150 knots. Other types of parachutes have the option of different sized canopies, with a range of weight and speed limits. Some of my injuries were due to high landing speed and may have been reduced by a larger canopy.

Another area of complacency for me was not wearing the chute with the straps properly tightened. A high speed opening with loose straps is a good way to end up with large areas of bruising on thighs, chest and shoulders.

GETTING OUT

In my mind over the years I have thought to some extent about getting out of a disabled aircraft. Jettisoning the canopy and getting the harness undone happened very quickly, as I had rehearsed it mentally many times, but getting out of a cockpit under extra G loading wasn't something I had rehearsed. I reverted to the method of getting out after landing and I wasn't strong enough to do that. Desperation led me to get a leg into the airflow, which did work after a period of time. I was lucky to have 30 seconds to get over the side. I think that, in my mind, I had always assumed that if I had to get out one day, I would still have some control over the aircraft and use that to assist. But that was not possible in this case.

Based on my experience, I would ask you all to think of a few things -

- 1 Do you know your parachute? What is its weight rating, etc?
- 2 Do you get it repacked regularly?
- 3 Do you always wear a chute?
- 4 Does your parachute have quick release harness connectors? You will wish you did if you ever get dragged across a paddock.
- 5 Do you wear it firmly fastened?
- 6 Do you wear a SPOT or similar survival beacon? Make sure it has a good attaching clip, mine was weak and it came off.
- 7 Have you rehearsed both physically and mentally how to jettison the canopy, undo your harness, and get out in a hurry? Maybe try getting out on the ground so you have a memory of it.
- 8 If you are a bit older and heavier, have you considered a cockpit escape assist system like NOAH?
- 9 Do you have a FLARM in your glider? It may save your life.

I have a lot of people to be grateful to for assisting during this traumatic situation, the Emergency Services, Yerong Creek locals, Competition Officials, Team and Team mates but especially my family and crew. Thanks to Lisa Trotter for the counselling work she did with me and my family in the following days - a very important thing following such an event.

GA



Kingaroy hosted the Multi-class Nationals this year from 10 to 21 October. The week before, Queensland's reputation for reliable spring weather had failed to deliver for the QLD State Champs at Darling Downs Soaring Club, where the weather, although task-able, was weak, blue and generally uninspiring. But Kingaroy turned it on, giving us a perfect 10 out of 10 possible flying days.

This competition I was to be crew-less, and having had a particularly poor early season at Keepit, I was feeling quite out of practice in the LS8. However, I consoled myself with the fact that at least I was current in outlandings, having come from a string of them in Lithuania and one on my first flight back in the '8' from Keepit.

It's always a delight to fly Kingaroy - the airfield is magnificent and the club is always friendly, welcoming and well organised. This year was no exception. I arrived a few days early to practice, since it had been several years since I had flown there.

On my first practice day, I had to dump my water after a flat tyre on the way out to the grid and was glad to get that out of the way before the comp. But after three practice days in a row, I was ready for a rest and didn't fly the official practice day. This turned out to be a good thing for my energy management.

However, the Official Practice day saw an extremely serious accident when Richard Frawley hit some trees during an outlanding south of the Bunyas. Seriously hurt, he was airlifted to hospital in Brisbane. He was extremely fortunate that a farmer had been present at his outlanding and was able to immediately call the rescue services and apply first aid. At the time of writing, Richard is recovering well.

THE LINE-UP

The Nationals saw a line-up of 13 Standard Class competitors, 15 pilots in 15m Class, and 19 in 18m/Open

Class, including several overseas entries from NZ, China and, of course, our very own Mak Ichikawa from Japan. This year the overseas entries, who are not eligible to be class champions, were flying *hors concours* to simplify the scoring. Norm Bloch and Greg Beecroft were representing WA, and had to travel further than the Kiwis to get here! The field was strong in all classes.

Day 1 was blue, low and windy. I struggled to get good height at the start - but set off at much the same time as a few others and caught up a gaggle or two. I spent a fair amount of time with Peter Trotter but he lost me near the final TP with a strong climb. I was happy with 3rd place - it was a day with many outlandings, so the main thing was to get home in reasonable time. Peter Trotter won the day with 560 points. Unfortunately, yet another outlanding incident occurred - this time Matthew Atkinson caught a wing on a contour bank and ground-looped, badly damaging one wing but fortunately not hurting himself.

UNDERSSET OVERSET

Day 2 was badly underset with a 2 hour AAT. The day was superb from about 10am until probably 5pm but our task area went into the worst part of the sky. I spent 90 minutes exploring pre-start before finally getting going at 1.30pm, and was later amazed to discover that I had started a full half hour later than anybody else. It was one of those days where you just can't get into the rhythm of the day, and I ended up scoring 9th. The only thing I did right was the timing, coming in 1 minute over the 2 hours. Mak won the day Hors Concours, with Peter taking the top Aussie honours.

As so often happens in a comp, the task setters tend to avoid making the mistake of the previous day by overcompensating. So Day 3 was a biggie at 441km. With a blue and relatively weak forecast, I was convinced that it was well overset and possibly a distance day, so I started almost immediately with two or three others, expecting most others to follow soon after.

continued over page

It was tough work, with weak climbs. I found myself with Bryan Hayhow and we sweated it out together around three turnpoints and most of the way to Chinchilla. I kept expecting the later starters to catch us, but it was over 2 hours before that started to happen. When it did, I was low, and they were high - I was rumbled by the gaggle. Trying too hard to stay with them, I ended up low again and again as conditions improved. Eventually, I had the patience to stay with a climb and connect with the clouds that were now starting to boom over the Downs. But I knew that the damage had been done.

It was a 1,023 point day - Mak won *hors concours*, so the top Aussie Greg Beecroft got 1,000. My 724 points had almost put me out of contention, but I told myself that it was a long comp. Time to man up a bit!

LUCK AND STRATEGY

Continuing the pattern of alternating short and long tasks, Day 4 was tiny - 167km. I started late with Jacques Graells and had a fairly good run. The sky was overdeveloping, so I stayed high as much as possible. However my Oudie on the final leg started directing me back to the start line instead of the finish circle, even though the task was correctly entered. That cost me 1,000ft or so as it was telling me I had about 3km further to fly than I did have. Mak reported the same problem, so I was confident that it wasn't user error. Although I won the day, it hardly helped in the scores, since the day was only worth 338 points as it was completed in 1hr 20 minutes. But I sneaked up into 3rd place, and earned my first wine glass of the comp!

After my lacklustre first few days, I still had a 300 point deficit behind Peter and Greg Beecroft to make up, but with a potential six days left I felt it was still possible. Still, it not only required me to fly well, but also both of them to make at least some mistakes. I also needed to be lucky enough that we would, in fact, get enough flying days in. I decided not to focus on Mak, as I didn't need to beat him to get the trophy.

Next day was a longish racing task, 427km. We all got the chance to see some of the beautiful scenic country to Kingaroy's North, Banban - DDSC - Jimbour, with a fabulous forecast. The sky was full of big juicy cu's so I flew hard, catching up a fair gaggle at the second TP and then flew mainly by myself until DDSC (Darling Downs Soaring Club) when I started seeing Mak and Lisa. I stayed with them all the way home, reaching 133kph - enough for another wine glass. My deficit was down to 250.

CATCHING UP

Day 6 was a strange day. We were tasked 400km up to Biggenden, then back via Murgan and across to Jimbour. Everyone played the waiting game and in the end, although I had planned to leave at 12 to 12.15pm, I ended up leaving about 12.40pm with most of the others - really late for such a long task out of Kingaroy. I

had a good run north until the run into the high country at Biggenden, where the sea air had encroached but I didn't spot it soon enough and ploughed ahead, getting a bit low over the mountains and Mak and others overtook me easily. From then on, it was catch up, but coming south towards Murgon it was clear that the day was completely blue and appeared dead.

We all slowed down, and I dumped a bit of water and tip-toed across into the Downs. I stopped in about 3kt some away from the others and they promptly picked up 6kt ahead. I never quite caught up Mak again after that, but fortunately for me Peter and Greg both had a worse day and my points shortfall was now down to just over 100.

