GLIDING AUSTRALIA

Issue 30 June - July 2016
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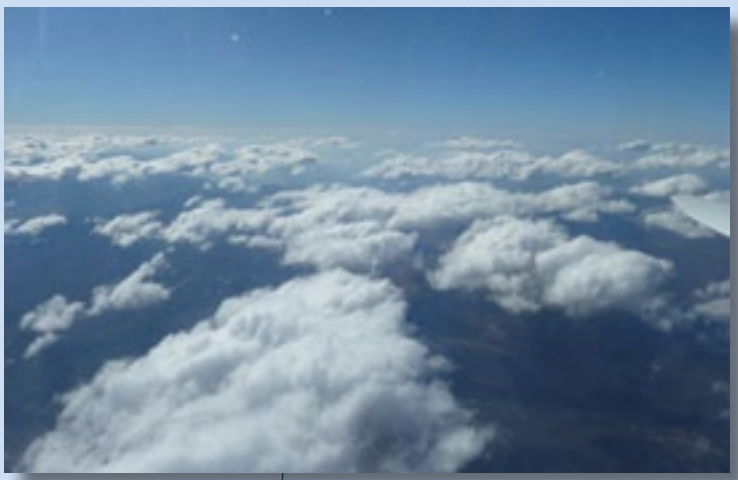
CLASSIC SOARING

IN THE HUNTER VALLEY

THE MONARO WEATHER FACTORY

WGC BENALLA: THE AUSTRIANS ARE COMING!

INSURANCE - INSTRUCTOR TRAINING - COACHING



GLIDING AUSTRALIA

No. 30 June - July 2016

COVER: BY PHILLIP IAN GOLDSMITH WITH ROB MOFFATT IN THE BACKASK13 CABRIOLET, HUNTER VALLEY

GLIDING FEDERATION OF AUSTRALIA

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Or contact: Cathy Cassar cathy@glidingaustralia.org
Tel: 03 9359 1613

AIRCRAFT REGISTRATION & related
Tanya Loriot tanya@glidingaustralia.org

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www.glidingaustralia.org/shop1

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

DEAR MEMBERS

The structure of GFA governance is that we have a Board who sets policy to be implemented by the Executive.

Historically the GFA Executive has met separately from the Board. We now find that with increasing electronic communications and pre-reading of prepared reports we are able to conduct our meetings more efficiently. At our meeting in April we trialled a combined meeting for the first time and It worked well.

EXECUTIVE MEETING

We ran the Executive meeting on Saturday with the Board members as observers, and then had our Board meeting on Sunday.

We are using our new Strategic Plan, based on the results of our Members survey, to give direction to our Board meetings. I am determined that the Strategic Plan will be a living document and will not gather dust on a shelf.

This past weekend we prioritised items in the Strategic Plan going forward and added a timeline. Members are encouraged to view the Strategic Plan and pass comment to the Board via their Regional Board member.

HEALTH CHECKS

We conducted a State Health Check before the meeting and as a result we have asked the States to work together to produce an agreed Statement of Expectations – that is, a list of what members should expect from their regions every year, such as an Airworthiness course or a Winter Lecture Series.

The Regions are going to implement a Club Health Check to help clubs improve their services to members. The Regions are also going to work with clubs who are interested to develop a Strategic Plan. We know that our most successful clubs have an active plan.

We are getting more and more feedback from members that in 2016, members are not prepared to arrive at a dusty airfield in the hope of getting a flight. They want a more efficient system to make better use of their time. We know from the Member Survey that time is much more of a limiting factor than cost. Less than 50 members listed Cost as a limiting factor but over 100 listed time. I encourage all clubs to look at their operations to see if any changes could be made to better satisfy our members' needs.

In the next few months we are initiating three new Marketing initiatives to boost membership and retention, to support Goal 3,000. First is the Fly a Friend program – see ad later in this magazine. We now know that almost half of our new members join because they already know someone who is a member. We are asking all members to join us in this initiative in June. Hence Join in June. We are offering a reduced GFA membership to new members who join in the month of June as an incentive. Second, we are implementing a direct debit payment option to reduce the bill shock at the 12-month mark. Many members fail to renew when faced with GFA and club membership falling due together. Thirdly, we are going to produce a flyer to be sent to all clubs with the AEF membership forms to give information to potential members about the GFA and where pilots can obtain training on one-week courses.

AIRWORTHINESS DEVELOPMENT PLAN

I'm pleased to report that the Airworthiness Development Plan (AWDP) work is almost completed. In September 2013 CASA issued a Safety Alert to GFA, published here. https://tinyurl.com/jf84v6g

CASA had concerns about how GFA dealt with Experimental Certificate issue and our documentation of Procedures, and as a consequence some of our delegations were suspended. It was most unfortunate that the audit occurred at a time when we had recently moved into new premises and were in the process of updating our documentation.

Nevertheless, we treated it as an opportunity and in response to the CASA Safety Alert we commissioned an internal audit by David Villiers which produced the Villiers report. We used the Villiers Report to produce our AWDP. The scope of work in the AWDP was far in excess of that required by CASA as a result of the Safety Audit.

The work done on the AWDP ensures that our Airworthiness department now has a full suite of up to date documentation and procedures going forward.

I hope that members will find the recently published Basic Sailplane Engineering (BSE) to be a very useful resource and I congratulate the team for their work. The team are now working to finish the training modules associated with the document. It is planned to have Training workbooks and power point presentations for several sections of the BSE. Two are already published. This is a great reference for Airworthiness across Australia. The BSE incorporates a feedback form – if you spot any typos, errors of fact or have suggestions, complete the form and your ideas will be considered at the next annual document review. This system will be incorporated in all documents over time.

Many of you may have heard me say that to grow and retain members "we need to abolish Grumpy Old Men". Last week a member phoned me and in passing he commented that he had seen a situation at his club which had upset him. As he was about to launch forth with his thoughts he paused and thought - what would Mandy think of me - and moderated his comments. One less Grumpy Old Man and several fewer disenchanted members.

MANDY TEMPLE
PRESIDENT
President@glidingaustralia.org

FAI GLIDING BADGES TO 24 APRIL 2016

A BADGE

ZHELEZARO VLADISLAV Z	11993	ADELAIDE SC
DILLON GREGORY K	12134	SOUTHERN CROSS GC
VAYRO MITCHELL	12137	DARLING DOWNS SC
LI LOK HIN ANDREW	12138	DARLING DOWNS SC
SO MATHIAS	12142	DARLING DOWNS SC
HUNG HOI SHAN CHARLOTTE	12143	LAKE KEEPIT SC
POUT BEN	12158	SOUTHERN CROSS GC

A & B BADGE

JACKSON PAUL	12141	GEELONG GC

B BADGE

HUMPHRIS CRAIG	12096	ADELAIDE SC
DILLON GREGORY K	12134	SOUTHERN CROSS G
NIGHTSCALES GREGORY	12110	DARLING DOWNS SC

B & C BADGE

DALTON ANGUS	12075	LAKE KEEPIT SC
LEWIS ANTHONY	12063	ADELAIDE SC

C BADGE

BODIAM JAMIE L	12035	HUNTER VALLEY GC
PIVOVARSKI PATRICK S	12028	301 NSW AAFC
BLIEM LES	12102	SOUTHERN CROSS GC
BOOTHMAN PETER J M	12049	NARROGIN GC
KNOX GUY LEWIS	12057	BYRON GLIDING

A, B, C BADGE

FRANKLAND JOHN	12135	SPORT AVIATION
GATES DAMIEN R	12136	DARLING DOWNS SC
EASTWOOD MARK R M	12139	BATHURST SC
DARANI ALEXANDRE N	12140	SOUTHERN CROSS GC
LIANG QIHAO R	12144	LAKE KEEPIT SC
ALCOE DARREN W	12145	ADELAIDE SC
PARISE ALAN P	12146	SOUTHERN RIVERINA SC
HERON GRACE E M	12147	QLD AIR TC
USHER STUART D	12148	GC WEST AUSTRALIA
STONE RODNEY	12149	V.M.F.G.
BRAIN NEALE	12150	HUNTER VALLEY GC
DUNCAN RORY	12151	QLD AIR TC
ARMAN NICHOLAS P	12152	BALAKLAVA SC
PYERS RUSSELL R	12153	NORTH QLD GC
HESS NEIL	12154	MANGALORE GC
HALLORAN PAUL W	12155	KINGAROY SC
COLLINS BARRY A	12156	CABOOLTURE GC
THOMPSON JIM	12157	CABOOLTURE GC

SILVER C

MANDER HENRY J	4902	BATHURST SC
CARLING ANTHONY D	4903	MELBOURNE GC
CLIPSTONE RODNEY W	4904	GRAMPIANS GC
KERSHAW DANIEL	4905	CABOOLTURE GC
SEJKA MILAN	4906	GYMPIE GC
WILSON KEVIN	4907	BEVERLEY SC
DALTON ANGUS T J	4908	LAKE KEEPIT SC
ANDERSON KIM L	4909	ALICE SPRINGS GC

GOLD C BADGE

MANDER HENRY J	1727	BATHURST SC
HOFMAN DAVID C	1728	BATHURST SC

DIAMOND GOAL

TRIDGELLPAUL K	RAAF RICHMOND
MANDER HENRY J	BATHURST SC
SEJKA MILAN	GYMPIE GC
TUCKER JOHN	BOONAH GC

DIAMOND DISTANCE

FURZE LEONIE K	BATHURST SC
MACNEALL DENIS	GC OF WEST AUSTRALIA

600 KLM DISTANCE

TRIDGELL PAUL K	113	RAAF RICHMOND

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

BERYL HARTLEY
FAI CERTIFICATES OFFICER
faicertificates@glidingaustralia.org

RANGA SCHOLARSHIP

Are you not yet solo? Do you want some financial support for your training? The Royal Australian Navy Gliding Association (RANGA) has established a scholarship valued at up to $1,500 annually to be awarded to a person who can demonstrate a strong commitment to aviation but who is not yet at solo standard in any form of flying.

The money is a grant to assist in training in gliding, and will be paid to the club that provides that training.

The rules for the scholarship, and the process for applications, can be found on the GFA Website in the GFA Awards section.

The scholarship runs from 24 July 2016 to 23 July 2017. Applications can be made until 3 July 2016.

For details go to

doc.glidingaustralia.org **- GFA Awards**

or tinyurl.com/jvejl4n

500 FIVE HOURS

At Horsham Week in February, Keith Willis reached a personal goal of 500 flights of five hours duration in his PW5. Well done, Keith!

EXECUTIVE OFFICER

TERRY CUBLEY
EXECUTIVE OFICER
eo@glidingaustralia.org

BEYOND 3000 PROJECT

The biggest issue for gliding in Australia is the number of participants – how many members does GFA have? Our membership numbers are slowly growing,although variation month to month makes it hard to clearly state an exact number. This reveals a significant issue for our future - how do we develop if clubs can do little more than maintain their numbers? Over the next 9 years, 240 of our aged membership will pass their 80th birthday, and many of these members will no longer continue as active glider pilots, so relying on your membership just remaining constant will end with a significant drop by 2025.

The Board is very concerned about the lack of intensity being demonstrated across the country. A few clubs are leading the push by increasing activity, engagement and therefore membership. Similarly, we have some clubs who are still shrinking, and many who are just 'going along'. The Board is introducing some opportunities for club management to grow the sport and benefit their members. Hopefully you will see some improvements in your club. Club leadership really do need to make some changes in how our sport supports our members.

BASIC GLIDING KNOWLEDGE

This is a key reference for people learning to fly gliders in Australia. The Operations Panel has been updating this critical resource for some time and has received valuable input from John Clark, a member at Lake Keepit SC. John has added a lot of quality to the document, which we hope to have available to the membership in July or August.

In a similar vein, the training 'blue book' used by students across the country is also being updated, with input from GFA Operations Panel and the Australian Air Force Cadets (AAFC). The updated version is also expected to be available around July for clubs to add site specific information.

TRACKERS

Jacques Graells, a member at Lake Keepit SC developed and built 20 trackers for the GFA which were used very successfully at last season's national championships and the Junior worlds. We are planning to purchase another 30 so that we have 50 trackers for the world comps at Benalla.

A few clubs have asked about buying these trackers from GFA after the comp season for use in their own club operations. The trackers provide real-time location, including height, rate of climb and so on, which can assist clubs in keeping track of their equipment and members – no more wrong direction retrieves or worrying about where people are later in the afternoon. We will investigate this a little further and make these available for clubs if they are of interest.

OSTIV CONFERENCE

OSTIV is the international scientific and technical organisation for gliding, with members conducting a range of research and publishing the results to improve our understanding of aerodynamics, materials, meteorology and other topics. OSTIV runs a technical conference every two years alongside the world gliding championships. Next 8 to 15 January, the OSTIV conference will be held at Benalla in Victoria - a great chance for you to hear the latest technical papers, face to face with the engineers, scientists and pilots involved. You may also want to present your own theories or research. See the advert in this edition of Gliding Australia or on the GFA web page.

MEMBERSHIP LISTS

Every week we send a report to club Presidents, Secretaries and CFIs that lists all members of their club and their membership renewal dates, so clubs can ensure that all members are current GFA members and therefore legal to fly and covered by our insurances. You have this same information on your membership card, so make sure you renew your membership when due. GFA will send you a reminder email, but if you change your email address you may miss this advice.

The weekly membership record will also list your Annual Flight Review (AFR) date so that clubs can ensure they provide suitable opportunities for all members to complete this task. GFA will also send you a reminder of this date by email a month before it is due, so hopefully you won't get caught out by missing this anniversary. Note that if you complete your AFR early, the expiry date will still remain the same, so you don't have to wait until the last minute to have your check flight.

SAILPLANE GRAND PRIX 2016

Horsham Flying Club will host Australian Sailplane Grand Prix (SGP). The SGP is an international series flown under a different competition format than our normal competitions, with a racehorse start and first past the post wins. There will be eight national events held in 2016/17. The top two competitors in each event then become eligible to compete in the world final. See the SGP web site for details and to watch the 2015/16 progress. www.sgp.aero This will be the first SGP run by the Horsham Flying Club, scheduled for 14 - 20 December, conducted in 18m class.

INTENSIVE TRAINING COURSES

Following the one-week ab initio courses, we have some excellent feedback from new members that explains the benefits of completing an intensive training course, typically lasting 5 to 8 days. The benefit for the new member is that they get a lot of flying in a short period, improving their learning rate, and usually with only one or two instructors, which improves the consistency of the message. Clubs who have members attending these courses are positive because it reduces the demand on the club to provide ongoing training, and accelerates the members' involvement and progression in the club.

MEMBERSHIP AND AIRWORTHINESS FEES

Fees increased by the cpi (2%) from the first of May 2016. The rates can be seen on the web page. Use the Docs search button and type in 'fees'.

APPRENTICES

One change to membership definitions has been approved, and that is to include 1st and 2nd year apprentices who are younger than 26 years old in the definition of Student member, so they qualify for the lower membership fee.

AIRWORTHINESS CHANGES:

Camera mounting - advice for use
A new approval has been implemented based on the UK CAA CAP1369 which allows members to mount small cameras of no more than 250gm on their gliders when approved by a Form 2 inspector

Permissible Unserviceability and **Allowable Configuration** documents have been introduced which enables simple tasks such as removal of water bags, slip/skid balls, subject to an entry in the maintenance release. See the web page for details.

SIMULATORS

A team led by Justin Couch from Southern Cross GC is planning to introduce a number of fixed or mobile simulators in each region for promotion and/or training purposes.

2016 AGM

The AGM and corresponding board meeting wil be a little earlier this year, with the AGM planned for Saturday 16 July in Melbourne. The VSA are developing plans to run a members seminar and dinner on the Saturday afternoon / evening. *GA*

HI FROM GFA

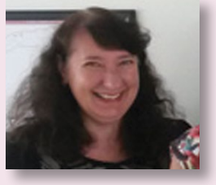
TANYA LORIOT
MEMBERSHIP SECRETARY
Membership@glidingaustralia.org

- Glider Registration Tanya has a CASA Delegation to perform this function.
- Membership and Club Affiliation
- Assist in members' queries.

CATHY CASSAR
cathy@glidingaustralia.org

- Memberships and sales including the online shop and classified advertising.
- Assist in members' queries.

FIONA NORTHEY
fiona@glidingaustralia.org



- Organises travel and meeting arrangements for the Executive, Board employees.
- Assists the Airworthiness department.
- Assist in members' queries.

ADVOCACY

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

REGIONAL AUSTRALIAN SAFETY FORUM (RASF) MARCH

Executive Manager of Operations (EMO) Chris Thorpe attended this CASA meeting on GFA's behalf. At the meeting CASA presented statistics relating to accidents in the last 18 months. It is a credit to all members that while GFA represents 12% of Sports Aviation we only accounted for 4% of serious occurrences in that period. While we should never be complacent it is worth a pause to note our current standing.

PART 139 MARCH

Following on from discussions last month a meeting was arranged in Melbourne to provide input to CASA representatives into the draft of the new version of Part 139. Tragically the CASA Aerodrome Inspector for Victoria/Tasmania was killed in a car accident just days before the meeting. GFA has made a submission to CASA asking for clarification of the current legislation with respect to flashing lights on cars operating airside at licenced and certified aerodromes with the expectation that this requirement will be further clarified in the next version of Part 139. We have already received favourable clarification on the use of flush runway markers and flush lighting at aerodromes where there are regular gliding operations.

AUSTRALIAN AIR FORCE CADETS (AAFC) MARCH

The AAFC undertook an internal review over two days in March. Drew McKinnie Chair of the Operations Panel (COP) attended to represent GFA. Items of interest to GFA were resources to be made available by AAFC to collaborate with updating GFA operational documentation, and design and build of simulators for training.

MANDY TEMPLE

IGC RANKINGS

Australia now has six pilots in the world top 100 International Gliding Comission (IGC) ranking list. Matthew Scutter heads the Aussie list in 28th place with Tobi Geiger in 39th place.

Australia has moved up to 8th place by nation in the World Rankings.

All pilots who competed in the 2015 / 16 season in either a Nationals or a State Championships will now be listed online at rankingdata.fai.org. To see the full list of Australian pilots go to tinyurl.com/ztz6rna.

WOMEN IN GLIDING WEEK

MOUNT BEAUTY 3 - 11 DECEMBER 2016

It is with a great deal of excitement that we are holding the Women in Gliding week this year at the Mt Beauty Club for some different flying. As we are mostly flatland fliers, to have the chance to learn to fly in the mountains is wonderful and an experience that should not be missed.

Instruction will be given in the club's 2 seat gliders, or you may be able to bring one of your own or from your club. You can, of course, bring your own single seater and even your partner but remember, Women Rule the Week. Launching will usually be by winch but aerotow will also be available.

We have booked the Cedar Lodge just two minutes drive from the airfield or a 15 minute walk if you feel you need the exercise. Bookings will need to be made with Wendy Medlicott prior as this lodge will only accommodate 16, so first in best bed. The lodge also has an area for after dinner talks and friendship and, if needed, self-catering. Camping on a property nearby owned by one of the women flying at Mt Beauty has also been offered. The club has offered to cater for us with some lunches and dinners, and they are all looking forward to us coming.

We will have some very experienced instructors to help us and Tobi Gieger has also offered to be part of our team. As last year, some very inspiring people will give talks to add to our store of knowledge.

Some thoughts from Jenni Goldsmith who attended last year at Lake Keepit. "WIG Week 2015 was a week of wonderful learning, friendship and support from old friends and new and great cross-country flying. Six flights for the week added a little over 24 hours to my log book and 1,199km in a Ka6," she said. So don't miss out on all the fun this year.

Any questions you have will be answered by contacting me wendymedlicott@optusnet.com.au or **0428 499774.**

Come and join in the flying, friendship and fun that is Women in Gliding week. Meet and make new friends and have all your gliding questions answered. If you need a mentor let me know.