After a rest day, the following day was 'back to the office' - low, weak and blue, 317km. All classes had the same task. They set a window close time, which was 45 minutes after the window open, so it was always going to be a GP start. I came off tow and fell out of the sky but finally managed to get a climb just before I turned onto a long final for the 34 tarmac. If I'd needed a relight, I think my comp would have been over due to the window close rule. However, I finally got established, and started 3 minutes after the window close time. The gagging was pretty bad, and I spent most of the day chasing the Open and 18m gaggles that had run through us earlier. I made special efforts not to get low, and I think it paid off. But Greg left 17 minutes before the window closed, and did a brilliant job of flying by himself, winning the day and moving into the lead overall. I was still in 3rd place, still 100 points behind the leader.

THERMAL SHEAR WAVE

Until now, we had not really had any of the thermal shear wave that Kingaroy is famous for. Day 8 fixed that. Straight off tow I hooked into about 7kt which eventually took me to over 11,000ft with most of the big wings up there with me. The window was open, but it was much earlier than I wanted to start. It was a tough choice - go early and take advantage of the height, or wait for the others and start lower after the wave had dissipated. I decided to go early, as I thought the opportunity was too good to go unused. Doing something different to Greg and Peter was a risky strategy, but it paid off.

The headwind on the first leg soon eliminated the

advantage of the high start, but I found myself with Tim Bromhead and we spent the rest of the flight together. Lots of wave effect, and one ripper thermal on the leg out of Chinchilla was about a 9kt average. The others left much later and lower, and although they got some excellent climbs, the benefit of the high start gave me the day. Greg slipped down to 3rd overall, and I sneaked up into 2nd place just 6 points short of Peter Trotter. With two days left to fly, any of the three of us could win, with only 10 points between us. Lisa Trotter had taken 4th place, but was a distant 500 points below.

My strategy now could only be to focus on process rather than outcome. This is advice that Tobi Geiger gave me when we were over in Lithuania. In other words, don't worry about what the others do, just concentrate on flying well. The rest should happen by itself.

But some days end up being more about luck than anything else. Day 9 was forecast to storm early and become unsoarable after 3pm. The task was a 2.5hr AAT to the north, then to the Downs in the SW. I really struggled to get to cloudbase, by which time the gate had been open for ages, so I started pretty much straightaway as there was shadow everywhere and heaps of vertical development.

JUST IN TIME

I ran NE towards the eastern edge of the first area, and it went well for a time - I found Mak Ichikawa but our line was soon spoiled by a large dead area. I deviated north, and got fairly low before finding a good climb near Windera lake. I decided to go as far north as possible, as the Downs was meant to be much worse. Finding a good street, I turned just a couple of kilometres before the circle edge and had a fairly good run south - apart from being heavily rained on instead of finding the planned-for 10kt.

I did get a little low over the scrub and had to backtrack towards landable fields, but found a 6kt save just in time, allowing me to run south again and turn in the second circle at 10min delta T with the 160kph required speed to finish. I pulled it back to 4 minutes over, and ran in at almost VNE in the end under a buoyant street. I finished not knowing whether I had had a good day or not, but in fact it was enough for another day win and I finally crept into the lead by 170 points after nine comp days.

The final day is usually a shortish task, to get pilots home early and the results calculated. This comp was no exception - the task was a 2-hour AAT, meaning it could only be worth 667 points - good for me but not so much for anyone chasing. The task was similar to the day



before but with a TP at Kumbia to keep everyone away from the scrub.

I had a problem-laden start, realising at weighing that the dump valve had broken and all my tail ballast had emptied. I decided to dump half my wing water, and fill the tail halfway and plug it. That way I could still have the benefit of some ballast and be able to comfortably land with it onboard if necessary. I figured that even with half ballast, as long as I flew much the same flight as Greg and Peter they would be unlikely to overtake me on the leader board.

BALANCING OUT

Of course it would not be possible to follow them both unless they flew together, so I decided to ignore them both. Just before starting, I saw Mak, ahead in points but not in the running for the trophy. He followed me through the start, and never let go. With less ballast, I was losing on glide but gaining on climb, and it balanced out.

We turned short of a big fire that was too far north, then had a good run back via Kumbia, and hit the Bunyas with about 30km further needed to avoid coming home early. Fortunately, a line of cu appeared just outside the Oakey airspace. We ran it down until we got pinched by the airspace then raced home, coming in 4 minutes over. I was pretty happy, especially since I had not let my ballast problem psych me out, and it turned out that I had even won the day and therefore the comp.

Of course, although I got the trophy, the true winner was Mak, who flew consistently from beginning to end, never placing lower than 6th on any day, and showing us that it is consistency that makes a true champion. If Mak ever gets his Australian Sporting License he's going to make it a lot harder for all of us!

GA



The Southern Tablelands Gliding Club is a winch club which operates on Saturdays from Carrick near Goulburn. We have potential for additional hangar space. Parties interested in hangar space and flying at Carrick please contact Robert Howdin – secretary@stgc.org.au
For further information see our website – www.stgc.org.au



VINTAGE GLIDERS AUSTRALIA ANNUAL RALLY

BY DAVID GOLDSMITH

The Vintage Gliders Australia Annual Rally 2017 included a celebration of 40 years since the formation of Vintage Gliders Australia. The tradition of fun and friendship has continued to grow since 1977. A good roll-up of members to Bordertown, South Australia, enjoyed a week sharing the pleasures that are unique to vintage sailplanes and their enthusiasts and supporters. We managed flights on about half the available days, and a 629km inbound Ka6E flight by Jenne Goldsmith to the meeting from Tocumwal to achieve her Diamond distance was actually topped, on handicap, the same day by Derek Spencer, who managed 544km in an SF25CS Falke!

Vintage Gliders attending the rally were:-
Cherokee II VH-GLU with Kim Van Wessem
Cherokee II VH-GPR with Peter Raphael
ES60 Boomerang VH-GTL with Mike Renahan
ES60 Boomerang VH-GQY with Bob Hickman
Chilton Olympia 'Yellow Witch' VH-GFW with JR Marshall, Merryn, Nick and Amy
Ka6CR VH-GFF with Rob Benton
Ka6E VH-GGV with Erik Sherwin
Ka6E VH-GEA with Dave and Jenne Goldsmith
ES52 Mk IV Kookaburra VH-GNZ with Brian McIntyre

Other members and visitors included Ged Terry from UK, Peter Bannister our meteorologist, Alan Patching, Margaret and Alan Delaine, Keith Willis, Geoff Hearn, Peter Brookman, Markus Trnovski, Brian Gerhardy, George and Helen Buzuleac, Steve Steer, Adam Howell, Steve Baldini with his ASW-19, Geoff Hearn, Gary and Merryn Crowley, Leigh Stokes, Dave and Rosie Howse, Bob Jennson, Emilis Prelgauskas, Keith and Edna Nolan, George and Helen Buzuleac, Phil McCann who kindly brought Bendigo Club's Eurofox for some aerotowing, Peter Goodale, Alan Bradley, Peter (GFA Vice President) and Chris Cesco, and John and Jenny Le Marshall. John was our guest speaker. Most launching was by the Bordertown/Keith club's winch, handled with skill and enthusiasm by Bordertown members.

Most visitors camped on the lush grass near the clubhouse, or doshed in the club's bunkrooms, but a number stayed in local motels a few kilometres away. The catering was done by JR Marshall with assistance

from others, the final dinner catered by local club members, all to a very high standard. Thanks to all those VGA members and the Bordertown-Keith Gliding Club team for your efforts to maintain a high quality of culinary delights for all who attended.

The weather started very hot, on Saturday 7 January reaching the low 40s. As a total fire ban was declared, there were no flights on Saturday and no vintage flights in the wind on Sunday. On Monday 9 January there were seven vintage flights, up to about 2 hours and about 3,000ft in weak conditions. Tuesday was better with 14 vintage flights up to 4 hours, over 4,000ft and almost 100km. Wednesday was cooler again. Only six pilots ventured into the bumpy conditions, Ged having a standout 4hr flight to 5,100ft in Peter's Cherokee. On Thursday, the temperature was back into the 30s. There were seven flights, four lasting over 4 hours, up to 180km and 5,600ft. This day was our final flying day as the forecast for rain and wind prompted most of us to derig. The social side now kicked in.