WENDY MEDLICOTT

BASIC SAILPLANE ENGINEERING V 23

Basic Sailplane Engineering (BSE) V23 is now available on the GFA website. doc.glidingaustralia.org - **MOSP/ MOSP Part 3** or tinyurl.com/jkkghcr

Over coming weeks, the training modules to accompany BSE will be added. Each module has workbooks and a Power Point presentation. It contains a page for suggested changes and or amendments and will be reviewed annually. The document was the result of a huge team effort managed by VP Peter Cesco and is a great resource for all members to use. Nigel Baker, RTO-A SA initiated the update after decades of no updates.

COACHING WEEK AT WAIKERIE 2016

27 - 31 DECEMBER 2016

The current Head Coach for South Australia has been selected to represent Australia at the upcoming world championship at Benalla, so Bernard Eckey has volunteered to run the next coaching week at Waikerie.

This event will be held between Christmas and New Year 2016 – from 27 to 31 December 2016. Participants are expected to arrive on Monday 26 December to be ready for the first day of Coaching Week on Tuesday the 27th.

Organizers are planning to cater to all levels of experience. Specific coaching will be provided for pre-solo pilots, as well as early crosscountry pilots and more experienced pilots. A number of experienced coaches will be available as has been the case in the past. Each pilot will nominate their personal goal for the week and we will do our best to make sure that everyone achieves it.

The Waikerie Gliding Club will make their excellent facilities available with evening meals being provided. Accommodation can be booked online. Please visit www.waikerieglidingclub.com.au/Accommodation.htm

Flying sessions in the afternoon will be preceded by presentations in the morning directed to specific topics designed to advance your understanding of crosscountry flying skills. Advanced pilots will be coached on more challenging tasks while less experienced pilots are given shorter tasks with turnpoints closer to the airfield. Most coaching will be conducted as a lead and follow between student and coach, and opportunities for coaching flights in an ASH 30 Mi and other 2-seaters will also be available. As in previous years we will also be offering outlanding training in a touring motorglider.

For further details please feel free to contact Bernard Eckey on 08 84492871, or email eckey@internode.on.net

AGEISM AND NEW OPPORTUNITIES 3

JOHN STYLES
CHAIR, DEVELOPMENT PANEL
cmd@glidingaustralia.org
www.facebook.com
theGlidingFederationofAustralia

Following on from the articles in the last two issues we have a bit more to say about our ageing membership and how it will impact us all if we do not accept that change is required to our retain current members and recruit new members.

Let's make a reasonable assumption that all pilots in the future will cease flying at age 80, the current average lifespan for males in Australia, note I said average. They may stop flying for medical, family and mobility reasons, or they may have passed away.

So let's look ahead ten years into the future and see how many of our current members will be left and let's assume that everybody who is a member now and not aged 80 or over in ten years remains a member. How many members would we have?

The answer is 2,454, flying and student flying pilots only.

Well that's not badt you sayt based on our historical membership over the last 10 years which had a low of 2,202 in 2012.

But notice I said that we assumed that all current members remained members for the next ten years. We know that will not happen because many leave and I have highlighted the reasons a number of times before and hopefully your club committee is taking action now to retrain ALL its members.

As a rough guide, our membership churn rate shows that one-third leave after 12 months, the next third leave after 2 to 3 years and the remaining one-third stay in excess of 10 years. So our assumption that all members currently under 80 years old will be long term members in the current environment is very optimistic indeed.

Why these members leave has been the subject of much debate and often the true reasons are never known.

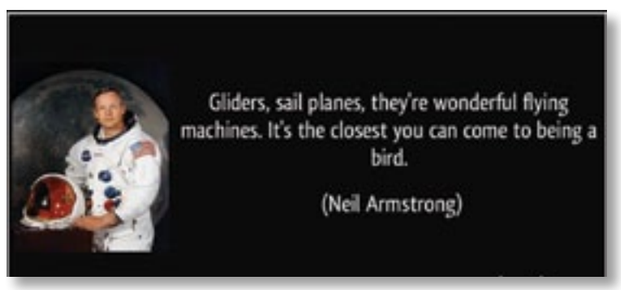
Few clubs follow up members to find out what the situation is and if they can help fix it. The leaving member may be reluctant to be specific about why they are leaving especially if there hase been issues with other members, time wasting, poor organization, poor equipment / facilities or even a scare in flight.

Of course it could be something totally unrelated to gliding that triggers the need to leave.

One thing is certain, though. We cannot afford to keep losing members at the current rate so, as I keep on saying, we need to change.

The GFA is now implementing a strategy to contact all members who do not renew their membership to try and gather data to ascertain the true reasons why people leave, which will be used in the future to ensure clubs are aware of any issues they can address.

So despite the rise in new members over the last couple of years and assuming again that the current rate of inflow and outflow of members continues we will still be heading towards that big challenge.



The GFA started a promotion called 'Beyond 3000' last year to motivate clubs to try and increase their net membership by 10%. That is, The number of members leaving from the members joining over 12 months should result in 10% growth. However, this strategy has not been that successful, with the net overall growth for the last year only 4.7%.

Furthermore, the gain was not spread evenly. Queensland in fact shifted backwards, losing more members than gaining new members, with the lowest total membership now since 2004. So, there is an issue there which needs to be addressed by the GFA, GQ and the Queensland clubs.

What we need is a tsunami of new members over the next ten years coupled with an upgrading of how we operate, what we offer and how we respond to those new members, while keeping our current members happy.

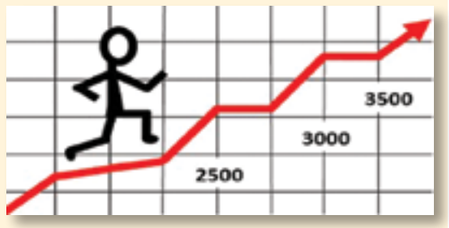
Elsewhere in this issue you will find information about the GFA Join in June – Fly a Friend promotion. The GFA encourages all members to take up this challenge and, by joining up a friend, your club will benefit financially.

There are a number of elements we need to consider and appreciate in order to understand what is required to increase our membership:

- The changing consumption of sport in Australia – people want excitement, danger even, but in a safe controlled environment
- The changing delivery of sport in Australia – a more professional approach and delivery are required.
- The relative stagnant level of participation in gliding long term despite recent increases means overall we still have a decreasing membership.
- The relatively high average age of our membership and the negative long term effect that will have.
- Recognition that if we do what we have always done we will get what we always got. Unfortunately, humans are very good at continuing to do things that don't work, over and over.

The expectations of people have changed over the years as our standard of living has substantially increased compared to our parents and grandparents. What does this mean? It means people now have a higher expectation in regards to what they get and the service that come with it.

How does this impact us? Well we need to look at what we are offering and how we are offering it and seek to raise the standard to that which people now expect.



GFA MEMBERSHIP GOAL

GFA is determined to grow membership to increase the viability and affordability of our sport.

Again it is not what we are happy with but what our customers – potential members – are happy with. Think in their shoes.

From a purely self-interested point of view, there are reasons why an increased membership would benefit you personally:

The more members we have, the more members there are to share the cost burden. Having twice as many members would significantly reduce GFA membership and other fees, for example.

For all the syndicate and private owners, consider this: if we do not greatly increase our membership, who do you think is going to buy your shiny JS1, ASG29 or classic Cirrus so you can top up your retirement funds when you can no longer fly?

So, there are real financial benefits for each of us in return for doing our bit to increase our total membership. John Styles - Chair, Marketing and Development, cmd@glidingaustralia.org Phone **0419 001 769.** Suggestions, Great Ideas and the odd Complaint are always welcome.

GA

GFA CALENDAR

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

AIRWORTHINESS REFRESHER BACCHUS MARSH

26 June 2016
Trevor Hancock 0400 089 922
Email: fiona@glidingaustralia.org to have your name placed on the list of attendees.

ANNUAL INSPECTORS COURSE PRACTICAL COMPONENT

10 - 16 July 2016
Anyone wishing to attend one or both of these courses please send an email to returns@glidingaustralia.org or contact **Alan Arthur** onaarthur@iinet.net.au or **0407 190 924.**

GCWA/BSS COMBINED WAVE CAMP

1 - 9 August 2016
Contact Owen 0417 917 947

2016 BASIC SAILPLANE ENGINEERING COURSE WARWICK GLIDING CLUB

13 - 19 August 2016
Annual Inspection and Replacement of Components. Numbers are limited to 20 participants. Contact either Laurie Simpkins on lahina2@hotmail.com or returns@glidingaustralia.org

QLD STATE CHAMPIONSHIPS

1 - 8 October 2016
Darling Downs Soaring Club. For more information please go to www.ddsc.org.au

55TH MULTI CLASS NATIONALS KINGAROY

10 - 21 October 2016
Contact Greg Schmidt on 0414 747 201 or gregschmidt88@gmail.com

VINTAGE GLIDERS AUSTRALIA MELBOURNE CUP RALLY

29 October - 1 November 2016
Bacchus Marsh VIC 3340, Australia
All welcome for a weekend of fun, friendship and flying as it used to be. The event also includes the Australian Gliding Museum Open day held on Sunday 30th October 2016.
Please contact **Dave Goldsmith, 0428 450 475** for more information.

CLUB AND SPORTS CLASS NATIONALS WAIKERIE

11 - 19 November 2016
www.waikerieglidingclub.com.au/

NARROMINE CUP

20 - 26 November 2016
narromineglidingclub.com.au
For further details contact arnie.hartley@gmail.com

NSW STATE CHAMPIONSHIPS NARROMINE

26 November - 3 December 2016
keith@wealthstream.com

WOMEN IN GLIDING WEEK MT BEAUTY GC

3 -11 December 2016
Wendy Medlicott wendymedlicott@optusnet.com.au

AUSTRALIAN JUNIOR NATIONAL CHAMPIONSHIPS

10 - 17 December 2016
10 December - practice day. 11 December - first competition day. Enquiries **Eric Stauss** at estauss@internode.on.net

COACHING WEEK AT WAIKERIE

27 - 31 December 2016
For further details please feel free to contact Bernard Eckey on **08 8449 2871** or send an e-mail to eckey@internode.on.net.

AUSSIE LIBELLE GATHERING 2016 BENDIGO

28 - 30 December 2016
Contact Mark Kerr secretary@bendigogliding.org.au **0417 005 986** or Phil Organ vicepresident@bendigogliding.org.au **0407 315 511**
www.bendigogliding.org.au/Main/libellegathering

34TH FAI WORLD GLIDING CHAMPIONSHIPS BENALLA

8 - 21 January 2017
wgc2017.com
facebook.com/WGCBenalla

OSTIV CONFERENCE BENALLA

8 - 13 January 2017
Deadline for Abstracts and Summaries
The deadline for the Abstracts - max. two A4 pages including figures - is 15 July 2016. ostiv.org/newsdisplay/xxxiii-congress-2017.html

VINTAGE GLIDERS AUSTRALIA 40TH ANNUAL RALLY BORDERTOWN SA

8 - 15 January 2017
Enjoy relaxed summer gliding in pleasant company at Bordertown SA, a great place to fly!
For more details please contact **JR Marshall 08 8733 4416**

OZ-KOSH AVIATION SPECTACULAR!

6th - 9th October 2016. Narromine, NSW

PHOTO COURTESY
Brett Anderson - Anderson's Aviation

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16apr33

SO, YOU WANT TO BE A GLIDING INSTRUCTOR?

DREW MCKINNIE
Chair of Operations
cop@glidingaustralia.org

Sometimes I am asked about this on the flight line by solo pilots looking to extend their skills and contribution to the club. I am often asked about prerequisites and instructor training opportunities. Recent member feedback to GFA via the members' survey highlighted that some members were confused about the instructor development path. This article addresses these issues, from the perspective of a prospective instructor.

So, you want to be a gliding instructor. The key question is – why? The CFI or Chair of Training Panel will need to understand your motivations and potential, not just your current experience, skill and knowledge. Why do you want to instruct? What will you bring to this role? What strengths and weaknesses do you have? You need to have thought about these factors, and have authentic motivations and realistic expectations. ***Being an instructor is NOT a badge of rank.***

An essential first step is – demonstrate self-improvement. You are a post solo pilot. What sort of airmanship example do you demonstrate to others? How have you demonstrated thorough critiquing of your own flying, and applying lessons learned to improving your flying?

You have a Private Passenger rating. What have your passengers' reactions been like? What good judgments have you applied to look after their safety and comfort? You have a GPC. How well do you react to feedback on the need for improvement? Demonstrably assessing and improving your own flying is a strong indicator of ability to train and develop others.

Your CFI and Training Panel will need to assess (1) what sort of pilot you are, (2) what sort of instructor will you become and (3) what further development is needed - when and with whom?

Your airmanship, judgment, self-discipline and receptiveness to constructive feedback will be important indicators. Your motivations will be crucial. Other characteristics beyond your flying skills and knowledge will be important, like your temperament, your ability to communicate, motivate and persuade, and your listening skills. Instructing requires much more than just flying well.

NEXT FIRST STEP

Study the manuals. The Gliding Australia website glidingaustralia.org , via '**Docs/Forms > Document and Form Library > Operations > Manuals',** will lead you to the GFA Instructors Handbook, Parts 1 and 2**.** Part 1 is very important to a prospective instructor. It describes the instructor training system, the process of training, communications and so on. Its focus is the question of 'How we Train'. Part 2 is also important, in its description of the Content and detail of training particular sequences.

Following the website path to 'Documents > **Manual of Standard Procedures > MOSP Part 2 Operations'** will lead you to a folder with some very important documents. GFA Operational Regulations (OPS 0001) is the overarching regulatory GFA document approved by CASA, which includes the syllabus and assessment criteria for instructors (Annexes 7-9).

Operational Regulations Section 3.4 describes the prerequisites for various instructor ratings, including Air Experience Instructor (AEI) as well as Levels 1, 2 and 3. Medical standards are at Section 3.2. Check these out. We in GFA have to manage an instructor training system that complies with these requirements. Instructors have to meet prescribed requirements and standards.

MOSP Part 2 Operations is the document that describes how we implement the Operational Regulations and manage detailed aspects of operations. It is the go-to manual for running operations. It contains material derived from hard-won experience, including accidents and incidents, good and bad lessons from GFA clubs. MOSP Part 2 Section 11 describes requirements for training instructors at AEI, L1, L2 and L3, plus revalidation and recency requirements. Safe instructing requires safe operations and compliance with standards.

These documents may seem daunting yet they provide deep insights into the instructor development path, responsibilities and accountabilities. Re-reading BGK and questionnaires from the instructor's perspective is also a useful exercise. So, you still want to be a gliding instructor?

AIR EXPERIENCE INSTRUCTOR (AEI)

So, you have a GPC, over 50 hours gliding, C Certificate or better, and your airmanship and flight skills have been checked, with a Panel recommendation for AEI training. You have done well in preparation and are showing your potential.

As far as CASA and GFA are concerned, an AEI is an instructor. The AEI can be trained locally, by the CFI or L3 instructors or approved delegates, or they can participate in initial stages of an ab-initio training course run by the club. An AEI has to be trained to the syllabus in Part 2 of the Instructors Handbook.

The AEI rating gives limited instructing privileges, with constraints on what sequences can be instructed, yet it is a vitally important role. Given that, for many people, their first gliding experience may be with an AEI, it is important that proper foundations of control, lookout and airmanship are instilled from the outset. This in turn requires high standards in training the AEI, developing interpersonal and flight management skills, beyond basic flying skills.

Some clubs consciously train AEIs with a view to having them becoming L1 instructors after a short period of consolidation and training by L3s. In other clubs, AEIs may hold this rating for many months or even years before further progression.

Air Experience Flights (AEFs) are training and instructional flights. MOSP Part 2 Operations Section 11.1 defines an Air Experience Flight as carriage of a person who is a member of the GFA … for the purpose of experiencing the sport of gliding. AEIs are entrusted to fly with persons other than private passengers for initial experience flights including instruction above 800ft AGL on the fundamentals of control, lookout and airmanship.

Selected AEIs who are also coaches may also provide instruction on specified crosscountry soaring sequences.

GFA supports the introduction of AEIs to attending club Training Panels, along with coaches, tugmasters and instructors, subject to Panel Chair approval. Exposure to Panel discussions reinforces the responsibilities, considerations and challenges of dealing with students, and meeting safety and duty of care obligations for both individuals and clubs. The peer learning environment of the Panel is very important in building future judgment as an instructor.

LEVEL 1 INSTRUCTOR

You've gained an AEI rating and consolidate in your club with Air Experience Flights and more training from your CFI or L3 instructor. This AEI experience normally brings an increased awareness of traps and pitfalls, challenges and positives, many of which are associated with managing the AEF student and managing the flight, but you yearn to do more. So you work on getting the higher prerequisites, work on your self-improvement and airmanship, and draw insights from your AEI experiences.

The next step requires much more study and attention to the GFA Instructors Handbook, Parts 1 and 2, plus some intensive training with your CFI and L3 instructors. MOSP Part 2 Section 11.2.1 and Operational Regulations 3.4.7 describe the preparation required by the club, the training itself, assessment and L1 prerequisites. Some people take a mentored path with club instructors, while many prefer to take the L1 Instructor Course path. GFA supports regions and groups of clubs collaborating to provide training activities for L1 and L2 instructors. Learning from peers and seniors in this environment is challenging, fun and exhilarating!

INSTRUCTOR'S HANDBOOK

Published by:

The Gliding Federation of Australia,
Building 130, Wirraway Road,
Essendon Airport,
Victoria 3041
Tel: (03) 9379 7411, 9379 4629
Fax: (03) 9379 5519

11 INSTRUCTOR TRAINING AND RATINGS

Training of Levels 1 and 2 instructors is carried out by persons who hold Level 3 Instructor authority. Such training may be carried out on a decentralised basis within clubs or, courses may be convened if there are enough candidates to warrant it, the required personnel are available and the necessary number of gliders and tugs can be organised to satisfactorily cover the syllabus.

Training of Air Experience Instructors (AEIs) is carried out at club level by the club CFI or suitable delegate in accordance with the GFA Instructor Handbook.

11.1 AIR EXPERIENCE INSTRUCTOR (AEI)

An Air Experience Flight (AEF) is defined as carriage of a person who is a member of the GFA (which may be short-term or introductory membership, as defined from time to time by the GFA Board) for the purpose of experiencing the sport of gliding. Pilots conducting AEFs must hold an AEI endorsement.

11.1.1 Requirements

- Minimum age 16 years.
- 200 launches or 50 hours total gliding experience. Power pilots may count 10% of their power flying hours towards this total after 10 hours or 50 launches have been gained.
- "C" Certificate.
- Trained within the club by a Level 2 Instructor (or above) in accordance with the syllabus in Part 2 of the GFA Instructor's Handbook.

11.1.2 Privileges and Limitations.

The pilot may demonstrate the glider's controls to the person undertaking the AEF and may hand over control to that person, subject to the following conditions:

- The AEI must carry out all launches, circuits, approaches and landings.
- The AEI is not authorised to allow the other person on the controls below 800ft AGL.
- A pilot holding an AEI rating and a GFA Sport Coach Accreditation may carry out in-flight coaching as defined in Section 12.

11.2 LEVELS 1 AND 2 INSTRUCTORS

The AEI rating is the highest instructor authority which can be obtained within a club. For the Levels 1 and 2 ratings, more formal involvement by GFA Operations is required.

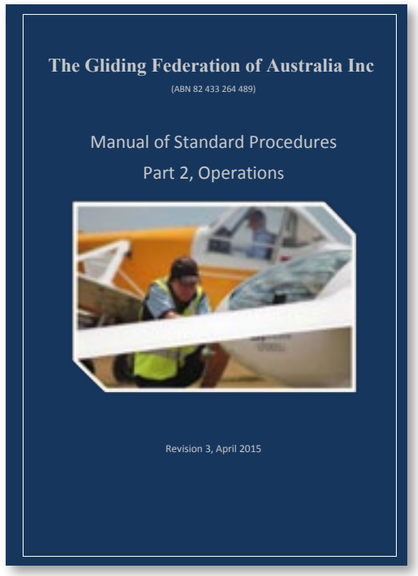
The coordinator of instructor training in a region is the RM/O. No instructor training may take place without the RM/O's approval. When a rating test has been successfully completed, the Level 3 Instructor who carried out the test should endorse the candidate's logbook at the appropriate level. This will serve as interim authority for the candidate to serve as an instructor, pending receipt of the logbook sticker from the RM/O.

11.2.1 Level 1 Instructor

There are two methods of Level 1 instructor training in place; the common method is by formal training course run over several days within a region, the other is by mentoring. In either case, the preference is for a maximum of two trainees to be assigned to each Level 3 instructor.

Level 1 Instructor training is carried out in three stages, viz:

1. ***Preparation by club***. This is carried out in accordance with the "Club Preparation" section in Part 1 of the GFA Instructor's Handbook. Club



Think back to your early training days, pre solo, when 'I learned to fly', then post-solo and crosscountry when 'I really began to learn to fly'. The L1 rating equips you to train others in these sequences, under supervision of a L2 duty instructor. Here you need to 'learn to fly again', managing the environment in which your students learn to fly. Briefings, demonstrations, guided training, feedback and debriefing, overlaid on flight management and student management, add to the instructor's workload and challenge. You learn different ways you might intervene in flight to keep students learning safely and effectively.

The richness of instructing duties is really cemented when you gain the L1 rating and start taking a wider variety of students through a broader range of training sequences. Invariably we have successes and failures, and you gain insights into how instructors and Panels have to work as a team. There are great rewards from making leaps in student performance and progress. Your own learning curve is also enhanced by this experience. Some L1 instructors also move into the coaching program, which has its own advanced skills set.

LEVEL 2 INSTRUCTOR

After some L1 instructing experience, you seek an upgrade to gain the approvals necessary to send people solo and supervise operations. These require the exercise of the L2 instructor rating.

Here, your ability to correctly conduct the training sequences is assessed, but there is greater emphasis on critical judgments that have to be made in assessing student progress, their readiness for solo, their standards in check flights, and their post-solo development.

The bar is set higher for your own flying standards, lookout, airmanship, risk awareness and judgment, plus handover-takeover and student management. The L2 assessment form at GFA Operational Regulations Appendix 9 also highlights L2 roles in operational safety management, operations supervision, discipline, member protection, accidents and incidents, and flight reviews.

Lesson planning, concise communication, mentoring and leadership skills must come to the fore. Your thresholds of intervention in handling situations where students do not respond properly must be developed and checked by L3 instructors. This is about keeping safety standards high.

Transition from L1 to L2 again involves a steep learning curve, 'learning to manage groups of pilots learning to fly'. The pilot assessment process for someone nearing solo also requires you to design flight profiles to test the essential pass-fail criteria, to manage the flight scenarios testing their ability to safely, autonomously conduct solo flights. Here, there is a massive benefit from learning from peer experiences.

Developing L2 candidates requires considerable personal application, help from CFIs and senior instructors, and in most cases working with L3 instructors in L2 upgrade courses.

Level 2 instructors have expanded responsibilities and privileges. Some also take on coaching duties and more post-solo pilot development. Some go on to become Panel chairs and CFIs. All have to deal with the rich tapestry of operational, safety, crew management, student management, interpersonal issues, airfield and ground issues unique to their site and members. There is more to learn!

LEVEL 3 INSTRUCTOR

Here the 'train the trainer' challenge emerges. One of the L3 roles is training and assessing instructors. You learn to fly yet again, this time in the context of learning how to provide the environment in which prospective instructors can acquire and develop their instructing, flight management and student management skills, plus operations supervision and interpersonal skills. There is much emphasis on the content of training and also the process of training. This requires a very different mindset.

There are increased risks in training instructors, so safety and training sortie design and execution are particularly important. Command ambiguity must be avoided, so L3 transitions between instructing and role playing, as students must be carefully managed.

Leadership, motivation and human relations skills are also important. All manner of people issues arise in gliding. Many require discretion and adept handling. For example, managing the behaviour of others, dealing with conflict and potential disciplinary issues, all require effort by L3s to develop requisite interpersonal skills in L1 and L2 instructors.

There is a high bar on experience and ability. Selected L2 Instructors are trained by Regional Managers Operations and nominated by their regional peers. Other L3 roles include accident and incident investigation, often a less than pleasant task, plus conduct of Operational Safety Audits against GFA standards. Participation in Regional Operations Panels also requires collaboration with peers on operations and training systems improvement, managing standards and dealing with emerging operational problems. Level 3 instructor ratings are not a badge of rank. Instructors may move between L2 and L3 roles. Operational Regulations Section 3.4.9 and MOSP Part 2 Section 11.4 also refers.

WHAT ELSE?

Lots! As we move through various Instructor levels, we gain opportunities to support clubs, regions and GFA nationally in various roles. We have found that really energetic people can make a great difference at all levels, and I commend these operations management and support roles to such people. Coaching also provides a complementary framework for pilots to advance their flying skills and performance. We have to remain proficient in our own flying, and take opportunities to enjoy the sport and motivate others! Great instructors are vital to the future of our sport and the growth and development of our members, beyond 3000.

GA

BY BELEN SWART

I have been around gliders since just after I was born, and went for my first glider flight at the age of four. Ever since I was 12 years old and really understood what gliding was all about, I have wanted to go solo.

17 April 2016 was my 15th birthday, the day I was legally able to fly by myself. The weather forecast showed no chance of rain, and a sunny day. I awoke to a cloudless sky, and although it had been windy overnight, the wind was forecast to abate by mid-morning, which it did. We got out to the airfield where about 20 Australian Air League Cadets were waiting to go for a flight in a glider. This obviously put a bit of a kink in my plans. After all, you can't go solo if you don't have an aircraft to fly in.

A little while later, after a few Cadets had been taken for their flight, I was informed that I could get in and do my training. I went for three check flights with the duty instructor, Graeme Parker, focusing on getting the aiming point right every time. By the end of the three flights, Graeme was happy with my flying and prepared to send me solo. However, my dad, who was also the duty instructor in the afternoon, wanted to be the one to authorise my first solo flight, so I took a break from flying, and helped out with the ground operation, launching and retrieving gliders.

Around 3pm I got ready to go flying with Dad. We did two flights together, concentrating on air space boundaries, and awareness in the circuit. On the third flight I was half way through my pre-flight checks and was sitting in the aircraft ready to go, when I heard the sound of Dad doing up the back seat harness, but he wasn't sitting in the seat. I asked him if he was getting in, and he said, "No, you're on your own". This was it! The moment I had been working towards for months was finally here. The tow plane, which was being flown by my mum, taxied up and Dad hooked me on. Mum took up the slack and then I was airborne. There was no turning back now!

I took a tow to 2,000ft. I was feeling a bit nervous, and was tempted to stay connected to the rope and land with the tug. But eventually I talked myself into pulling the release cable, and watched Mum fly away. Now I really was on my own. I kept glancing back at the back seat, just to check there was no-one there, as I'm sure every first solo pilot does. No matter how many times I looked, the seat remained empty. I did enjoy the quiet though, not having an instructor jabbering away in the back. I flew around for a while enjoying the beautiful day, and then decided that as nobody was coming to get me, I'd better go down and land.

I joined the circuit at 1,400ft. There was strong sink in the circuit area, and by the time I turned onto my base leg, I was at 900ft. I was glad I had started the circuit nice and high, so I had plenty of height to play with. I then turned onto final, pulled out the airbrakes, and made, so I'm told, a perfect landing.

I was so happy and relieved to be on the ground, to have successfully flown my first solo flight, that I couldn't stop grinning. As soon as I stopped and opened the canopy, I was ambushed by the Club paparazzi, aka my Mum, Dad and Geoff Wood. Following the photo shoot, we all enjoyed some birthday cake, thoughtfully provided by Mum and Patrick Pulis.

Then it was back to the clubhouse to wash the gliders, refuel the tug, and put all the aircraft to bed. Dad signed my logbook to certify my solo flight. It was the end of one of the most exciting and fulfilling days of my life and, I hope, the start of many more aviation adventures.

My solo flight would not have been possible without the help and support of many people. Firstly, I would like to thank Mum and Dad, who have always supported and believed in my desire to fly. I realise how incredibly lucky I am to have parents who are not only supportive, but who are involved in flying themselves. I had regular opportunities to just be around pilots and aircraft, and learned an incredible amount just by observing and talking to people.

Thank you to the instructors of the Adelaide Soaring Club (ASC), who have supported, guided and mentored me. Thank you to the GFA, custodians of the RANGA scholarship, the award of which was a great help in financing my pre-solo training. Thank you to the ASC for the provision of a youth scholarship, which is providing further support towards my pre- and post-solo training.

GA

THE WEATHER FACTORY

Shear Wave Over the Monaro

By Colin Vassarotti

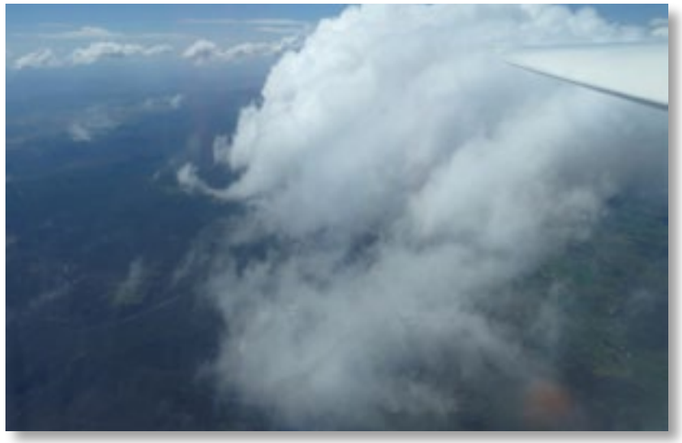
The home field of the Canberra Gliding Club, Bunyan, is nestled in the splendid Australian high country of the Monaro Valley just north of Cooma, NSW. The Snowy Mountains lie 60 kilometres to the west and the Pacific Ocean 90 kilometres east. We call the region 'The Weather Factory' because of the year round soaring opportunities in the form of thermals, wave, maritime convergence and, for humble variety, the nearby ridge.

ABOVE: Lenticular, roll and coastal cloud seen from 16,000ft.

BELOW: Well established above the roll cloud.

Wave soaring, particularly in the cooler months, attracts diamond height seeking glider pilots from near and far. This is with good reason. The Snowy Mountains are an excellent generator of high altitude lee wave, and glider pilots have been mining height diamonds in the region for nearly 50 years. We've learned a lot about mountain wave soaring in the process.

But not all the wave is generated by our beautiful mountains. The combination of strong winds increasing in strength with height and robust thermal activity can produce excellent shear wave, and 14 February 2016 was a case in point.



50KTS PLUS

Westerly wind was forecast: 15kts at the surface increasing to 40kts at 10,000ft and 50kts-plus at greater altitude. Thermals of 4 to 6kts to 10,000ft were also predicted.

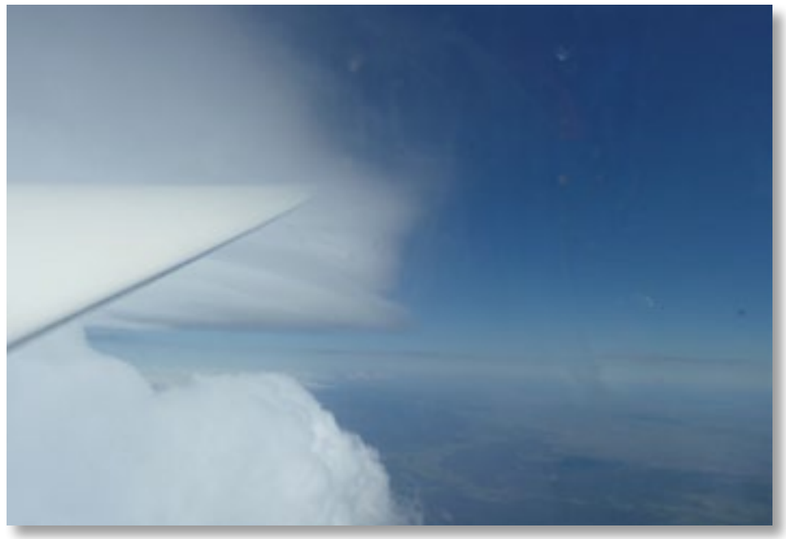
Well, we got the wind and we got the thermals. At 4,500ft, 2,000ft above ground, strong but scrappy, gusty, tight thermals were contactable after release from aerotow. The wind strength at that height was 20kts and the drift eastwards was impressive.

Just to make matters more complicated, the wind shear at various levels was difficult to work out. This was because of a strong cut off at about 6,000ft where the thermal simply disappeared further downwind. The best results came from elongating the turn downwind as soon as the lift weakened. In strong wind, this is not particularly smart at low altitude when the airfield is rapidly disappearing upwind and outlanding options are limited.

Anyway, with perseverance and several prudent retreats to the vicinity of the airfield, I managed to deal with the wind shear and drift problems. Once above 6,000ft, I was able to explore further downwind and re-connected with the elusive thermal which needed constant re-centring but delivered a good 6kt climb to 10,000ft about 26kms east of Bunyan. The Cambridge GPS Nav now informed me that the wind speed at that height was 29kts from the west. Even as I looked at the instrument, the indicated wind increased to 39kts.

I was on oxygen at this stage having noticed the formation of what looked like roll clouds at about 11,000ft. The nearest of these was roughly 1km upwind and looking pretty active. Excellent, I thought, all I need to do now is to push forward and contact the wave lift I knew from experience would be in front of the roll cloud. It was slow going as I had to work into the strong headwind and not lose touch with the lift bubbles which were keeping the LS1-f at the top of the convection.

By now I was feeling pretty comfortable and relishing the prospect of a smooth climb in wave. Suddenly all hell broke loose!



VIOLENT ROTOR

Over many years of flying in wave and rotor around the Monaro, I have encountered some attention-getting turbulence, but the pounding I now experienced was ferocious. At times it was a struggle simply to control the sailplane which was pitching, rolling and yawing in a mind focusing and fairly alarming fashion. Post flight analysis of the logger wind data showed 29kts from 291° at 10,000ft, then a massive increase to 44kts from 309° at 10,500ft followed by a jump to 63 knots from 321 at 11,000ft.

I transmitted an alert to other Canberra gliders about extreme turbulence and continued to rock and roll my way upwind. Actually, making headway was not all that easy. Because of the gyrations of Echo Bravo and the large fluctuations in air speed I was reluctant to fly faster than 65kts. The headwind was now almost that speed, so progress was slow, turbulent and rather unpleasant.

5KTS UP

Eventually, I found myself upwind of the roll cloud and thankfully in lovely smooth air. Even better, I was climbing at 5kts, the cloud seeming to slide quietly away below. The glider was literally hovering at an indicated airspeed of 60kts. As I gained height, I was able to reduce this to 50kts without losing ground. To stay in the lift sweet spot I held this speed and used the GPS to maintain a steady bearing on Bunyan at a fixed distance of 26kms. The wind data showed a reduction to 44kts above 13,000ft and maintenance of this strength through to 16,000ft. Wind direction also shifted from north west to west with the height increase.

Once established in the wave it was a matter of staying legally clear of cloud. This was easier said than done because the roll cloud kept 'jumping' upwind and reforming. Each jump necessitated a diversion around the newly forming cloud and an increase in air speed to penetrate to the re-established lift zone in front of the roll cloud. Good fun!

CRYSTAL CLEAR

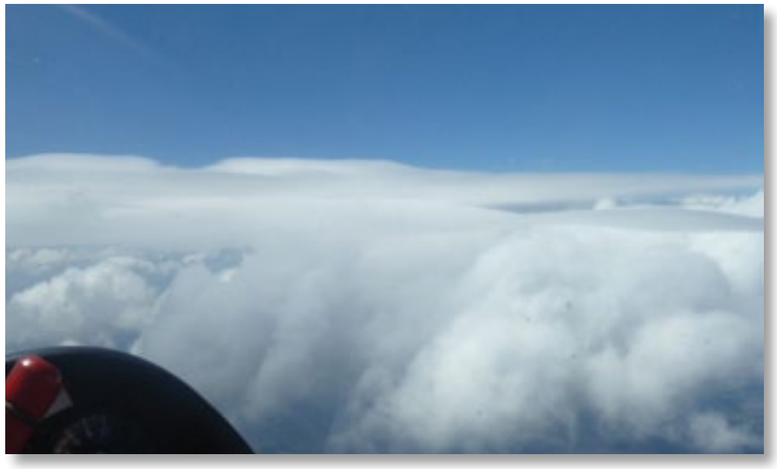
The view in the crystal clear air was breathtaking. Overhead, the sky was that deep midnight blue typical of high altitude and unbroken sunshine. At my level the lenticular clouds were classically streamlined and dazzling in their pristine whiteness streaked with shades of grey. Below, the vista north and south embraced the magnificence of the Monaro with the Snowy Mountains and Lake Eucumbene to the west. Stretching east was a carpet of low stratus forming an unbroken undercast to the coast.

The roll cloud was fascinating to watch in its constant boiling rotation, seeming to tear itself apart with large wisps curling over and breaking off. Every few minutes the entire cloud would simply vanish and then reappear upwind. The process was challenging but richly rewarding with exhilarating smooth air flight in a dreamlike cloudscape over the beautiful Monaro Valley. Above the roll cloud were perfectly formed lenticular clouds. It was possible to climb slightly higher than the lenticulars but the lift petered out just above 16,000 ft. I spent the next

TOP: Approaching lenticular height.

MIDDLE: Colin Vassarotti in his LS1-f at 19,000ft.

BELOW: Above it all.



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couple of hours contentedly exploring the wave system, which seemed to run in a line from Numeralla to Mount Colinton about 26 to 40kms east and northeast of Bunyan. Probing the air further west in the usual places, where good mountain lee wave is generally encountered under the right conditions, did not turn up any lift above the convection layer.

Keith Ayotte was duty instructor on the day and by happy coincidence is a meteorologist. I asked him about the extreme turbulence. He opined that what I had encountered was the interface between a rapidly moving westerly stream of stably stratified air and strong convection. The convection was acting like an obstacle to the flow, much like mountains would in mountain wave. The turbulence was caused by the strong mixing of the slower-moving air in the thermal below, with the rapidly moving stably stratified layer above. Wave clouds were seen intermittently forming at the tops of deep convection for most of the day.

My logbook simply records flight number 6009 as 3 hours 10 minutes, strong turbulence and shear wave to flight level 160. I guess this does not do justice to the reality. It was an exciting, challenging and rewarding flight - a fine example of the physical, spiritual, intellectual and visual joys of soaring combined with the adventure of the unexpected and discovery of the new. How fortunate and privileged we glider pilots are in our freedom to explore the boundless wonders of the sky world.

More From The Weather Factory

ABOVE: A view of the weather factory at about 16,000ft.

RIGHT: Colin climbing through 13,000ft.

On Saturday 2 April 2015 the Monaro Weather Factory turned on some rather pleasant lee wave to 19,000ft.

In contrast to the violent turbulence encountered during my flight in shear wave on 14 February it was all fairly tame, with a bit of rough air on tow and moderately gusty conditions on approach and landing.

Cumulus clouds at 10,000 ft lined up nicely across the westerly wind.

Climbing to cloud base was quite difficult as the thermals were rather narrow, scrappy and elusive. There was also a prodigious amount of sink because of the wave activity. Once at cloud base though, it was simply a matter of pushing upwind, establishing in the wave and working the strongest lift area.