Friday at the Annual General Meeting, the President's Report by JR Marshall noted the Association's 40th year and continuing progress organising Vintage events and activities. Ruth Patching's Treasurer's report described our finances to be in good shape, with a slight drop in memberships. All officebearers were re-elected and a number of issues were discussed.

Friday afternoon, a visit to Met man Peter Bannister's observatory proved to be most interesting. His collection of historical and modern equipment and memorabilia - including a crystal ball and a dartboard! - are very impressive. On Friday evening we enjoyed a fascinating presentation by Professor John Le Marshall, who has worked extensively with the National Oceanic and Atmospheric Administration of the US Department of Commerce, about satellite use for improving weather forecasting. Saturday we enjoyed pleasant temperatures, watched gliding movies and prepared for the night's merriment to come - the Annual Dinner and presentation night!

Now a well established social event in vintage gliding, the Annual Presentation Dinner provided a chance to relax and share some fun with good friends. The Bordertown/Keith boys pulled out all the stops to produce a feast fit for a king. Thanks, guys!

The Vintage Gliders Australia Raffle was drawn by Edna Nolan. Winners were Bernie Duckworth of Bacchus Marsh, who won 'Vintage Sailplanes 1908 to 1945' by Martin Simons, and Percy Wright, who won 'Advanced Soaring Made Easy' by Bernard Eckey. Some local prizes included dried fruits and wine.

Trophies were kindly presented by GFA Vice President Peter Cesco and were awarded as follows:-

The Geoff Gifford trophy, longest flight between rallies. 544km by Derek Spencer, SF 25 Falke.

Best 2-Seater at the Rally. Brian McIntyre for ES52



Kookaburra VH-GNZ.

Renmark trophy, longest distance flight of the rally. 179 km, Jenne Goldsmith Ka6e.

Best Single-Seater. Peter Raphael for his Cherokee VH-GPR.

Schneider Trophy, Best Schneider glider. Bob Hickman for Boomerang VH-GQY

Feathers Encouragement Award. Kim Van Wessem, Cherokee.

League 2 Trophy. Peter Raphael, Cherokee, 74 km at 16.4 km/hr

League 1 Trophy. Bob Hickman, Boomerang, 102 km at 38 km/hr.

MAIN PHOTO, OPPOSITE: Cherokee Chief Ged Terry, with David Howse.

LEFT OPPOSITE: Keith and Edna Nolan, long term gliding stalwarts.

ABOVE: Vintage lineup.

BELOW: Peter Cesco thanks Professor John Le Marshall for his presentation.



TARGET ZERO: CULTURE OF SAFETY BEGINS WITH YOU

It has now been two years since the last gliding fatality, which occurred on 2 January 2015, but we continue to have many serious accidents and close calls. The GFA Operations Panel is keen to promote a stronger safety message aimed at improving operational safety – 'Target Zero - Zero accidents. Zero harm to people.'

Every pilot in command must have this focus on every flight. Moreover, every supervising instructor and other persons involved in gliding operations, maintenance and support need to be ever vigilant about the safety standards and margins being applied on the day. There is a collective responsibility for achieving an injury free outcome. We know human error is inevitable, so we must work hard to reduce the probability of these errors occurring and then limit the severity of the consequences. Self-awareness of our own biases, fallibilities and limits of performance is critical to our safety and that of those with whom we fly. Remember, a good safety culture begins with you!

THE SPIRAL DIVE

During the first week of the World Gliding Championship I had the opportunity to attend the 2017 OSTIV congress. Gerhard Waibel, the designer of the ASW series gliders, presented a paper suggesting there was a need to improve flight manual information on Spiral Dive recovery techniques to avoid structural overload accidents. Mr Waibel suggested there was a general lack of understanding among pilots of utility category sailplanes of the reduction in structural strength at speeds between V_a and V_{ne} for airbrake operation, control inputs and against gust loads. Of

CHRISTOPHER THORPE
Executive Manager,
Operations
emo@glidingaustralia.org



concern was the number of structural overload accidents that have occurred during spiral dive recovery.

A spiral dive is generally caused by over-banking, either deliberately or from turbulence or gusting thermals. If the angle of bank is permitted to increase, insufficient vertical component of lift will be produced and the glider will descend. The natural tendency is for the pilot to attempt to pitch the nose up by increasing backpressure. However, due to the high angle of bank, this merely tightens the turn and increases the rate of descent. Another potential cause of spiral dives is poor spin entry technique, particularly for spin-averse pilots, relaxing back pressure on elevator but not arresting wing drop and yaw.

The symptoms of a spiral dive are a high angle of bank, rapidly increasing airspeed and increasing G.

Mr Waibel noted that utility category sailplanes are not usually built as strong and as heavy as aerobatic category sailplanes, and that the structural strength of sailplanes decreases when the airbrakes are open and also when full control deflection is used above V_a . Airbrakes also have the effect of shifting the aerodynamic loads outboard on the wings and increasing drag. Therefore, to avoid overstressing a sailplane, the pilot must not open the air brakes at high speeds and high 'g' loads, and should avoid pulling out and rolling level at the same time.

The spiral dive recovery method is to identify the horizon, ease the elevator control forward as required to unload the wings, apply normal aileron and rudder

inputs to gently roll to wings level, and then gently pull out of dive.

For further reading on this subject I refer you to my article on 'Spiral Dives and Large Span Gliders' on page 36 of the January/February 2014 edition of *Gliding Australia*.

PARACHUTE MAINTENANCE

Parachute manufacturers stipulate a maintenance interval and non-compliance will usually invalidate the manufacturer's warranty. However, there is no regulation that mandates a specific timeframe between repacks for persons operating outside the Australian Parachute Federation. Pilots flying with their own parachute merely need to ensure the chute is fit for use and this will very much depend on how it is stored, how often it is worn, and whether it has been subjected to moisture. However, it is a different matter when the owner makes the parachute available to third parties, such as clubs. This then leads to a Duty of Care issue that needs to be managed.

In the interest of aviation safety, the GFA asserts that it is best-practice for its members to maintain their emergency parachutes in accordance with the manufacturer's modifications and equipment bulletins - for example, Technical Service Bulletins, Service Bulletins, Technical Bulletins, Product Service Bulletins or Information Bulletins.

GFA RECOMMENDS THAT:

- all reserve parachutes be maintained by certificated and appropriately rated parachute riggers holding authorities issued by either the Australian Parachute Federation Ltd or the Australian Defence forces;
- emergency parachutes owned and used by overseas pilots be maintained in accordance with their country's legislation;
- where a parachute is to be used by a person other than the owner, such as parachutes owned by gliding clubs or loaned to third parties, the owner has a 'Duty of Care' (i.e. a moral or legal obligation) to ensure the safety or well-being of others and should therefore comply with the manufacturer's requirements and equipment bulletins as a minimum; and
- where the pilot is the sole user of the parachute, it is the pilot's responsibility to ensure the parachute is fit for its purpose.

USE OF NAVIGATIONAL DEVICES AND THE NEED FOR APPROVED CHARTS AND DATA

Every soaring season we get a spate of airspace breaches during competition and cross-country flying that has its genesis in the pilot's use of non-approved airspace data files in their flight loggers. Pilots should note that airspace files provided by competition organisers or downloadable from the internet are unapproved and should not be relied upon. Pilots using such airspace files and maps from common gliding software providers need to have access to approved data.

The publishers of approved data in Australia are **AirServices, Jeppesen, Avsoft Australia Pty Ltd (AvPlan) and OzRunways Pty Ltd (OzRunways)**.

It is worth noting that portable electronic flight bags

with global positioning system functionality can only be used for situational awareness. It is not an approved navigation system and cannot be used as the primary means of navigation.