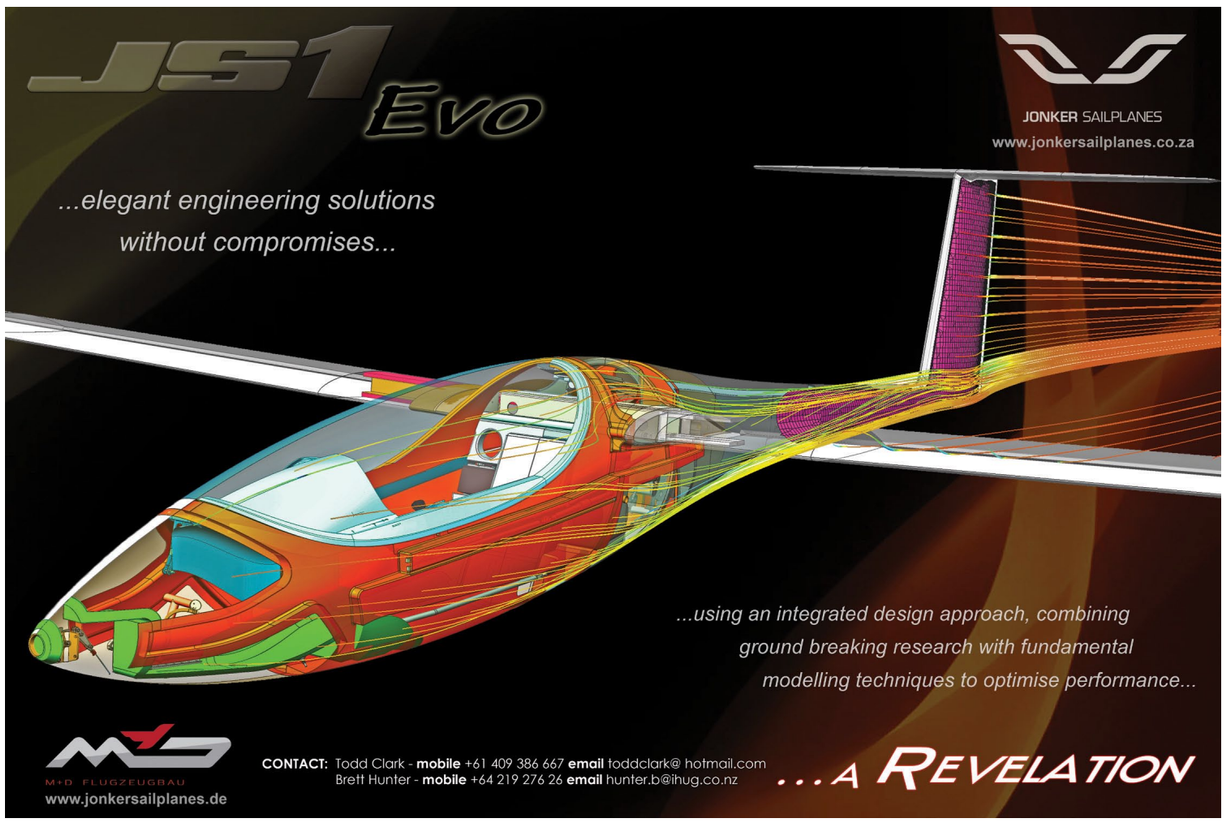
I took a few seconds video of the climb:
www.youtube.com/watch?v=4eGh-y__hbU
or tinyurl.com/zo3yzel The main drama occurred at 19,000ft when I felt the need to make use of the relief tube. Midway through the process I was disconcerted to see the sheath connecting me to the system inflate like a balloon on its way to bursting!

Yes, you guessed it - the outlet had frozen in the - 5° C air temperature. Happily no in-cockpit disaster ensued. All was well after descent to warmer air below 9,000ft.

Ah, the weather factory - exciting, challenging, rewarding and always full of surprises.

Do you have interesting weather formations in your area? Do you have a more detailed explanation of convergences and other weather phenomena that you would like to share? Please send your experiences and photos or just an email to let me know what is happening in your part of the world.

SEAN YOUNG sean@glidingaustralia.org



HUNTER VALLEY GLIDING CLUB VINTAGE RALLY 2016

BY DAVE GOLDSMITH
PHOTOGRAPHS BY PHILLIP BROWN

The Hunter Valley Gliding Club in New South Wales ran the first of their current series of Easter Vintage Rallies in 2011. However, vintage flying is not new to this club, which was formed as the Newcastle Gliding Club in the early 1960s.

The 2016 rally began on Good Friday 25 March with some light rain, forecast to clear during the day. Joining the usual fantastic plastic club and private fleet, types attending included the Cherokee VH-GPR brought by Peter and Helen Raphael, Cobras VH-GHW brought by Phillip Brown and VH-JZO by John Zoanetti, ASK-13 VH-GTU by the Central Coast Gliding Club, K7 VH-GTU by John McCorquodale, Rob Moffat and Arie van Spronssen, SF-27M VH-ZOT by Peter Rundle, Pilatus B4 VH-GJV by Boris Jovanovic, and K6E VH-GEA by Dave and Jenne Goldsmith. Though not vintage, Garry Morgan brought along his very impressive two-seat Cheyenne motor glider. Also present but not flying were another K6E and SF-27M. The friendly and enthusiastic club members made welcome many visiting pilots and crew from as far away as Melbourne, Warren and Lyn Morrow from Grafton Gliding Club and sisters Sylvia Sharman and Judi Vincent on their grand tour in two motor homes.

OPPOSITE TOP: Ka6E prepares for a hangar landing piloted by Jenne Goldsmith.

OPPOSITE BELOW: At 6ft 7in tall, Ian Goldsmith revels in the headroom of the ASK13 Cabriolet with Rob Moffatt in the back seat.

ABOVE: H205 Club Libelle VH-GJF operated by the Montroy family. Proud dad Scott's sons Matt and Brad both achieved solo on their 15th birthday!

LEFT: John Zoanetti and Phillip Brown with their SZD 36 Cobras.

BELOW: PIK-20 VH-GVF flown by Roger Brackley.

Good Friday's patchy weather allowed only seven flights overall, including 50min in the SF-27 and 17min in the K7. However, the next three days produced 33 vintage flights, with only two days until the following weekend lost due to weather. During the rally many enjoyed long flights and thermals as high as 8,000ft, providing good distance flights for those venturing crosscountry – the longest 242km by Peter in the SF-27M.

A number of notable events added to the fun and festivities, including the Cabriolet canopy on the ASK-13, the two Cobras sharing the sky together, John's outlanding on a scenic flight in the K7 with an attractive younger woman aboard, and the variety of birds also sharing the sky to higher altitudes, quite comfortable in formation with the wood and fabric interlopers. The slick, safe operation, smooth launching by the Pawnee pilots, and excellent facilities of the host club were greatly appreciated, as were the meals produced by members. A big thank you and a rousing three cheers to all who assisted to make this a memorable rally!

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LEFT: Cherokee II VH-GPR brought from Bendigo by Peter Raphael.

CENTREL LEFT: Boris Jovanovic brought a newly restored syndicate Pilatus B4 from Central Coast GC.

CENTRE RIGHT: Phillip Brown's beautiful Cobra VH-GHW.

BOTTOM: Peter Rundle heads off for another soaring flight in his Scheibe SF-27M.

GFA seek Sponsors

The Organisation Scientific et Technique Internationale du Vol à Voile (OSTIV) Congress is held simultaneously with the World Gliding Championships at the same site and addresses all scientific and technical aspects of soaring flight including motorgliding, hanggliding , paragliding, ultralight sailplanes and aeromodeling.
Opportunity for presentation and discussion of papers is given in the following categories:

- *Scientific Sessions:* Meteorology, Climatology and Atmospheric Physics as related to soaring flight.
- *Technical Sessions:* Aerodynamics, Structures, Materials, Design, Maintenance and Sailplane development.
- *Training and Safety Sessions:* Training and Safety, Coaching, Health and Physiology.

Joint Sessions: Scientific and technical topics, reviews or news, presented in an informative and entertaining way for the broader interest of the World Gliding Championships and OSTIV.
Topics on instrumentation, electronics, safety, statistics and other system technologies will be included in the sessions for which the application of the technology is most relevant.

GFA is hosting the next OSTIV conference at Benalla in January 2017.
We are seeking a sponsor for the event. Minor sponsorship is available at the $500 level and a naming sponsor at the $3000 level. Please send EOI to Chair of Marketing and Development John Styles CMD@glidingaustralia.org

NINE MENTAL SKILLS FOR SUCCESS

RICHARD FRAWLEY
NATIONAL COACHING DIRECTOR
cit@glidingaustralia.org

SUCCESSFUL ATHLETES

1 Choose and maintain a positive attitude
2 Maintain a high level of self-motivation
3 Set high, realistic goals
4 Deal effectively with people
5 Use positive self-talk
6 Use positive mental imagery
7 Manage anxiety effectively
8 Manage their emotions effectively
9 Maintain concentration

MENTAL SKILLS TRAINING

These nine mental skills are necessary for performing well in sport as well as in non-sport performance situations. At the ***Ohio Centre for Sport Psychology*** they teach:

- These skills are learned and can be improved through instruction and practice.
- We begin our work with each individual by assessing his or her current proficiency in each of the skills.
- We develop a plan for teaching and enhancing the specific skills that need improvement for the individual.
- We periodically reassess the client's proficiency in each of the skills in order to evaluate our progress.

THE PERFORMANCE PYRAMID

Although each of the nine skills is important, its primary importance will occur during one of three phases: long-term development, immediate preparation for performance, and during performance itself.

Level I These mental skills constitute a broad base for attaining long-term goals, learning and sustaining daily practice. They are needed on a day-by-day basis for long periods of time, often months and years.

Level II These skills are used immediately before performance to prepare for performance. They may be used just before competition begins, or immediately before a specific performance action, such as a golf shot or a free throw in basketball.

Level III These skills are used during actual performance behaviour.

The pyramid below represents the relationship of the nine skills to one another. Each of the higher levels incorporates and is based upon the skills of the preceding levels.

DETAILED DESCRIPTIONS OF THE NINE MENTAL SKILLS

1. ATTITUDE

Successful athletes:

- Realize that attitude is a choice.
- Choose an attitude that is predominately positive.
- View their sport as an opportunity to compete against themselves and learn from their successes and failures.
- Pursue excellence, not perfection, and realize that they, as well as their coaches, teammates, officials and others are not perfect.
- Maintain balance and perspective between their sport and the rest of their lives.
- Respect their sport, other participants, coaches, officials and themselves.

2. MOTIVATION

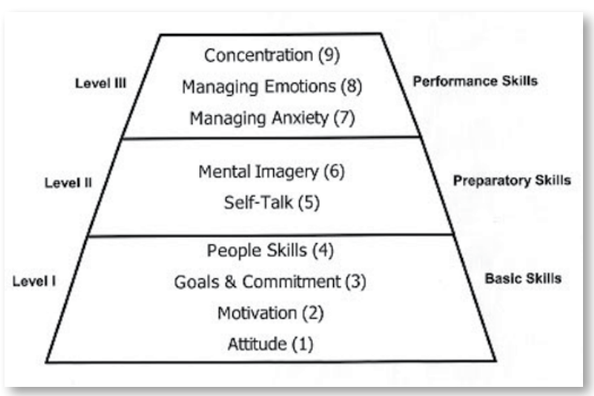
Successful athletes:

- Are aware of the rewards and benefits that they expect to experience through their sports participation.
- Are able to persist through difficult tasks and difficult times, even when these rewards and benefits are not immediately forthcoming.
- Realize that many of the benefits come from their participation, not the outcome.

3. GOALS AND COMMITMENT

Successful athletes:

- Set long-term and short-term goals that are realistic, measurable and time-oriented.
- Are aware of their current performance levels and are able to develop specific, detailed plans for attaining their goals.



- Are highly committed to their goals and to carrying out the daily demands of their training programs.

4. PEOPLE SKILLS

Successful athletes:

- Realize that they are part of a larger system that includes their families, friends, teammates, coaches and others.
- When appropriate, communicate their thoughts, feelings and needs to these people and listen to them as well.
- Have learned effective skills for dealing with conflict, difficult opponents and other people when they are negative or oppositional.

5. SELF-TALK

Successful athletes:

- Maintain their self-confidence during difficult times with realistic, positive self-talk.
- Talk to themselves the way they would talk to their own best friend.
- Use self-talk to regulate thoughts, feelings and behaviours during competition.

6. MENTAL IMAGERY

Successful athletes:

- Prepare themselves for competition by imagining themselves performing well in competition.
- Create and use mental images that are detailed, specific and realistic.
- Use imagery during competition to prepare for action and recover from errors and poor performances.

7. DEALING EFFECTIVELY WITH ANXIETY

Successful athletes:

- Accept anxiety as part of sport.
- Realize that some degree of anxiety can help them perform well.
- Know how to reduce anxiety when it becomes too strong, without losing their intensity.

8. DEALING EFFECTIVELY WITH EMOTIONS

Successful athletes:

- Accept strong emotions such as excitement, anger and disappointment as part of the sport experience.
- Are able to use these emotions to improve, rather than interfere with high level performance

9. CONCENTRATION

Successful athletes:

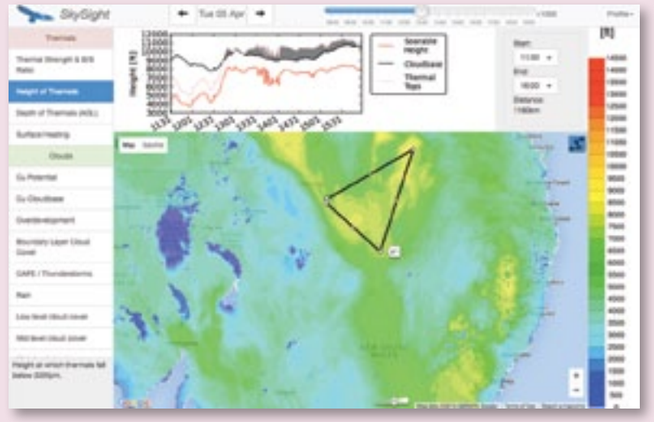
- Know what they must pay attention to during each game or sport situation.
- Have learned how to maintain focus and resist distractions, whether they come from the environment or from within themselves.
- Are able to regain their focus when concentration is lost during competition.
- Have learned how to play in the here-and-now without regard to either past or anticipated future events.

APPLICATION OF THE NINE MENTAL SKILLS TO NON-SPORT PERFORMANCE SITUATIONS

The nine mental skills associated with athletic success are the same mental skills associated with performance in a wide variety of non-sport, performance situations.

GA

SKYSIGHT



I've recently launched my new subscription-based soaring forecast service, **skysight.io** featuring:

- 5+ days forecasting range, so you can plan your weekend from early in the week, like you're used to with XCSkies.
- Half-hourly time steps through the day, so you can better understand the evolution of the day, similar to RASP.
- Highly accurate forecasts, moreso than other providers due to very high resolution forecasting with specialized terrain and land datasets.
- Route planning, giving you a cross section of the weather you'll fly through each day.
- Clean and fresh user interface, integrating Google Maps overlays and tablet/mobile support.

Currently it covers most of QLD, SA, VIC, ACT and NSW, and is expanding further soon to WA, NT and NZ.

I've priced it at $12.99/mo or $99/yr, with a 14 day trial period during which you can delete your account and receive no charges.

I've had it under wraps for a few years and used it to great success at competitions, in particular JWGC and the last few nationals. However, when the improvements I wished to make were becoming too expensive at the scale I wished to operate, I decided to open it up as a service that we can all benefit from.

It is still under active development. Feature requests and feedback are welcome.

FEATURES ALREADY UNDER DEVELOPMENT INCLUDE

- Automatic text forecasts - get an email/sms midweek with the weekend forecast for your location.
- Forecasting improvements, to better resolve wave or complex weather.
- New colour scales - currently similar to what you are likely used to, but changing soon to something more expressive and granular.
- Alternative plotting regimes, such as showing speckling for the proportional octas of cumulus.

Please contact me at matthew@skysight.io if you have any questions, feature requests or complaints.

HAPPY LANDINGS,
MATTHEW SCUTTER

CAMERA CHECK LIST

DENNIS STACEY
Dennis Stacey
GFA Chief Technical Officer

For a number of years pilots have fitted small cameras to sailplanes in Australia, evident in many YouTube videos. These cameras have been installed by the pilots with no guidance or airworthiness oversite. This practise has put at risk the sailplane, pilot, third party property and individuals. While the cameras are small, the GFA has had experience of disturbed airflow off a camera interfering with the tailplane resulting in inflight buffeting.

To reduce the risk of inappropriate camera installation the GFA has adopted much of the guidance material produced by the Civil Aviation Authority in CAP 1369 'Policy and Guidance on Mounting Cameras on Aircraft'.

One of the key challenges faced is that each camera installation needs to be judged on a case by case examination to consider the airworthiness risks that could be posed, including installed sailplane and 3rd party risks, hence it can be difficult to cover all eventualities in guidance without seeming to be overly prescriptive.

In view of the above and in order to be more proportionate, guidance has been provided for a route for the approval of light, simple and small camera installations, using a methodology whereby a Form 2 Inspector will be able to examine the installations and to certify whether an acceptable airworthiness standard has been achieved.

This guidance does not apply to hand-held carry-on cameras, or to devices worn by the pilot such as helmet-mounted cameras, which do not require any particular approval when they are used in these hand-held or worn operational modes. However there should be suitable judgement exercised to assure that such equipment does not pose any additional risks including any adverse effect on the wearer's ability to get out of the aircraft in an emergency, obstruct the pilot's view or cause unintentional operation of controls and so on, that could affect the pilot's ability to fly the sailplane. Suitable care when handling the camera and use of retention straps is advised to mitigate the risk to the sailplane, its occupants and to third parties that could arise from dropping the camera.

SCOPE

This guidance addresses small camera installations mounted internally or externally on sailplane and motor sailplane structures that are self-contained, with internal batteries and no external wiring, such as GoPro and similar size cameras that are of small form factor and relatively light, under 250gm including mountings. Such installations would be expected to have a low or negligible effect at the sailplane level with regard to mass, centre of gravity, structural strength and drag and would thus be expected to have no appreciable effect on sailplane systems, handling or performance.

Risks to the sailplane and its occupants as well as third party risks posed by the installation including potential camera and mount detachment need to be managed and mitigated by careful installation that will be assessed by the Form 2 Inspector for acceptability and documented accordingly.

Larger and more complex camera installations, including multi camera systems, connections to sailplane power systems, which are likely to have more significant effects on structures, systems, handling and performance etc, are considered outside the scope of this material and thus will constitute modifications requiring approval under the GFA modification process.

GUIDANCE ON INSTALLATION ASSESSMENT AND APPROVAL BY A FORM 2 INSPECTOR

The camera installation will need to be assessed by a Form 2 Inspector before the first flight in situ on a sailplane. Guidance on acceptable installation practices and the assessment process to be followed are provided in the Installation Checklist. In addition to the Checklist form a note is to be made in the minor defect section of the maintenance release, referencing the installation of the camera and location.

The decision to permit the camera installation resides with the Form 2 Inspector. The Form 2 Inspector should not feel pressured to approve the installation for the pilot and if uncomfortable or unsure about the installation should reject or refer to another Form 2 inspector for approval or ask for guidance from the region's RTOA.

If approving for multiple flights the Form 2 inspector should consider any on-going airworthiness requirements such as mounting inspections or re-application of the load testing.

No aerobatics or intentional spins are permitted with the camera installed to the sailplane.

The Form 2 inspector may request a flight test in some cases to verify the installation.