TOW PLANE RELEASE MAINTENANCE

In February this year a revised CAO 100.5 was issued by CASA to incorporate relevant maintenance actions from associated Airworthiness Directives (AD), among which was AD/Supp/8 relating to all towing release systems used in aircraft not covered by an approved system of maintenance. Regrettably the authors did not transcribe the details from the AD correctly and introduced what should be an annual inspection routine into daily maintenance. GFA wrote to CASA in February 2016 to advise that GFA tow pilots cannot comply with the new requirements and CASA subsequently confirmed the document was badly written and would be revised. At that time I informed CASA that GFA will advise tow pilots to disregard this section of CAO 100.5 and continue to follow the advice in AD/SUPP/8 pending reissue. Despite the efflux of time, the CAO has not been amended and I have again followed up with CASA. In the interim, GFA recommends tow pilots comply with AD/Supp/8 Amdt 1 that was issued in March 2016 (despite it applying only to Part 42 aircraft).

PRIVATE PASSENGER ENDORSEMENTS - QUESTION & ANSWER

Q: A discussion arose over 'Family Friend' flights. It is very common practice for a third party to take a family member or friend for a flight in a glider at the request of another club member - for example, a trainee pilot may bring a friend or family member to the club to see what happens and ask if they could go with a suitably qualified pilot for a flight with no cost to the family or friend. Instead, the trainee puts it on his account. Recently a mate of mine who is a commercial pilot visited from NZ and rather than me take him, he went with one of the aircraft's owners. Is the family member or friend deemed to be a friend by association or introduction? This would seem reasonable.

A: There is no longer a 'Family/Friend' rating. Carriage of persons who are not GFA members is dealt with under the 'Private Passenger' provisions at Section 10.5 of the GFA MOSP, Part 2. In simple terms, a pilot who holds a Private Passenger endorsement can take any person for a flight providing the pilot pays at least half the cost and the passenger does not touch the controls. In the example above, where the trainee pilot asked another member to take their friend or family member for a flight and 'put it on his account' (i.e. the trainee pays the whole cost of the flight), the flight is no longer done "on behalf of the pilot alone" and would breach CAR 2 (7A).

MEDICAL STANDARDS - FREQUENTLY ASKED QUESTIONS

The GFA website has a comprehensive FAQ on the GFA's medical standards, so if you or your Medical Practitioner have any queries relating to these standards, this is the place to refer. You can access the relevant article via this link: tinyurl.com/gmc3jkr

GFA APPROVED MAINTENANCE ORGANISATIONS



AEROSWIFT COMPOSITES	BALLARAT	JOE LUCIANI	0428 399 001	comcom2@bigpond.net.au
AVIATION COMPOSITE ENGI	TOCUMWAL	PETER CORKERY	0439 842 255	corkerys@bigpond.com.au
AVTEC AVIATION	BOONAH	ROGER BOND	0409 763 164	avtecaviation@virginbroadband.com.au
CAMDEN SAILPLANES	CAMDEN	MIKE DUGAN	0418 681 145	camdensailplanes@bigpond.com
GCV WORKSHOP	BENALLA	GRAHAM GREED	0428 848 486	gcvworkshop@benalla.net.au
HOLMES HOLDINGS	BRISBANE	PETER HOLMES	07 5464 1506	holmbros@gmail.com
KEEPIT GLIDER TECH	LAKE KEEPIT	GRANT NELSON	0417 843 444	keepitglidertech@outlook.com
MADDOG COMPOSITES	IPSWICH	ANDY MADDOCKS	0400 809 080	andrew@maddogcomposites.com.au
MORGY'S GLIDER WORKS	WAIKERIE	MARK MORGAN	0427 860 992	morgans@sctelco.net.au
SL COMPOSITES	TEMORA	SCOTT LENNON	0438 773 717	scottl@internode.on.net
T & J SAILPLANES	TEMORA	TOM GILBERT	0427 557 079	tnjgilbert@internode.on.net
ULTIMATE AERO	BOONAH	NIGEL ARNOT	0437 767 800	nigel@ultimateaero.com.au
UNIVERSAL PLASTICS	PERTH	DARREL LONG	08 9361 8316	universalplastics@inet.net.au

LOW THERMALLING

The recent discussion on the GFA Forum about low saves during the Horsham Grand Prix has prompted some pilots to question the GFA Operations Panel's view on low thermalling. The GFA Operational Regulations states that a sailplane must fly above 1,000ft over a built-up area or 500ft above ground unless taking off, landing or ridge soaring. See Paragraph 6.5 for exact wording and exceptions. This article also expands on the low-level flying article in *Gliding Australia, issue 32*.

The discussions have seen diverse views ranging from an acceptance that pilots should be able to thermal away from a low height, to contrary opinions in favour of a mandated minimum thermalling height set between 500ft and 1,000ft depending on pilot proficiency and other factors. I think both extremes have oversimplified the argument, which is not as straightforward as stating that thermalling at or below a particular altitude is either safe or unsafe.

I disagree with the concept of mandating a minimum height for thermalling for a few reasons:

If we say that it is unsafe to thermal below X feet, people could assume that it is safe to thermal above X. In reality, there are still risks in thermalling above X that will continue to reduce as the thermalling height increases

Even if a pilot is cleared down to a specific minimum thermalling height, on some days or even during some flights, this minimum height would need to change due to weather, aircraft type and handling characteristics, pilot fatigue and dehydration, thermal structure, turbulence and other factors. Therefore, nominating a fixed height may give a false sense of safety that may not be warranted

There's no point in having a rule that isn't enforceable, just to give the appearance of being safe. I agree with the concept of a minimum height during competitions as this is enforceable and puts all competitors on a level playing field, however for normal club cross-country flying I don't think that mandating a minimum thermalling height will necessarily improve safety

So, having said what I think doesn't work, what's my alternative solution? I think the solution lies in educating pilots to assess their own ability and in-flight conditions to make a sound airmanship decision as to what height they break off the flight and transition from 'soaring pilot' to 'landing pilot'. An understanding of relevant threats - which are not directly attributable to pilot actions - and

errors - which are due to pilot actions - will help pilots to understand and manage the following risks associated with low level thermalling and therefore decide whether it's more prudent to land or whether it's safe to try to thermal away -

THREATS

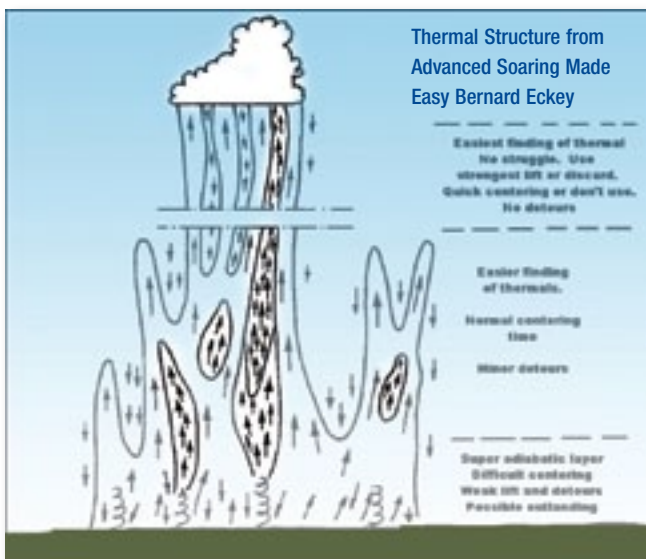
- Thermal structure at low level. The article on Thermals in *Gliding Australia, issue 14* explains with a useful diagram why low level updrafts are disorganised and not all updrafts eventuate into a thermal. [See diagram, below left.]
- Thermal gusts. Effects of vertical gust at higher AoA flap settings increased. Exacerbated in large wingspan gliders;
- Mechanical turbulence from wind over terrain, ridges, trees, buildings and other obstacles;
- Wind gradient and shear;
- Adverse aircraft handling characteristics. Some aircraft have a propensity to spin with little warning versus other more benign aircraft;
- Pilot experience and recency;
- Unfamiliarity with aircraft type and impending stall indications;
- Effect on aircraft drag and stalling speed due to rain, wet wings or excessive insects;
- Pilot fatigue and dehydration;
- Pilot stress factor if low over marginal or unlandable terrain or insufficient paddock selection/evaluation;
- Terrain, obstacles, wires.