GENERAL INSTALLATION REQUIREMENTS AND GUIDELINES

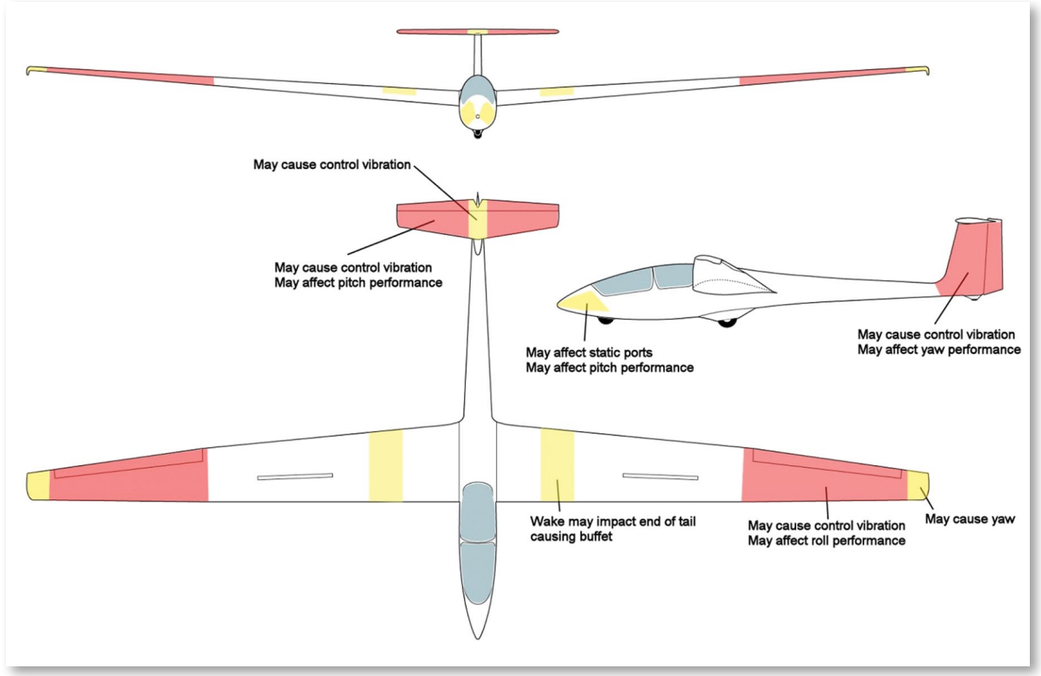
The installation must be inspected by a Form 2 Inspector who will review the camera installation against the points below and complete and sign the sections below to confirm that the installation is satisfactory.

1. Cameras are physically attached to the airframe using secure mountings. Where clamps are used, care should be taken to ensure that they do not damage the aircraft structure – the use of a suitable intermediate material between the clamp and airframe should be considered.

2. Secondary locking of fasteners / connections must be applied – secure with cable ties, locking wire or nyloc nuts, which should not be re-used. Battery and other camera access compartments should be checked and taped over for additional security.

3. Mounting is not on slender components.

4. If existing airframe structural fastener locations are picked up then additional installed brackets should be of the same material as the underlying structure and bolts will be need to be lengthened as necessary to remain in safety and maintain suitable thread engagement and protrusion. However, it should be ascertained that no external or



internal parts or systems, including flying controls, could be fouled or obstructed by employing longer fasteners. Note that no bracket should be introduced that acts as a packer between major load paths - that is, where the bracket would act as a washer under the bolt head or nut. The size of the bolt should be taken into consideration and all disturbed fasteners must be inspected prior to flight by the Form 2 Inspector.

5. Further to the above, the structural integrity of the aircraft must not be compromised by the installation due to cutting or by drilling of new or enlarged holes.

6. The use of suction mountings is not generally acceptable for externally mounted cameras.

7. If suction mounts are used inside the cockpit or cabin, a suitable secondary retaining lanyard or strap should be attached to the mounting to prevent damage or a control jam should the primary suction mount become detached.

8. Cameras mounted inside the aircraft in occupied areas should be installed so as to meet the requisite crash load requirements so that they will not detach and cause injury in the event of an emergency landing - for suction mountings the primary suction mounting and secondary lanyard /strap should be assessed so that each is independently capable of carrying the loading, (see item 13 below). Pull testing should be used to confirm the integrity of the secondary retention to at least 10 times the weight of the unit. Periodic re-checking of the primary mount integrity is advised.

9. Proprietary self-adhesive mounts can be used in accordance with the manufacturer's instructions provided that they are capable of passing the pull test. Installation of a secondary independent lanyard/strap retention feature may also be considered prudent when using these types of mounts. There is also concern that self-adhesive mounts may be subject to environmental deterioration especially for installations used over a long period of time. Both the self-adhesive and the airframe surface coating / interfay (sealant) medium that it is adhered to are subject to ageing and environmental degradation – careful periodic inspections and a pull test of the mount strength integrity will be performed if there are signs of deterioration. Inspections are detailed in the comments section below.

10. Mounting must be on fixed surfaces of the airframe, not on control surfaces or on control system components subject to motion. There must be no interference with flying controls. Cameras should not be fitted in front of or close to flying controls, pitot-static probes or angle of attack sensors, or in locations where flow into or out of system ducts, cowlings and so on may be interfered with or otherwise impeded. Refer to Figure 1 for guidance on the likely wake affected areas.

11. If the camera is fitted in or near the cockpit, it must not interfere with any cockpit controls, nor obstruct the pilot's view of instruments, the pilot's external view or cause a distraction.

12. The camera should be mounted in a position such that if it were to detach from the aircraft or become loose, it will not cause harm to occupants nor impact any critical parts of the aircraft (e.g. propellers, engine, flying control surfaces and systems, airspeed sensors).

13. Push/Pull test requirement – the camera and its attachment mountings should be weighed prior to installation and checked to ensure that the total weight does not exceed 250gm. In order to check the security under flight, ground and emergency landing cases, a spring balance or other suitable method should be used to apply separate loads to the mounted camera of at least:

9 times the weight forwards,
4.5 times the weight up,
6 times the weight down,
3 times the weight port,
3 times the weight starboard.

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Loading should be applied for at least 3 seconds with no failure, damage or permanent distress. Higher factors should be considered as appropriate to aerobatic use to include a 9 times weight downwards case. In addition, external cameras should be subjected to a proof load test in the drag direction prior to flight - a minimum drag load of 2kg should be used. The drag load should be checked to be appropriate for the size of the camera and the maximum design speed of the aircraft. For example, using a drag coefficient on unity at sea level, a 4cm by 10cm = 40 cm2 cross section normal to a 150kt airstream would generate ~1.5kg drag load. This value will scale up directly with area so a camera/mount that is 2 times the area will see 2 times the drag load, while an increase in the airstream will increase drag by the square of the airspeed, thus 2 times the airspeed gives 4 times the drag. Note that installations mounted in areas affected by propeller slipstream will need to be designed to withstand increased drag loads.

14. Continued Airworthiness monitoring of the mounting and camera installation is to be carried out at regular intervals – this is detailed in the comments on the form. Careful periodic inspection should check the integrity and security of the camera mounting hardware. Parts that show signs of deterioration must be rectified or replaced.

15. In order to reduce the risk of electromagnetic interference (EMI) with aircraft systems, cameras that are equipped with wireless interface and activation systems, including WiFi / Bluetooth and similar wireless technologies with potential for transmitting EMI, should be placed in a flight safe mode with the wireless functionality disabled; a limitation note to this effect should be recorded by the Form 2 Inspector for the attention of the pilot/owner. GA

AIRCRAFT NOISE

All powered civil aircraft operating in Australia are required to comply with the Air Navigation (Aircraft Noise) Regulations 1984 regardless of size, purpose or ownership. This applies to all self-launch powered sailplanes registered and operating under the Gliding Federation of Australia. Note at this time that sailplanes that are 'sustainer' powered are exempt from the Noise Certificate/ Exemption requirement.

Before applying for your Certificate of Airworthiness (CoA) for your new powered sailplane, you must first apply to Airservices for approval to operate without an Australian Noise Certificate under Regulation 8 or a permit under Regulation 9A(2)(a). The Regulation 8 covers type certified powered sailplanes with international noise certification, Regulation 9A(2)(a) is for Homebuilt or Experimental powered sailplanes. Note that the term CoA in this document includes Standard Certificate of Airworthiness (CoA), Experimental Certificate (EC) and Special Certificate of Airworthiness for Light Sports Aircraft (CoA-LSA). Note also that it is a requirement that when a powered sailplane is purchased second hand, the new owner must also apply for a Noise Certificate/Exemption, as the previous Noise Certificate/ Exemption for the powered sailplane is non-transferable.

For type certified powered sailplanes with international noise certification under ICAO Annex 16 or FAR Part 36, the applicant applies offering evidence found on the Type Certificate Data Sheet Noise (TCDSN) or information listed in the types Approved Flight Manual (AFM). The Type Certificate Data Sheet (TCDS) and/ or TCDSN can be found on the applicable National Airworthiness Authority (NAA) eg FAA or EASA website, whichever is applicable. Airservices then deem the powered sailplane to have a Noise Certificate and issue the appropriate document.

For other powered sailplanes without noise certification, the applicant must provide additional aircraft information to Airservices in the application process. The powered sailplane is then issued with a permit to operate without a Noise Certificate under Regulation 9A(2)(a). The permit may be issued with conditions. In the worst case scenario, Airservices may require to have the sailplanes engine noise measured prior to the permit being issued. As yet, however, this requirement has never been required.

You must provide in your GFA CoA application the document issued by Airservices as proof that the above requirement has been carried out. This fact is entered in the GFA records for the powered sailplane.

You can only apply for approval to operate without an Australian Noise Certificate under Regulation 8 or Regulation 9A(2)(a) online. No written applications will now be accepted by Airservices. To apply, simply go to the Airservices website - Google 'Airservices' - select 'Services' at the top of the page, select 'Aircraft Noise Certification' on the left hand side of the page, then look for the 'Aircraft Noise Assessment' link in blue in the lower page, open and the application will be in front of you to complete.

Helpful hints in completing the application:

1. You are required to apply for a new certificate for a recently built or imported powered sailplane prior to applying for a CoA, EC,or CoA-LSA.

2. You must also apply for a certificate when you purchase a second hand powered sailplane as the Noise Certificate is not transferable on the sale. So select either 'Addition of aircraft to Civil Register' or 'Change of ownership/ registration'.

3. You may have to tick 'Power driven aeroplane' as well as 'Glider' for the application to be accepted

4. For 'ICAO Type Designation' you can go to the following link and look up your ICAO type designation. www.icao.int/publications/DOC8643/Pages/Manufacturers.aspx

The remainder of the form is straightforward. I do hope the information in this instruction assists you in completing the 'Noise Certificate' application. If any difficulty is experienced, please advise and this information instruction will be updated. GA

BY JAMES COOPER

SENSITIVE FLYING

Over recent months I have done quite a bit of coaching with pilots of various experiences and abilities. One thing that was noticeable was that none of the pilots I have flown with recently have a sensitive feel of the glider. Let's look at other sports and how sensitive the top performers are.

In 100m running, you would think that immense effort and concentration is required, but if you look at Usain Bolt you will see a picture of relaxation, certainly in comparison with the runner behind him in the photo. Carl Lewis appeared even more relaxed in his day. I have followed Formula One for many years. Top drivers are considered to be super smooth, even when driving at incredibly high speeds and achieving huge g-forces. If you listen to Jackie Stewart's commentary, he always emphasises the smoothness of the top drivers. Arguably, he was one of the smoothest, allowing him to annihilate other drivers when it came to wet driving.

So, what defines smoothness when running, driving and flying? What do we get out of it and how can we make ourselves smooth pilots? It certainly made me think. The smooth athlete is at one with their body, car or aircraft. They can feel how the glider feeds back information as to the air it is flying in and, critically, their inputs into the controls are not so harsh as to disguise what the aircraft it trying to tell the pilot. So let's imagine that, flying into a thermal, we need to slow down in preparation to take the climb. If a hard pull up is made, all the pilot feels is the strong g-force, masking out what the glider is feeling. Now any ability to feel the air is useless. Similarly, if the thermal is felt on one side and an aggressive turn is made, again, the pilot only feels the aggressive movement that is applied to the glider. The first thing that we can do when approaching a thermal is to slow down before you get there. You know when you are getting near the thermal by feeling the pre-thermal buffet, an area where rising air is adjacent to sinking air and the air vibrates. If we fly smoothly, we can feel it before we get to the core, and bring our speed back to 65kts so that we don't pass through the thermal before we have had time to analyse it. We now have a few seconds to sense the air and react to it, feeling if it is to the right or left and make inputs to turn the glider into the thermal both smoothly and firmly.

When flying inter-thermal, the same rules apply. The air has to be felt and the glider turned towards the rising wing, speeding up in the sink and slowing in the lift, but only 10kts either side of your block speed for the day. Inputs need to be smooth but firm. Total concentration has to be maintained. Otherwise, you will find yourself totally out of sync with the air you are flying in.

Novice pilots - perhaps those with less than 1,000 hours experience - need to practice accurate flying. That means being able to maintain a constant angle of bank at a constant speed without the excessive input of control movements. Excessive control movements will make the glider overshoot the intended attitude, pitching and roling erratically thus requiring another alteration. Consequently, the glider and, of course, the pilot are not going to be able to feel the air they are flying in. Getting the yaw string to hang a little to the outside of the turn will help no end.

The other method of practice is to use the simulator. Simulators can be hired and, if used for just an hour a night to practise flying, probably gives more than most people fly on a weekend. An alternative form of practice on a day that may not be up to it for crosscountry is to spend a couple of hours with a mate, trying to gain as many 1,000ft climbs as possible within two hours. (A 2,000 ft climb is not the same as two 1,000 ft climbs.)

So remember, when you are flying - relax, fly with smooth but firm inputs and fly accurately, very accurately. GA

GLIDER TOWING ENDORSEMENTS - LIMITED ACCESS TO DUAL-CONTROLLED TOW PLANES

At the present time, tow pilot endorsement is conducted by CASA Delegates in a dual-controlled tow plane using the CASA approved GFA Aerotowing Manual. As Section 2.1 of this manual states, "When the above conditions are satisfied, the candidate may commence glider-towing in a double-control aircraft with the CASA delegate or an experienced tug pilot nominated by a delegate as pilot in command. The applicant must demonstrate competency to the CASA delegate and the delegate will issue a Glider Towing Permit if satisfied the pilot is competent."

Now the GFA recognises not all gliding clubs have access to a dual place tow plane for the purposes of conducting glider tow pilot training, and we are aware that a number of clubs are sending their pilots interstate to get endorsed.

As I have mentioned in previous editions of the magazine, CASA proposes to devolve tow pilot endorsements to GFA. To this end, a new system of endorsing has been developed that is documented in a revised GFA Aerotowing Manual currently being reviewed by CASA.

During the course of developing this system, GFA took the opportunity to consider alternative methods of assessing tow pilot competency. What has been devised is a system that will allow training in single-place aircraft in circumstances where a dual-place tow plane is not available at a location reasonably convenient to the trainee and examiner, or cannot be made available within a reasonable timeframe. However, it is anticipated that such training would be rare and there is a strict process that must be followed.

We are currently working with CASA to get the new system in place prior to the expiry of the Instrument of Delegation for the issue of glider towing permissions in August 2017.

Until then, CASA Delegates are required to comply with the requirements in the December 2006 Aerotowing Manual and conduct all assessments in a dual controlled tow plane.

THE AIR EXPERIENCE INSTRUCTOR RATING

As mentioned in the December/January edition of this magazine, all members received an email asking them to participate and comment in consultation on a proposed revision to the Air Experience Instructor Endorsement. 60% of the 2,765 Recipients opened the email and 32% of members clicked on the download link. The responses were reviewed and the final outcome has been released as Operations Directive (OD) 01/16 – 'The Air Experience Instructor', and is now available on the website under 'Documents/Operations/Operations Directives'.

ELECTRICAL NETWORK MAPS

A New South Wales energy company Essential Energy has released maps of its electrical network to help pilots avoid collisions with power lines. The company is reminding pilots to pre-plan their flights and identify overhead electricity networks before flying activities such as aerial spraying, firefighting and mustering.

Maps showing the general location of their overhead electricity network are available upon request for individuals and companies involved in activities including:

- Aerial spraying, aerial mapping, aerial inspections.
- Leisure activities such as hot air ballooning, gliding or parachuting.

CHRISTOPHER THORPE
Executive Manager, Operations
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- General aviation.
- Farming and agricultural activities.
- General water activities on waterways in Essential Energy's area of operation.

To find out more, go to:

Electrical network maps fact sheet
www.essentialenergy.com.au/asset/cms/pdf/Electricalnetworkmaps.pdf

Low level aerial activity safety fact sheet
www.essentialenergy.com.au/asset/cms/pdf/safety/AerialSafety.pdf

TOW PILOT MEDICALS

I was recently asked the question "Why do tug pilots need a Class 2 Medical if they are 'under' GFA?"

Contrary to the opinion expressed, pilots flying VH-Registered tow planes, excluding motor gliders, are not 'under' GFA. They hold licences issued by CASA with endorsement granted by CASA delegates. The medical standards that apply are governed by the class of licence, namely:

- Pilots holding a CASA Pilot licence must meet CASA's medical requirements, found on the CASA website.
- Pilots flying RA-Aus registered aircraft with an RA-Aus Pilot Certificate must meet RA-Aus medical standards.
- GFA members flying a GFA registered motor glider approved for towing must comply with GFA medical requirements at paragraph 3.2 of the GFA Operational Regulations.

When CASA devolves towing endorsements to GFA, tow pilots will then come under GFA, but only insofar as their towing endorsements are concerned. They will still have to hold a valid licence or certificate for the class of tow plane they are operating. The class of licence will dictate the type of medical certificate that is required.

MOTOR GLIDER OPERATIONS

Motor Gliders operated under the GFA operational and airworthiness systems are listed on the CASA register that is administered by GFA. VH-registered motor gliders that are not on that part of the CASA register maintained by GFA cannot be operated under the GFA system of maintenance.

Consequently:

- A pilot operating a motor glider that is registered on the GFA administered register must be a GFA member qualified on type. The motor glider will have a GFA Form 2 issued.
- A pilot holding a CASA pilot licence endorsed for the type may only operate a VH-registered motor glider on the CASA register with a CASA Maintenance Release.
- A pilot operating a motor glider registered with RA-Aus must be a RA-Aus member qualified on type. The motor glider will have a RA-Aus issued Maintenance Release.

Only a GFA member can operate a motor glider pursuant to the exemptions in CAO 95.4.

INDEPENDENT OPERATIONS

In 'Mande-news Jan 2016' the revalidation requirements for independent operators was mentioned. This resulted in a few questions being asked about responsibility for operations.

Unlike a Level 2 Independent Operator, who may operate completely independently of their club, a Level 1 Independent Operator (I/O L1) is required to seek approval on each occasion they want to operate unsupervised. Approval is via the CFI or delegate.

The I/O L1 authority is an entry level to independent operations and is aimed at the inexperienced pilot. It requires the pilot to demonstrate over a period that they have the appropriate skills and capabilities to operate unsupervised in a safe manner, in other words, at I/O L2 standard.

Until then, the Club remains responsible for the pilot's operations through the CFI, who needs to ensure the pilot is operating within their limitations and capabilities, at an appropriate site, in appropriate weather conditions and that SAR is monitored. Furthermore, a CFI can specify a set of constraints or conditions under which an I/O L1 rating can be exercised, such as local flying only, not in turbulent conditions and so on.

KNOW ABOUT THE AIRWORTHINESS SYSTEM

ROB HANBURY
Airworthiness Department Chair
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In case you did not guess, my articles are about letting you know about the Airworthiness System, and updating and prompting you on what you need to know about it. There are legal responsibilities to being a Registered Operator (RO) of a glider and there are responsibilities to inspecting a glider – all the way from being a pilot, to a Daily Inspector, to an Annual Inspector. You need to know about this and the best way is to read and know our Registered Operator Handbook which was issued last April and is available from the website. If you have not, please read it and understand and also attend a refresher course. See below.

We also issued the greatly revised MOSP 3 Version 7.0 in April with a small update in June to V7.1. You don't have to read this as it is a reference document and not easy reading, but it has all of the aviation regulations and GFA rules written in a clear manner to cover the whole system of what, when and who – all of our Airworthiness System Procedures. By being a member, you agree to comply with this. It is also trying to make clear what is required by law for Australian Gliders. Most of it is mandatory, or it will make clear what is not. Please use it.

CASA approved our use of MOSP 3 V7.1 as a draft while we finalized it. There will be changes. CASA provided many useful comments and we have worked on these and members' comments on V7.1 to resolve issues. These have mainly been about clarity and correctness and no major changes are required. It is now with CASA to approve and we will issue a revised version in May. The latest version in use will always be available on the website with all the other handbooks of how to do the work – such as Basic Sailplane Engineering. We must always update our documents and so expect MOSP to be revised annually and we will let you know when to get the new version.

AW DEVELOPMENT PLAN

The AWDP was a plan put together by the GFA board under pressure from CASA to fix our system. The plan was started in early 2014 and continued for two years. We have largely completed this, although document update and training system improvements still continue. We have in the process improved our systems with the objectives of reducing effort and helping members. I hope you see the benefits in improved documents, easy access to all information and improving AD schedules.

Unfortunately there were some cost increases but the objective is to have the user pay and not to cross-subsidise. GFA is non-profit and receives funding from CASA, but otherwise has to recover costs from members. We minimise costs by doing as much as we can through your volunteer efforts – we all need to volunteer or the costs will rise. Please join the system, learn as you go, have fun maintaining gliders, and we hope that the more interested and able will rise up the ranks and help in future as Annual Inspectors, trainers at courses, repairers, Regional Technical Officers-AW (RTO-A) and GFA officers. If not in Airworthiness, please do your bit where you can help.

If you have an interest in glider maintenance please let your club Airworthiness Admin Officer (AAO) or RTO-A know and they will put you on a course. We are improving the training system to work better and in a more modern way. But it is a lot of work for the few that help. It is the core of getting our AW system to work well and safely. Please have fun and enjoy – you can do what you want even as far as homebuilding or modifying experimental gliders, but must work within the system.

Pete Cesco and many others have been updating the Basic Sailplane Engineering (BSE) handbook, which has now been published. The Vice President Pete has also been updating the whole training system with the objective of moving to modern adult education and allowing self study and so reducing the time in lectures. It is being rolled out this winter.

IMPROVEMENTS

GFA's current focus is on enabling the way we like to operate and making this clear. We are working with CASA to allow improvements. We have just received a delegation allowing us to replace lost or stolen CoA. This used to cost $80 through CASA, and is now $25 through GFA. We have asked for an exemption to magnetic compasses, and some other authorities to run our system better. We are discussing with CASA a system allowing us to take over tug maintenance to reduce costs. We are tweaking our system to improve it to allow it to work for us in the way we want.

Refer to the newly revised Permissible Unserviceability document. This authorizes a number of sensible equipment unserviceabilities that you may decide to use. It gives you authority to decide if it is safe to fly. Also note the Guidelines on installing small cameras.

Please work with us. The Volunteers and staff do a great job and do their best. It is a lot of work for some – for instance arranging and giving training courses takes weeks of preparation. Please help where you can. Please post an expression of interest in training courses to Fiona at returns@glidingaustralia.org. She keeps track and puts candidates and instructors together. We are now arranging for winter 2016 so please tell us what you need. This motivates instructors to arrange the courses. They are being advertised on the website and in Gliding Australia.

MAINTENANCE AUTHORITY RATINGS

We need to make sure everyone is current and up to date, creating a need for refresher courses and revalidation.

We have refresher courses arranged throughout the country, often as part of another course and lasting about half a day. Please try to attend one in 2015 or 2016, even if you are only an owner of a glider. It is mainly about how we must look after our gliders. Inspectors need to attend one by the end of the year. Please contact your club airworthiness officer or RTO-Air if you are having trouble attending. We will try to revalidate everyone who should be operational by year end and will work with you to get this done.

Have fun flying and looking after your gliders.

ACCIDENTS & INCIDENTS FEB - MARCH 2016

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.

The Gliding Federation of Australia Inc
SOAR Accident and Incident Occurrences
General Statistics
Date From: 01/02/2016
Date to: 31/03/2016

Damage	VSA	QSA	NSWGA	SAGA	WAGA	Total
Nil	10	6	7	3	2	28
Minor	6	3	2	1	1	13
Substantial	1				2	3
Write-off				1		1
Total	**17**	**9**	**9**	**5**	**5**	**45**

Injury	VSA	QSA	NSWGA	SAGA	WAGA	Total
Nil	17	9	9	4	4	43
Serious				1	1	2
Total	**17**	**9**	**9**	**5**	**5**	**45**

Phases	VSA	QSA	NSWGA	SAGA	WAGA	Total
Ground Ops	2		2		1	5
In-Flight	2	1	3	1	2	9
Launch	3	5	3		2	13
Landing	10	3	1	3		17
Thermalling				1		1
Total	**17**	**9**	**9**	**5**	**5**	**45**

Type of Flight	VSA	QSA	NSWGA	SAGA	WAGA	Total
	2		2		1	5
Training/Coaching	2	5	3		1	11
Local	6	3	2	2	2	15
Competition	4		2	2		8
Cross-Country	2	1		1	1	5
AEF	1					1
Total	**17**	**9**	**9**	**5**	**5**	**45**

1-FEB-2016 NSWGA
POWERPLANT/PROPULSION DG-400

During the Daily Inspection and while testing the fuel pump the pilot noticed fuel was leaking from the carburettor. The pilot tightened some screws and the leak was sealed. The aicraft has been sent away for an early maintenance inspection. This incident highlights the importance of conducting a thorough pre-flight check of all systems. The pilot's CFI noted that the fuel pump should be engaged during the DI to test for fuel leaks.

1-FEB-2016 NSWGA
AIRCRAFT CONTROL DUO DISCUS T

The purpose of the flight was to provide an engine type endorsement. Upon returning to the home airfield following a short crosscountry flight, the pilot under training extended the engine, which started in the usual manner. When the pilot under training subsequently initiated the shut-down procedure, the propeller noise levels and vibration still seemed quite high leading both pilots to suspect that the engine had not stopped. The ignition was momentarily switched on and the engine attempted to fire, thus confirming to the pilots that the engine had indeed stopped. The shut-down procedure was rechecked and the pilots confirmed all switches were in the correct position. As a precautionary measure, the command pilot immediately joined circuit and conducted a landing with the engine extended and propeller windmilling. Subsequent discussion with the aircraft agent revealed that the pilots did not allow sufficient time for the propeller to stop and the engine to fully retract. The aircraft flight manual states: "To stop the engine, reduce the speed to about 90 km/h (49 kt, 56 mph) and switch off the ignition. To stop the propeller...Hold down retraction key, watch rear-view mirror and release key after about 5 seconds just before the prop hub disappears behind the fuselage back (prop blades will still be clear from the engine bay doors) - prop will stop spinning fairly quickly. Thereafter (with prop stopped) the power plant is fully retracted - regardless of the position of the propeller blades - until the green LED signal (RETRACTED) comes on." This incident highlights the importance of checking pilots are familiar and in practice with operating the aircraft and its engine.

1-FEB-2016 VSA
GROUND OPERATIONS SZD-51-1 JUNIOR

After preparing his glider for flight, the pilot untied the tie-down ropes but failed to remove the rope from the hole in the starboard wing tip skid. The glider was attached to the vehicle and as it was moved from the tie-down area the rope tore the tip skid from the wing tip. The glider was de-rigged and sent for repair. This is not an uncommon incident and highlights the importance of ensuring tie-down ropes are completely removed from the glider before towing out.

6-FEB-2016 VSA
AIRCRAFT CONTROL JANUS C

While going through the pre take-off checks, the command pilot forgot to lock the airbrakes when he became distracted by another glider that landed nearby and had to be pushed clear. During the winch launch the airbrakes slowly worked open, which went unnoticed by the command pilot despite periodically checking the wingtip attitude to the horizon. Attempts by the ground crew to alert the flight crew by radio were unsuccessful. After releasing from what appeared to be a normal launch, the command pilot noticed a high descent rate that was attributed to heavy sink that the second pilot had experienced on an earlier flight. The command pilot decided to return to the airfield but found himself too high to land downwind so manoeuvered to land into-wind midway down the runway. Due to the high sink rate, the command pilot was unable to complete the 180° turn onto final and landed diagonally across the runway. The command pilot initiated a ground loop to avoid collision with the airfield boundary fence, during which the port wingtip suffered minor damage. The command pilot noted that a safer landing could have been made on the cross strip, which would have involved only a 90° turn onto final. Post-flight it was determined that the aircraft radio was faulty, which is why calls from the ground crew were not heard. This incident highlights the importance of conducting uninterrupted pre-flight checks, and ensuring that pilots physically determine that the airbrakes are locked by cycling the control and the overcentre lock has engaged. It also highlights how increased workload can lead to impaired decision making and decreased and situational awareness, leaving pilots susceptible to goal fixation.

6-FEB-2016 VSA
LOW CIRCUIT PW-6U

The Instructor became distracted while conducting air work with the student and left the decision to break off the exercise late. The pilot flew a marginal glide back to the airfield. While established on the downwind leg of a right-hand circuit, at about 600ft AGL, the instructor decided to conform to convention and made a mid-field join for a left-hand downwind. The consequent loss of height from crossing the runway resulted in a very low turn onto the final approach, although a safe landing was completed. The instructor had only held his rating for 12 months, lacked currency and was not familiar with the aircraft. Other causal factors include loss of situational awareness from focussing on an exercise, and a desire to conform to expected circuit practice when a modified circuit was more appropriate.

7-FEB-2016 VSA
AIRCRAFT CONTROL
STANDARD LIBELLE 201 B

This experienced pilot advised that he failed to retract the undercarriage during his post-release check. After flying a competition cross-country task with the wheel down, the pilot then retracted it during the prelanding check. A visual inspection to confirm the undercarriage was in the down position was not made. OSB 01/14 'Circuit & Landing Advice' confirms that the pre-landing checklist is a 'check' and not an 'action' list. The undercarriage check should verify the undercarriage lever is matched to the lowered position on the placard. Fatigue may have been a factor affecting the quality of the pilot's pre-landing check.

7-FEB-2016 QSA
MISCELLANEOUS ASK 21

Following a normal launch, the glider/tow plane combination climbed to altitude in benign weather conditions. At about 1,700ft AGL the tow rope disconnected from the tow plane. The tow pilot advised he did not manipulate the release. Both aircraft made normal landings and the glider dropped the rope in the field next to the airfield. Subsequent inspection of the tow plane revealed damage to the bottom surface of the rudder. The tow plane uses a Schweitzer release and the correct ring sets were used. The reason for the uncommanded release was not determined.

10-FEB-2016 VSA
AIRFRAME VENTUS-2CM

Following the completion of a competition flight, the experienced pilot configured the aircraft for landing and lowered the undercarriage. Shortly after touchdown the undercarriage collapsed and the aircraft came to rest on the fuselage. The reason for the collapse was not identified.

12-FEB-2016 VSA
RUNWAY EVENTS SZD-55-1

The glider was established on final approach when a Cessna taxied to the downwind threshold of the runway and proceeded back-track at a brisk pace. The glider pilot, who had made all appropriate radio calls, was forced to take avoiding action and land on the grass to the right of the runway to avoid a conflict. The incident was reported to the ATSB who contacted the pilot of the Cessna. The Cessna pilot advised he was aware of the gliding activity but did not hear any other radio calls and believed he had time to backtrack and depart.

12-FEB-2016 VSA
RUNWAY EVENTS TWIN ASTIR

Upon return from a competition task, the glider pilot announced his intention on the CTAF to conduct a straight-in approach on the operational runway. Another gider was also on a long final approach several seconds behind. When the glider was established on short finals, a Cessna aircraft gave a taxying call, entered the upwind threshold and commenced to backtrack runway 26. As there were gliders occupying the left- and right-hand grass verges, the command pilot gave a radio call to advise he would land short on the runway and immediately taxi clear. The glider touched down on the piano keys and was taxied off to the right but it did not fully clear the runway as the main undercarriage fell into a rut between the runway markers and was immovable. The Cessna continued to backtrack the runway at a brisk pace, during which time the other landing glider over flew the Cessna to one side and landed long on the runway. The incident was reported to the ATSB who contacted the pilot of the Cessna. The Cessna pilot advised he was aware of the gliding activity. He further advised that he had heard a glider call 5 miles away but did not hear any other radio calls and believed he had time to backtrack and depart.

12-FEB-2016 SAGA
RUNWAY EVENTS ASW 28-18

Upon return from a competition task, the glider pilot announced his intention on the CTAF to conduct a straight-in approach on the operational runway. When the glider was established on short finals, a Cessna aircraft entered the upwind threshold and commenced to backtrack runway 26. As there were gliders occupying the left- and right-hand grass verges, the command pilot flew to the left of the bitumen runway so as not to overfly the taxying Cessna and then landed long on the bitumen. The incident was reported to the ATSB who contacted the pilot of the Cessna. The Cessna pilot advised he was aware of the gliding activity and that a glider had to overfly his aircraft. He further advised that he had heard a glider call 5 miles but did not hear any other radio calls and believed he had time to backtrack and depart.

13-FEB-2016 VSA
PREPARATION/NAVIGATION
TWIN ASTIR

During launch on an Air Experience Flight the rear canopy came open. The instructor was able to close and lock the canopy without further incident. A debriefing by the club CFI revealed that after the instructor had completed the final 'canopy/ airbrakes locked' challenge, the passenger in front seat wanted to adjust his camera. To assist, the instructor opened his rear canopy to lean forward and adjust the camera but did not properly secure the canopy again. This type of incident is quite common when the pilot's pre take-off checks are interrupted and are not recommenced from the beginning. The lesson here is – if distracted for any reason during your checks, begin the checks again.

13-FEB-2016 VSA
AIRCRAFT CONTROL PIK-20D

This experienced pilot failed to retract the undercarriage post-release. After a short flight the pilot retracted the undercarriage during the pre-landing check. A visual inspection to confirm the undercarriage was in the down position was not made. OSB 01/14 'Circuit & Landing Advice' confirms that the pre-landing checklist is a 'check' and not an 'action' list. The undercarriage check should verify the undercarriage lever is matched to the lowered position on the placard.

14-FEB-2016 QSA
AIRCRAFT CONTROL PIPER PA-25-235

Gliding operations were conducted in turbulent conditions with a strong wind gradient and some shear. During the aerotow launch and at approximately 900ft AGL on the crosswind leg the tow pilot felt the glider, which was being flown by an experienced instructor, move aggressively out of station to the right. The tow pilot then noticed that the glider was starting to climb from the low tow position. The movement of the glider caused the tow plane to yaw despite the efforts of the tow pilot to counter it. The rope went slack and then became taught, exacerbating the yaw. The tow pilot, experiencing diminishing control, released the glider. Normal landings were completed by both aircraft. This incident shows that operations in marginal conditions (for example, strong wind gradient, gusty winds, turbulence and crosswinds) is fraught and even experienced glider pilots can experience difficulty maintaining station behind the tow plane. Tow pilots need to ensure they are comfortable operating in marginal conditions and should never hesitate to release the glider if losing control of the tug.

15-FEB-2016 SAGA
AIRFRAME DG-1000S

The pilots were competing in the 20m Two Seat National Gliding Championships. On one competition day the pilots experienced a power failure during flight and had to switch over to the reserve battery. That evening one of the pilots investigated the loss of power and identified a problem with the main battery connection just behind the rear seat. While undoing a screw to remove the connector, the retaining nut fell into the bottom of the fuselage. The pilot continued to troubleshoot the problem without retrieving the nut and then left the task to seek the help of a more experienced person. The problem was rectified by replacing a damaged connector and the aircraft was returned to service. Unfortunately, the pilot forgot to retrieve the loose screw and it subsequently slipped his mind. Approximately four weeks later during routine maintenance the pilot remembered the loose nut and the aircraft was thoroughly inspected. The loose nut could not be located and is believed to have fallen from the aircraft. The pilot noted that he is normally very focused with a high level of attention to detail. In this instance he did not follow through with a problem he knew he had created and then forgot about it. Many lapses occur when the engineer has been interrupted part way through a task, often when called away to a more urgent job. They may then fail to return to the task, leave out a step, or lose their place in the task. In the aforementioned incident, the engineer (pilot) forgot to finish the task after leaving the job to get the assistance of a more experienced engineer.

17-FEB-2016 WAGA
RUNWAY EVENTS ASW 24E

The glider was being launched by aerotow off the belly release while fully ballasted. During the initial ground roll the port wing dropped and the pilot applied corrective control inputs. As the port wing began to rise it caught in long grass along the verge of the runway, resulting in the glider ground-looping. The tow rope back-relased and the glider careered off the runway and collided with a T-hangar and parked trailer just outside the airfield boundary. The club will ensure the grass is better maintained in future. In situations where there is limited clearance alongside the runway, glider pilots should release early in the case of a wing drop.

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18-FEB-2016 NSWGA
POWERPLANT/PROPULSION
ARCUS M

Under investigation. Engine failed to start during a self-retrieve. Aircraft outlanded with the undercarriage retracted.

20-FEB-2016 VSA
AIRCRAFT CONTROL ASW 27-18 E

The pilot had recently acquired the aircraft and by the time of the accident flight had accumulated 10 launches for 48 hours on type. The 10 flights were cross-country, each exceeding 400 km and one nearly 900kms in distance. The pilot was very impressed with the good performance of this new generation sailplane. On the day of the accident, conditions were mediocre and the pilot had declared a modest out and return flight of just under 190kms, and loaded water ballast. Despite the short task, weak conditions and strong winds at height made progress slow. The pilot rounded the turn point after 2 hours flying and working a height band between 2,000ft and 4,600ft. After a further 1.5 hours flying time the pilot was within 50kms of the home airfield and had climbed to 5,500ft. When within 20knms of the home airfield, the pilot elected to extend the flight by heading almost 90° to the east of track and into the hills, where a climb to over 5,500ft was attained. The pilot continued to head into the hills but did not find any good climbs and when about 30kms out he decided to head home on a marginal final glide. Unfortunately the pilot forgot the glider was carrying water ballast and so did not dump it. The pilot persisted with the marginal final glide based on the perception that the aircraft's high performance would get them home. It wasn't until the glider was very low that the pilot decided to abandon the glide and outland. Unfortunately, the pilot had left the decision to outland too late and had no time to survey a suitable paddock or complete the pre-landing checks. While the selected paddock was satisfactory, the aircraft landed heavily while fully ballasted and suffered substantial damage. The pilot's CFI noted that a lack of familiarity with the aircraft, coupled with dehydration, stress and goal fixation contributed to the pilot's lack of situational awareness and inadequate decision making. Crosscountry soaring is a stressor, where high workload and fatigue can lead to impaired decision making and reduced situational awareness. Human factors including decision biases, goal fixation and cognitive tunnelling in crosscountry flying may lead to pilots eroding safety margins more than in normal flying. Being aware of the dangers of continuing into marginal circumstances, of setting boundaries, having a sound knowledge of rules and procedures, disciplined adherence to minima and performance requirements, prioritisation of options, and planning to deal with potential situations will act as defences against unsafe conditions.