ERRORS

- Thermalling slower than safe speed near the ground plus half wind speed;
- Inaccurate airspeed control;
- Poor rudder coordination - over-rudder in turns with opposite aileron (e.g. the GFA spin entry technique). Skid is much, much more dangerous than slip, particularly at high AoA, particularly in large wingspan gliders;
- At low altitudes, susceptibility to ground speed and turn radius illusions in windy conditions leading to inappropriate control inputs;
- Turning away from landing area at low altitude and flying into sink;
- Drifting out of gliding range from selected paddock in weak thermal;
- Not configuring the aircraft for landing due to late transition from 'soaring pilot' to landing 'pilot';
- Inappropriate trim setting;
- Errors in flap setting;
- Fixation, press-on-itis, optimism bias, decision errors;
- Over-reliance on technology (final glide computers, altimeters for height reference over unknown terrain elevation);
- Inaccurate height estimation.

A review of 713 SOAR accidents and incidents from September 2011 reveals 55 terrain collisions, not including hard landings, with pilot experience levels ranging from tens of hours to tens of thousands of hours (median total hours 732 hours/621 launches), hence these types of accidents are not confined to any particular experience level. Of the 55 terrain collision accidents, 17 resulted in injuries or fatalities. Therefore, given the risk and consequences of an undesired aircraft state when pilots don't appropriately manage threats or errors, it is important that pilots are aware of their capabilities and limitations when thermalling at low height.

PATRICK BARFIELD
Regional Manager
Operations NSW



AEROTOWING

AEROTOW LAUNCH TRAINING AND SAFETY - TRANSITION TO LOW TOW POSITION

Recent instructor training and flight instructor refresher courses have highlighted some issues about how we train pilots in aerotow launches, in particular the transition from ground separation to the low tow position.

INITIAL CLIMB

What does the Instructors' Handbook say?

Whether intending to carry out an aerotow in the high or the low tow position, the separation and climb-away stages are identical. The glider will lift off before the tug and should be held at a height of six to ten feet above the ground (about the height of the tug's fin) until the tug also separates. In this situation the glider will be above the tug's slipstream.

If intending to carry out a high tow, this position above the slipstream is maintained as the combination climbs away. Remember that high tow is, by definition, just above the slipstream, not above the tug. The slipstream is the primary reference, not one of the fixtures on the tug.

If intending to carry out a low tow, maintain station above the slipstream as the tug leaves the ground. When the tug is positively established in a climb, move the glider gently but positively down through the turbulence behind the tug until once again in smooth air. The glider is now in the low-tow position. Once again the slipstream is the primary reference. Do not go too low in relation to the slipstream - it is not necessary.

I am aware that some clubs have a standard practice of maintaining the high tow, above slipstream position until a designated height, sometimes 120 or 200 or even 300ft AGL. Various logical reasons are offered, sometimes obstacle clearance or improving the glider pilot's options if a low-level launch failure occurs. Other clubs allow pilots to transition into low tow much lower. Sometimes we see pilots separate from the ground, maintain position just above the grass and let the towplane climb until the low tow position is reached.

So, what is safest? What is correct practice? How would you feel if like many things, the answer is "it depends..."

I prefer to de-emphasise a particular numerical height for this transition from above the slipstream into low tow, as there are many variables:

- towplane type and performance
- glider type and performance, particularly all-up weight (AUW) and towed airspeed
- airfield layout, runway surface condition, slope and climb-out path obstacles
- wind, turbulence and, very importantly, wind gradient

I prefer to instruct, "Transition at a safe altitude above ground, mindful of wind and turbulence, wind gradient close to the ground, obstacles, effective climb rate, glider AUW and ballast, towplane performance and pilot experience."

Regardless of the presence or absence of obstacles on climb, it is important that pilots not allow the tug to climb to the low tow position then follow up, particularly if there is a strong wind gradient and the glider is heavily laden. The tow plane may climb into air moving with higher wind speed, increasing tug



IAS, thus increasing lift and tug rate of climb. Meanwhile, the heavily laden glider, lower down, is in air moving with lower wind speed, with a lower glider IAS, lower rate of climb and reduced ability to keep in station just below the slipstream.

We tug pilots have a strong aversion to glider pilots getting too low and pulling our tail down, nose up. You do not want the 'Jesus handle', operated by the tug pilot, to release the tow at the tug end!

There are many variables affecting towplane performance, rate of acceleration and rate of climb. On high density altitude days, hot and high, the effects can be worse. Climbing uphill or towards obstacles usually means a higher transition to low tow, relative to the launch point.

A safe transition height normally seems to me to be in the range 120-200ft, sometimes lower in calm, benign conditions, sometimes even higher in wind gradient, even higher again in rotor and strong wind gradient. The number is really not critical - it simply has to be safe, look right and feel right.

When the glider climbs in high tow, there may be a short transitional period when the combined climb energy is reduced as the glider gains potential energy, and the effect of the glider being in high tow may also affect towplane trim and therefore achieved rate of climb. Yes, climb performance is often better in low tow, BUT being too low in tow will drag the tug tail lower. Energy may then be lost if the towplane pitches the nose lower to reduce drag and regain airspeed and rate of climb. Some towing aircraft are more sensitive to changes in glider position affecting the towplane pitch.

If flying with more ballast or two-up in a heavy glider, get into high tow just above the slipstream and stay there for a while, then transition slowly at a safe altitude, even if there is minimal wind gradient.

With a steady takeoff into wind, minimal wind gradient and an experienced pilot, then the glider pilot may be comfortable transitioning sooner and lower, but the golden rule is 'there is no rush, transition gradually to low tow when safe and when you have an exit route'.

The CFI, Duty Instructor and the Duty Tug Pilot are absolutely entitled to insist on local safety and operational procedures being applied - visiting pilots take note! Happy launches and happy landings!

DREW MCKINNE
Chair of Operations
cop@glidingaustralia.org

CHANGES IN THE AW DEPARTMENT

Positive change is good, although we don't want to change our good points. One aspect we are trying to fix in GFA is succession planning. This is particularly important in a mainly volunteer org like ours. We come and go fairly quickly and, in fact, limit our terms in office to 5 years to stimulate fresh blood and to stop people becoming entrenched.

Andrew Simpson has taken over as CAD and I have stepped back to DCAD, Deputy Chairman of the AW Dept, on 1 Jan 2017. This means I can help Andrew with a handover and I can also finish some projects that I started. Andrew will bring a fresh set of ideas and contacts to help us improve. Welcome, Andrew.

This also means we will be changing more towards our intended Organisational Diagram – see MOSP 3. In summary:

- The CAD is a Board and Executive member whose role is more about organizing and making sure the department works well. In other words, Andrew will probably be less hands on than I was – he has a job at Qantas as well.

- DCADs, Anthony Smith and I, will help on special projects and standing in as required.

- Dennis Stacey, CTO, is employed to resolve most of the Airworthiness Administrative functions. He gets the day to day jobs done, such as CoA, Experimental Certificates, GFA AD system, SDR System (defects reporting to GFA, CASA and manufacturers), AW Audits, Permits to fly, assisting RTOs, etc.

- The Secretariat in the Office - Tanya, Cathy, Fiona and Carol get the real admin done, and they are very good at it. Phone them or email them at returns@glidingaustralia.org and they will sort out most admin matters, including registrations, changes of address and other member details, Form 2 returns, arranging training and generally assisting the rest of us. They do it all - Ops, AW, bookkeeping - and they know who to forward you to if required.

- RTO – Regional Technical Officers are the GFA in the regions for AW. We need local people to spread the load and save costs and time of travel in this huge country. So please email or phone your RTO if you need AW advice or decisions. If they cannot help they will put you onto the CTO or others. In this way you get local help and we spread the load. See Contacts on the website.

- The AW Admin Officers (AAO) are your reps in the clubs. They are mainly responsible for their clubs' fleet, helping their club inspectors, organizing training required with the RTO, and generally being a contact in the club.

So, it is a distributed system, where we all do bits to make the whole work well at low cost. It is a long-standing system, with similar arms in management, Ops and Sports. We don't see a better way to do it. Obviously it would be nice to have a paid staff and not require volunteers, but this would cost a lot more and we would lose our GFA attitude and experience, and ability to work locally. Our people come up through the ranks. But we must not get stuck in old bad ways so let's be open minded to improvements.

LOGBOOK STATEMENTS

Statements allow freedom regarding how you maintain your gliders and give you options. As I said in the Jan 2017 issue, if you want to deviate from the Form 2 or we see that you need to, we will help you with a logbook statement. In time, the rest of you can fill in a simple version saying you will do the GFA Form 2. We will guide you in this. So continue maintaining according to the GFA Form 2 process as you did, unless your manuals state you must do hours-based maintenance or you have an LSA

glider. It will mainly allow you to extend years-based overhaul on your engine and prop, and to operate on condition beyond TBO. If you think you need to change, then send in a request.

Regarding the call for aeronautical engineers, I did not get one response to this request. We need help with approving modifications. We have received CASA renewal for our Design Approval system for another few years and need to resolve modifications. But we need volunteer engineers to do the approvals at low cost. Otherwise, you will need to pay.

NEW DOCUMENTS

We have published a new version of MOSP 3 and are busy getting a new version of BSE ready for publishing. The changes are mostly not material or huge, but you need to use current data and this is part of keeping up to date and making it clear. The current documents will always be on the website.

MOSP 3 v7.3 was fixed mainly to satisfy CASA comments and changes in regs. We have published it for use with the draft removed, as this was causing concern. We also clarified the confusion surrounding CASA's change to CAO 100.5. CASA still have to approve MOSP 3, but we will mark it approved once they do. Keep checking on the website, as they may require changes.

Some BSE Chapters are getting a significant update. We found errors in the old AD on TOST releases that you as Inspectors slipped up on spotting, or at least reporting, since 2001. So we are fixing the chapter in BSE and MOSP 3, to replace the ADs. We will start publishing Chapters in the new year. Please check and keep up to date - it's how we improve and keep up with changes.

We are also about to re-publish BSE Engines – everything you should know about looking after motorgliders.

AUSTRALIAN GLIDING

I often hear people asking why we need all these layers of management - GFA, Regional Association, Clubs. I really only understood when I got involved and saw what a good Regional Association can do for its region, and then what GFA does to organise the whole. They are all helpful bits, distribute the workload and allow us to work locally and yet unified. It is a good system – please participate in whatever way you can.

CASA recently audited Ops, Admin and Airworthiness. We got glowing feedback and can easily address the issues, so the hard work is paying off. Actually, we hope you don't really notice the changes – the aim was to keep the freedom and the system that works well for us. We can still improve and free up more by working in the background but we had to get our systems working right first.

However, we realise changes are required and continue trying to find better ways forward. Please join us and help.

I have learned so much doing the CAD job, achieved a bit, made a lot of friends, and got a lot of satisfaction putting back something for what I took out. It's been my pleasure. You cannot keep borrowing from a bank – you need to pay back sometime.

ROB – THE CAD



ROB HANBURY
Airworthiness
Department Chair
cad@glidingaustralia.org

ACCIDENTS & INCIDENTS

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

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.

Due to limited space and the number of items, the reports here are a selection. More will be included in the next issue.

The Gliding Federation of Australia Inc SOAR Accident and Incident Occurrences General Statistics						
Date From:	01/10/2016					
Date to:	30/11/2016					
Damage	VSA	QSA	NSWG	SAGA	WAGA	Total
Nil	5	10	9	4	3	31
Minor	1	1	6	1		9
Substantial	1	1	7	2	3	14
Total	7	12	22	7	6	54
Injury	VSA	QSA	NSWG	SAGA	WAGA	Total
Nil	7	12	20	6	4	49
Minor			1	1	2	4
Serious			1			1
Total	7	12	22	7	6	54
Phases	VSA	QSA	NSWG	SAGA	WAGA	Total
In-Flight		4	4	1	1	10
Outlanding	1		8			9
Landing	1	2	5	4	4	16
Ground Ops	1	2	3			6
Launch	3	4	2	2	1	12
Thermalling	1					1
Type of Flight	VSA	QSA	NSWG	SAGA	WAGA	Total
Local	3	6	5	4	4	22
Cross-Country	1	1	3	1	2	8
Competition			8	1		9
	1	2	3			6
AEF				1		1
Training/Coaching	2	3	3			8
Total	7	12	22	7	6	54

7-OCT-2016 QSA AIRCRAFT CONTROL ASW 28

The experienced pilot was competing in the Queensland State Championships. During the course of the cross-country flight an outlanding became inevitable after an unsuccessful search for lift and the pilot turned back towards a suitable paddock in order to land into wind. The pilot had not configured the aircraft for landing and did not complete the pre-landing check list. The aircraft landed with the undercarriage retracted and suffered minor damage. The flight logger trace revealed the pilot left the decision to break off the flight and commit to a landing late and at low level (600ft AGL). Landing mishaps commonly occur to pilots who become overloaded when close to the ground. Workload management can be eased by proper flight management which includes attending to pre-landing tasks (like lowering the undercarriage) early rather than later in the circuit. Refer also OSB 01/14 'Circuit and Landing Advice'.

8-OCT-2016 NSWGA FUEL RELATED HK 36 TTC

The pilot commenced the take-off roll and upon applying full power observed the RPM and manifold pressure was within the boost range. Once the glider was airborne the engine began to run rough. The pilot lowered the nose and reduced the power while assessing options for landing straight ahead. When the power was reduced the engine ran smoothly and

the pilot determined through experimentation that the engine only ran rough when in the boost range. As it is usual to only use the boost during the initial take-off, the pilot elected to continue the climb to 4,500ft AGL, at which point the engine was shut down and the flight was conducted as a glider. Upon landing the engine started normally and the glider was taxied clear of the runway. Investigation revealed a major fuel leak from the left-hand carburettor whenever the boost range was used. The leak was at the gasket between the bowl and body of the carburettor. Fuel overflowed the carburettor tray and ran over the top of the metal exhaust shroud. The cause of the leak was determined to be from insufficient tightening of the lock wire that allowed a nut at the bottom of the carburettor to loosen approx. 1/4 turn. Retightening and lock wiring the nut resolved the problem.

10-OCT-2016 QSA OUTLANDING RETRIEVE VENTUS-2C PIPER PA-25

The pilot was competing in the 55th Australian Multiclass Nationals flying in 18m Class. The flight was the first practice day and the task was an AAT with the last turn point being a 2km ring set approximately 10 kms south of the aerodrome to facilitate an orderly return. The pilot had been working between 2,000ft AGL and 4,300ft AGL with lift averaging just under 3 knots. Conditions became soft on the third leg and, after a total flight time of just under three hours an outlanding became inevitable. The flight logger trace shows that the pilot continued to work weak lift below 1,000ft AGL, and after about three minutes of circling broke off the flight at about 600ft AGL and entered the downwind leg of a circuit to a paddock at about 400ft AGL. The pilot completed a successful landing and called for an aerotow retrieve. The glider pilot informed the tow pilot that the paddock was 700m long, firm with a SWER line 1/4 into its length crossing at right angles to the approach path. Upon arrival at the paddock the tow pilot observed the paddock was much shorter, about 550m but deduced an aerotow retrieve could be accomplished safely. The tow pilot approached over the SWER line and had about 300m to bring the aircraft to a halt. After towing the glider back to the furthestmost diagonal corner, the glider pilot admitted that he had since paced out the paddock and found it was only 550m. The glider was positioned under and beyond the power line and a successful take off and retrieve was accomplished. The GFA Aerotowing Manual has this to say about paddock retrieves: "Glider pilots have little interest in a trailer retrieve if an aerotow is available. Retrieve crews feel much the same way. When you speak to the glider pilot on the phone or radio prior to setting out on the retrieve, you may find quite a lot of pressure applied to get you to come and pick up the glider. For this reason you should regard telephone or radio information about paddock quality as at best, optimistic and at worst, downright misleading. Make sure the glider pilot understands that, should you agree to go

and pick up the glider, it is your absolute right to refuse to land if you don't like what you see from the air when you arrive overhead. Do not feel pressured into attempting a task if you are not satisfied it is safe."

10-OCT-2016 NSWGA FLIGHT CREW INCAPACITATION LS8-18

Under investigation. While on final approach into a paddock and at a height of about 200ft AGL, the pilot blacked out. The aircraft then commenced a gentle descending right-hand turn and collided with trees. The aircraft was substantially damaged and the pilot severely injured. The accident was witnessed by a local farmer, who immediately called emergency services and administered first aid. The pilot was airlifted to hospital.