21-FEB-2016 WAGA
AIRCRAFT CONTROL PW-5 'SMYK'

The early solo pilot was still subject to daily check flights with an instructor. On the morning of the accident the pilot flew with an instructor but did not cope well with the rough crosswind conditions. The pilot commenced a pilot induced oscillation on aerotow take-off requiring instructor intervention, and then 'cramped' his circuit and misjudged his flare requiring the instructor to take control of the landing. The pilot and instructor discussed the flight and it was clear that the pilot needed further training. Later in the day another instructor, who was not flying in command due to a medical condition, decided to convert the pilot into his first single seat aircraft - a PW5. This instructor did not speak with the pilot's earlier instructor and was unaware the pilot had not performed well on his last flight. The pilot himself was not keen to be converted to the PW5 due to his poor performance on the check flight and because he was uncomfortable with the crosswind conditions. Nevertheless, he deferred to the Instructor's recommendations in the belief that this experienced instructor would not send him solo if he was not up to standard. During the launch the pilot again experienced pilot induced oscillations and flew the aircraft heavily onto the ground at least twice. Some time during these excursions the pilot activated the release and attempted to maintain safe speed. The tow plane flew off and safely completed a circuit and landing. The PW5 was substantially damaged during the ground impacts and the pilot suffered a fractured spine. The instructor conducting the conversion made a number of fundamental errors that were out of character, including not discussing his intentions with the previous instructor and not recognising the pilot did not meet the club's internal policy for aircraft conversion. Subsequent investigation suggests that the instructor conducting the conversion was suffering a medical condition that most likely affected his judgement. The instructor has voluntarily withdrawn from all instructing duties pending medical clearance.

21-FEB-2016 NSWGA
AIRCRAFT SEPARATION DG-800 B

During a 'lead and follow' coaching flight between two gliders flying VFR in VMC in Class G airspace, a SAAB 340 airliner, on departure from a regional airport, came in close proximity to the lead glider during the climb. The SAAB pilot had sighted the glider too late to increase separation and reported the incident to the ATSB as an Airprox event. The SAAB pilot advised ATSB that a NOTAM was in force for a nearby gliding competition. The glider pilots reported they were in the cruise at about 8,900ft (QNH) approximately 2NM outside the airport CTAF boundary and had sighted the airliner climbing towards the position of the leading glider to its rear. Both glider pilots maintained visual contact with the airliner when in close proximity, did not consider there was a risk of collision and continued on track. The glider pilots reported the Airprox event to their CFI the following day and the CFI immediately contacted the airline operator. Procedural and information improvements are currently in train to increase awareness of each other's operation in the vicinity of the CTAF. It is clear that the principles of 'see-and-avoid' worked in this instance.

21-FEB-2016 VSA
AIRCRAFT SEPARATION
PIPER PA-25-260

Two gliders had landed on the grass verge to the right of the main runway. The first glider to land was pushed almost clear of the runway markers when a landing tow plane passed between the two gliders in close proximity. The tow pilot advised that he preferred to land on the grass and proceeded on the assumption that the gliders would have been cleared from the runway before he arrived. The tow pilot recognised that he made an error of judgement and that decision to land in that position was incorrect. It is possible the tow pilot was suffering the effects of fatigue and dehydration, which impaired his decision making.

24-FEB-2016 VSA
POWERPLANT/PROPULSION
ASK 21 MI

Shortly after take-off the command pilot noticed the coolant temperature was abnormally high, although no audible alarm sounded. As the engine was running normally he continued to a safe height, whereupon the engine shut down and the cooling cycle was completed. The flight continued normally. Later inspection, which included a pressure test, revealed a leak in the water pump seal that resulted in a loss of half the coolant.

27-FEB-2016 SAGA
TERRAIN COLLISIONS

Under investigation. Upon return from a cross-country flight, the aircraft departed controlled flight

during the turn from base leg onto final approach. The aircraft came to rest in a vineyard at the end of the runway. Police and emergency services attended and the pilot was transported to hospital.

27-FEB-2016 VSA
LOW CIRCUIT ZEPHYRUS

The solo pilot misjudged the break-off point, entered the circuit low and flew a very low base and final approach. The pilot had progressed to solo quickly after a 30-year hiatus. Thirty years ago pilots flew with the altimeter set on QFE, and this pilot may have forgotten he had set QNH (primacy bias). The pilot noted that he was distracted by another glider ahead in the circuit, and believes he became fixated on returning to the launch point (goal fixation).

27-FEB-2016 SAGA
AIRCRAFT CONTROL ASTIR CS 77

Following an unsuccessful attempt to soar post release, the pilot joined circuit and completed his pre-landing 'checks', at which time he lowered the undercarriage. While on downwind the pilot encountered lift in which he turned and climbed away. The undercarriage was retracted. After soaring for a while the pilot elected to return to the airfield, and in order to expedite his descent, he lowered the undercarriage to increase the drag. Upon entering the circuit the pilot conducted his pre-landing check and raised the undercarriage. During final approach the pilot believes he heard the faint buzzing sound of the undercarriage warning over the general cacophony of airflow sounds and radio transmissions but ignored it as he was convinced he had checked the undercarriage was down and he did not want to be distracted from a safe landing. This type of occurrence is common in gliding because too many pilots use the pre-landing check list as an action list. However, merely moving the lever does not confirm the undercarriage is down and locked. The pre-landing check of the undercarriage should be a visual inspection that the lever is matched to the lowered position on the placard and locked in place. For further guidance, refer to Operational Safety Bulletin (OSB) 01/14 - Circuit and Landing Advice.

28-FEB-2016 NSWGA
FUEL RELATED PIPER PA-25-235

The tow plane engine failed at 200ft AGL. Both the tow plane and glider landed safely ahead on the available runway. Investigation revealed the main fuel supply became detached from the fuel pump when the alloy fitting snapped in half. The maintenance engineer found the fitting to the fuel pump was an incorrect part. The correct part has been fitted.

28-FEB-2016 WAGA
MISCELLANEOUS
SZD-50-3 'PUCHACZ'

The pilot took a family member for a flight without holding a Private Passenger rating. The pilot was under the mistaken belief that the rating was a privilege of the 'C' Certificate. In actual fact, the Private Passenger Rating is an adjunct to the 'C' Certificate and requires a logbook endorsement by the pilot's CFI. Pilots without Independent Operator privileges must also have the direct authorisation of the duty instructor on each passenger carrying flight or group of flights (refer MOSP2, paragraph 10.5).

1-MAR-2016 NSWGA
FLIGHT
PREPARATION/NAVIGATION
DG-500 ELAN ORION

The aircraft was being flown at a remote site and the persons involved in rigging the glider were unfamiliar with its assembly. Despite an independent check following the rigging, no one noticed the bolts that secure the main pins were not secured and the aircraft was released to service. The aircraft was daily-inspected and flown for a few days before the mis-rigging was finally detected. Incorrect rigging of the principle structure or flight control and trim systems can lead to in-flight emergencies, accidents and even deaths. Anyone can make a mistake, which is why the GFA requires an independent duplicate check of the structure and control system by Daily Inspector following rigging. However, the check relies on the person completing it to be familiar with the aircraft, which appears not to have been the case in this instance. Similarly, unfamiliarity or inadequate attention to detail by subsequent Daily Inspectors also led to the error going undetected. Pilots and inspectors should ensure that rigging is directed by a person experienced on the type, in accordance with the flight manual and without interruption or distraction. The Daily Inspection must also be conducted by a person experienced on the type and without interruption or distraction. It is worth remembering that well-meaning, motivated, experienced people can make mistakes - fatigue, distraction, stress, complacency and pressure to get the job done are some common factors that can lead to human errors. Pilots and inspectors can minimise the risks by adhering to sound risk management practices.

2-MAR-2016 NSWGA
AIRFRAME G 102 CLUB ASTIR IIIB

The early solo pilot did not lock the canopy before flight and failed to identify it was unlocked during the preflight checks. During the launch, and just as the tow combination reached the airfield boundary, the canopy opened. The pilot released from tow and completed a safe landing in a paddock off the end of the airstrip. The canopy suffered damage during the landing. The CFI noted that the pilot has been battling motion sickness and had been conducting a series of short flights in order to adjust to the motions involved with flying. It is possible that the thought of another episode of motion sickness may have caused the pilot some stress that diminished his attention to the pre-flight checks. Motion sickness is not uncommon in pilots and is provoked in those who are susceptible by the peculiar and unfamiliar motion environment in flight.

Medications are not always reliable and most, if not all, have side effects that can affect judgement and/or cause drowsiness. Pilots contemplating medication for motion sickness should consult their doctor. Fortunately, repeated exposure will usually desensitise most affected pilots.

3-MAR-2016 NSWGA
AIRSPACE INFRINGEMENT
MINI-NIMBUS C

The experienced pilot was flying in a regional competition. Prior to the start gate opening, the pilot flew towards some forming cumulus clouds nearby and inadvertently entered controlled airspace by 700m. The airfield is sited adjacent to a regional airport controlled traffic region. The pilot advised that, while he was aware of the airspace in the area, he failed to maintain adequate situational awareness. This incident highlights the importance of pilots maintaining adequate separation from airspace boundaries, both laterally and vertically.

6-MAR-2016 QSA
CREW AND CABIN SAFETY
ASK 21

A student's misunderstanding of the training exercise led to inflight confusion between the flight crew resulting in a low circuit. The pilot under training was working towards obtaining his 'C' Certificate but had not flown much in the proceeding 90 days. The 'C' Certificate sequence requires an outlanding check, and both the student and instructor discussed outlanding options and had walked through a suitable outlanding paddock earlier in the day. It was intended that the student would have two flights, the first of which would involve emergency procedures as a prelude to conducting the outlanding check. The instructor had briefed the tow pilot to give a 'rudder waggle' on climb out, followed by a gentle turn to the left whereby the tow pilot would level off and then wave off the glider during the climb. During the pre take-off 'Options' check the instructor reminded the student that in an emergency, and provided they had sufficient height for a modified circuit, that a turn through 90° towards the airfield was optimal

continued over page

as opposed to 270° away from it due to the height loss. He also mentioned that a 180° turn back was not an option due to the wind strength. The flight initially went according to the briefing and during the climb the student was given the opportunity to assess the proposed outlanding paddock from the air and to fix its location in relation to the main airfield. After release the student flew beyond the point of the modified circuit entry despite prompting from the instructor. The student turned towards the outlanding paddock, lowered the nose of the glider to increase airspeed and deployed airbrakes. The instructor, who was anticipating a modified circuit back to the airfield, was taken by surprise and eventually took over control. The instructor conducted a very low turn onto final approach for a downwind landing and, once established on approach, handed over to the student who made an uneventful landing. A post-flight debriefing revealed that the introduction of the paddock earlier in the day led the student to believe he was to conduct an outlanding into the selected paddock despite there being no brief on using it as an option for an emergency landing area. The instructor did not realise the student had misunderstood the briefing and delayed taking control in the belief that he could prompt the student onto a modified circuit back to the airfield. Unfortunately, the student thought the modified circuit was to be flown to the paddock and it was not until at low level that the instructor took control to land back on the airfield. The instructor noted the importance of ensuring the student fully understands the aim of the exercise - the instructor should probe to test what has and hasn't been understood - and of taking over earlier when the student does not respond as expected.

8-MAR-2016 NSWGA
SYSTEMS ASK 21

At about 900ft AGL on aerotow the tow rope released prematurely from the glider and without action by the pilots. Both the glider and tow plane carried out normal circuits and landing.
Investigation revealed that the tow release in the glider had recently been serviced and was not returning to the fully closed (overcentre) position, thereby allowing the rings to pull free. It was determined that one of the lock nuts securing a bolt on an articulated arm that carries the front and rear release cables was overtightened, thereby restricting movement. The nut was 'backed off' slightly and correct operation of the release was achieved. This is not the first report of this nature resulting from incorrect release maintenance (Refer Airworthiness Alert 2015-2). Glider inspectors must ensure that nuts attaching to pivot points are not over tightened so as to prevent the correct functioning of the part.

12-MAR-2016 QSA
RUNWAY EVENTS DISCUS B
AEROPRAKT A22 FOXBAT PIPER PA-25-235

During a period of high activity a glider launch was delayed due to landing traffic. A RA-Aus registered Foxbat aircraft was also holding on the taxiway awaiting the runway being cleared. The tow pilot advised the landing aircraft that he was holding and, once the aircraft had landed and was clear, the tow pilot gave a radio call advising he was entering the runway and lining up for a glider tow. Simultaneously, the Foxbat entered the runway and commenced take-off. The gliding ground crew observed the Foxbat enter the runaway and held-up the glider launch until the Foxbat had departed. RA-Aus operations staff subsequently spoke with the inexperienced Foxbat pilot to explain how parallel gliding operations operate at the site, and stressed the importance of vigilant see-and-avoid practices.

13-MAR-2016 QSA
AIRCRAFT CONTROL
SZD-50-3 'PUCHACZ'

During the initial stages of an aerotow launch, the airbrakes deployed, which went unnoticed by the command pilot. Due to the poor climb rate the command pilot released from tow while there was still an opportunity to land straight ahead on the runway. Coincidental with the release, the command pilot noticed the airbrakes were unlocked just as the tow pilot gave a 'rudder waggle' signal. The air brakes were modulated for a safe landing. The command pilot advised that, because he did not get out of the glider after the previous flight, his pre take-off check list was abbreviated and he failed to ensure the airbrakes were locked. The command pilot also mentioned that he had experienced a poor climb rate on the previous flight and thought the tow plane may have had engine problems, and this led to him believing the tow plane had an issue rather than the glider's airbrakes being deployed when acceleration was less than expected. This incident highlights the importance of conducting thorough pre-flight checks, and for pilots to physically determine the airbrakes are locked by cycling the control and ensuring the overcentre lock has engaged.

15-MAR-2016 WAGA
GROUND OPERATIONS CIRRUS

While towing out to the launch point, the pilot became distracted and turned onto the perimeter road instead of the runway. The wheel of the wing walker collided with a removable runway light that had been placed by the road, causing the glider to come off the tail dolly. The glider then swung around and the starboard wing hit a tree. Situational awareness is critical in avoiding taxiing collisions, which usually occur due to inattention or a lack of vigilance. To reduce the chances of a taxiing collision, always remain alert and maintain a scanning technique. Remember, collision avoidance, both in the air and on the ground, is one of the most basic responsibilities of a pilot.

20-MAR-2016 QSA
POWERPLANT/PROPULSION ASK 21

During an aerotow launch the tow plane experienced a reduction in RPM that resulted in a lower than normal climb rate. The glider pilot, perceiving something was wrong with the tow plane, released from tow at around 800ft AGL and completed a safe landing. The tow plane was retired from operations pending an inspection into the loss of power. Subsequent investigation revealed a heat affected spark plug lead was causing a loss of power under load. The lead was replaced and the tow plane returned to service.

20-MAR-2016 SAGA
AIRCRAFT SEPARATION ASK 21

While thermalling at around 2,500ft near the home airfield, the command pilot of an ASK21 noticed a powered aircraft converging on his position and he altered course to avoid a collision. Shortly thereafter the command pilot of the powered aircraft saw the glider and also altered course. Both aircraft were heading towards each other and each turned right to avoid a collision, passing within about 200 metres of each other The command pilot in the glider was monitoring the local CTAF and did not hear any calls from the powered aircraft. This incident highlights the importance of communication and the limitations of unalerted see-and-avoid principles, which rely entirely on the pilot's ability to sight other aircraft.
Broadcasting on the CTAF is known as radio-alerted see-and-avoid, and assists by supporting a pilot's visual lookout for traffic. An alerted traffic search is more likely to be successful as knowing where to look greatly increases the chances of sighting traffic.

25-MAR-2016 WAGA
AIRCRAFT SEPARATION SZD-50-3 'PUCHACZ'

Under investigation. A powered aircraft established on long final approach was converging on a glider established on base leg. The Glider pilot alerted the power pilot by radio and the power pilot turned right to increase seperation.

25-MAR-2016 QSA
AIRFRAME TST-10M

Upon touchdown the powered sailplane decelerated rapidly and pitched forward onto its nose. When the pilot exited the aircraft he noted the tyre was fully deflated and some other minor airframe damage. The powered sailplane had not been flown for several weeks and during the Daily Inspection the pilot found the tyre partially deflated. The tyre was fully inflated and the aircraft was towed to the flight line. About an hour and a half later the pilot conducted an airframe inspection prior to self-launch and found the tyre was still inflated. Unknown to the pilot the tyre had a slow leak and had deflated during the three-hour flight. There are three reasons for inflation pressure loss in a tube-type tire: 1. a hole in the tube; 2. A damaged valve stem; or 3. A non-functional valve core. Finding an inflation leak is usually simple. The first step is to check the valve and tighten or replace the core if it is defective. If the valve is not leaking, demount the tire, remove the tube, and locate the leak, by immersion in water if necessary. Repair or replace the tube as necessary.

28-MAR-2016 VSA
AIRCRAFT SEPARATION LS 3-A

Under investigation. Two gliders got close to one another in the cruise.

28-MAR-2016 VSA
AIRCRAFT SEPARATION ASK 21

Reciprocal operations are conducted at this regional airfield on a common runway due to rising terrain on the south end. Circuits and final approaches are from the north towards the take off point and over the winch. During the pilot's second flight of the morning, the pilot intended to land longer than on his first flight so as to stop at least 100m short of the launch point "to avoid a vehicle retrieve and resultant delay to a waiting departure". The pilot misjudged his aiming point and landed longer than intended. When he went to use the wheel brake to slow down he found it ineffective and the glider overshot the intended stopping point and came to rest less than one metre from a parked car. It has been noted over many years that a significant percentage of reported accidents and incidents indicate that Clubs and/or pilots have modified their normal operating procedures, or abandoned accepted best practice, for no reason other than convenience. Good operating procedures and flying standards are developed over time and built on the experience of many pilots and many mistakes. There is no doubt that convenience can be a seductive force but pilots and clubs must resist the temptation and recognise that even slight departures from standard accepted good practice can have severe consequences.

31-MAR-2016 VSA
TERRAIN COLLISIONS DISCUS CS

Under investigation. Combined winching and aerotow operations were being conducted at this regional airfield, with the added complexity of reciprocal operations on a common runway whereby glider circuits and final approaches were towards the take off point and over the winch. A Discus glider with a failed battery had joined circuit as a ASK21 glider was being prepared for a winch launch. Just as the Discus turned onto the base leg, the ground crew launched the ASK21. Approximately 6 seconds after the ASK21 released at height, the Discus, which was now established on final approach, collided with the descending winch wire. The Discus pilot did not see the ASK21 launch as his attention was directed at his aiming point. The impact pulled the Discus 90° to the left, causing it to enter a stall and pitch nose down. Fortunately, the cable broke free of the glider, enabling the pilot to regain control and safely execute an off-field landing 90° to the operational runway. Winch launching operations have been suspended pending finalisation of the investigation. Aerotow operations and self-launching is still conducted using published procedures.

Reports may have been abreviated indicated by ...
The latest and unabridged incident and accident reports can be viewed at www.glidingaustralia.org/GFA-Ops/accidents-incidents.html

AIRWORTHINESS DIRECTIVES

AIRWORTHINESS DIRECTIVE
NO.: 2016-0027R1 SCHEMPP-HIRTH
DISCUS-2 AND VENTUS-2

Discus-2a, Discus-2b, Discus-2c sailplanes, Ventus-2a, Ventus-2b and Ventus-2c sailplanes, and Discus-2T, Discus-2cT, Ventus-2cT and Ventus-2cM powered sailplanes, serial numbers as listed in Schempp-Hirth Flugzeugbau GmbH issued Technische Mitteilung / Technical Note (TN) 349-39, 360-29, 825-55 and 863-22 (published as a single document).
Reason:
Operational experience shows that, under certain conditions, the overlap between the two airbrake panels can be insufficient and the panels can interlock. This condition, if not corrected, could lead to blockage of the airbrakes, possibly resulting in reduced control of the (powered) sailplane.
To address this potential unsafe condition, Schempp-Hirth Flugzeugbau GmbH issued TN 349-39, 360-29, 825-55 and 863-22... to provide inspection instructions to verify the correct overlap between the two affected airbrake panels. Consequently, EASA issued AD 2016-0027 to require a one-time inspection of the overlap of the affected airbrake panels and, depending on findings, accomplishment of applicable corrective action. Since that AD was issued, Schempp-Hirth Flugzeugbau GmbH issued Revision 1 of the TN introducing an allowance to accomplish the inspection by a pilot-owner. For the reason described above, this AD is revised to introduce a pilot-owner maintenance authorisation to accomplish the required inspection.
E nquiries. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content
Email: info@schempp-hirth.com.