11-OCT-2016 NSWGA TERRAIN COLLISIONS VENTUS-2C

Under investigation. The pilot was competing in the 55th Australian Multiclass Nationals. The pilot was competing in the 55th Australian Multiclass Nationals flying in 18m Class. The task was a 142.5km polygon, flown in challenging conditions of high winds and a low height band. After covering a task distance of around 80kms and while working a thermal below four other gliders, an outlanding became inevitable. The aircraft was drifting downwind and the pilot noted several suitable paddocks within range. Another glider had already landed in a ploughed paddock below and when the pilot finally lost contact with the thermal, a decision was made to land in the same ploughed paddock. The pilot elected to land parallel to the contours with a quartering crosswind from the right. Due to high wind (~18kts) and the potential for mechanical turbulence at low level, the pilot correctly flew the approach faster than normal at around 75kts. Touchdown was normal but as the glider slowed and aileron authority was lost, the port wingtip contacted the ground and the glider swung through 130 degrees to the left of the direction of landing. The force of the excursion resulted in the outer wing panel of the port wing breaking off, the outboard end of the flaperon was split and the outboard control linkages were bent. The pilot noted that the contours were not as large as anticipated and a landing more into wind and across the contours would have been preferable. Review of the pilot's flight trace revealed the decision to break off the flight was left late with the pilot abandoning the thermal at about 700 ft AGL. The pilot joined circuit

directly onto a base leg and opened the airbrakes just prior to turning final at about 250ft AGL. The landing was witnessed by the pilot of the glider that had landed earlier. The witness noted that upon touch down the main wheel immediately sank into the soft surface of the paddock and the glider pitched forward to slide on the lower forward fuselage. It was later disclosed that water ballast had not been dumped. While some gliders are designed to withstand a landing back at the airfield with water ballast on board it is always wise to land with empty water ballast tanks, especially when outlanding where surface conditions are unknown. Lateral control suffers when the wings are full of water and usually results in loss of aileron control on the ground when run at a higher speed than would normally be the case. Landing with water ballast also places greater stress on the glider, and if the landing area is rough serious damage can be done as evidenced here. When a pilot is getting low and faces the prospect of having to land, then it is wise to dump the water ballast to avoid the higher rate of descent that comes with the glider being heavy. This will give the pilot the extra time needed to find a thermal and avoid the potential for damage during an outlanding. Causal factors include: Holding onto the water ballast for too long; Late decision to break-off the flight; Not configuring the aircraft for landing by dumping water ballast (OSB 01/14 'Circuit and Landing Advice' refers); Flying a modified circuit that prevented a more thorough inspection of the paddock; Strong crosswind component (~12 knots at 40 degrees); Soft surface of the paddock; and Landing with water ballast.

12-OCT-2016 WAGA WILDLIFE HORNET

During a cross-country flight, and while in the cruise at about 3,800ft some 50kms from home, the glider was hit by a Wedge-tailed Eagle from the 2 o'clock high position. The pilot did not sight the bird until immediately before impact. The eagle hit the windscreen frame and then rotated through starboard side of the canopy. The bird fell into the pilot's lap and was quickly jettisoned overboard through the



gaping hole in the canopy. The pilot was unsure the bird was dead. The pilot, now bleeding from a cut above the right eye, gave a 'mayday' call on the gliding frequency that was acknowledged by the gliding base. With the blood flow stemmed by a handkerchief and the glider handling normally, the pilot took a climb in a thermal to ensure the aircraft could glide to a nearby aerodrome. The club implemented their Emergency Response Plan



and alerted emergency services, who were immediately dispatched to the remote aerodrome. The police and ambulance arrived shortly after the pilot landed. The pilot was transported to the local hospital for clean-up, bandaging and observation. The pilot noted that he did not suffer from shock until after he landed. Although birds and glider pilots often share the same thermal and can operate near each other with relative safety, birds can and do occasionally come into contact with a glider. While it is uncommon that a bird strike causes any harm to aircraft crew, many result in damage to aircraft. Wedge-tailed Eagles are territorial and are known to defend around their nest sites from other Wedge-tailed Eagles and the occasional model airplane, hang glider, glider, fixed-wing aircraft and helicopter.

29-OCT-2016 NSWGA TERRAIN COLLISIONS JANUS B

The pilot was returning to the home airfield after a cross-country flight from the South-South-East into a 10kt headwind. The aircraft was below final glide but the pilot had maintained glide to a private airstrip approximately 10km east of the home airfield. No lift was found and the pilot subsequently joined circuit and landed on the private airstrip. The private airstrip was about 14m wide and was bounded by tall wheat crop grown to the very edge of the runway. As the glider's wingspan was 18.2 metres, the starboard wing caught a higher section of the crop towards the end of the landing roll, resulting in a slow ground loop through 180 degrees. While the wings stayed level, the tail struck the ground before the end of rotation and the tailskid disbonded from the fuselage, as it is designed to do. A subsequent inspection of the airframe revealed no damage.

26-NOV-2016 SAGA STANDARD LIBELLE 201 B

Under investigation. It was reported that just as a winch launch was commenced a club member noticed the trace had been overrun and had wrapped around the main wheel of the glider. A stop signal was given but the glider was about 30 to 40ft in the air by the time the winch driver cut power. The glider has then descended and landed heavily in a wheat crop approximately 5m from the runway edge. The pilot suffered back pain and was conveyed to hospital for observation.



29-NOV-2016 NSWGA TERRAIN COLLISIONS ASW 20B

Under investigation. The pilot experienced strong sink after releasing from aerotow for a competition flight and turned towards the airfield. The high sink rate persisted and an outlanding became inevitable. While attempting to land in a stubble paddock the glider struck a power line above the fence line, and the aircraft fell to the ground and was substantially damaged. The pilot suffered minor injuries and spent a short time in hospital for observation. Inspection at the accident site revealed the undercarriage was retracted, airbrakes were unlocked, flaps were in negative and the aircraft was still carrying full water ballast.



29-NOV-2016 NSWGA TERRAIN COLLISIONS VENTUS C

Under investigation. The pilot reported having final glide but then noticed the inbound position (control) point had been missed due to an instrument programming error. The pilot deviated to the waypoint but now did not have final glide and commenced a straight-in approach into a suitable paddock. The pilot identified a power pole to port and believed the three power lines were aligned with the glider's approach path. This was not the case and the glider's starboard wing struck and broke the first wire resulting in a sudden deceleration with nose down pitch. The glider struck the ground vertically and came to rest inverted. The pilot was able to remove the parachute and egress from underneath the wreckage despite a broken arm.



CLASSIFIED ADVERTISING

glidingaustralia.org

For members' convenience, Classified Ads can be purchased from the Gliding Australia website at glidingaustralia.org. Go to Classifieds then click on the link and complete the online form where you will need to provide the text for the ad and any photos, if required. The cost for the ad will be determined by the number of words and any photos you wish to add. You will then be taken to a secure payment area to process your payment. Your ad will be placed on the GFA website for a month from the date of payment. Ads that are financial at magazine deadline (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-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, 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. 2800 hours. 800 flights. Fresh form 2. ground handling gear and one man rigging device. Fly away after the Kingaroy nationals. \$40,000 negotiable based on what you want included. Call Terry on 0408 085 988



VH-CTG LS1D 3404hrs, 1318 Landings. Great performing LS1D with recently rewired electrical and repiped pitot static system. Includes a recently installed Flamm Mouse (with certified flight logger) and Flamm-NAV readout, a Winter Variometer, and a full service history with associated documentation. Comes with a good registered trailer. Will be sold with a fresh Form 2 Annual Inspection / Maintenance Release \$15,000 ONO Contact Steve 0437 187 565



VH-GQL ASW22 22/24 A beautifully balanced high performance glider at a sensible price! The first owner was Hans-Werner Grosse, who set world records in this glider. Dittel ATR 720 Radio, Oz Mini Flamm, Glider Guider USB Data feed from Flamm and power supply for a navigation device, Borgelt Electric Vario, Schumann Mechanical Vario, Parachutes Australia Thinback parachute, new water ballast bags (4) late 2014, full Jaxida Covers – average condition, Anchau fibreglass/steel Trailer registered to January 2018 (NSW),

Hours= 4611, Landings=1224, Built 1982 – in Australia from 1985, refinished in Ferro Gelcoat 1987 by Ruedi Gaissmeir. Owners and Glider in Corowa until 21st February, then the glider will be in storage in Temora. Price:- \$50,000 – for a quick sale to a good home only! Contact Australian syndicate member John Blyth on +61 43 9011194 or jblyth@cheerful.com



VH-IDJ ASG29E- 4D, LX9000F,V9,AHRS,Compass option,Flap sensor,Remote stick,In panel USB connector,Artex 406 ELT with remote switch,8.33khz Radio,Boom mic, Trig T21 mode S transponder, 1090 ADSB Receiver,Air switched total hours meter,Schleicher rotary battery/solar select switches Oxygen bottle holder,Undercarriage warning and green "down" light in panel. In panel USB power outlet, LiFePo4 batteries x 3 and wall charger, Tail battery (Pb), Solar panels, Pirker electronic bug wipers (currently uninstalled), Tail water tank. New canopy cover,Leather interior finish,Ground handling gear. Water filling equipment,Complete wing and fuselage covers,Avionic Trailer with spare wheel. Steel internal fittings in trailer roof, Floor reinforcements. Tyres rotated every year. Stored in hangar. Spares include:Complete rudder,Brass tail wheel (complete assembly),1 set of rear lift pins. Wing flap drive covers. Main and tail wheel tubes. Complete finish in PU paint including new finish to inner wing panels in 2015. Complete replacement of internal and external seals (2015). Tinted canopy (Blue) Approx 1400 hours airframe, 14 hours engine. Always stored in hangar. Price negotiable. Contact: David Jansen 0409 592 747



VH-FFR Schempp-Hirth Mini Nimbus HS7

serial No. 28. 2210 hrs 724 landings. Same Club Class handicap as Discus a,b & CS, LS7 and SZD 55. I am the second owner. No prangs. Fully refinished in 2 pack polyurethane in 2012 by Peter Holmes. First layer of glass replaced on undersides of wings. All control surfaces stripped and re-glassed. Immaculate finish. New blue tinted canopy fitted 2012. New weight and balance 2012. New wheel hub and brake assembly, main wheel tyre and tube 2015. Wing pins replaced 2011.Tow out gear (wing walker, tail dolly, tow bar) new in 2013. Instruments include Zander SR 820 BE electronic and Winter mechanical varios. Instrument panel and cockpit vinyl linings replaced. Cockpit re-painted. Gear warning system. All AD's done. Arguably the best Mini Nimbus in Australia. Will sell with new Form 2. Price \$45,000 Contact: Lyle McLean 0410 536 052





VH-XJO LS4a 1989, 3400TT, excellent cond. Cambridge L-NAV and GPS-NAV, Becker 6201 Radio, Flarm, Oxygen, Steel-clad trailer with excellent fittings. Tow-out gear. Current Form2. Contact **Armin Kruger 0477 945 387** or kruisa@ozemail.com.au



VH-GYZ Std Cirrus C2 Fresh 3000hr survey. Complete with certified dive brake mod, winglets, nose hook, trim mod. Finished in PU. Tinted canopy. Adjustable seat back. Parachute, LX16 and Illec S8 varios. Microair radio, Flarm nav wired for Oudie, EW logger. Mountain High EDS. Full dust covers. great trailer, easy to operate, 4 x new LT tyres fitted this year. \$26,000 ONO Contact **John Eddy 0419 677 552** or email johnbed@bigpond.com



VH-GFH, LAK-12 Open Class glider \$26,000. 1996 built; genuine L/D 50:1, Min sink 87 fpm; 20.5m wingspan; TT 490 hours. Beautiful, glider; easy to fly; big comfy cockpit. ASA handicap of 0.865. 1000km capable. Tailwheel and wing wheel mods which make ground handling a doddle. Fair trailer. 20 yearly inspection completed 2016; Annual completed 19th November 2016. Very economical glider to own. See photos at <https://www.flickr.com/photos/100805789@N07>. Greatly reduced price as am keen to sell. Contact **Chris Hamilton 0418 234 000**

VH SOJ SZD-55-1, fully refinished in 2007, immaculate condition. Manufactured 1996, 1070 hours, 360 flights. Once a national champion. 43 to 1 glide ratio, great handling, carries 200 l of water. B-800, LX V3, Swissflarm, Flarmview 57, 2y old XCOM radio, parachute less than 1 year old. Mountain High Oxygen System, Full Jaxida dust covers, Tow-out gear. Avionics dual axle clamshell trailer in good condition \$59000.00 neg. Contact **Paul 0412 194 318** or pb2525@gmail.com



VH-GZA Q7 LS8-18, . 2001, 1400TT, LXNav V7, V3, Oudie, Nano, Flarm (IGC), Becker 4201 Radio, Butterfly Flarm Display. Cobra Trailer, Kerry covers, Tow out gear. Fully competition ready. Offers near \$100,000. Contact **Matt Gage- 0421 382 990** or matt@knightschallenge.com

MOTOR GLIDERS AND TUGS

Pawnee Tow plane PA25/235. Set up for towing. Fitted with flarm. Contact **Arnie Hartley 0418 270 182** \$70K

VH-GXG HK36R Super Dimona, VHGXG, tail dragger, 80HP Rotax. TTAF 2329, TTENG 980. In excellent condition, professionally maintained, always hangared, fully instrumented. \$90,000. **Ph: 0412 145 144**.



VH-UMC PIK20e excellent condition, new Form 2, fixed pneumatic tailwheel, TT 763 hrs, Landings 342. Engine 43 hrs. Prop 154 hrs. Complete with factory trailer, full weather covers. Located at Keith/ Bordertown SA. More details; **Peter Brookman 0409 693 027**.



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. \$37000. **Jim 07 3821 1246** hjrgrant@primus.com.au



VH-MXG PIK20E self-launching sailplane with all associated equipment for independent operation including trailer, stands for single person rigging and maintenance, large (10m x 36 m) hangar at Corowa Airport (can take up to seven sailplanes and could be dismantled and relocated). Price negotiable depending on whether sale is as complete package or individual items. For further details contact **Lloyd Bungey Phone: (02) 6059 882: lloydbungey@gmail.com**

INSTRUMENTS AND EQUIPMENT

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

ASG 29 15 meter tips and trailer mounting brackets for sale. \$11,500 Ex BB. Call **John 0419 643 711** or email jbukes2@gmail.com

COBRA GLIDER TRAILER - 2 seat trailer. 9yo. Always hangared and in excellent condition. Previously DG505 but suit Duo or DG1000. \$19,000. **Benalla. 0408 085 988**

Come and Fly with US!

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

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

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

M760 GLIDER SINGLE COMBO KIT

One for the Gliding Fraternity

Includes:

M760 Transceiver

Boom Mic

Speaker Box

Glider Wiring Harness Single



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



Australian Government
Civil Aviation Safety Authority

SO YOU'VE HAD A CLOSE CALL?

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.

**An outstanding cost effective and dependable
Glider Tug and Training Aircraft**

EuroFox

Certified to tow up to a 750Kg glider



ABN 65 007 339 451

Australian agents for EuroFox aircraft and Dynon Avionics

www.horshamaviation.com.au

Ph 03 5381 1727

info@horshamaviation.com.au



Folding Wings

3 Blade Propeller

Rotax 912 ULS Engine

Tricycle or Tail Dragger

Stall 36Kts Cruise up to 110Kts

Oversize tyre options available

**Stunning performance for Glider Towing
and a docile, safe Trainer**

**Exceptional Short Take-off and Landing
Chrome Moly Fuselage Frame (all sealed)**

**Glider Tow variants operating in Australia since 2008
and recently in New Zealand**

**Two new Glider Tow variants on the way
(one sold, one available)**

Horsham Aviation Services



GLIDEomarama.com

New Zealand

The World's best Mountain Soaring!

Crystal clear air - Wave - Thermal - Convergence - Ridge - Just across the ditch!

Mountain Soaring Courses - Adventure Soaring - Learn to Glide