AIRWORTHINESS ALERT 2016-1 H 36
DIMONA. THIS AWA IS APPLICABLE TO ALL H 36 VARIANTS

Overview
The GFA has received a Service Difficulty Report detailing a tailplane detachment/ separation on taxi. The events leading up to this occurrence need to be well understood by operators and maintainers of the H 36 Dimona. This AWA is applicable to all H 36 variants utilising a sprung tailplane retaining pin mechanism.
Flight History
During annual maintenance, the tailplane locking pin was reportedly partially frozen. It took special tools to derig and free up the locking mechanism. The locking pin had elongated the tailplane locking receptacle/ boss. The inspector was under the impression that early H 36 Dimonas did not contain a bush in the tailplane and the wear was acceptable. The H 36 Dimona was returned to service. On a remote strip reportedly with a very rough surface, and within two days and 4.1 flight hours after return to service, the tailplane separated.
Action Taken
Plans were provided by Diamond Industries (DIA). The tailplane was inspected and repaired in accordance with the data provided. It was established that the tailplane mount retaining bush had been previously dislodged. This was most likely caused by poor handling procedures when rigging or derigging. In fact two bushes were recovered from inside the tailplane structure; one the original, the second a bogus manufactured bush poorly replicating the original.
Recommendation
When rigging the tailplane on a H 36 Dimona, ensure the retaining pin is fully withdrawn and cannot contact the tailplane when being mounted. If the pin contacts the tailplane, the pin can cause damage. Only when correctly aligned, release the locking pin to positively engage into the tailplane receptacle.
Be aware that if the sailplane retaining bush does become loose or dislodged, it is possible that the tailplane will suffer further damage leading to separation.

IAIRWORTHINESS ALERT 2016-2 H 36 DIMONA.

Overview
The GFA has received Service Difficulty Reports detailing glue failure in the wooden ply elevator push rod support structures located in the rear fuselage of the H 36 Dimona.
Action Taken
Identification, replacement and/ or further maintenance of the existing wooden ply material.
Recommendation
Be aware of glue degradation on H 36 wood elevator support assemblies. Recommend as soon as practical, but at the latest the next servicing/ annual inspection, visually inspect and test by applying a small force to each wooden push rod support, thus ascertaining the supports condition and serviceability.

GFA AIRWORTHINESS DIRECTIVE 609 SZD-50-3 "PUCHACZ"

Introduction of extra pull rod segment in the rudder control . Issue 1 addressed inspection, identification and possible replacement of the rudder tumbuckle and protective sheath assembly IAW Mandatory Bulletin BE-054/SZD-50-3.
See doc.glidingaustralia.org - Airworthiness -

LIGHTBULB MOMENT

BY DAVID MEREDITH

After spending a week at the VSA Coaching Week at Horsham, I decided it was time to do a little bit of research regarding the relationships between a range of factors measured within SeeYou, and achieved speed. This was inspired by presentations from both Matt Gage and Terry Cubley, who assured us that average thermal strength was the most important factor in achieving a higher speed than your competitor.

HOW TO IMPROVE SPEED

There are several factors that are directly or indirectly measured by SeeYou including:

- Speed
- Distance
- Alt Lost, which is the height lost between any consecutive logged points while SeeYou considers the glider to be thermalling. Normal reasons for high numbers are poor centring, losing the core, persisting too long at the top or bad exit technique.
- Percentage time thermalling - Average glide.
- Number of thermals - Achieved L/D.
- Best thermal - Average thermal strength
- Percentage of thermals with an average > x
- Percentage of flight thermalling
- Netto Rising

There are other factors that are less easy to measure or quantify, but you could measure them with enough tenacity. For example it would be possible to locate the best thermals.

So I experimented with several of these data sources using flights from Club Class in the first two days of the Horsham Cup Week. The gliders I used were all of similar performance and flying in Club Class - Pik20, Mosquito, Jantar Std and LS4. This was to limit the effect of differences in glider performance and ballasting. The first and primary conclusion was that Average Thermal Strength appears to be the major factor in predicting speed, with the data available suggesting, as shown in graph 1:

68% of the variation in achieved speed is explained by average thermal strength.

During The VSA Coaching Week, an increase in achieved average thermal strength yielded an increase in speed of 8.5kph.

HOW TO IMPROVE OVERALL AVERAGE THERMAL STRENGTH

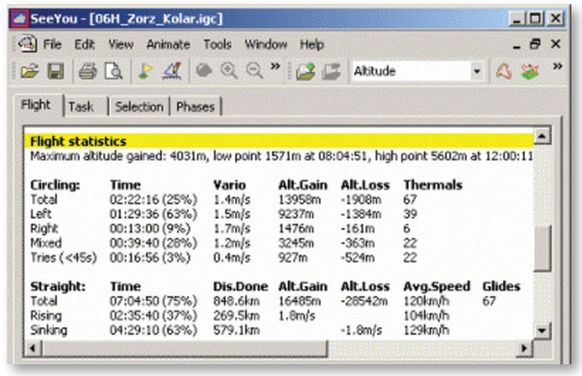
This then begs the second question, how do I improve my overall thermal strength? Well, that is a long and involved topic, and worth some digging into the SeeYou data to provide some insight. Alt Lost is a moderately good indicator as shown by the logs analysed at Horsham, with the correlation and regression suggesting:

Alt Lost can explain around 20% of the thermal strength achieved in the flight, but there are likely to be other more important factors to consider.

A reduction of 1,000ft in Alt Lost will increase your average thermal strength by 0.6kt and therefore increase overall speed by around 5kph.

ARE THERE EXCEPTIONS?

Of course there are! As Einstein said, "All models are wrong – but many are useful." Consider this example provided by Jarek Mosiejewski:



Here is an example in which a superior average climb rate and the least Alt Lost rate does not guarantee the best task speed. Horsham Week Day 5, a short fixed task, 176km, club class (yellow - best, red - worst):

Rego	Task Speed		Vario	Alt Gain	Alt	Loss
Glides	Mean	L/D				
GRY	98.67	3.7	10883	1342	7	43
GVH	97.47	3.5	14475	2054	14	37
WQF	95.53	3.9	14616	945	12	33

It appears that having the best cruising efficiency gives the best speed. [See table below.] Why is this so? One answer is that this is a small sample size and therefore more likely to vary from the overall conclusion of the larger sample. But, according to Jarek, GRY started first, some 15 minutes before the other two. There is a chance he could have somewhat better air. Also, the Mosquito has small performance edge over the PIKs.

WQF and GVH started 36 seconds apart and raced each other, sharing quite a few thermals along the way. The cockpit view was that Bernie (GVH) got the edge in the final thermal he found behind me that was just a touch stronger than mine, which enabled him to start his final glide ahead of me. This highlights the importance of the final glide and the strength of the thermal where it is achieved, since the impact is bigger on a small task.

Also, I suspect that a racing mindset influenced Bernie and me to fly faster than optimal for the day.

CONCLUSION

Phil (GRY) found better air more consistently and slowed down when in it. He cruised at a slower speed that the other two, which enabled him to spend less time circling. Sometimes slower is FASTER, less is more!

If you want to fly faster, then SeeYou can certainly help, especially if you can compare to others. Look to improving your average thermal strength and efficiency coming in and out of the thermal.

Rego	Avg Speed	Time Circling	% circling	Distance	Avg. Cruising Speed	Time In Rising Air	Speed in Raising Air
GRY	98.67	25:29:00	24%	178.5 km	130 km/h	0:20:07	120 km/h
GVH	97.47	35:15:00	32%	179 km	146 km / h	0:14:51	134 km/h
WQF	95.53	34:44:00	31%	177.4 km	139 km /h	0:16:33	122 km/h

GFA CLUB LIST

Please send any corrections, updates, additions for inclusion in the club list to sean@glidingaustralia.org

716 FLIGHT GLIDING CLUB
JOperations weekends, Public Holidays and school holidays. Club aircraft 1 two seater. Tel# 08 9571 7800

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CUDGEGONG SOARING P/L
Gulgong - (199 Stubbo Road, North from Gulgong. Leave on Medley St., road becomes "Barney Reef Road" after level crossing. At 7km, turn right onto Stubbo Rd. Airfield 2km on left). Tel 0416 286 033.

Winch operations weekends and by arrangement. All aircraft are privately owned. The club owns the airfield, has a clubhouse, caravan Park, camp sites, workshop and hangars.

DARLING DOWNS SOARING CLUB
McCaffrey Field (Warrego Hwy, at 8km W of Jondaryan, turn S down Mason Rd), Tel 0409 807 826. Aerotow operations weekends, public Holidays and by arrangement. There are 26 private gliders. Facilities include: Bar, Kitchen, Cluhouse, Bunkhouse, caravan park, camp sites, BBQ area, Showers, Wi-Fi, Lounge, Workshop, Hangarage, Club own the airfield. 100 members. www.ddsc.org.au

GEELONG GLIDING CLUB
Shared facilities with VMFG and Beaufort GC at Bacchus Marsh Airfield. Tel 0409 212 527. Operations by aero tow weekends and public Holidays and by arrangement. Monthly winching also available. 3 Tugs, 6 club gliders including 2 x two seaters, 16 private gliders,

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

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

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

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

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

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

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

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

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

KINGAROY SOARING CLUB
Situated at Kingaroy Airfield, Club Gliders include Duo Discus X, Ask 21,2 Discus CS and Astir CS77. 30 Private gliders, Facilities include Club House with licenced bar, Bunk House accommodation for 35 in single and family rooms. New Club Hangar to be completed by late 2013. Operations every weekend, First Thursday of the month 4 day weekend and two after 3 day weekend i.e. Friday, Saturday and Sunday. Come and visit one of the friendliest clubs around. Club House 61 7 4162 2191 Launch Point 0438 179 163 www.kingaroysoaring.com.au

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

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

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

MELBOURNE GLIDING CLUB (VMFG)
Bacchus Marsh Airfield 8 km's south of town on the Geelong Road. Operations weekends, Public Holidays and Fridays. Tel 0402 281928. 115 members, aerotow operations. Two tugs and 7 gliders in the fleet with 4 two seaters and a two seat motorglider. 34 private gliders.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

RENMARK GC - RIVERLAND SPORT AVIATION
Renmark airfield, Turn off 6km on Renmark to Berri Rd, Tel 0417 890 215. Operations weekends, public Holidays and by arrangement. Two club aircraft, 1 private, Bar, canteen, Club house, bunkhouse, workshop, hangar sites. www.sportaviation.riverland.net.au.

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

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

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

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

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

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

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

SUNRAYSIA GLIDING CLUB
Winch launching Weekends and public Holidays. 3 km's West of Koorlong, Mildura. Tel 03 5025 7335. 22 members, 2 two seat and 2 single seat aircraft, 5 other private aircraft. Canteen Clubhouse, camp sites. www.sunraysiaglidingclub.org.au

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

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

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

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

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

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

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

CLASSIFIED ADVERTISING

www.glidingaustralia.org

For members' convenience, Classified Ads can be purchased through the GFA shop at www. glidingaustralia.org. Go to GFA Shop then select the category 'Classifieds'. The cost will be determined by the number of words. Please email the ad text and any photos to returns@glidingaustralia.org. 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.

GLIDERS FOR SALE

SINGLE SEAT

ZK GOM first flew December 1984 and has completed 1,793 hours and 247 hours engine time. Comes with 15 and 17m tips, tow out gear, hanger covers, 2 canopy covers, EDS and A8A oxygen with quick connect refill. Cambridge nav and Winter mechanical varios. Dittel FSG60M radio and Terra transponder. Trailer has cobra fittings and ability to charge batteries via an external socket while glider is in the trailer. Located Christchurch, New Zealand – can be hangered at Omarama if required. Price AUD $74,000. Contact **Mark Aldridge 0274 508 505** or mda@308.kiwi.nz

VH-IZX Jantar Std2 Good condition, standard instruments , enclosed trailer, parachute. $15 000.- located Gulgong NSW **Hans 0400 253 164**

VH-WPP Ventus A- Australia's fastest glider of the 2015/2016 season, 158kph raw speed! 4300hrs, nil accident history, great condition, new green tinted canopy. Full ClearNav system, Maughmer winglets, Mountain High O2-EDS system, half-clamshell trailer, suitable for tall pilots. $55,000; Email: go_soaring@hotmail.com

Nimbus 2C VH-FQL Fixed tailplane, TE airbrakes. 1/3 share. Based DDSC Qld, private hangar. Approximately 5000 TT, 1700 launches. Oxygen, Microair radio. Cockpit refurbished, B500, new altimeter fitted 2013. Dual batteries, fibreglass trailer, parachute, towout gear, wing covers. LK8000 Flight computer available. $16,000 ONO **Denis Lambert 0498 031 627,** denislambert2021@gmail.com

VH-IIC This classic ASW 20 is in excellent condition and ready for

touring, distance or competition flying. It has a new set of instruments, has been well maintained throughout its life and is a pleasure to fly.Condition-3,000 hourly done,Refinished in two pack paint,Cockpit repainted, New tyres on trailer Instrumentation-New Clearnav display. Large easy to read and use display. Load turnpoint data via memory stick.New Clearnav vario, New Flarm display.Suited for touring or competition, Comfortable with panel mounted air vent and tinted canopy.Two IGC loggers in Nav and vario. Current Club Class national champion. Competitive in both Club and 15m classes. Easy to fly with great feel of the air.Equipment-Ballast filling and tow out gear in good condition. Spares, $58,000 with full instruments. Contact **Peter Trotter-0417 888 040** peter.trotter6@bigpond.com

VH-GOJ Nimbus 2 Nimbus 2, 800 landings, TT 2600. Refinished in PU. Big water tanks, Latest spec B800 with GCD, Brand new B700, Brand new Odyssey battery. FLARM set up for Oudie and external display. Refinished in PU fibreglass pilfer trailer, Single man rigger. Multilayer Confour, sheepskin seat cushion. Eye ball vent in panel. All new cockpit decals from SH. Two year old harnesses, brand new main tyre, wheel bearings. Dual wing walkers that double as tie downs. Roller skate wing tip skids and tail wheel. Comes with $2500 worth of spares, brass bushes, bearings and pins. Price from $25,000to $29,000k depending on spec. I am very negotiable and need to move ASAP. Lots of Photos here http://members.optusnet.com.au/~jjsinclair/gallery.html Contact **Justin Sinclair Mob 0421 061 811** or Email jjsinclair@optusnet.com.au

LS4 VH-GYF with Cobra Trailer. Wings professionally refinished

(gelcoat) in 2000, the rest in 2007 (2K Acrylic). 2560 hours 1530 landings. Competition ready with B700, Swissflarm flarm/logger, Avier PNA running XC Soar (flarm GPS source). Sold with good chute (2007), tow out gear and many extras. Located Sydney metro. $58,000 Enquiries and for further info contact **John Trezise 0411 597 955**, jtrezise.gyf@gmail.com

VH-NKK ASW20BL 1840 hrs, only two careful owners, Nil accidents, 16.6, 15 winglet and standard tips, one of the last of type made, good alloy trailer, fully equipped for comps, poly finish, well maintained, fresh form2, excellent Nationals performance $58,000 **Hank 0427 427 448.**

LAK-12 VH GFH 1995. Open Class. TT 504 hrs. 20 yearly

inspection completed. Beautiful glider. Genuine 50:1 (see Richard Johnston test). 1000 km capable. $28,000. See pics at www.flickr.com/photos/100805789@N07 **Chris Hamilton 0418 234 000**

VH-GLP, LS6 C 15m / 17.5m, Serial No. 6246 , 1991, MTOW 525 kg. Total hours 4360hrs 1500 launches. Complete with a Cambridge 302 and 303 ,Winter vario, FLARM, Dittal radio, Dual batteries, Tow out gear, ect Fuselage wings top surface refinished in 2010. cw fibreglass trailer but rarely used always hangered .Located in Western Australia Reduced to $55,000.ono. Email: grookes@hotmail.com **Grant Rookes 0407 998 959**

2 SEATERS

VH-CQD IS28 good condition, but 35 year time limit expired. Good project for re-certification. Located Benalla. No trailer but can loan one for transport. $2,500 or offer. Contact **Tim Shirley 0417 268 073**

VH-GCI ASK21 560hrs 800 landings. Only flown 90HRS since

refinish in 2001. Dittel FSG2T radio. Cambridge Vario. Full set of Jaxida covers (aircraft is always hangered) Factory spin kit. Aircraft in great condition. $110,000 Contact **Brad Edwards 0427 202535** brad@edwardsaviation.com.au

GFA APPROVED MAINTENANCE ORGANISATIONS

AEROSWIFT COMPOSITES	BALLARAT	JOE LUCIANI 0428 399 001	comcom2@bigpond.net.au
AOG SPECIALISTS	COFFS HARBOUR	S MCGOWAN 0430 138 719	shannon@aogspecialists.com.au
AVIATION COMPOSITE ENGINEERING	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	BOONAH	MIKE MADDOCKS 0408 195 337	mike@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@iinet.net.au

continued over page

VH-UKY Due to failed gliding club project. two seater Ka7 new

radio and audio vario,form2 till 10/16. With open trailer reg. QLD. $20,000 Email- trygliding@gmail.com or call **Janet 0439 745 091**

MOTOR GLIDERS

VH-GOA. he Jet Powered ASH-25 The Jet Powered ASH-25.

Very good condition; approx. 3800 airframe hours (3000 hourly done by T&J Sailplanes), low engine hours, approved winglets plus factory winglets and installation kit in a box. Cobra trailer. Tow out gear. Sundry spares. All flying instruments, Winter vario, Zander SR940 vario and Flarm with Voice. Self launching capability, as shown in this video: https://www.youtube.com/watch?v=mpCAGpWzLpQ. Certified sustainer, experimental category. Simple and reliable system. $175,000 Neg. **Paul Mander 0417 447 974**, paul@mander.net.au.

VH-ZAR Discus bM self launcher (Rotax 463), 1995, hangared all its life. Pristine condition; approx. 890 airframe hours, 49 engine hours, factory winglets, polyurethane upper surfaces, all-over dust covers, nil damage history. Comes with good Australian built trailer which tows well, rigs well and is weather proof. Tow out gear. Sundry

spares. Very good take-off performance. Priced at $87,500. P**aul Mander 0417 447 974,** paul@mander.net.au.

DG500M VH-XQK two seat, self launching motor glider, 60HP

Rotax 535C. Has been syndicate owned since being imported new in 1992. Being sold with a recent Form 2 inspection. Always hangered. $120,000 negotiable. youtu.be/UFNKtUg2rSE For more details contact **Bob Ph02 6332 9235** bobjmcdo@gmail.com

VH-GUD Grob G109A TTAF 1624 TT eng. & Prop 283 Exc A/C

for touring, training and Soaring U/c faring's avail, new canopy, txp fitted, 90 Kt. Cruise, $50k ono. **Rob 0412 055 888**, robcoll@adam.com.au or **Noel 0402 219 708**, Roediger@internode.on.net

VH-GXG, HK36R Super Dimona tail dragger, 80HP Rotax.

TTAF 2329, TTENG 980. In excellent condition, professionally maintained, always hangared, fully instrumented. $110,000. **Ph 0412 145 144.**

WANTED

Trailer to suit Duo Discus **Phil Henderson 0418 511 557**

Trailer to suit SZD Junior for Hunter Valley Gliding Club. Enclosed or open but must be road worthy. Contact **Scott 0413 828 790 or** secretary@hvgc.com.au

SOUTHERN TABLELANDS GLIDING CLUB

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